2010 Washington State Five Year Needs Assessment

September 2010

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Part I: Needs Assessment

Part II: Supporting Documents
The following is a list of supporting document submitted with the Needs Assessment.

1. Process for Conducting Needs Assessment

The 2010 Five Year Needs Assessment (2010 NA) built on the work that was conducted during the 2005 Needs Assessment (2005 NA) process. The extensive work that was done in the 2005 NA, including the nine OMCH priorities identified, built the platform from which 2010 NA was launched. In essence, the 2010 NA is the result of on-going process improvement that was begun with the efforts of the 2005 NA.

a. Goals and Vision:

Vision: The Washington State Office of Maternal and Child Health uses the Five Year Needs Assessment as the vehicle to develop or update its internal strategic plan for the Office as a whole. In prior cycles, the Office conducted strategic planning efforts separate from the 5 Year Needs Assessment. In 2005, The Office recognized that the value of the Five Year Needs Assessment would be optimized by using the timing of it and its standard questions and merging it with the Office's separate strategic planning processes.

In 2005, the Office of Maternal and Child Health invested significant staff resources to develop the Five Year needs Assessment as a comprehensive cross-office strategic plan. As a result of that process, two overarching decisions were made. First, that the priorities that came out of the process would be routinely re-verified with staff and partners and not wait for the next five year cycle. Following the first, there was a recognition that the priorities that were developed should be relatively stable and still be true in 2010.

Purpose: Given the decisions made in 2005, the strategic purpose of the 2010 Needs Assessment was to accomplish two goals. The first goal was to ascertain if the nine priorities that were developed in 2005 and revisited on an ongoing basis needed any changes. The second goal was to drill down into the nine priorities and identify priority strategies that were more narrowly defined. It is the intent of OMCH to use the results of the needs assessment in guiding specific MCH strategic activities in the allocation of resources to support those strategic activities.. It is also intended that the 5 Year Needs Assessment be used to assist OMCH with other opportunities which present themselves, e.g., the Home Visiting Needs Assessment for the Home Visiting Grant.

b. Leadership: As part of the decision in 2005 to merge the Five Year Needs Assessment with the Office's strategic planning efforts, OMCH's management team recognized that it needed to take a visible leadership role in the development of the Needs Assessment. As such, overall direction for the design and implementation of the process came to the OMCH Management team. Strategic issues come to the management team for discussion, debate, decision and ownership.

Management of the process was conducted through the 2010 Needs Assessment workgroup which consisted of four staff: MCH Office Director, Senior Epidemiologist (section manager for MCH Assessment), the MCH Block Grant Coordinator and the epidemiologist assigned to support all Block grant and needs assessment activities. The workgroup met on an ongoing basis to coordinate the various activities of the needs assessment and met with the management team to review progress and next steps needed.

One significant difference between the 2005 and the 2010 Needs Assessments is the nature of the budgetary and policy environments in which OMCH operates. Since 2007, there have been successive and significant funding reductions at the federal, state, and local levels for MCH programs and services. Then, midway through the 2010 NA process, the Governor's and legislative budgets were released. They proposed budget cuts to OMCH were significant and had language directing the Department of Health (DOH) to reorganize OMCH services. Given this environment, we realized a mid-course shift in the 2010 NA process would be prudent. Rather than continue to define sub-priorities that drill down into each of OMCH's nine priorities separately we focused on core strategies that cross our nine priorities. We describe our methodology and the changes in it in more detail below.

c. Methodology: The 2010 NA process relied on accessing and assessing data and information which had been gathered in an on-going process since the 2005 NA, as well as engaging internal and external stakeholders, soliciting their ideas on priorities, activities and future direction of OMCH. This report will describe how these processes were conducted and integrated.

The process of the 2010 NA began by determining of whether the nine priorities that were developed in the 2005 NA were still valid. Much of the basis for the evaluation of the priorities was based on data and information which had been continually collected by OMCH since 2005. We decided during the 2005 NA process to engage in continual process improvement which allowed a constant state of evaluation and assessment rather than engaging in a more compact and intense period of information gathering, analysis and dissemination as was done during the last NA.
Although we found that the nine priorities are still valid and functional for OMCH, there was agreement that a process of "drilling down" and becoming more focused on certain activities within the priorities would be appropriate. A three-stage engagement of stakeholders was envisioned and implemented consisting of: 1. an interview of each MCH program manager; 2. a survey of external stakeholders; and 3. a key informant interview of more comprehensive list of stakeholders.

We started the process of engaging stakeholders for the 2010 NA formally in the summer of 2009 with a series of interviews, conducted by the OMCH Director and the MCHA manager, with MCH program managers. Programs interviewed were: Genetic Services, Immunization/Child Profile, Children with Special Health Care Needs, Oral Health and Maternal, Infant, Child and Adolescent Health. The interviews conducted were free-form in

nature and solicited views from the various program managers on what they thought the priorities of OMCH should be. Notes from the interviews were taken, consolidated and given back to the program managers for review before being included into the formal process of 2010 NA.

Following the managers interviews, MCHA created an on-line survey intended for external stakeholders. Programs provided lists of external stakeholders whom they wished to complete the survey. The survey invited respondents to prioritize issues or areas of desired interventions within each of the previously identified nine priorities of MCH. Topics to choose from were referred to as sub-priorities. Each respondent prioritized then chose two sub-priorities within each priority area. MCHA compiled the results of the survey and reported back to the program managers early in 2010 in a series of meetings. Results informed program managers of stakeholder views and helped the process of long-term priority setting by the programs.
In looking at the results, we realized that a number of stakeholders whom we intended to survey were inadvertently dropped from list of stakeholders. We started to identify who had not been surveyed yet.

At this point the Governor's and legislative budgets were released. They proposed significant budget cuts to OMCH and had language directing the Department of Health (DOH) to reorganize OMCH services. As part of the reorganization, the Secretary of Health asked the OMCH Director to solicit views from stakeholders on how to best implement it. In the limited time remaining, we could not conduct both the second round of surveys and gather information from the same set of stakeholders on the reorganization. We decided to use one survey for both purposes and chose to use key informant interviews, conducted by telephone, for this second round of stakeholder engagement. Informants were chosen by section managers and their staff and represented a broad spectrum of the people that OMCH works with. They included providers of direct services/care, academics and researchers, educators, local health officials, representatives of family groups and advocates for MCH issues. Key partners who work in other state agencies were also interviewed.

A team of MCHA staff, selected managers and staff from other OMCH sections, and the Office Director developed a five question interview. Programs identified key stakeholders to be contacted. The OMCH Director identified additional stakeholders. To ensure uniformity of data collection, MCHA staff provided training to all personnel who conducted interviews. The final list of stakeholders was randomly distributed among the interviewers. The data collected during the phone interviews was compiled. Two epidemiologists from MCHA independently analyzed the data using qualitative research methods and NVivo software, v.8.

d. Methods for Assessing the Three MCH Populations: The MCH Assessment section routinely assesses the MCH population for trends and emerging issues. Working with key stakeholders during and after the 2005 NA, we identified a key set of assessment documents (described below) that we would routinely update and make available within DOH and to our partners. It is evident, however, that there are some gaps in the data OMCH collects or has access to. In some cases data are not available at the local or county level. Other surveys are only conducted once every four or five years, leaving temporal gaps in data. These gaps are

compounded when compiling multiple years of data is needed to avoid small numbers that precludes meaningful conclusions of findings.

The Maternal and Child Health Data and Services Report includes two sections: one section consisting of 31 chapters describing services provided to the three MCH population (1. pregnant women, mothers, and infants; 2. children; and 3. children with special health care needs [CSHCN]). Chapters' topics are listed below under item *e. Methods for Assessing State Capacity.* The second section consists of 21 chapters reporting on data related to health and behavior of all three MCH populations. Individual chapters on 21 topics are listed below:

Adolescent Pregnancy
Alcohol Use Before and During pregnancy
Asthma
Child Mortality
Child Weight and Physical Activity
Low Birth Weight
Mental Health
Oral Health
Perinatal Behaviors
Prenatal Care
Preterm Delivery
Family Violence
Food Insecurity and Hunger
Immunizations/Vaccine Preventable Disease
Infant Mortality
Intentional Injury
Smoking During Pregnancy
Children with Special Health Care Needs and Disabilities
Substance Abuse in Adolescents
Unintended Pregnancy
Unintentional Injury

The Maternal and Child Health Data report is updated on a continual basis as data for the individual chapters becomes available throughout the year. The chapters are posted in PDF format on the Internet http://www.doh.wa.gov/cfh/mch/mch_assessment/mchdatareport/mchdatarepthome.htm.

The Perinatal Indicators Report is compiled annually and reports on various health indicators associated with pregnant women and newborn babies. The 17 topics covered in the Report are:

Live Births & Deliveries
Birth & Fertility Rates
Birth Facilities & Attendants
C-Section & VBAC Rates
Maternal Morbidity
Infant Mortality
Birth Weight (low & very low birth weight)
Preterm Births
Initiation of Prenatal Care
Medicaid Expenditures for Maternal and Infant Services
Perinatal Smoking
Unintended Pregnancy
Provider Screening
Breastfeeding
Folic Acid Use Prior to Pregnancy
Infant Sleep Position
Post-Partum Depression

Healthy Youth Survey Fact Sheets are created using data collected bi-annually from the Washington State Healthy Youth Survey (HYS). They are available on-line and include the following four sections and 16 topics:

Safety and Violence Behaviors: **Health and Health Related Behaviors:**

Unintentional Injury
Violent Behaviors
Harassment, Intimidation and Bullying

Weight and Obesity
Dietary Behaviors
Physical Activity
Asthma
Depression and Suicide

Risk and Protective Factors:

Community Risk/Protective Factors
School Risk/Protective Factors
Peer/Individual Risk/Protective Factors
Family Protective Factors

Alcohol, Tobacco and Other Drug Use:

Current Substance Use
Alcohol Use
Tobacco Use
Marijuana Use

The Health of Washington State is an agency-wide document that reports on information of interest to DOH and its programs. It includes six chapters on MCH population:

MCH Section Overview
Unintended Pregnancy
Infant Mortality
Adolescent Pregnancy and Childbearing
Singleton Low Birth Weight
Children and Youth with Special Health Care Needs

The Impact of Oral Disease on the Lives of Washingtonians: While no chapters focus solely on oral health issues for the three MCH populations, all chapters include data on women of childbearing age, young children, CSHCN and older children and youth. Topics covered in the report include oral disease, carries, gum disease, oral cancer screening and preventive services such as dental sealants and fluoridated water.

The MCHA section also produces single topic monographs based on needs identified by program staff and partners. Following are example of such monographs or reports:

CSHCN Medical Home Data Monograph is a report on data from the 2003 National Survey of Children's Health. It compares how well children with and without special health needs met the standards set up by The Child and Adolescent Health Measurement Initiative (CAHMI) for having a medical home.

The Children and Youth with Special Health Care Needs Washington State Report 2010 (new edition), which is under development, provides statewide and county level data on children and youth with special health care needs in Washington State. This report can be used to guide grant development to improve systems of care for this population. Information in the report includes estimated number of children and youth with special health care needs, social and economic characteristics, services used by this population, and unmet service needs.

Primary Care Provider's Perspectives on Serving Young Adults with CSHCN is a report on a survey completed by the CSHCN Program with assistance from the MCH Assessment unit. The purpose of this survey was to learn about ways to increase and improve adult health care services for young adults with special health care needs. Sampled providers included physicians, nurse practitioners, and physician assistants in rural and urban areas of the state.

Youth with Disabilities Risk Factors for Injury Data Monograph
This is a report on analysis of the 2008 HYS data on risk factors for injury among children who self-reported as having a disability. This monograph compares data from children who reported having a disability and those who did not.

e. Methods for Assessing State Capacity: Several methods have been used to assess State capacity.

The MCH Data and Services Report is our primary method of collecting data and reporting on capacity. There are 31 chapters on publicly funded services targeting the MCH population. These chapters cover topics related to services supported or provided by OMCH, other parts of DOH and other state agencies.

Access to Primary Care Providers
Care Coordination Services
Early Hearing Loss, Detection, Diagnosis and Intervention Services
Early Learning and Childcare: Child Care Services
Early Learning and Childcare: Head Start
Early Head Start and Early Childhood Education Assistance Program
Early and Periodic Screening, Diagnosis and Treatment Services
Emergency/Temporary Housing Services
Family Planning
Family Support Services
Financial Assistance for Needy Families
First Steps Services
Genetic Services
Health Insurance
Health Mothers/Healthy Babies, Information and Referral Services
Immunization Program/CHILD Profile
Juvenile Justice Services
Mental Health Services
Nutrition Services
Oral Health Services
Safety Net Services
School-Based Health Centers
Sexually Transmitted Disease and HIV Services
Substance Abuse Services for Pregnant Women
Substance Abuse Prevention Services for Youth
Substance Abuse Treatment Services for Youth
Teen Pregnancy Prevention
Tobacco Prevention/Treatment Services for Pregnant Women
Tobacco Prevention/Treatment Services for Youth

The MCH Services Report is updated on a regular basis. The chapters are available in PDF format on the Internet.
http://www.doh.wa.gov/cfh/mch/mch_assessment/mchdatareport/mchdatarepthome.htm

f. Data Sources:
The following nine datasets were used to assess the needs of the MCH population in Washington State:

1. **Washington State Vital Statistics**
The DOH Center for Health Statistics is the main repository and reporting unit for official Washington State population-based data.

2. **Pregnancy Risk Assessment Monitoring System (PRAMS)**

PRAMS is a surveillance system of CDC and state health departments designed to collect state-specific population-based data on maternal attitudes and experiences before, during, and shortly after pregnancy. Thus no county level data are available. The PRAMS survey is composed primarily of CDC directed core questions which leaves limited opportunities for the state to add questions concerning state derived issues.

3. **Washington State Healthy Youth Survey (HYS)**

The Healthy Youth Survey (HYS) is a collaborative effort of the Office of the Superintendent of Public Instruction (OSPI), the Department of Health, the Department of Social and Health Service's Division of Behavioral Health and Recovery, the Department of Commerce, and the Liquor Control Board. Washington State uses the HYS in place of the national Youth Risk Behavior Surveillance System (YRBSS). The HYS was adopted as a measure to reduce the number of surveys which were being administered to schools on-school time. The WA OSPI expressed the desire for the various state agencies administering surveys in the public schools to consolidate their effort and implement one survey which would satisfy all of their needs. Many of the questions used in the HYS are similar to the YRBSS, in addition to others of interest to participating agencies. The survey provides important information about youth in Washington. County prevention coordinators, community mobilization coalitions, community public health and safety networks, and others use this information to guide policy and programs that serve youth. The information from the Healthy Youth Survey can be used to identify trends in the patterns of behavior over time. Every other year since 2002, students in grades 6, 8, 10 and 12 answered questions about safety and violence, physical activity and diet, alcohol, tobacco and other drug use, and related risk and protective factors.

School staff administers the HYS to students in their classrooms over the course of one week. Each school chooses the exact day to administer the survey and students complete is during one class period. HSY data is self-reported. Participation is voluntary and responses are anonymous. The WA DOH Tobacco Prevention program has, in the past, provided a significant amount of funding for the survey, however, due to state level budget cuts, the program will not be able to give as much as it has in the past. Thus, at the time of the writing of this needs assessment, funding for the HYS has become less secure. In an attempt to determine how best to absorb these budget cuts without jeopardizing HYS quality, there is a possibility to omit administering the survey to 12^{th} graders. The rationale behind this possibility is that there has been a trend toward a lower response rate from 12th grade students and thus information collected for this grade may no longer be representative of 12^{th} graders.

4. **Washington State Smile Survey**

The Washington State Oral Health Program uses the Smile Survey to collect data on the oral health of elementary and preschool aged children. The Smile Survey is a surveillance activity conducted every 5 years, to inform the Oral Health Program how best to plan and provide interventions and/or collaborate with local partners to improve the oral health of Washington State children. The program uses the data to develop policy, plan potential interventions, and help evaluate past activities affecting children in these age groups.

OMCH also uses the data for health status indicators in the MCH Block Grant application and for the five year NA.
The survey uses a representative sample of grade school aged kids and preschool aged kids from across the state. Schools to be surveyed are randomly chosen from a list of schools meeting survey inclusion criteria and provided by the Washington OSPI. Children surveyed will remain anonymous with no personally identifiable data collected. The survey data collection is non-intrusive exam of the mouths of the children conducted by professional dental care providers, specially trained for this survey. Participation in the survey is entirely voluntary. School administrators can chose to participate and individual parents can chose to exclude their child from the survey. An epidemiologist from OMCH analyzes the data. A report on the findings of the Smile Survey is released to stakeholders and the general public in the Winter following the completion of the survey. In addition to the report the Washington State Oral Disease Burden Document and as well as other means, such as topic-specific fact sheets are used to disseminate the results.

5. **National Survey of Children with Special Health Care Needs**
6. **National Survey of Children's Health**

Both of these nationally conducted surveys employ the State and Local Area Integrated Telephone Survey (SLAITS) System to conduct a random dial telephone survey of parents of children 0-17 years old. Both surveys are limited in that they are only conducted every four years and cannot provide any data below the state level. This makes tracking changes in conditions subject to geographic and temporal gaps in data.

7. **First Steps Database**

The First Steps Database (FSDB) is administered by the First Steps program in the WA State Department of Social and Health Services (DSHS). The database links Medicaid claims data to state vital records (e.g., birth, fetal death and infant death files) to provide detailed information on the health status of pregnant women and infants covered by Medicaid. The OMCH uses FSDB data in many of its publications, grant applications (including the Title V MCH Block Grant) and as a source of authoritative information about this population. The FSDB is limited, however, in that it does not collect information on risk factors associated with disease or behavior of an individual.

8. **Behavioral Risk Factor Surveillance System (BRFSS)**

BRFSS is a nationally recognized random digit dial survey of the adult population. The survey includes on a wide variety of topics which impact the health of the state and nation's adult population. However, the response rate is decreasing. This may preclude unbiased estimates. Moreover, in the past, Tobacco funds helped support a large sample size. Due to Tobacco budget reductions, this may no longer be the case and thus the utility of the survey for the MCH population with the expected smaller sample size remains to be seen. Furthermore, the cost of adding a state-added question is becoming prohibitive and thus less utility of the survey for the MCH population to address current issues.

9. **Washington State Population Survey (WSPS)**
WSPS is a source of data on the health and welfare of Washington families conducted every other year since 1998. The seventh survey, scheduled for the spring of 2010 focuses primarily on employment, family poverty, in-migration, health, and health insurance coverage. The Office of Financial Management (OFM), the state agency which administers the survey, contracts with Gilmore Research to actually conduct the phone survey.

Finally, MCHA developed three data collection tools to engage stakeholders for the 2010 NA process. In the summer of 2009, Shumei Yun, the then Manager of the MCH Assessment unit conducted a series of interviews with OMCH unit managers. Findings from these series of interviews were consolidated into a brief report summarizing the results. An online survey was conducted using Opinio, an in-house online survey development tool. Results from this survey were downloaded into a database for analysis. MCHA also conducted Key Informant Interviews by telephone.

g. Linkages between Assessment, Capacity and Priorities: On a daily basis, the MCHA section engages with each of the programs in the OMCH. This section, with 12.4 FTEs, provides data, analysis, research, surveillance, and consultative support and management of all assessment activities within OMCH. To ensure that OMCH activities are data driven, MCHA works collaboratively with all other OMCH sections and programs. MCHA assigns epidemiologists as liaisons and advisors to all OMCH sections. These epidemiologists routinely meet with their assigned section's staff and manager to discuss and interpret data related to specific programs. Together they review data on past performance and set future objectives and targets for the program. This assures that the program's objectives and targets are based on data trends across multiple years.

The partnership between MCHA and each of other OMCH sections is very important. It helps to smooth the process of maintaining an evidence based approach to priority identification and resource allocation which remains relevant to the eventual beneficiaries of the Office's work: the MCH population of Washington State. Moreover, this approach helps focus the programs' activities where they can have the most impact.

MCHA also has a lead epidemiologist for the MCH Block Grant application process. The MCHA grant lead periodically meets with program staff and managers to discuss and interpret performance and outcome data related to each program. In addition, the MCHA Block Grant lead epidemiologist consults and works in collaboration with staff from other DOH programs and other state agencies to solicit additional data needed for the Block Grant application and report.

Specific MCHA activities include leading the Five Year Needs Assessment process, reporting performance measures and health indicator status data; administering ongoing surveys such as the Pregnancy Risk Assessment Monitoring System (PRAMS) and the Healthy Youth Survey (a biennial survey of 6^{th}, 8^{th}, 10^{th} and 12^{th} graders in public schools); conducting surveillance through a variety of mechanisms such as collecting and analyzing data from child death reviews, cluster investigations, and birth defects surveillance; and implementing State Systems Development Initiative activities. MCHA also designs and implements other surveys as needed

and responds to data requests from OMCH, other areas of DOH, local health jurisdictions (LHJs), other state agencies and other external stakeholders. The OMCH Assessment unit participates in the Graduate Student Intern Program and mentors graduate practicum students as well as in other workforce development programs such as the Council of State and Territorial Epidemiologists fellowships as part of its regular functioning.

Additionally, as described earlier, the 2010 NA is a result of a continuous quality improvement process that was begun with the efforts of the 2005 NA. Thus, OMCH continuously assesses capacity, engages input from key stakeholders, and incorporates stakeholders input in identifying and working on priorities that OMCH focuses on.

h. Dissemination of the Needs Assessment Document: The 2005 Needs Assessment was a major determinant in the development of the Division of Community and Family Health (CFH) prior strategic planning process. We will review the 2010 NA document with the Division Director to align our identified priorities with the division's priorities. The 2010 NA will also contribute to updating the agency's and the division's strategic plans and to determining future funding priorities. OMCH also plans to disseminate the 2010 NA document to stakeholders to support and help us fulfill identified priorities.

i. Strengths and Weaknesses of Process: Our process has several strengths. A major strength is continuously engaging all OMCH section managers, staff, and a large number of stakeholders external to OMCH since the 2005 NA, as well as several times over the last year using both quantitative and qualitative methodology for survey and key informant interview, respectively. Furthermore, qualitative analyses were conducted by two analysts. Both obtained similar results. Therefore, we think results are reliable. Moreover, identified priorities will be shared with division and agency leadership and senior management teams to align with the division's and agency's strategic plan.

The most significant weakness was not having the time to complete the key stakeholder survey with all of our stakeholders. Having more stakeholders identify what they believe our specific sub-priorities would have been helpful.

Overall, while the NA process has been comprehensive and inclusive, OMCH efforts to implement stakeholders input are likely to be hampered by the current economic environment with budget cuts and limited resources.

2. Partnership Building and Collaboration Efforts

Before describing partnerships and collaboration efforts, it is important to briefly outline our internal organization and focus. Each of the five sections in the OMCH works on programs to help build infrastructure, provide population based services and support enabling services. The Office generally does not fund direct services, but can support a "last-stop safety net" when there is a major gap in services for the MCH population. Two OMCH sections focus on the two major Title V populations: Maternal, Infant, Child and Adolescent Health (MICAH), and Children with Special Health Care Needs (CSHCN). The other sections--Genetic Services (GSS), Immunization Program/CHILD Profile (IPCP), and Maternal and Child Health Assessment

(MCHA) as well as the Oral Health program focus on issues that encompass the entire MCH population. OMCH administers Washington's Title V Block Grant and the Centers for Disease Control and Prevention (CDC) Immunization Grant. Other federal grants OMCH administer pertinent to MCH priorities and performance measures include early childhood systems, autism, epilepsy and oral health.

Through our partnerships and collaborations, OMCH endeavors to build significant ties with and among the key stakeholders in Washington's health care infrastructure who have the potential to impact the health of the state's maternal and child population. Over the years, OMCH and our community partners have benefitted from the collaborative approach OMCH has promoted to maternal and child health issues. OMCH and virtually all of our partners have experienced significant budget and staff reductions over the past few years. Since there is a high likelihood these trends will continue, collaborations that enable us and our MCH partners to leverage resources and avoid duplication of effort will become more important.

OMCH's core functions have been to assess key health status and outcomes in the MCH population and comprehensively convene key stakeholders to develop policy that promotes the health of this population. OMCH has a strong assessment function. Data sharing arrangements and periodic surveys give OMCH access to a broad spectrum of MCH data. MCHA analyzes the data for OMCH which then shares the results with other agencies and organizations to help ensure sound decision-making on health care policies and practices.

After the 2005 NA, OMCH staff decided to expand on the intense period of information gathering and analysis that accompanies the formal needs assessments done every five years. To do this, OMCH developed an ongoing quality improvement process shortly after finishing the 2005 NA and engaged our partners in on-going assessment of the priorities identified during the 2005 NA. The process basically consists of staff meeting with stakeholders to periodically bring up the 2005 priorities for discussion and re-verification that they are still valid. This process keeps stakeholders continuously engaged until the 2010 NA process and thereafter.

The following examples make it evident that OMCH actively establishes strong collaborations with key stakeholders to best assess and help meet the need of all MCH population.

a. Collaboration with State and local MCH programs

Washington's 35 LHJs are some of OMCH's most important partners. By Washington law, the LHJs are the "action arms" of the public health system with statutory responsibility for design and delivery of local health programs. Among the LHJs there is considerable variation by size and governance, which has to be taken into account in OMCH's interactions with them. The five largest LHJs (Seattle-King, Tacoma-Pierce, Snohomish, Spokane, and Clark) serve nearly 65% of the state's population. The smallest five LHJs (Skamania, Lincoln, Columbia, Wahkiakum, and Garfield) together serve less than 1%. Most LHJs are part of single counties, with the county commissions as their boards of health. Two LHJs —Public Health-Seattle/King County and the Tacoma-Pierce County Health Department—are combined city-county departments. The rest are separate political subdivisions spanning one or more counties.

OMCH and the LHJs interact in a variety of ways. The Community Health Leadership Forum (CHLF) brings together the community health directors of the LHJs with key representatives of DOH. The group addresses key strategic policy and planning issues that impact both DOH and the LHJs. OMCH is active in a CHLF subcommittee, the Public Services for Children and Families Subcommittee which addresses issues specifically relating to MCH. Another group, the CFH-LHJ Leadership Forum, brings CFH and OMCH leaders together with the local public health officers and the local health administrators, as well as the community health directors. While the Leadership Forum does not only focus specifically on maternal and child health, these issues are a key part of its discussions.

Some public health issues are best addressed on a regional basis. To do this, OMCH has divided the state into four regions. On a quarterly basis, we convene regional teams, with representatives from each LHJ in a region and from multiple sections in OMCH. The meetings focus on public health planning and sharing concerns on a regional basis. OMCH then holds Combined Teams meetings to facilitate discussion across regions. Local and state travel restrictions due to funding challenges have limited attendance at in-person meetings and increased the use of videoconferencing and iLinc.

The OMCH sections also regularly interact with LHJs staff that has similar areas of responsibility. For example, each LHJ assigns a staff person to be its CSHCN coordinator. OMCH's CSHCN staff has regular face to face and telephonic meetings with the LHJ CSHCN coordinators from across the state. The OMCH CSHCN section periodically surveys LHJ staff about specific program activities and outcomes. Using a listserv has helped make broad and frequent communications with local CSHCN counterparts easy. The LHJs also have staff that is assigned to be Oral Health specialists, Immunization Coordinators, and Child Care consultants. OMCH staff in these areas has also established similar on-going ways of communicating with their LHJ counterparts.

Some public health issues are best addressed through broad-based groups that bring together representatives of a variety of health care organizations, professional disciplines, parents and community coalitions. The CSHCN Communication Network is a good example. CSHCN convenes the statewide CSHCN Communication Network of health plan representatives, staff from Medicaid and other state agencies, CSHCN coordinators from LHJs, parent groups, and others who work with CSHCN and their families. The group's purpose is to improve access and quality of services for CSHCN. It also works on quality assurance and data sharing for Title V children in Medicaid managed care. The quarterly meetings are an opportunity to inform partners about programs and policies that affect these children and families, to solicit member input and collectively to solve access issues. The meetings also provide an opportunity for members focused on similar goals and facing similar challenges to build ties that may lead to future local collaborations. Every year, the Communication Network reviews and gives feedback on the Title V Block Grant OMCH surveyed several members of the Network for their input to the 2010 NA.

Similarly, the Genetic Services Section (GSS) partners with many community based hospitals, academic centers, and multiple non-profit consumer organizations to identify issues that prevent appropriate access to quality genetic evaluation, screening, diagnostic testing or counseling

services at any time during the life continuum (e.g. preconception, prenatal, newborn, pediatric and adult). Besides contracting with five Regional Genetics Clinics located at community hospitals, GSS staff also partner with staff from the University of Washington School of Public Health, Institute for Public Health Genetics (IPHG), University of Washington Center for Genetics Healthcare and Equality (CGHE). As an Affiliate Faculty, the state Genetics Coordinator assists IPHG students develop practicum opportunities statewide, nationally or internationally. Several of these practica have directly benefited GSS and Washington State as students pursued their interests while simultaneously gathering or analyzing data on issues or topics GSS staff desired but didn't have the resources (human or fiscal) to obtain. From 2004-2008, GSS staff partnered with the UW Resource Center for Health Policy on the Genetic Services Policy Project (GSPP). The aim of the GSPP was to describe the current model of genetic services delivery, collect information from key stakeholders, and use stakeholder perspectives to translate genetics research into practice that will lead to more effective genetic service delivery models. The final report effectively described the existing fragmented genetic delivery system and included numerous recommendations for improvements. In addition, GSS staff partners with CGHE, a National Institutes of Health funded center of excellence in ethics. Activities with this center have focused on developing collaborative based participatory research with Native American tribes to determine what genetics issues or concerns they have and how they may be respectfully addressed, and more recently, the CGHE staff have agreed to develop some policy frameworks for payers of healthcare (private and public) that take into account existing science, validity and utility of the genetic test being considered. This follows extensive work GSS staff did with clinical and laboratory genetics professionals as well as medical directors of insurance plans and Medicaid regarding issues and concerns they each face dealing with emerging genetic testing services.

Another MCH partner located at the University of Washington is the Leadership Education in Neurodevelopmental Disabilities (LEND) Program at the Center on Human Development and Disabilities. LEND has a longstanding relationship with OMCH and particularly the CSHCN Program. Three of the CSHCN Program's key contractors on medical home, adolescent transition, and nutrition are housed at LEND. In 2008, the LEND Program and the CSHCN Program were each awarded supplemental federal funds to improve care for children with autism and other developmental disabilities. They have collaborated in the formation and implementation of one joint grant advisory council. As a result, the two programs are working much more closely than ever before. The UW's Center on Human Development and Disability (CHDD) works to extend and enhance MCH priorities in the areas of CHILD Profile, nutrition, high-risk infants and children, adolescent transition, medical home, and emotional behavior in very young children. MICAH also works with the CHDD to develop and implement curricula on topics such as improving nutrition, and teen pregnancy prevention. The UW School of Public Health – MCH Program works with OMCH to cross-train students and match student projects with state-level activities. The MCH Program at the School of Public Health also publishes an online newsletter, Northwest Bulletin: Family and Child Health. It is read by public health professionals in Region X-Alaska, Idaho, Oregon and Washington. OMCH has a representative on the Bulletin's editorial board and our staff regularly contributes articles to the newsletter. Both the School of Public Health and LEND have begun participating annually with the Region

X Technical Assistance Workshop held in conjunction with the MCH Block Grant Reviews for Washington, Alaska, Idaho, and Oregon. The event uses the opportunity of multi-state MCH leaders and federal partners in Seattle for cross-state networking and technical assistance on targeted topics. The 2009 workshop specifically allowed time to jointly prepare for the Five Year Needs Assessment.

Another multidisciplinary group, the CHILD Profile Advisory Group, includes parents, representatives of other state agencies and professional associations, LHJs, the state immunization coalition, and health plans. The Child Profile Health Promotion System mails health promotion materials to households with children under six years of age. From birth through age six, seventeen mailings are scheduled to be sent to the households with these young children. The advisory group gives DOH input for decision making on CHILD Profile policy and planning activities. Every few years, OMCH does a satisfaction survey of parents receiving CHILD Profile mailings and uses the results to improve the mailings.

The Washington State Oral Health Coalition (WSOHC) is a broad-based group of organizations and individuals whose mission is to promote and advocate for optimal oral health for all Washington State residents. OMCH is an active member of the Coalition. Other members include dentists and dental hygienists, as well as representatives of social service and health care organizations with a stake in oral health, dental clinics, dental foundations, and academic programs educating dental professionals. The Coalition has been driving force in the formation of local oral health coalitions throughout the state, which also participate in the statewide group. The Coalition works to improve access to oral health care, oral health education and capacity for oral health service delivery. A recent collaboration between OMCH's Oral Health Program and the Coalition produced the Washington State Collaborative Oral Health Improvement Plan 2009-2014. Statewide implementation of the Improvement Plan is underway.

OMCH works with the eighteen local Child Death Review (CDR) teams across the state. Local CDR Teams provide surveillance, collect data and make recommendations on how child deaths in their communities could be prevented. Their recommendations go to local officials and groups to inform strategies to reduce by motor vehicle crashes and suicide. MICAH provides technical assistance and training to local CDR teams. MCHA recently completed transitioning Washington to the multi-state database for CDR. MCHA staff assists CDR teams with data collection and provide technical assistance related to data analysis.

The MICAH section's work on perinatal issues is informed by the Perinatal Advisory Committee (PAC) whose membership includes physicians, nurses, other perinatal health care providers, the state Medicaid program, professional organizations, and consumer groups. MCHA provides data analysis and evaluation support to the Committee. The PAC focuses on identifying and prioritizing statewide perinatal concerns, and making recommendations to its members, to DOH and to the Medicaid program. Perinatal Regional Network (PRN) Coordinators are staff from four tertiary perinatal centers members of PAC. PRNs work within their region of the state and coordinate on statewide projects. MICAH both gives and receives input to and from the PRNs through regular meetings three times per year as well as via the internet and telephone.

The Vaccine Advisory Committee gives recommendations to the State Health Officer on appropriate medical interventions to control preventable diseases. The State Health Officer chairs this group of about 20 members, mostly physicians. They represent public health, epidemiology, pediatrics, family practice, internal medicine, and naturopathic medicine.

b. Collaborations with other HRSA programs

The OMCH and DOH's Office of Infectious Disease and Reproductive Health have a long-standing joint workgroup to develop effective policies and programs for HIV/AIDS prevention and care in the MCH population. The group has also focused on increasing the rate of HIV testing of pregnant women.

OMCH also works the Department's Primary Care Office (PCO) which is part of the Rural Health Program. Role of the PCO is to enhance access to primary health care for the underserved. With the goal of improving women's health and access to obstetric care, MICAH collaborates with the Department's PCO, and its Tobacco Prevention and Control, HIV Prevention and Education, and Family Planning and Reproductive Health (FPRH), Injury Prevention and Women, Infants, and Children Special Supplemental Nutrition Program (WIC) programs.

Oral Health also works with DOH's Office of Rural Health and the Washington Association of Community and Migrant Centers to reach dental providers working in community health centers and other public clinics.

The GSS also works closely with the HRSA funded Western States Genetics Services Collaborative. Activities to date have included reviews of newborn screening educational materials, development of outcome measures for genetic services, and more recently, a workgroup devoted to exploring similarities and differences in the coverage of genetic services by Medicaid policies within our region and strategizing activities to improve standard coverage issues.

c. Collaborations with programs within DOH

DOH has an internal Memorandum of Understanding among the Division of Community and Family Health, which OMCH is located in, the Division of Environmental Health and the Injury and Violence Prevention Program to work together on injury related issues. MICAH and MCHA are on the Department-wide Injury Prevention Workgroup. Some examples of injury prevention work focusing on the MCH population are:

- CHILD Profile partners with the Injury Prevention Program (IPP) to send product safety messages to parents of children between aged birth and six years.
- The Family Violence Prevention Workgroup with members from MCHA, MICAH, CSHCN, Injury Prevention Program, Emergency Medical Services, and Family Planning and Reproductive Health plans, coordinates and evaluates activities and secures resources to decrease family violence.

- MICAH provides consultation for WIC staff about identifying and intervening with victims of domestic violence and child abuse.

MCHA works closely with the Center for Health Statistics (CHS) and other epidemiology staff across DOH. A department-wide group of epidemiologists meets monthly to set standards for assessment functions, coordinate assessment activities, and facilitate communication within DOH. This collaboration has resulted in improved coordination with assessment staff throughout DOH and LHJs. In one recent project, MCHA and CHS collaborated to improve the quality of the new birth certificates at each birthing hospital and on joint analysis of data. They have continued to collaborate on quality improvement projects designed to improve the quality of vital statistics documents.

The Office of Community Wellness and Prevention (CWP), parts of which focus on chronic health conditions in adults, and MCH both recognize the relationship between early childhood health care and prevention efforts and adult chronic disease. Their goal is to formalize that recognition by working together on the program design and operations of common initiatives. One example is bringing together OMCH's efforts on childhood obesity and the work that CWP's Nutrition and Physical Activity section does on adult obesity. Another example is combined efforts with the CSHCN Program on promoting medical homes for all through a statewide learning collaborative approach.

The Women's Health Resource Network (WHRN) has members from 16 programs from Divisions of Community and Family Health and of Environmental Health. This group is a forum for DOH-wide input and response to current and emerging women's health issues and service gaps. Its goal is to help build state and local capacity to address the needs of women and their health concerns. The focus includes data on women's health; policy related to program services, quality assurance and standards development; and changes in the health care system.

The Early Hearing Detection, Diagnosis and Intervention program also works closely with the Division of Information Resource Management (DIRM) whose staff provides technical assistance to the program specifically as it relates to the tracking and surveillance software application, data sharing, and data recovery.

d. ***Collaboration with other governmental agencies***

In Washington, the Title XIX program is located in the Department of Social and Health Services, Medicaid Purchasing Authority (MPA). All of OMCH sections have developed partnerships with MPA. The two organizations have a mutual goal: assuring quality health services for pregnant women, infants, children, and adolescents served by Medicaid. The two agencies have an Inter-Agency Agreement that supports MPA's State Plan and authorizes Medicaid Administrative Match for many activities OMCH conducts. The CSHCN section manager is a member of Washington's Title XIX Advisory Committee, which is an ongoing venue to discuss Medicaid operations, programs and planning and make recommendations on a wide range of Medicaid issues.

OMCH partners with MPA and the Health Care Authority- the two largest purchasers of health care in Washington--to develop performance measures for providers and health plans caring for children. While the focus of this effort is children in publically funded health coverage, all children receiving care in Washington benefit when services meet performance measure targets.

About 75 % of CSHCN in WA are eligible for Medicaid. OMCH's CSHCN section partners with Medicaid, LHJs across the state, and Medicaid managed care plans in multiple ways to improve access and quality of health services for these children. CSHCN partners with Medicaid, the LHJs, Medicaid's managed care plans to identify, track, and coordinate care for children in managed care who are also served by Title V. OMCH also works closely with Medicaid on eligibility, reimbursement, and benefit issues regarding CSHCN. When this work focuses on children in foster care OMCH works with DSHS's Children's Administration, Office of Foster Care and a new program in the Medicaid program called Fostering Well-Being that focuses on children in foster care with complex medical conditions.

MPA's program called First Steps provides full medical coverage, including prenatal care for Medicaid eligible pregnant women. Additional program components offer support and interventions for Medicaid mothers and infants at risk for adverse outcomes during pregnancy and up to age one. MICAH assists MPA in administering three parts of the First Steps Program: Maternity Support Services, Childbirth Education, and Infant Case Management. This partnership provides DOH access to all of the practitioners providing care for Medicaid eligible women and infants receiving these services. Since 48% of all Washington's births are Medicaid births, this access is important to improve overall state birth outcome rates. OMCH can influence the delivery of health promotion/disease prevention messages and other interventions to mitigate risk factors for the women and families in the program.

The MCHA Section collaborates with Medicaid's First Steps database staff on many assessment and evaluation activities. OMCH also provides health outcome data, stratified by Medicaid status, to local health partners. MCHA analyzes Medicaid data, as well as data from other sources, and disseminates the results of its assessments in a variety of MCH Data Reports, a Perinatal Indicators Report and other surveillance reports and data requests. MICAH then uses the results to develop strategies to improve the delivery and coordination of services and increase capacity in underserved areas. OMCH also provides clinical oversight/monitoring of Medicaid programs to assure quality of care and compliance with requirements. Finally, MICAH participates in all aspects of training to improve service delivery.

The Genetic Services section collaborates with Medicaid on prenatal genetic counseling services for Medicaid clients and their infants up to 90 days after birth. Genetic Services provides state funding match for genetic services and oversees the program, working directly with Medicaid on its administrative aspects. Finally, Genetic Services provides technical consultation to MPA for genetic services issues overall.

The Immunization Program CHILD Profile (IPCP) and MPA have a broad partnership to improve immunization coverage and promote other preventive health care services through CHILD Profile Health Promotion. A formal data sharing agreement assures the CHILD Profile Immunization registry has up-to-date information on the vaccinations administered to

Washington's Medicaid eligible kids. MPA promotes the use of the registry to managed care health plans as a performance improvement tool to increase immunization rates. MPA and IPCP work to maintain and expand partnerships with the state's health plans through a quarterly meeting with health plan quality staff. MPA and IPCP work on the Vaccines for Children (VFC) Program to ensure VFC-qualified children get immunized and providers have the correct billing information.

MPA participates on the CHILD Profile Advisory Group and helps develop CHILD Profile Health Promotion materials for parents. MPA distributes information about development and early intervention services to parents of children ages 3 to 18 months old. Several OMCH sections work with MPA to increase the quality of and access to the Early Periodic Screening Diagnosis and Treatment program which provides well-child check-ups for children, ages birth to 18 years.

OMCH and the state's Office of the Superintendent of Public Instruction (OSPI) collaborate in many different areas. The Coordinated School Health (CSH) Grant Washington received from CDC is being implemented as a partnership between DOH and OSPI. CSHCN and MICAH participate on the CSH Interagency Committee, and work to align this effort with related adolescent health and mental health planning initiatives. IPCP works with OSPI to distribute child development and school readiness information and with OSPI Health Services on immunization requirements for school entry. CSHCN works with OSPI to identify appropriate health outcomes for CSHCN and also has a close working relationship with OSPI's School Nurse Corps. OSPI representatives are actively involved in CSHCN's autism project. MICAH works with OSPI and LHJs to review sexual health education curricula for adherence to the state's Healthy Youth Act and to develop scientific accuracy trainings for school personnel.

OMCH and the state's Department of Early Learning (DEL) are frequent partners. Dr. Maxine Hayes, Health Officer for DOH is a member of DEL's Early Learning Advisory Committee. Since many of OMCH-DEL collaborations also include local and statewide public and private organizations they are described in the next section. Cross-agency activities with DEL are likely to grow with the recent move of the state's early intervention program for young children birth to three from DSHS to DEL. The CSHCN Program partners with the newly named Early Support for Infants and Toddlers (ESIT) Program on many projects, including a new focus on early identification of infants, birth to 12 months. In addition, EHDDI staff routinely meets with and share data with ESIT staff regarding infants identified with hearing loss and referrals to early intervention.

Every two years, Washington conducts the Healthy Youth Survey (HYS) to gather information about behaviors among public school students in grades 6, 8, 10, and 12. The HYS is the main instrument Washington uses to collect data from its adolescent population on a variety of health behaviors. The state agencies on the multi-agency workgroup leading HYS are DOH, DSHS, OSPI, the Department of Commerce, the Liquor Control Board and the Family Policy Council. OMCH works with these agencies and external stakeholders to develop questions for the HYS. OMCH's MCHA section has major responsibility for coordinating the survey and analyzing its results. Recent state, county and school data from the HYS and fact sheets are available online at: www.askhys.net In Washington, the HYS takes the place of the Youth Risk Behavior Surveillance System used in many states.

e. Collaboration with Tribes

Washington is home to 29 federally recognized Indian tribes, most of which provide public health and health care services to their members. In recent years, Federal support for these services has steadily eroded. While American Indians/Alaska Natives (AI/AN) comprise about 2% of WA's residents, the health outcomes of their maternal and child populations are among the worst in the state. Of particular concern are infant mortality, adolescent immunization and oral health. Much of OMCH's work with the tribes is through the American Indian Health Commission (AIHC). AIHC, which represents the tribes and two urban Indian health clinics, works to improve the health status by promoting increased tribal-state collaboration.

f. Collaboration with family organizations.

OMCH makes a point of supporting and working closely with family organizations. The family perspective is an integral component of developing high quality, culturally competent programs and public policy. Family centered care is a central tenet of the OMCH CSHCN program. The program employs a parent of a child with special health care needs as a full-time Family Involvement Coordinator. She works with staff on all CSHCN issues and plays an instrumental role in facilitating family consultation and participation with OMCH and at the local, regional, and state level. The current Family Involvement Coordinator is one of five delegates from Washington to the Association of Maternal and Child Health Programs (AMCHP).

OMCH's Family Involvement Coordinator takes a leadership role in activities to increase family involvement in children with special health care needs policy and program development. This includes implementing a family leadership strategic plan to increase integrated systems of care for CSHCN and their families. The Family Involvement Coordinator ensures that OMCH gets feedback from parents on the draft Block Grant application. Parents were also among the stakeholders interviewed as key informants during the 2010 Needs Assessment process. The Family Involvement Coordinator has recruited parents to participate in activities supporting the Linking Actions for Unmet Needs in Children's Health (LAUNCH) project and to the Oral Health program.

Since 1994, the Washington Fathers Network (http://www.fathersnetwork.org/707.html) has been advocating for and providing support and resources for all men who have children with special needs and their families. It is funded by OMCH CSHCN program, the Kindering Center (Bellevue, Washington), and private donations. The organization focuses primarily on fathers of CSHCN, but also involves other family members and care providers. It provides CSHCN and their families with resources and information, distributed through a variety of media. The Fathers Network also sponsors support groups and social events for CSHCN and their families.

Washington State Parent to Parent (P2P) is a program of the Arc of Washington. It provides help to CSHCN and their families including peer support and mentoring, resources as well as information dissemination. It helps make connections among families with CSHCN who have

similar conditions and/or are from similar ethnic backgrounds. P2P works closely with the CSHCN Coordinators at Washington's 35 local health jurisdictions, medical home teams, feeding teams and other services provided by DSHS and the OMCH CSHCN program. The CSHCN program provides some funding to P2P.

The Family Involvement Coordinator works closely with Washington's Part C birth to three program. Early Support for Infants and Toddlers (ESIT) and is a member of ESIT's Family Leadership and Involvement Committee. She also works closely with the Family to Family Health Information Center, a project of Family Voices.

The EHDDI Program works with Washington State Hands and Voices which will be starting the Guide By Your Side (GBYS^{TM}) program in Washington State. GBYS^{TM} supports families with children who are deaf or hard of hearing without bias about communication modes or methodology. Through this program, a trained Family Guide will partner with families of children suspected of, or diagnosed with, a hearing loss to provide emotional and informational support. The Family Guide will also ensure that families are aware of the resources and services offered by Washington's early intervention system. Hands and Voices conducted its first training for parent guides in August, 2010. They will launch the GBYS^{TM} program in September

Taken together, these services represent key partnerships and links among families and individuals with special health care needs, the organizations and individuals who provide services for them and the OMCH CSHCN program. They are greatly valued by all involved.

g. Collaboration with other State and local public and private organizations:

OMCH frequently collaborates through broad interagency groups and public/private partnerships in a way that assures all stakeholders are at the table. A good example is the Early Childhood Comprehensive Systems (ECCS) Grant which OMCH-MICAH administers. The broad based, public-private ECCS partnership includes several other state agencies: the Department of Early Learning (DEL), the Office of the Superintendent of Public Instruction, and the Council for Children and Families. Some of the community organization partners are Thrive by Five Washington, Reach Out and Read, and the Foundation for Early Learning. ECCS has five critical components: health, social-emotional development and children's mental health, early care and education, parenting, and family support. Without this broad spectrum of partners addressing all five components would not be possible. The ECCS partnership is creating an Early Learning Plan for Washington--a strategic plan to assure children are healthy and ready for school. ECCS is also working to integrate medical home into health and early literacy activities; to integrate Strengthening Families protective factors across early learning systems; and to develop a Birth to Three Plan for the state.

Council for Children and Families (CCF), previously the Washington Council for the Prevention of Child Abuse and Neglect, works to prevent child abuse and neglect before it happens (primary prevention) by promoting protective factors, including positive parent-child relationships, non-punitive discipline, and an understanding of child development. Riley Peters, Director of OMCH, represents DOH on CCF. Representatives from DSHS, OSPI, and DEL and other stakeholders

also serve on the council. CCF partners with IPCP by providing shaken baby and post partum depression brochures for inclusion in the CHILD Profile Health Promotion mailings.

The cross agency Family Policy Council (FPC) helps Washington communities learn the costs and causes of child and family problems and establish systematic ways to reduce those problems. The FPC has established partnerships with forty-two Community Public Health and Safety Networks. Each of these local affiliates works to improve the effectiveness of services in its own community and strengthen the community's capacity, which decreases the need for formal services. The issues they address include child abuse and neglect, youth substance abuse, youth suicide, domestic and youth violence, teen pregnancy and male parentage, and dropping out of school. Riley Peters, Director of OMCH, is DOH's representative to the FPC. Other members represent the Governor's office, the State Legislature, DSHS, OSPI, DEL, the Employment Security Department, and the Department of Commerce.

OMCH has multiple partnerships with our state's universities. Several collaborations with maternal and child health programs at the University of Washington are described above in Section 2 a.Collaboration with State and local MCH programs. GSS staff works with the UW Center for Health Policy, Center for Genomics Healthcare Equality and the Institute for Public Health Genomics on a variety of training and health systems research endeavors. The OMCH Oral Health Program partners with the University of Washington, School of Dentistry on projects to improve the oral health of state residents. Washington State University is evaluating the Linking Actions for Unmet Needs in Children's Health (LAUNCH) project for MICAH. MCHA provides training opportunities to Master of Public Health practicum students and plans on collaborating soon on projects for Master of Science theses at the University of Washington School of Public Health. MCHA also provides training opportunities to Council of State and Territorial Epidemiologists (CSTE) fellows from Centers for Disease Control and Prevention, and to Graduate Summer Internship Program (GSIP) interns from Health Resources and Services Administration (HRSA) of the US Department of Health and Human Services.

OMCH collaborates with Washington's pediatric hospitals: Mary Bridge Children's Hospital and Health Center, Seattle Children's, and Sacred Heart. Mary Bridge is the site of an OMCH supported neurodevelopmental center and the Maxillofacial Review Team for Southwest Washington. Genetic Services works with Seattle Children's to provide training and technical assistance to birthing hospitals across Washington on newborn hearing screening. Seattle Children's Center for Children with Special Needs provides information to families, providers, and policy makers on health issues for CSHCN and their families. IPCP works with Seattle Children's to develop and distribute materials for parents of children aged birth to six years on injury prevention and on preventing and treating childhood illnesses. Since Seattle Children's is a regional pediatric referral center, children and families from Alaska and Idaho also benefit from some of these collaborative efforts. CSHCN works with Sacred Heart Children's Hospital in Spokane to promote the availability of quality nutrition services and improve nutrition outcomes for children with special health care needs in the east region of the state.

IPCP, CSHCN, and MICAH work with health care provider associations including the Washington Chapter of the American Academy of Pediatrics, Washington Association of Family

Physicians, Washington State Obstetrics Association and the Washington Medical Association, to provide information on best practices for immunization, quality assurance activities around vaccine use, special projects to increase immunization rates, developmental screening and prenatal practices. Oral Health works with the state dental and dental hygienists associations to reach private dental and dental hygiene providers.

When OMCH works on a program that focuses on a specific health condition or issue (e.g. autism, epilepsy, hearing loss, and oral health) OMCH actively seeks partners with the pertinent state associations, interest groups and community organizations. For example, the CSHCN section has actively recruited and involved the Autism Society of Washington, Autism Speaks Washington, Family Voices of Washington, the Family to Family Health Information Center, and Easter Seals partner with CSHCN on its Autism Project. The Epilepsy Foundation Northwest and CSHCN are collaborating on a three year grant to DOH to improve community-based system of services for children and youth with epilepsy. Activities focus on medically underserved and rural areas of central Washington, particularly areas with significant Hispanic population.

OMCH tries to involve youth in programs directed at them. MICAH uses focus groups for input from youth and adults on teen pregnancy prevention efforts. These statewide focus groups gather input on specific topics, such as developing media literacy curricula or a media campaign. CSHCN has sought involvement from youth with epilepsy or autism in grant activities and advisory groups, without much success. Some of our partners are pursuing alternate ways to engage youth with special health care needs through the internet.

h. New avenues for collaborating

OMCH is beginning to use social media to support and convey health promotion messages to the MCH population. DOH is becoming an outreach partner on the national Text4Baby Initiative and is planning to lead a statewide campaign to promote this initiative. Text4Baby, a public-private partnership between the cell phone industry, government health agencies, NGOs and corporate partners, sends free SMS text messages to pregnant women and new moms with tips and information on how to take care of themselves and their babies. Enrollees receive evidenced-based English or Spanish health messages on their cell phones. The messages are timed to their due date or baby's birth date. The text messages focus on a variety of topics critical to maternal and child health, including immunizations, nutrition, seasonal flu, oral health, and birth defect prevention. Many messages also list toll-free hotlines users can call for more information and local resources.

DOH used Twitter (twitter.com/WA_DeptofHealth) as part of the effort to get H1N1 information out in real time. Twitter was especially helpful in getting messages out to pregnant women and parents. In fact, the message about children under ten needing two doses of vaccine was one of the H1N1 tweets that got the most activity after it was posted. The agency has promoted the site through news releases and links on its online newsroom page. It also uses the Twitter site to give advance notice of some upcoming news releases, which gives reporters an extra incentive to sign on. As a result, over the last year, the number of online "followers" grew from a handful to more than 300 today. Many of the followers are "retweeting" agency information regularly, which helps us reach thousands more. The agency is currently evaluating this initial effort. OMCH plans to continue using Twitter for health promotion messages.

3. **Strengths and Needs of the Maternal and Child Health Population Groups and Desired Outcomes**

The information contained in this section was primarily taken from the sources mentioned in Section 1, "Methods for Assessing the Three MCH Populations". In many cases, these sources break down the data on the three populations by various factors such as Medicaid enrollment, race and ethnicity, age groupings, gender (where appropriate) and geographic distribution in Washington State. This allowed us to evaluate the three MCH populations (pregnant women, mothers, and infants; children; and CSHCN) by these factors, at the minimum, for gaps and disparities within services among populations. We are presenting only "highlights" of information relevant to this application.

a. Cross-Cutting Strengths and Needs Across all Population Groups:

i. Strengths of the MCH Population in Washington State

Washington State has strengths that impact and keep its population healthy. The Governor shows a personal interest in the health and well being of the MCH population. As Attorney General of Washington, she helped lead the Global Tobacco Settlement which restricted tobacco company's efforts targeted at children and youth, and created funding for public health initiatives in Washington, including such OMCH activities as the Healthy Youth Survey (HYS). The Governor created the Department of Early Learning (DEL), a new state agency, tasked with providing education services and support to young children and their families. OMCH partners with DEL in many of its activities with young children and their families. Throughout the recent economic recession the governor has reiterated that maintaining services to the MCH population is a priority and has worked to minimize the impact on the MCH population due to budget cuts.

Washington's adult female population is relatively well educated and employed. Fifty eight percent of women ages 18-44 reported some college in 2008 and 61% of all women 15-44 reported working in 2008, with 37% working full time. Even through the recent recession Washington State has maintained a lower unemployment rate than the nation as a whole, 9.7% in May 2010 for US population vs. 9.1% for Washington. As employment is the main way most Washington residents receive their health insurance, fewer people are likely to be insured. This, in turn, may have a direct influence on access and utilization of health care for the MCH population. In a series of focus groups conducted in 2006-2007 among Washington resident women, main findings included the fact that most women understood the need for and how to stay healthy. As women are, by and large, the main caregivers to young children and youth, an educated, employed and insured women population is the foundation for better outcomes among the other MCH populations as well.

Washington State also benefits from a "culture of collaboration" among the many groups which work with the MCH population. Connections between the OMCH, other state agencies such as DEL, Office of the Superintendent of Public Instruction (OSPI) and the Department of Social and Health Services (DSHS) are well established, close and on-going. OMCH also works with the state's Local Health Jurisdictions (LHJs) in coordinating services, funding activities and

assurance activities. Finally, OMCH collaborates with outside stakeholders such as educational institutions, private non-profit organizations and the MCH population itself. All of these collaborations, many of which will be discussed in further detail in other sections of this document, leverage the strength of efforts across the entire MCH population.

ii. Needs of the MCH population

While Washington State's MCH population has some strengths which cut across all three groups, there are some weaknesses that likewise cut across all the groups. The most obvious one is the present economic downturn which has impacted, to some degree, the three population groups in terms of more unemployment or underemployment among members of the population, and decreased access to publicly funded services at the time when demands on those services are increasing.

Prior to the recent economic downturn, Washington State began experiencing a reduction in the number of primary care providers who can see patients in the MCH population. This is especially acute in obstetric services at a time when the number of deliveries in Washington has been increasing. Also of concern for the MCH population is the decreasing interest in the remaining providers to take on low-income patients, especially those covered by Medicaid. All of these issues have become more pronounced as the economic downturn cuts resources and as the pool that needs to make use of them increases.

b. Health Status of Each State MCH Population Group:

i. Pregnant Women, Mothers and Infants

There were 90,270 births to Washington residents in 2008, the year for which OMCH has the most recent complete data. Non-Hispanic whites made up the largest percent, 63.1%, and Hispanics, the second largest, 19.2%. Since 1998, the percent of births to non-Hispanic whites has decreased from 73.7% while births to Hispanics have risen considerably from 13.1%. These numbers will have a considerable impact on the future demographics of Washington State.

The overall birth rate for Washington State has increased by a small amount since 1998 from 62.2 to 66.9 births per 1,000 females in 2008. The teen birth rate (age 15-17 years) has undergone a substantial decrease between 1998 and 2008 from 42.5 to 32.1 per 1,000 females. It should be noted, however, that the rate of 32.1 is an increase over recent years, such as in 2005 when the rate was as low as 30.7 per 1,000. Between 1998 and 2008, births to women over 30 years of age are up, with the greatest increases in the 30-34 year cohort (from 103.0 to 120.2 per 1,000 females) and the 35-40 year cohort (from 47.4 to 59.1 per 1,000 females). Increased births to older women may impact pregnancy outcomes related to increased maternal age, such as birth defects.

Also between 1998 and 2008, pregnancy rates, have increased a small amount, from 82.6 to 85.2 pregnancies per 1,000 females. Over the same decade, there has been a marked decrease in teen pregnancy rates, from 41.1 to 26.7 per 1,000. Unintended pregnancies remain high, with

approximately half of all pregnancies to Washington residents over the past decade being unintended.

Cesarean deliveries have increased over the last decade accounting for 31% of all births in Washington in 2008. Nationally, Washington ranks 15th in total C-section rates. The percent of Washington residents who underwent a primary C-section without having a previous history of C-section was 21.5. The Healthy People 2010 goal is 15.5. Washington State OMCH, along with external partners, is engaged in a process to reduce un-necessary C-sections and improve overall quality of care.

Being overweight or obese continues to be a health concern in the state's pregnant women. About 42% of women were either overweight or obese prior to pregnancy in 2008. In 2008, 47% of women gained more weight while pregnant than recommended by Institute of Medicine standards. The negative impact of being overweight or obese on pregnancy outcomes and future maternal health is a public health concern that needs to be addressed.

First trimester prenatal care initiation remained low, 77.1%; the Healthy People 2010 goal is 90%. The rates of women receiving late (defined as having initiated care in the 3rd trimester) or no prenatal care rose slightly from 5.5% in 2007 to 5.7% in 2008. Women on Medicaid continue to have lower first trimester care rates than women not on Medicaid, 66.6% vs. 87.0%, and higher rates of late and/or no care, 8.4% vs. 3.1%, than women who did not receive Medicaid.

While overall smoking rates among pregnant women were low, there was a significant disparity in these rates among women who did receive Medicaid and those who did not, with those receiving Medicaid smoking more, 17% vs. 6%. When further limited to women who qualified for Aid to Families with Dependent Children (AFDC) or Temporary Assistance for Needy Families (TANF) the disparity was starker, with 37% of these women smoking during pregnancy. The Healthy People 2010 goal is to increase abstinence from smoking among pregnant women to 99 percent, and to increase smoking cessation during the first trimester of pregnancy to 30 percent. Washington has not met the abstinence goal and cannot measure the second goal.

Over a six month period in 2006 and 2007, DOH contracted with Gilmore Research Group to conduct seven focus groups with women 18-29 years, and four focus groups with primary health care providers. We recruited women from communities using random digit dialing of Gilmore databases, and from women responding to postings asking for participants. We also recruited practitioners from among a random sample of providers from a DOH database. Staff developed detailed discussion guides for both the women's and provider focus groups. Initially, women were asked, "What does it mean to be healthy?" After their unaided responses, they were asked to rank a list of healthy living messages developed by the DOH. Providers were asked what preconception care meant to them, what elements it should include, their experiences providing preconception care and barriers to providing screening and care. Focus groups were audio-taped and transcribed, and themes were identified from the transcripts. The findings from the focus groups were as follows:

Women's Focus Groups:

- Most women were aware of what healthy living means; some questioned its import especially outside of pregnancy
- Overall, women ranked getting plenty of rest, eating a variety of foods, and seeing a health care provider regularly as most important for healthy living
- Overall, women considered avoiding tobacco use, seeing a dentist, drinking in moderation, taking a multivitamin, and seeing a provider if depressed as less important
- Smokers felt women "must want to quit to be successful" and must try several times to be successful
- Several themes emerged – prevalence of drugs in women's lives, unintended pregnancies, lack of role models for trusting and respectful relationships
- Women cross-checked multiple sources for information – mom, friends, TV, Internet to determine whether to seek health care
- Smokers and non-smokers gave similar responses

Provider's Focus Groups:

- Most providers associated preconception health with women who are actively trying to conceive
- They thought women rarely seek this care and that those who do are middle-upper class and well educated
- They considered providing many of the elements of preconception care to be a priority, and to be general primary health care
- Providers thought low income women, women with high risk behaviors, chronic medical conditions, significant family history and past adverse outcomes were most in need of preconception care
- Many providers were more on preventing unintended pregnancy and were less likely to cover preconception elements.
- Providers prioritized elements most likely to negatively affect birth outcome: tobacco, alcohol & drug use.
- Providers saw adequate sleep and stress management as lower priority
- Providers reported taking good family history and referring for genetic counseling as needed

The following conclusions were drawn from the findings:

Conclusions and Next Steps

- Women understand what healthy living means, but find healthy behaviors difficult to maintain
- Health promotion activities will need to consider stress, lack of time, and cost for success
- Providers currently doing some preconception work
- Interconception care may initially be more acceptable due to identified risks and parental motivation
- Providers need reimbursement options and more time to counsel women
- Tools, including up to date referral resources and checklists, would be useful

- DOH is beginning work with existing programs to integrate preventive care across lifespan.

Relevant findings of the focus groups are mirrored in the data about the status of mothers and pregnant women in Washington from quantitative data sources. The general good level of knowledge of what a healthy lifestyle is and what is needed to achieve it may be reflected in the overall lower rates of adverse pregnancy outcomes, such as infant mortality seen in Washington State. Also reflecting surveillance data on pregnant women's use of services such as first trimester prenatal care, were the provider's observations that low-income women were not getting the prenatal care they needed compared to upper middle class and educated women. The theme of unintended pregnancies from the focus groups is reflected in data over the past decade showing that approximately half of all pregnancies to Washington residents were unintended.

Washington State's overall infant mortality rate (IMR) ranked as the lowest in the United States in 2006. Between 2004 and 2006, of the 39 states for which the National Center for Health Statistics (NCHS) reported an African American IMR, Washington State's IMR among African Americans was the lowest in the nation. Among Hispanics during the same time period Washington ranked second lowest of 41 states for which the NCHS reported a Hispanic IMR. In 2008, however, the overall IMR was noted to have made a one-year jump, from 4.8 per 1,000 infants in 2007 to 5.4 per 1,000 infants. The increase was identified in neonatal deaths. Although Washington State has outperformed other states in race/ethnic specific IMR rates, there still persists within Washington State a noticeable disparity in the IMR for both African Americans and Native Americans. Both of those groups have higher IMRs than the state's other racial/ethnic groups. In addition, while Washington State's overall IMR has been decreasing, the IMR for Native Americans and Alaska Natives resident in Washington State has actually increased since 1994. This increasing racial gap in IMR is concerning and requires more attention.

In 2008, the LBW rate for singletons was 4.7 percent, representing 4,127 births in Washington State, compared to a national rate of 6.5 percent in 2006, the most recent year for which national data are available. The total Washington LBW rate (which includes multiple births) was 6.3 percent or 5,711 births in 2008, compared to a national rate of 8.3 percent in 2006. The total Washington LBW rate increased significantly from 5.3 percent in 1990 to 6.3 percent in 2008. The singleton LBW rate also changed significantly from the 1990 rate of 4.3 percent to 4.7 percent in 2008. Singleton LBW births were significantly higher among women ages 15-19 and 40- 44 compared to women in other reproductive age groups and higher among black women compared to women of other races and ethnicities. The National Healthy People 2010 objective is to reduce the total LBW rate to no more than 5.0%. Washington has not yet met this objective.

Total preterm delivery (includes multiple births) in Washington increased from 8.4% in 1993 to 10.5% in 2008. During the same period, singleton preterm delivery increased from 7.6% to 9.0%. Nationally, total and singleton preterm delivery have also increased. In 2006, 12.8 percent of total births in the U.S. were preterm, and 11.1 percent of singleton births in the U.S. were preterm. Washington has not met the Healthy People 2010 objective to reduce total preterm birth to no more than 7.6 per 100 births

Data presented on pregnancy, birth, birth outcome and infant mortality are available at the community level and has been used for the Home Visiting Needs Assessment application.

ii. Children and Youth

According to the 2007 National Survey of Children's Health (NSCH), 85.8% of Washington children were reported to be in excellent or very good health. This percent was not statistically different from the nationwide percent of 84.4%. In the State of Washington 84.2% children had one or more routine preventive health care visits in the previous year. This was significantly less than the nationwide percentage of 88.5%. However for preventive dental care Washington State was significantly better than the nation as a whole, 81.3% vs. 78.4%. Consistency of insurance for Washington kids, defined as not losing coverage in the previous year, was reported by the NSCH to be 85.6%, which was not statistically significantly different from the nationwide percent of 84.9%.

In the field of mental health care, 62.4% of Washington kids who needed mental health services in the previous year did receive them, which was not statistically significantly different from the national rate of 60.0%. The same was true of receiving care in a medical home, with 59.9% of Washington kids receiving care in that setting vs. 57.5% nationwide. In the percent of kids receiving a standardized developmental screening in a routine health care visit in the previous year, Washington did perform better, 25.6%, than did the nation as a whole, 19.5%

Children in Washington State were much less likely to live with a smoker than were kids in the nation as a whole, 19.1% to 26.2%.

These data from the NSCH are from the 2007 survey and may not reflect the current situation for children in the State of Washington in 2010.

The National Immunization Survey (NIS) found that Washington kids, 19-35 months of age were significantly more likely to be up to date with the 4:3:1:3:3 (4DTaP: 3 Polio: 1 MMR: 3 Hib: 3 Hepatitis B) series of shots than were kids nationwide, 77.7% vs. 68.4%. Washington is also more successfully getting its children a "birth" dose (within 3 days of birth) of Hepatitis B vaccine than is the nation as a whole, 72.6% vs. 55.3%. At present Washington State is not meeting the Healthy People 2010 goal of having 80% of 19-35 month old kids covered by the 4:3:1:3:3 core series of vaccines. Among single antigen series Washington State is only meeting the 90% goal of immunization among 19-35 month olds with MMR, at 91.2% being covered with one MMR vaccination.

Dental carries, despite the better than national average access to care reported in the NSCH, continues to be the most prevalent disease among Washington's children. The 2005 Washington State Smile Survey found that 59% of kids 6-8 years old surveyed had decay experience on either their primary and/or permanent teeth. Twenty one percent of kids 6-8 years old had experienced rampant decay, defined as having 7 or more teeth decayed, missing or filled. HP 2010 sets a goal of 42% of kids 6-8 having dental carries experience. Washington is not meeting this goal. Racial and ethnic disparities in dental carries experience were found among Washington children, with Asian, American Indian/Alaskan Native and Hispanic kids having statistically significantly more dental carries experience than White non-Hispanic children, 68%,

77% and 72%, respectively vs. 55%. These same three groups also experienced more rampant dental carries experience than non-Hispanic White kids, 27%, 37% and 30%, respectively vs. 16%. Preschool kids enrolled in Head Start or State Early Childhood Education and Assistance Program (ECEAP) programs for the low income reported that 45% of these kids had experienced some tooth decay. The HP 2010 goal for dental decay among 2-4 year olds is 11%. While the HP 2010 standard is set for the general population, and the Smile Survey examined kids who tended to be lower income, and therefore understood to be a higher risk for dental decay, the discrepancy between the Washington rate and the HP 2010 goal is still quite large and represents an area of needed improvement for Washington State. These data are from the 2005 WA Smile Survey.

Washington's children and youth are, like children across the nation, experiencing elevated rates of obesity and overweight compared to previous generations. Data from the Washington Healthy Youth Survey (HYS) in 2008 showed that about 11% of 8th, 10th and 12th graders were obese and another 14%-16% were overweight based on self reported height and weight. African American, Native American/Alaska Native, Pacific Islanders and Hispanic children in the 10th grade were more likely to be obese than their non-Hispanic white classmates. However, obesity among Washington adolescents has remained stable since 2002.

Nationally, the percentage of children and adolescents who are defined as overweight has more than doubled since the early 1970s. In 2007, about 13 percent of 10th graders nationally were obese, and 16 percent were overweight. Obesity is a leading indicator for Healthy People 2010, one objective being to reduce the proportion of children and adolescents who are overweight or obese to 5 percent by 2010. Washington's rates were higher than this target.
The percent of those overweight (those at or above a BMI in the 85th percentile; National Performance Measure (NPM) #14) in younger children, age 2 to 5 years, who receive WIC services has risen since 2001 from 22.7% to 30.3% in 2008.

In 2008, between 40% to 62% of grade 6, 8, 10, and 12 students, got the recommended amount of physical activity of at least 60 minutes on five or more days a week. Around 50% of grade 8, 10, and 12 students watched television, play video games, or used the computer for fun for three or more hours a day on an average school day. The Institute of Medicine recommends that children's screen time be limited to less than 2 hours per day.

In dietary choices among children, data from the HYS showed that between 22% and 28% of 8th, 10th, and 12th grade students ate at least five servings of fruit and vegetables a day. Soda consumption among teens had decreased since the previous survey, with fewer 10th and 12th graders reporting having drunk two or more sodas in the previous day: In 2006 78% and 76%, and in 2008 75% and 69%, respectively.

The HYS found that older youth are less likely to enjoy school. In 2008, 28% of 6th graders reported they almost always enjoyed school compared to 17% in 8th grade, 14% in 10th grade and 11% in 12th grade. Between 18% and 23% of 6th, 8th and 10th grade students reported they skipped a whole day of school in the past month. For 12th graders, 30% have skipped a day in the past month.

Students in Washington generally reported feeling safe at school: between 81% and 88% of 6, 8, 10 and 12th graders reported so. Bullying remained an important factor in many children's school lives, however, with 30% of 6th, 29% of 8th, 23% of 10th and 16% of 12th grade students having reported that they were bullied in the previous 30 days. Between 8 and 11% reported they were cyberbullied (bullied via a cell phone or the Internet) in the past month. Physical fighting increased from 2006 for grades 8, 10, and 12. In 2008, 31 % of Grade 6 students, 37 % of Grade 8 students, 32% of Grade 10 students, and 24 % of Grade 12 students reported being in a physical fight in the past year. Fighting at school in the past month was reported by between 31% and 37% of 6th, 8th and 10th grade students and 24% of 12th graders.

Nearly all youth surveyed in the HYS reported wearing a seatbelt when in a motor vehicle either most of the time or always. However, 6% of 10th and 12% of 12th graders reported that in the past month they drove after drinking alcohol and between 19% and 24% of 8th, 10th and 12th graders reported that in the past month, they rode in a car with a driver who had been drinking alcohol.

Depression was evident in the school age population with between 19% and 24% of 8th, 10th, and 12th graders having experienced depressive feelings in the previous year. Between 7% and 9% of youth from the same grades had attempted suicide in the past year. Suicide is the 2nd leading cause of death for Washington youth 10-24. On average, two youths kill themselves each week and there are 17 hospitalizations of youth due to a suicide attempt. Future suicide prevention efforts in the state will be impacted by recent funding cuts.

Alcohol remained the most commonly used drug by school aged children in Washington with 4% of 6th, 16% of 8th, 32% of 10th and 41% of 12th graders reporting current alcohol use (any use in the past 30 days). Binge drinking, defined as having consumed 5 or more drinks in a row, is a particularly risky behavior at any age, but especially among youth and adolescents. In Washington, 26% of 12th graders and 18% of 10th graders had reported engaging in binge drinking within the past two weeks. The Healthy People 2010 goal for binge drinking among high school seniors is set at 11%. Washington State high school seniors are not meeting that goal.

Fourteen percent of 10th and 20% percent of 12th graders reported current cigarette use. Meanwhile the use of other tobacco products has also increased. Healthy People 2010 goals for this age group are no more than 16% of youth smoking. While the 12th grade cohort does not meet this goal, 10th grade is meeting HP 2010 goals. Cigar smoking is now as high as cigarettes and three quarters of youth who use tobacco are using multiple tobacco products. Washington State is not meeting the Healthy People 2010 goal of reducing smokeless tobacco use to less than 1% in its high school aged population. After June 30, 2011 there is no identified and sustainable source of funding to continue the Tobacco Prevention funding.

Reported current marijuana use among this same age group appeared to be higher than reported tobacco use with 19% of 10th and 23% of 12th graders saying they had used marijuana in the past 30 days. The Healthy People 2010 goal of reducing marijuana use to less than 0.7% is not being met in Washington.

The abuse of prescription drugs has also been on the increase among Washington's adolescents. In 2000, there were 22 state funded admissions for teens seeking treatment for prescription opioid abuse. By 2008 that number had grown to 360. In 2008, 10% of 10th and 12% of 12th graders reported using a prescription pain killer to "get high" in the past 30 days. Most of them got the prescription narcotics from a friend or their own prescription. The significant decrease from 2006 for 8th and 10th graders in the availability of school staff to discuss substance-related problems is a concern. About one-third of students reported in 2008 they had no counselor or other staff person to talk to about substance use issues. That number will continue to decrease due to funding cuts.

In 2010, a change in the law will allow the HYS to ask about teen sexual health behaviors for the first time since 1995. This will enable us to better target Sexually Transmitted Infections (STI) and teen pregnancy prevention efforts in the state.

Health behaviors and status are associated with academic achievement. Based on a joint study of DOH, the State Board of Health and OSPI using HYS data, students who smoke, drink alcohol, use marijuana, are obese, eat insufficient fruits and vegetables, are depressed and have excessive screen time are at risk academically (make grades below As and Bs in school). The more health risk factors a student has the less likely they are to make grades As and Bs in school.

iii. Children With Special Health Care Needs (CSHCN)

Based on the National CSHCN survey in Washington State an estimated 14% of children and youth age 17 and under have a special health care need. This translates to around 220,000 children and youth statewide. In Washington State, African American and children who report multiple races have a higher prevalence of having special health care needs, 21.4% and 20.0% vs. 14.8%, respectively compared to non-Hispanic whites. Asian and Hispanic children, on the other hand, had a lower prevalence compared to non-Hispanic whites, 6.7% and 7.8% to14.8%, respectively. Within Hispanic households a much smaller percentage of children had special health care needs in households where Spanish was the dominant language, 4.4%, than where English was the dominant language, 12.3%. Generally, lower income households, under 200% of the Federal Poverty Level (FPL), appeared to be more likely to have CSHCN than were more affluent households, 14.2 % in <100% of FPL, 17.7% in 100-199% FPL, 13.6% in 200-399% FPL, and 13.1 in those with 400% + of FPL.

Many of the risk factors identified in the HYS for children in general, are even more prevalent in this population. Among 10th graders, CSHCN were more likely to have been bullied in the previous 30 days (35% vs. 19) been in a physical fight in the previous 12 months (44% vs. 27%) and more likely to have attempted suicide in the past year (19% vs. 6%) than children without special health care needs. CSHCN were also more likely to have engaged in behaviors such as drinking and driving (10% vs. 5%) and riding in a vehicle with someone who had been drinking (32% vs. 22%) in the previous 30 days, than children without special health care needs.

CSHCN had similar access to a medical home to those without special health care needs. Among those with a medical home, CSHCN were more likely to have a personal doctor (92% vs. 85%) and to have had preventive care in the previous year (93% vs. 75%) than those without special health care needs. However, among those with a medical home, CSHCN were less likely to have easy access to a specialist or needed equipment (77% vs. 91%) than children without special health care needs.

In 2008, OMCH surveyed primary care providers who see adult patients in Washington. The purpose of this survey was to learn about ways to increase and improve adult health care services for young adults with special health care needs, like childhood onset chronic illness or developmental disabilities. Sampled providers included physicians, nurse practitioners, and physician assistants in rural and urban areas of the state. OMCH also surveyed physicians with a combined pediatrics and internal medicine specialty.

Principle findings of the survey were summarized as follows:

Barriers in caring for patients with childhood onset chronic illness or developmental disability

Financial and Documentation Barriers

- Lack of adequate compensation for caring for young adults with special needs, particularly those with Medicaid. Some respondents dealt with this barrier by limiting the number of patients with Medicaid from their practice or not accepting patients with Medicaid at all.
- Non-reimbursement for required paperwork and documentation, specifically for patients with Medicaid.
- Internal medicine physicians reported the largest barriers to accepting young adults into their practice were lack of insurance, Medicaid paperwork, or Medicaid reimbursements. Of the providers surveyed, Physician Assistants and Nurse Practitioners reported the least barriers.

Other barriers

- Lack of provider experience, support, time, or lack of collaboration with specialists for caring for these patients with higher needs.
- Lack of transportation for patients to get to and from appointments.
- Lack of caregiver knowledge and involvement.

Providers' needs

- Assistance from other professionals such as specialists, social services providers, and mental health providers. The need for mental health providers was mentioned frequently by providers in the Eastern part of Washington.
- Care coordinators in their office
- Community resources

- Adequate reimbursement

What's currently working

- Education, training, or experience of providers
- Involved families and caregivers
- Making practice changes, like providing longer appointment times and other accommodations to patients
- Ability to access professional resources through the Internet or fact sheets

Based on the information from this survey, transition of young adults from pediatric to adult care may be improved by increasing parent-provider relationships in the medical home, provider reimbursement, and provider training – all areas DOH and partners are working to improve. Survey respondents noted the key role parents and families play in improving transition and care. The comments made by providers on the need for more access to specialist services for their patients mirror the findings in the CSHCN Medical Home Data Monograph**,** which found that while CSHCN were able to find a medical home they were much less likely to be able to access specialized care or needed equipment.

In 2007, the CSHCN Program applied for and received new categorical funding that focused on children with epilepsy and in 2008 on children with autism and other developmental disabilities. Both grant applications required separate Needs Assessments which showed additional challenges facing children with these diagnoses. Specific results of those Needs Assessments will not be repeated here, but are driving targeted work by grant staff and include significant efforts of regular CSHCN program staff to make an impact for families with children with these diagnoses.

4. MCH Program Capacity by Pyramid Levels

The State of Washington has many services available for the MCH population to support and meet their needs on an individual level as well as on the community and population levels. Most of these services are not provided directly and/or solely by the Washington State Department of Health (DOH), nor the OMCH, but rather are provided through collaborations and partnerships with other state agencies and outside stakeholders and partners. Inter-agency cooperation is especially close with the Washington State Department of Social and Health Services (DSHS), which along with the private health care system provides much of the direct patient/client services to the MCH population; the Office of the Superintendent of Public Instruction (OSPI), which oversees K-12 public education and works with the state's 295 school districts to administer education programs; and the Department of Early Learning (DEL), a relatively new agency, which oversees efforts in early childhood education and development. In addition to information supplied by programs within OMCH and external stakeholders the MCH Services Report was used as a source for information supplied on services described below.

In the recent economic downturn, many of the services outlined in this section have been cut or are under threat of cuts, or even outright elimination. As elsewhere in the nation, these capacity reductions are likely to continue in Washington as long as the current budgetary issues and

economic doldrums continue. Most recent forecasts have not indicated a significant growth in state revenue to support these services at previous pre-recession levels, nor even in many cases, at present reduced levels. This is at a time when demand for these services has reached record levels.

a. Direct Health Care Services

Most of the direct health care services, provided for the MCH population originate with agencies and organizations outside of DOH.

i. All MCH Population

Safety net clinics, defined by the Institute of Medicine as "those providers that organize and deliver a significant level of health care and other health-related services to uninsured, Medicaid, and other vulnerable populations", in Washington State come in various forms including, public health clinics run by local health jurisdictions (LHJs), rural health clinics (RHCs), migrant clinics, tribal health clinics as well as free, charity or sliding fee clinics. Each of these serves the MCH population to varying degrees and forms an important bridge by which gaps in care to the MCH population get filled. In recent years, with the economic downturn, demands on these clinics have risen. However, funding has been decreasing for many of them. Even before the most recent crisis, many LHJs did not operate their own public health clinics, and since the recession began, LHJs with health clinics have had to reduce services or even close clinics in spite of increased demand for their services. Many of the services described in this section are or were provided in the State's safety net clinics so reduction in their ability to see patients impacts the way by which the OMCH provides support to the state's MCH population.

Washington has had a stable population of immunization providers for the last several years. Approximately 1200 clinic sites, representing 3,000 to 4,000 physicians, participate in the state's universal vaccine system. In 2009, the H1N1 pandemic tested our state's infrastructure of immunization providers. Not only did our current 1200 provider sites step-up to administer the H1N1 vaccine, but an additional 1500 sites volunteered to participate in making the vaccine available to the community.

ii. Pregnant Women, Mothers and Infants

OMCH works to assure access to prenatal medical care for pregnant women. Working with the obstetric provider community, MICAH identifies the barriers and concerns that medical care providers have. These include inadequate provider availability; uneven geographic distribution of providers; adequate provider compensation and easy billing systems and high patient load. Over the past several years, Washington has experienced a decline in the number and type of providers who practice obstetric care. The resulting inadequate provider supply is due in part to a decrease in the number of family practice physicians doing obstetric care and to obstetricians doing less obstetric care for a variety of reasons such as malpractice premiums and quality of life concerns. This is making access to early prenatal care more difficult. Washington has experienced a decline in the percentage of women receiving prenatal care in the first trimester.

As the number of births increased 12% from 2000-02 to 2007-08, the number of obstetric providers decreased by 13% during the same time periods. In 2008, 595 individual OB-GYN providers delivered babies in WA. That year there were 90,270 resident births. State Medicaid has addressed the billing issue of fee bundling of obstetric services. This had been identified by providers as a major issue in their provision of care. OMCH continues to explore other options for interventions.

Many women in Washington State do not have health care insurance thus limiting primary and preventive care for women prior to and in between pregnancies. For example, the state's Basic Health Plan is at capacity and has been cut, leaving a long waiting list. Better preconception and interconception care is necessary to improve the health of women and their birth outcomes. There are not enough community health clinics to cover the need and family planning clinics provide very limited scope of primary care. There are few options for chronic disease follow up for women without health insurance.

The First Steps program provides direct maternity support services (MSS). First Steps, collaboration between DOH and DSHS, has as its goal to help low income pregnant women receive the health and social services they need. MSS are delivered in the pregnant woman's health care setting. These services are provided by nurses, dieticians, behavioral health specialists and community health workers and focus on improving pregnancy and early parenting outcomes and increase the mother's self sufficiency. Services are limited to no more then 15 hours of intervention. First Steps Providers have come from both LHJs and private or not for profit providers. With the budget cuts to LHJs, many have stopped this service.

Twenty genetics clinics provide prenatal or reproductive services, 12 in Western Washington and 8 in Central or Eastern Washington. Fourteen genetics clinics provide adult services, 7 in Western Washington and 7 in Central or Eastern Washington.

iii. Children and Youth

The 2007 National Survey of Children's Health reported that 84.2% of children received at least one preventive care visit in the past year compared to 77.5% in 2003.
School Based Health Centers (SBHC) are present in a few school districts in the state, primarily in Seattle and greater King County. These programs provide a range of health services to students enrolled in the schools regardless of income or ability to pay. The services include family planning and STIs testing and treatment services. In the current year, OMCH was able to directly fund two SBHCs which coordinate with medical homes for children who enrolled in the SBHC. A third SBHC is funded only for immunization services by OMCH. Budget reductions have put on hold OMCH's effort to expand the number of SBHCs it funds.

iv. Children with Special Health Care Needs (CSHCN)

The State CSHCN program provides limited diagnostic and treatment funds to fill gaps in medically necessary services for children with no or inadequate coverage as identified by CSHCN Coordinators in the local health jurisdictions and by the specialty metabolic clinic.

Specialty clinics for PKU and other metabolic disorders are based out of Seattle, with outreach to Spokane, Wenatchee, Yakima, Tri-Cities, Bellingham, and Everett throughout the year. Each outreach location hosts the specialty providers to see patients a few times a year; otherwise, families travel to Seattle.

Challenges to provision of services

There are shortages of both primary and specialist care providers in large geographic areas of Washington State due to the demographic distribution of the population of Washington State. Washington has large regions that are either sparsely populated and/or chronically economically depressed. Most of these areas are east of the Cascades, in Southwest Washington, along the coast and up into the Olympic Peninsula. (See Appendix with links to maps of service and provider shortages.) Washington State, like many other states, suffers from the same issues with getting health care practitioners to provide services on a continual and regular basis in rural and economically depressed areas. Recruitment and retention of qualified health care providers remains an issue in these underserved areas in Washington State.

There are not enough pediatric audiologists to serve Washington State, and the majority are located in Western Washington along the I-5 corridor. Patients in Central and Eastern Washington and on the Olympic Peninsula have fewer options and longer travel distances to access these services. This shortage tends to hamper the state's early hearing screening program.

CSHCN Program efforts on the epilepsy grant have identified shortages in pediatric neurologists across the state and particularly in rural areas. Autism grant activities have emphasized the current burden on limited autism diagnostic teams within the state that are unable to provide timely differential diagnostic services due to the large volume of referrals from all parts of the state.

Low income individuals may also have problems accessing health care even where there is no shortage of providers. This is due to providers' reluctance, or even refusal, to accept these individuals as patients due to decreasing reimbursements for services.

Genetic counselors have noted that some patients cancel or decide not to schedule genetic counseling appointments upon learning that these services require pre-authorization. Many clinics/institutions offer financial assistance for those in need, though some patients are unaware of that assistance. Many factors influence the ability to pay for genetic testing. They include varied policies and procedures for pre-authorization; variations in criteria insurers use to determine medical necessity; and the requirement to use laboratories that are preferred providers, even if they do not offer the test(s) indicated. Also, some labs require full payment up front for genetic testing. This is a barrier for many patients and providers, even when insurance may, in the future, partially or fully reimburse the cost of testing. All of these issues related to paying for genetic testing create barriers and unequal access to services.

Medicaid periodically requests consultation from OMCH's Genetics Services manager to determine the medical necessity of pediatric services. Also, some prenatal services needs need to

be approved within a very short time. When the Medicaid approval process is too slow, the Genetics Services manager works with Medicaid to try to resolve any issues.

For women of childbearing age, many insurance companies cover BRCA 1 & 2 testing (hereditary breast/ovarian cancer). Washington's Medicaid program recently agreed to do so, but there have been problems in implementing the new coverage. Washington residents are ineligible for some services due to questions about legal residency. Provision of direct services to them, other than emergency services, may be difficult or impossible.

A study conducted by OMCH found that CSHCN were much less likely to have easy access to a specialist or special equipment than were children who did not have special needs, indicating a gap in equity of availability of care between the two groups. However, the commitment of the members of the Medical Home Leadership Network (MHLN) to provide health care to children and youth with special needs remains strong, despite low reimbursement.

b. Enabling Services

As with other levels of services, Washington's recent budget issues have directly and seriously impacted the amount and kind of support and funding OMCH has been able to provide for enabling services. In addition to reduced state support, local non-profit organizations with which the OMCH partners, are receiving reduced philanthropic and charitable donations. Once again, as demand for services is rising in the MCH population, the very services needed are being pared back.

A sample of enabling services available to the MCH populations is as follows:

i. **All MCH Population**

DSHS is the primary state agency that provides health coverage for low income Washingtonians, including those in the MCH population groups. DSHS administers Medicaid eligibility determination and payments, State Children's Health Insurance Program **(**SCHIP**)** eligibility and payments, as well as Washington State's Basic Health program eligibility for low income children. Medicaid eligibility for infants and children (0-18 years of age) goes up to 200% FPL, for pregnant women it goes up to 185% of FPL. For SCHIP the eligibility of infants and children begins at 200% of FPL and goes up to 300 % o FPL. SCHIP in Washington is not available for pregnant women. Washington's Basic Health is available for purchase to Washington residents who fall between 0-200% of FPL and are not otherwise eligible for Medicaid or Medicare, not institutionalized nor attending school nor on a student visa. But, there is currently a very long waiting list for Basic Health. The state provides a program for workers with disabilities, the Health Care for Workers with Disabilities (HWD) program which helps people who meet Federal requirements for having a disability, age 16-64, at or below 220% of FPL and are employed at least part-time, purchase health insurance from the state. HWD premiums are held below 7.5% of the worker's monthly income.

ii. **Pregnant Women, Mothers and Infants**

In preparation for the Home Visiting Needs Assessment, OMCH is collecting data on the numbers of families served by programs and services targeted at the MCH population.

MICAH works with WithinReach, a private non-profit agency, to help pregnant women get information and connect to programs and resources. WithinReach acts as a warehouse of information where pregnant women can find out about prenatal care, making healthy choices during pregnancy, breastfeeding, birth control after pregnancy, and other related topics. Through collaboration with MICAH, the pregnancy section of WithinReach's ParentHelp123.org Web site has recently added information and links. WithinReach developed several counter cards directing women to contact WithinReach's Department of Health-funded, Family Health Hotline (1-800-322-2588) or ParentHelp123.org. to find out about health and nutrition programs and community resources. The cards are distributed to providers and designed to sit on the counter in providers' offices so clients can take them home. Information on these counter cards is available at http://withinreachwa.org/ordermaterials_qty (scroll down). WithinReach also developed and implemented a web-based search tool for finding First Steps Maternity Support Services/Infant Case Management providers by geographic location. This will help to link women to MSS/ICM providers. However, while this mechanism is successful in linking women to services, it is impacted by declining numbers of prenatal care providers, MSS providers and other local services.

MCH oversees the First Steps Maternity Support Services Program, which provides support services to low income pregnant and post-partum women. In 2010, there was a 20% reduction to the First Steps budget. This decreased the number of services available to Medicaid eligible women. As part of the cut, the program underwent some redesign, implementing a prenatal risk screening tool to determine a client's level of service. MSS providers participated in developing and testing the risk screening tool.

MSS coordinates with the WIC program to ensure women receive consistent breastfeeding messages and coordinated services. For example, WIC provides in-depth breastfeeding assessment and MSS supports home visits. MSS and WIC also coordinate to support providers with local trainings (including the MSS breastfeeding web training).
MSS screens pregnant and postpartum women for breastfeeding intent and knowledge, and provides health messages and support. Breastfeeding has been identified by OMCH as an important tool in combating the high rate of obesity in children in Washington State.

The Linking Actions for Unmet Needs in Children's Health (LAUNCH) project, a grant funded program, provides and supports evidence-based interventions in one Washington community, Yakima. DOH conducted an RFP process to choose the participating community. There are five required service areas: home visiting, developmental screening, integrating primary care and behavioral health, mental health consultation, and parent/family training. This is meeting a need identified in Yakima's needs assessment. Lessons learned in Yakima will be shared with other communities around the state. However, the lack of funding limits us from implementing programs across the state. Funding is limited as well as is the capacity of staff to provide variety of evidence based interventions in both rural and urban settings. These interventions are being provided by a broad variety of local community providers in both Spanish and English.

Healthy Child Care Washington (HCCW) has offered Child Care Health Consultation through highly trained public health nurses. The nurses provide education and consultation to licensed child care providers on heath and optimal child development and safe and quality environments. Cuts in funding at the state and local levels have impacted ability to provide health consultation to all licensed child care providers within a community. A current and emerging challenge is how child care consultation now needs to coordinate and collaborate with other types of consultation needed by child care providers and related to young children's health and child development. Two examples of other consultation are child care mental health consultation and infant/toddler consultation. Given staffing capacity is limited in all those areas, our challenge is to determine how we can optimize the continuum of health consultation needed.

iii. Children and Youth

As with pregnant women, mothers and infants, in preparation for the Home Visiting Needs Assessment OMCH is collecting data on the numbers of families served by programs and services targeted at the child and youth population.

The Access to Baby and Child Dentistry (ABCD) program, which focuses on preventive and restorative dental care for Medicaid-eligible children from birth through age five, provides a system of referrals for dental care. The program is run by LHJs in most counties and by local Oral Health Coalitions in others. It is primarily funded through money received from the Oral Health program in OMCH. In the current budget year, 10% of the funding was cut.

iv. Children with Special Health Care Needs (CSHCN)

Washington State residents with a special health care need and their families and caregivers have available a wide range of services from a variety of organizations. The Washington State Fathers Network provides fathers, as well as other family members and care providers, of CSHCN with resources, support groups, social events and information about and for CSHCN and their families. The Father's Network, funded by Washington's CSHCN program and private charitable organizations, uses a variety of media to distribute information. Washington State Parent to Parent (P2P) provides help to CSHCN and their families including peer support and mentoring, resources as well as information dissemination. It helps make connections between families with CSHCN who have similar conditions and/or are from similar ethnic backgrounds. P2P, a program of the Arc of Washington, works closely with CSHCN Coordinators, medical home teams, feeding teams and other services provided by DSHS and the OMCH CSHCN program. The CSHCN program also provides some funding to P2P. The CSHCN Program partners with the Family to Family Health Information Center to provide families with information about services and supports such as respite care, working with schools, and how to apply for reimbursement. The Adolescent Health Transition Project provides information and resources to help youth and young adults with special needs transition to adult health care. It also provides information about other services that support a successful transition to other aspects of adult life. Family centered care has been and continues to be a central tenet of the OMCH CSHCN program. These services represent a key partnership and link between families and individuals with special health care needs, the organizations and individuals who provide services for them and the OMCH CSHCN program and are greatly valued by all involved.

Each Medical Home Leadership Network team continues to be comprised of a primary care provider, CSHCN Coordinator (public health nurse at the local level), Family Resources Coordinator from the state Birth to Three Program, and a parent representative to facilitate community-based care for CSHCN.

Primary care providers, especially those in family practice, are actively participating in a DOH-supported medical home collaborative to address issues around building medical homes. The challenge will be to maintain the quality of family-centered care and assuring the components of pediatric medical homes are maintained.

Despite state budget issues impacting many of the CSHCN Program partners, parent support organizations for CSHCN continue to actively provide parent and family support to families of CSHCN. Parent to Parent continues to have many Ethnic Outreach Coordinators to assist non-English speaking families access the care they need.

c. Population Based Services

OMCH has a solid working relationship with the public health nurses in the LHJs and strong interest in documenting outcomes. OMCH is also strengthening partnerships with WA Chapter of the American Academy of Pediatricians, the Washington Academy of Family Physicians, and other professional organizations through the Developmental Screening Partnership Workgroup.

i. Pregnant Women, Mothers and Infants

The Early Hearing Loss Detection, Diagnosis, and Intervention Program (EHDDI) screens newborns before hospital discharge for hearing loss. Screening and follow-up work is conducted in hospitals across the entire state by community providers and tracked by DOH staff. Newborns who screen positive are given referrals for further testing and treatment if necessary. In 2009, the year for which the most recent data are available, 81,303 newborns were screened, representing approximately 96% of eligible infants in the state. Screening is not legally mandated so participation is voluntary. All but the three military hospitals in the state report screening results to DOH. In the past year the EHDDI program underwent a cut in its budget and one FTE was eliminated, which may impact the amount of follow-up in the future.

Newborns in the State of Washington are screened for 24 congenital disorders. In 2008, 99.2% of all eligible newborns were screened. Screening is conducted regardless of ability to pay, although it can be refused by a parent. Affected infants are connected with specialty preventive care. Screening is available statewide, with the WA State DOH public health laboratory in Shoreline, Washington, conducting the actual testing.

There are thirty Genetics Clinics in Washington State (21 in Western Washington and 9 in Central or Eastern Washington), providing fairly good geographical coverage, though some families still need to travel long distances. Appointment wait times at most clinics are minimal. Some clinics serve a specific sub-population (i.e. prenatal, cancer, PKU) while others serve all ages/specialties. GSS contracts with six institutions serving nine clinics. Seven clinics serve

prenatal, pediatric, and adult patients, while two serve adult-only. One institution provides outreach pediatric services to rural clinics. Most or all clinics will see patients regardless of their ability to pay, including all that contract with DOH. Interviews we conducted with genetic counselors (GCs) in 2009 highlighted some barriers related to reimbursement. Provider recognition was a commonly discussed barrier. Many insurance companies do not recognize genetic counselors as providers because they are not licensed. In 2009, a change in the law led to licensure which is currently being implemented. Many GCs hope it will help improve reimbursement.

Washington State has a universal vaccination policy and as such provides vaccine to all Washington children, from birth to age 18 at no cost to the recipient. In the 2009 state legislative session, this program came under threat from state mandated cuts. In the 2010 Washington Legislative session, a new law was enacted to save the state's universal vaccine purchasing and distribution system. This system helps reduce barriers to access to vaccines by bringing together federal and state funds to purchase all routinely recommended vaccines for all children through age 18. Still, the bad economic situation is causing problems in the health care sector that could result in a decreasing number of immunization providers. This could create access problems. Currently, more than 80% of childhood vaccines are administered in private health care in Washington. Lack of sufficient reimbursement for immunization services and increasing accountability requirements threaten to decrease provider participation and provision of immunization services. This issue continues to be on the top of the issues that the Washington Chapter of the American Academy of Pediatrics is addressing

Children's Health Immunizations Linkages and Development (CHILD) Profile, is Washington State's health promotion and immunization registry system. CHILD Profile materials are age-specific and are mailed every three to six months to Washington families with children from birth to age six. The material covers a broad variety of health topics and is available in a variety of languages. CHILD Profile regularly evaluates its materials for usefulness, accuracy, and timeliness.

WithinReach provides a number of health education materials to Washingtonians. Its materials for pregnant women include items on prenatal nutrition, exercise and gaining weight during pregnancy and breastfeeding. The website is popular and receives many hits. Activities were implemented to advertise this resource to medical providers as well as pregnant women and families.

EHDDI program staff has developed a number of educational resources that are available on its website. For parents, the following materials were developed: service guides for re-screen facilities and pediatric audiology clinics; a "County Resources Guide" that lists relevant services by county; brochures about the newborn hearing screen ("*Can Your Baby Hear? Your Baby's First Hearing Screen*") and pediatric audiology services ("*If Your Baby is Referred for a Hearing Evaluation*"); and a parent notebook for parents of children diagnosed with hearing loss ("*Hearing Loss Resource Guide for Families of Children with Hearing Loss*"). Brochures are available in English and Spanish. The parent notebook is available in Spanish, Russian, Somali, and Braille.

ii. Children and Youth

The Oral Health Program gave funding to all 35 Local Health Jurisdictions (LHJs) to provide sealants, either directly or through contracting or coordinating services with community dental providers. The WA State Sealant Guidelines require that providers working in school sealant programs cover all the eligible children (including the uninsured) and report sealant activities back to the LHJs. Up to last year, however, providers were not complying to the Guidelines.

OMCH works with the Rural and Community Health Office and the Environmental Health Division to coordinate injury prevention activities including youth suicide prevention, family violence, Safe Kids and other injury prevention activities.

WithinReach provides a number of health education materials to Washingtonians. Their materials for children include coloring pages on immunizations, school lunch, injury prevention, washing hands, going to the dentist and other materials designed to begin educating young children on healthy behaviors.

MICAH is working with the University of Washington to refine the Take it Seriously, Sex, Abstinence and the Media (TISSAM) media literacy curriculum. They are working to design and build a website and a portable TISSAM curriculum package that will allow the implementation of this curriculum to be sustained with limited resources. Teen pregnancy is also of concern since after a long and sustained decrease in the rate, it has begun to increase again in recent years.

The WA State metabolic screening laboratory, in addition to providing screening to newborns, offers genetic screens to children and adolescents for appropriate conditions.

iii. Children with Special Health Care Needs (CSHCN)

The CSHCN Program, together with state, community, and family partners, promotes community-based services which are accessible, coordinated, family-centered, and culturally competent. Examples include the following activities for the program's Epilepsy and Autism grants:

1. Resources--Distributing "Epilepsy Care Organizers" and an "Autism Guidebook for Washington State". Developing and disseminating tips and tools for families about the Medical Home Leadership Network, Adolescent Health Transition Project, Center for Children with Special Needs, and CSHCN Program's websites.
2. Partnerships--Promoting the development of family-professional partnerships at the community level.
3. Local Health Departments--Promoting the CSHCN Coordinators' involvement in activities that link families to appropriate services in their local communities through contracts.

The CSHCN program works closely with autism and epilepsy grant partners to assure sustainability of grant activities such as the maintenance of the care organizers and guidebooks after the end of the grant periods.

Through epilepsy and autism grant activities, the CSHCN Program has built on current partnerships and developed new relationships with organizations such as the Epilepsy Foundation Northwest, Regional Epilepsy Centers, Educational Service Districts, and School Nurses on epilepsy issues and autism diagnosis and treatment centers, developmental pediatricians, and school psychologists on autism issues to pursue common goals.

d. Infrastructure Building Services

i. Evaluation and research

The Washington OMCH has an in-house assessment section which undertakes most of the needs assessment and evaluation duties for the office. This section, with 12.4 FTEs, provides data, analysis, research, surveillance, and consultative support and management of all assessment activities within OMCH. To ensure that OMCH activities are data driven, MCHA works collaboratively with its sister OMCH sections. MCHA assigns epidemiologists as liaisons and advisors to all OMCH sections. These epidemiologists routinely meet with their assigned section's staff and manager to discuss and interpret data related to specific program. Together they review data on past performance and set future objectives and targets for the program. This assures that the program's objectives and targets are based on data trends across multiple years. It also helps focus the programs activities where they can have the most impact.

MCHA also has a lead epidemiologist for the MCH Block Grant application process. The MCHA grant lead periodically meets with program staff and managers to discuss and interpret performance and outcome data related to each program. In addition, the MCHA Block Grant lead consults and works in collaboration with staff from non-MCH programs and outside state agencies to solicit additional data needed to complete the grant application and report. MCHA sees the consultation and collaboration described above as critical to OMCH's overarching goal of protecting and improving the health of the MCH population of Washington State.

Specific MCHA activities include leading the Five Year Needs Assessment process, reporting performance measures and health indicator status data; administering ongoing surveys such as the Pregnancy Risk Assessment Monitoring System (PRAMS) and the Healthy Youth Survey (a biennial survey of 6^{th}, 8^{th}, 10^{th} and 12^{th} graders in public schools), conducts surveillance through a variety of mechanisms such as collecting and analyzing data from child death reviews, cluster investigations, and birth defects surveillance; and implementing State Systems Development Initiative activities. MCHA also designs and implements other surveys as needed and responds to data requests from OMCH, other areas of the Department of Health, local health jurisdictions, other state agencies and other external stakeholders. The OMCH Assessment unit participates in the Graduate Student Intern Program and mentors graduate practicum students as well as other

workforce development programs such as Council of State and Territorial Epidemiologists (CSTE) fellowships as part of its regular functioning.

ii. Planning, creation and promotion of comprehensive systems of services

OMCH, through MICAH, has been involved in the creation of an early learning initiative, the Early Childhood Comprehensive Systems (ECCS). The aim of the ECCS project is to support Washington's early childhood systems development. When ECCS work began, Washington State had no significant early learning governance or infrastructure. Children's health and mental health efforts had actually been moving backward. While Washington State's early learning structure is in its infancy, and its service capacity levels are still far from sufficient, roles and responsibilities are evolving and shifting. ECCS will need to be patient, flexible, strategic, and proactive while moving forward in the context of evolving new structures and investments. Washington State's outcome-based early childhood systems framework, Kids Matter, was created through a two-year planning process from 2003-2005. Public and private partners in early childhood across Washington State helped develop and support the use of Kids Matter. The purpose of Kids Matter is to help create and sustain a statewide early childhood comprehensive system which meets the needs of children and families, improves outcomes, and assures that all children are healthy and ready for school. Kids Matter addresses the following areas of early childhood systems:

1. Access to Health Insurance and Medical Homes
2. Social, Emotional and Mental Health
3. Early Care and Education/Child Care
4. Parenting Information and Support; all in the context of Family Support principles.

Kids Matter has helped Washington State move forward by developing a useful framework, supporting collaboration, and connecting the components of a currently fragmented system. Kids Matter supports collaboration and integration at both state and local levels, engaging multiple public and private partners. The plan connects the components by keeping children and families as the focus; encouraging state agencies and organizations to work with each other, facilitating cross-system collaboration such as between health and education; guiding state policies and actions to support local communities; and supporting and encouraging public-private collaboration.

In the creation of the Kids Matter framework, the OMCH undertook a significant effort to demonstrate its ability to create infrastructure for the establishment and maintenance of a significant public health system which included a broad range of partners and collaborators in a complex program. In the creation of this framework OMCH identified seven key elements of infrastructure:

1. Governance
2. Funding
3. Provider Supports/Professional Development
4. Standards
5. Monitoring and Accountability

6. Family Leadership
7. Communication

These elements serve as a framework for OMCH in future systems creation and assurance models. They demonstrate that the OMCH has the capacity to build a systems infrastructure incorporating all of these elements, even in a less than ideal fiscal climate. The Office could, in theory, use this framework in the future to undertake a similar infrastructure development project.

The OMCH has a number of methods by which it interacts with the Local Health Jurisdictions (LHJs) which are Washington's local service delivery agents to assure that systems and services exist statewide for the MCH population. Regional teams, composed of personnel from the OMCH meet on a quarterly basis with LHJs to provide technical assistance and guidance. The OMCH director attends meetings and interacts with the Community Health Leadership Forum (CHLF), an organization of LHJ managers responsible for community health programs, to maintain a high-level contact between the LHJs and the Office. The Consolidated Contract process, by which LHJs receive Title V Block Grant money from the State, also provides an important mechanism the State uses to track and advise on the expenditure of resources for providing services to the MCH population. At present the Consolidated Contract administrative team is working on implementing a system whereby LHJs are responsible to report outcome data to show that their funded programs are having a positive effect on the targeted MCH population. The target year for the implementation of the outcome measures is at present 2013. Finally, the DOH's Health Systems Quality Assurance office (HSQA) plans to implement a program to present a series of Public Health guidelines to LHJs as the basis to create a certification program. The certification process would assure that these LHJs comply with a basic set of public health standard when they provide services and make referrals to services for the entire population they serve, including the MCH population.

iii. Standards development

Washington State's governmental public health system has an active standards measurement and assurance process called Public Health Standards (PHS). Washington developed its own sets of standards and periodically undergoes a formal assessment against those standards. The standards have traditionally covered a wide range of activities including surveillance, assessment, health promotion as well as administrative capacity. As part of the process, several sections in OMCH have undergone the formal assessment. In 2009, Washington became a beta test site for the national public health standards.

GSS consulted with HSQA to assist in implementing licensure for genetic counselors, to take effect Aug 1, 2010.

iv. Pregnant Women, Mothers and Infants

OMCH, through its MICAH section, worked with WithinReach to help improve its ability to provide services and referrals to needed care or programs by enhancing pregnancy health and resource information on WithinReach's ParentHelp123.org website and developing a search tool for Maternity Support Services providers that will be housed on the same website. MICAH also helped improve the Family Health Hotline call script to improve referrals of eligible callers to

Maternity Support Services. For providers, the section worked with WithinReach to inform medical providers, Maternity Support Services Providers, and Community Service Offices about how they can use WithinReach to link their clients to resources to support a healthy pregnancy and by identifying options for reaching more pregnant women and providers with pregnancy health and resource information.

The MCH's Statewide Perinatal Advisory Committee composed of physician and nurse members of each regional perinatal center, professional organizations and consumer groups make up the Perinatal Advisory Committee, assists the OMCH in identifying and prioritizing statewide perinatal concerns and providing consultation and recommendations. The work of the committee is accomplished through regular meetings and through time limited subcommittee work groups as needed. Currently, the Perinatal Advisory Committee is working on the following priority issues: Maternal Mortality reporting enhancement with Center for Health Statistics; MD/Licensed Midwife Workgroup to facilitate communication/ OB transport to hospital; access to obstetrical care; improve quality of statewide labor and delivery services. This committee is voluntary and most of the experts have limited time to devote to activities. Often this makes project progress slower than desired. MCH relies on this group for definitive clinical expertise as MCH does not employ a physician consultant.

Washington has four regional perinatal network contractors. Each of the four regional programs provides a licensed healthcare professional with expertise in neonatal and /or perinatal nursing or medicine to facilitate, coordinate, and support perinatal quality improvement activities and produce best practice materials. These regional networks provide OMCH with access to obstetric hospitals in the state. Funding is strictly allocated towards quality improvement activities but not professional education. Some regional improvements have occurred in areas such as: better birth certificate completion, HIV rapid testing, and carbon monoxide testing of women who smoke during pregnancy. There has been no measurable impact on overall quality and birth outcomes statewide.

EHDDI program staff have developed a number of provider resources, available on its website, to improve services: Best Practices guidelines for newborn hearing screening, audiologic evaluation, and early intervention services, a "Care Plan for Infants with Hearing Loss," equipment checklists for Otoacoustic Emissions (OAE) and Auditory Brainstem Response (ABR) hearing screening equipment, and multiple facts sheets about risk factors for hearing loss.

v. Children and Youth

The Oral Health unit in OMCH has helped to set up a referral service of dental providers to see very young children through the ABCD program. The unit hired a person to oversee the coordination and expansion of school based dental sealant programs statewide, increasing the number of children receiving sealants, a proven method of reducing dental carries.

MICAH has been working to design and build a website and a portable TISSAM (Take it Seriously, Sex, Abstinence and the Media) curriculum package that will allow it to sustain the implementation of this curriculum with limited resources.

vi. Children with Special Health Care Needs (CSHCN)

1) The OMCH CSHCN program worked with the state Medicaid agency, the Newborn Screening Program, and WIC to ensure coverage for therapeutic formulas.
Specifically, the CSHCN Program worked with Washington State Department of Social and Health Services (DSHS), Medicaid Purchasing Administration on outreach and quality assurance activities for Apple Health, a state government initiative to streamline the process of applying for state-funded coverage for children.
2) In supporting communities the CSHCN program maintains a network of CSHCN Coordinators and interagency collaborations to provide forums for system improvement that include families as partners; and provide learning opportunities about local, state and national systems for CSHCN.
3) In coordination of health components of community-based systems, the OMCH CSHCN program contracts with Neurodevelopmental Centers (NDCs) to support community-based collaborations among NDCs, local health agencies, and other partners.
4) Through a contract with Seattle Children's Hospital, the online resource directory on the www.cshcn.org website was revised. This revision allowed improved availability of resource information for needs such as child care, respite, audiology, and other identified needs. Resources were also developed for families of children with epilepsy and autism.

The OMCH CSHCN program completed Form 13 submitted with the Title V MCH Block Grant and indicated that all 6 of the measures rated a score of 3, with the measure completely met for a total score of 18, the maximum.

Working with the University of Washington and other providers, CSHCN has completed the 3rd edition of Nutrition Intervention of Children with Special Health Care Needs which gives providers guidelines for nutrition intervention with their patients who are CSHCN.

The EHDDI program contracted with Neometrics to build an updated tracking and surveillance system, which will go live soon. Efficiencies in the new system should help decrease workloads for EHDDI follow-up staff. Revisions to the web-based reporting system for pediatric audiologists will make it easier for them to enter data about diagnostic evaluations.

Through grant activities, the CSHCN Program has built on current partnerships and developed new relationships with organization such as the Epilepsy Foundation Northwest, Regional Epilepsy Centers, and Educational Service Districts, to pursue common goals.

vii. Workforce Development

In workforce development the Oral Health program is taking a lead in two areas:

- training dental professionals to work with individuals with moderate to mild cognitive, behavioral and/or physical disabilities (Targeted Oral Health Collaborative Services Systems or TOHSS Grant), and
- training dental residents in rural and/or underserved urban areas.

Both initiatives are in conjunction with the University of Washington, School of Dentistry and represent partnerships with that organization to expand oral health and dental services to the entire MCH population, specifically with the TOHSS Grant and the CSHCN population, as well as the larger state population.

The OMCH Assessment unit participates in the Graduate Student Intern Program (GSIP) and mentors graduate practicum students as well as other workforce development programs such as CSTE fellowships as part of its regular functioning.

Individuals within OMCH also participate in trainings intended to build expertise and capacity of the office in such topics as survey creation and program evaluation. These trainings are often conducted or coordinated by the OMCH Assessment unit.

In the creation of Kids Matter, one of the seven key elements, as mentioned above, in the formation of a system infrastructure was program support and professional development.

Washington is instituting new RN credentialing requirements that will impact public health nurses at the local level. The CSHCN Program will assist these RNs in identifying and meeting the requirement to assure a qualified workforce. Additionally, the CSHCN Program is working closely with the CHLF group to begin looking at outcomes through the Omaha System for the children and families served by OMCH, including CSHCN. The challenge lies in obtaining consistency and commitment from the diverse LHJs.

5. Selection of State Priority Needs

Overview

The OMCH used the process that was conducted in the 2005 Needs Assessment (NA) to build on the 2010 NA. After internal discussion and consideration, OMCH decided that the nine priorities identified in the 2005 NA were still valid and accurately reflected the basic priorities of the Office**.** Rather than conduct a process that started from the beginning, the Office decided to conduct an internal discussion and engage stakeholders on the initial set. Both internal and external discussions revealed that the nine priorities were sound but not specific enough. The Office made the decision to identify sub-priorities within the nine priorities to further specify priority strategies and activities. Thus current priorities are similar to priorities identified in 2005 NA conducted at OMCH as follows:

a. List of Potential Priorities:

The OMCH nine priorities continue to be:

1. Adequate nutrition and physical activity
2. Lifestyles free of substance use and addiction
3. Optimal mental health and healthy relationships
4. Health equity
5. Safe and healthy communities

6. Healthy physical growth and cognitive development
7. Sexually responsible and healthy adolescents and women
8. Access to preventive and treatment services for the maternal and child population
9. Quality screening, identification, intervention and care

b. Methodologies for Ranking/Selecting Priorities:

The process for the original selection of the nine priorities is described in detail in the report that Washington State submitted with its 2005 NA application and will not be repeated here in detail. Briefly, the process entailed establishing cross office workgroups based on the following populations: women of childbearing age, infants, children and adolescents. Each workgroup was comprised of staff from all of the sections in the Office. The workgroups developed logic models based on what attributes were needed to optimize health in each subpopulation. In all, the four workgroups identified and developed logic models for 31 major attributes (i.e. substance use, access to care, healthy behaviors, etc). MCHA then reviewed the 31 priorities with the Management Team and saw clear patterns across subpopulations. The 31 priorities were collapsed into ten. Stakeholder groups were then engaged for their perspective. As a result, some modifications were made and the final nine were set. Because the process was designed around the major MCH population groups, they are all covered by each of the priorities. It should be noted that the nine priorities decided on were neither explicitly ranked by importance nor priority but are presented as equally important to the Office's activities.

In the process of updating the needs assessment for submission with this year's MCH Title V Block Grant application, the OMCH took the opportunity to re-engage internal and external stakeholders. Their input helped to guide the process and aided in the identification of sub-priorities, but did not result in a fundamental change in the nine priorities defined in 2005.

The breadth of the nine priorities cover aspects which touch on all of MCH populations, women of childbearing age, pregnant women, mothers, infants and early years, children, including CSHCN, and adolescents. These priorities address the promotion and maintenance of health and well-being not only at the individual service level but also take into account the larger social environment in which Washington's MCH population lives. While assuring that vital personal health services needed by the MCH population aren't neglected, this expanded focus allows the Washington State OMCH to address and advocate for larger population based interventions potentially benefiting from the advantage of greater leverage of resources that this allows.

When approaching the question of how to identify new sub-priorities within the nine existing priorities, the Office decided to engage in a two step process by interviewing internal staff, primarily the managers of the five sections within the OMCH and then conducting an on-line survey of stakeholders identified by OMCH program staff. A copy of the on-line survey is included in the supporting documentation. The staff interviews provided qualitative while the on-line survey provided quantitative information of outcomes. The results of the two processes were then reconciled by MCH Assessment staff to determine where the managers and stakeholders agreed on priorities and approaches. Assessment staff then presented information to managers, both quantitatively, qualitatively, and combined. Below, results for both quantitative and qualitative analyses are presented.

Findings of survey and interview process

Priority #1 Adequate nutrition and physical activity

The on-line survey offered five choices on where to prioritize efforts in this priority area and survey respondents ranked them as follows: (choice followed by percent of survey respondents selecting it)

1. Increase access to healthy foods- 34%
2. Increase the number of schools that provide daily quality physical education -21%
3. Increase breastfeeding-18%
4. Promote workplace policies that encourage physical activities and good nutrition-17%
5. Reduce food insecurity-8%
6 Other 2%

Internal program interviews stressed the importance of healthy weight and activity for all women and children (including CSHCN), working to keep weight gain for pregnant women within the Institute of Medicine's guidelines, and the promotion of extending the duration of breastfeeding by improving breastfeeding support in the workplace

Priority #2 Lifestyle free of substance abuse and addiction

The on-line survey offered six choices. Responses were as follows

1. Prevent youth from initiating tobacco use-29%
2. Prevent alcohol use among youth-20%
3. Prevent illegal drug use among youth-18%
4. Prevent alcohol abuse during pregnancy and among women of reproductive age-16%
5. Prevent tobacco abuse during pregnancy and among women of reproductive age-10%
6. Prevent illegal drug use during pregnancy and among women of reproductive age-6%
7. Other 1%

Internal program interviews stressed the need to educate providers on best and promising practices related to helping women develop improved health behaviors related to tobacco, alcohol and drug use. They also stressed educating women about healthy behaviors and resources available to support those behaviors and the need for youth development to avoid tobacco, alcohol and drug use.

Priority #3 Optimal mental health and healthy relationships

The on-line survey offered six choices. Responses were as follows

1. Promote healthy social and emotional development of children-37%
2. Promote healthy attachment between infants and parents-26%
3. Prevent depression and suicides among children and youth-11%
4. Prevent youth bullying especially to those with disabilities-9%
5. Prevent maternal depression-8%

6. Prevent intimate partner violence-7%
7. Other 2%

Internal program interviews stressed the need for improvement of linkages between early childhood systems and school systems and the need for improvement of screening for social emotional development in early childhood.

Priority #4 Health Equity

The on-line survey asked about health equity in two parts, first about which group should be targeted for work in improving health equity and then secondly on which particular outcome should be targeted in trying to reduce health inequity

Part one of the question were as follows

1. Developmental stages (e.g., infants, adolescents)-52%
2. Children with special needs-25%
3. Racial/ethnic groups (e.g., African American, Hispanic, Native American)-10%
4. Rural populations-13%
5. Sexual minorities-0%

Internal program interviews stressed a specific emphasis on Native American and African American populations, especially low income people and adolescents within those populations. They also stressed an overall reduction in health disparities among children and youth with special health care needs (CYSHCN) and other children and youth.

Part two of the question is as follows:

1. Access to quality care-44%
2. Obesity-29%
3. Low Birth Weight-6%
4. Infant Mortality-1%
5. Other 20%

Internal program interviews stressed the need to facilitate access to health services and promote quality health services among vulnerable populations, targeting systems which affect multiple disparities.

Priority #5 Safe and healthy communities

The on-line survey offered five choices. The results were as follows

1. Build communities that strengthen families and prevent child abuse and neglect-46%
2. Promote healthy babies-31%
3. Promote violence free communities-13%
4. Promote safe drinking water and good indoor air quality-8%
5. Promote injury free communities-2%

Internal program interviews stressed the need to use data already collected, or being collected, such as the Adverse Childhood Events Study (ACES) module, and the Healthy Child Care Washington (HCCW) survey, to monitor trends in child abuse and neglect in various populations. They also stressed the need to raise awareness of domestic violence awareness among pregnant women and their providers, as well as increase emergency preparedness for vulnerable populations.

Priority #6 Healthy physical growth and cognitive development

The on-line survey offered six choices. The results were as follows

1. Prepare parents to help their children achieve their full potential-23%
2. Promote high quality child care centers and preschools-23%
3. Promote appropriate preventive care for infants, children, adolescents and women of reproductive age-22%
4. Improve school readiness-13%
5. Promote healthy behaviors among adolescents-8%
6. Promote healthy behaviors among pregnant women-8%
7. Other 3%

Internal program interviews stressed the need to lay the appropriate groundwork by starting with a healthy pregnancy. In addition, they stressed the need to improve school readiness, emphasizing the health aspect of readiness, the need for standardized developmental testing/screening and the need to educate providers about developmental screening. Finally, they stressed working with the healthcare system to appropriately reimburse developmental screening.

Priority #7 Sexually responsible and healthy adolescents and women

The on-line survey offered seven choices. The results were as follows.

1. Promote education on safe and effective contraception, STD prevention, vaccination and birth spacing-26%
2. Reduce unintended pregnancies-22%
3. Promote access to family planning services-12%
4. Promote comprehensive sex education among youth-17%
5. Promote healthy sexual relationships-10%
6. Reduce adolescent pregnancies-9%
7. Promote access to screening for STIs-4%

Internal program interviews stressed the need to prevent unintended pregnancies and promoting healthy birth intervals as well as improving youth self esteem and understanding of external influences on their decisions about sexuality.

Priority #8 Access to preventive and treatment services for the MCH population

The on-line survey offered four choices. The results were as follows

1. Promote access to preventive care-41%
2. Reduce barriers to mental health treatment-27%

3. Increase insurance coverage for children and women of reproductive age-24%
4. Increase the proportion of women who get screened for and help with pregnancy risks-5%
5. Other 3%

Internal program interviews produced extensive responses to this priority. The main theme of the responses was to facilitate access to health services for the MCH population, especially access to primary care, prenatal care and the promotion of immunization through the entire lifespan, not just childhood immunizations. Main mechanisms mentioned to achieve this were the promotion of a medical home model of health delivery as well as making sure the MCH population has access to adequate insurance. There was special mention of assuring CSHCN had access to these services and help in transitioning from pediatric to adult care at the appropriate time.

Priority #9 Quality screening, identification, intervention and care coordination

The on-line survey offered five responses. They were as follows:

1. Promote timely and adequate preventive care-35%
2. Increase the availability of medical homes for children-24%
3. Increase early screening and identification of birth defects, developmental delay and chronic illness in children-22%
4. Increase screening of children's social emotional development-12%
5. Increase screening of maternal depression-6%
6. Other 1%

Similar to priority #8, internal program interviews had a large number of responses. Most responses were about providing health care services, early screening and on-going care coordination. Specifically mentioned were promotion of quality health services for women and infants, especially in vulnerable populations, and promotion of on-time, quality immunization throughout the lifespan. Screenings of children for genetic disorders and other health conditions were also stressed. Organization of community based services to facilitate their use by families with CSHCN, integration of CSHCN into a medical home where they will receive ongoing and comprehensive care and involvement of families as decision makers at all levels of care were mentioned as important elements. Finally, programs such as Bright Futures and partnerships such as the HCCW working with Washington child care providers were addressed by program staff as directions for the Office to take in the next 5 years.

Key Informant Interview and Results

Following the completion of the internal program interviews and the on-line survey, Office staff discovered that the electronic contact lists provided by some of the programs to solicit participation in the on-line survey had not gone out as broadly as had been intended. As a result, a significant number of external stakeholders were not solicited for their views. As the Office was preparing to distribute the survey out to the broader group, the state's budget crisis worsened and more specific target dollar cuts became known. Given the short time frame and the need to engage key stakeholders in the possible cuts, the Office decided not to distribute the survey

further but to engage key stakeholders in a key informant interview process focused on identifying what stakeholders valued and needed most from the Office in order to help inform budget cuts. A key informant interview was then undertaken, using a telephone interview methodology. Details of the key informant interview methodology are discussed in Section 1 of this document.

The responses to this second round of interviews were more general than were the responses to the on-line survey as the telephone survey instrument itself consisted of five open-ended questions. Sixty-nine key informants were identified and invited to participate representing local health jurisdictions, parents, providers and others. Fifty-one of invitees (74%) completed the interview. Assessment staff analyzed the data using qualitative methods. A number of general themes emerged from the process and were reported back to OMCH program staff. The interviews asked about roles, areas of improvement and the future direction for the Office. What emerged from the interviews was the general feeling by stakeholders that the Office needs to continue its lead role in the promotion of health in the MCH population, relying on the promotion of best practices, backed up by data and on-going surveillance. The OMCH was seen as having a key role in the coordination of various external stakeholders and other governmental (State, Local and Federal) agencies to promote and advance the health of Washington's MCH population. OMCH roles also were identified as the dissemination of up to date information on health status, services and policies for the MCH population of Washington State. Stakeholders stressed the importance of OMCH's promoting prevention as the primary way to improve the MCH population's overall health and to taking advantage of new programs and opportunities which will come as part of the newly passed Federal health care reform law. Stakeholders also expressed concern about funding issues, especially budget reductions, and how they could work with the OMCH to ameliorate those as much as possible.

c. Priorities Compared with Prior Needs Assessment:

As described above, OMCH used the results of the 2005 NA to focus the 2010 NA. OMCH decided that the nine priorities identified in the 2005 NA were still valid and accurately reflected the basic priorities of the Office**.** Thus current priorities **are similar** to priorities identified in 2005 NA conducted at OMCH as follows:

Two other processes were initiated that will also influence the final set of priorities for the Office in the coming years. As a result of the continued and projected budget problems, Washington State's public health leadership is developing a "Reshaping Public Health for Washington State" agenda. The work is expected to be completed in the next several months. It is expected to describe the core strategies and activities of governmental public health for the future.

The Community and Family Health Division, which OMCH is part of, is also undergoing a strategic planning process. This process is driven by a number of factors, including budget and new legislative and executive directives. Part of the strategic planning process will be to look for new efficiencies across Offices and new ways to integrate work. For example, OMCH is looking at the life course approach as a better ways to prioritize its work. At the same time, the Office Community and Wellness Prevention, which manages the chronic disease programs is moving

away from disease management to more prevention. These two changes require the two offices to better integrate their work.

With all of the budgetary and policy changes OMCH is experiencing and anticipates over the next few years, the Office will focus its attention on preserving and enhancing core strategies that cross the nine priorities instead of defining sub-priorities that drill down into each of the nine priorities separately. These cross priority strategies will focus on the Infrastructure and Population-Based Services levels of the pyramid. For example, stakeholders valued the work that OMCH does in convening people to develop strategies and solve problems. OMCH will continue to focus attention on that strategy as evidenced by the cross Office work on universal developmental screening. Although we will continue to focus our efforts within the established priorities, we will also look for strategies and interventions that cross priority areas in their impact.

d. Priority Needs and Capacity:

OMCH supports cross-agency work in assessing service availability statewide with activities such as the Home Visiting Needs Assessment; looking at needs, extant capacity and gaps in capacity to serve the MCH population at the state, regional and local level. The priorities identified in the Title V MCH Block Grant 5-year Needs Assessment process are addressed though multiple activities representing various parts of the MCH Pyramid. Many of the activities address multiple priorities such as:

Enabling:

The First Steps MSS program provides services which cross many of the OMCH's priorities including providing referral to care and treatment such as prenatal care, drug and alcohol treatment, nutrition services, family planning services, screenings for risk factors such as family violence, inadequate housing and other factors which could effect the health, welfare or safety of the infant or his/her mother. First Steps also offers childbirth education classes, transportation and interpreter services and other supporting services.

Population-based:

CHILD Profile is a vital tool by which information that speaks to the nine priorities is communicated to parents of young children statewide. Topics included in CHILD Profile mailings touch on issues that range from good nutrition, information on parental smoking cessation, information on where to access family support materials, information on injury prevention as well as how to apply for health insurance, where to get information on environmental health issues (e.g., lead screening and radon screening) and other services. The information is geared toward the age of the child whose parent is receiving the information, and as best as possible, in the native language of that parent, so that the information's relevancy is high. All of the priorities identified by OMCH are addressed in some capacity by CHILD Profile.

Infrastructure building:

Kids Matter is another initiative which addresses the priorities identified by the OMCH on different levels of the services pyramid. The system set up by Kids Matter represents a significant investment in infrastructure to provide services to and support the healthy development of kids in Washington. Kids Matter has undertaken to promote activities that touch on all of the nine state priorities and all of the MCH populations and touch on all four of the service levels. Some of the initiatives that Kids Matter works to implement include getting kids into medical homes to receive appropriate care, treatment and developmental screenings and ensure that they have access by aiding with enrollment in publicly funded care programs. Providing referrals and support to parents who might need it. Promoting the creation of standards in early child education/care developing a more competent and capable workforce to ensure a more ready child population. These various activities speak to providing direct services, enabling services as well as population based services. Finally the entire process of creating the Kids Matter initiative, as stated before, represents a significant increase in the State's infrastructure to provide these services to the MCH population

The Healthy Child Care Washington (HCCW) program trains and deploys local public health nurses to provide consultation to day care centers in their jurisdiction for a variety of health topics including child development, infectious diseases, immunization practices, etc.

OMCH also provides activities that focus on specific priority areas. Some examples include:

Adequate nutrition and physical activity

Infrastructure:
CSHCN work on nutrition, teaching nutritionists about working with CSHCN.

Work with Office of Community Wellness and Prevention on childhood obesity policies

Infrastructure:
Surveillance of drug, alcohol and tobacco use by youth through the Healthy Youth Survey.

Optimal mental health and healthy relationships
Infrastructure:
Internal OMCH work on developing an outcome measure for this priority, reported as SPM 09 in previous Block Grant Cycle. This work has led to the new SPM 05 on early childhood adverse events, increasing capacity to monitor trends in this field.

Work with the Mental Health Transformation workgroup developing policies and infrastructure for the MCH population regarding mental health services

Health equity

Enabling:
Contract with Tacoma Pierce County Health Department to develop outreach programs to African American women to participate in First Steps

Infrastructure:
Work with American Indian Health Commission for Oral Health, maternal and infant health and immunization rates

TOHSS Grant work to educate dental providers on serving the Special Needs population

Internal work to improve capacity reported as SPM 10 in previous Block Grant Cycle.

Safe and healthy communities

Infrastructure:
Work with the Injury prevention workgroup the develop policies and capacity to reduce injuries to the MCH population

Collaboration between OMCH and Rural and Community Health and Environmental Health or coordinate injury prevention activities

Support local Child Death Review teams in the reviews of child deaths

Extensive collaboration between parent and family groups and the CSHCN program to improve care and access and physical environment in the community

Healthy physical growth and cognitive development

Enabling:
Project LAUNCH is engaged in promoting healthy early childhood development through its activities in Yakima

Sexually responsible and healthy adolescents and women
Population based:
TISSAM sex education program

Infrastructure:
Healthy Youth Act which assures that if a school provides sexual health instruction, the school must assure that the instruction is comprehensive, medically accurate, and complies with a basic set of standards.

Access to preventive and treatment services for the maternal and child population

Enabling:
The Access to Baby and Child Dentistry (ABCD) program works to provide access to dental care for babies and very young children

Quality screening, identification, intervention and care

Population based:

Genetic testing and counseling services supported by GSS

Infrastructure:
Developing a universal developmental screening infrastructure that crosses private providers, child care centers and other partners

Partnerships between OMCH and provider associations such as the Perinatal Advisory Committee work to improve services including screening, intervention and care.

e. MCH Population Groups:

The breadth of the nine priorities cover aspects which touch on all of MCH populations, women of childbearing age, pregnant women, mothers, infants and early years, children, including CSHCN, and adolescents. The priorities are set up such that they are not, by in large, population specific so that, for example, the priority on adequate physical activity and nutrition, is relevant to all of the population groups, the same with the priority on quality screening, identification, intervention and care coordination.

e. Priority Needs and State Performance Measures:

Out of the on-going needs assessment process adopted by the Washington State OMCH after the 2005 NA, some new State Performance Measures (SPM) have been identified and will be submitted for inclusion into the 2011 Block Grant, along with some already extant SPMs which OMCH will continue to monitor.

Three of the present SPMs which will be brought forward into the 2010 Application as they are now are:

- SPM 01 The percent of pregnancies that are unintended. It will remain SPM 01 for the next 5 year cycle.
- SPM 06 Percent of children 6-8 years old with dental carries experience in primary and permanent teeth. It will be called SPM 02 in the next cycle.
- SPM 10 Identify health disparities, develop and implement interventions to address disparities, and evaluate the effectiveness of interventions in achieving health equity.

One will be brought forward with the same overall goal but with new benchmarks

- SPM 07 Strengthen statewide system capacity to promote health, safety and school readiness of children birth to kindergarten entry.

- It will now be called SPM 04 The degree to which state has assisted in planning and implementing comprehensive, coordinated care in order to develop an integrated system of care for children, birth to eight.

There are also four new SPM which OMCH will be reporting on for the new five year grant cycle

- Native American Infant Mortality
- Developmental Screening
- Adverse Childhood Experiences (ACES)

These SPM, both new and those being brought forward speak to the nine priorities that OMCH has identified. We think this is a good measure of how well the OMCH is doing to address identified priorities and, by extension, how well OMCH is doing in serving the needs of the MCH population.

The various SPM relate to one or more of the priorities.

The SPM01 reporting on unintended pregnancies relates to priority #7, sexually responsible and healthy adolescents and women, and is included due to the high rate of unintended pregnancies.

The percent of children with dental carries (SPM 02) is being continued as an SPM as dental caries continues to be the most prevalent chronic disease in children. This is true despite the fact they are completely preventable with adequate care. This SPM will address priority areas #8, access to preventive and treatment services, and #9, quality screening, identification, intervention and care coordination.

Developmental screening (SPM 03) is being chosen as an SPM since it supports the early detection and diagnosis of conditions which will lead to better outcomes with a reduction in morbidity and long term sequelae. It also shifts resources toward primary prevention rather than secondary or tertiary treatment. This performance measure relates to priority #9, quality screening, identification, intervention, and care coordination.

SPM 04, the degree to which state has assisted in planning and implementing comprehensive, coordinated care in order to develop an integrated system of care for children, birth to eight, is being chosen as an SPM as it measures the Office's ability to work with outside collaborators to form an integrated system, where none existed before, to prepare children to succeed in school and other aspects of their lives. This SPM will address priority 5 safe and healthy communities, priority #6, healthy physical and cognitive development, priority 8, access to preventive and treatment services and priority #9, quality screening, identification, intervention and care.

Adverse childhood events are being included (SPM 05) due to research which points to many chronic conditions and adverse health outcomes being linked to stressors and negative factors experienced in childhood. This SPM is related to many of the priorities including #3, optimal mental health and healthy relationships, #5 safe and healthy communities and #6 healthy physical growth and cognitive development.

Health disparities is being identified as an SPM (SPM 06) as, while the general health of Washington State is relatively good, not all residents share equally in this. There are distinct racial/ethnic disparities in health in the MCH population as well as disparities linked to low socioeconomic status, sexual orientation and gender. This SPM corresponds directly to priority #4, health equity.

Native American infant mortality is being chosen (SPM 07) because, despite the fact Washington State leads the nation with the lowest infant mortality rate, Native Americans in Washington State have not equally shared in that accomplishment. In fact, their IMR has risen since 1994, the only racial/ethnic group in which that has taken place. This measure relates to priorities 4, health equity, 8, access to preventive and treatment services and 9 quality screening, identification, intervention and care coordination. There are also links to priorities 5, safe and healthy communities and 2, lifestyles free of substance use and addiction due to specific risk factors associated with this population.

Along with the SPMs being submitted with the Block Grant application, other indicators reported in the Block Grant allow the OMCH to monitor its progress in fulfilling its goals identified by the nine priorities.

1. Adequate nutrition and physical activity
   NPM 11 *Percent of mothers who breastfeed at 6 months of age*
   NPM 14 *Percentage of children, ages 2 to 5 years, receiving WIC services with a BMI at or above the 85th percentile.*

2. Lifestyles free of substance use and addiction
   NPM 15 *Percentage of women who smoke in the last three months of pregnancy*

3. Optimal mental health and healthy relationships
   NPM 16 *The rate (per 100,000) of suicide deaths among youths aged 15 through 19*

4. Health equity
   National Outcome Measure 02 *The ratio of the black infant mortality rate to the white infant mortality rate.*

5. Safe and healthy communities
   NPM 10 *The rate of deaths to children aged <14 years caused by motor vehicle crashes per 100,000 children.*
   NPM 16 *The rate (per 100,000) of suicide deaths among youths aged 15 through 19*
   NOM 06 *The child death rate per 100,000 children aged 1 through 14*
   Health Status Indicator-3A *The death rate per 100,000 due to unintentional injuries among children aged 14 years and younger*
   HSI-3B *The death rate per 100,000 from unintentional injuries among children aged 14 years and younger due to motor vehicle crashes*
   HSI-3C *The death rate per 100,000 from unintentional injuries among youth aged 16 through 24 years*
   HSI-4A *The rate per 100,000 of all nonfatal injuries among children aged 14 years and younger*
   HSI-4B *The rate per 100,000 of all nonfatal injuries due to motor vehicle crashes among children aged 14 years and younger*
   HSI-4C *The rate per 100,000 of all nonfatal injuries due to motor vehicle crashes among youth aged 16 through 24 years*

6. Healthy physical growth and cognitive development
   NPM 11 *Percent of mothers who breastfeed at 6 months of age*
   HSI-1A *Percent of live births weighing less than 2,500 grams*
   HSI-1B *Percent of live singleton births weighing less than 2,500 grams*
   HSI-2A *Percent of live births weighing less than 1,500 grams*
   HSI-1B *Percent of live singleton births weighing less than 1,500 grams*

7. Sexually responsible and healthy adolescents and women
   HSI-05A *The rate per 1,000 females aged 15 through 19 years with a reported case of chlamydia*
   HSI-05A *The rate per 1,000 women aged 20 through 44 years with a reported case of chlamydia*
   NPM 08 *The rate of birth (per 1,000) for teenagers aged 15 through 17*

8. Access to preventive and treatment services for the maternal and child population
   NPM 03 *The percent of CSHCN age 0 to 18 who receive coordinated, ongoing, comprehensive care within a medical home*
   NPM 04 *The percent of CSHCN age 0 to 18 whose families have adequate private and/or public insurance to pay for the services they need*
   NPM 05 *The percent of CSHCN age 0 to 18 whose families report the community-based service systems are organized so they can use them easily*
   NPM 06 *The percentage of youth with special health care needs who received the services necessary to make transitions to all aspects of adult life, including adult health care, work, and independence*
   NPM 07 *Percent of 19 to 35 month olds who have received full schedule of age appropriate immunizations against Measles, Mumps, Rubella, Polio, Diphtheria, Tetanus, Pertussis, Haemophilius Influenza, and Hepatitis B*
   NPM 09 *Percent of third grade children who have received protective sealants on at least one permanent molar tooth*
   NPM 12 *Percent of newborns who have been screened for hearing before hospital discharge*
   NPM 13 *Percent of children without health insurance*
   NPM 17 *Percent of very low birth weight infants delivered at facilities for high-risk deliveries and neonates*
   NPM 18 *Percent of infants born to pregnant women receiving prenatal care beginning in the first trimester*
   NOM 01 *Infant mortality per 1,000 live births*
   NOM 02 *The ratio of the black infant mortality rate to the white infant mortality rate.*
   NOM 03 *The neonatal mortality rate per 1,000 live births*
   NOM 04 *The postneonatal mortality rate per 1,000 live births*
   NOM 05 *The perinatal mortality rate per 1,000 live births plus fetal deaths*
   NOM 06 *The child death rate per 100,000 children aged 1 through 14*
   HSCI 02 *The percent of Medicaid enrollees whose age is less than one year during the reporting year who received at least one initial periodic screen*

HSCI 04 *The percent of women with a live birth during the reporting year whose observed to expected prenatal visits are greater than or equal to 80% on the Kotelchuck Index*
HSCI 07A *Percent of potentially Medicaid eligible children who have received a service paid for by the Medicaid Program*
HSCI 07B *The percent of EPSDT eligible children age 8 through 9 years who have received any dental services during the year*
HSCI 08 *The percent of State SSI beneficiaries <16 years old receiving rehabilitative services from the State CSHCN Program*

9. Quality screening, identification, intervention and care
NPM 01 *The percent of screen positive newborns who received timely follow up to definitive diagnosis and clinical management for condition(s) mandated by their State-sponsored newborn screening programs*
NPM 02 *The percent of CSHCN age 0 to 18 whose families partner in decision making at all levels and are satisfied with the services they receive*
NPM 03 *The percent of CSHCN age 0 to 18 who receive coordinated, ongoing, comprehensive care within a medical home*
NPM 06 *The percentage of youth with special health care needs who received the services necessary to make transitions to all aspects of adult life, including adult health care, work, and independence*
NPM 07 *Percent of 19 to 35 month olds who have received full schedule of age appropriate immunizations against Measles, Mumps, Rubella, Polio, Diphtheria, Tetanus, Pertussis, Haemophilius Influenza, and Hepatitis B*
NPM 09 *Percent of third grade children who have received protective sealants on at least one permanent molar tooth*
NPM 12 *Percent of newborns who have been screened for hearing before hospital discharge*
NPM 17 *Percent of very low birth weight infants delivered at facilities for high-risk deliveries and neonates*
NPM 18 *Percent of infants born to pregnant women receiving prenatal care beginning in the first trimester*
NOM 01 *Infant mortality per 1,000 live births*
NOM 02 *The ratio of the black infant mortality rate to the white infant mortality rate.*
NOM 03 *The neonatal mortality rate per 1,000 live births*
NOM 04 *The postneonatal mortality rate per 1,000 live births*
NOM 05 *The perinatal mortality rate per 1,000 live births plus fetal deaths*
HSCI 01 *The rate of children hospitalized for asthma per 10,000 children <5 years of age*
HSCI 02 *The percent of Medicaid enrollees whose age is less than one year during the reporting year who received at least one initial periodic screen*
HSCI 04 *The percent of women with a live birth during the reporting year whose observed to expected prenatal visits are greater than or equal to 80% on the Kotelchuck Index*
HSCI 07A *Percent of potentially Medicaid eligible children who have received a service paid for by the Medicaid Program*

HSCI 07B *The percent of EPSDT eligible children age 8 through 9 years who have received any dental services during the year*
HSI-05A *The rate per 1,000 females aged 15 through 19 years with a reported case of chlamydia*
HSI-05A *The rate per 1,000 women aged 20 through 44 years with a reported case of chlamydia*

In addition to the reported indices submitted with the annual Block Grant report, OMCH is able to monitor and follow trends in Washington's MCH population to make sure the nine priorities are being met through our on-going surveillance and data collection. These data are disseminated by such publications as the MCH Data Report, the Perinatal Indicators Report and the various reports based on the Healthy Youth Survey, to name a few. A more comprehensive list of reports and their contents is included in Section 1 of this document.

6. Outcomes Measures – Federal and State:

Washington State's OMCH has not exercised its option to create State Outcome Measures but it does report on each of the National Outcome Measures requested in the Title V MCH Block Grant application. Briefly stated, the National Outcome Measures touch on two main themes, death among infants less than one year of age by various subcategories and death rates among children between 1 and 14 years of age. The Washington State OMCH and/or its partners have activities which address all of these topics which will be discussed below.

Overall Washington State has a good record on these National Outcome Measures. It ranks as the state with the lowest Infant Mortality Rate (IMR) in the nation. Washington State also has the lowest African American IMR, among states where the African American IMR is calculated by the National Center for Health Statistics (NCHS), in the nation. Its Hispanic IMR ranked second lowest among states where the Hispanic IMR is calculated by the NCHS. In 2009, the year for which we have the most recent data, there was a jump in the IMR which was found to be due to an increase in the perinatal mortality rate. The postneonatal mortality rate remained unchanged in the same time period. At this point, there is no identified cause to the spike in IMR/perinatal mortality rate; investigations are on-going. However, despite great efforts at disseminating information about the need for pregnant women to care for themselves and a particular emphasis on the importance of early prenatal care and significant effort made to provide access to that care, over the past few years rates of prenatal care starting in the first trimester have fallen in Washington. This trend is especially evident for low-income women.

The Child death rate for Washington State has been on a steady statistically significant decrease since 1990.

National Outcome Measure 01 The infant mortality rate per 1,000 live births

There are considerable resources in OMCH dedicated to the prevention of deaths among Washington's infants. Some of these resources are targeted to a specific stage of infancy (perinatal, neonatal, and postneonatal) while most are dedicated in a more general manner to improve outcomes across the stages of development.

National Performance Measure (NPM 18), which measures the percent of women accessing prenatal care from their first trimester of pregnancy, speaks most directly to the goal of reducing infant mortality in Washington. It is primarily through pre-conception health promotion and early access to care that OMCH believes that adverse pregnancy outcomes, including infant deaths, can be prevented most effectively.

Services offered or supported by OMCH related to this measure include levels in most of the MCH service pyramid, enabling services, population based services as well as infrastructure building services. The Maternal Infant Child and Adolescent Health (MICAH) unit is the lead program within OMCH on these issues. Assuring access to prenatal care is incorporated into MICAH's strategic plan and supports the DOH goal of improving the health of Washingtonians by improving birth outcomes; and reducing post-neonatal and infant deaths, health disparities, and maternal morbidity and mortality. It also fits within the OMCH priority of "Access to preventive and treatment services for the maternal and child population."

MICAH works closely with First Steps to assure appropriate care and intervention in pregnancies in low-income women. First Steps is a program in Washington State that provides support services, in addition to prenatal care to low-income pregnant women and infants. It helps low-income pregnant women get the health and social services they need in order to promote healthy birth outcomes and reduce infant morbidity and mortality. Services are delivered by a network of both public and private agencies across Washington State. The program is managed by the Washington State Department of Social and Health Services (DSHS) with assistance from the Washington State Department of Health (DOH). DSHS provides Medicaid funding for all First Steps services. OMCH's MCH Assessment (MCHA) unit monitored prenatal care data and provided the data to First Steps participating providers. MICAH and First Steps staff worked with communities having the lowest rates of first trimester prenatal care, and/or the greatest disparity between Medicaid and non-Medicaid paid births.

WithinReach's Family Health Hotline (FHH) and ParentHelp123.org website provide information on the importance of prenatal care services to all pregnant women and to women and families contemplating pregnancy. MICAH is working with WithinReach to enhance the information for pregnant women on ParentHelp123.org ; implement an on-line tool that pregnant women can use to find First Steps providers near them; educate health care providers about the services WithinReach can provide to their clients, and improve the information about First Steps given out on FHH. They are also doing research to identify potential outreach methods for use in the future.

OMCH is exploring ways to promote Text4Baby, a national initiative that sends free text messages to pregnant women with tips and information on how to have a healthy pregnancy. Native Americans are at high risk for poor birth outcomes. To address these problems, MICAH continues to work with the American Indian Health Commission for Washington State (AIHC) to address the serious health disparities that exist among pregnant American Indian and Alaska Native (AI/AN) women and their children in Washington. MICAH contracts with AIHC to research and analyze barriers to AI/AN participation in First Steps and identify best practices for tribal and urban delivery of maternal and infant services. Beginning next year, OMCH will have

two state performance measures on health disparities. New State Performance Measure 07, on infant mortality among Native Americans reflects OMCH's partnership with the AIHC. OMCH will continue reporting on SPM 10, addressing the entire range of work within OMCH on heath disparities.

In addition to providing maternity services and pregnancy management services OMCH works to reduce the infant mortality rate by other means as well. The state's newborn screening program tests all newborns for diseases which can be fatal if left undetected and, therefore, untreated. On January 21, 2010, the national Advisory Committee on Heritable Disorders in Newborns and Children (ACHDNC) voted unanimously to add screening for Severe Combined Immune Deficiency or SCID -- commonly known as bubble boy disease -- to the core panel for universal screening of all newborns in the United States. Babies with SCID appear healthy at birth, but without early treatment, most often by bone marrow transplant from a healthy donor, these infants cannot survive. The Washington State Public Health Lab has reviewed the excellent work of the ACHDNC and believes the case for adding SCID is compelling. The lab will work closely with the pediatric immunology group at Seattle Children's Hospital and University of Washington, who are very supportive of newborn screening. The group is confident that they can provide excellent treatment care for infants detected through screening. NBS staff has already met with DOH leadership and obtained unanimous agreement to recommend that the Washington State Board of Health consider adding SCID to the state's screening panel. Although targeted funding for Child Death Review (CDR) ended in 2005, approximately half of the Local Health Jurisdictions (LHJs) continue to conduct CDR activities in their counties. Deaths due to SIDS are a critical part of those reviews. OMCH continues to support the LHJs activities by providing technical assistance and training and supporting their data collection and analysis work.

Immunizations have proven to be a public health success story. Washington State's universal vaccine policy facilitates the use of vaccines by providing them free to all the state's children. High immunization rates in the general population, as well as direct appropriate immunization of infants has brought the infant mortality rate from vaccine preventable diseases to essentially nil. OMCH's immunization program is continuing efforts to reduce the number of religious and philosophical exemptions as well as promote the use of the immunization registry. These efforts are expected to further improve the levels of herd immunity, by reducing deliberate and unintentional non-vaccination and extending the benefits of vaccination's protection to those infants too young to receive direct immunization or whose medical state validly contraindicates vaccination.

National Outcome Measure 02 - The ratio of the black infant mortality rate to the white infant mortality rate

OMCH, through MICAH is continuing to focus on efforts to decrease poor pregnancy outcomes for populations that are at disproportionately increased risk, including the African American community.

MICAH continues to work with Clark and Pierce counties on projects related to prenatal care access. The goal is to increase the percent of pregnant women who enter prenatal care in the first

trimester. These projects place a special emphasis on African American, Native American, low income, and teenage pregnant women.

MICAH contracts with Tacoma Pierce County Health Department to provide outreach about First Steps services to African American pregnant women. The contractor works with church leaders as trusted members of the community to improve referrals to First Steps. They also network and engage in provider outreach to community groups that address health issues for communities of color.

National Outcome Measure 03 - The neonatal mortality rate per 1,000 live births & National Outcome Measure 05 - The perinatal mortality rate per 1,000 live births

The following partnerships represent OMCH's efforts at reducing peri- and neonatal mortality.

OMCH convenes the Perinatal Advisory Committee (PAC), a group established in 1985 to identify and prioritize statewide perinatal needs and concerns. Through specific workgroups, the committee makes recommendations to address perinatal issues and to provide consultation and recommend prioritized solutions to the Department of Health. The work of the committee is accomplished through ongoing quarterly meetings and through time limited workgroups. The PAC is involved in the creation of level of care guidelines that facilities can use to determine the type of patient best suited to a facility's capabilities and scope of care. Once a year the OMCH Assessment unit presents the Perinatal Indicators Report (PIR) to the PAC. This report relates the most recent data available on a range of perinatal issues and helps to guide the committee's actions and policies.

Related to the PAC are the Perinatal Regional Networks (PRN). DOH contracts with each PRN to provide services. Each PRN is centered on a tertiary level perinatal center and provides regionalized services for pregnant women and newborns, especially in cases of high risk pregnancies. Each of the four regional programs provides a licensed healthcare professional with expertise in neonatal and/or perinatal nursing or medicine to facilitate, coordinate, and support perinatal quality improvement within their regions and the state. Members from each of the four regional PRNs serve on the PAC.

Another group OMCH partners with is the Washington State Perinatal Collaborative. This group, formerly known as the C-section Work Group, began in 2008 as a sub-committee of the statewide Perinatal Advisory Committee (PAC). The group was convened by the PAC in response to the rise in C-Section rates; both nationally and in Washington State over the past ten years. The Perinatal Collaborative is seeking to understand the reason for rising C-Section rates and possible modifiable factors. In addition, the group is looking at factors affecting access to Vaginal Births after Cesareans (VBACs), and possible strategies to reduce the number of statewide C-Sections by decreasing primary C-sections. The Collaborative teleconferences monthly and is currently partnering with hospitals to determine their interest in reducing cesarean sections in their facilities. To date, the Perinatal Collaborative's work has focused on an extensive Quality Improvement hospital survey, literature review including patient decision aids, a process evaluation to identify best practice priorities, and webinars that are available to all birthing hospitals in the state. The group sponsored an in-person meeting with Dr. Elliot Main whose work focuses on reducing primary c-sections. The Collaborative believes that variations

in practice are impacting the cesarean, VBAC, and induction rates and effecting maternal and infant health across the state of Washington. To address these practice variations, the group is working with agencies, hospitals, organizations and the community to encourage birthing hospitals to collaborate and address issues such as inductions, trials of labor, appropriate admissions, and accessibility to vaginal births after cesareans.

The efforts of groups like the PAC and systems like the PRNs enable Washington to steps toward improving the rate reported in NPM 17, the percent of very low birth weight infants delivered at facilities for high-risk deliveries. This measure is part of the Perinatal Indicators Report (PIR) and is monitored by the PAC annually when it reviews the PIR.

National Outcome Measure 04 - The postneonatal mortality rate per 1,000 live births

CHILD Profile provides information about shaken baby syndrome, SIDS, and a variety of other health promotion prevention messages which are relevant to this stage of development.

National Outcome Measure 06 - The child death rate per 100,000 aged 1 through 14

As described in NPM 10, OMCH continues to support the Child Death Review (CDR) process. CDR is a program which does detailed reviews of unexpected deaths to children in the State of Washington. Currently there are 18 local CDR teams. These teams make policy and practice recommendations to reduce the rate of child and youth deaths. Their recommendations include strategies for reducing child deaths due to motor vehicle crashes, a leading cause of mortality in this age group. Local CDR teams add data to the multi-state database. The data gathered by local CDR teams will be available to local, state, and national decision makers. CDR team recommendations will influence policy and practice aimed at reducing the rate of child and youth deaths. Information and materials on injury prevention are also disseminated via a CDR listserv.

CHILD Profile health promotion materials provide parents with age-specific information about growth, development, safety, nutrition, and other parenting issues through regularly mailed newsletters. CHILD Profile sends child passenger safety information along with information to parents of children aged 0-6 years. The information included in CHILD Profile mailings change as data are updated so that the most up to date information is disseminated to Washington parents.

The MCH Assessment section continues to monitor child death rates on an annual basis through the publication of its MCH Data Report's chapter on child death. Included in the report are the most recent data, reported by age, ethnicity and gender on rates of child death along with leading causes of child death broken out by various age groupings. This report covers all causes of death, not just unexpected deaths or deaths due to injury. These data are used to inform and maintain a surveillance of the issue.

While death due to disease is less common than death due to injury in this age group, malignant neoplasms and congenital malformations do also factor into the leading causes of death, especially when the ages are broken down into smaller categories. As such, state efforts by MICAH to ensure access to health insurance and access to care can factor into the reduction of deaths in this group. MICAH efforts to expand services to this age group include providing resources and referrals to parents looking for health care coverage for their kids, especially via

WithinReach. CHILD Profile distributes information to parents of children up to age 6 on topics including how to apply for state sponsored health care coverage for their children. Access to School Based Health Centers, which MICAH supports, can be a source of care and early diagnosis for some children who lack other access to care.

Appendix: Links to Care Shortages Maps

Dental Care:
http://ww4.doh.wa.gov/gis/pdf/dental.pdf

Primary Care:
http://ww4.doh.wa.gov/gis/pdf/primary.pdf

Mental Health Care:
http://ww4.doh.wa.gov/gis/pdf/mental.pdf

Hospital Based Perinatal and Neonatal Care:
http://ww4.doh.wa.gov/gis/pdf/neon_8.pdf

30 Minute Drive from Hospital Based Perinatal and Neonatal Care:
http://ww4.doh.wa.gov/gis/pdf/neon_tt.pdf

Physician Scarcity:
http://ww4.doh.wa.gov/gis/pdf/PSA.pdf

Washington State Department of Health

DOH 950-153 May 2010

Perinatal Indicators Report for Washington Residents
May 2010

The *Perinatal Indicators Report* provides key information on perinatal health issues to help guide decision-making by the Washington State Department of Health (DOH) and the Department of Social and Health Services (DSHS) Health and Recovery Services Administration. Annual updates for this report provide data for ongoing needs assessment and program evaluation. This report is a collaborative project conducted by the Statewide Perinatal Advisory Committee, the First Steps Database staff from the DSHS Division of Research and Data Analysis, and the DOH Office of Maternal Child Health.

Highlights of the Report:

- There were over 90,000 births in Washington in 2008. Births increased over 12% from 2003 to 2008, but the increase appears to be levelling.
- Medicaid-funded deliveries represented 48% of births in 2008.
- Birth rates and pregnancy rates decreased among women 15-24 from the early 1990s to the early 2000s. No clear pattern has emerged recently.
- SIDS rates decreased from 1990-2005, in part due to improved death scene investigation and changing reporting practices.
- Smoking just before and after pregnancy has decreased since 1996. In 2008, 20% of women reported smoking in the three months before pregnancy.
- Approximately 92% of new mothers reported ever breastfeeding in 2008.

Areas of concern include:

- Cesarean deliveries have increased since the late 1990s, and represented about 31% of all births in 2008.
- About 42% of women were either overweight or obese prior to pregnancy in 2008; 47% of all women gained more than recommended amounts.
- The infant mortality rate was 5.4 per 1000 infants in 2008, up from 4.8 in 2007. The increase is among neonatal deaths.
- The singleton low birth weight rate overall, and among all race and ethnic groups except African Americans, has increased since 1990.
- The singleton low birth weight rate for African Americans significantly decreased since 1990. In 2008, the rate was less than twice the Non Hispanic white rate.
- African American and Native American infant mortality rates continued to exceed infant mortality rates of other race and ethnic groups in 2007. While the African American infant mortality rate has remained high, it has decreased since 1990. In contrast, the Native American infant mortality rate has increased since 1994.
- First trimester prenatal care initiation remained low while the percent of women with late or no prenatal care continued to increase in 2008.
- Women on Medicaid continued to have lower first trimester prenatal care rates and higher rates of late/no prenatal care than women who did not receive Medicaid.
- Smoking rates during pregnancy continued to be significantly higher for women receiving Medicaid than for women who did not receive Medicaid.
- The unintended pregnancy rate remained high at approximately 50% in 2008.

For more information, contact Bat-Sheva Stein at 360-236-3582.

Please Note: Bulleted statements throughout this report are based on statistical analysis of trends from 1990 (or when data were first available after 1990) to 2008. This analysis accounts for variability in the data. For this reason, statements may not always reflect year to year fluctuations seen in the data presented.

For persons with disabilities, this document is available on request in other formats. To submit a request, please call 1-800-525-0127 (TDD/TTY 1-800-833-6388).

DOH 950-153 May 2010

Perinatal Indicators Report for Washington Residents

All rates and percentages are calculated after excluding records with unknown data. In some instances where the amount of unknown data is substantial the amount of unknown data is shown below the calculated rates and percentages. Summaries of the data are based on trend analysis of data from 1990-2008.

Livebirths and Deliveries	1998		2005		2006		2007		2008		HP 2010	WA Rank
Total Livebirths (# of liveborn infants)	79,640		82,625		86,845		88,921		90,270			
Livebirths By Mother's Race/Ethnicity[1]												
Non-Hispanic White	56,608	73.7%	53,568	64.8%	56,109	64.6%	56,163	63.2%	56,941	63.1%		
Non-Hispanic African American	2,844	3.7%	3,215	3.9%	3,716	4.3%	3,798	4.3%	3,942	4.4%		
Native American	1,684	2.2%	1,518	1.8%	1,705	2.0%	1,753	2.0%	1,665	1.8%		
Non-Hispanic Asian or Pacific Islander	5,146	6.7%	7,054	8.5%	7,700	8.9%	8,206	9.2%	8,549	9.7%		
Hispanic Origin[2]	10,077	13.1%	14,988	18.1%	15,973	18.2%	16,839	18.9%	17,340	19.2%		
Unknown	2,879		2,282	2.8%	1,822	2.1%	2,162	2.4%	1,833	2.0%		
Livebirths By Mother's Age												
<20 Years	8,695	10.9%	6,823	8.3%	7,190	8.3%	7,516	8.5%	7,460	8.3%		
20-24 Years	18,989	23.9%	19,911	24.1%	20,680	23.8%	21,044	23.7%	21,283	23.6%		
25-29 Years	22,492	28.3%	23,198	28.1%	24,938	28.7%	25,530	28.7%	26,334	29.2%		
30-34 Years	18,300	23.0%	19,797	24.0%	20,303	23.4%	20,903	23.5%	21,433	23.7%		
35-39 Years	9,169	11.5%	10,490	12.7%	11,097	12.8%	11,357	12.8%	11,077	12.3%		
40+ Years	1,945	2.4%	2,377	2.9%	2,594	3.0%	2,549	2.9%	2,672	2.9%		
Total Deliveries (# of women who delivered livebirths or fetal deaths)[3]	78,539		81,421		85,453		87,504		88,800			
Medicaid-Funded Deliveries[4]	32,614	41.5%	39,077	48.0%	40,317	47.2%	41,392	47.3%	42,629	48.0%		
Multiple Gestation Deliveries[5]	1,039	1.3%	1,253	1.5%	1,373	1.6%	1,345	1.5%	1,500	1.7%		

- The total number of live births in Washington has increased over 12% since the early 2000s. The rate of increase has declined since its peak in 2006.
- The greatest increases in the number of births (over 30%) in this period have been to African American, Asian, and Hispanic women.

With these changes, the proportions of all births to Non-Hispanic white women decreased while births to women of other races/ethnicities increased. In 2008, about 19% of births were to Hispanic women, 63% to Non-Hispanic white women, 4% to Non-Hispanic African American Women, 2% to Non-Hispanic Native American women, and 10% to Non-Hispanic Asian or Pacific Islander women.

Since the expansion of Medicaid through First Steps in 1989, Medicaid-funded deliveries have increased substantially. Medicaid funded 48% of deliveries in 2008.

Multiple gestations have increased significantly since 1990. In 2008, they represented 1.7% of deliveries and 3.4% of live born infants.

1. In 2003, WA introduced a new birth certificate form which allows for designation of multiple races. In order to compare 2003 and later data with previous years, records with multiple race designations (3.5% in 2007) were statistically "bridged" into one of the five major race categories used prior to 2003. This is also the reason why no livebirths show up as "Other"; if selected they were recoded to one of the five categories.
2. Persons of Hispanic origin may be of any race. Those of unknown race were excluded from the denominator.
3. "Total deliveries" includes women who delivered a livebirth or fetal death (stillbirth) greater than 20 weeks gestation. Each woman is counted only once regardless of the plurality of her pregnancy. These data are from the First Steps Database which excludes approximately 500 births per year that are unavailable for matching to Medical Assistance data.
4. "Medicaid-funded deliveries" includes women who delivered a livebirth or fetal death (stillbirth) greater than 20 weeks gestation whose deliveries were covered by Medicaid. Each woman is counted only once regardless of the plurality of her pregnancy. A delivery is considered covered by Medicaid if the mother received Medicaid-paid prenatal or delivery services or if she was enrolled in Medicaid managed care for at least 3 of the 6 months prior to delivery. These data are from the First Steps Database which excludes approximately 500 births per year that are unavailable for matching to Medical Assistance data.
5. "Multiple gestation deliveries" includes women who delivered livebirths or fetal deaths (stillbirths) greater than 20 weeks gestation that were twins, triplets or quadruplets. These data are from the First Steps Database which excludes approximately 500 births per year that are unavailable for matching to Medical Assistance data.

Perinatal Indicators Report for Washington Residents

Birth Rate (Live births per 1,000 women) [6]	1998	2005	2006	2007	2008	HP 2010	WA Rank [7]
All Ages[8]	62.2	63.1	65.5	66.4	66.9		15 (2006)
15-19 years	42.5	30.7	31.8	32.6	32.1		14 (2006)
15-17 years	23.2	14.9	15.2	16.1	15.5		10 (2006)
18-19 years	73.5	54.5	57.0	57.9	56.9		20 (2006)
20-24 years	108.2	91.4	92.2	92.1	91.9		
25-29 years	109.9	115.7	118.5	116.4	115.7		
30-34 years	85.3	95.9	100.0	102.9	103.9		
35-39 years	37.8	47.6	49.3	50.0	49.0		
40-44 years	7.7	9.2	10.2	10.1	10.8		

Pregnancy Rate [(Live births + fetal deaths ≥ 20 weeks + abortions) per 1,000 women] [6]	1998	2005	2006	2007	2008	HP 2010	WA Rank
All Ages[8]	82.6	82.0	84.6	85.2	85.2		
15-19 years	68.8	50.8	51.8	52.8	51.0		
15-17 years	41.1	27.6	27.6	28.7	26.7	43.0	
18-19 years	113.2	85.9	88.9	89.5	87.3		
20-24 years	152.3	128.9	129.3	128.2	126.8		
25-29 years	139.0	143.1	146.2	143.0	141.2		
30-34 years	103.0	112.5	116.2	119.3	120.2		
35-39 years	47.4	57.4	59.7	59.7	59.1		
40-44 years	10.8	12.4	13.4	13.3	14.2		

Currently, pregnancy rates and birth rates in Washington are undergoing shifts. Overall, for women 15-44, both birth and pregnancy rates decreased from the early 1990s until 2002-2003. Since then, both rates have been increasing. The birth rate has increased about 7% since 2003.

Overall rates are being driven by distinct age-specific trends.

Among younger women 15-24, birth and pregnancy rates decreased substantially until around 2003. No clear pattern has emerged more recently.

Among women 25-29, the pregnancy rate decreased until 1999 and has had a non-significant increase since. Among this group the birth rate increased from 1995 to 2006.

Among women over 30, birth and pregnancy rates have increased since the mid 1990s.

6. Age-specific rates equal the number of births or pregnancies occurring to women in a specific age group per 1,000 female population in that age group.
7. The WA State Rank is the ranking of Washington among the 50 states based on the National Center for Health Statistics data, with 1 being the best and 50 the worst. Note that the rates reported in this document are based on the Washington State Center for Health Statistics reports and do not always match the federally reported Washington State rates. As of May 2010, the most recent data are from 2006. In 2006, the birth rates for women 15-17 years ranged from 7.6 to 39.6 livebirths per 1000 women and for women 18-19 years from 35.9 to 113.5 livebirths per 1000 women. The birth rates for women 15-19 ranged from 18.7 to 68.4 livebirths per 1000 women and for women 15-44 years ranged from 52.2 to 94.1 livebirths per 1000 women.
8. "All Ages" rates are the total births or pregnancies per 1000 women 15-44 years.

Livebirth Delivery Services (All Births Occurring in WA)	1998		2005		2006		2007		2008		HP 2010	WA Rank
Births Occurring in Washington State (includes residents and non-residents)	79,009		82,364		86,799		88,944		90,318			
Birth Facility												
Hospital (includes Military Hospitals)	77,485	98.1%	80,642	97.9%	84,862	97.8%	86,982	97.8%	88,205	97.7%		
Birth Center	367	0.5%	771	0.9%	863	1.0%	904	1.0%	947	1.0%		
Home	1062	1.3%	914	1.1%	1,009	1.2%	996	1.1%	1,111	1.2%		
Other (includes Born on Arrival, Other)	94	0.1%	37	0.0%	63	0.1%	62	0.1%	55	0.1%		
Unknown	1		0		2		0		0			
Birth Attendant [9]												
MD/DO	70,412	89.1%	73,191	88.9%	76,867	88.6%	78,443	88.2%	79,027	87.5%		
Certified Midwife [10]	6,335	8.0%	6,824	8.3%	7,536	8.7%	8,077	9.1%	8,230	9.1%		
Licensed Midwife	918	1.2%	1,441	1.7%	1,600	1.8%	1,741	2.0%	1,896	2.1%		
Nurse	481	0.6%	549	0.7%	198	0.2%	254	0.3%	155	0.2%		
Other (includes Other Midwife, Father, Hospital Administrator, and Other)	855	1.1%	334	0.4%	573	0.7%	404	0.5%	987	1.1%		
Unknown	8		25		25		25		23			

- In 2008, 98% of births in Washington State occurred in hospitals. This proportion has remained stable since 1990.
- MDs or DOs were listed as the birth attendant in approximately 88% of births in 2008. The percentage of MDs or DOs listed as the birth attendant decreased between 1990 and 2001. Since 2001, the percentage of MDs or DOs listed as the birth attendant has remained stable.

  The percent of births delivered by certified (nurse) midwives increased between 1990 and 2001. The rate fluctuated for a few years, but has recently been increasing.

  The percent of births delivered by licensed midwives increased significantly from 1996 to 2001. In 2003, rates were lower but may be due to reporting changes with the new birth certificate. Rates have been increasing since 2003.

9. In 2003, Washington introduced a new electronic birth reporting system. To improve reporting, pre-set drop down boxes for completing the birth attendant field were added. Provider qualifications were pre-determined and may have influenced changes observed in the reporting of licensed midwives and nurses as birth attendants.
10. Based on a review of the data, the category "Certified Midwife" refers to Certified Nurse Midwives.

Livebirth Delivery Services (cont'd)	2000		2005		2006		2007		2008		HP 2010	WA Rank [11]
Method of Delivery[12]												
Births linked to hospital discharge information	74,553		76,312		80,291		82,558		82,289			
Total Vaginal Births	58,274	78.2%	53,958	70.7%	56,297	70.1%	57,280	69.4%	56,463	68.6%		
Vaginal Birth After C-Section (VBAC)	2,299	3.1%	1,211	1.6%	1,272	1.6%	1,314	1.6%	1,307	1.6%		
Total C-Section	16,279	21.8%	22,354	29.3%	23,994	29.9%	25,278	30.6%	25,826	31.4%		15 (2007)
Primary C-Section	10,227	13.7%	13,351	17.5%	15,324	19.1%	14,829	18.0%	15,068	18.3%		
Repeat C-Section	6,052	8.1%	9,003	11.8%	9,670	12.0%	10,449	12.7%	10,758	13.1%		
Nulliparous Term Singleton Vertex livebirths (NTSV)	25,929		26,034		28,361		29,882		30,035			
NTSV C-sections per 100 NTSV livebirths	5,127	19.8%	6,904	26.5%	7,539	26.6%	8,067	27.0%	8,282	27.6%		
NTSV Induction per 100 NTSV livebirths	5,813	22.4%	6,241	24.0%	6,627	23.4%	7,043	23.6%	6,816	22.7%		
Primary C-Section per 100 livebirths w/o history of c-section	15.4		20.2		22.1		20.9		21.5		15.5	
VBAC per 100 livebirths w/ history of c-section	27.5		11.9		11.6		11.2		10.8			8 of 19 (2006)

- The distribution of the method of delivery has changed in Washington since 1990. In the early 1990s vaginal births increased and both primary and repeat c-sections decreased. Since 1998, these trends have reversed. Vaginal births have decreased and both primary and repeat c-sections have increased.
- In 2008, hospital discharge data linked to birth certificates showed 69% of births were delivered vaginally, and cesarean sections comprised 31% of births. This c-section rate is higher than the 29% rate based on birth certificates alone. Regardless of the source, c-section rates have increased over 40% since 2000.
- The increase in c-section deliveries is also evident in the drop in the vaginal birth after c-section (VBAC) rate which decreased from 27.5 VBACs per 100 livebirths with a history of c-section in 2000 to 10.8 in.2008.

Nulliparous, term, singleton, vertex (NTSV) deliveries are considered lower risk deliveries. They comprised 37% of deliveries in 2008. The cesarean section rate among these deliveries was 27.6 per 100 in 2008. The NTSV C-section rate has increased 39% since 2000.

Research shows that elective inductions increase the risk of cesarean section in NTSV deliveries. Hospital discharge data only show whether an induction was performed, not whether it was elective or medical. Approximately 23% of all NTSV live births were induced in 2008.

11. The WA State Rank is the ranking of Washington among the 50 states based on the National Center for Health Statistics data, with 1 being the best and 50 the worst. Note that the rates reported in this document are based on the Washington State Center for Health Statistics reports and do not always match the federally reported Washington State rates. Among states, the cesarean sections rate ranged from 22.2 to 38.3%, and the VBAC rate for women with a history of c-section ranged from a high of 20.9 to 5.2% among the 19 states using the 2003 US Standard Birth Certificate.

12. In 2003, a new birth certificate form was introduced that collected method of delivery differently than the prior form. It appears that this may have affected the reporting of prior cesarean sections, consequently influencing the primary c-section proportion, the repeat c-section proportion, and the VBAC rates in 2003 and later years.

13. NTSV refers to nulliparous, term, singleton, vertex deliveries. This information is from birth certificates linked to hospital discharge data for mothers and infants. In 2008, 91.1% of birth certificates were linked to hospital discharge records.

Maternal Mortality and Morbidity [14]	1998	2005	2006	2007	2008	HP 2010	WA Rank
Maternal Mortality							
Pregnancy - Associated deaths per 100,000 livebirths [15]	35.2	55.7	46.1	42.7	35.4		
Pregnancy - Related deaths per 100,000 livebirths [15]	10.0	7.3	n/a	n/a	n/a		
Maternal Morbidity							
Total Diabetes per 100 livebirths		5.9	5.8	6.2	6.0		
Prepregnancy Diabetes		0.7	0.7	0.7	0.7		
Gestational Diabetes		5.1	5.1	5.5	5.3		
Total Hypertension per 100 livebirths		6.7	6.8	6.6	6.4		
Prepregnancy Hypertension		1.3	1.4	1.2	1.3		
Gestational Hypertension		5.4	5.4	5.4	5.1		
Group B Strep Culture Positive per 100 livebirths		16.8	17.5	17.2	17.3		

- From 1990-2008, there was no significant trend in the pregnancy-associated mortality ratio. In 2008, the ratio was 35.4 deaths per 100,000 livebirths. These deaths occur within one year of pregnancy and are due to any cause. They are not necessarily related to the pregnancy.

  From 1990-2005, there also was no significant trend in the pregnancy-related mortality ratio. In 2005, the ratio was 7.3 per 100,000 livebirths. These are deaths directly caused by pregnancy or by a condition exacerbated by pregnancy.

  Maternal morbidity as reported on the birth certificate indicates that in 2008 about 6% of women had diabetes, almost 7% of women had hypertension and about 17% of women were Group B Strep culture positive during pregnancy.

14. In many of the rates presented in this section, single year data are subject to fluctuation due to small numbers.

15. A pregnancy-associated death is a death of a women while pregnant or within a year of delivery or termination of pregnancy from any cause. A pregnancy-related death is a death of a woman while pregnant or within a year of delivery or termination of pregnancy from any cause related to or aggravated by pregnancy or its management. Cause of death was determined by the Perinatal Advisory Committee Maternal Mortality Subcommittee.

Maternal Mortality and Morbidity (cont'd)	1998	2005	2006	2007	2008	HP 2010	WA Rank
Prepregnancy Body Mass Index (BMI) per 100 livebirths [16]							
Underweight (BMI < 19.8))		9.9	10.0	9.7	9.4		
Normal Weight (BMI 19.8-26)		49.8	49.3	49.0	49.0		
Overweight (BMI >26-29)		14.6	14.7	14.8	14.7		
Obese (BMI >29)		25.8	25.9	26.5	26.9		
Morbidly Obese (BMI 40+)		3.8	3.7	3.8	4.1		
Unknown BMI (percent of all pregnant women)		16.6%	12.9%	10.8%	8.3%		
Weight Gain per 100 livebirths [17]							
Recommended Weight Gain		30.6	31.1	31.5	31.8		
Less than Recommended Weight Gain		21.7	21.9	21.5	21.2		
Greater than Recommended Weight Gain		47.7	47.0	47.0	47.0		

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Among women with weight and height data, almost 42% of women began pregnancy either overweight or obese. Over 4% of women were morbidly obese.

In addition, 47% of women gained more weight during pregnancy than the amount recommended by the 2009 Institute of Medicine Report on weight gain in pregnancy.

Missing data from the birth certificate inhibit our ability to adequately track obesity among pregnant women in Washington. While the percent missing has improved considerably, over 8% of birth records were still missing prepregnancy weight or height in 2008. We cannot calculate the prepregnancy body mass index and pregnancy weight gain for these women.

16. Prepregnancy body mass index is calculated as 703.1 * (prepregnancy weight in pounds/square of height in inches). As a reference, a women who is 5'5" tall is underweight if she weighs less than 111 pounds before pregnancy, is normal weight if she weighs 111-149, is overweight if she weights 150-179 pounds, is obese if she weighs 180 pounds or more, and is morbidly obese if she weighs over 240 pounds.

17. Weight gain is calculated as weight at delivery less prepregnancy weight. Categories of weight gain are based on the 2009 Institute of Medicine recommendations for weight gain in pregnancy and take prepregnancy BMI into account. The recommended pregnancy weight gain by prepregnancy BMI status is underweight (28-40 pounds), normal weight (25-35 pounds), overweight (15-25 pounds) and obese (11-20 pounds).

Infant Mortality	1998	2005	2006	2007	2008	HP 2010	WA Rank[18]
Fetal deaths per 1,000 livebirths [19]	5.9	6.3	5.6	5.5	6.0	4.1	30 (2005)
Perinatal deaths per 1,000 livebirths [20]	8.6	8.5	8.1	7.7	8.5	4.5 [21]	
Infant deaths per 1,000 livebirths (period) [22]	5.7	5.1	4.7	4.8	5.4	4.5	1 (2006)
Neonatal deaths per 1,000 livebirths (period) [23]	3.6	3.0	3.0	2.8	3.3	2.9	2 (2006)
Post Neonatal deaths per 1,000 livebirths (period) [24]	2.1	2.0	1.7	2.0	2.1	1.2	
SIDS deaths per 1,000 livebirths (period) [25]	1.2	0.5	0.6	0.7	0.8		

- Washington's infant mortality rate declined substantially throughout most of the 1990s. It fluctuated towards the end of the 1990s, but again appeared to decline from 2002-2006.
- In 2006, Washington had the lowest infant mortality rate (4.7 per 1000 live births) among the 50 states.
- In 2008, the infant mortality rate increased to 5.4 deaths per 1000 live births up from 4.8 in 2007. This increase was predominantly among neonatal deaths, and was only among deaths due to perinatal conditions, not congenital malformations or SIDS.

Overall, trends in both neonatal mortality and post neonatal mortality decreased from 1990-2008. The decrease in neonatal mortality has been fairly constant over time, while postneonatal mortality declined predominantly during the 1990s.

SIDS rates decreased significantly from 1990 through 2005. Improved death scene investigation and changes in reporting practices of coroners/medical examiners have played a role in this decline.

18. The 2006 WA State Rank is the ranking of Washington among the 50 states based on the National Center for Health Statistics data, with 1 being the best and 50 the worst. For 2006 infant mortality rates range from 4.68 per 1000 livebirths to 10.60 per 1000 livebirths. Neonatal mortality rates range from 2.64 per 1000 livebirths to 7.04 per 1000 livebirths. Fetal death rates in 2005 range from 2.84 per 1000 livebirths to 9.79 per 1000 livebirths.
19. Fetal death reporting in Washington is required when the fetus is 20 weeks gestation or more.
20. Perinatal deaths refer to fetal deaths of 20 weeks gestation or more as well as deaths to infants less than 7 days old.
21. The Healthy People 2010 target for perinatal mortality is defined as 28 weeks or more gestation plus deaths of infants less than 7 days old.
22. Infant deaths refer to deaths to infants from birth through 364 days of age. These are crude infant mortality rates which use infant deaths in a given year as the numerator and infant births in the same year as the denominator. These are also known as period infant mortality rates.
23. Neonatal deaths refer to deaths to infants birth through 27 days of age.
24. Post neonatal deaths refer to deaths to infants from 28 through 364 days of age.
25. Cause of death was coded with ICD-9 in 1990-1998 and with ICD 10 in 1999-2002. Rates prior to 1999 were adjusted by the ICD10-ICD9 comparability ratio for SIDS of 1.0362. See http://www.doh.wa.gov/ehsphl/chs/chs-data/infdeath/download/InfantF1.xls for additional information. When interpreting trends in SIDS, the category "unexplained infant death" should be considered to see if that has also changed over time. Since neither of these conditions is very well-defined, the designation of a particular infant death as SIDS (ICD-10 R95) vs. unexplained death (ICD-10 R99) may be a matter of personal preference on the part of the coroner or medical examiner.

Mortality (cont'd)[26]	1998	2005	2006	2007	2008	HP 2010	WA Rank[26]
Race/ethnic-specific Infant deaths per 1,000 livebirths (period) [27]							4 (2004-2006)[26]
Non-Hispanic White	5.1	5.0	3.9	4.3	4.9	4.5	7 (2004-2006)[26]
Non-Hispanic African American	10.4	10.3	6.7	10.0	8.7	4.5	1 of 39 (2004-2006)[26]
Non-Hispanic Native American	11.2	11.2	11.7	13.1	8.2	4.5	7 of 13 (2004-2006)[28]
Non-Hispanic Asian or Pacific Islander	6.1	3.7	4.0	4.6	4.3	4.5	9 of 31 (2004-2006)[28]
Hispanic Origin [28]	4.8	3.9	5.0	4.3	6.2		2 of 41 (2004-2006)[26]
Infant deaths per 1,000 livebirths (cohort) [29]							
Total	5.8	4.8	4.7	4.9	n/a		
Medicaid	7.8	5.6	5.9	6.4	n/a		
Non-Medicaid	4.4	4.1	3.7	3.5	n/a		
Singleton	5.2	4.4	4.3	4.5	n/a		
Twins	27.5	16.2	16.8	17.3	n/a		
Triplets	34.1	64.5	38.5	0.0	n/a		

- In 2008, African American (8.7 per 1,000) and Native American (8.2 per 1,000) mortality rates continued to exceed infant mortality rates of other race/ethnic groups.
- While the African American infant mortality rate has remained high, it has significantly decreased since 1990. The rate of decrease among African Americans is greater than the decrease among Non-Hispanic white women. Moreover, from 2004-2006, Washington had the lowest African American infant mortality rate among 39 states reporting.
- In contrast to other race/ethnic groups, the infant mortality among Native American infants has significantly increased since 1994.
- The Asian infant mortality rate has not significantly changed since 1990.
- The Hispanic infant mortality rate has not significantly changed since 1994. From 2004-2006, Washington had the second lowest Hispanic infant mortality rate among 41 states reporting.
- In 2007, the mortality of infants whose mothers received Medicaid-funded maternity care (6.4 per 1,000) continued to exceed the mortality of infants whose mothers did not receive Medicaid-funded maternity care (3.5 per 1,000). While both rates have declined since 1990, the mortality rate of infants whose mothers received Medicaid experienced a greater decline.
- In 2007, the mortality of twins (17.3 per 1,000) greatly exceeded the mortality of singleton infants (4.5 per 1,000).

26. In many of the rates presented in this table, single year data are subject to fluctuation due to small numbers. For comparison, we provide the rankings of race-specific rates from the National Center for Health Statistics for 2004-2006, with 1 being the best and 50 the worst. For whites, the range was 3.66 to 7.68 per 1000 livebirths. For African Americans, the range was 8.12 to 20.85 per 1000 livebirths. For Native Americans the range was 6.30 to 12.28 per 1000 livebirths. For Asian or Pacific Islanders the range was 3.19 to 8.64 per 1000 livebirths. For Hispanics, the range was 4.27 to 7.95 per 1000 livebirths.

27. Race and ethnicity are determined from the birth certificate after matching infant death certificates to the child's birth certificate. There were 39, 52, 40 and 22 deaths from 2005-2008 that were of unknown race/ethnicity. In 2003, WA introduced a new birth certificate form which allows for designation of multiple races. In order to compare 2003 and later data with previous years, records with multiple race designations (3.5% in 2008) were statistically "bridged" into one of the five major race categories used prior to 2003. This is also the reason why no livebirths show up as "Other"; if selected they were recoded to one of the five categories.

28. Persons of Hispanic origin may be of any race.

29. These are cohort infant mortality rates. Cohort mortality rates describe the experience of a birth cohort. The denominator includes all births in a specified year (cohort) and the deaths before 365 days of age among those infants in the numerator. The deaths may occur in the cohort year or the subsequent year. These data come from the First Steps Database and exclude approximately 500 births each year that are unavailable for matching to Medical Assistance data.

Birth Weight	1998	2005	2006	2007	2008	HP 2010	WA Rank [30]
Low Birth Weight Births [31]							
Low birth weight (LBW) births per 100 livebirths	5.7	6.1	6.5	6.3	6.3	5.0%	5 (2007)
Singleton	4.5	4.7	5.0	4.9	4.7		
Multiple Births	50.9	52.6	53.0	52.8	53.1		
Singleton LBW births per 100 singleton livebirths [32]							
Non-Hispanic White	4.1	4.1	4.3	4.4	4.3		
Non-Hispanic African American	8.3	8.3	8.7	8.3	7.3		
Non-Hispanic Native American	6.8	5.9	6.4	6.4	6.7		
Non-Hispanic Asian or Pacific Islander	5.8	6.0	6.3	6.1	5.9		
Hispanic Origin [33]	4.7	5.0	5.4	4.8	4.8		
Medicaid [34]	5.5	5.3	5.8	5.5	5.4		
Non-Medicaid	3.7	4.0	4.3	4.2	4.1		

- The trend in total low birth weight (LBW) increased steadily from 5.3% in 1990 to 6.3% in 2008. The increase in total low birth weight is in part attributable to the influence of multiple births. However, the singleton low birth weight rate has also increased steadily.

In 2008, the highest singleton LBW rate was for Non-Hispanic African Americans (7.3%), despite this group's signficant decrease in singleton LBW since 1990.

The singleton LBW rates of all race or ethnic groups except African Americans have significantly increased since 1990.

In 2008, the Medicaid singleton LBW rate (5.4%) continued to exceed the Non-Medicaid singleton LBW rate (4.1%).

30. The 2006 WA State Rank is the ranking of Washington among the 50 states based on the National Center for Health Statistics data, with 1 being the best and 50 the worst. Note that the rates reported in this document are based on the Washington State Center for Health Statistics reports and do not always match the federally reported Washington State rates. Preliminary 2007 data show total LBW rates ranged from 5.7 per 100 livebirths to 12.3 per 100 livebirths.

31. Low birth weight is defined as less than 2,500 grams (5 lbs. 8 oz.).

32. In 2003, WA introduced a new birth certificate form which allows for designation of multiple races. In order to compare data from 2003 and later with previous years, records with multiple race designations (3.5% in 2008) were statistically "bridged" into one of the five major race categories used prior to 2003.

33. Persons of Hispanic origin may be of any race.

34. These data come from the First Steps Database and exclude approximately 500 births each year that are unavailable for matching to Medical Assistance data.

Birth Weight (cont'd)	1998	2005	2006	2007	2008	HP 2010	WA Rank [35]
Very Low Birth Weight Births [36]							
Very low birth weight (VLBW) births per 100 livebirths	1.1	0.9	1.0	1.1	1.1	0.9%	1 (2006)
Singleton VLBW births per 100 singleton livebirths[37]							
Total	0.8	0.7	0.8	0.8	0.8		
Non-Hispanic White	0.7	0.6	0.6	0.7	0.7		
Non-Hispanic African American	2.5	1.6	1.9	1.6	1.3		
Non-Hispanic Native American	1.6	0.9	0.5	0.8	1.4		
Non-Hispanic Asian or Pacific Islander	0.9	0.8	0.7	0.9	0.8		
Hispanic Origin [38]	0.7	0.8	0.9	0.8	0.8		
Medicaid [39]	1.0	0.8	0.9	0.9	0.9		
Non-Medicaid	0.7	0.6	0.6	0.7	0.6		
VLBW births at Facilities with Level III Perinatal Services [40]	n/a	82.8%	83.1%	81.9%	82.6%	90%	
Births < 1000 g at Facilities with Level III Perinatal Services [40]	n/a	82.3%	81.3%	78.1%	80.2%		

While it is not visible in the rates presented above, both the total VLBW and singleton VLBW rates increased significantly from 1990 to 2008.

The singleton VLBW rate among African Americans declined significantly from 1990-2008, but remains almost twice the rate of Whites.

The singleton VLBW rates among Asian and Pacific Islanders and among Hispanics has increased over this time period.

One measure used to evaluate the effectiveness of perinatal regionalization is the percent of VLBW births occurring at facilities with Level III perinatal Services. In Washington State, approximately 83% of VLBW infants were born at facilities with Level III perinatal services in 2008.

35. The WA State Rank is the ranking of Washington among the 50 states based on the National Center for Health Statistics data, with 1 being the best and 50 the worst. Note that the rates reported in this document are based on the Washington State Center for Health Statistics reports and do not always match the federally reported Washington State rates. 2007 preliminary VLBW rates ranged from 1.0 per 100 livebirths to 2.5 per 100 livebirths.

36. Very low birth weight is defined as less than 1,500 grams (3 lbs. 4 oz.).

37. In 2003, WA introduced a new birth certificate form which allows for designation of multiple races. In order to compare data from 2003 and later with previous years, records with multiple race designations (3.5% in 2008) were statistically "bridged" into one of the five major race categories used prior to 2003.

38. Persons of Hispanic origin may be of any race.

39. These data come from the First Steps Database and exclude approximately 500 births each year that are unavailable for matching to Medical Assistance data.

40. These data are limited to resident births that occurred in Washington State. Facilities with Level III Perinatal Services are as recommended by the Perinatal Advisory Committee Subgroup on Perinatal Level of Care.

Preterm Births [42]	1998	2005	2006	2007	2008	HP 2010	WA Rank[41]
Preterm births per 100 livebirths[43]	9.4	10.3	10.7	10.4	10.5	7.6%	8 (2007)
Non-Hispanic White	8.9	9.6	10.0	9.7	9.8		
Non-Hispanic African American	14.0	13.0	9.9	13.6	12.6		
Non-Hispanic Native American	13.7	15.7	16.5	16.5	16.0		
Non-Hispanic Asian or Pacific Islander	10.4	10.6	10.9	10.5	10.8		
Hispanic Origin [44]	10.2	11.0	11.5	11.0	11.4		
Very preterm (<32 weeks)	1.4	1.5	1.5	1.5	1.5		
Moderately preterm (32-36 weeks)	8.0	8.8	9.2	8.8	8.9		
Singleton preterm births per 100 livebirths[43]	8.4	9.1	9.4	9.2	9.0		
Non-Hispanic White	7.7	8.3	8.6	8.4	8.1		
Non-Hispanic African American	12.9	11.9	11.3	12.3	11.3		
Non-Hispanic Native American	12.5	14.5	15.2	14.4	15.0		
Non-Hispanic Asian or Pacific Islander	9.8	9.9	9.8	9.6	9.6		
Hispanic Origin [44]	9.5	10.2	10.8	10.1	10.4		
Singleton very preterm (<32 weeks)	1.1	1.2	1.2	1.2	1.2		
Singleton moderately preterm (32-36 weeks)	7.3	7.9	8.2	8.0	7.8		

- The rate of singleton preterm birth is not quite double the singleton LBW rate. In 2008, approximately two-thirds of singleton preterm infants in Washington State were normal weight (2500 grams or more) at delivery.

  The trends in total and singleton preterm birth rates increased significantly from 1993 to 2006. Among both groups, rates of moderately preterm birth (32-36 weeks) and very preterm birth (< 32 weeks) showed similar increases.

  Preterm birth rates in Washington were slightly lower in the last two years. Nationally, rates have decreased for the past two years.

41. The WA State Rank is the ranking of Washington among the 50 states based on the National Center for Health Statistics data, with 1 being the best and 50 the worst. Note that the rates reported in this document are based on the Washington State Center for Health Statistics reports and do not always match the federally reported Washington State rates. Preterm birth rates ranged from 9.6 per 100 livebirths to 18.8 per 100 livebirths.

42. Gestational age is calculated following National Center for Health Statistics methodology. This is documented at http://www.cdc.gov/nchs/data/dvs/instr12.pdf.

43. In 2003, WA introduced a new birth certificate form which allows for designation of multiple races. In order to compare data from 2003 and later with previous years, records with multiple race designations (2.7% in 2006) were statistically "bridged" into one of the five major race categories used prior to 2003.

44. Persons of Hispanic origin may be of any race.

Initiation of Prenatal Care [46]	1998	2005	2006	2007	2008	HP 2010	WA Rank [45]
First Trimester Prenatal Care per 100 pregnant women							
Total	83.1	79.3	78.6	76.4	77.1	90%	14 of 18 (2006)
Medicaid	72.9	69.3	68.4	65.3	66.6		
Non-Medicaid	90.1	88.5	87.7	86.6	87.0		
Late/No Prenatal Care per 100 pregnant women [47]							
Total	3.1	4.6	5.0	5.5	5.7		14 of 18 (2006)
Medicaid	5.4	7.0	7.5	8.2	8.4		
Non-Medicaid	1.5	2.4	2.7	3.0	3.1		
Unknown Prenatal Care (percent of all pregnant women)							
Total	9.7%	16.4%	12.6%	8.7%	7.1%		
Medicaid	11.2%	16.2%	12.1%	8.0%	5.9%		
Non-Medicaid	8.6%	16.6%	13.1%	9.4%	8.1%		

Prenatal care initiation in the first trimester was 77.1% in 2008, up slightly from 2007. Prior to 2008, first trimester prenatal care had declined since 2002 for women on Medicaid and women not on Medicaid.

First trimester prenatal care initiation for women receiving Medicaid increased on average 5% per year between 1991 and 1994 (First Steps started in August 1989). There was no significant change from 1994-2002, and the rate has declined on average 1.9% per year since 2002.

The percentage of women with late or no prenatal care increased on average 7.9% per year between 1999 and 2008. The rate increased for both women on Medicaid and women not on Medicaid. The overall rate of late or no prenatal care was 5.7% in 2008. This amounts to about 4,700 women, almost 1,300 of whom received no prenatal care.

The high number (and percent) of birth certificates with missing data for prenatal care became a greater problem in 2003. This is due to changes in the birth certificate reporting form which asks for the exact date of first prenatal visit. The percent missing prenatal care data has improved considerably since 2003.

45. Eighteeen states, including Washington, used the 2003 revision of the birth certificate in 2006. Among these states, first trimester prenatal care ranged from 61.6% to 83.8%. Late or no prenatal care ranged from 2.4% to 7.1%.

46. These data are from the First Steps Database and reflect prenatal care provided to women who delivered either a livebirth or fetal death. These data exclude approximately 500 births every year that are unavailable for matching to Medical Assistance data. First trimester prenatal care and late/no prenatal care rates are calculated after excluding records missing month prenatal care began. "Unknown prenatal care" represents the proportion of all records missing month prenatal care began.

47. "Late/No prenatal care" refers to women who received prenatal care during their third trimester or received no prenatal care.

Medicaid Expenditures for Maternal & Infant Services [48, 49]	1998	2005	2006	2007	2008	HP 2010	WA Rank
Average costs per client for maternal services (prenatal through end of 2nd month post partum)	$5,457	$7,796	$7,803	$7,949	$8,675		
Average costs per client for infant services (first year of life)	$3,894	$6,307	$6,705	$7,168	$7,449		
Combined average costs for maternal/infant services	$9,351	$14,103	$14,508	$15,117	$16,124		

Average Medicaid Expenditures per client for maternal and infant services increased over 72% since 1998.

Data for the perinatal indicators on this and previous pages come from Washington State birth, fetal death, and death certificate data as well as the First Steps Database. The following perinatal indicators come from the Pregnancy Risk Assessment Monitoring System (PRAMS), an ongoing population based surveillance system sponsored by the Centers for Disease Control and Prevention that surveys new mothers who are representative of all registered births to Washington State residents. The Washington State Department of Health has collected PRAMS data since 1993. For more information on PRAMS data, contact MCH Assessment at 360-236-3533 or visit the website at http://www.doh.wa.gov/cfh/prams.

48. Dollars are the actual amounts paid for a given year and have not been adjusted for inflation. These data were reported by the First Steps Database in February 2006. Data are subject to change as claims are paid.
49. Maternity Support Services and Maternity Case Management costs are included in the prenatal and post partum costs.

Pregnancy Smoking [50]	PRAMS 1998		PRAMS 2005		PRAMS 2006		PRAMS 2007		PRAMS 2008	
	Percent	95% CI	Percent	95% CI	Percent	95% CI	Percent	95% CI	Percent	95% CI
Smoking in 3 months before pregnancy per 100 pregnant women										
Total	26	(23, 29)	18	(16, 22)	21	(18, 24)	20	(17, 23)	20	(18, 23)
Medicaid	36	(32, 41)	26	(22, 31)	31	(26, 36)	28	(24,33)	28	(24, 33)
Non-Medicaid	18	(15, 22)	11	(8, 14)	13	(10, 17)	14	(10, 17)	12	(9, 16)
Smoking in last 3 months of pregnancy per 100 pregnant women										
Total	13	(11, 15)	9	(7, 11)	12	(10, 15)	9	(7, 12)	11	(9, 14)
Medicaid	19	(16, 24)	15	(11, 19)	19	(16, 24)	16	(12, 20)	17	(14, 21)
Non-Medicaid	8	(6, 11)	4	(2, 6)	6	(4, 9)	5	(3, 7)	6	(4, 8)
Smoking at post partum interview per 100 pregnant women[50]										
Total	18	(15, 21)	13	(10, 15)	15	(12, 18)	13	(11, 16)	14	(12, 17)
Medicaid	28	(24, 33)	20	(16, 25)	23	(19, 28)	22	(17, 26)	21	(17, 25)
Non-Medicaid	11	(8, 14)	5	(4, 8)	7	(5, 11)	6	(4, 9)	7	(5, 11)

- According to the Pregnancy Risk Assessment Monitoring System (PRAMS), smoking in the three months before pregnancy, in the last three months of pregnancy and at post partum interview (2-6 months after delivery) declined significantly from 1996 to 2008.

  This pattern was similar for both women receiving Medicaid and women not receiving Medicaid. Women receiving Medicaid have higher smoking rates at each time period, and have experienced a slower rate of decrease than women not receiving Medicaid.

  This smoking data is from PRAMS because we observed substantial underreporting of smoking on the birth certificate compared to PRAMS.

48. The Pregnancy Risk Assessment Monitoring System is administered 2-6 months postpartum.

Unintended Pregnancy	PRAMS 1998		PRAMS 2005		PRAMS 2006		PRAMS 2007		PRAMS 2008	
	Percent	95% CI	Percent	95% CI	Percent	95% CI	Percent	95% CI	Percent	95% CI
Survey Question 10. Thinking back to just before you got pregnant, how did you feel about becoming pregnant?										
I wanted to be pregnant sooner										
Total	19	(17, 22)	18	(15, 21)	18	(16, 21)	21	(18, 24)	17	(14, 19)
Medicaid	17	(14, 21)	12	(10, 16)	13	(10, 16)	12	(9, 16)	11	(8, 14)
Non-Medicaid	20	(17, 24)	23	(19, 27)	23	(19, 27)	27	(23, 32)	22	(19, 27)
I wanted to be pregnant later										
Total	30	(27, 33)	28	(25, 31)	28	(25, 32)	29	(26, 32)	29	(26, 32)
Medicaid	41	(36, 46)	38	(33, 42)	41	(36, 45)	43	(38, 48)	41	(37, 46)
Non-Medicaid	23	(20, 27)	19	(15, 23)	18	(15, 22)	18	(14, 22)	18	(15, 22)
I wanted to be pregnant then										
Total	43	(39, 46)	45	(41, 48)	45	(42, 49)	43	(40, 47)	47	(43, 50)
Medicaid	30	(26, 35)	39	(34, 44)	36	(32, 41)	34	(30, 39)	38	(33, 42)
Non-Medicaid	51	(47, 56)	50	(45, 55)	50	(49, 58)	51	(46, 55)	55	(50, 59)
I didn't want to be pregnant then or at any time in the future										
Total	8	(6, 10)	9	(7, 12)	8	(7, 11)	7	(6, 9)	7	(6, 9)
Medicaid	12	(9, 15)	10	(8, 14)	11	(8, 15)	11	(8, 15)	10	(8, 13)
Non-Medicaid	5	(4, 8)	8	(6, 11)	6	(4, 9)	4	(3, 7)	5	(3, 7)
Estimated births from unintended pregnancies [51]										
Total	38	(35, 41)	37	(34, 41)	37	(33, 43)	36	(33, 39)	37	(34, 40)
Medicaid	52	(47, 57)	48	(43, 53,)	51	(46, 56)	54	(49, 58)	51	(47, 56)
Non-Medicaid	29	(25, 33)	27	(23, 32)	24	(20, 28)	22	(18, 26)	23	(19, 27)
Estimated pregnancies that were unintended [52]	53		51		51		50		50	

Approximately 37% of Washington State births resulted from unplanned pregnancies in 2008. This rate is significantly higher for women receiving Medicaid (51%) than for women not receiving Medicaid (23%).

The unintended pregnancy rate was approximately 50% in 2008. (This rate includes births and abortions.)

51. Responses to "I wanted to be pregnant later" are referred to as "mistimed" and responses to "I didn't want to be pregnant then or at any time in the future" are referred to as "unwanted." Together these two categories are what is considered "unintended."

52. Estimated pregnancies that are unintended are calculated by taking the estimated births that were unintended from PRAMS and multiplying this by the number of livebirths. The number of abortions is added to this number, and then the sum is divided by the number of livebirths and abortions. This estimate assumes that all reported abortions are due to unintended pregnancies, though a small percentage might be medically indicated.

Provider Screening	PRAMS 1998		PRAMS 2005		PRAMS 2006		PRAMS 2007		PRAMS 2008	
	Percent	95% CI	Percent	95% CI	Percent	95% CI	Percent	95% CI	Percent	95% CI
Survey Question 21. During any of your prenatal care visits, did a doctor, nurse, or other health care worker ask you questions about any of the things listed below?										
a. If you were smoking cigarettes										
Total	na		91	(89, 93)	94	(92, 95)	93	(91, 94)	94	(92, 95)
Medicaid			93	(91, 95)	96	(93, 97)	96	(93, 97)	96	(94, 98)
Non-Medicaid			89	(86, 92)	92	(98, 94)	91	(87, 93)	92	(89, 94)
b. How much alcohol you were drinking										
Total	na		84	(82, 87)	87	(85, 89)	88	(86, 90)	87	(84, 89)
Medicaid			86	(82, 89)	85	(81, 89)	90	(87, 93)	87	(83, 90)
Non-Medicaid			83	(79, 86)	89	(85, 91)	86	(83, 89)	87	(83, 90)
c. If someone was hurting you emotionally or physically										
Total	na		69	(66, 72)	75	(72, 78)	73	(69, 75)	73	(70,76)
Medicaid			77	(73, 81)	80	(75, 83)	81	(77, 85)	83	(79, 86)
Non-Medicaid			61	(56, 66)	71	(67, 75)	66	(61, 70)	64	(59, 69)
d. If you were using illegal drugs (marijuana or hash, cocaine, crack, etc.)										
Total	na		76	(73, 79)	78	(75, 81)	78	(75, 81)	78	(75, 81)
Medicaid			85	(81, 88)	85	(81, 88)	86	(82, 89)	84	(80, 87)
Non-Medicaid			69	(64, 73)	73	(68, 77)	72	(67, 76)	73	(68, 77)
e. If you wanted to be tested for HIV (the virus that causes AIDS)										
Total	na		82	(80, 85)	83	(81, 86)	79	(76, 82)	80	(77, 82)
Medicaid			84	(80, 88)	83	(79, 87)	85	(81, 88)	83	(79, 86)
Non-Medicaid			81	(76, 84)	84	(80, 87)	74	(70, 78)	77	(72, 80)
f. If you planned to use birth control after your baby was born										
Total	na		90	(87, 92)	89	(87, 91)	89	(87, 91)	88	(86, 90)
Medicaid			93	(90, 95)	94	(92, 96)	93	(90, 95)	93	(90, 95)
Non-Medicaid			86	(82, 89)	85	(81, 88)	86	(83, 89)	83	(79, 87)

New mothers reported provider screening rates over 85% for smoking, alcohol use, and postpartum birth control in 2008.

In 2008, mothers reported lower provider screening rates for domestic violence (73%) and use of illegal drugs (78%) compared to screening other health issues. However, both of these screening rates increased significantly since 2000 among all women and women receiving Medicaid.

Women receiving Medicaid were more likely to report a health care provider asked them about domestic violence, illegal drug use, if they wanted to be tested for HIV, or post partum birth control use than women not receiving Medicaid.

Provider Screening (continued)	PRAMS 1998		PRAMS 2005		PRAMS 2006		PRAMS 2007		PRAMS 2008	
	Percent	95% CI	Percent	95% CI	Percent	95% CI	Percent	95% CI	Percent	95% CI
Survey Question 66. At any time during your pregnancy, did a doctor, nurse or other health care worker ask you about the following things?										
a. "Baby blues" or post partum depression										
Total	69	(66, 72)	81	(78, 84)	82	(81, 86)	82	(79, 85)	83	(80, 85)
Medicaid	68	(63, 72)	85	(81, 88)	87	(83, 99)	87	(84, 90)	87	(83, 89)
Non-Medicaid	70	(65, 74)	78	(74, 82)	82	(78, 85)	78	(74, 82)	79	(75, 83)
b. Tests that could be done during your pregnancy to see if your baby had a birth defect or genetic disease.										
Total	81	(78, 83)	83	(80, 86)	84	(81, 86)	86	(84, 88)	82	(79, 84)
Medicaid	79	(75, 83)	84	(80, 87)	81	(77, 85)	85	(81, 88)	82	(78, 85)
Non-Medicaid	82	(79, 86)	82	(78, 86)	86	(83, 89)	87	(83, 90)	82	(78, 86)

Breastfeeding	PRAMS 1998		PRAMS 2005		PRAMS 2006		PRAMS 2007		PRAMS 2008	
	Percent	95% CI	Percent	95% CI	Percent	95% CI	Percent	95% CI	Percent	95% CI
Survey Question 46. Did you ever breastfeed or pump breast milk										
Percent of women who responded they ever breastfed										
Total	88	(85, 90)	93	(91, 95)	91	(89, 93)	93	(91, 94)	92	(90, 94)
Medicaid	84	(80, 87)	90	(86, 93)	86	(82, 89)	90	(86, 93)	89	(86, 92)
Non-Medicaid	90	(88, 93)	96	(94, 98)	95	(93, 97)	95	(92, 97)	95	(92, 97)
Percent of women who reported breastfeeding at two months post partum										
Total	65	(61, 68)	75	(72, 78)	72	(69, 75)	72	(68, 75)	70	(66, 73)
Medicaid	54	(50, 59)	67	(62, 71)	62	(57, 67)	62	(57, 67)	58	(53, 63)
Non-Medicaid	72	(67, 76)	82	(78, 86)	80	(76, 84)	79	(75, 83)	80	(76, 84)

- Provider screening for postpartum depression increased significantly from 1996 to 2008 among all women and women receiving Medicaid.

In 2008, initiation of breastfeeding was high in Washington State at approximately 92%. However, rates dropped to approximately 70% by two months postpartum.

This decline is greater among women receiving Medicaid. Approximately 89% of women receiving Medicaid reported initiating breastfeeding, but this rate dropped to approximately 58% by two months postpartum.

Initiation of breastfeeding continues to increase among all women. The percent of women breastfeeding at two months postpartum which had increased from 1996 through 2005 has not increased since 2005.

Folic Acid Use Prior to Pregnancy	PRAMS 1998		PRAMS 2005		PRAMS 2006		PRAMS 2007		PRAMS 2008	
	Percent	95% CI	Percent	95% CI	Percent	95% CI	Percent	95% CI	Percent	95% CI
Survey Question 3. In the month *before* you got pregnant with your										
I didn't take a multivitamin at all										
Total	na		54	(51, 57)	54	(51, 57)	52	(48, 55)	57	(54, 60)
Medicaid	na		76	(72, 80)	73	(68, 77)	73	(69, 77)	71	(67, 75)
Non-Medicaid	na		33	(28, 38)	38	(34, 43)	34	(30, 39)	44	(39, 49)
1 to 3 times a week										
Total	na		11	(9, 13)	10	(8, 12)	9	(7, 11)	7	(6, 9)
Medicaid	na		6	(4, 9)	5	(4, 8)	7	(5, 9)	6	(4, 9)
Non-Medicaid	na		15	(12, 19)	14	(11, 17)	10	(8, 14)	9	(6, 12)
4 to 6 times a week										
Total	na		7	(5, 9)	9	(8, 12)	10	(8, 12)	6	(5, 8)
Medicaid	na		4	(2, 6)	7	(5, 10)	6	(4, 9)	4	(3, 7)
Non-Medicaid	na		10	(7, 13)	12	(9, 15)	13	(10, 16)	8	(6, 11)
Every day of the week										
Total	na		28	(25, 32)	27	(23, 30)	30	(27, 33)	29	(26, 32)
Medicaid	na		14	(11, 18)	15	(12, 19)	14	(11, 18)	18	(15, 22)
Non-Medicaid	na		42	38, 47)	36	(32, 41)	43	(38, 48)	40	(35, 45)

In 2008, only about 29% of women reported taking a multivitamin every day of the week, and about 57% of women reported not taking any multivitamin at all in the month prior to becoming pregnant.

Fewer women receiving Medicaid reported daily vitamin use, and more women on Medicaid reported not taking a multivitamin at all in the month prior to becoming pregnant compared to women not on Medicaid.

Sleep Position	PRAMS 1998		PRAMS 2005		PRAMS 2006		PRAMS 2007		PRAMS 2008	
	Percent	95% CI	Percent	95% CI	Percent	95% CI	Percent	95% CI	Percent	95% CI
Survey Question 51. How do you *most often* lay your baby down to sleep now?										
On his or her side										
Total	26	(23, 28)	11	(9, 13)	10	(8, 12)	9	(7, 11)	9	(7, 11)
Medicaid	32	(28, 37)	14	(11, 18)	12	(10, 16)	12	(9, 15)	10	(8, 13)
Non-Medicaid	21	(17, 25)	8	(6, 11)	8	(6, 11)	6	(4, 9)	8	(6, 12)
On his or her back										
Total	63	(60, 66)	78	(75, 81)	78	(75, 80)	80	(77, 82)	79	(76, 82)
Medicaid	57	(53, 62)	73	(69, 78)	75	(70, 79)	76	(72, 80)	77	(73, 80)
Non-Medicaid	68	(63, 72)	82	(78, 86)	80	(76, 84)	82	(78, 86)	81	(77, 84)
On his or her stomach										
Total	11	(9, 13)	6	(5, 8)	8	(7, 11)	8	(6, 10)	7	(5, 9)
Medicaid	10	(8, 14)	5	(3, 8)	8	(5, 11)	6	(4, 9)	5	(3, 8)
Non-Medicaid	12	(9, 15)	7	(5, 10)	9	(7, 12)	10	(7, 13)	8	(6, 11)
On his or her side and back										
Total			4	(3, 5)	2	(2, 3)	3	(2, 4)	4	(3, 5)
Medicaid			7	(5, 10)	3	(2, 5)	4	(3, 6)	6	(4, 9)
Non-Medicaid			1	(1, 3)	1	(0.1, 3)	1	(0, 3)	2	(1, 4)
Other [52]										
▪ Total			1	(1,3)	2	(1,3)	1	(1,2)	1	(1, 2)
Medicaid			2	(1,4)	2	(1,4)	2	(1,4)	2	(1,3)
▪ Non-Medicaid			1	(1,3)	1	(0,3)	0	(0,2)	1	(0, 2)

In 2008, approximately 79% of mothers reported laying their newborns down to sleep most often on their backs.

Between 2000 and 2008, the percentage of women who reported laying their newborns down to sleep on their back increased significantly. This increase was greater among women who received Medicaid.

52. "Other" includes "side and stomach," "back and stomach," and "all 3 positions."

Post Partum Depression	PRAMS 1998		PRAMS 2005		PRAMS 2006		PRAMS 2007		PRAMS 2008	
	Percent	95% CI	Percent	95% CI	Percent	95% CI	Percent	95% CI	Percent	95% CI
Survey Question 70a. *Since your new baby was born* , how often have you felt down, depressed, or hopeless?										
Always or Often										
Total	na		9	(7, 11)	9	(7, 11)	8	(7, 11)	9	(7, 11)
Medicaid	na		14	(11, 18)	13	(10, 17)	11	(8, 15)	10	(8, 14)
Non-Medicaid	na		4	(3, 6)	6	(4, 9)	6	(4, 9)	7	(5, 10)
Survey Question 70b. *Since your new baby was born,* how often have you had little interest or little pleasure in doing things?										
Always or Often										
Total	na		8	(6, 10)	10	(8, 13)	10	(8, 12)	10	(8, 12)
Medicaid	na		10	(7, 13)	14	(11, 18)	13	(10, 17)	13	(10, 16)
Non-Medicaid	na		6	(4, 9)	7	(5, 10)	7	(5, 10)	6	(4, 9)

Post Partum Depression Symptoms	PRAMS 1998		PRAMS 2005		PRAMS 2006		PRAMS 2007		PRAMS 2008	
	Percent	95% CI	Percent	95% CI	Percent	95% CI	Percent	95% CI	Percent	95% CI
Women who answered "Always" or "Often" to post partum depression screening questions: 70a or 70b										
▪ Total	na		13	(11, 16)	15	(12, 17)	14	(12, 17)	13	(11, 16)
Medicaid	na		19	(15, 23)	20	(16, 25)	19	(15, 24)	17	(14, 20)
▪ Non-Medicaid	na		8	(6, 11)	10	(7, 13)	10	(7, 13)	10	(7, 13)

▪

In 2008, approximately 9% of mothers reported always or often feeling down, depressed or hopeless, and 10% reported always or often having little interest or pleasure in doing things.

Research has shown that these two questions combined identify subjects at higher risk for post partum depression. These women should undergo a more complete diagnostic evaluation.[53]

In 2008, 13% of women expressed experiencing postpartum depression symptoms. More women on Medicaid reported symptoms than women who did not receive Medicaid.

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YOUTH WITH DISABILITIES RISK FACTORS FOR INJURY DATA MONOGRAPH

Washington State

Washington State Department of Health, Office of Maternal and Child Health, October 2009

BACKGROUND:

In Washington State, an estimated 24 percent of 10th grade youth have a physical, emotional, or learning disability.[1] Research has found that youth with disabilities are more likely than those without disabilities to be at risk for unintentional injuries; have experienced depression or attempted suicide; have witnessed or experienced physical abuse; have experienced sexual abuse; smoke cigarettes, smoke marijuana or drink alcohol; and report a lower quality of life.[i,ii,iii,iv,v,vi,vii] The primary purpose of this data monograph is to present Washington State data on injury-related risk behaviors for youth with disabilities.

METHODS:

Healthy Youth Survey and Youth Disability Screener

Washington's Healthy Youth Survey (HYS) is a statewide survey of youth attitudes and health behaviors. Public schools administer the survey every two years in grades 6,8,10, and 12. Although any school can participate in the survey, a random sample of public schools generates statewide data. The HYS provides important information about adolescents in Washington. County drug and alcohol prevention coordinators, community mobilization coalitions, community public health and safety networks, and others use this information to guide policies and programs that serve youth.

"Rather than being isolated from behaviors that predispose to health risks youth with emotional disabilities, learning disabilities, and mobility impairments are more likely to have experienced health risks than peers."
– Blum et al

The Youth Disability Screener used in the Healthy Youth Survey 2008 administration (for grades 8, 10, 12) is a 4-item measure based on self-reported disability status developed by the Seattle Quality of Life Group at the University of Washington.

Youth were classified as having a disability if they answered "Yes" to any of the following questions:

- Do you have any physical disabilities or long-term health problems lasting or expected to last 6 months or more?
- Do you have any long-term emotional problems or learning disabilities lasting or expected to last 6 months or more?
- Would other people consider you to have a disability or long-term health problem including physical health, emotional, or learning problems?
- Are you limited in any activities because of a disability or long-term health problem including physical health, emotional, or learning problems expected to last 6 months or more?

[1] Source: Washington State 2008 Healthy Youth Survey (HYS). The HYS is a collaborative effort between the Department of Health, the Office of the Superintendent of Public Instruction, the Department of Social and Health Service's Division of Behavioral Health and Recovery, the Department of Commerce, the Liquor Control Board, and the Governor's Family Policy Council.

DATA:

Youth with Disabilities: Risk Factors for Injury

In 2008, about 19 percent (±1 percent) of 8th graders, 24 percent (±1 percent) of 10th graders, and 25 percent (± 2 percent) of 12th graders were classified using the Youth Disability Screener as having a disability. Results from Grade 10 are presented below.[2]

Compared to 10th grade youth without disabilities, Washington 10th graders with disabilities are more likely to be bullied, harassed, feel depressed, attempt suicide, never or rarely wear seatbelts, drive after drinking alcohol, fight, and carry weapons at schools. Similar results were found for 8th and 12th graders.

Comparison of Youth with Disabilities to Youth Without Disabilities, 10th Grade
Washington State Healthy Youth Survey Data 2008 (N = 3,318)

	Disability (n = 786)		No Disability (n = 2,532)	
	%	(± margin of error)	%	(± margin of error)
Harassment, bullying, and fighting				
Experienced harassment regarding sexual orientation at or on way to school (past 30 days)*	**24**	(± 3%)	**8**	(± 1%)
Experienced harassment from someone using a computer or a cell phone (past 30 days)*	**18**	(± 3%)	**9**	(± 1%)
Been bullied in past 30 days*	**35**	(± 3%)	**19**	(± 2%)
In at least one physical fight in past 12 months*	**44**	(± 4%)	**27**	(± 3%)
Carried weapon at school in past 30 days*	**10**	(± 2%)	**5**	(± 1%)
Member of a gang in the past year*	**11**	(± 2%)	**7**	(± 1%)
Intimate partner violence by boyfriend/ girlfriend				
Made to feel unsafe, threatened or had activities limited within past year *	**21**	(± 3%)	**8**	(± 1%)
Had Injuries such as bruises, cuts, black eyes, or broken bones as a result of being hurt in past year*	**21**	(± 4%)	**8**	(± 1%)
Depression and suicide				
Felt sad or hopeless almost every day in past year*	**48**	(± 3%)	**22**	(± 2%)
Seriously considered suicide in past year*	**31**	(± 3%)	**12**	(± 1%)
Made a suicide plan in past year*	**25**	(± 3%)	**9**	(± 1%)
Attempted suicide in past year*	**19**	(± 2%)	**6**	(± 1%)
Drinking and driving and seatbelt use				
Use seatbelt (never or rarely)*	**3**	(± 1%)	**5**	(± 2%)
Rode with driver in past 30 days who had been drinking alcohol *	**32**	(± 3%)	**22**	(± 2%)
Drove in past 30 days after drinking alcohol *	**10**	(± 2%)	**5**	(± 1%)
Bike helmet and life vest				
Use bike helmet (never, rarely, or sometimes)	**83**	(± 4%)	**80**	(± 4%)
Use life vest when in small boat (never or less than half the time)*	**34**	(± 3%)	**29**	(± 3%)

Source: Health Youth Survey 2008

****Statistically significant difference ($p \leq 0.05$) based on Mantel-Haenszel chi-square test after adjusting for gender, race, mother's education, and rural- urban residence***

[2] Because results for 8th grade students may be affected by variations in school environment (8th graders can be in a middle school or junior high) and the potential for high risk students to have dropped out before entering 12th grade we chose to limit the results presented here to 10th grade students

ACTIVITIES:
Youth Programs

By understanding the unique needs of youth with special needs and disabilities, injury prevention planning can identify resources and educational approaches that are accessible, culturally and developmentally appropriate, and family-centered. Family-centered approaches recognize the unique partnership roles that youth, parents, and professionals play in improving outcomes for youth with disabilities.

There are no direct activities sponsored by the Department of Health (DOH) that specifically target injury prevention in youth with disabilities. However, some programs that address youth development or injury prevention in youth include:

- **Youth Suicide Prevention Program:** The DOH Injury and Violence Prevention Program manages state and federal funding for youth suicide prevention efforts statewide. Activities are carried out through state and community partners to raise awareness of the problem, identify and intervene with suicidal youth when signs first appear, and to mobilize communities to prevent suicidal behavior before it begins. Training professionals and lay persons is also a critical component of this prevention effort.
- **Adolescent Health Transition Project:** The Children with Special Health Care Needs Program at DOH contracts with the University of Washington Center for Human Development and Disability and the Adolescent Health Transition Project to provide education and information through a variety of media and forums on health and life transitions for youth with special needs. The focus is on assisting parents, youth, and medical providers with the tools and resources needed to provide comprehensive care to youth with special needs.
- **Parent to Parent:** The Children with Special Health Care Needs Program contracts with and supports a number of organizations that provide information and support to families of children and youth with special health care needs. Parent to Parent services includes Person Centered Planning for youth with disabilities to assist them to transition to school and adulthood, as well as referrals to many other programs and services.
- **Safe Kids**: Safe Kids Washington collaborates with local Safe Kids Coalitions and the extensive network of organizations that promote increased awareness, knowledge and skills about injury prevention. State and local coalitions work with partners to promote safe lifestyle choices and behaviors; they develop and promote model policies, laws and regulations supporting injury prevention, and establish and maintain a physical environment supporting injury prevention activities. Local coalitions provide bicycle helmets, child car seats and personal flotation devices for families, including child car seats for children with special needs.
- **Teen Driving Roundtable**: Washington's Teen Driving Task Force was trained in Atlanta in 2006, and continues to meet. The group developed a strategic plan in spring 2009, and continues to focus on: improving the graduated license law, driver education, and parental involvement when teens get their learner permit. The Task Force is involved in

planning Teen Driving Safety Month activities for October 2009. The overarching goal is to reduce crashes, disabilities, and deaths. In Washington, public and commercial driving schools teach teens with disabilities to drive and make accommodations as needed.

Washington's Development Disability Council's Youth Leadership Project: This project trains, educates and supports youth with developmental disabilities in a culturally diverse leadership forum. Topics include: disability civil rights movement, public policy, leadership skills, self-determination, achieving employment, and achieving community living. The project is an inclusive club and all students, faculty and community members are welcome. http://www.ddc.wa.gov/Council_Projects.html

RESOURCES:

- **National Youth Leadership Network:** The National Youth Leadership Network is dedicated to advancing the next generation of disability leaders. It promotes leadership development, education, employment, independent living, and health and wellness among young leaders; fosters the inclusion of young leaders with disabilities into all aspects of society at national, state and local levels; communicates about issues important to youth with disabilities and the policies and practices. Information at: www.nyln.org
- **Kids As Self-Advocates:** This project is a national, grassroots network of youth with special needs and our friends, speaking on behalf of ourselves. We are leaders in our communities, and we help spread helpful, positive information among our peers to increase knowledge around various issues. Information at:www.fvkasa.org
- **Healthy and Ready to Work:** Success in the classroom, within the community, and on the job requires that young people with special health care needs stay healthy. To stay healthy, young people need an understanding of their health and to participate in their health care decisions. The program provides information and connections to health and transition expertise nationwide – from those in the know, doing the work and living it! Information at: www.hrtw.org

For More Information:

Healthy Youth Survey: https://fortress.wa.gov/doh/hys/

Youth Suicide Prevention Program: http://www.yspp.org/

Adolescent Health Transition Project: http://depts.washington.edu/healthtr/

Genetics: http://www.doh.wa.gov/cfh/mch/Genetics/default.htm

Parent to Parent: http://www.arcwa.org/parent_to_parent.htm

Youth Disability Screener: http://depts.washington.edu/yqol/instruments/YDS.htm

National Council on Disability: www.ncd.gov

Center for Children with Special Health Care Needs: www.cshcn.org

Washington State Coalition against Domestic Violence: www.wscadv.org/projects/disability_protocols.htm

Washington State Domestic Violence Hotline: 1-800-562-2605

National Suicide Prevention Lifeline: 1-800-273-TALK or www.suicidepreventionlifeline.org

Washington Coalition of Sexual Assault Programs: www.wcsap.org

Links to external resources are provided as a public service and do not imply endorsement by the Washington State Department of Health. All links were correct at time of publication.

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To submit a request, please call 1-800-525-0127 (TDD/TTY 1-800-833-6388).
DOH Publication Number: 160-023

MEDICAL HOME DATA MONOGRAPH

Medical Homes for Children in Washington State

Washington State Department of Health, Office of Maternal and Child Health, May 2007

BACKGROUND:
About Medical Home

> *"A medical home is not a building, house, or hospital, but rather an approach to providing comprehensive primary care. A medical home is defined as primary care that is* ***accessible, continuous, comprehensive, family centered, coordinated, compassionate, and culturally effective.***"
>
> American Academy of Pediatrics

A medical home is not a place; it is an approach to providing high quality, comprehensive primary health care services. Medical homes promote efficient use of limited health care resources. For the past 20 years, the focus of Medical Home has been on the population of children with special health care needs. It is now expanding to include all children and adults.

Studies show that children with special health care needs who have a medical home have less delayed care, less forgone care, fewer unmet health needs, and fewer unmet needs for family support services.[1] When children with special health care needs have a medical home parents report improved care delivery, fewer hospitalizations for their children, and a decrease in the number of days parents are unable to work.[2] In addition, children who qualify for the Vaccines for Children program were more likely to receive vaccinations on time if they had a medical home.[3]

The medical home approach is supported by the American Academy of Pediatrics, the American Academy of Family Physicians, National Association of Pediatric Nurse Practitioners, American College of Physicians, American Osteopathic Association, Family Voices, and the US Maternal and Child Health Bureau. A national Healthy People 2010 goal is that all children with special health care needs will receive coordinated, ongoing, comprehensive care within a medical home.

METHODS:
Measurement of Medical Home

The components of a medical home are numerous. The American Academy of Pediatrics identified 37 qualities that make up a medical home.[4] The Child and Adolescent Health Measurement Initiative (CAHMI) developed a uniform measure of medical home to be used in population-based surveys such as the National Survey of Children's Health (NSCH).[5] For the purpose of measurement,[6] a child must have the following characteristics to be considered as having a medical home:

1. Have a personal doctor or nurse.
2. Have had preventive care in the past year.
3. Get needed care.
4. Receive family-centered care.
5. Have easy access to specialists or equipment.
6. Have follow-up care after receiving specialist care or equipment.

DATA:

Children with Medical Homes in Washington State: Data from the National Survey of Children's Health

One Family's Experience

Misha, a two-year old boy in a Russian immigrant family, is not talking and shows no interest in toys. He runs away from his parents, spits on people, and screeches. His parents have a hard time taking him anywhere, and are worried about his development.

At the doctor's office, they talk about their concerns with the help of a translator. The doctor listens and screens the child for autism spectrum disorder and developmental delay. The doctor develops a brief, written care plan for Misha and his family, based on her medical expertise and input from the family. She refers Misha to early intervention services.

That very day the family is connected with a person in the clinic, who walks the family through the referrals and community resources, including parent support groups such as Parent to Parent and Fathers Network.

Office staff flag Misha's medical file with a "child with special health care needs" label. Every time his parents call, staff can see that he has special needs and schedule a longer appointment.

An estimated 49% of all Washington children from birth to age 17 years met all six components of a medical home in 2003 (Table 1). This estimate is from the Centers for Disease Control and Prevention (CDC) administered National Survey of Children's Health (NSCH). The NSCH is a telephone-based survey of parents. This estimate is similar to the US rate of 46%.[7]

Results on **race and ethnicity** show that Hispanic children were less likely to have a medical home compared with non-Hispanic white children. However, Hispanic children were more likely to live in poverty, compared with non-Hispanic white children. When poverty status was taken into account, the difference between Hispanic and non-Hispanic whites was no longer significant. The survey found no differences between other racial groups. No information was available for the American Indian and Alaska Native population.

Children whose families speak a **language** other than English were also less likely to have a medical home compared with English-speaking families. However, rates were similar when poverty status was taken into account.

Younger children (age 0-4) were more likely than older children to have a medical home.

Families with incomes below 100% of the federal **poverty** level and households whose members had less than 12 years **education** were less likely to report having a child with a medical home. However, these two characteristics are often associated - families whose members had less than 12 years of education were also more likely to have lower income. When using a statistical test to examine income and education at the same time, low income was no longer related to having a medical home. Those with less than a high school education were still less likely to have a medical home, compared with those with more than a high school education. When examining this by the six criteria that make up medical home, those who have less than a high school education were less likely to report that their child received needed medical care, had a personal doctor or nurse, or received family-centered care.

Children with **health insurance** were more likely to have a medical home than those without health insurance. Children who had private health insurance had the highest rate of medical home, followed by children who had Medicaid or State Children's Health Insurance Program (SCHIP). Both private insured children and those with Medicaid or SCHIP were significantly more likely to have a medical home compared with children who did not have health insurance. This relationship remained even after controlling for income and education.

Overall, children with **special health care needs**[8] had a similar rate of medical home as those without special health care needs.

Table 1: Characteristics of Children Ages 0-17 who have a Medical Home, Washington State, NSCH 2003 (N = 1,913)		
	%	95% CI
Overall percentage	49	46 , 51
Race/ethnicity		
Non-Hispanic White	50	47 , 53
Non-Hispanic Black	39	25 , 55
Non-Hispanic Asian	49	35 , 63
Hispanic	41	34 , 48
Age of child		
0-4	63	58 , 67
5-9	48	42 , 53
10-14	41	37 , 46
15-17	41	36 , 47
Gender of child		
Male	49	46 , 53
Female	48	44 , 52
Poverty status		
< 100% FPL	41	33 , 49
100-199% FPL	50	43 , 56
200-399% FPL	45	40 , 49
≥ 400% FPL	58	54 , 62
Language spoken at home		
English	50	47 , 52
Non-English	38	29 , 47
Health insurance of child		
Private	52	49 , 55
Medicaid or CHIP	46	40 , 51
None	26	18 , 36
Special Health Care Needs		
Yes	45	39 , 51
No	49	46 , 52

Examining the Medical Home Measure

When looking at each of six criteria of the medical home measure, some occurred more often than others (Table 2, last column). For example, among all children in Washington State, approximately 85-90% received needed care, had personal doctors or nurses, had easy access to specialists or equipment, or received family centered care. However, only 78% of children received preventive care within the past year, and only 54% of parents reported that their doctors or nurses did follow-up care after their children received care from a specialist or obtained special equipment.[7]

Table 2: Percent of Children Meeting Medical Home Criteria
Washington State, NSCH 2003

	Special Health Care Needs (n = 334) %	No Special Health Care Needs (n = 1,598) %	All Children (N = 1,932) %
Personal doctor or nurse*	92	85	**86**
Preventive care in past year*	92	75	**78**
Gets needed care	87	91	**90**
Family-centered care	89	84	**85**
Easy access to specialist or equipment*	77	91	**85**
Follow-up on specialist or equipment	49	58	**54**
Meet all six criteria of Medical Home measure	45	49	**49**

* Statistically different ($p < 0.05$) based on chi-square test.

Children with Special Health Care Needs (CSHCN) and Medical Homes

In Washington State, approximately 45% of the children with special health care needs[8] (CSHCN) had a medical home in 2003. The measurement of CSHCN is based on parent report of a condition lasting 12 months or longer that limited ability and required specific medical, social, or educational services and/or prescriptions. This rate is not statistically different from the rate of 49% for all children (Table 1).

From parent reports in the NSCH, CSHCN were more likely to have personal doctors or nurses or to have received preventive care in the past year, compared with other children. However, CSHCN had more difficulty accessing specialty care or special equipment. Approximately 77% of CSHCN were reported as having easy access to specialists or equipment, compared with 91% of those without special health care needs who needed specialists or equipment (Table 2).[7]

ACTIVITIES:
Medical Home Promotion

Washington State Senate Bill 5093

The passage of Senate Bill 5093 during the 2006-2007 legislative session, also known as the **Children's Health Insurance** bill, increases health care coverage for children in order to improve access to care within a **medical home**. Children impacted by this bill are those who live below 300% of the Federal Poverty Level (approximately $62,000 for a family of four in 2007).

Other statewide efforts to increase access to medical home include:

- The Healthy Coalition for Children and Youth
- Washington Chapter of the American Academy of Pediatrics
- Docs for Tots
- Children's Alliance
- Department of Social and Health Services
- Washington State Partnership for Youth

In 2006, the Washington State Department of Health's Children with Special Health Care Needs Program met with partners from family organizations, health care provider groups, state agencies, health care plans and other groups to develop and launch a Washington State Medical Home strategic plan for CSHCN. This 2010 Strategic Plan was built on the 2000 "Promise to the State," Washington's original "road map" for achieving medical homes for all CSHCN. The plan is available online at: http://www.medicalhome.org/4Download/strategicplan.pdf.

Awareness of the need for medical homes for children continues to grow in Washington State. The medical home model of care is promoted in many key state documents including the Washington State Board of Health's 2006 State Health Report. This report outlines the formation of the Healthy Washington Workgroup as requested by Governor Gregoire. The workgroup includes several state agencies and its purpose is to craft a prevention agenda for the state of Washington. The prevention agenda is focused on five goals. One of these goals is to "increase the proportion of children and youth who have a medical home."

Additionally, Kids Matter, a collaborative and comprehensive strategic framework for building an early childhood system in Washington State, aims to improve physical and mental health outcomes for children. Kids Matter identifies specific achievable outcomes with respect to: (1) Access to health insurance and medical homes, (2) Mental health and social-emotional development, (3) Early care and education/child care, and (4) Parenting information and support. For more information about Kids Matter, visit this Web page http://www.earlylearning.org/kids-matter.

RESOURCES:
Medical Home Model

Washington State Medical Home Web Site http://www.medicalhome.org/

American Academy of Pediatrics National Center of Medical Home Initiatives for Children with Special Needs www.medicalhomeinfo.org and http://www.aap.org/

The Center for Medical Home Improvement www.medicalhomeimprovement.org/

Improving Chronic Care www.improvingchroniccare.org/

National Initiative for Children's Healthcare Quality (NICHQ) www.nichq.org/nichq

Links to external resources are provided as a public service and do not imply endorsement by the Washington State Department of Health. All links were correct at time of publication.

Other States' Websites:

Utah Collaborative Medical Home Project: http://medhome.med.utah.edu/.
Medical Home portal for Utah- detailed diagnosis-specific information, billing/coding tips and more.

Oregon Medical Home Project: http://cdrc.ohsu.edu/oscshn1/medicalhome/index.html
Diagnosis-specific care guidelines, Oregon services for special needs, and more. Information for health care providers, families, and educators.

Illinois Division of Specialized Care for Children: www.uic.edu/hsc/dscc/
Diagnostic-specific care guidelines, brochures for families and providers and more.

California and Los Angeles Medical Home Projects: www.medicalhomela.org/
Medical Home training modules for providers and more.

Center for Children and Infants with Special Needs, Cincinnati Children's Hospital
www.cincinnatichildrens.org/svc/alpha/c/special-needs/
See especially the Special Needs Resource Directory, a national model.

Southwest Institute for Children and Families with Special Needs (Arizona):
www.swifamilies.org/medhomes.htm Medical Home project has articles for parents and forms for health care providers. Main website also has information on adolescent health care transition.

Vermont Child Health Improvement Project (VCHIP): www.med.uvm.edu/vchip/HP-DEPT.ASP?SiteAreaID=513
Model for how quality improvement activities can be used to bring together state partners to improve health care services for children. Based at the University of Vermont, College of Medicine, VCHIP collaborates on many health care quality improvement projects locally and nationally. These include child development, newborn and childhood preventive services, ADHD, asthma, foster care, prenatal care, opiate-exposed newborn care and adolescent health.

The National Center of Medical Home Initiatives for Children with Special Needs has state specific medical home pages at: http://www.medicalhomeinfo.org/states/index.html.

Links to external resources are provided as a public service and do not imply endorsement by the Washington State Department of Health. All links were correct at time of publication.

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[4] See the AAP Medical Home Policy Statement (http://aappolicy.aappublications.org/cgi/content/full/pediatrics;110/1/184) for more detail.
[5] This measure was created to calculate medical home in the National Survey of Children's Health, National Survey of Children with Special Health Care Needs, the Medical Expenditure Survey, and the HEDIS Consumer Assessment of Health Plans.
[6] The measurement does not include every quality typically used to define a medical home. See the AAP Medical Home Policy Statement (http://aappolicy.aappublications.org/cgi/content/full/pediatrics;110/1/184) for more detail.
[7] 2003 National Survey of Children's Health. Data available at http://www.cdc.gov/nchs/about/major/slaits/nsch.htm
[8] Children with special health care needs (CSHCN) are those who have or are at increased risk for chronic physical, developmental, behavioral, or emotional conditions and who require health and related services of a type or amount beyond that required by children and youth generally.

Primary Care Providers' Perspectives on Serving Young Adults with Special Health Care Needs

Washington State Department of Health, Division of Community and Family Health, Office of Maternal and Child Health, Children with Special Health Care Needs Program, July 2009

Background and Methods

In Washington State, an estimated 14 to17 percent of children age 17 and younger have a special health care need.[1,2] As youth with special health care needs grow into adulthood, they need to successfully move from pediatric care into adult health care. Health care providers, families, and young adults have identified many barriers in this transition. Some barriers reported by youth and their families include lack of adequate health insurance coverage, lack of care coordination, and inability to access needed care.[3] Barriers reported by health care providers include reimbursement issues, lack of knowledge about transition planning, and not being comfortable providing care for patients with chronic childhood illnesses. Providers also report lack of training or resources to effectively treat young adults with special health care needs and poor communication across providers and systems of care. [4,5,6] In addition, families, youth, and pediatricians may be reluctant to end their long-term patient-provider relationship.[7,8] Only 47 percent of youth with special health care needs age 12-17 in Washington State receive the services necessary to make a successful transition to adult care, work, and independence.[9]

The American Academy of Pediatrics, American Academy of Family Physicians, American College of Physicians, and the Society for Adolescent Medicine recognize the importance of transition of youth with special needs to adult care.

In 2008, the Washington State Department of Health surveyed primary care providers who see adult patients in Washington. The purpose of this survey was to learn about ways to increase and improve adult health care services for young adults with special health care needs, like childhood onset chronic illness or developmental disabilities. Sampled providers included physicians, nurse practitioners, and physician assistants in rural and urban[10] areas of the state. We also surveyed physicians that have the combined specialty of pediatrics and internal medicine (Med-Peds). Providers received three mailings: a pre-survey letter (day 1), the survey and cover letter (day 8), and a reminder post card (day 18). We sent 641 surveys and received 98 responses (15 percent response rate).

Provider type	Response rate	n
Urban physicians	11%	11
Urban internal medicine physicians	7%	18
Urban nurse practitioner or physician assistant	16%	17
Rural physicians	17%	20
Rural internal medicine physicians	10%	7
Rural nurse practitioner or physician assistant	18%	10
Med-Peds Physicians	26%	5
Unknown	-	10
Overall	**15%**	**98**

A health provider database supplied names and addresses for survey distribution. Quantitative data were analyzed with Microsoft Excel and qualitative data were analyzed using NVIVO 8.

Results

Barriers in caring for patients with childhood onset chronic illness or developmental disability

Financial and Documentation Barriers

- Lack of adequate compensation for caring for young adults with special needs, particularly those with Medicaid. Some respondents dealt with this barrier by limiting the number of patients with Medicaid from their practice or not accepting patients with Medicaid at all.

  "With the persistent rise in overhead and stagnant or reduced reimbursement, we can't continue to take on under/ non-insured patients and keep our doors open." - Internal medicine physician

  "If it was reasonably reimbursed the organization I work in would not limit us on accepting a higher percentage of Medicaid insured patients." - Family practice physician

  "There is nothing I can do, we need a certain income in order to keep the clinic open; this is not negotiable. These patients require a lot of time." - Family practice physician

- Non-reimbursement for required paperwork and documentation, specifically for patients with Medicaid.

  "Low reimbursement, consuming paperwork and difficult cases all contribute to not accepting those patients into our practice." - Family practice physician

  "The additional paper work, phone calls, coordination of services is an un-reimbursed paperwork nightmare - and I already drown in paperwork." - Internal medicine physician

- Internal medicine physicians reported the largest barriers to accepting young adults into their practice were lack of insurance, Medicaid paperwork, or Medicaid reimbursements. Physician Assistants and Nurse Practitioners reported the least barriers.

Other barriers

- Lack of provider experience, support, time, or lack of collaboration with specialists for caring for these patients with higher needs.

  "These patients are all time intensive and require collaboration with multiple other specialists, therapists and durable medical." - Internal medicine physician

- Lack of transportation for patients to get to and from appointments.

  "Mobility is our biggest issue. If clients can get to our clinic we can provide primary care." - Nurse Practitioner

- Lack of caregiver knowledge and involvement.

Providers' needs

- Assistance from other professionals such as specialists, social services providers, and mental health providers. The need for mental health providers was mentioned frequently by providers in the Eastern part of Washington.

  "The main issue with this is the lack of available psychiatric practitioners, especially for children or teens." - Nurse Practitioner

  "Specialist support such as for patients with neurological or psychiatric complex medications." - Family practice physician

  "A specialty clinic from a pediatrician who knows the patient sending a detailed summary of current medical problems and current plan of management." - Family practice physician

- Care coordinators in their office.
- Community resources.
- Adequate reimbursement.

What's currently working

- Education, training, or experience.

  "Spend time each year performing continuing education hours enhancing knowledge."
  - Family practice physician

  "Have been in the medical field for more than 25 years; personal experience."
  - Physician's Assistant

- Successful collaboration with specialists.

  "Consultants from Children's Hospital and local neurologists have been helpful with behavioral problems."
  - Med-Peds physician

  "We have team approach working with Social Workers, MDs, Dietitians and RN - each member of the team offers tools and experience to care for these complicated patients." - ARNP

  "Consultation with psychiatry for behavior management issues." - Family practice physician

- Involved families and caregivers.

  "Family support makes the most difference in providing care to those patients." - Nurse Practitioner

"(The) family support of patient is most helpful."- Family practice physician

"Caregiver comes to office visits with paperwork, staff reports, etc" - Internal medicine physician

- Making practice changes, like providing longer appointment times and other accommodations to patients.

  "(We) use computer in exam room to type notes to patients in very large type and show pictures." - Internal medicine physician

  "We schedule longer visits."- Family practice physician

  "Patients in this practice who do not qualify for some type of insurance or state assistance usually qualify for discount services."- Physician's Assistant

- Ability to access professional resources through the Internet or fact sheets.

Conclusions

This report documents the challenges of transitioning adolescents with special health care needs into adult care in Washington State. Many of the barriers health care providers experience, such as difficulties with reimbursement, lack of experience and knowledge, and lack of specialist support have been documented in the literature and by other states.[3-8,10,11] These represent significant challenges for youth and their families. Although financial issues were the most frequently mentioned barrier by health care providers, vastly improved reimbursement rates alone would not eliminate all the barriers to successful transition.

Based on the information from this survey, transition of young adults from pediatric to adult care may be improved by increasing parent-provider relationships in the medical home, provider reimbursement, and provider training – all areas the Department of Health and partners are working to improve. Survey respondents noted the key role parents and families play in improving transition and care; a similar study in Massachusetts describes the role of parents and guardians as "educators of health care professionals."[3] We also know that strong parent-provider relationship increases the likelihood of having adolescent transition issues addressed.[12]

This survey confirms that a multi-pronged approach is needed to prepare youth and their families for the challenges ahead and prepare adult providers to accept youth and young adults with special needs into their practices.

Potential Solutions

Reimbursement

The most frequently mentioned barrier to providing care was the low reimbursement rate and non-reimbursed time needed to care for patients with Medicaid.

The Department of Health and partners are addressing this by getting information from providers about their needs, assisting in implementation of legislation that assures coverage for more children and young adults and more billable components of services, and providing information to young adults and families about insurance options.

Provider Training

Providers report training is helpful in caring for patients with special needs. The Department of Health partners with the Adolescent Health Transition Project and the Medical Home Project at the University of Washington Center on Human Development and Disability to provide web-based information for providers and families. These resources can be accessed at http://depts.wa.edu/healthtr and www.medicalhome.org. A guide for transitioning adolescents and their families is the *Adolescent Health Transition Notebook*, also available at http://depts.wa.edu/healthtr/notebook. The Center for Children with Special Needs at Seattle Children's Hospital and Regional Medical Center (www.cshcn.org) offers care plans and other resources for teens.

Medical Home

Information from this survey reinforces the importance that every child has a medical home.[13] Providers reported that family involvement in the child's' care and collaboration and communication between primary care provider and specialist help the provider care for patients with special needs.

Awareness of the need for medical homes for children continues to grow in Washington. Successful legislation passed in 2008 to enroll primary care providers in medical home learning collaboratives. The learning collaborative is a short-term (6–15 months) learning system that brings together teams from hospitals or clinics to focus on a specific topic. In this case, how to become a medical home. Assuring adolescents have a medical home should improve their transition to adult health care.

Limitations

Because of the low survey response rate (15 percent), information from this survey cannot be generalized to all health care providers in Washington. In addition, responders may be biased toward those with more experience or with strong opinions about this topic, compared with non-responders. However, since the main purpose of this survey was to learn about solutions to the difficulties of adolescent transition to adult care, those that have experience or interest in this topic would likely provide the most useful information.

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[1] Children and youth with special health care needs are those who have chronic physical, developmental, behavioral, or emotional conditions and who require health and related services of a type or amount beyond that required by children and youth generally.

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[11] Peter, N. G., Forke, C. M., Ginsburg, K. R., & Schwarz, D. F. (2009). Transition from pediatric to adult care: internists' perspectives. *Pediatrics, 123*(2), 417-423.
[12] Scal, P., & Ireland, M. (2005). Addressing transition to adult health care for adolescents with special health care needs. *Pediatrics, 115*(6), 1607-1612.
[13] Medical Home is an approach to delivering primary health care through a team partnership that ensures health care services are provided in a high quality and comprehensive manner.

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Preconception Health Focus Groups in Washington State 2006-2007

Summary

Background

Preconception care aims to improve reproductive outcomes by promoting and improving the health of women prior to and in between pregnancies. In order to inform effective strategies for influencing women's preconception health in Washington State, the Washington State Department of Health (DOH) sought to better understand the current perspectives and behaviors of both reproductive age women and health care providers regarding healthy living and the use of primary care services.

Specifically we were interested in hearing from women about their:

- Awareness, beliefs, behaviors related to healthy living
- Primary care service patterns
- Motivators and barriers to healthy living

We were interested in hearing from providers about:

- Their attitudes, beliefs, and behaviors related to preconception care
- Whether women currently seek preconception services
- Barriers to providing preconception care
- Elements of preconception care
- Tools and information they use

Methods

DOH contracted with Gilmore Research Group to conduct seven focus groups with women 18-29 years, and four focus groups with primary health care providers between November 2006 and April 2007. Women were recruited from communities using random digit dialing of Gilmore databases, and from women responding to postings asking for participants. Practitioners were recruited from among a random sample of providers from a Department of Health database. Detailed discussion guides were developed for both the women's and provider focus groups. Initially, women were asked, "What does it mean to be healthy?" After their unaided responses, they were asked to rank a list of healthy living messages (see birth control pamphlet) developed by the Department of Health. Providers were asked what preconception care meant to them, what elements it should include, their experiences providing preconception care and barriers to providing screening and care. Focus groups were audiotaped and transcribed, and themes were identified from the transcripts.

Women's Focus Groups

- Seven groups – total of 49 women
- Ages 18-29, groups were 18-22 yrs and 23-29 yrs
- Mix of incomes, marital status and parity
- Some smokers in each group and two groups were all smokers (23-29 yrs)
- Two each in Seattle and Yakima
- One in Tacoma, Longview and Aberdeen

Provider Groups

- Two in person – Seattle and Spokane
- Two phone- one was nurse practitioners
- 27 physicians and 8 nurse-practitioners
- Mix of obstetrician-gynecologists and family practice MDs
- Some provided obstetric care, some did not
- Urban, rural, private and public practitioners

Results – Women's groups

- Most women were aware of what healthy living means; some questioned the import especially outside of pregnancy

- Overall, women ranked getting plenty of rest, eating a variety of foods, and seeing a health care provider regularly as most important for healthy living
- Overall, women considered avoiding tobacco use, seeing a dentist, drinking in moderation, taking a multivitamin, and seeing a provider if depressed as less important
- Similar responses from focus groups with smokers
- Smokers felt women "must want to quit to be successful" and must try several times to be successful
- Several themes emerged – prevalence of drugs in women's lives, unintended pregnancies, lack of role models for trusting and respectful relationships
- Women cross-checked multiple sources for information – mom, friends, TV, Internet to determine whether to seek health care

Barriers to Healthy Living

- Women reported all healthy living behaviors difficult to maintain
- Stress, limited time, cost, insurance coverage, lack of social support were all reported as barriers
- Dissatisfaction with strategy, or with providers
- Social culture promotes drinking, smoking and drug use
- Lack of understanding the true importance to health of some behaviors
- Smokers identified stress, and socializing and drinking as triggers for smoking

Motivators for Healthy Living

- Children- wanting to set an example, and pregnancy
- Wanting to look good
- Health experiences of family members – positive and negative
- Having good supportive people in one's life
- Motivators for smokers included positive role models, partner support
- Tobacco Quit Line and nicotine replacement therapy mentioned as contributing to smoking cessation

Results- Provider Groups

- Most providers associated preconception health with women who are actively trying to conceive
- Felt women rarely seek this care. Those who do are middle-upper class and well educated
- Providing many of the elements of preconception care was a priority, but considered general primary health care
- Felt low income women, women with high risk behaviors, chronic medical conditions, significant family history and past adverse outcomes most in need of preconception care
- Many providers are focused on preventing unintended pregnancy, and may not cover preconception elements.
- Providers prioritized elements most likely to negatively affect birth outcome: tobacco, alcohol & drug use.
- Providers saw adequate sleep and stress management as lower priority
- Providers reported taking good family history and referring for genetic counseling as needed

Providers Barriers

- Reimbursement – could only code as annual exam
- Lack of time to meet and counsel patients
- Many felt that those most in need of this care have no access to it due to lack of any health insurance
- Presence of parent in room with teen
- Lack of family support system and education
- Communication barriers with non-English speaking patients
- Women come in well into pregnancy – too late
- First time patients uncomfortable discussing many of these issues
- Provider attitudes – focus exclusively on birth control

Provider Needs

- Materials in different languages
- Additional referral resources for drug and alcohol treatment, dental care
- Easy to use web site – info and links for additional information about preconception related topics
- Local referral resource guide – updated often

- More info on Medicaid eligibility
- Information on occupational toxins
- Shared electronic records
- Checklists that prompt with additional questions and actions

Conclusions and next steps

- Women understand what healthy living means, but find behaviors difficult to maintain
- Promotion activities will need to consider stress, lack of time, and cost for success
- Providers currently doing some preconception work
- Interconception care may initially be more acceptable due to identified risks and parental motivation
- Need reimbursement options and more time for providers to counsel women
- Tools like up to date referral resources and checklists would be useful
- WA DOH beginning work with existing programs to integrate preventive care across lifespan

Washington State

Healthy Youth Survey

2008 Analytic Report

January 2010

Washington State Healthy Youth Survey 2008

Analytic Report

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Executive Summary

Background

The Washington State Healthy Youth Survey (HYS) is an effort to measure health risk behaviors that contribute to morbidity, mortality, and social problems among youth in Washington State. The survey results serve as important needs assessment data for program planning and offer a global look at the effectiveness of statewide prevention and health promotion initiatives based on a range of education and health-related goals at the federal and state levels. The 2008 administration of the Healthy Youth Survey (HYS 2008) represents a collaborative effort among the Department of Health; the Office of Superintendent of Public Instruction; the Department of Social and Health Services' Division of Behavioral Health and Recovery; the Department of Commerce; the Family Policy Council; the Liquor Control Board, and the contractor, RMC Research Corporation. Representatives of these agencies served as members of the Joint Survey Planning Committee, which guided every aspect of the survey development and implementation. The 2008 administration was the 11th statewide survey of Washington's students. This report provides results of HYS 2008, including comparisons by grade, gender, and over time.

Participation

The Department of Health selected three simple random samples of schools with Grades 6, 8, 10/12 to constitute a representative sample of Washington's Grade 6, 8, 10, and 12 students. Of those schools asked to participate in the survey, about 87 percent with Grade 6 students, 88 percent with Grade 8 students, 83 percent with Grade 10 students, and 75 percent with Grade 12 students took part in the survey. An estimated 76 percent of the Grade 6 students, 77 percent of the Grade 8 students, 60 percent of the Grade 10 students, and 50 percent of the Grade 12 students in these schools took part in the survey (estimates based on 2007–2008 enrollment data from the Office of Superintendent of Public Instruction). A total of 203 schools and 32,531 students contributed data to the statewide sample. In addition, 165,781 students in 904 schools participated in the survey as non-sampled schools. These additional schools received reports of their own results, but those results are not included in this statewide report because the schools were not part of the representative statewide sample.

Results

Some behaviors increase with age and others decrease. Most of the following results below are presented as a range, reporting from the lowest to the highest grade.

Physical Activity and Dietary Behavior

Self-reported data on height and weight indicate that about 11 percent of Grade 8, 10 and 12 students were obese. In addition, 14 to 16 percent were overweight.

Sixty minutes of physical activity on at least five days a week are recommended for youth. Meeting the physical activity recommendation ranged from 62 to 40 percent of Grade 6, 8, 10 and 12 students. Watching television or playing video games three or more hours a day on an average school day was reported by 51 percent of Grade 8 students, 53 percent of Grade 10 students and 48 percent of Grade 12 students

Eating fruit and vegetables five or more times per day over the past seven days ranged from 28 to 22 percent among Grade 8, 10 and 12 students. Eating dinner with their family most of the time or always was reported by 76 percent of Grade 6 students, 67 percent of Grade 8 students, 56 percent of Grade 10 students and 48 percent of Grade 12 students. Between 16 and 21

percent of Grade 8, 10 and 12 students reported that their family had to cut meal size or skip meals because of lack of money for food in the past year.

Drinking two or more sodas on the previous day ranged from 13 to 15 percent of Grade 8, 10 and 12 students. There was a significant decrease in drinking two or more sodas for Grade 10 and 12 students from 2006. Drinking regular soda, sports drinks, or other sweetened drinks at school (including after school or weekend activities) ranged from 68 to 69 percent of Grade 8, 10 and 12 students. Among those who drank soft drinks at school, between 28 to 33 percent of Grade 8, 10 and 12 students reported purchasing soft drinks at school. From 2006, there was a significant decrease in drinking soft drinks at school among Grade 12 students, and significant decreases in buying soft drinks at school among Grade 8, 10 and 12 students.

Health Status and Health Care

Doctor-diagnosed, or lifetime, asthma ranged from 18 to 21 percent of Grade 8, 10 and 12 students. Between 8 and 10 percent of Grade 6, 8, 10 and 12 students reported having current asthma. Doctor-diagnosed, or lifetime, diabetes ranged from 4 to 5 percent of Grade 8, 10 and 12 students.

Visiting a doctor or health care provider in the past year for a checkup or physical exam when not sick or injured ranged from 57 to 61 percent of Grade 8, 10 and 12 students. There was a significant increase in Grade 8 and 12 students seeing a doctor from 2006. Visiting a dentist in the past year for a checkup, exam, teeth cleaning, or other dental work ranged from 70 to 74 percent of Grade 8, 10 and 12 students.

Experiencing depressive feelings during the past year ranged from 24 to 30 percent of Grade 8, 10 and 12 students (i.e., had ever felt so sad or hopeless almost every day for two weeks in a row that they stopped doing some usual activities).

Seventy-seven percent of Grade 8, 71 percent of Grade 10, and 48 percent of Grade 12 students were taught about HIV/AIDS infection last year in school. In addition, 73 percent of Grade 8 and 10, and 52 percent of Grade 12 students were taught about abstinence and other ways to prevent pregnancy and STDs.

School Climate

Feeling safe at school ranged from 88 to 85 percent of Grade 6, 8, 10 and 12 students. There was a significant increase in Grade 10 and 12 students feeling safe at school from 2006. However, 30 percent of Grade 6, 29 percent of Grade 8, 23 percent of Grade 10 and 16 percent of Grade 12 students were bullied at school in the past month. Additionally, 7 to 15 percent of Grade 8, 10 and 12 students were harassed because of their perceived sexual orientation. There was a significant decrease in Grade 12 students being harassed due to perceived sexual orientation from 2006.

Fighting at school in the past year ranged from 16 to 8 percent of Grade 8, 10 and 12 students. There was a significant increase in Grade 12 students fighting at school from 2006. Additionally, between 6 and 8 percent of Grade 8, 10 and 12 students carried weapons at school in the past month.

Eight percent of Grade 8, 17 percent of Grade 10, and 20 percent of Grade 12 students were drunk or high at school in the past year. There was a significant increase in Grade 8 students being drunk or high at school from 2006. Using tobacco at school in the past month ranged from 4 to 11 percent of Grade 8, 10 and 12 students. Having someone at school with whom they could discuss substance-related problems (such as a counselor, intervention specialist, or some other school staff member) ranged from 66 to 60 percent among Grade 8, 10 and 12 students.

There was a significant decrease in Grade 8 and 10 students having access to school staff to help them with substance related problems from 2006.

Unintentional Injury Behaviors

Almost all students in Grades 6, 8, 10 and 12 wore their seatbelts always or most of the time, ranging from 96 to 92 percent. Riding in a vehicle in the past month that was driven by someone who had been drinking ranged from 19 to 24 percent of Grade 8, 10 and 12 students. Six percent of Grade 10 and 12 percent of Grade 12 students drove a vehicle in the past month after they had been drinking alcohol.

Of those students who indicated that they rode a bicycle during the past year, 31 percent of Grade 8, 19 percent of Grade 10 and 20 percent of Grade 12 students wore a helmet always or most of the time. Of those students who had been in a small boat such as a canoe, raft, or motorboat, 53 percent of Grade 8, 40 percent of Grade 10 and 34 percent of Grade 12 students always wore a life vest when boating.

Intentional Injury Behaviors

Attempted suicide in the past year ranged from 7 to 9 percent of Grade 8, 10 and 12 students.

Gang membership in the past year ranged from 7 to 9 percent of Grade 8, 10 and 12 students. There was a significant decrease in gang membership among Grade 10 students from 2006.

Alcohol, Tobacco, and Other Drug Use

Alcohol, tobacco, and marijuana continue to be the substances most widely used by youth in Washington. The use of these substances remained relatively stable over the past two years. There were no significant changes in alcohol, binge drinking, cigarettes, chewing tobacco, marijuana, or pain killer use from 2006.

Current alcohol use ranged from 4 to 41 percent among Grade 6, 8, 10 and 12 students. Binge drinking—five or more drinks on at least one occasion during the previous two weeks—ranged from 3 to 26 percent among Grade 6, 8, 10 and 12 students.

Current cigarette smoking ranged from 1 to 20 percent among Grade 6, 8, 10 and 12 students perceptively. Current chewing tobacco use ranged from 1 to 9 percent among Grade 6, 8, 10 and 12 students.

Marijuana is the most widely used illegal substance. Current marijuana use ranged from 1 to 23 percent among Grade 6, 8, 10 and 12 students. The use of prescription pain medication to "get high" ranged from 4 to 12 percent among Grade 8, 10 and 12 students.

As in previous survey administrations, there was a clear relationship between the number of risk and protective factors present and the use of alcohol, cigarettes and marijuana for students in Grade 8 (the only grade examined in terms of risk and protective factors for this report). As the number of risk factors for individual students increased, the more likely they were to use alcohol, cigarettes, and marijuana. Similarly, as the number of protective factors for individual students increased, the less likely they were to use alcohol, cigarettes, and marijuana.

1. Introduction

The Washington State Healthy Youth Survey (HYS) is an effort to measure health risk behaviors that contribute to morbidity, mortality, and social problems among youth in Washington State. These behaviors include alcohol, tobacco, and other drug use; behaviors that result in unintentional and intentional injuries (e.g., violence); dietary behaviors and physical activity; and related risk and protective factors. The survey produces estimates of the prevalence of major adolescent health risk behaviors and provides crucial information to school officials, health professionals, human service agencies, policymakers, and parents as they work together to ensure the optimum health of young people across the state. This report uses the survey results to estimate the current status of these health risk behaviors and examine trends in the behaviors over the past 20 years.

The survey results also serve as important needs assessment data for program planning and offer insight into the effectiveness of statewide prevention and health promotion initiatives designed to reach a range of education- and health-related goals at the federal and state levels. Federal initiatives of interest to readers of this report include these:

- No Child Left Behind (U.S. Department of Education, 2002), which addresses the importance of school safety.
- The National Drug Control Strategy (The White House, 2005).
- The U.S. Department of Education's Safe and Drug-Free Schools and Communities Program Principles of Effectiveness (U.S. Department of Education, 1998).
- The U.S. Department of Health and Human Services' Healthy People 2010 Health Promotion Objectives (U.S. Department of Health and Human Services, 2000a, 2000b).

State initiatives of interest to readers of this report include these:

- The Washington Education Reform Act of 1993.
- The Washington State Board of Health Strategic Plan 2009 (WA State Board of Health, 2009)
- The Washington State Governor's Council on Substance Abuse long-term goals (Lisicich and Owens, 2000).

The 2008 administration of the Healthy Youth Survey (HYS 2008) meets a wide variety of information needs by producing:

- Empirical needs assessment data necessary for planning substance abuse and other prevention and early intervention programs, including county-level six-year strategic plans.
- Data for studying trends of student substance use and abuse and associated risk and protective factors.
- Information to support monitoring of the state's block grant for substance abuse prevention and treatment from the Substance Abuse and Mental Health Services Administration.
- Needs assessment, evaluation, and monitoring of federal grants to prevent and reduce substance use such as the Reducing Underage Drinking Initiative and the Strategic Prevention Framework State Incentive grant.
- Information to support the evaluation of prevention and education programs funded under the federal Safe and Drug-Free Schools and Communities Act, the federal Tobacco Settlement, and the state Omnibus Controlled Substance and Alcohol Abuse Act.

- Data to measure the progress toward attainment of the state's targeted benchmarks for substance abuse prevention established by the Governor's Substance Abuse Prevention Advisory Committee.
- Information on the progress of programs implemented pursuant to the state's Youth Violence Act (E2SHB 2319).
- Information on sexual education in schools used to help monitor implementation of the Healthy Youth Act.
- Needs assessment data used as part of the Comprehensive Needs Assessment for the Maternal and Child Health Block Grant.
- Data that can contribute information to local community profiles designed to help community stakeholders understand the importance of programs that support youth.
- Data to describe risk and protective factors that can be used by local school and community members as they plan or refine school- and community-based prevention and intervention programs.
- Data to support community and state level grant applications.

HYS 2008 represents a collaborative effort by the Department of Health, the Office of Superintendent of Public Instruction, the Department of Social and Health Services' Division of Behavioral Health and Recovery, the Department of Commerce, the Family Policy Council, the Liquor Control Board and the survey contractor, RMC Research Corporation. Representatives of these agencies served as members of the Joint Survey Planning Committee, which guided every aspect of the survey development and implementation. In addition, staff from the University of Washington's Social Development Research Group provided consultation on the risk and protective factors assessment portion of the survey. Staff at the nine Educational Service Districts (ESDs) coordinated local school recruitment efforts and provided technical assistance. Local health jurisdictions, educational agencies, and other local partners provided valuable input into the development and administration of the survey.

The 2008 administration was the 11th statewide survey of Washington's students. Ten of the surveys included students in Grades 6, 8, 10, and 12 and one survey (1999) included students in Grades 9 through 12. The first two administrations—1988 and 1990 (Deck and Nickel, 1989; Gabriel, 1991)—included only questions about alcohol, tobacco, and other drug use and associated risk and protective factors. The 1992 and 1995 surveys (Einspruch and Pollard, 1993; Gabriel, Deck, Einspruch, and Nickel, 1995) also addressed other health risk behaviors. The 1998 survey (Einspruch, Gabriel, Deck, and Nickel, 1998) once again focused on alcohol, tobacco, and other drug use and related risk and protective factors. The 1999 survey (Bensley, VanEenwyk, Schoder, and Tollefsen, 2000) was based on the Centers for Disease Control and Prevention's Youth Risk Behavior Survey (Grunbaum et al., 2004). The 2000 survey (Einspruch, Deck, Nickel, and Hyatt, 2001) was similar to the 1998 survey. The 2002 (Einspruch and Hyatt, 2004), 2004 (Einspruch, 2005), 2006 and 2008 surveys once again included items related to health behaviors, substance use, and related risk and protective factors.

Organization and Purpose of the Report

This report provides the results of the 2008 administration of the Healthy Youth Survey, past results from Washington State surveys. Chapter 1 describes the purpose of this report. Chapter 2 describes the survey methods. Chapter 3 presents results related to physical activity and dietary behaviors. Chapter 4 presents results related to health status and health care. Chapter 5 presents results related to school climate. Chapter 6 presents results related to unintentional injury behaviors. Chapter 7 presents results related to intentional injury behaviors. Chapter 8 details results related to alcohol, tobacco, and other drug use, and Chapter 9 details results pertaining to relevant risk and protective factors. Chapter 10 concludes the report. The report also includes four appendices. Appendix A includes item-level frequency distributions and

associated confidence intervals by grade. Appendix B includes the three survey forms, Appendix C provides a crosswalk across the three forms and Appendix D lists the participating schools.

Chapters 3 through 9 are organized so that the 2008 results are presented first, followed by comparative analyses to test for differences by grade level and gender. Next, the differences in Washington State survey results over time are presented along with the results of comparative analyses to test for differences from 2006 to 2008 and trend analyses for items that have five or more years of data. These comparisons allow readers to view the trends over past years' reports of health risk behaviors among Washington's students at the same grade levels. Throughout the report, national- and state-level goals, objectives, and benchmarks—such as Healthy People 2010 (U.S. Department of Health and Human Services, 2000a, 2000b)—are included to provide a context in which to review the results.

Participation

The Department of Health selected three simple random samples of schools serving Grades 6, 8, and 10/12 to constitute representative samples of Washington's Grade 6, 8, 10, and 12 students. One sample was drawn for Grades 10 and 12 because those grades usually occur together in a high school, whereas Grades 6 and 8 may be together in a middle school or separate in an elementary school or junior high school. Of those schools asked to participate in the survey, about 87 percent with Grade 6 students, 88 percent with Grade 8 students, 83 percent with Grade 10 students, and 87 percent with Grade 12 students took part in the survey. The overall response rates (the number of valid surveys divided by total enrollment in schools that were selected for the state sample) by grade ranged from 50 to 77 percent.

About 76 percent of the Grade 6 students, 77 percent of the Grade 8 students, 60 percent of the Grade 10 students, and 50 percent of the Grade 12 students completed valid surveys. These participation rates are based on the October 2008 enrollment in all sampled schools. Although some of the participation rates are below 70 percent, these findings are expected to be representative of Washington youth in public schools, based on an extensive examination of bias conducted for HYS 2002 and HYS 2004.

RMC Research's analysis of the survey results included a series of quality controls to remove data that were incomplete, obviously inaccurate, or internally inconsistent (e.g., reporting no lifetime use of a substance and also reporting use of the same substance in the past 30 days). The results presented in this report are not perfect estimates—rather; there exists a certain margin of error that is indicated by the confidence intervals provided with the item-level results in Appendix A. A total of 30,346 students in 201 schools contributed data to the statewide results. In addition, 180,505 students in 973 schools participated in the survey as non-sampled schools. Non-sampled schools received reports of their own results, but those results are not included in this statewide report because the schools were not part of the representative statewide sample. Over the life of the survey, the number of participating students has grown: 20,780 in 1995, 52,332 in 1998, 102,532 in 2000, 137,515 in 2002, 185,095 in 2004, 198,312 in 2006 and 210,851 (in 1094 schools) in 2008. This continued increase in participation may reflect increasing interest across the state in health-related information and is a tribute to the collaboration and funding effort among sponsoring agencies and local community members.

Cautions

Readers should bear in mind several cautions when interpreting the survey results presented in this report. This section describes these cautions in detail.

Representativeness

Survey responses are often used to estimate the frequency of behaviors or other characteristics in a population larger than that which actually completed the survey. Thus the results of the survey are used to characterize all Grade 6, 8, 10, and 12 students in Washington even though only a portion of public school students took the survey. This is only possible if the students who participated in the survey are not different from those who did not participate. If they are different, the survey is considered biased and the results are limited in their ability to be generalized to all students. Bias represents systematic error and is different from the random fluctuation measured by confidence intervals. Previous analyses of Healthy Youth Survey bias in 2002 and 2004 found that Healthy Youth Survey results are representative of public school students in Washington, but not representative of youth who attend alternative schools. They also may not be representative of youth who attend private schools, nonpublic tribal schools, home school, juvenile detention, or who have dropped out of school.

Trends

In comparing the results of HYS 2008 survey and earlier surveys, readers should remember that certain factors may influence apparent trends. For example, information about the characteristics of the 1988 and 1990 samples is not readily available. Comparisons with the 1992 survey might be influenced by the inclusion of non-sampled schools in the data from that year, although comparisons between the sampled and non-sampled schools that year revealed similar levels of substance use. In addition, the wording of some of the survey items has changed over the years so that some items are only somewhat comparable over the years, and some are not comparable at all. A description of changes to substance use survey items is provided in Tables 4 to 11. Many administration procedures and data processing concepts have, however, been consistent over time, and the Healthy Youth Survey 2002, 2004, 2006, and 2008 administrations were very similar.

School Dropouts

In interpreting differences between survey results for each grade level, readers should remember that some reported behaviors and risk factors may appear more prevalent in Grade 10 compared to Grade 12 because of increased rate of school dropout after age 16 (i.e., prior to Grade 12). It is generally accepted that the results for high school seniors in surveys such as this one are underestimates because many of the youth most likely to engage in risky behaviors may have dropped out of school (Johnston, O'Malley, and Bachman, 1994). Thus the authors recommend interpreting results for high school seniors with some caution, particularly when their prevalence rates differ markedly from those of students in earlier grades.

The school dropout concern is not new and has existed in previous Washington surveys. Unless the characteristics of school dropouts have changed over time, the bias in Grade 12 estimates is likely similar to what it has been in the past. This fact means that although any given year's data on health risk behaviors among Grade 12 students may be an underestimate, the year-to-year comparisons are likely to be less affected by this bias (Johnston et al., 1994).

Developmental Changes

In interpreting differences between grade levels, readers should remember that developmental changes may influence students' perceptions and accuracy of reporting. These factors include the ability to read or accurately interpret the intention of survey questions, to accurately recall events during a specific time frame, or to have developed opinions about different topics.

Self-Report Data

The survey measures self-reports, which may be influenced by factors including problems in remembering, social desirability or the wish to present oneself in a positive manner, reading ability, and developmental changes.

Correlational Data

Interrelationships among the variables should not be interpreted as indicating that one variable caused the other. Although this causal relationship might exist, the direction of the correlation may be reverse of what is expected, or an apparent relationship might be due to some other measured or unmeasured cause.

2. Methods

This chapter details the methodological considerations of HYS 2008. The chapter addresses the topics of sampling, survey administration, the questionnaires, reliability and validity, data preparation and analysis, response rates, non-completion rates, and the characteristics of the students who completed the survey. The survey procedures were approved by the Washington State Institutional Review Board.

Sampling

The statewide results presented in this report are based on a statewide sample of all schools in the public school system serving the surveyed grades. For the statewide sample, Department of Health epidemiology staff drew three simple random samples of all public schools serving Grade 6, Grade 8, and Grades 10 and 12 with the restriction that at least 15 students in each grade were included in the sample based on October 2007 enrollment figures. This procedure was used because Grades 10 and 12 usually occur together within a single school, whereas Grades 6 and 8 may be together in a middle school or separate in an elementary school and a junior high school. About 28 percent of the schools had fewer than 15 students per grade, but these schools accounted for only 1 percent of the students. Thus excluding these schools saves considerable effort in the recruitment and administration phase without biasing the final results.

To obtain a confidence interval of plus or minus 3 percent for statewide results at each grade, based on the intraclass correlations obtained in the 2000 survey, it was estimated that a sample size of about 21,133 students would be needed. Average enrollments were 108 in Grade 6, 168 in Grade 8, 200 in Grade 10, and 171 in Grade 12. Using estimations of a 50 percent response rate for schools and a 90 percent response rate for students within the participating schools and experience from the 2002, 2004 and 2006 surveys, the sample was drawn to include 110 schools serving Grade 6, 72 schools serving Grade 8, 70 schools serving Grades 10 and 12, and three schools serving Grade 10 but not 12. The additional schools for Grade 10 were necessary because a small number of schools served Grade 10 but not Grade 12.

Schools not selected for the state sample were offered an opportunity to participate in the survey by "piggybacking" onto the statewide data collection effort. The Department of Health also drew county samples in six large counties where the reduction in the number of schools in a sample compared to a census justified the additional effort associated with drawing and analyzing a sample (Clark, King, Pierce, Snohomish, Spokane and Thurston for Grade 6; Clark, King, Pierce, and Snohomish for Grade 8; and King, Pierce, and Snohomish for Grades 10 and 12). For county samples, additional schools were added to those already in the state sample. The data from the piggyback schools, including those drawn for the county samples, are not included in the results presented in this report because they were not part of the state sample.

Survey Administration

All Washington public schools serving Grades 6, 8, 10, or 12 were invited to participate in the survey as either a state sampled, county sampled, or piggyback school at the beginning of the 2008 calendar year. Schools that wished to participate registered between March and the end of June 2008.

Each school designated a survey coordinator. The contractor and sponsoring agencies conducted a video teleconference to train the coordinators to administer the survey and a copy of the training video shown during the teleconference and other materials were made available

on the project web site. Coordinators were instructed to train the teachers in their school(s) who were to administer the survey (training materials were provided to the coordinators).

The coordinators received detailed written instructions with their survey materials along with materials used to notify parents and students prior to the survey administration. Parents had an opportunity to decline their child's participation, and students could also choose not to participate. The coordinators distributed the survey materials to the teachers, who in turn distributed them to the students and proctored the survey administration. Students participated on a voluntary and anonymous basis, and students who did not wish to participate were provided with an alternative activity.

Teachers read a standardized set of instructions to the students, informing them of the importance of the survey. The survey was to be administered to all participating students in a single class period during the school day and students absent that day were not to make up the survey. Students placed their completed answer sheets in an envelope that was sealed, returned to the coordinator, and ultimately returned to RMC Research.

Questionnaires

The questions on HYS 2008 were derived primarily from the following sources: the Monitoring the Future survey (Johnston et al., 1994; National Institute on Drug Abuse, 2001), the Youth Risk Behavior Survey (Eaton et al., 2006), the Global Youth Tobacco Survey (Centers for Disease Control and Prevention, 2000), and the Communities that Care Survey (Arthur, Hawkins, Catalano, and Pollard, 1998). HYS 2008 was divided into three forms because the number of items of interest to the sponsoring agencies was greater than could be answered by a student during the allotted time (one class period).

Form A mainly contained items from the Monitoring the Future survey and the Communities that Care Survey. Form B mainly contained items from the Youth Risk Behavior Survey and the Global Youth Tobacco Survey.

Form A had 151 items and Form B had 127 items; 35 items were common to both forms. Students in Grades 8, 10, and 12 completed Forms A and B (the forms were alternated when they were packaged by the printer so that in a classroom every other student completed Form A and every other student completed Form B, effectively distributing the two forms randomly among the students). Form C contained 98 items drawn primarily from Forms A and B and was completed by students in Grade 6.

Each form of the survey included a perforated, optional tear-off page of relatively sensitive questions that schools could remove prior to the survey administration if they preferred not to present those questions to the students.

Translations

The survey was available in English and Spanish. All schools received Spanish language survey materials. The survey coordinators duplicated the translated survey materials locally and provided them to the students. Students read the translated survey but responded on the English answer sheet to preserve anonymity. It is, therefore, impossible to know how many students read a translated survey.

Reliability and Validity

A survey item is *valid* if it accurately measures the concept it is intended to measure. A survey item is *reliable* if it consistently produces the same results under the same circumstances. Nearly all HYS 2008 questions were gleaned from four established surveys that have been used throughout the United States—some for more than 25 years. Each of these surveys has been

subjected to scientific research regarding reliability and validity and has been field tested extensively (Arthur et. al, 1998; Eaton et al., 2006; Johnston et al., 1994). This field testing generally addresses such issues as the content and structure of questions, the ordering of questions, the types and ordering of the response options, and survey length.

Bensley (1997) reviewed the reliability and validity of school-based surveys and found adequate reliability based on a large test–retest study and studies of interrelationships among the data (such as gender and age differences and differences between dropouts and in-school youth). Bensley found that remaining questions about validity were based on differences among methodologies. School-based, self-administered surveys appeared to yield higher prevalence than either telephone surveys or face-to-face interviews, but lower prevalence than biochemical indicators of substance use or methods that provide even greater anonymity. Biochemical indicators, which provide the most objective comparison data, and low self-reported use of a fictitious drug suggest that most self-reported behaviors on school-based surveys are likely valid but some underreporting may occur. Underreporting of socially disapproved behaviors has been noted for both adults and youth, particularly when the possibility is greater that the responding individual is identifiable.

Data Preparation and Analysis

RMC Research prepared completed answer sheets for scanning and forwarded them to the University of Washington's Office of Educational Assessment to be scanned. RMC Research Corporation cleaned the scanned data using Statistical Package for the Social Sciences (SPSS) and programs designed to detect dishonest and inconsistent answers and then analyzed the data using SPSS, SAS, and SUDAAN software programs.

RMC Research prepared and disseminated local reports with item-level frequency distributions and scale results to the participating schools (unless the school requested at the time of registration that these reports not be sent), districts, counties, and ESDs. In all cases a minimum of 15 valid, completed surveys were required at a given grade level for a grade level report to be produced. In addition, 70 percent or more of the students enrolled at a district, county, or ESD were required to have participated in the survey for a report of results to be produced at that level (if participation was between 40 and 69 percent, a "report of participating schools" was produced). An Interpretive Guide to aid recipients in reading their report was made available on the project Web site. Statewide results were presented as comparative data in the local reports. Staff from the sponsoring state agencies and RMC Research conducted nine workshops across the state (one in each ESD) during spring 2009 to help participants understand and use their local results. For this Analytic Report the following additional analyses were conducted.

Differences by Grade Level and Gender

A chi-square test of significance was used to compare 2008 results among grade levels and between genders. Comparisons with a *p*-value less than 0.05 were considered significant differences. If the chi-square revealed a significant difference among grade levels, pair wise tests of grade levels were then conducted using a Bonferroni correction to adjust for multiple comparisons. When comparisons of all four grades were conducted, results were considered significant if the *p*-value was less than 0.008. When comparisons were made for only three grade levels (i.e., the question was only asked of Grades 8, 10, and 12) then results were considered significant if the *p*-value was less than 0.016.

Differences Over Time

A chi-square test of significance was used to compare HYS 2008 results to HYS 2006 results. Comparisons with a *p*-value less than 0.05 were reported as significant differences. In addition, 95 percent confidence intervals are displayed in the graphs in the report.

Joinpoint analysis (National Cancer Institute, 2005) was used to examine trends over time for those questions that had been asked on five or more administrations of the survey. Differences in the linear trend of the total time span of the question are reported for analyses in which the *p*-value was less than 0.05.

Joinpoint analysis tested both whether there was a significant trend over time and whether there was a change in the trend over time (i.e., a change in inflection). The Joinpoint analysis allowed one change in trend if there were eight time points, and two changes in trend if there were eleven time points. The direction of the differences and if there was a significant change in trend, the time spans with significant trends are reported for analyses in which the *p*-value was less than 0.05.

Washington trend data presented in this report are from surveys that were implemented in Washington public schools from 1988 to 2008:

- **1988: Student Alcohol and Drug Use Survey (SADUS)**—This health risk-focused survey was administered in public schools in the fall of 1988. A total of 10,485 Grade 6, 8, and 10 students in 125 schools participated in the state sample for a state response rate of about 50 percent.
- **1990: Student Alcohol and Drug Use Survey**—SADUS was administered in public schools in the fall of 1990. A total of 18,375 Grade 6, 8, 10, and 12 students in 176 schools participated in the state sample for a state response rate of about 65 percent.
- **1992: Washington State Survey of Adolescent Health Behaviors (WSSAHB)**—This substance use and risk and protective factor focused survey was administered in public schools in the fall of 1992. Because the state sample response rate was 45 percent, sampled and non-sampled schools were combined for the report (a total of 15,463 Grade 6, 8, 10, and 12 students in 144 schools).
- **1995: Washington State Survey of Adolescent Health Behaviors**—WSSAHB was administered in public schools in the spring of 1995. A total of 8,780 Grade 6, 8, 10, and 12 students in 89 schools participated in the state sample for a state response rate of about 25 percent. An additional 12,060 students participated in the survey voluntarily and contributed to local results.
- **1998: Washington State Survey of Adolescent Health Behaviors**—WSSAHB was administered in public schools in the spring of 1998. A total of 14,601 Grade 6, 8, and 10 students in 102 schools participated in the state sample for a state response rate of about 60 percent. An additional 37,731 students participated in the survey voluntarily and contributed to local results.
- **1999: Washington State Youth Risk Behavior Survey**—This health risk-focused survey was administered in public schools in the spring of 1999. A total of 7,642 Grade 9, 10, 11, and 12 students completed the survey (4,022 from the Seattle region and 3,602 across the state). The overall response rate was about 40 percent.
- **2000: Washington State Survey of Adolescent Health Behaviors**—WSSAHB was administered in public schools in the fall of 2000. A total of 17,780 Grade 6, 8, 10, and 12 students in 98 schools participated in the state sample for a state response rate of about 65 percent. An additional 84,662 students participated in the survey voluntarily and contributed to local results.

- **2002: Healthy Youth Survey**—This health risk and risk and protective factor focused survey was administered in public schools in the fall of 2002. A total of 24,685 Grade 6, 8, 10, and 12 students in 171 schools participated in the state sample for a state response rate of about 55 percent. An additional 112,650 students participated in the survey voluntarily and contributed to local results.
- **2004: Healthy Youth Survey**—HYS was administered in public schools in the fall of 2004. A total of 30,263 Grade 6, 8, 10, and 12 students in 191 schools participated in the state sample for a state response rate of about 65 percent. An additional 154,832 students participated in the survey voluntarily and contributed to local results.
- **2006: Healthy Youth Survey**—HYS was administered in public schools in the fall of 2006. A total of 32,531 Grade 6, 8, 10, and 12 students in 203 schools participated in the state sample for a state response rate of about 65 percent. An additional 165,781 students participated in the survey voluntarily and contributed to local results.
- **2008: Healthy Youth Survey**—HYS was administered in public schools in the fall of 2008. A total of 30,346 Grade 6, 8, 10, and 12 students in 201 schools participated in the state sample for a state response rate of about 66 percent. An additional 180,505 students participated in the survey voluntarily and contributed to local results.

Confidence intervals for the 1999, 2002, 2004, 2006, and 2008 data were obtained by direct analysis using SUDAAN. Confidence intervals for the 1992, 1995, 1998, and 2000 data were based on estimates provided in the respective reports (and confidence intervals for 1988 and 1990 were based on the 1992 estimates), which provided only single estimates that have been applied to all percentages obtained in those years and included in this report:

- For 1988, 1990, and 1992 percentages near 50 percent, these estimates were plus or minus 1.4 percent for Grade 6, 1.4 percent for Grade 8, 1.7 percent for Grade 10, and 2.0 percent for Grade 12. For 1988, 1990 and 1992 percentages near 10 or 90 percent, these estimates were plus or minus 0.9 percent for Grade 6, 0.8 percent for Grade 8, 1.0 percent for Grade 10, and 1.2 percent for Grade 12. Twenty-five percent was used to divide these two groups of percentages. (The confidence intervals for 1998 and 1990 are based on the estimates provided in 1992.)
- For 1995 these estimates were plus or minus 2 percent for Grade 6, 2 percent for Grade 8, 2 percent for Grade 10, and 4 percent for Grade 12.
- For 1998 these estimates were plus or minus 2 percent for Grade 6, 3 percent for Grade 8, 4 percent for Grade 10, and 4 percent for Grade 12.
- For 2000 these estimates were plus or minus 3 percent for Grade 6, 3 percent for Grade 8, 4 percent for Grade 10, and 4 percent for Grade 12.

Response Rates

The overall response rates (the number of participating students who completed valid surveys divided by the total enrollment in schools asked to participate in the state sample were 76 percent in Grade 6, 77 percent in Grade 8, 60 percent in Grade 10, and 50 percent in Grade 12. Participation rates presented here are based on the 2008–2009 enrollment data from the Office of Superintendent of Public Instruction's P-105 October Enrollment Headcount Report for October 2007 (retrieved from http://www.k12.wa.us/DataAdmin/default.aspx). Although some of the participation rates are below 70 percent, these findings are expected to be representative of Washington youth in public schools based on an extensive examination of bias conducted for HYS 2002 and 2004.

Table 1 provides the response rates for schools calculated by dividing the number of participating schools by the number of schools asked to participate. Because some schools

were selected for more than one sampled grade, the total number of schools is less than the sum of the number of schools at each grade.

Table 1
School Response Rates in 2008

Grade	Number of Schools		Response Rate
	Participated	Asked to Participate	
Grade 6	94	108	87%
Grade 8	63	72	88%
Grade 10	48	58	83%
Grade 12	52	69	75%

Surveys were screened to detect dishonest and inconsistent answers. Of the original 220,328 surveys that were submitted from all schools (sampled and "piggyback"), 8,732 were dropped during this data cleaning process. This was about 2 percent of Grade 6 surveys, 4 percent of Grade 8 surveys, and 5 percent of Grade 10 and 12 surveys. Another 201 surveys were subsequently excluded, except from school building results, due to students having completed the wrong survey form for their grade level.

Table 2 provides the percentage of valid surveys compared to total enrollment in sampled schools asked to participate.

Table 2
Valid Surveys in 2008

Grade	Number of Valid Surveys	Enrollment in Schools Asked to Participate	Percent of Valid Surveys
Grade 6	9,068	11,872	76%
Grade 8	8,730	11,322	77%
Grade 10	6,907	11,489	60%
Grade 12	5,641	11,228	50%
Total	30,346	45,911	66%

Non-completion Rates by Form

HYS 2008 consisted of three forms, each with optional questions at the end of the forms. Figure 1 illustrates the percentage of Grade 8, 10 and 12 students who did not complete each item on Form A; Figure 2 illustrates the percentage of Grade 8, 10, and 12 students who did not complete each item on Form B; and Figure 3 illustrates the percentage of Grade 6 students who did not complete each item on Form C. The sharp increase in the non-completion rates on the right side of the graphs indicates the location of the optional tear-off page of questions.

The overall non-completion rate of the main body by form type and grade were:

- 15 percent of Grade 8, 11 percent of Grade 10, and 10 percent of Grade 12 students did not complete Form A.
- 15 percent of Grade 8, 11 percent of Grade 10, and 8 percent of Grade 12 students did not complete Form B.
- 14 percent of Grade 6 students did not complete Form C.

Although it varied by grade, on the main body of each form, 90 percent of students completed:

- 119 out of 133 questions on Form A.
- 103 out of 111 questions on Form B.
- 74 out of 90 questions on Form C.

Compared to the rates reported for the 2006 administration, the non-completion rates for HYS 2008 were similar for Form A, lower for Form B, and higher for Form C.

Figure 1
Non-completion Rates for Form A, Grades 8, 10, and 12 in 2008

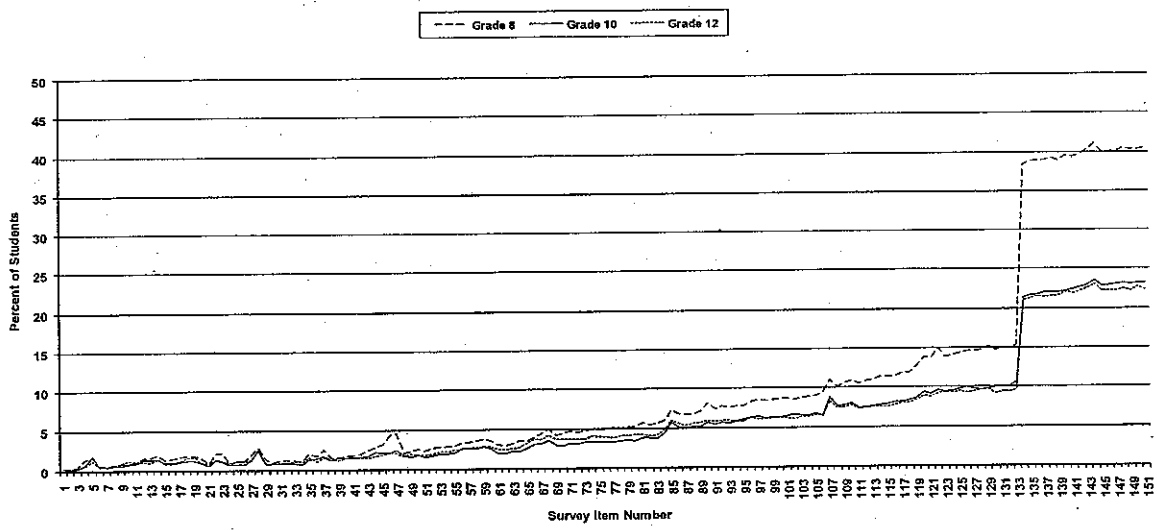


Figure 2
Non-completion Rates for Form B, Grades 8, 10, and 12 in 2008

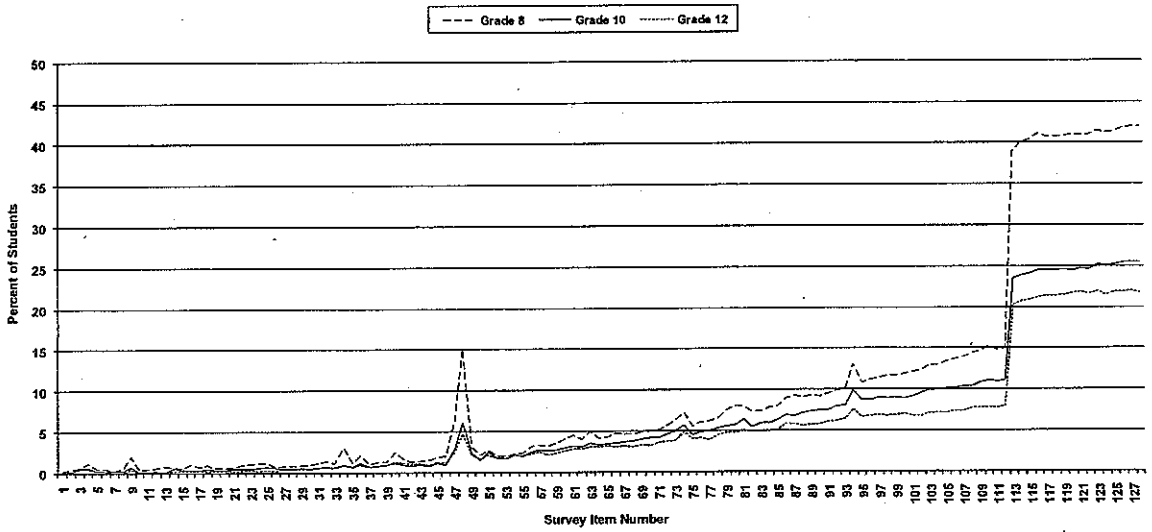
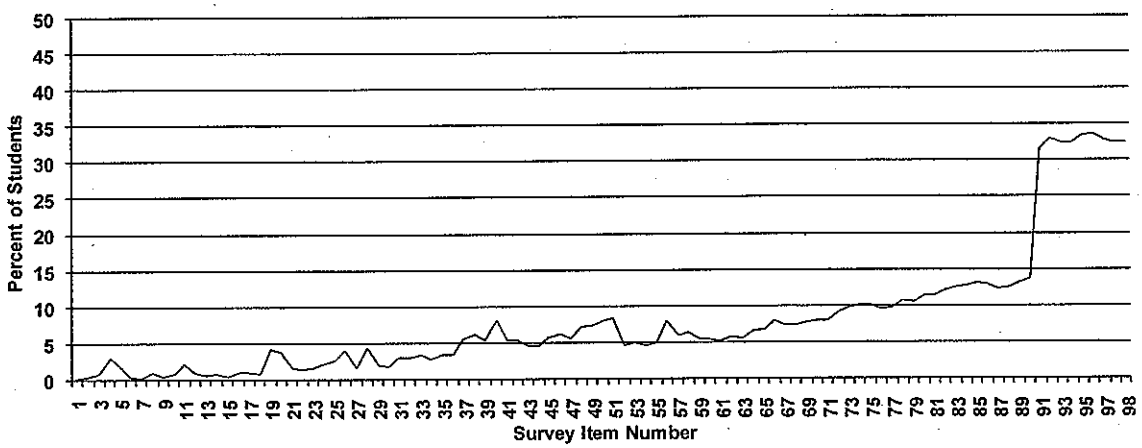


Figure 3
Non-completion Rates for Form C, Grade 6 in 2008



Respondent Characteristics

The findings of HYS 2008 presented in this report are based on the responses of 30,346 students in Grades 6, 8, 10, and 12. These students were selected using a scientific sampling plan intended to represent the full population of public school students at these grade levels across the state. Table 3 provides details about the demographic characteristics of the participating students (see Items 1, 2, 3, 4, 5, and 6 in Appendix A).

Table 3
Respondent Characteristics in 2008

Characteristic	Percent of Students (and Margin of Error)							
	Grade 6		Grade 8		Grade 10		Grade 12	
Age								
10 or younger	2.2	(± 0.4)	–	–	–	–	–	–
11	71.4	(± 1.2)	–	–	–	–	–	–
12	25.4	(± 1.1)	2.2	(± 1.1)	0.1	(± 0.1)	0.1	(± 0.1)
13	0.9	(± 0.2)	71.4	(± 1.6)	0.1	(± 0.1)	0	
14	0		25.3	(± 1.5)	1.2	(± 0.3)	0	
15	–	–	1.0	(± 0.3)	69.5	(± 1.8)	0.2	(± 0.1)
16	–	–	0		27.3	(± 1.6)	1.6	(± 0.3)
17	–	–	0		1.5	(± 0.5)	69.9	(± 2.0)
18	–	–	0		0.2	(± 0.2)	25.3	(± 1.3)
19 or older	–	–	0.1	(± 0.1)	0.1	(± 0.1)	2.8	(± 1.1)
Gender								
Female	50.0	(± 1.2)	49.9	(± 1.2)	51.5	(± 1.3)	52.0	(± 1.5)
Male	50.0	(± 1.2)	50.1	(± 1.2)	48.5	(± 1.3)	48.0	(± 1.5)
Ethnic group								
Asian or Asian American	6.7	(± 1.5)	7.5	(± 2.5)	5.3	(± 2.0)	5.7	(± 2.1)
American Indian or Alaskan Native	5.5	(± 1.0)	3.3	(± 0.8)	2.6	(± 0.6)	2.3	(± 0.6)
Black or African American	4.0	(± 1.0)	4.5	(± 1.4)	4.7	(± 1.8)	4.6	(± 2.1)
Hispanic or Latino/Latina	12.6	(± 4.2)	9.9	(± 2.8)	11.9	(± 4.6)	10.3	(± 3.7)
Native Hawaiian or other Pacific Islander	1.5	(± 0.4)	2.3	(± 0.6)	2.0	(± 0.6)	2.4	(± 0.8)
White or Caucasian	43.0	(± 3.5)	55.6	(± 4.3)	61.4	(± 6.4)	66.3	(± 6.1)
Other	16.6	(± 1.3)	8.8	(± 1.0)	5.4	(± 0.8)	4.2	(± 0.7)
More than one race/ethnicity marked	10.2	(± 0.9)	8.1	(± 1.1)	6.8	(± 0.9)	4.4	(± 0.8)
Language spoken at home								
English	83.5	(± 3.9)	85.5	(± 3.4)	84.5	(± 4.0)	86.2	(± 3.2)
Spanish	10.7	(± 4.0)	6.6	(± 2.3)	7.6	(± 3.5)	6.3	(± 2.8)
Russian	–	–	1.0	(± 0.3)	1.3	(± 0.5)	1.0	(± 0.4)
Ukrainian	–	–	0.7	(± 0.3)	0.7	(± 0.2)	0.6	(± 0.2)
Vietnamese	–	–	1.0	(± 0.7)	1.1	(± 0.5)	1.1	(± 0.6)
Chinese	–	–	1.2	(± 0.7)	0.9	(± 0.4)	0.8	(± 0.3)
Korean	–	–	0.8	(± 0.4)	0.8	(± 0.4)	0.6	(± 0.4)
Japanese	–	–	0.3	(± 0.1)	0.3	(± 0.1)	0.2	(± 0.1)
Other	5.9	(± 1.2)	3.1	(± 1.0)	2.9	(± 1.0)	3.2	(± 1.1)

Note. Dashes (–) indicate that the answer choice was not included on the survey.

3. Physical Activity and Dietary Behavior

HYS 2008 included questions about exercise, physical activity, eating habits, and weight and dieting behaviors. Exercise and regular physical activity have immediate and long-term positive effects on health. Adequate and appropriate nutrition is essential for sustenance, growth, and development and for health and well-being. Physical activity and good nutrition are essential for maintaining a healthy weight.

Overweight. The prevalence of obesity among adolescents in the U.S. more than doubled from 5 percent in the late 1970s to 13 percent in 2007 (CDC, 2008). The rise in childhood obesity can be attributed to (a) urban and suburban designs that discourage walking, (b) time pressures on families to minimize food costs and preparation time, leading to reliance on high-fat, high-calorie convenience foods, (c) reduced access to affordable healthy foods, including fruits and vegetables, (d) decreased opportunities for physical activity during and after school, including walking or biking to and from school, and (e) increased time spent watching television instead of playing outdoors (Institute of Medicine, 2005).

Obesity in adolescence is associated with negative physical, psychological, and social consequences. Extra weight acquired during adolescence may persist into adulthood and increase the risk later in life for heart disease, gall bladder disease, some types of cancer, and osteoarthritis of the weight-bearing joints. Adolescent overweight and obesity are associated with an increased risk for diabetes, liver disease, high cholesterol, functional limitations, and poorer general health (Swallen, Reither, Haas, and Meier, 2005). Another area of concern related to unrealistic weight expectations among youth is the potential for an increased prevalence of eating disorders such as anorexia and bulimia. Unhealthy weight control efforts associated with these disorders include fasting and self-induced vomiting. Obese and overweight youth are more likely to be victimized at school and may be more likely to exhibit signs of depression, low self-esteem, and low socialization with peers (Erickson, Robinson, Haydel, and Killen, 2000; Janssen, Craig, Boyce, and Pickett, 2004; Sjoberg, Nilsson, and Leppert, 2005).

Exercise and Physical Activity. Some immediate benefits of physical activity include building and maintaining healthy bones and lean muscles, controlling weight, reducing feelings of depression and anxiety, and promoting psychological well-being. Physical activity can lower high blood pressure and cholesterol levels in children. Long-term effects throughout the lifetime include a reduced risk of death from heart disease and premature death in general and a reduced risk of developing diabetes, colon cancer, and high blood pressure (Centers for Disease Control and Prevention, 1999).

The *Physical Activity Guidelines for Americans* state that children and adolescents should do one hour (60 minutes) or more of physical activity every day (U.S. Department of Health and Human Services, 2008). Young people should select activities they enjoy that fit into their daily lives. Excessive physical activity can lead to injuries and other health problems (Sammann, 1998).

Nutrition. Nutritional or dietary factors contribute substantially to the burden of preventable illness and premature death. In the U.S., poor diet is associated with four of the 10 leading causes of death among adults: coronary heart disease, some types of cancer, strokes, and Type II diabetes (Anderson and Smith, 2005). Behaviors, often established in youth, contribute to these health problems in adulthood (Goran, Reynolds, and Lindquist, 1999). The Dietary Guidelines for Americans (U.S. Department of Health and Human Services and U.S. Department of Agriculture, 2005) recommend that to stay healthy one should consume a wide

variety of nutrient-dense foods and beverages and maintain or achieve a healthy weight by balancing food intake with physical activity. The amount of any one food consumed should be based on age, gender, and level of physical activity. The USDA recommends that children between ages 9-18 eat from 3½ to 5 cups of fruits and vegetables daily, depending on age and gender (USDA, 2008) Nutrient-dense foods have high nutrition value per kilocalorie and include whole grain products, vegetables, fruits, lean meats, and low- or nonfat milk or milk substitute products and other foods low in saturated fat, trans fat, cholesterol, added sugars, salt, and alcohol. In contrast, sugared beverages (like sodas), pastries and cookies, and salty fried snacks are examples of foods that are low in nutrition value compared to their calorie content (Bandini et al., 1999). Youth who drink sodas are also more likely to purchase snacks from vending machines and fast-food restaurants (Wiecha, Finkelstein, Troped, Fragala, and Peterson, 2006). Prospective studies among youth show that drinking sugar-sweetened beverage is associated with both increased body mass index (BMI; calculated as kg/m^2), and obesity (Ludwig, Peterson, and Gortmaker, 2001).

Although obesity-related excesses in the American diet are a cause for concern, malnourishment and food insecurity (the uncertainty of having or inability to acquire enough food because of insufficient money and other resources) still affect many U.S. residents. Children are most vulnerable to the effect of food insecurity because their bodies and brains are growing and developing. Children and adolescents who eat meals with family are more likely to have healthy eating habits (Neumark-Sztainer et al., 2002) and are less likely to develop eating disorders or skip breakfast (Videon and Manning, 2003). In addition to being a time for parents to model healthful eating habits, family meals can be an opportune time for fostering feelings of connectedness within the family. This may help explain why children who eat meals with family are less likely to engage in risk-taking behaviors such as alcohol, tobacco, and other drug use and have higher school performance and lower dropout rates (Traveras et al., 2005).

Obesity and Overweight

Figure 4 illustrates the percentages of students from the 2008 HYS whose body mass index indicated that they were obese or overweight 2002 through 2008.

Obesity is a leading indicator for Healthy People 2010, one objective being to reduce the proportion of children and adolescents who are overweight or obese to 5 percent by 2010. In the Healthy Youth Survey overweight is based on the self-reported height and weight (see Appendix A, Item 65).[1]

Obese: In 2008, 11 percent of Grade 8, 10 and 12 students were obese based on their reported body mass index.

Overweight: In 2008, 16 percent of Grade 8 students and 14 percent of Grade 10 and Grade 12 students were overweight.

Differences by grade level:

- There were no differences by grade level.

Differences by gender:

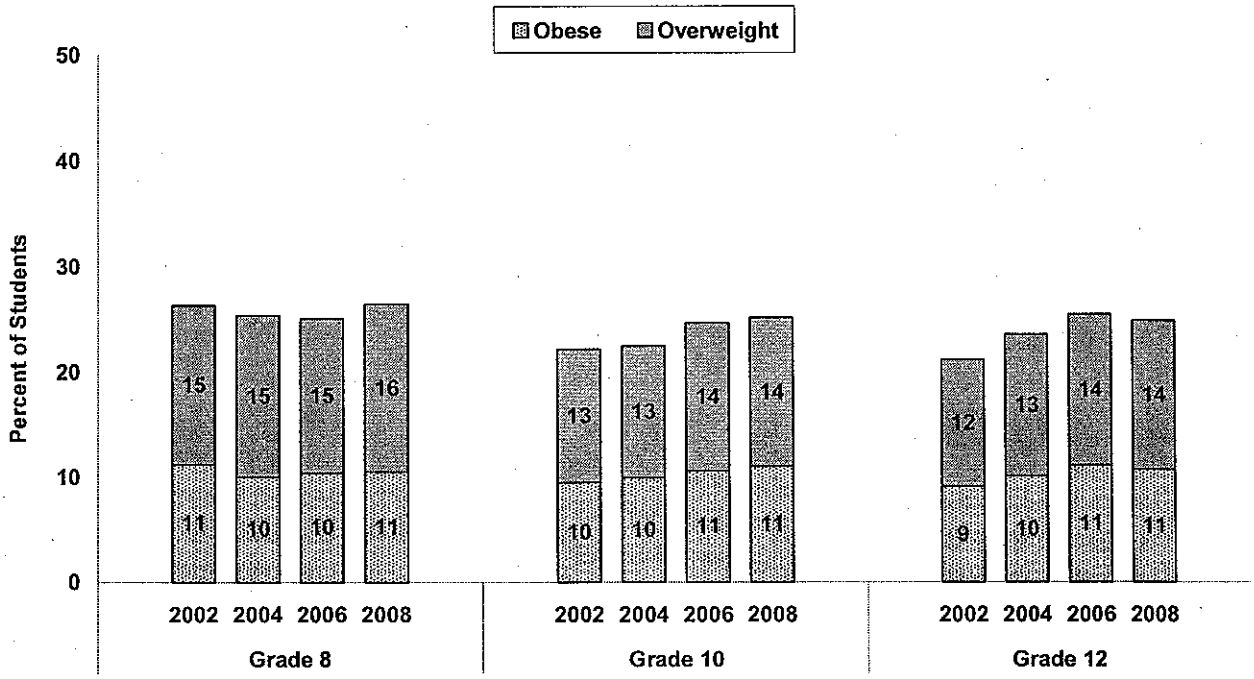
- Grade 8, 10 and 12 males were more likely than females to be obese.

Differences over time:

- There were no differences from 2006 to 2008.

[1]Obese and overweight are based on age and gender specific growth charts developed by the Centers for Disease Control and Prevention (Kuzmarski, Ogden, Grummer-Strawn, et al., 2000). Body mass index is obtained by dividing a person's weight (in kilograms) by the square of his or her height (in centimeters). Individuals in the top 5 percent for body mass index (based on the grown charts) are considered obese and those in the top 15 percent, but not the top 5 percent, are considered overweight. This is a change from 2006 and earlier years, when these categories were called overweight and at risk for overweight, respectively.

Figure 4
Obesity or Overweight,
Grades 8, 10, and 12 from 2002–2008



Survey Questions:

- How tall are you without your shoes on?
- How much do you weigh without your shoes on?

Note: Findings based on reported Body Mass Index (BMI) ratings calculated by from height and weight, see footnote on previous page.

Source: HYS 2002, 2004, 2006 and 2008.

Exercise and Physical Activity

60 Minutes of Exercise Daily

Figure 5 illustrates the percentages of students who were physically active for 60 minutes on at least five days in an average week in 2006 and 2008.

Current *Physical Activity Guidelines for Americans* state that children and adolescents should do one hour (60 minutes) or more of physical activity every day (U.S. Department of Health and Human Services, 2008).

In 2008, 62 percent of Grade 6 students, 46 percent of Grade 8 students, 44 percent of Grade 10 students and 40 percent of Grade 12 students reported that they were physically active for 60 minutes on at least five days a week (see Appendix A, Item 77).

Differences by grade level:

- Grade 6 students were more likely than Grade 8, 10 and 12 students to be physically active for 60 minutes on five days a week.
- Grade 8 students were more likely than Grade 12 students to be physically active for 60 minutes on five days a week.

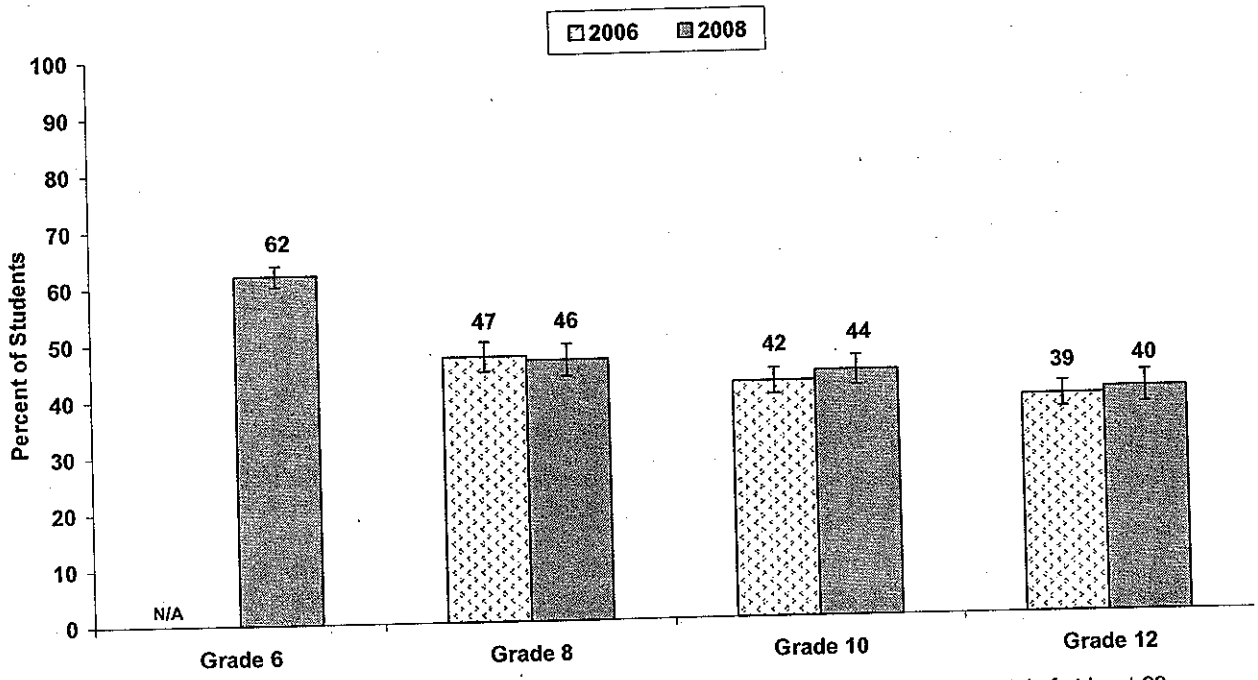
Differences by gender:

- Grades 6, 8, 10 and 12 males were more likely than females to be physically active for 60 minutes on five days a week.

Differences over time:

- There were no differences from 2006 to 2008.

Figure 5
60 Minutes of Exercise Daily,
Grades 8, 10, and 12 from 2006-2008



Survey Question: In the past 7 days, on how many days were you physically active for a total of at least 60 minutes per day? (Add up all the time you spent in any kind of physical activity that increases your heart rate or makes you breathe hard some of the time.)

Note. Percentages represent students who were physically active for 60 minutes at least five days in an average week.

Source: HYS 2006 and 2008.

Physical Education Classes

Figure 6 illustrates the percentages of students who reported participating in physical education classes every day during an average school week 1999 through 2008.

A Healthy People 2010 objective for physical education is that 50 percent of students participate in physical education classes daily (five days a week).

In 2008, 49 percent of Grade 8 students, 32 percent of Grade 10 students, and 25 percent of Grade 12 students reported that they participated in a physical education class every day during an average school week (see Appendix A, Item 83).

Differences by grade level:

- Grade 8 students were more likely than Grade 10 or 12 students to report participation in physical education classes every day during an average school week.

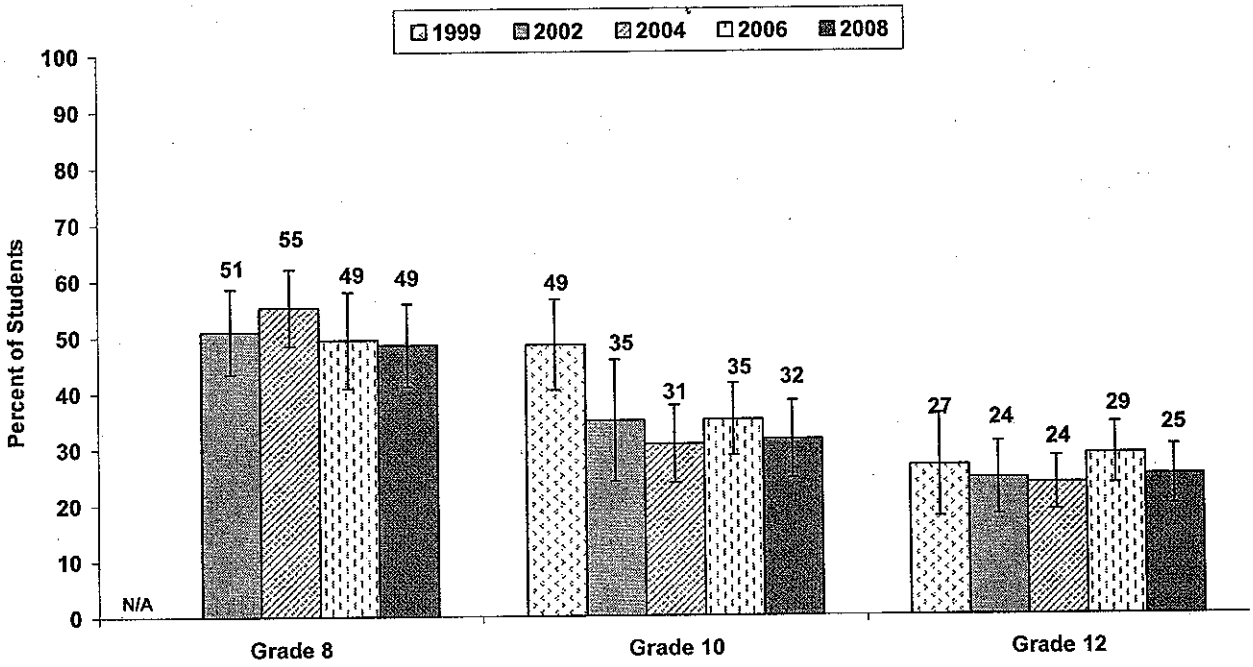
Differences by gender:

- Grade 10 and 12 males were more likely than females to participate in physical education classes every day during an average school week.

Differences over time:

- Comparing results from 2006 to 2008:
  - There were no differences from 2006 to 2008.
- Comparing results over time:
  - Among Grade 10 and 12 students, there were no changes in participation in physical education classes from 1999 through 2008.

Figure 6
Participation in Physical Education,
Grades 8, 10, and 12 from 1999–2008



Survey Question: In an average week when you are in school, on how many days do you go to physical education (PE) classes?

Note: Percentages represent students who participated in five days of physical education classes in an average week when in school.

Source: YRBS 1999, HYS 2002, 2004, 2006 and 2008.

Time Spent in Physical Education Classes

Figure 7 illustrates the percentages of those students who participated in physical education and who spent more than 20 minutes actually exercising or playing sports during an average physical education class 1999 through 2008.

In 2008, 88 percent of Grade 8 students, and 91 percent of Grade 10 and Grade 12 students reported spending more than 20 minutes of an average physical education class actually exercising or playing sports (see Appendix A, Item 84).

Differences by grade level:

- Grade 10 students were more likely than Grade 8 students to spend an average of 20 minutes of an average PE class exercising.

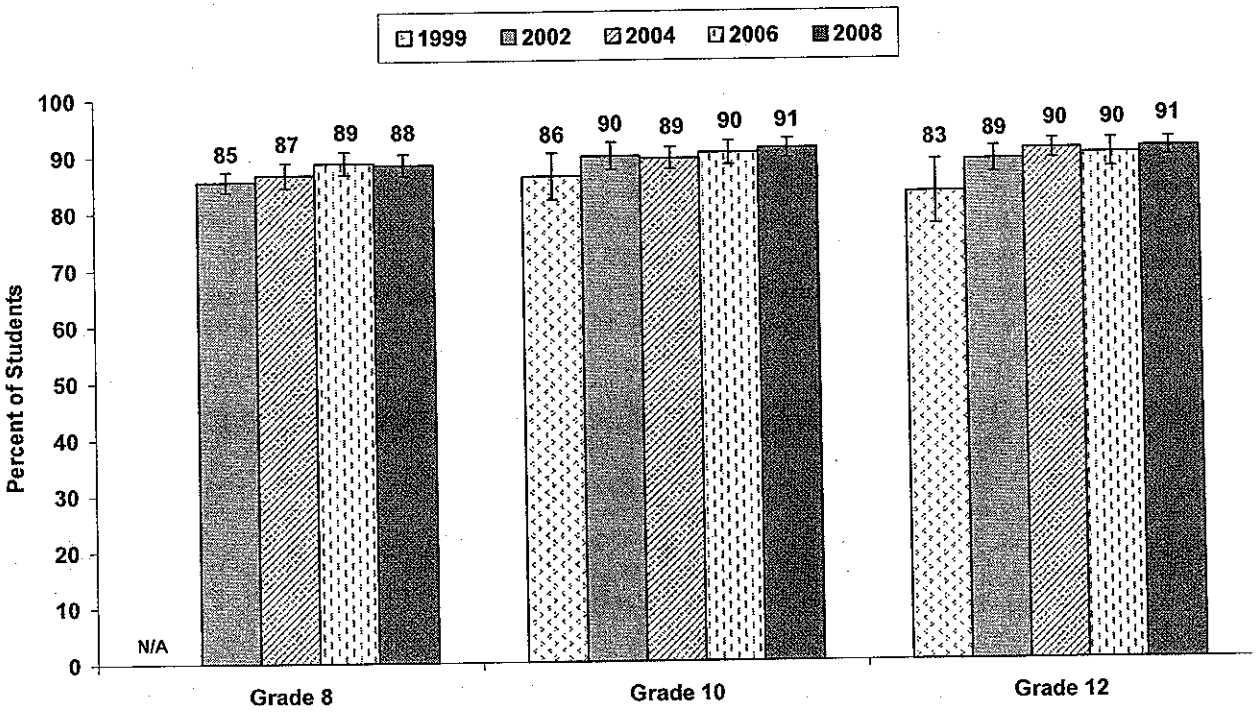
Differences by gender:

- There were no differences by gender.

Differences over time:

- Comparing results from 2006 to 2008:
  - There were no differences from 2006 to 2008.
- Comparing results over time:
  - There were no changes from 1999 through 2008.

Figure 7
Exercising for More Than 20 Minutes during Physical Education Classes, Grades 8, 10, and 12 from 1999–2008



Survey Question: During an average PE class, how many minutes do you spend actually exercising or playing sports?

Notes:

- Percentages represent students who participated in physical education and exercised for more than 20 minutes during physical education classes.
- Students who reported that they "do not take PE" were not included in the results.
- The sample sizes for the 2008 results in this figure are: 2,955 Grade 8, 1,643 Grade 10, and 1,214 Grade 12 students.

Source: YRBS 1999, HYS 2002, 2004, 2006 and 2008.

Television Watching and Video Game Playing

Figure 8 illustrates the percentages of students who reported watching television including videos and DVDs, or playing video games and using the computer for fun (see Appendix A, Item 81) for a total of three or more hours on an average school day 2002 through 2008.

A Healthy People 2010 objective is that at least 75 percent of students restrict their television watching to two hours or less on a school day.

In 2008, about 51 percent of Grade 8 students, 53 percent of Grade 10 students, and 48 percent of Grade 12 students reported either watching television or playing video games three or more hours an average school day (see Appendix A, Items 80 and 81).

Differences by grade level:

- Grade 10 students were more likely than Grade 12 students to spend a combination of three or more hours watching television and/or playing video games on an average school day.

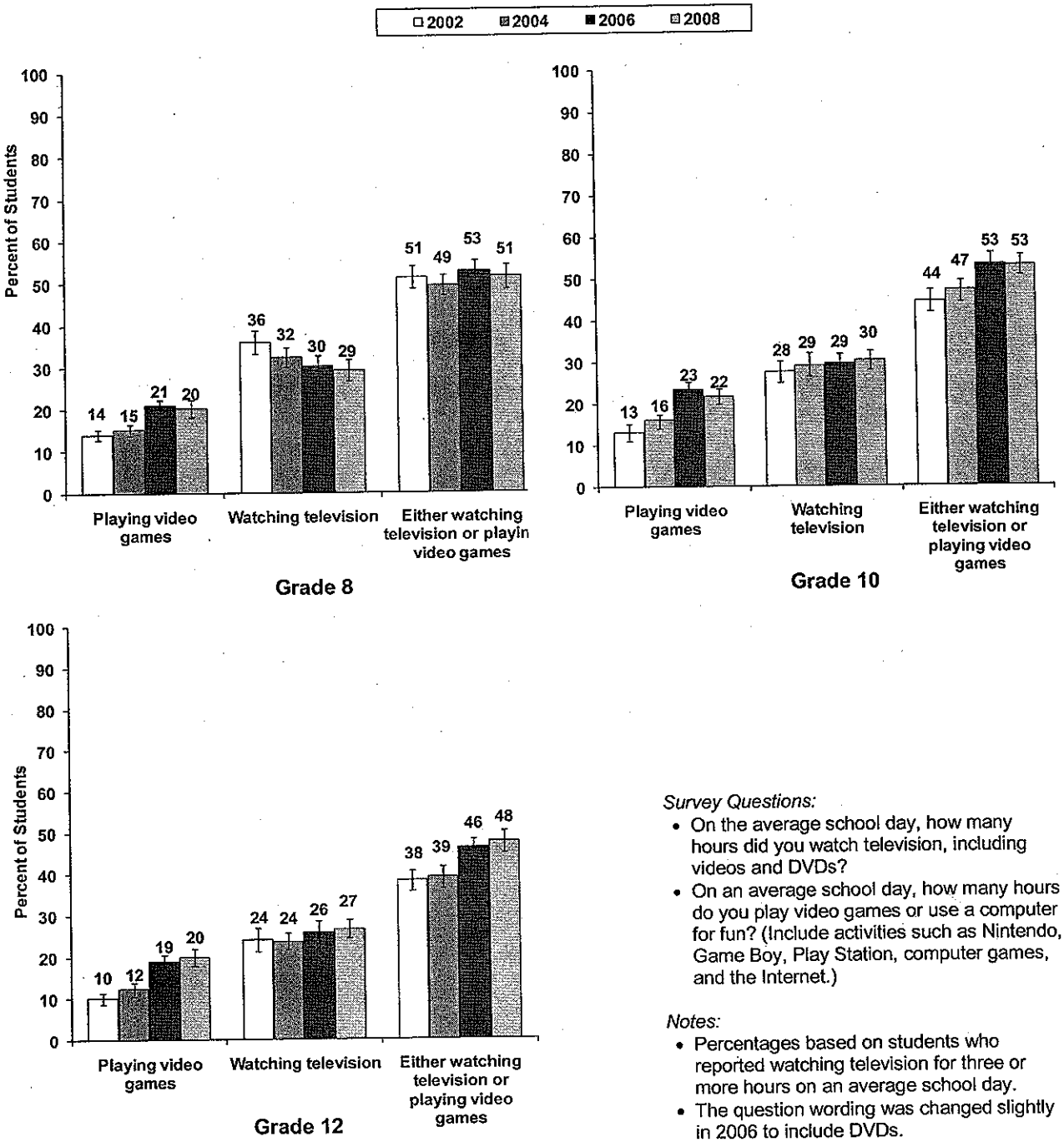
Differences by gender:

- Grade 8, 10 and 12 males were more likely than females to spend three or more hours playing video games only, watching television only, or a combination of watching television and/or playing video games on an average school day.

Differences over time:

- There were no differences from 2006 to 2008 for playing video games, watching television, or a combination of both.

Figure 8
Television Watching or Video Game Playing for Three or More Hours a Day on an Average School Day,
Grades 8, 10, and 12 from 2002–2008



Survey Questions:

- On the average school day, how many hours did you watch television, including videos and DVDs?
- On an average school day, how many hours do you play video games or use a computer for fun? (Include activities such as Nintendo, Game Boy, Play Station, computer games, and the Internet.)

Notes:

- Percentages based on students who reported watching television for three or more hours on an average school day.
- The question wording was changed slightly in 2006 to include DVDs.

Source: HYS 2002, 2004, 2006 and 2008.

Nutrition

Fruit and Vegetable Consumption

Figure 9 illustrates the percentages of students who reported eating fruit and/or vegetables for a combined total of five or more times a day over the past seven days from 2002 through 2008.

Youth need to eat a variety of fruits and vegetables every day to get essential vitamins and minerals, fiber, and other substances that are important for good health and to reduce the risk of obesity and chronic diseases. The 2005 U.S. Dietary Guidelines for Americans recommend eating sufficient amounts of fruits and vegetables within caloric needs rather than the previous recommendation of five servings for all calorie levels. For example, the USDA MyPyramid recommends daily intake of 2-3 cups of vegetables and 1.5-2 cups of fruits for youth. The Healthy Youth Survey does not measure intake of fruits and vegetables relative to caloric need and age but in terms of number of times fruits and vegetables are eaten a day. (U.S. Department of Health and Human Services, 2005)

In 2008, 28 percent of Grade 8 students, 25 percent of Grade 10 students, and 22 percent of Grade 12 students ate fruit and vegetables five or more times a day (see Appendix A, Item 67).

Differences by grade level:

- Grade 8 students were more likely than Grade 10 and 12 students to report eating fruit and vegetables five or more times a day over the past seven days.
- Grade 10 students were more likely than Grade 12 students to report eating fruit and vegetables five or more times a day over the past seven days.

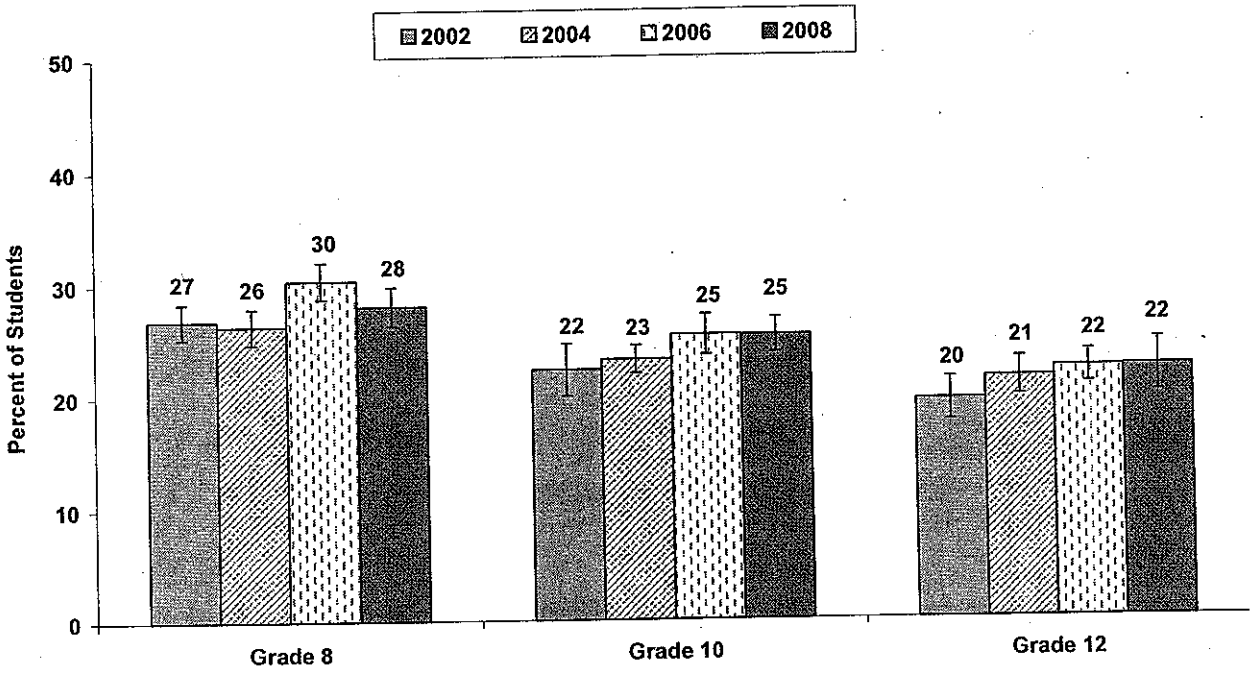
Differences by gender:

- Grade 10 and 12 males were more likely than females to report eating fruit and vegetables five or more times a day over the past seven days.

Differences over time:

- There were no differences from 2006 to 2008.

Figure 9
Eating Fruit and Vegetables Five or More Times Each Day, Grades 8, 10, and 12 from 2002–2008



Survey Questions: During the past 7 days, how many times did you:

- Drink 100% fruit juice such as orange juice, apple juice or grape juice? (Don not county punch, Kool-Aid, sports drinks, and other fruit-flavored drinks.)
- Eat fruit? (Do not county fruit juice.)
- Eat green salad?
- Eat potatoes? (Do not county French fries, fried potatoes, or potato chips.)
- Eat carrots?
- Eat other vegetables? (Do not county green salad, potatoes, or carrots.)

Note. Percentages are calculated from the questions above to represent students who ate fruit or vegetables five or more times a day.

Source: HYS 2002, 2004, 2006 and 2008.

Eating Dinner With Family

Figure 10 illustrates the percentages of students who reported eating dinner with their family most of the time or always from 2002 through 2008.

Children and adolescents who eat meals with family are more likely to have healthy eating habits.

In 2008, 76 percent of Grade 6 students, 67 percent of Grade 8 students, 56 percent of Grade 10 students, and 48 percent of Grade 12 students reported eating dinner with their family most of the time or always (see Appendix A, Item 46).

Differences by grade level:

- Among Grade 6, 8, 10 and 12 students, as grade levels increase, each grade was less likely to eat dinner with their family most of the time or always.

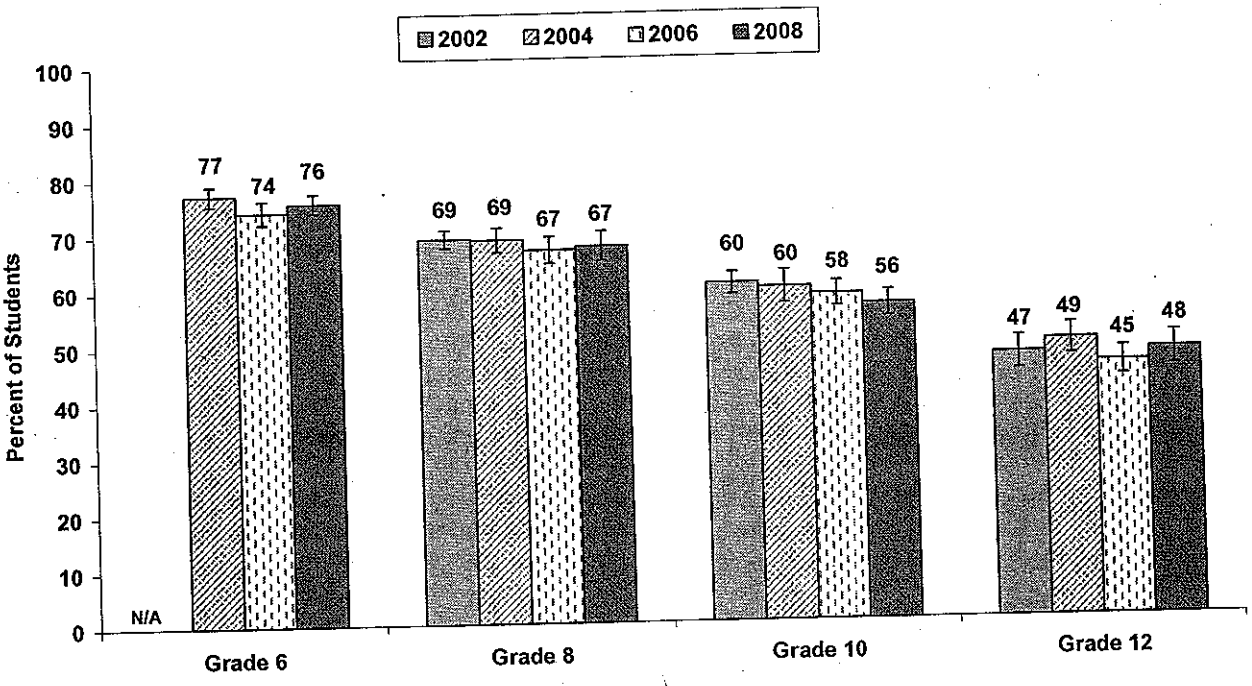
Differences by gender:

- Grade 10 males were more likely than females to eat dinner with their family most of the time or always.

Differences over time:

- There were no differences from 2006 to 2008.

Figure 10
Eating Family Dinners Most of the Time or Always, Grades 8, 10, and 12 from 2002–2008



Survey Question: How often do you eat dinner with your family?

Note. Percentages represent students who ate dinner with their family most of the time or always.

Source: HYS 2002, 2004, 2006 and 2008.

Drinking Sodas

Figure 11 illustrates the percentages of students who reported drinking two or more sodas on the previous day from 2002 through 2008.

Drinking sugar-sweetened beverage is associated with obesity.

In 2008, 9 percent of Grade 6 students, 13 percent of Grade 8 students, and 15 percent of Grade 10 and 12 students reported drinking two or more sodas on the previous day (see Appendix A, Item 68).

Differences by grade level:

- Grade 6 students were less likely than Grade 8, 10 and 12 to drink two or more sodas on the previous day.
- Grade 8 students were less likely than Grade 10 students to drink two or more sodas on the previous day

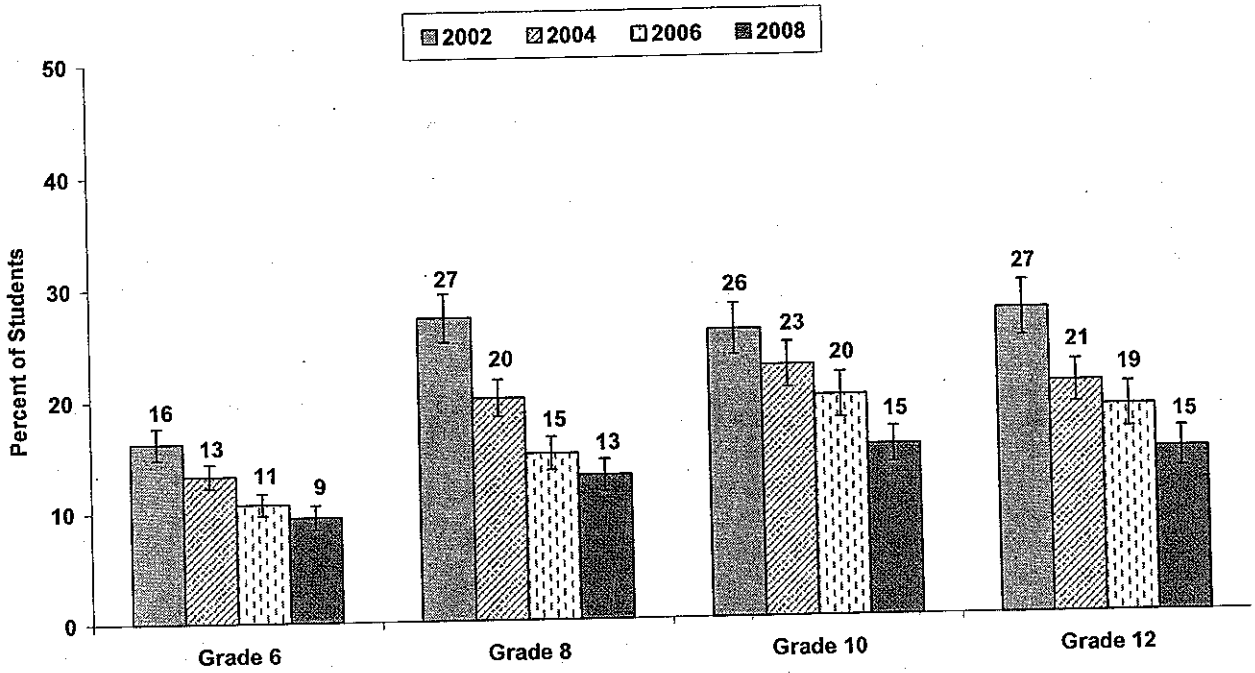
Differences by gender:

- Grade 6, 8, 10 and 12 males were more likely than females to report drinking two or more sodas on the previous day.

Differences over time:

- Among Grade 10 and 12 students, there were significant decreases in drinking two or more sodas on the previous day from 2006 to 2008.

Figure 11
Consumption of Two or More Sodas Yesterday, Grades 8, 10, and 12 from 2002–2008



Survey Question: How many sodas or pops did you drink yesterday? (Do not count diet soda.)

Note. Percentages represent students who consumed two or more sodas the previous day.

Source: HYS 2002, 2004, 2006 and 2008.

Soft Drinks at School

Figure 12 illustrates the percentages of students who reported drinking sodas, sports drinks or other flavored drinks at school from 2006 through 2008. The figure also shows, among those who drank soft drinks at school, the percentage who bought their soft drinks at school from 2006 through 2008.

In 2008, 68 percent of Grade 8 students, 75 percent of Grade 10 students, and 69 percent of Grade 12 students reported drinking soft drinks at school (see Appendix A, Item 72).

Among those who reported drinking these beverages at school in 2008, 33 percent of Grade 8 students, 36 percent of Grade 10 students, and 28 percent of Grade 12 students said they bought the soft drinks at school (see Appendix A, Item 73).

Differences by grade level:

- Grade 10 students were more likely than Grade 8 and 12 students to drink soft drinks at school in the past week.

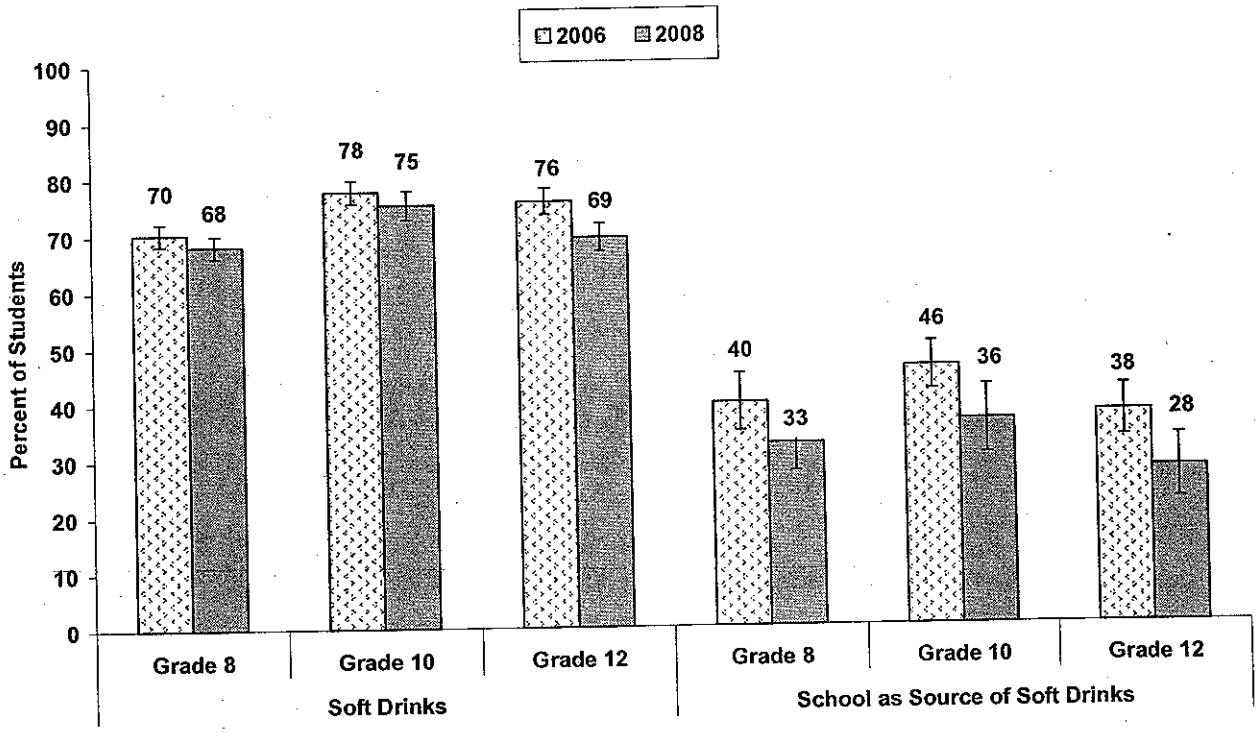
Differences by gender:

- Grade 8, 10 and 12 males were more likely than females to drink soft drinks at school in the past week.

Differences over time:

- Among Grade 12 students, there was a significant decrease in drinking soft drinks at school in the past week from 2006 to 2008.
- Among Grade 8, 10 and 12 students who drank who drank these beverages at school, there were significant decreases in buying the drinks at school from 2006 to 2008.

Figure 12
Drinking Soft Drinks at School in the Past Week, and School as the Source of Soft Drinks, Grades 8, 10, and 12 in 2008



Survey Questions:

- During the past 7 days, how many times did you drink regular soda, sports drinks (such as Gatorade) and other flavored sweetened drinks (such as Snapple or SoBe) at school (including any after-school and weekend activities)? Do not include diet drinks.
- During the past 7 days, where did you usually get the soda or other sweetened drinks that you drank at school? (Choose only one answer.)

Notes:

- The percentages for students who bought the soft drinks at school, only include students who reported that they drank soda or sweetened drinks at school in the past 7 days.
- The sample sizes for the 2008 results in this figure are: 2,555 Grade 8, 2,374 Grade 10, and 1,793 Grade 12 students.

Source: HYS 2006 and 2008.

Food Insecurity

Figure 13 illustrates the percentages of students who reported that during the past 12 months they or their family had to cut meal size or skip meals because there was not enough money for food from 2002 through 2008.

Compared to children from families who are food secure, children from families with food insecurity are more likely to have behavior problems, do poorly in school, need medical care and hospitalization, and to develop chronic diseases (Center on Hunger and Poverty 2002; Hampton 2007). Food insecurity may also be associated with poor quality diet and obesity (Townsend, 2001). When money and resources for food are stretched, low-income families and individuals may purchase cheap foods that are high in fat, sugar, and calories. Obesity may also be a response to uncertain supplies of food. When money or resources are available for food, family members may overeat to compensate for times when they did not have any food (Food Research and Action Center, 2003).

In 2008, 16 percent of students in Grade 8, 21 percent of students in Grade 10, and 20 percent of students in Grade 12 reported food insecurity (see Appendix A, Item 71).

Differences by grade level:

- Grade 8 students were less likely than Grade 10 or 12 students to have their family cut meal size or skip meals because there was not enough money for food during the past 12 months.

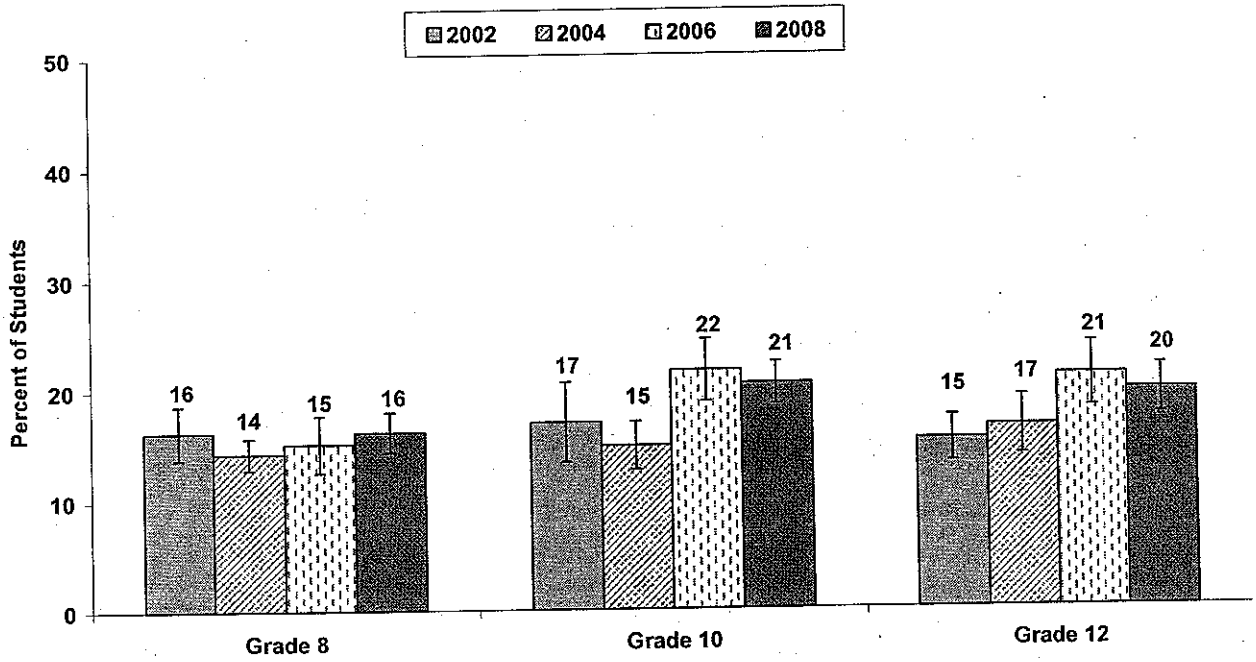
Differences by gender:

- There were no differences by gender.

Differences over time:

- There were no differences from 2006 to 2008.

Figure 13
Food Insecurity,
Grades 8, 10, and 12 from 2002–2008



Survey Question: How often in the past 12 months did you or your family have to cut meal size or skip meals because there wasn't enough money for food?

Notes:

- Percentages represent students who cut meal size or skipped meals in the past year due to lack of money for food.
- This question is asked on the optional portion of the survey.

Source: HYS 2002, 2004, 2006 and 2008.

4. Health Status and Health Care

HYS 2008 assessed Washington students' general health status in terms of depression, asthma, diabetes, health care, and HIV/AIDS and STD education. (Results regarding suicide-related behaviors are presented in the chapter on intentional injury). The Healthy People 2010 objectives emphasize the importance of health education and access to health care services for preventing disease and minimizing the long-term effects of disease.

Asthma. The most common chronic disease among children is asthma. One in six Washington households with children under 18 years of age includes at least one child who has been diagnosed with asthma (Gunnells, 2008). Of those youth in Grades 6 through 12 who had ever been told they had asthma by a doctor, about half have had an asthma attack during the past year or are currently taking medications. Due to the frequency of asthma and the potential for serious consequences, schools and child care programs play a unique role in asthma management. Washington State law RCW 28A.210.370 requires that all public elementary and secondary schools allow students to carry and self-administer asthma or anaphylaxis medications. The rule also requires all school staff to receive training on symptoms, treatment, and monitoring students with asthma.

Diabetes. An estimated 3,762 Washingtonians under 20 years of age have been diagnosed with diabetes (Washington State Department of Health 2007). Diabetes is a serious chronic disease that impairs the body's ability to use food for energy and is one of the most common chronic diseases affecting school-aged children. Uncontrolled diabetes can lead to heart disease, stroke, blindness, kidney disease, and amputation of the foot or leg. As obesity rates in children continue to soar, Type 2 diabetes, a disease predominately diagnosed in adults over age 45, is becoming more common in young people (U.S. Department of Health and Human Services 2006a). The increase of diabetes in youth is a major health concern, because young persons with diabetes will have more years of dealing with the disease and a higher probability of developing costly and disabling diabetes-related complications early in life. Although there is no cure, students with diabetes can manage their disease through careful monitoring of blood sugar throughout the school day and administering multiple doses of insulin therapy. In this way, the severe complications of diabetes may be prevented or delayed.

Access to Dental Care. Access to oral health services is an important concern for adolescents. Most adolescents have at least one instance of tooth decay or filling and suffer from bleeding gums (U.S. Department of Health and Human Services, National Institutes of Health, 2000). Dental problems can affect performance at school and self-esteem (U. S. General Accounting Office, 2000). Low sugar consumption, exposure to fluoride, and access to regular dental visits can help prevent these problems. From 1988-1994 to 1999-2004, the prevalence of tooth decay in the permanent teeth of adolescents 12 to 19 years old decreased from 68 percent to 59 percent. The use of dental sealants in adolescents 12 to 19 years old increased from 18 percent to 38 percent (Dye, 2007).

HIV/AIDS and STD Education. The Washington State Department of Health currently estimates that, within the state, there are 11,000-12,000 people living with HIV—the virus that causes AIDS (Washington State Department of Health 2008). Each year, as many as 700 individuals become newly infected with HIV in Washington (Centers for Disease Control and Prevention, 2008a). There is no cure for HIV, and most people who are HIV-positive experience lives that are made much more difficult and expensive as a result of their condition. On average, patients receiving modern treatment for HIV can expect to live an additional 24 years, with

lifetime costs of HIV treatment totaling over $600,000 (Schackman, 2006). Treatment failures are common, and disease complications often result in hospitalization and/or death.

The Washington State Legislature mandates that youth in public schools be educated about "the life-threatening dangers of AIDS and its prevention" (Washington Administrative Code 28A). According to the U.S. Centers for Disease Control and Prevention, adolescents need accurate, age-appropriate information about HIV and AIDS (Centers for Disease Control and Prevention, 2008b).This information should include:

- How to talk with parents or other trusted adults about HIV and AIDS.
- How to reduce or eliminate risk factors.
- How to discuss HIV risk with a potential partner.
- Where to get tested for HIV.
- How to use a condom correctly.

Adolescents are a critical group for effective prevention education. Washington State law RCW 28A.230.070 requires that HIV/AIDS prevention education be provided each year to students in all public schools beginning in Grade 5. In some cases this instruction takes the form of assemblies or other non-classroom events that, though they may not be perceived by students as HIV/AIDS education, meet the legal requirements.

Washington State law RCW 28A.300.475 (also known as the Healthy Youth Act) went into effect in September, 2008. It provides a framework for those schools that choose to implement sexual health education in the state of Washington. All sexual health education must be medically and scientifically accurate; be age appropriate; be appropriate for students regardless of gender, race, sexual orientation, or disability status; be consistent with the 2005 Guidelines for Sexual Health and Disease Prevention developed by the Department of Health and the Office of Superintendent of Public Instruction; and may not teach abstinence to the exclusion of other materials and instruction on contraceptives and disease prevention.

Depression. People who are depressed experience a range of symptoms that can include sadness, loss of usual interests and pleasures, sleep disturbance, weight or appetite disturbance, difficulty concentrating, intense feelings of guilt, and suicidal thoughts or behaviors (Keefe and Harvey, 1994). Mental illness and chronic disease often intersect, leaving those who suffer from chronic disease with depression and anxiety. Common physical ailments that are accompanied by higher rates of depression and anxiety include asthma, arthritis, cardiovascular disease, cancer, diabetes, and obesity (Chapman, Perry, and Strine, 2005).

Asthma

Figure 14 illustrates the percentages of students in 2008 who currently have asthma or who have had asthma in their lifetime.

Lifetime asthma includes anyone who has ever been told by a doctor or nurse that they have asthma (see Appendix A, Item 90). Current asthma includes anyone who those who had ever been told they have asthma by a doctor or a nurse and also reports that they still have asthma (see Appendix A, Item 91).

Lifetime asthma: In 2008, 15 percent of Grade 6 students, 18 percent of Grade 8 students, 21 percent of Grade 10 and 12 students reported that they had been told they have asthma.

Current asthma: In 2008, 8 percent of Grade 6 and 8 students, and 10 percent of Grade 10 and 12 students reported that they were told they had asthma and that they still have asthma.

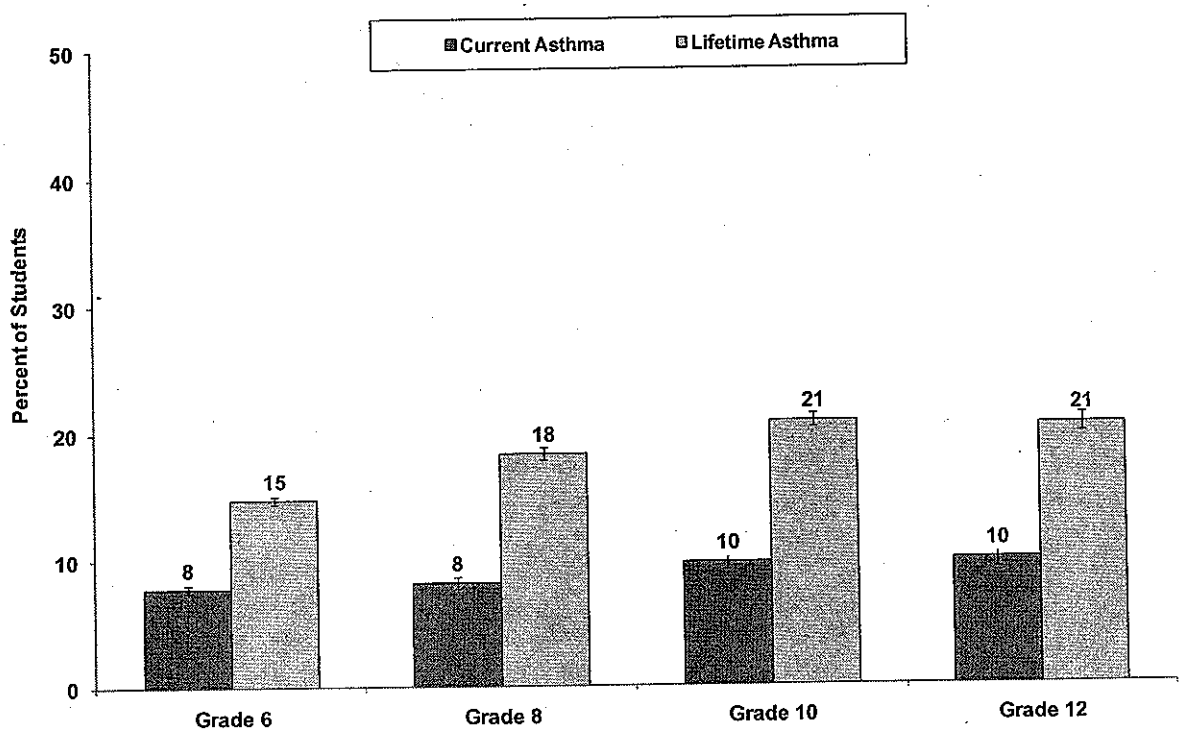
Differences by grade level:

- Grade 6 students were less likely than Grade 8, 10 and 12 students to have been diagnosed with asthma in their lifetime.
- Grade 8 students were less likely than Grade 10 students to have been diagnosed with asthma in their lifetime.
- Grade 6 and 8 students were less likely than Grade 10 and 12 students to currently have asthma.

Differences by gender:

- Grade 6 males were more likely than females to have been diagnosed with asthma in their lifetime.
- Grade 12 females were more likely than males to have been diagnosed with asthma in their lifetime.
- Grade 8 and Grade 12 females were more likely than males to have current asthma.

Figure 14
Current and Lifetime Asthma,
Grades 6, 8, 10, and 12 in 2008



Survey Questions: Has a doctor or nurse ever told you that you have asthma? Do you still have asthma?

Notes:

- Percentages represent students who were ever told they had asthma, and a combination of those who were ever told they have asthma and still have asthma.
- The definition of current asthma changed in 2008, so previous results for current asthma are not comparable. In the past current asthma was defined as being diagnosed by a doctor and having an asthma attack in the past year.

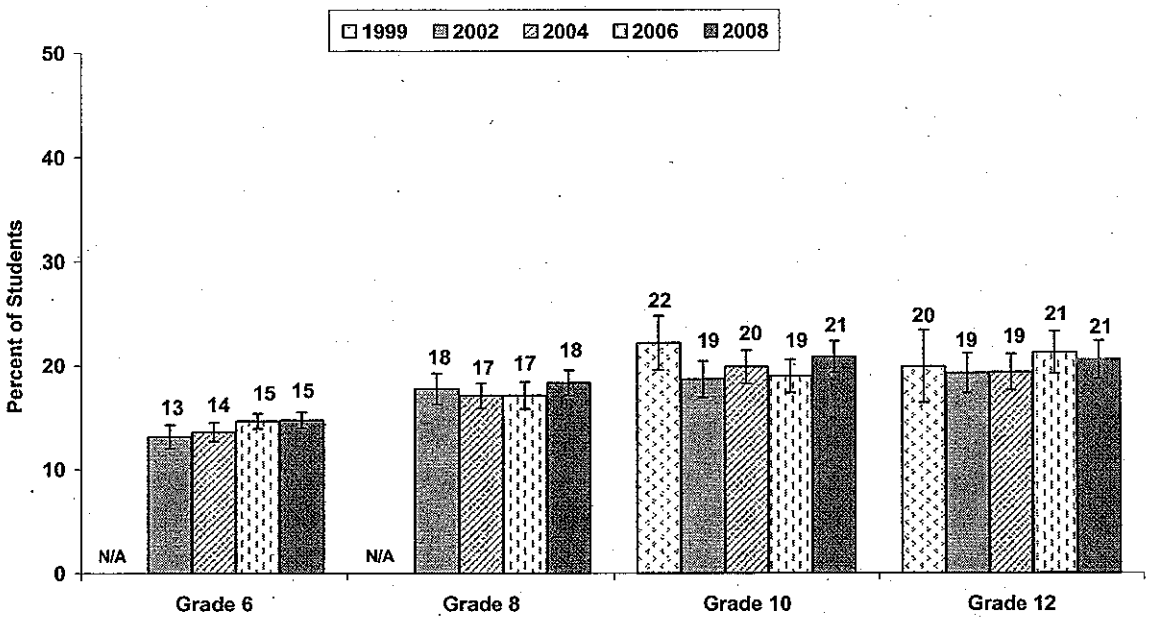
Source: HYS 2008

Figure 15 illustrates the percentages of students who have had asthma in their lifetime from 1999 to 2008.

Differences over time:

- Comparing results from 2006 to 2008:
  - There were no differences in lifetime asthma from 2006 to 2008.
- Comparing results over time:
  - There were no changes in lifetime asthma from 1999 through 2008.

Figure 15
Lifetime Asthma,
Grades 6, 8, 10, and 12 from 1999–2008



Note. The definition of current asthma changed in 2008, so previous results for current asthma are not comparable. In the past current asthma was defined as being diagnosed by a doctor and having an asthma attack in the past year.

Source: YRBS 1999, HYS 2002, 2004, 2006 and 2008.

Diabetes

Figure 16 illustrates the percentages of students who had ever been told by a doctor or other health professional that they have diabetes from 2004 through 2008.

Diabetes is becoming more common among youth and has lifelong implications for health and well-being.

In 2008, 4 percent of students in Grade 8 and 5 percent of students in Grades 10 and 12 reported having been told they have diabetes (see Appendix A, Item 97).

Differences by grade level:

- There were no differences by grade level.

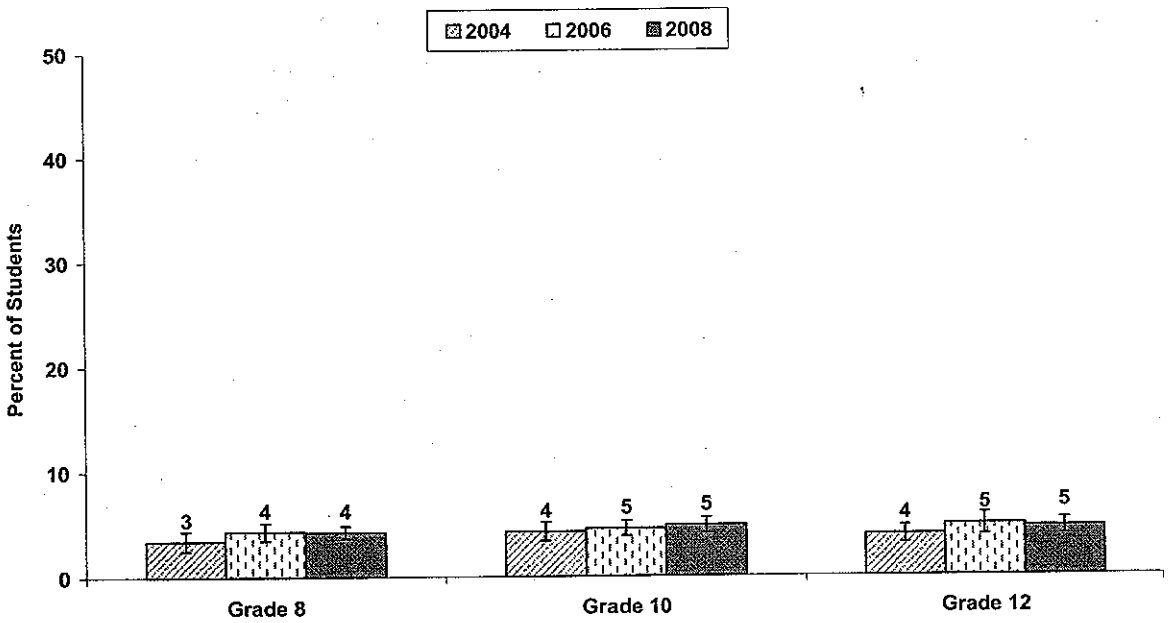
Differences by gender:

- Grade 10 males were more likely than females to report having been told they have diabetes.

Differences over time:

- There were no differences from 2006 to 2008.

Figure 16
Diagnosis of Diabetes,
Grades 8, 10, and 12 from 2004 and 2008



Survey Question: Have you ever been told by a doctor or other health professional that you have diabetes?

Note. Percentages represent students who were ever told they diabetes.

Source: HYS 2004, 2006 and 2008.

Access to Care

Figure 17 illustrates the percentages of students who in the past 12 months had seen a doctor or health care provider for a checkup or physical exam when they were not sick or injured from 1995 through 2008. Figure 18 illustrates the percentages of students who in the past 12 months had seen a dentist for a checkup, exam, teeth cleaning, or other dental work from 1995 through 2008.

Access to medical and dental care is an important component in creating a healthy adolescent and adult.

Access to a doctor: In 2008, 61 percent of Grade 8 students, 57 percent of Grade 10 students and 58 percent of Grade 12 students had seen a doctor in the past 12 months (see Appendix A, Item 98).

Access to a dentist: In 2008, 74 percent of Grade 8 students, 71 percent of Grade 10 students and 70 percent of Grade 12 students had seen a dentist in the past 12 months (see Appendix A, Item 99).

Differences by grade level:

- Grade 8 students were more likely than Grade 10 students to have seen a doctor in the past year.
- There were no differences in seeing a dentist for a checkup by grade level.

Differences by gender:

- Grade 10 and 12 females were more likely than males to have seen a doctor for a checkup.
- Grade 8 females were more likely than males to have seen a dentist for a checkup.

Differences over time:

- Comparing results from 2006 to 2008:
  - Among Grade 8 and 12 students, there was a significant increase in seeing a doctor for a checkup.
  - There were no differences in seeing a dentist for a checkup from 2006 to 2008.
- Comparing results over time:
  - Among Grade 10 students, there was a significant decrease in seeing a doctor for a checkup from 1995 through 2008.
  - There were no changes in seeing a dentist for a checkup from 1995 through 2008.

Figure 17
Student Access to a Doctor,
Grades 8, 10, and 12 from 1995–2008

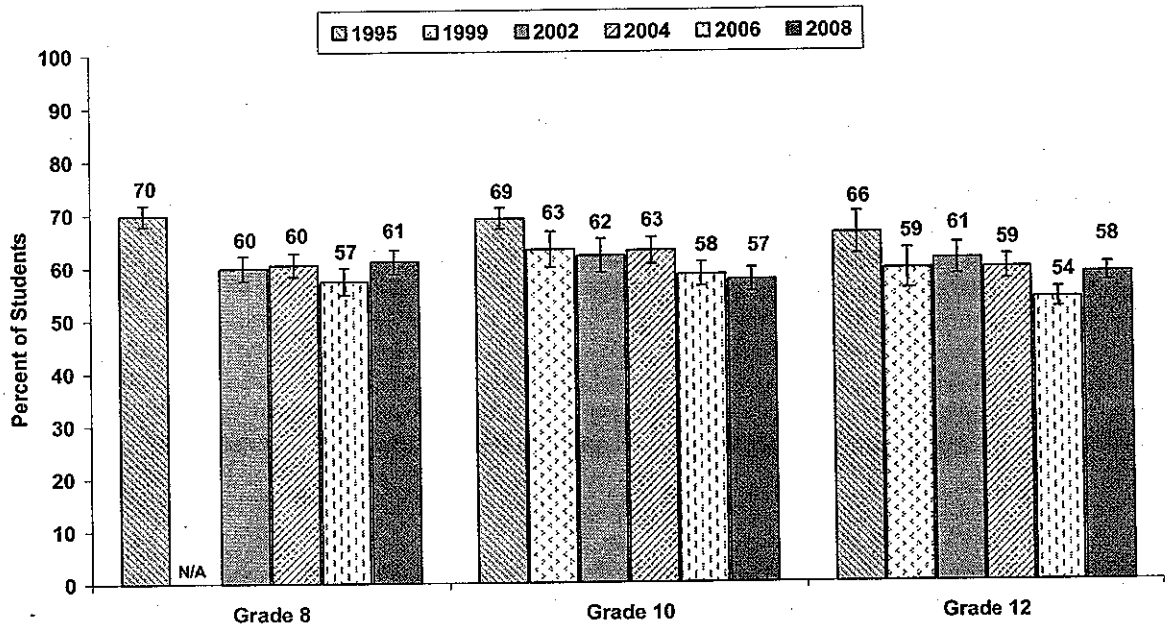
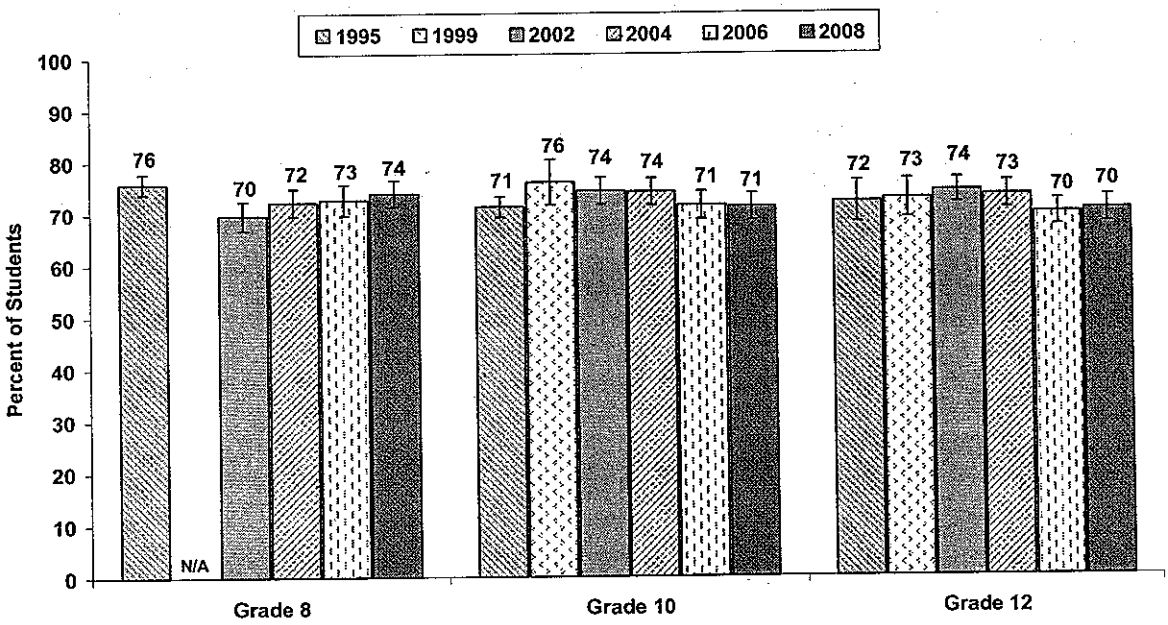


Figure 18
Student Access to a Dentist,
Grades 8, 10, and 12 from 1995–2008



Survey Questions:

- When was the last time you saw a doctor or health care provider for a check-up or physical exam when you were not sick or injured?
- When was the last time you saw a dentist for a check-up, exam, teeth cleaning, or other dental work?

Source: WSSAHB 1995, YRBS 1999, HYS 2002, 2004, 2006 and 2008.

HIV/AIDS, Pregnancy and STD Prevention Education

Figure 19 illustrates the percentages of students who reported having been taught about HIV/AIDS infection from 2006 through 2008 and the percentages who were taught about ways to prevent pregnancy and sexually transmitted diseases (STD) during the past year in 2008.

The 2007 Washington State Healthy Youth Act states that if a school provides sexual health education, it must includes information about abstinence and other methods of preventing unintended pregnancy and sexually transmitted diseases.

Taught about HIV/AIDS: In 2008, 77 percent of Grade 8 students, 71 percent of Grade 10 students, and 48 percent of Grade 12 students reported they had been taught about HIV/AIDS infection (see Appendix A, Item 135).

Taught about abstinence and other ways to prevent pregnancy and STDs: In 2008, 73 percent of Grade 8 and Grade 10 students, and 52 percent of Grade 12 students reported they had been taught about abstinence and other ways to prevent pregnancy and STDs (see Appendix A, Item 136).

Differences by grade level:

- Grade 8 and 10 students were more likely than Grade 12 students to have been taught about HIV/AIDS infection and to have been taught about preventing pregnancy and STDs.

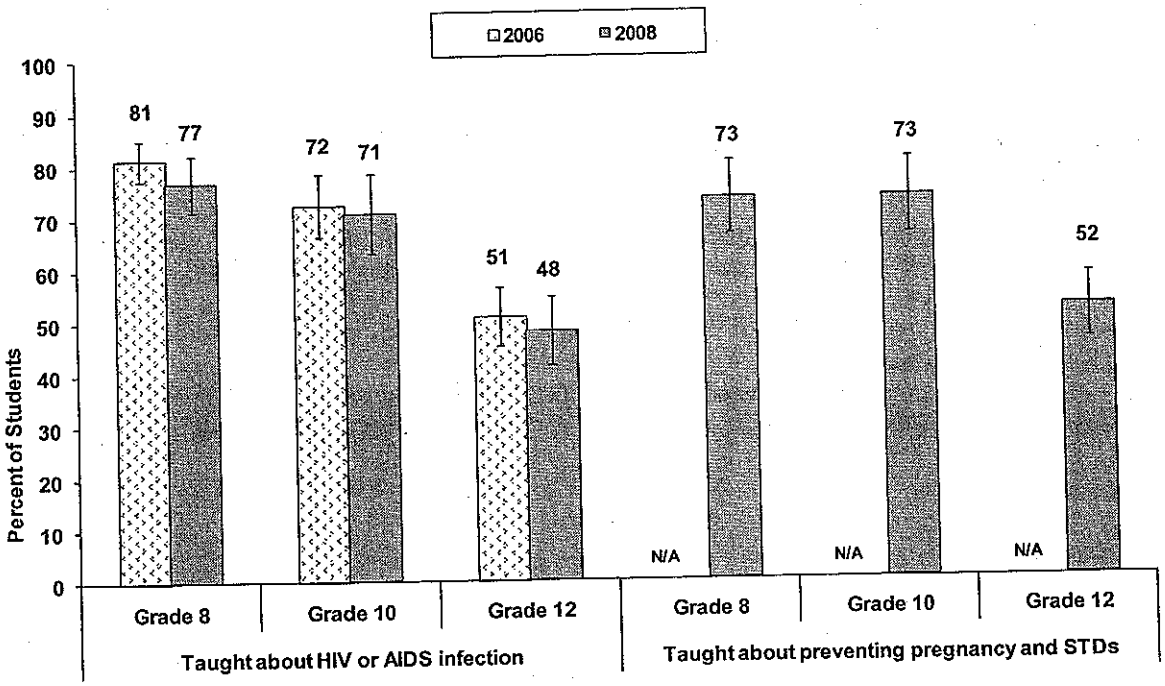
Differences by gender:

- There were no differences in being taught about HIV/AIDS by gender.
- Grade 10 females were more likely than males to have been taught about preventing pregnancy and STDs.

Differences over time:

- There were no differences in the percent of students taught about HIV/AIDS from 2006 to 2008.
- No comparison data are available for being taught about abstinence and other ways to prevent pregnancy and STDs.

Figure 19
Students Taught HIV/AIDS, Pregnancy, and STD Prevention, Grades 8, 10, and 12 from 2006–2008



Survey Questions:

- Last year in school, were you taught about HIV or AIDS infection?
- Last year in school, were you taught about ways to prevent pregnancy and sexually transmitted diseases (STD)?

Notes:

- The percentages represent students who were taught about HIV/AIDS infection and the percentages who were taught about abstinence and other ways to prevent pregnancy and STDs.
- The question about pregnancy and STD prevention was new in 2008.
- In 2006, the survey asked about STD prevention but not pregnancy prevention.
- The 2008 question about pregnancy and STD prevention was on the optional portion of the survey.

Source: HYS 2006 and HYS 2008.

Depression

Figure 20 illustrates the percentage of students who reported having experienced depressive feelings during the past year from 1999 through 2008.

Students were asked, "During the past 12 months, did you ever feel so sad or hopeless almost every day for two weeks or more in a row that you stopped doing some usual activities?" (see Appendix A, Item 119). Although this question is not sufficient to diagnose depression, it can be used as a surrogate measure for experiencing symptoms of depression.

In 2008, 24 percent of students in Grade 8, 30 percent of students in Grades 10 and 29 percent of students in Grade 12 reported experiencing depressive feelings during the past year.

Differences by grade level:

- Grade 10 and 12 students were more likely than Grade 8 students to experience depressive feelings.

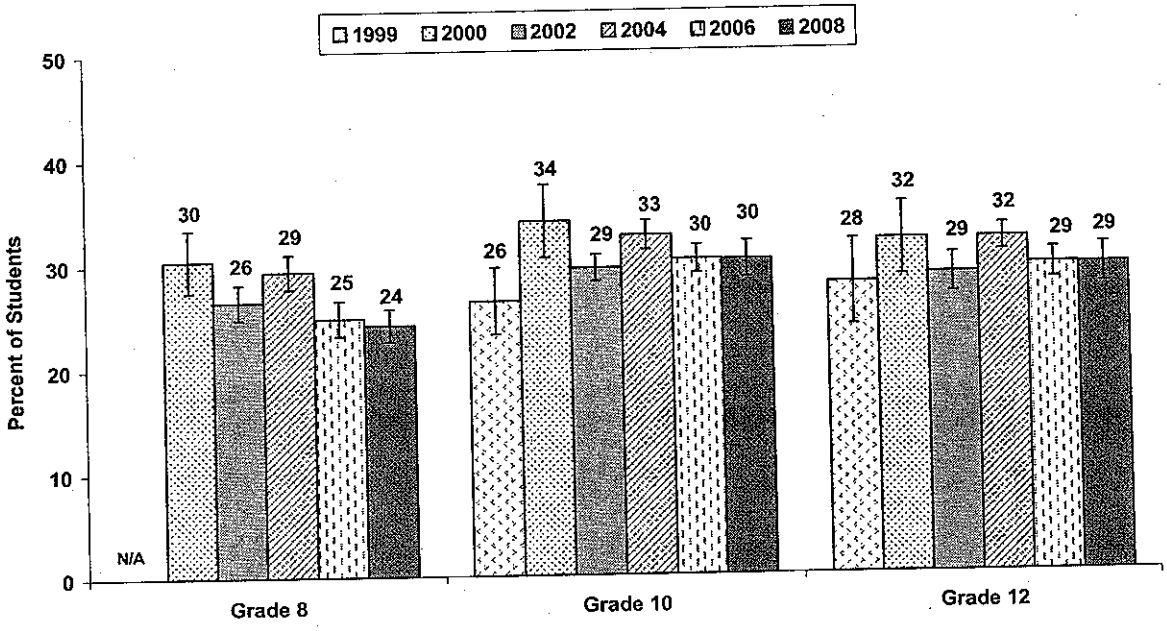
Differences by gender:

- Grade 8, 10 and 12 females were more likely than males to experience depressive feelings.

Differences over time:

- Comparing results from 2006 to 2008:
  - There were no differences from 2006 to 2008.
- Comparing results over time:
  - There were no changes from 1999 through 2008.

Figure 20
Experience of Depressive Feelings,
Grades 8, 10, and 12 from 1999–2008



Survey Question: During the past 12 months, did you ever feel so sad or hopeless almost every day for two weeks or more in a row that you stopped doing some usual activities?

Note: Percentages represent students who reported, yes, they felt sad or hopeless.

Source: YRBS 1999, WSSAHB 2000, HYS 2002, 2004, 2006 and 2008.

5. School Climate

HYS 2008 questions about school climate addressed perceived safety at school, bullying behavior, and fighting at school. The survey also included questions about substance use on school property and the availability of specially trained staff to help students with substance use problems. In a review of research studies that the Office of Superintendent of Public Instruction conducted in 2002, the importance of supportive learning environments surfaced. The study led to the identification of nine characteristics of high-performing schools, including a caring and safe learning environment. School climate impacts students' daily experience, including their experience of well being before, during, and after school. Safe, welcoming schools foster positive school climate and higher academic achievement; unwelcoming or unsafe schools create barriers to student success.

School Safety, Bullying, and Harassment. Bullying is a marker for more serious violent behaviors such as weapon carrying and frequent fighting, and thus should not be considered a normal aspect of youth development (Nansel, Overpeck, Haynie, Ruan, and Scheidt, 2003). The Governor's Substance Abuse Prevention Advisory Committee set as a goal increasing the percentage of adolescents reporting that they feel safe in school to 90 percent for all grades.

Fighting and Weapon Carrying. Students' self-report of weapons carrying and fighting, together with the Office of Superintendent of Public Instruction's public report of suspensions and expulsions for weapons and violent offenses, helps build a picture of school safety. In 2008, Washington had no schools that met the federal definition of "Persistently Dangerous Schools".

Substance Use at School. Research demonstrates that early users of alcohol, tobacco, and other drugs are much more likely than their peers to become problem users later in life (Grant and Dawson, 1997) and to experience unintentional injuries, car crashes, and physical fighting (Hingson and Kenkel, 2004). Additionally, coming to school high or under the influence compromises learning and can negatively impact the learning environment for others.

School Attendance. School attendance is compulsory for youth in Washington between the ages of 8 and 18 with some exceptions such as emancipated children, children who have already met the graduation requirements or children over the age of 16 who work. In the challenging environment of high-stakes testing, student attendance is more important than ever. Low school attendance may indicate school environments that are stressful, the need for alternative placement, family dysfunction or other barriers to student success.

School Safety, Bullying, and Harassment

School districts in Washington are required by law to adopt policies and procedures that prohibit harassment, intimidation and bullying (RCW 28A.300.285). State legislators, the Governor, the state education agency, local schools and communities, and parents recognize that students must feel safe at school to be successful learners. Effective school safety plans that include bullying and harassment prevention programs challenge traditional cultural norms that might condone bullying as a normal part of growing up.

Feeling Safe at School

Figure 21 illustrates the percentages of students who reported mostly or definitely feeling safe at school from 1995 through 2008.

When students feel safe at school, they are more likely to make better grades compared to those students who do not feel safe at school (Dilley 2009).

In 2008, 88 percent of Grade 6 students, 81 percent of Grade 8 students, 82 percent of Grade 10 students, and 85 percent of Grade 12 students felt safe at school (see Appendix A, Item 205).

Differences by grade level:

- Grade 6 students were more likely than Grade 8, 10 and 12 students to feel safe at school.
- Grade 12 students were more likely than Grade 8 and 10 students to feel safe at school.

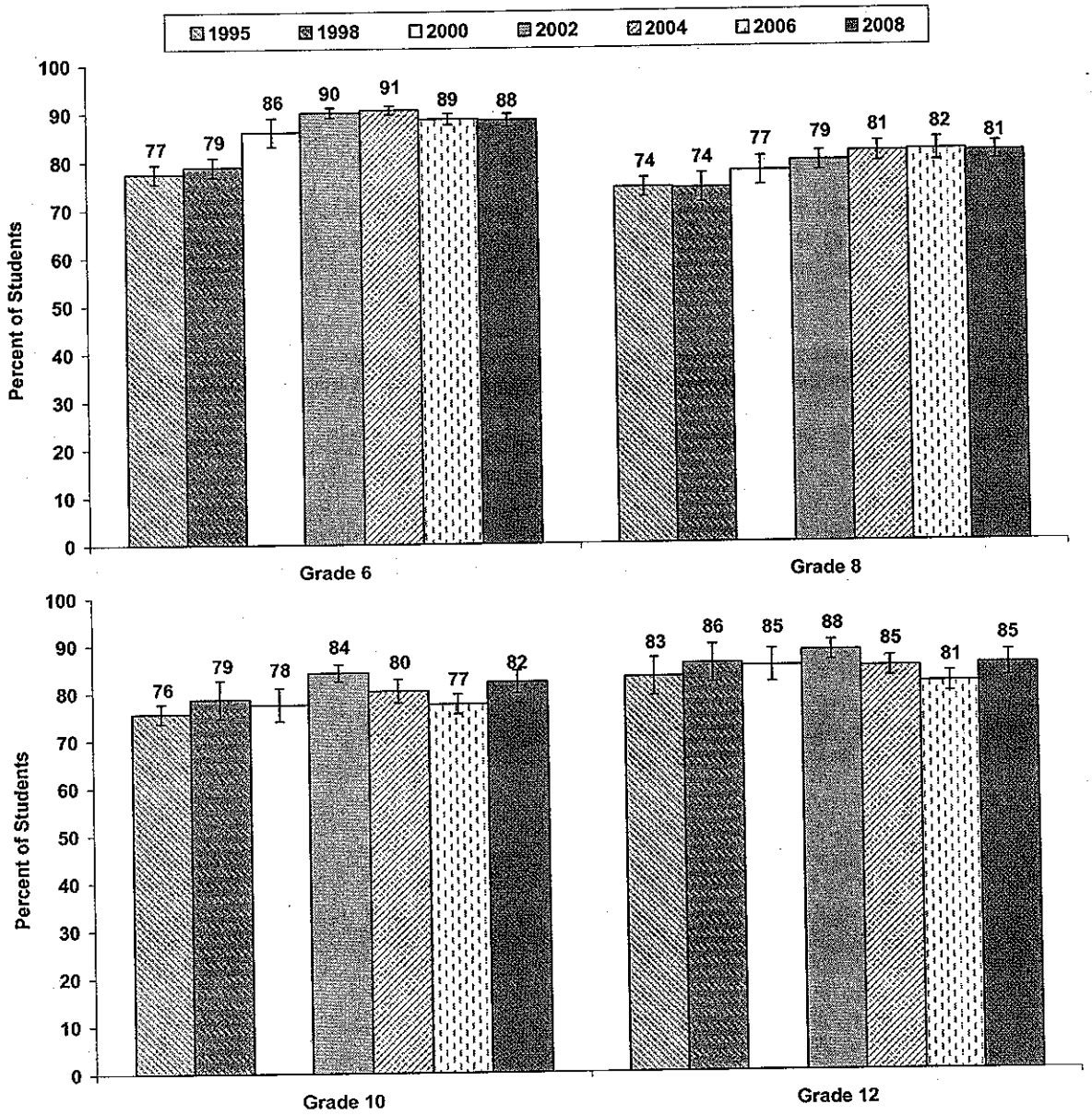
Differences by gender:

- Grades 6, 8, 10 and 12 females were more likely than males to feel safe at school.

Differences over time:

- Comparing results from 2006 to 2008:
  - Among Grade 10 and 12 students, there were significant increases in feeling safe at school.
- Comparing results over time:
  - Among Grade 8 students, there was a significant increase in feeling safe at school from 1995 through 2008.

Figure 21
Perceived Safety at School,
Grades 6, 8, 10, and 12 from 1995–2008



Survey Question: I feel safe at my school.

Note:

- Survey forms A and B have different response options.
- Percentages represent students who reported that they, yes or mostly true, or, YES! or definitely true, that they felt safe at school.

Source: WSSAHB 1995, 1998 and 2000, YRBS 1999, HYS 2002, 2004, 2006 and 2008.

Bullying

Figure 22 illustrates the percentage of students who have been bullied in the past 30 days from 2002 through 2008.

Bullying is defined as a student or group of students saying or doing nasty or unpleasant things to another student. Under this definition bullying includes teasing a student repeatedly in a way he or she does not like but does not include two students of about the same strength quarreling or fighting.

Students who are bullied at school are more likely to get lower grades compared to those who are not bullied. Creating a safe environment is critical for student's academic achievement. Research has identified best practice support programs that address school harassment and bullying and build positive school culture. (Smith, Pepler, Rigby, 2004)

In 2008, 30 percent of Grade 6 students, 29 percent of Grade 8 students, 23 percent of Grade 10 students, and 16 percent of Grade 12 students reported being bullied (see Appendix A, Item 130).

Differences by grade level:

- Grade 6 and 8 students were more likely than Grade 10 and 12 students to be bullied.
- Grade 10 students were more likely than Grade 12 students to be bullied.

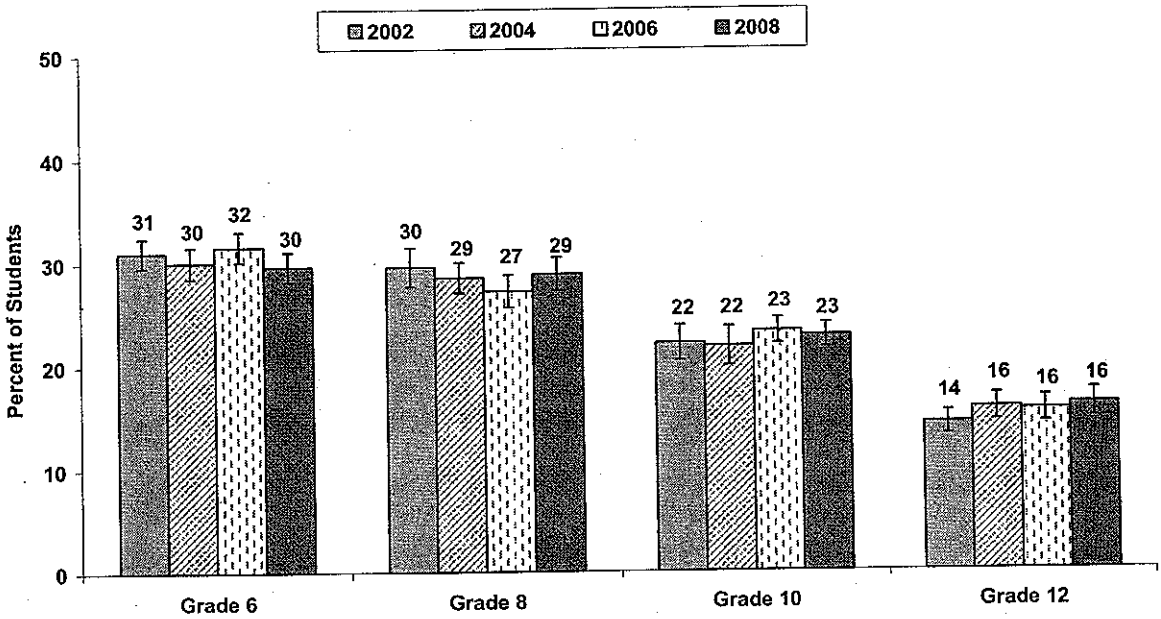
Differences by gender:

- Grade 12 females were more likely than males to have been bullied.

Differences over time:

- There were no differences from 2006 to 2008.

Figure 22
Bullying,
Grades 6, 8, 10, and 12 from 2002–2008



Survey Question: A student is being bullied when another student, or group of students, say or do nasty or unpleasant things to him or her. It is also bullying when a student is teased repeatedly in a way he or she doesn't like. It is NOT bullying when two students of about the same strength argue or fight. In the last 30 days, how often have you been bullied?

Note: Percentages of students who reported they were that they were bullied.

Source: HYS 2002, 2004, 2006 and 2008.

Harassment

Figure 23 illustrates the percentage of students who were bullied, harassed, or intimidated at school or on their way to or from school because of their perceived sexual orientation from 2006 through 2008. Figure 23 also illustrates the percentage of students who were bullied, harassed, or intimidated by someone using a computer or cell phone from 2006 through 2008.

Many schools have modified procedures to specifically address computer or cell phone harassment.

Harassed for perceived sexual orientation: In 2008,15 percent of Grade 8, 12 percent of Grade 10 students, and 7 percent of Grade 12 students were harassed because someone thought they were gay, lesbian or bisexual in the past 30 days (see Appendix A, Item 131).

Harassed by computer or cell phone: In 2008, 8 percent of Grade 8, and 11 percent of Grade 10 and 12 students were harassed in the past 30 days (see Appendix A, Item 133).

Differences by grade level:

- Among Grade 8, 10 and 12 students, as grade levels increase, each grade was less likely to be harassed due to perceived sexual orientation.
- Grade 8 students were less likely than Grade 10 and 12 students to report being harassed by computer or cell phone.

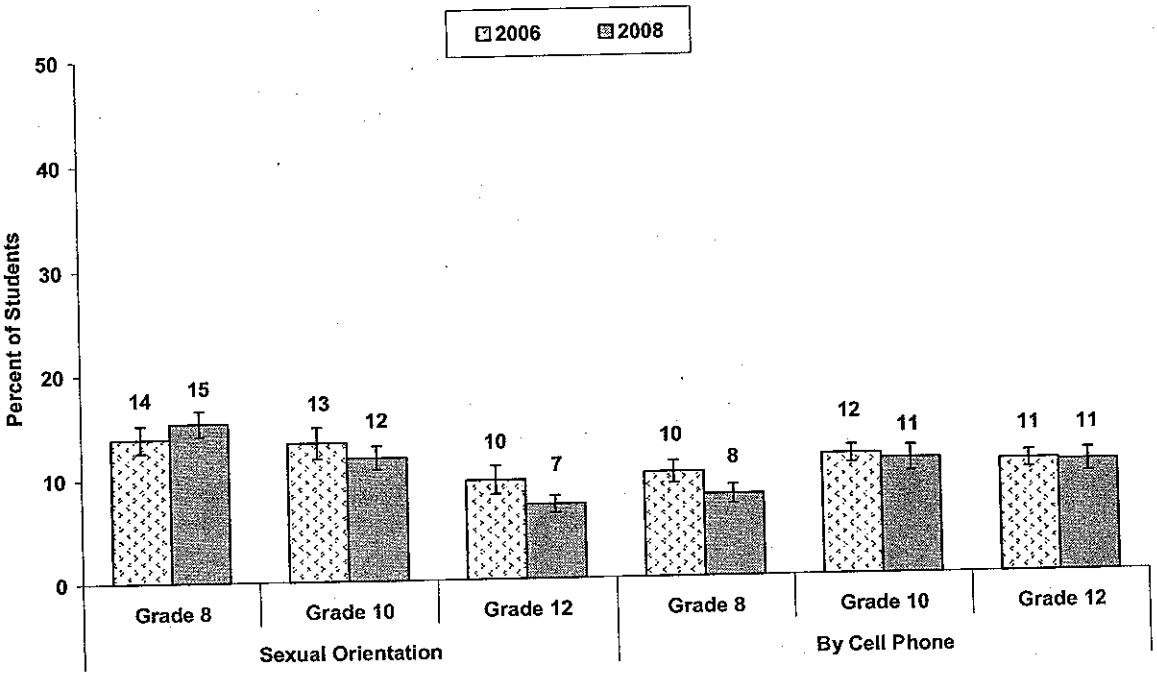
Differences by gender:

- Grade 8 males were more likely than females to report being harassed due to perceived sexual orientation.
- Grade 8, 10 and 12 females were more likely than males to be harassed by computer or cell phone.

Differences over time:

- Among Grade 12 students, there was a significant decrease in being harassed due to perceived sexual orientation from 2006 to 2008.
- Among Grade 8 students, there was a significant decrease in being harassed by computer or cell phone from 2006 to 2008.

Figure 23
Harassment Because of Sexual Orientation or Harassment by Computer or Cell Phone, Grades 8, 10, and 12 in 2008



Survey Questions:

- In the past 30 days, how often were you bullied, harassed, or intimidated at school or on your way to or from school: Because someone thought you were gay, lesbian or bisexual (whether you are or are not)?
- In the past 30 days, has someone used the computer or a cell phone to bully, harass or intimidate you?

Note: Percentages represent students who reported they were harassed due to sexual orientation are based on the perception that someone thought they were gay, lesbian or bisexual – not that they actually were or were not, and students who were harassed by computer or cell phone.

Source: HYS 2006 and 2008.

Fighting and Weapon Carrying at School

Creating a safe learning environment is a key factor in ensuring student achievement. In recent years tragic school shootings in the United States have highlighted the importance of ensuring that students do not carry weapons to school. In response, federal law now requires a one year expulsion for students who bring firearms to schools (RCW 28A.600.010). Additionally, fighting is a key indicator for determining whether or not schools are safe.

Fighting at School

Figure 24 illustrates the percentage of students who were in a physical fight at school in the past 12 months from 2002 through 2008.

School referral systems that encourage students to report threats and fighting will help prevent future violent incidents. Research has identified best practice programs that can address negative student behaviors and build positive school cultures. (Smith, Pepler, Rigby, 2004)

In 2008, 16 percent of Grade 8 students, 13 percent of Grade 10 students, and 8 percent of Grade 12 students reported fighting at school in the past year (see Appendix A, Item 116).

Differences by grade level:

- Among Grade 8, 10 and 12 students, as grade levels increase, each grade was less likely to fight at school in the past year.

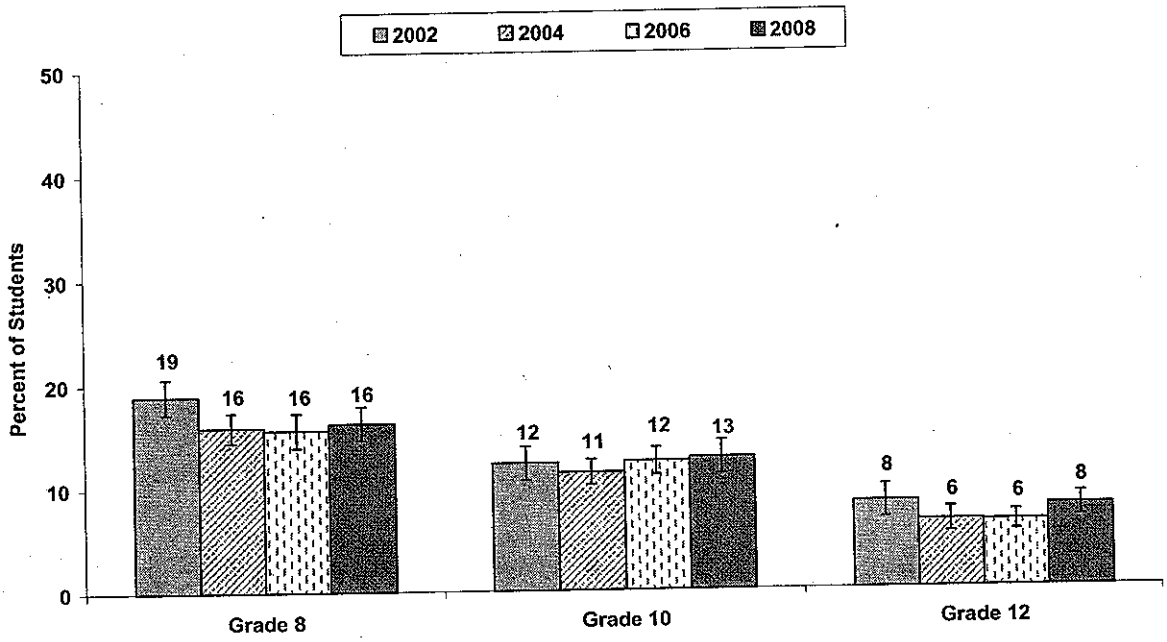
Differences by gender:

- Grade 8, 10 and 12 males were more likely than females to fight at school in the past year.

Differences over time:

- Among grade 12 students, there was a significant increase in fighting at school from 2006 to 2008.

Figure 24
Fighting at School in the Past Year,
Grade 8, 10, and 12 from 2002–2008



Survey Question: During the past 12 months, how many times were you in a physical fight on school property?

Note: Percentages represent students who reported that they were in at least one physical fight at school in the past year.

Source: HYS 2002, 2004, 2006 and 2008.

Weapon Carrying at School

Figure 25 illustrates the percentage of students who carried a weapon such as a gun, knife, or club at school in the past 30 days from 2002 through 2008.

School safety requires the commitment of staff, students, parents and the community. Creating a safe and supportive learning environment is critical for student academic success. (Dilley, 2009)

In 2008, 3 percent of Grade 6 students, 6 percent of Grade 8 students and 8 percent of Grade 10 and 12 students reported weapon carrying at school in the past 30 days (see Appendix A, Items 109 and 110).

Differences by grade level:

- Grade 6 students were less likely than Grade 8, 10 and 12 students to carry a weapon at school in the past 30 days.
- Grade 8 students were less likely than Grade 10 and 12 students to carry a weapon at school in the past 30 days.

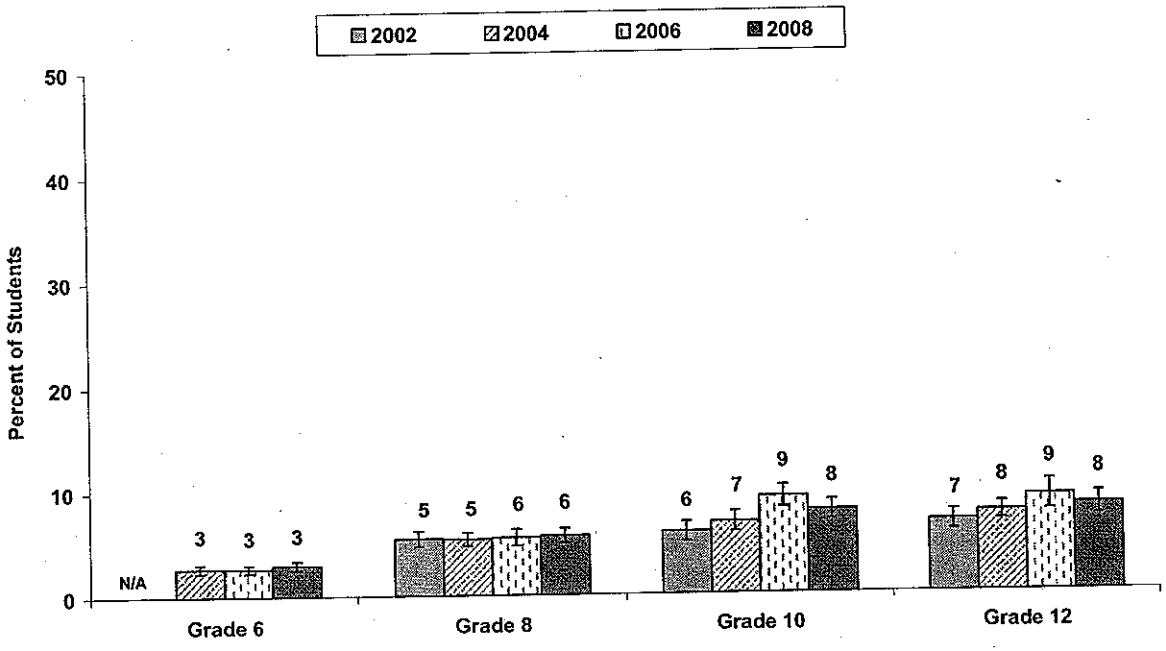
Differences by gender:

- Grade 6, 8, 10 and 12 males were more likely than females to carry a weapon at school in the past 30 days.

Differences over time:

- There were no differences from 2006 to 2008.

Figure 25
Weapon Carrying at School in the Past 30 days, Grades 8, 10, and 12 from 2002–2008



Survey Question: During the past 30 days, did you carry a weapon such as a gun, knife, or club on school property?

Notes:

- Percentages represent students who reported ay weapon carrying at school in the past 30 days.
- Grade 6 students were asked if they carried a weapon at school, "yes" or "no".
- Grade 8, 10 and 12 students were asked the number of times they carried a weapon.
- In 2006, the response options were reduced from 5 different number of times options to 3 different number of times.

Source: HYS 2002, 2004, 2006 and 2008.

Substance Use at School

The use of substances at school significantly affects student learning and compromises the school environment. Substance use and abuse are closely correlated with violent behavior. Prevention, early intervention, treatment, and other related efforts that reduce the number of students engaging in these behaviors and coming to school high or drunk enhances school safety and increases student potential for academic success.

Alcohol or Other Drug Use on School Property

Figure 26 illustrates the percentage of students who were drunk or high at school in the past 12 months from 1995 through 2008.

In 2008, 8 percent of Grade 8 students, 17 percent of Grade 10 students, and 20 percent of Grade 12 students reported being drunk or high at school in the past year (see Appendix A, Item 106).

Differences by grade level:

- Among Grade 8, 10 and 12 students, as grade levels increase, each grade was more likely to be drunk or high at school in the past year.

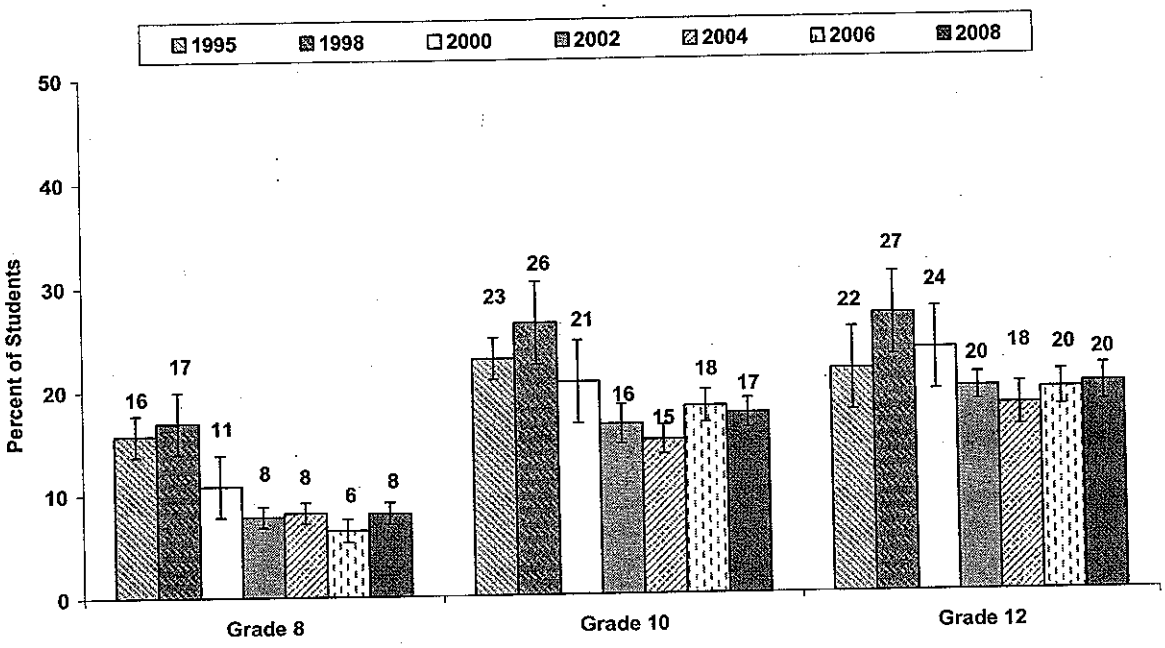
Differences by gender:

- Grade 12 males were more likely than females to report being drunk or high at school in the past year.

Differences over time:

- Comparing results from 2006 to 2008:
  - Among Grade 8 students, there was a significant increase in being drunk or high at school.
- Comparing results over time:
  - Among Grade 8 students, there was a significant decrease in being drunk or high at school from 1995 through 2008.

Figure 26
Drunk or High at School in the Past Year,
Grades 8, 10, and 12 from 1995–2008



Survey Question: How many times in the past year (12 months) have you been drunk or high at school?

Note: Percentages represent students who reported being drunk or high on school property on any days in the past year.

Source: WSSAHB 1995, 1998 and 2000, HYS 2002, 2004, 2006 and 2008.

Tobacco Use on School Property

Figure 27 illustrates the percentage of students who used tobacco, including cigarettes, cigars, or chew/dip, on school property in the past 30 days from 2002 through 2008.

In 2008, 4 percent of Grade 8 students, 9 percent of Grade 10 students, and 11 percent of Grade 12 students reported using tobacco at school in the past 30 days (see Appendix A, Item 106).

Differences by grade level:

- Grade 8 students were less likely than Grade 10 and 12 students to use tobacco at school in the past 30 days.

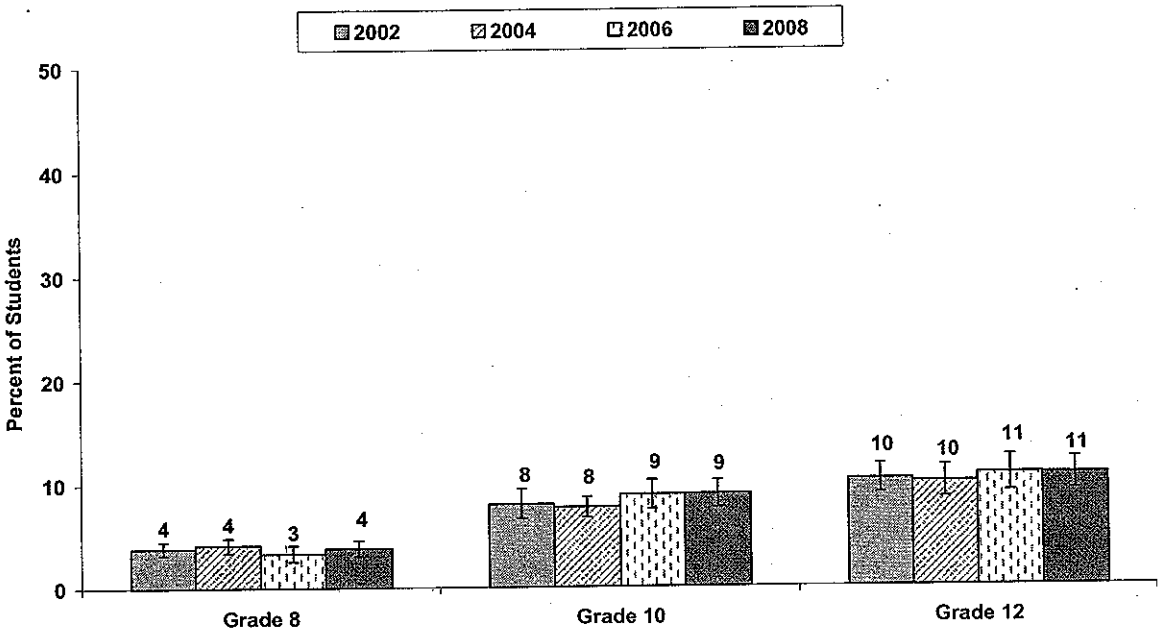
Differences by gender:

- Grade 10 and 12 males were more likely than females to use tobacco at school in the past 30 days.

Differences over time:

- There were no differences from 2006 to 2008.

Figure 27
Tobacco Use on School Property in the Past 30 Days, Grades 8, 10, and 12 from 2002–2008



Survey Question: During the past 30 days, on how many days did you use tobacco (cigarettes, cigars, or chew/dip) on school property?

Note: Percentages represent students who reported using tobacco on school property on any days in the past 30 days.

Source: HYS 2002, 2004, 2006 and 2008.

Perceived Availability of School Staff to Discuss Substance-Related Problems

Figure 28 illustrates the percentage of students who reported that they knew of a counselor, intervention specialist, or some other school staff member with whom they could discuss problems with alcohol, tobacco or other drugs from 1995 through 2008.

Students who have opportunities for interaction with school staff, especially in times of crisis, are more likely to be connected to school and academically successful. (Catalano, Haggerty, Oesterle, Fleming, Hawkins, 2004)

In 2008, 66 percent of Grade 8 students and 60 percent of Grade 10 students and 62 percent of Grade 12 students reported having someone at school with whom they could discuss substance-related problems (see Appendix A, Item 134).

Differences by grade level:

- Grade 8 students were more likely than Grade 10 students to have someone at school with whom they could discuss substance-related problems.

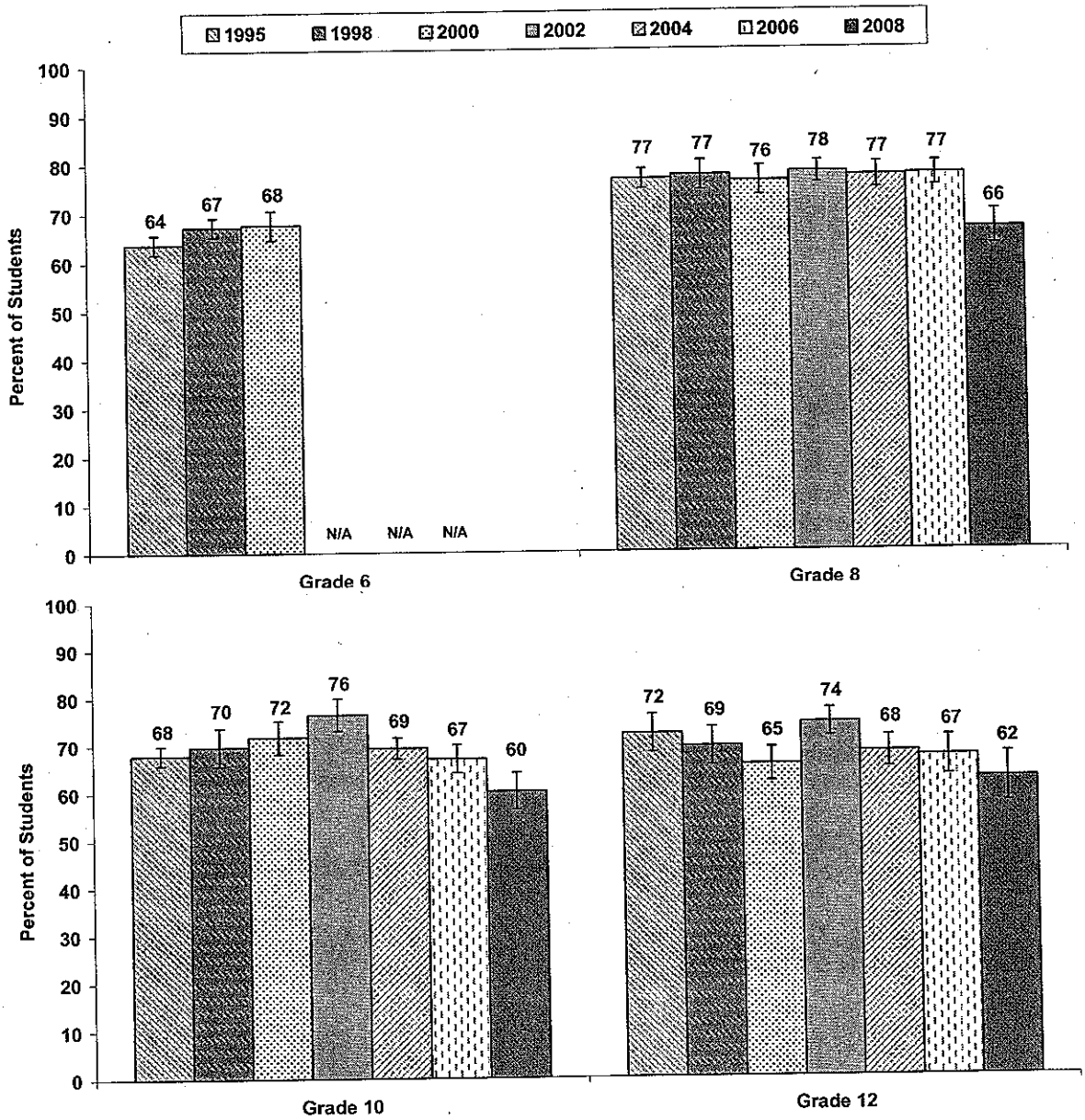
Differences by gender:

- There were no differences by gender.

Differences over time:

- Comparing results from 2006 to 2008:
  - Among Grade 8 and 10 students, there were significant decreases in the perceived availability of school staff to discuss substance-related problems.
- Comparing results over time:
  - There were no changes over time from 1995 through 2008.

Figure 28
Availability of School Staff to Discuss Substance-Related Problems, Grades 6, 8, 10, and 12 from 1995–2008



Survey Question: Does your school provide a counselor, intervention specialist, or other school staff member for students to discuss problems with alcohol, tobacco, or other drugs?

Note: Percentages represent students who were aware of having someone at school with whom they could discuss substance-related problems. Those who answered "I'm not sure" were considered not aware.

Source: WSSAHB 1995 1998 and 2000, HYS 2002, 2004, 2006 and 2008.

School Attendance

A significant portion of young people's lives is spent attending school. When youth enjoy school and attend regularly, they are more likely to achieve academically and at much less risk of engaging in a variety of at-risk behaviors.

Skipping or Cutting School

Figure 29 illustrates the percentage of students who skipped or cut a whole day of school in the last four weeks from 1998 through 2008.

In 2008, 18 percent of Grade 6 students, 19 percent of Grade 8 students, 23 percent of Grade 10 students, and 30 percent of Grade 12 students reporting skipping or cutting at least one day of school in the past 30 days (see Appendix A, Item 196).

Differences by grade level:

- Grade 12 students were more likely than Grade 6, 8 and 10 students to skip or cut a whole day of school in the past 30 days.
- Grade 10 students were more likely than Grade 6 and 8 students to skip or cut a whole day of school in the past 30 days.

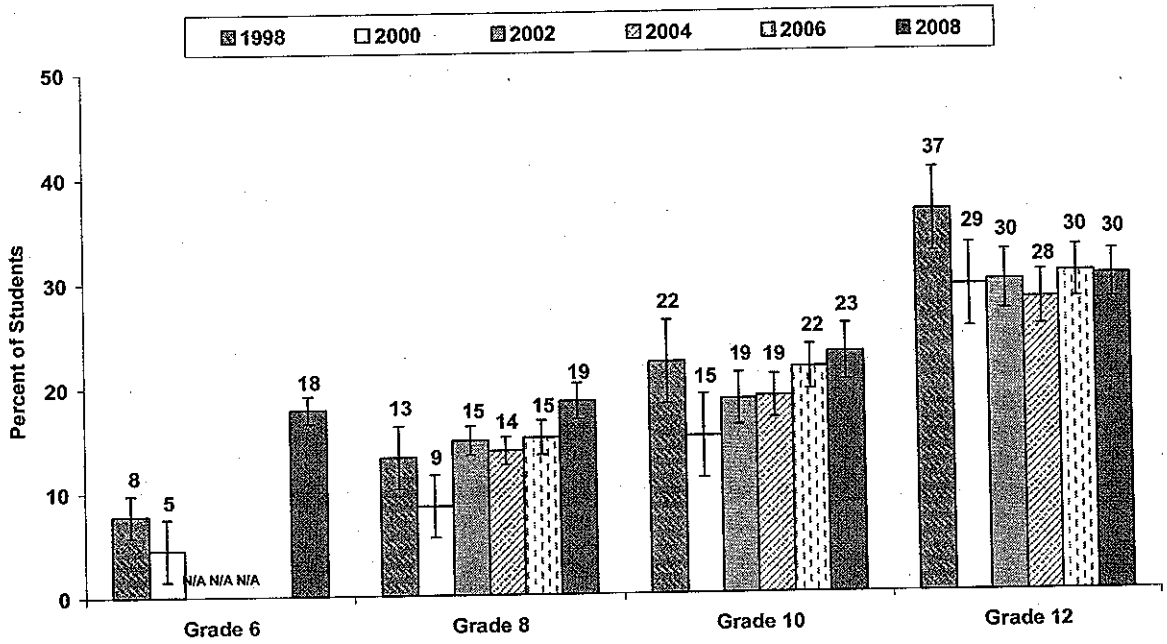
Differences by gender:

- Grade 10 females were more likely than males to skip or cut a whole day of school in the past 30 days.

Differences over time:

- Comparing results from 2006 to 2008:
  - Among Grade 8 students, there was a significant increase in skipping or cutting a whole day of school.
- Comparing results over time:
  - There were no changes over time from 1998 through 2008.

Figure 29
Skipping School in the Past 30 Days,
Grades 6, 8, 10, and 12 from 1998–2008



Survey Question: During the LAST 4 WEEKS, how many whole days of school have you missed because you skipped or "cut"?

Notes:

- Percentages represent students who reported they skipped or cut any days of school in the past 30 days.
- This question was not asked of Grade 6 students in 2002, 2004 and 2006, but was added back on the survey in 2008.

Source: WSSAHB 1998 and 2000, HYS 2002, 2004, 2006 and 2008.

Enjoying School

Figure 30 illustrates the percentage of students who almost always enjoyed school over the past year from 1998 through 2008.

Students that report a positive attitude toward schools are more likely to be academically successful. (Catalano, Haggerty, Oesterle, Fleming, Hawkins, 2004)

In 2008, 28 percent of Grade 6 students, 17 percent of Grade 8 students, 14 percent of Grade 10 students, and 11 percent of Grade 12 students reported almost always enjoying school over the past year (see Appendix A, Item 193).

Differences by grade level:

- Among Grade 6, 8, 10 and 12 students, as grade levels increase, each grade was less likely to almost always enjoy school.

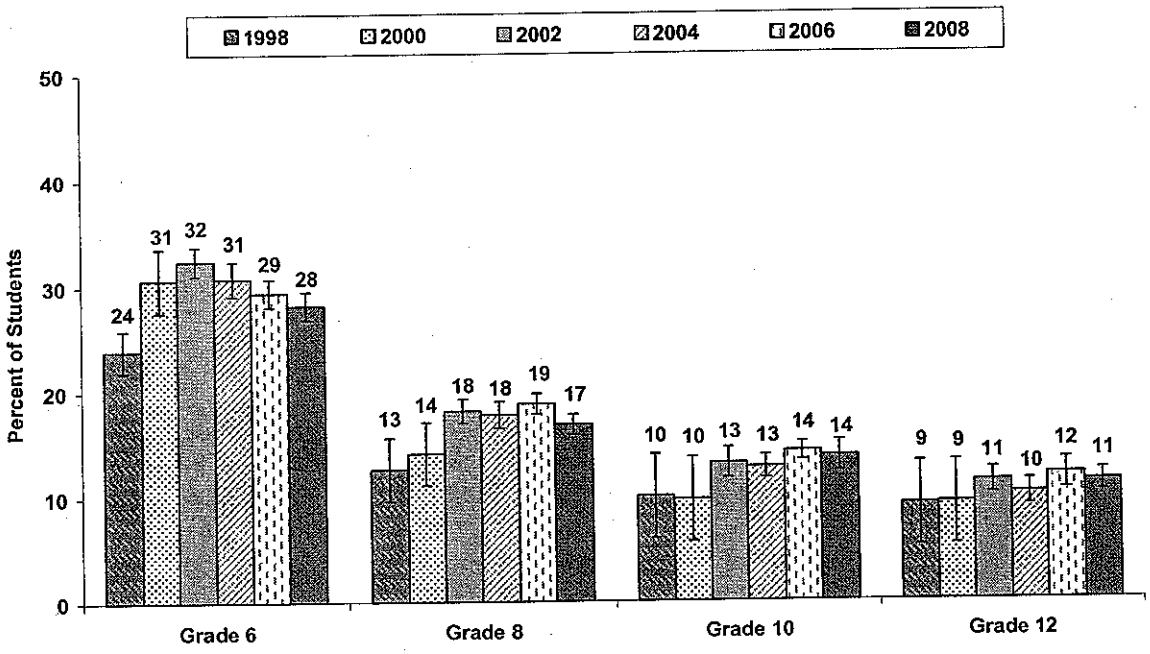
Differences by gender:

- Grade 6, 8, 10 and 12 females were more likely than males to almost always enjoy school.

Differences over time:

- Comparing results from 2006 to 2008:
  - Among Grade 8 students, there was a significant decrease in almost always enjoying school.
- Comparing results over time:
  - There were no changes over time from 1998 through 2008.

Figure 30
Enjoying School,
Grades 6, 8, 10, and 12 from 1998–2008



Survey Question: Think back over the past year in school. How often did you: Enjoy being in school?

Note. Percentages represent students who reported they almost always enjoy school.

Source: WSSAHB 1998 and 2000, HYS 2002, 2004, 2006 and 2008.

6. Unintentional Injury Behaviors

In the United States in 2006, about six of 10 deaths of youth and young adults aged 10 to 24 resulted from only four causes: motor vehicle crashes (30 percent), other unintentional injuries (16 percent), homicide (16 percent), and suicide (12 percent) (Centers for Disease Control and Prevention, 2009).

Motor Vehicle Safety. Preventing injuries and deaths in motor vehicle and bicycle crashes is an important public health goal. In Washington, as in the nation as a whole, motor vehicle crash injuries are the leading cause of death among youth aged 15 to 24. Between 1993 and 1998, 15.5 percent of drivers in fatal crashes in Washington were age 20 or younger, although this age group accounted for only 7 percent of all licensed drivers in the state (Doane and Griffith, 2000). Younger drivers tend to take more risks and are less skilled at detecting traffic hazards compared to older drivers. In addition, specific situational factors—most notably the time of day and the presence of teenage passengers in the vehicle—are contributors to the elevated crash risk among young novice drivers. State Intermediate Driver License (IDL) laws, which gradually move teen drivers to full licensure, are effective in reducing fatal crash rates among teens. Since the Washington State IDL law took effect in July 2001, there has been a 41 percent drop in the number of fatal and disabling injuries among 16 and 17 year old drivers (Washington Traffic Safety Commission, 2007). The following components of IDL laws provide the greatest benefit: nighttime driving restriction, limits on the number of teenage passengers who can ride with a teen with an IDL, consistent enforcement of the law, parental support for the law, and at least 50 hours of supervised driving with a licensed adult driver prior to getting the IDL (Ewing and Associates, 2007). Prevention measures also include wearing seat belts, which is estimated to reduce the risk of a fatal motor vehicle injury by 45 percent, and avoiding drinking and driving behaviors (Doane and Griffith).

Bicycle Safety. For bicycle and motorcycle riders, wearing helmets reduces risk for head injuries, the leading cause of death in motorcycle and bicycle crashes (Liu, Ivers, Norton, Blows, and Lo, 2004; Thompson, Rivara, and Thompson, 2000). An observational study by the Washington State Traffic Safety Commission (1998) concluded that Washington adolescents were less likely than other age groups to wear bicycle helmets. Of the adolescents who were observed riding bicycles, 35 percent wore helmets, compared to 53 percent across all age groups.

Boat Safety. Washington State's drowning rate is higher than that of the nation. Drowning rates are highest for males 15 to 24 years of age. When boating, rafting or inner tubing, adults and children should always wear properly fitted life vests. Water conditions change, boats capsize, and cold water makes lifesaving and swimming difficult. Life vests improve chances of survival and rescue. An estimated 85 percent of national boating-related drowning deaths in 2004 could have been prevented if the victim had been wearing a life vest (U.S. Coast Guard, 2007).

Motor Vehicle Safety

Among youth, motor vehicle-related injuries are the leading cause of death. Young drivers are involved in fatal crashes about 2.3 times more often than one would expect based on the number of young drivers compared to all licensed drivers because they tend to take more risks and are less skilled at detecting hazards compared to older drivers.

Seat Belt Usage

Figure 31 illustrates the percentages of students who wore a seat belt most of the time or always when riding in a vehicle from 1992 through 2008.

The Healthy People 2010 objective for seat belt wearing is 92 percent.

In 2008, 96 percent of Grade 6 students, 92 percent of Grade 8 students, 92 percent of Grade 10 students, and 93 percent of Grade 12 students reported wearing a seat belt most of the time or always (see Appendix A, Item 107).

Differences by grade level:

- Grade 6 students were more likely than Grade 8, 10 and 12 students to wear seat belts most of the time or always.
- Grade 12 students were more likely than Grade 8 and 10 students to wear seat belts most of the time or always.

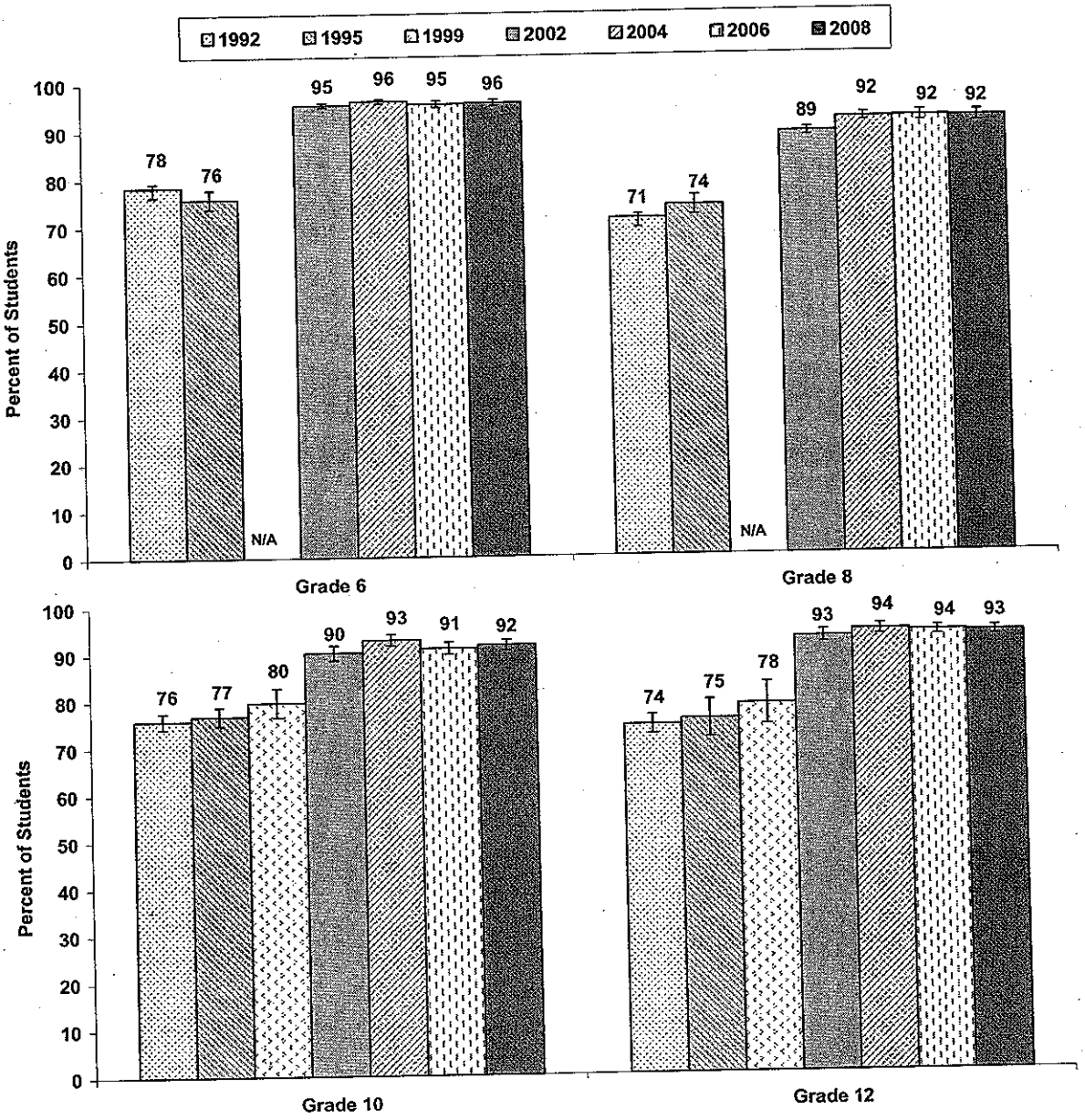
Differences by gender:

- Grade 6, 10 and 12 females were more likely than males to wear seat belts most of the time or always.

Differences over time:

- Comparing results from 2006 to 2008:
  - There were no differences from 2006 to 2008.
- Comparing results over time:
  - Among Grade 8 and 10 students, there were significant increases in wearing a seat belt from 1992 through 2008.

Figure 31
Seat Belt Wearing When Riding in a Vehicle (Most of the Time or Always), Grades 6, 8, 10 and 12 from 1992–2008



Survey Question: How often do you wear a seat belt when riding in a car driven by someone else?

Notes:

- Percentages represent students who reported that they wear a seat belt most of the time or always when riding in a vehicle.
- The language "driven by someone else" is not included in the Grade 6 survey question.

Source: WSSAHB 1992 and 1995, YRBS 1999, HYS 2002, 2004, 2006 and 2008.

Riding with a Drinking Driver

Figure 32 illustrates the percentages of students from 1992 through 2008 who rode in a vehicle in the past month that was driven by someone who had been drinking alcohol.

The Healthy People 2010 objective is to reduce the percentage of riding with someone who has been drinking to 30 percent.

In 2008, 19 percent of Grade 8 students, 24 percent of Grade 10 students, and 23 percent of Grade 12 students reported riding in a car driven by someone who had been drinking (see Appendix A, Item 104.

Differences by grade level:

- Grade 10 and 12 students were more likely than Grade 8 students to ride in a vehicle driven by someone who had been drinking.

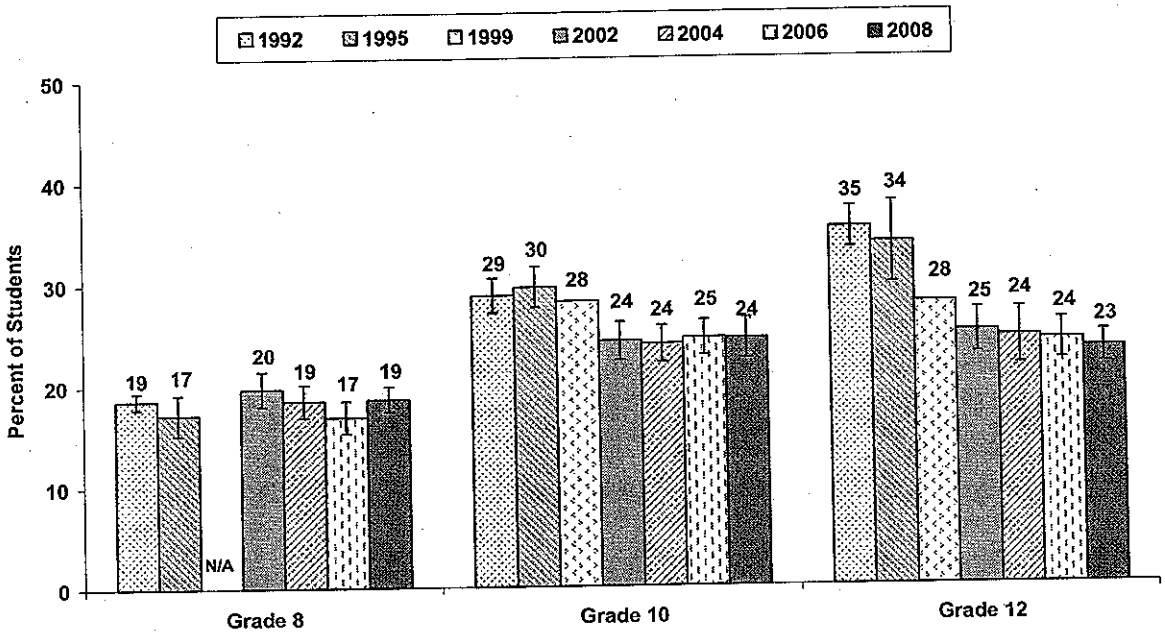
Differences by gender:

- Grade 10 females were more likely than males to ride in a vehicle driven by someone who had been drinking.

Differences over time:

- Comparing results from 2006 to 2008:
  - There were no differences from 2006 to 2008.
- Comparing results over time:
  - Among Grade 10 and 12 students, there were significant decreases in riding in a vehicle driven by someone who had been drinking from 1992 through 2008.

Figure 32
Riding in a Vehicle Driven by Someone Who Had Been Drinking Alcohol, Grades 8, 10, and 12 from 1992–2008



Survey Question: During the past 30 days, how many times did you ride in a car or other vehicle driven by someone who had been drinking alcohol?

Note: Percentages represent students who reported that they rode in a vehicle in the past 30 days whose driver had been drinking alcohol.

Source: WSSAHB 1992 and 1995, YRBS 1999, HYS 2002, 2004, 2006 and 2008.

Drinking and Driving

Figure 33 illustrates the percentages of students from 1992 through 2008 who drove a vehicle during the past 30 days after they had been drinking alcohol.

In 2008, 6 percent of Grade 10 students and 12 percent of Grade 12 students reported drinking alcohol and driving in the past 30 days (see Appendix A, Item 107).

Differences by grade level:

- Grade 12 students were more likely than Grade 10 students to report driving a vehicle after drinking alcohol.

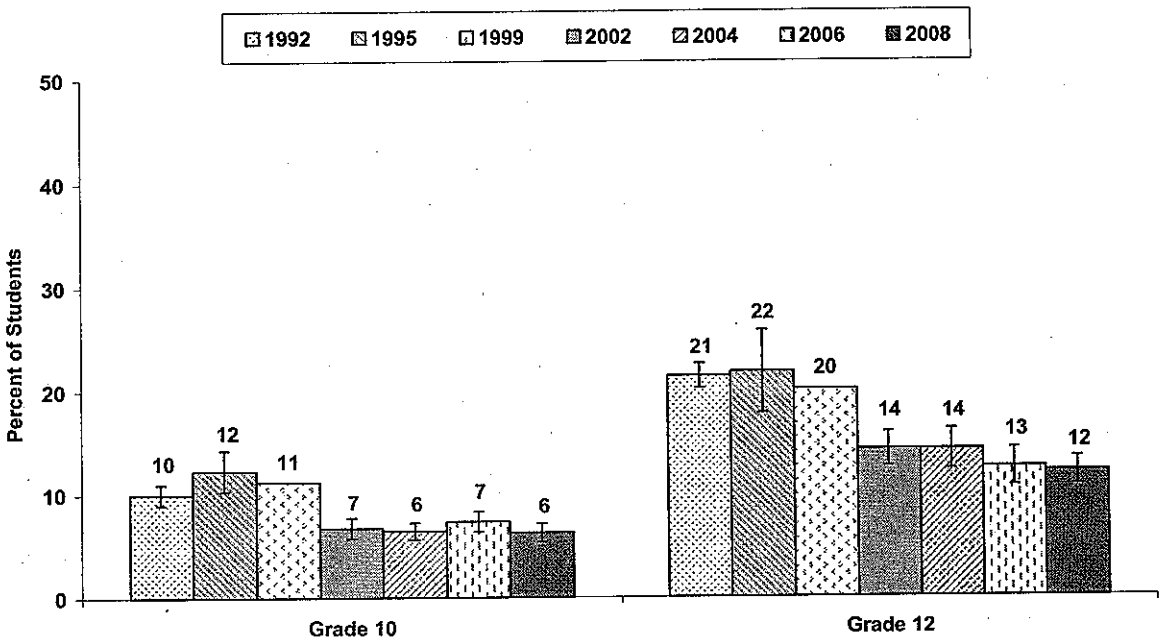
Differences by gender:

- Grade 10 and 12 males were more likely than females to report driving a vehicle after drinking alcohol.

Differences over time:

- Comparing results from 2006 to 2008:
  - There were no differences from 2006 to 2008.
- Comparing results over time:
  - Among Grade 10 and 12 students, there were significant decreases from 1992 through 2008.

Figure 33
Driving a Vehicle after Drinking Alcohol, Grades 10 and 12 from 1992–2008



Survey Question: During the past 30 days, how many times did you drive a car or other vehicle when you had been drinking alcohol?

Notes:

- Percentages represent students who reported drinking alcohol and driving any times in the past 30 days.
- The results for Grade 8 students are not reported due to the fact that most are not old enough to drive.

Source: WSSAHB 1992 and 1995, YRBS 1999, HYS 2002, 2004, 2006 and 2008.

Bicycle Safety

Figure 34 illustrates the percentages of students who rode a bicycle in the past 12 months and wore a helmet always or most of the time while riding from 1992 through 2008.

Wearing a helmet, while riding a bicycle, reduces the risk for head injuries. Washington adolescents have a low prevalence of wearing a bicycle helmet.

In 2008, 31 percent of the Grade 8 students, 19 percent of the Grade 10 students, and 20 percent of the Grade 12 students who rode a bicycle in the past year wore a helmet always or most of the time (see Appendix A, Item 100).

Differences by grade level:

- Grade 8 students were more likely than students in Grades 10 and 12 to report wearing a helmet always or most of the time when bicycling.

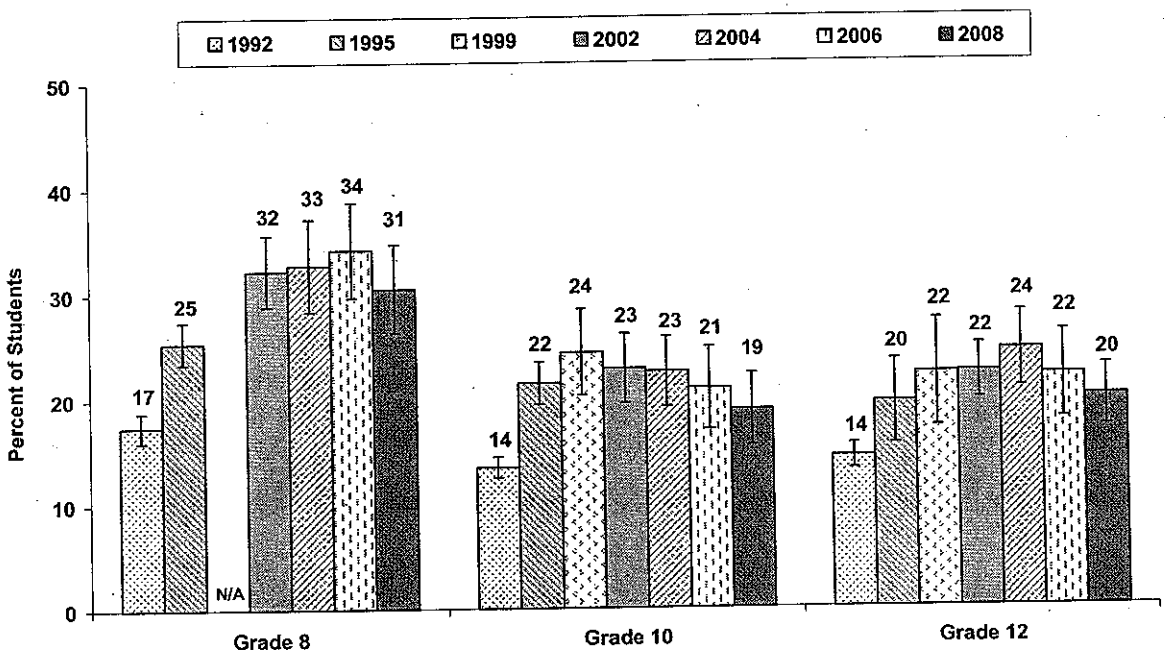
Differences by gender:

- Grade 10 and 12 females were more likely than males to report wearing a helmet always or most of the time when bicycling.

Differences over time:

- Comparing results from 2006 to 2008:
  - There were no differences from 2006 to 2008.
- Comparing results over time:
  - Among Grade 8 and 12 students, there were significant increases in wearing a helmet always or most of the time when bicycling from 1992 through 2008.

Figure 34
Helmet Wearing When Riding a Bicycle (Most of the Time or Always), Grades 8, 10, and 12 from 1992–2008



Survey Question: When you rode a bicycle during the past 12 months, how often did you wear a helmet?

Notes:

- Percentages represent students who reported that they rode a bicycle in the past 12 months and wore a helmet most of the time or always.
- Students who reported that they "did not ride a bicycle in the past 12 months" were not included in the results. The sample sizes for the 2008 results in this figure are: 3,750 Grade 8; 2,587 Grade 10; and 1,725 Grade 12 students.

Source: WSSAHB 1992 and 1995, YRBS 1999, HYS 2002, 2004, 2006 and 2008.

Boat Safety

Figure 35 illustrates the percentages of students who go boating and always wearing a life vest when in a small boat such as a canoe, raft, or motorboat from 2002 through 2008.

Drowning is the second leading cause of unintentional injury death for children in Washington. Most Washington State drownings occur in open water such as lakes, rivers, and the ocean. However, less than half of teens wear life vests while riding in small boats.

In 2008, 53 percent of the Grade 8 students, 40 percent of the Grade 10 students, and 34 percent of the Grade 12 students who go boating reported always wearing a life vest (see Appendix A, Item 102).

Differences by grade level:

- Among Grade 8, 10 and 12 students, as grade levels increase, each grade was less likely to always wear a life vest when boating.

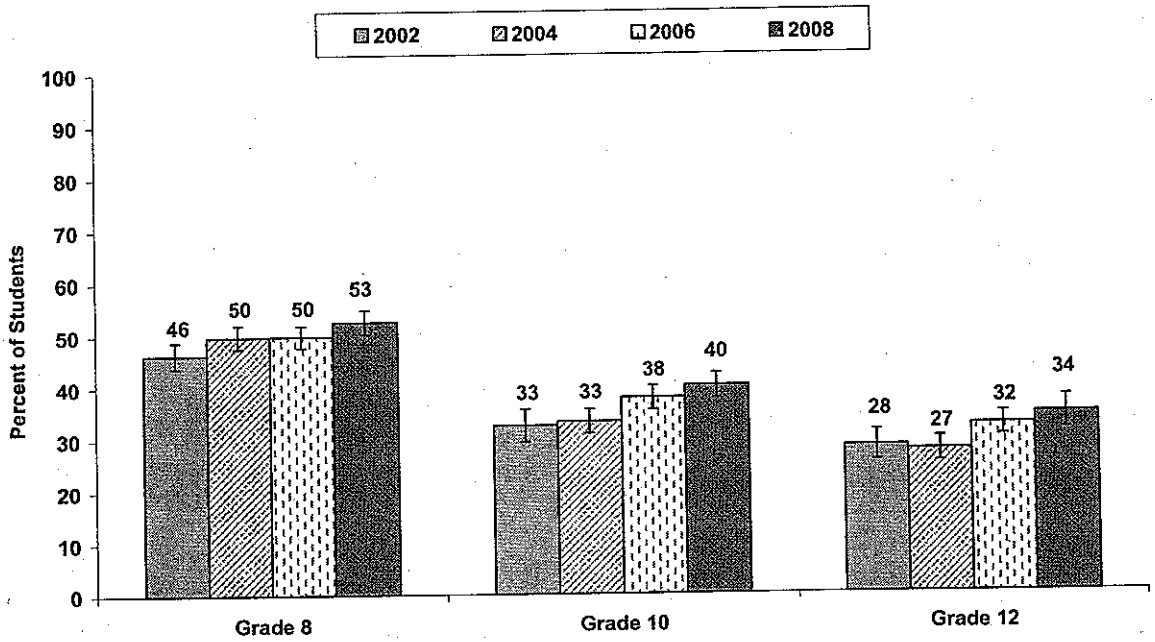
Differences by gender:

- Grade 8, 10 and 12 females were more likely than males to always wear a life vest when boating.

Differences over time:

- There were no differences from 2006 to 2008.

Figure 35
Always Wear Life Vest When Boating,
Grades 8, 10, and 12 from 2002–2008



Survey Question: How often do you wear a life vest when you're in a small boat like a canoe, raft, or small motorboat?

Notes:

- Percentages represent students who boat and reported always wearing a life vest when in a small boat such as a canoe, raft, or small motor boat.
- Students who reported that they "never go boating" were not included in the results. The sample sizes for the 2008 results in this chart are 3,357 Grade 8; 2,617 Grade 10; and 2,102 Grade 12 students.

Source: HYS 2002, 2004, 2006 and 2008.

7. Intentional Injury Behaviors

In 1984 the U.S. Surgeon General declared violence as much a national public health issue as smallpox, tuberculosis, and syphilis had been decades earlier. Fundamental to the public health perspective on violence is a shift from a reactive effort toward a proactive effort to change the social, behavioral, and environmental factors that cause violence (Mercy, 1993). Central to this approach is the objective measurement of the incidence and prevalence of violence and violence-related behaviors.

Fighting, weapon carrying, physical fighting and attempted suicide are all health risk behaviors associated with threats to personal safety, future injury, and death. Healthy People 2010 objectives related to intentional injury and related risk behavior include "reduce physical fighting in the past year among adolescents in Grades 9 through 12 to 32 percent; " reduce weapon carrying on school property during the past 30 days among adolescents in Grades 9 through 12 to 4.9 percent"; and "reduce the rate of suicide attempts by adolescents to 1 percent."

Suicide. After all deaths due to unintentional injury, suicide was the second and homicide the third leading cause of death among Washington youth aged 15 to 24 from 2004 to 2006, accounting for more than 150 preventable deaths each year (Centers for Disease Control and Prevention, 2009). Suicide is a complex behavior usually caused by a combination of factors. Although suicide commonly is associated with anxiety, depression, and social withdrawal, research suggests a link between violent behaviors directed at oneself (i.e., suicidal behaviors) and violent behaviors directed at others among adolescents (Swann et al, 2004). Studies indicate that the most promising way to prevent suicide and suicidal behavior is through early recognition and treatment of depression and other psychiatric illnesses. Interventions work best when done as part of a comprehensive approach to prevention. Having family or community support systems is a protective factor. Washington State has not met the Healthy People 2010 objective for suicide attempts by adolescents (1 percent).

Weapon and Gun Carrying. Weapon or gun carrying is not a violent behavior in itself, but youth who carry a weapon are more likely to report fighting compared to youth who do not carry a weapon. Carrying a weapon significantly increases the risk that a violent argument will result in death, disability, or other serious injury. About seven out of 10 homicide victims aged 10 to 25 are killed with firearms (Centers for Disease Control and Prevention, 2008c). The epidemic of lethal violence that swept the United States in the early 1990s was fueled in large part by easy access to weapons, notably firearms. The steps in the causal pathway to violent behavior are complex and interrelated.

Because the entire spectrum of risk factors is important, primary and secondary preventative efforts must be multifaceted and comprehensive. Effective programs to prevent youth violence include school-based programs to reduce fighting and bullying, parent training, and therapeutic foster care programs. Interventions beginning early in a child's life are some of the most effective. Intervention programs also need to deal with problem behaviors—such as using drugs, engaging in precocious sexual activity, failing school, and joining juvenile gangs—which often occur together (Huizinga, Loeber, and Thornberry, 1994). Although reducing established violence is difficult, some programs (particularly those that include both family and individual interventions) have had success (U.S. Congress, Office of Technology Assessment, 1991; for more information see Bensley and VanEenwyk, 1995). Nationally, a decrease in self-reported fighting among youth in Grades 9 through 12 occurred between 1991 and 2003 (from

43 percent to 33 percent); weapon carrying also decreased from 1991 to 1997 (from 26 percent to 18 percent), then remained constant from 1997 to 2007 (Centers for Disease Control and Prevention, 2008c).

Physical Fighting. Physical fighting, a common form of interpersonal violence among adolescents, is a public health concern both because of the potential for fight-related injuries and its association with participation in many other health risk behaviors. Physical fighting and weapon carrying were significantly associated with elevated risks for medically treated, multiple, and hospitalized injury events (Pickett et al., 2005). Washington students have met the Healthy People 2010 objective for physical fighting in the past year (32 percent).

Gangs. Gangs used to be an inner city problem, but youth gangs have spread to suburban and rural parts of the country. About 25,000 youth gangs are active around the country, involving more than 760,000 youth (National Youth Gang Center, 2007). Youth gangs are responsible for the majority of serious violence in the United States and commit a disproportionate share of offenses. In schools and neighborhoods where gangs are active, they create a climate of fear and increase the amount of violence and criminal behavior.

Suicide

Figure 36 illustrates the percentages of students who reported suicidal ideation, a suicide attempt or a lack of support when depressed in 2008.

Attempted suicide heightens the risk of eventual suicide and is related to a variety of other problem behaviors such as substance abuse and delinquency.

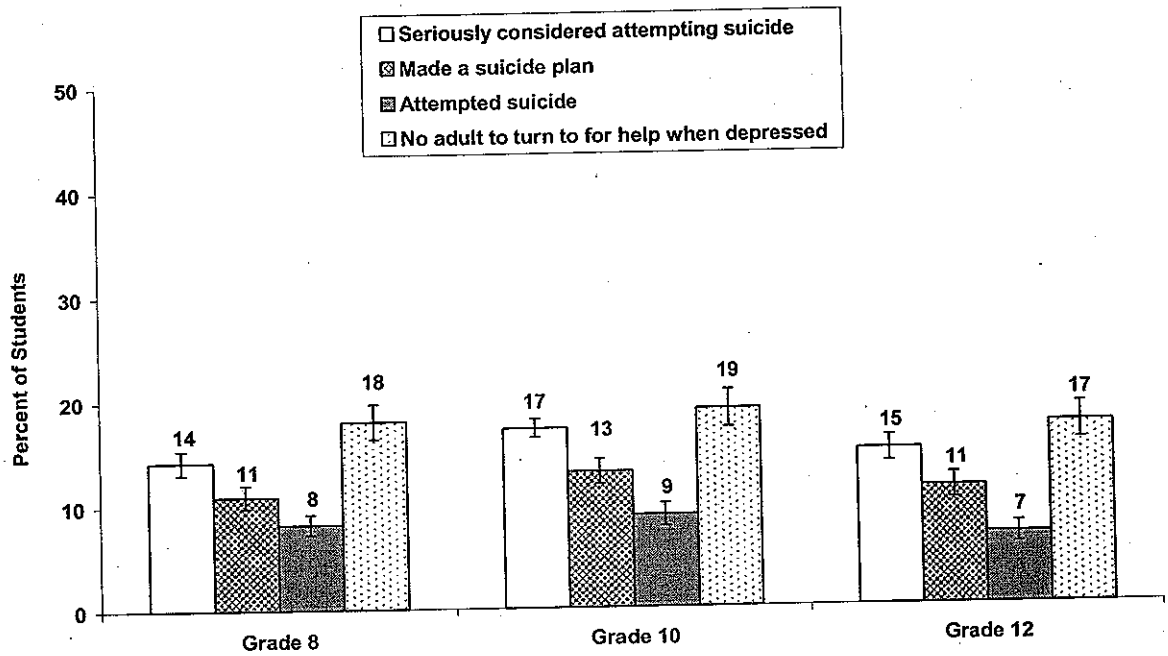
Consider suicide: In 2008, 14 percent of Grade 8 students, 17 percent of Grade 10 students, and 15 percent of Grade 12 students seriously considered attempting suicide in the past year (see Appendix A, Item 120).

Plan suicide: In 2008, 11 percent of Grade 8 and 12 students, and 13 percent of Grade 10 students made a plan about how to attempt suicide in the past year (see Appendix A, Item 121).

Suicide attempt: In 2008, 8 percent of Grade 8 students, 9 percent of Grade 10 students, and 7 percent of Grade 12 students actually attempted suicide (see Appendix A, Item 122).

Lack of support: In 2008, 18 percent of Grade 8 students, 19 percent of Grade 10 students, and 17 percent of Grade 12 students felt that they did not have an adult to turn to for help when feeling sad or hopeless (see Appendix A, Item 125).

Figure 36
Suicide-Related Behaviors, Grades 8, 10, and 12 in 2008



Survey Questions:

- During the past 12 months, did you ever seriously consider attempting suicide?
- During the past 12 months, did you make a plan about how you would attempt suicide?
- During the past 12 months, how many times did you actually attempt suicide?
- When you feel sad or hopeless, are there adults that you can turn to for help?

Notes:

- Percentages represent students who seriously considered suicide, made a plan to attempt suicide, and actually attempted suicide any times in the 12 months.
- Percentages for "no adult to turn to for help when depressed" represent students who felt sad or hopeless, and did not have or did not know if they had adults to turn to for help. Students who reported that they "never feel sad or hopeless" were not included in the results.
- The sample sizes for the 2008 "no adult to turn to for help when depressed" results in this chart are 3,327 Grade 8; 2,743 Grade 10; and 2,253 Grade 12 students.

Source: HYS 2008.

Suicide Attempts

Figure 37 illustrates the percentages of students who attempted suicide in the past 12 months from 1992 through 2008.

The Healthy People 2010 objective is to reduce the percentage of adolescents who attempt suicide to no more than 1 percent.

In 2008, 8 percent of Grade 8 students, 9 percent of Grade 10 students, and 7 percent of Grade 12 students actually attempted suicide (see Appendix A, Item 122).

Differences by grade level:

- Grade 10 students were more likely than Grade 12 students to have attempted suicide in the past year.

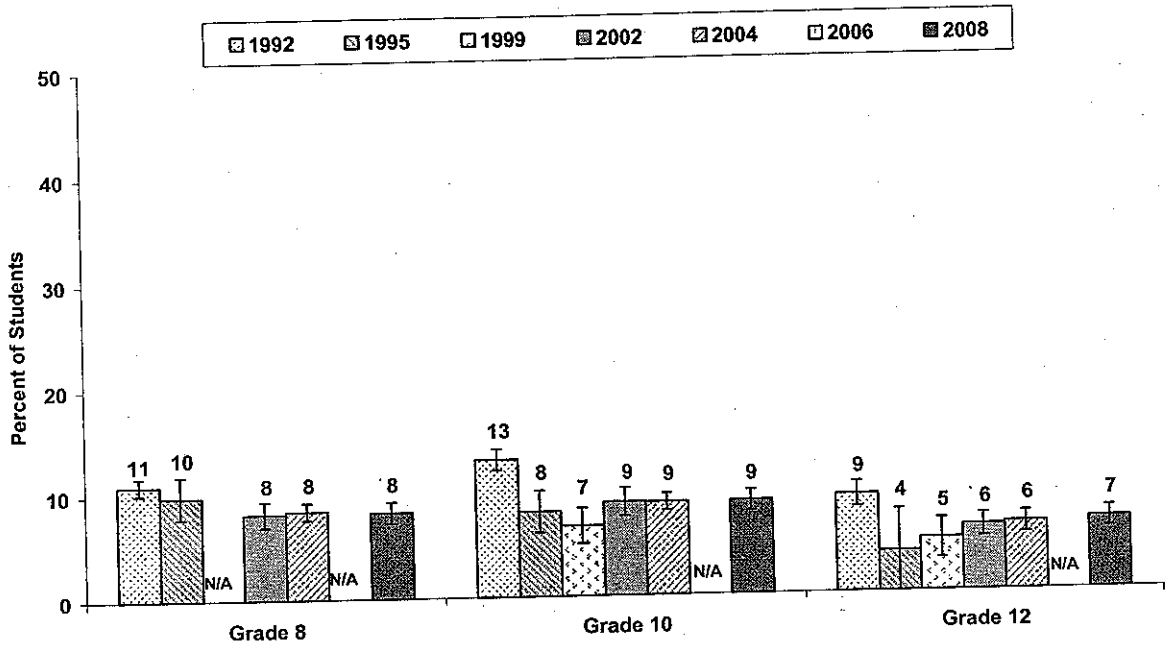
Differences by gender:

- Grade 8, 10 and 12 females were more likely than males to have attempted suicide in the past year.

Differences over time:

- Comparing results from 2006 to 2008:
  - The question about attempting suicide changed from 2006 to 2008, so a comparison between these years could not be made.
- Comparing results over time:
  - Among Grade 8 students, there was a significant decrease in attempting suicide in the past 12 months from 1992 through 2008.

Figure 37
Students Who Attempted Suicide,
Grades 8, 10, and 12 from 1992–2008



Survey Questions: During the past 12 months, how many times did you actually attempt suicide?

Notes:

- Percentages represent students who reported attempted suicide any time in the past 12 months.
- In 2006, the survey response options were changed from the number of times to attempted suicide to "yes" or "no" attempted suicide.
- Caution should be exercised if these results are compared to the 2006 results.

Source: WSSAHB 1992 and 1995, YRBS 1999, HYS 2002, 2004, 2006 and 2008.

Weapon Carrying

Figure 38 illustrates the percentage of students who carried a weapon in the past 30 days, such as a gun, knife, or club for self-protection or because they thought they might need it in a fight (not including weapon carrying for hunting, fishing, or camping) from 1992 through 2008.

In 2008, 12 percent of Grade 8 and 10 students, and 10 percent of Grade 12 students reported carrying a weapon in the past 30 days (see Appendix A, Item108).

Differences by grade level:

- Grade 8 and 10 students were more likely than Grade 12 students to carry a weapon in the past 30 days.

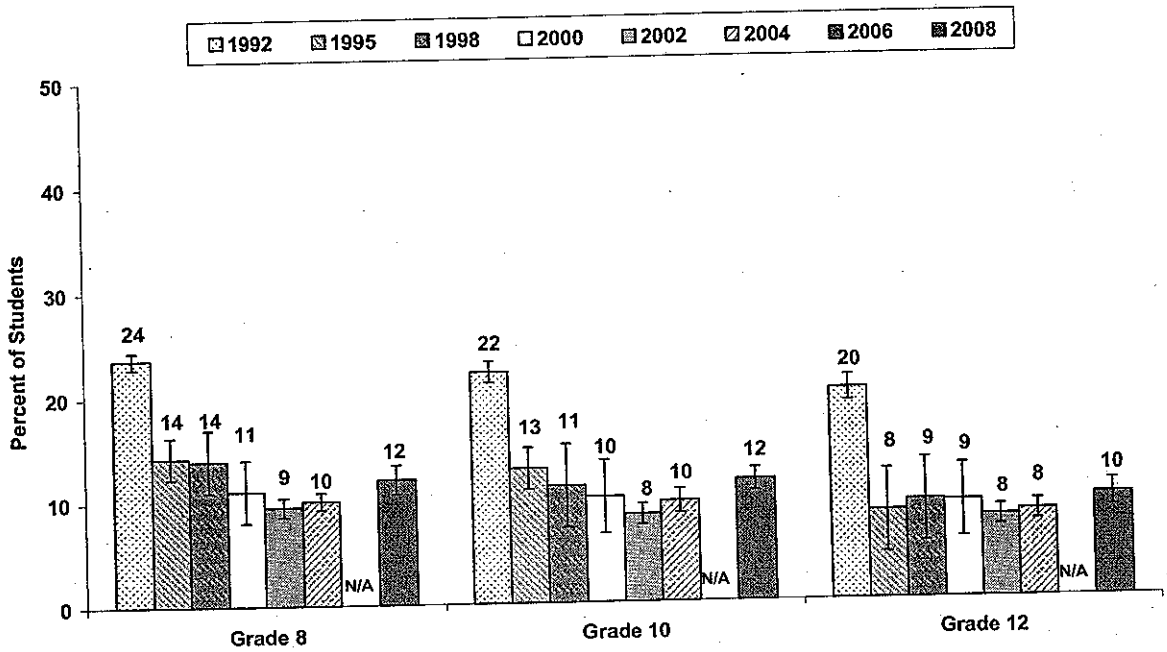
Differences by gender:

- Grade 8, 10 and 12 males were more likely than females to carry a weapon in the past 30 days.

Differences over time:

- Comparing results from 2006 to 2008:
  - The question about weapon carrying was not asked in 2006, so a comparison between these years could not be made.
- Comparing results over time:
  - Among Grade 8, 10, and 12 students, there were significant decreases in carrying a weapon in the past 30 days from 1992 through 2008.

Figure 38
Weapon Carrying,
Grades 6, 8, 10, and 12 from 1992–2008



Survey Question: During the past 30 days, on how many days did you carry a weapon such as a gun, knife, or club for self-protection or because you thought you might need it in a fight? (DO NOT include carrying a weapon for hunting, fishing, or camping.)

Notes: Percentages represent students who reported carrying a weapon on any days in the past 30 days. This question was not asked in 2006.

Source: WSSAHB 1992 and 1995, YRBS 1999, HYS 2002, 2004 and 2008.

Gun Carrying

Figure 39 illustrates the percentage of students who specifically carried a gun in the past 30 days (not including guns for hunting) from 2002 through 2008.

In 2008, 4 percent of Grade 8, 10 and 12 students reported carrying a gun in the past 30 days (see Appendix A, Item 111).

Differences by grade level:

- There were no differences by grade level.

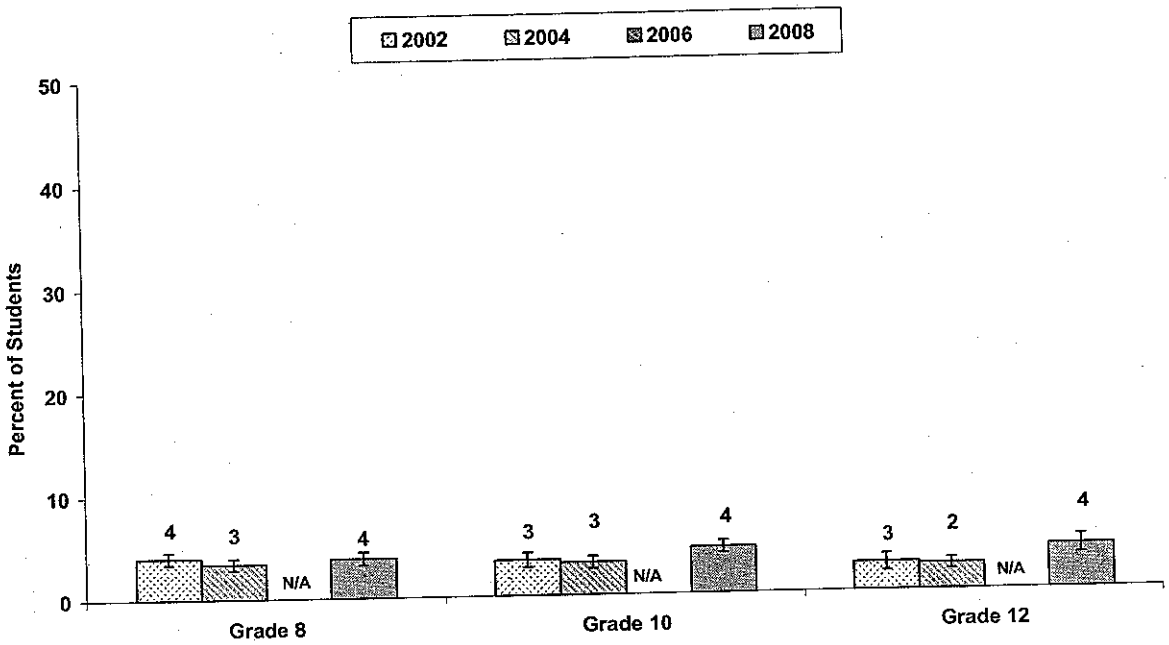
Differences by gender:

- Grade 8, 10 and 12 males were more likely than females to carry a gun in the past 30 days.

Differences over time:

- The question about gun carrying was not asked in 2006, so a comparison between 2006 and 2008 could not be made.

Figure 39
Gun Carrying,
Grades 8, 10, and 12 from 2002–2008



Survey Question: During the past 30 days, on how many days did you carry a gun? (Do not include carrying a gun while hunting.)

Notes:

- Percentages represent students who reported carrying a gun on any days in the past 30 days.
- This question was not asked in 2006.

Source: HYS 2002, 2004 and 2008.

Physical Fighting

Figure 40 illustrates the percentage of students who were in a physical fight in the past 12 months from 2002 through 2008.

The Healthy People 2010 goal is to reduce physical fighting in the past year among adolescents in Grades 9 through 12 to 32 percent.

In 2008, 31 percent of Grade 6 students, 37 percent of Grade 8 students, 32 of Grade 10 students, and 24 percent of Grade 12 students reported being in a physical fight in the past year (see Appendix A, Item 114).

Differences by grade level:

- Grade 6 and 10 students were more likely than Grade 12 students to be in a physical fight in the past year.
- Grade 8 students were more likely than Grade 6, 10 and 12 students to be in a physical fight in the past year.

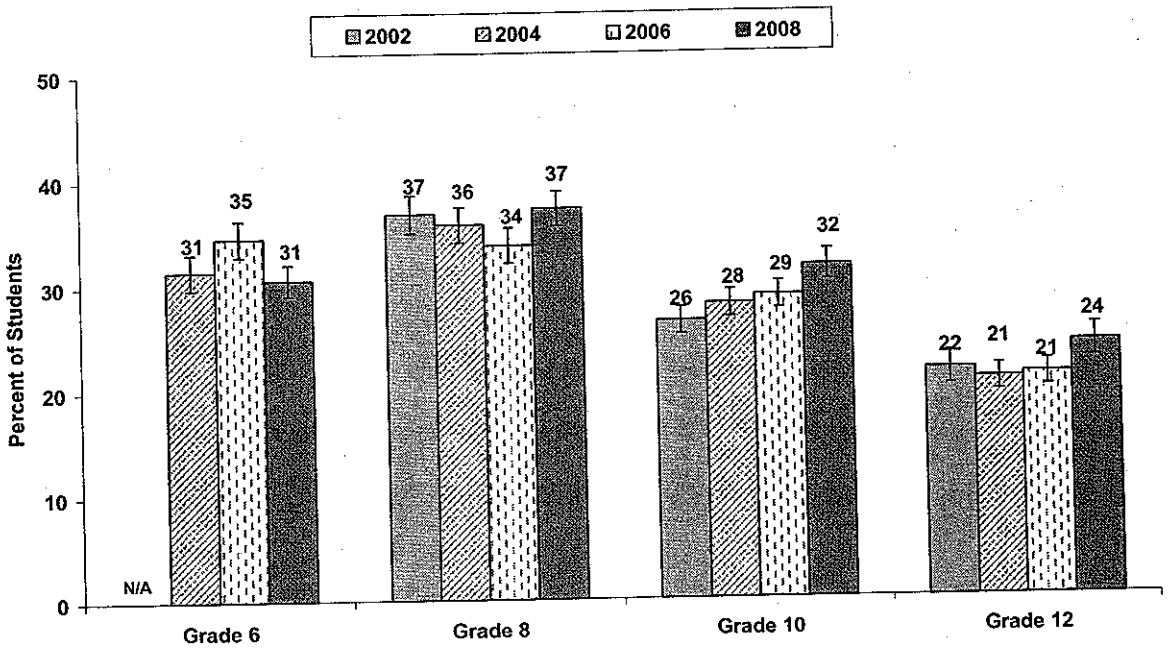
Differences by gender:

- Grade 6, 8, 10 and 12 males were more likely than females to be in a physical fight in the past year.

Differences over time:

- Among Grade 6 students, there was a significant decrease in physical fighting from 2006 to 2008.
- Among Grade 8, 10 and 12 students, there were significant increases in physical fighting from 2006 to 2008.

Figure 40
Physical Fight in Past Year,
Grades 6, 8, 10, and 12 from 2002–2008



Survey Question: During the past 12 months, how many times were you in a physical fight?

Note: Percentages represent students who reported being in a physical fight in the past year.

Source: HYS 2002, 2004, 2006 and 2008.

Gangs

Figure 41 illustrates the percentage of students who were in a member of a gang in the past 12 months from 2002 through 2008.

In 2008, 9 percent of Grade 8 students, 8 of Grade 10 students, and 7 percent of Grade 12 students reported being in a gang in the past year (see Appendix A, Item 115).

Differences by grade level:

- Grade 8 students were more likely than students in Grade 12 to have been a gang member in the past year.

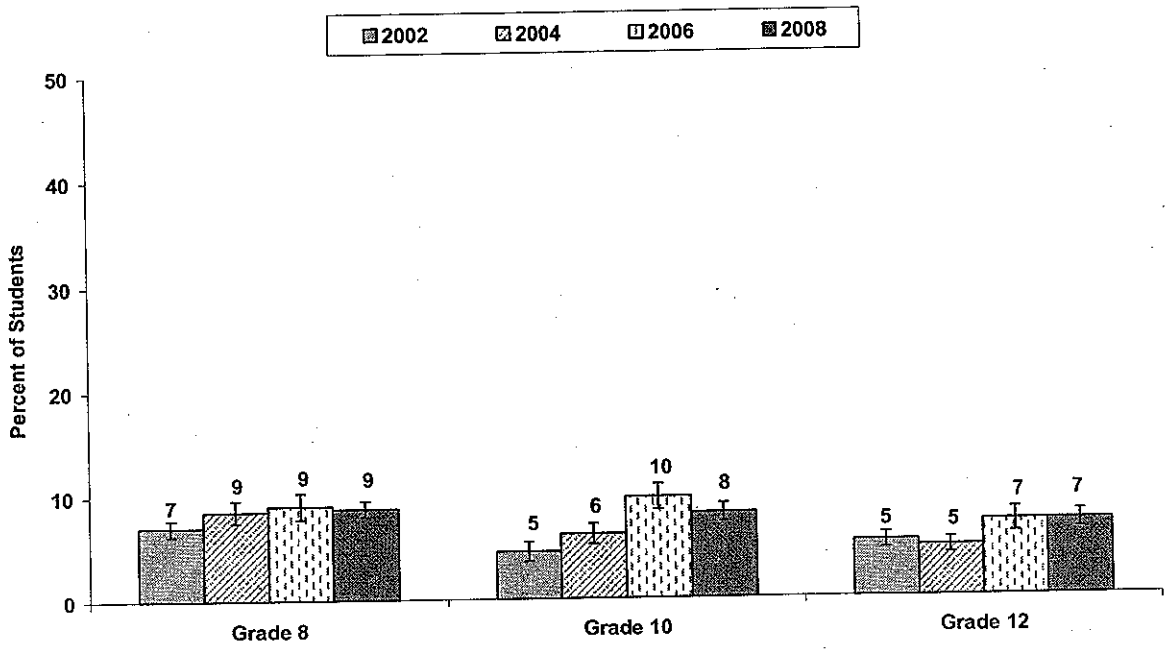
Differences by gender:

- Grade 8, 10 and 12 males were more likely than females to have been a gang member in the past year.

Differences over time:

- Among Grade 10 students, there was a significant decrease in gang membership from 2006 to 2008.

Figure 41
Gang Membership,
Grades 8, 10, and 12 from 2002–2008



Survey Question: During the past 12 months, have you been a member of a gang?

Note: Percentages represent students who reported "yes" they were a member of a gang in the past 12 months.

Source: HYS 2002, 2004, 2006 and 2008.

8. Alcohol, Tobacco, and Other Drug Use

Alcohol, tobacco, and other drug use can interfere with young people's positive and healthy physical, emotional, and social development. Relationships within families and among friends and satisfactory progress in school can suffer from substance use. Throughout a person's life, substance use can impact health. Of the more than 2 million deaths each year in the United States, about one in four is attributable to alcohol, tobacco, or illicit drug use. Cigarette smoking is responsible for about 440,000 deaths, alcohol causes about 85,000 deaths, and illicit drugs cause about 17,000 deaths (Mokdad 2004); making substance abuse the single largest preventable cause of death in this country (CDC 2008d). Alcohol use contributes to motor vehicle crashes, homicides and suicides. Crashes and homicides are the number one and number two causes of death among 15-24 year olds (National Research Council and Institute of Medicine 2004).

Substance use is associated with other youth problem behaviors such as school failure and delinquency (CDC, 1999). A recent study found that academic success is linked to youth health-risks such as substance use. For example, about 22 percent of Grade 8 students who do not smoke cigarettes were at academic risk, but more than twice as many (57 percent) of Grade 8 students who smoke were at risk. Academic risk is also twice as high for students who reported using alcohol use as those who didn't use alcohol (Dilley, 2009). These findings are similar to other studies where substance use was associated with low commitment to school, poor academic achievement, and dropping out of high school (Townsend 2007). On the flip side, a study also found that students with lower prevalence of substance abuse had higher scores on the Washington Assessment of Student Learning (WASL) (Hawkins, Catalano and Miller 1992).

Economic Costs Associated With Alcohol, Tobacco, and Drug Use. The economic costs of alcohol, tobacco, and other drug abuse are enormous. Federal, state and local government spent at least $467.7 billion in 2005 as a result of substance abuse and addiction (CASA 2009). A study estimated that the economic cost of alcohol and illegal drug abuse in Washington State was over $5.21 billion in 2005 (Wickizer, 2007). The Centers for Disease Control and Prevention estimated that smoking costs in Washington State were over $4 billion in 2004 due to direct medical expenses, lost productivity due to smoking, and Medicaid costs for treating smoking-related diseases (CDC 2004).

Benefits of Preventing Alcohol, Tobacco, and Drug Use. Alcohol, tobacco, and other drug use are preventable behaviors. Recent research findings on alcohol - including research into its effects on the brain, genetic and psychosocial influences, medical consequences, and prevention and treatment methods - are presented in the *10th Special Report to the U.S. Congress on Alcohol and Health* (National Institute on Alcohol Abuse and Alcoholism, 2000). There is evidence that certain well-implemented programs can achieve significantly more benefits than costs. The Washington State Institute for Public Policy studied a wide variety of evidence-based programs, and reported on their possible cost savings. For instance, they found that the Strengthening Families Program for Parents and Youth 10–14 yielded a large cost benefit (Aos, Lieb, Mayfield, Miller, and Pennucci, 2004). The Department of Social and Health Service's Division of Behavioral Health and Recovery, the Department of Health's Tobacco Prevention and Control Program, and other Washington prevention providers are committed to offering proven and effective "best practice" programs.

Washington State Prevention Programs for Alcohol, Tobacco, and Drug Use: Many best practice prevention programs are school-based. The Office of Superintendent of Public

Instruction distributes about $10 million in funding from the U.S. Department of Education, Office of Safe and Drug-Free Schools and Division of Behavioral Health and Recovery to local school districts for the implementation of comprehensive substance abuse and violence prevention activities. A significant portion of these funds are dedicated to providing school-based prevention and intervention services to youth impacted by substance abuse and violence related issues and their families. (See the chapter on school climate for survey results that reflect students' awareness of school staff who can discuss substance use related issues.) Although schools can play an important role in substance abuse prevention, they need the support of the communities in which they exist. The Healthy People 2010 objective that supports this idea is "increase the number of communities using partnerships or coalition models to conduct comprehensive substance abuse prevention efforts" (U.S. Department of Health and Human Services, 2000a, 2000b).

Service providers used a wide variety of grants from state and federal agencies to conduct statewide and local prevention activities. From 2000 to 2009, the Department of Health implemented a statewide comprehensive tobacco prevention and control program. A significant proportion of program funding was dedicated to youth-oriented anti-tobacco media campaigns, school-based prevention programs, and community-based youth empowerment programs. Recently, program funding was reduced by 43 percent to $17.6 million and youth media campaigns were eliminated.

The Division of Behavioral Health and Recovery administers between $9 million and $10 million a year from federal grants to counties and tribes for the development of community-based and school-based prevention services. These services fall into four main categories: (a) skill building programs that provide informational education and enrichment activities to build life skills, (b) community service and service learning, which promote an increased sense of well-being and attitudes toward the future, and toward the community, (c) recreational activities associated with decreasing substance use and delinquency by providing alternative, as well as social and emotional rewards, and (d) mentoring programs, which seek to increase kids' positive attitudes toward others, the future and school.

Community Mobilization, an office of the Department of Commerce, uses state and federal funding to invest in local strategies to mobilize communities around the prevention of substance use, violence, and related problem behaviors. In 2006, Community Mobilization distributed $3.14 million to Washington's 39 counties.

Current Substance Use

Student responses to questions about substance use in the past 30 days are indicators of their current substance use. This section presents current (30-day) prevalence results by grade from 1988 to 2008 (see Tables 4 through 7). Detailed results for individual substances appear in subsequent sections.

The prevalence of current use for some substances has been assessed differently over time. Superscripts on page 109 describe any changes to survey questions or responses. Therefore, readers should use caution when making strong conclusions about changes over time for these substances. In addition, it is important to recognize that these results are based on responses from students attending public schools. Rates of substance use may be different in other educational settings, and are likely higher among youth who have dropped out of school.

Table 4
Current (30-Day) Substance Use by Year, Grade 6

	Percent of Students											
Substance	**1988**	**1990**	**1992**	**1995**	**1998**	**1999**	**2000**	**2002**	**2004**	**2006**	**2008**	**Change**
Alcohol	–	11.8[1,a]	12.8	12.2[2]	13.8	–	6.6[3,a]	3.8	4.4	4.3	3.5	-0.8
Binge drinking	–	4.0[4]	4.7	6.2	7.6	–	4.7	–	–	–	3.0	–
Cigarettes	–	2.4[4]	2.8	4.4[5]	4.7	–	4.0[3]	2.2	2.0	1.9	1.4	-0.5
Tobacco, chewing	–	–	–	3.6[2,b]	3.5	–	0.8[3,b]	1.0[b]	1.0	1.2	1.1	-0.1
Cigars	–	–	–	–	–	–	1.5[3]	–	–	–	–	–
Tobacco in pipe	–	–	–	–	–	–	0.6[3]	–	–	–	–	–
Bidis	–	–	–	–	–	–	1.0[3]	–	–	–	–	–
Marijuana	–	1.3[1]	1.3	3.1[2]	3.4	–	1.5[3]	1.3	1.7	1.5	1.2	-0.3
Hallucinogens (psychedelics)	–	–	–	–	1.3[2,b]	–	0.6[3,c]	–	–	–	–	–
Inhalants	–	–	–	2.7[2]	3.2	–	1.4[3]	–	–	–	–	–
Cocaine	–	–	–	1.0	1.1	–	–	–	–	–	–	–
Heroin	–	–	–	–	0.6	–	–	–	–	–	–	–
Amphetamines	–	–	–	–	1.4	–	–	–	–	–	–	–
Methamphetamines	–	–	–	–	0.9	–	–	–	–	–	–	–
Party Drugs	–	–	–	–	–	–	0.7	–	–	–	–	–

Notes. Dashes (–) indicate a substance was not represented on that particular year's survey.
Change column provides the percentage point change from 2006 to 2008. Changes that are statistically significant at the 95 percent confidence level are bolded.
The superscript numbers and letters are used to describe the changes in questions over time.
Details are available on page 109.

Table 5
Current (30-Day) Substance Use by Year, Grade 8

	Percent of Students											
Substance	**1988**	**1990**	**1992**	**1995**	**1998**	**1999**	**2000**	**2002**	**2004**	**2006**	**2008**	**Change**
Alcohol	–	29.1[1,a]	24.0	30.1[2]	31.0	–	22.3[3,a]	17.8	18.0	15.4	16.1	0.7
Binge Drinking	15.0[4]	12.8	10.7	17.1	18.3	–	14.9	10.0	10.2	8.6	9.1	0.5
Cigarettes	–	12.1[1]	10.3	18.8[5]	15.2	–	12.5[3]	9.2	7.8	6.4	7.3	0.9
Tobacco, chewing	–	–	–	11.5[2,b]	6.7	–	2.1[3,b]	2.7[b]	2.8	2.8	3.4	0.6
Cigars	–	–	–	–	–	–	4.3[3]	8.3	6.4	6.9	8.3	1.4
Tobacco in a pipe	–	–	–	–	–	–	2.1[3]	5.6	4.0	3.7	5.1	1.4
Bidis	–	–	–	–	–	–	3.3[3]	6.8	5.3	4.5	6.3	**1.8**
Cloves	–	–	–	–	–	–	–	5.0[3]	3.5	3.2	4.0	0.8
Tobacco in a hookah	–	–	–	–	–	–	–	–	–	–	6.1	–
Marijuana	–	7.6[1]	6.1	16.2[2]	16.5	–	12.0[3]	10.4	9.2	7.0	8.3	1.3
Other illegal drugs	–	–	–	–	–	–	–	–	3.3[3]	3.0	3.4	0.4
Hallucinogens (psychedelics)	–	–	–	–	3.8[2,c]	–	3.1[3,c]	3.0	–	–	–	–
Inhalants	–	–	–	7.3[2]	6.6	–	4.9[3]	5.0	–	5.0	6.4	**1.4**
Cocaine	–	3.1[1]	2.0	3.6[2]	2.5	–	1.5[3]	2.4	3.1	–	–	–
Heroin	–	–	–	–	1.3[2]	–	0.8[3]	–	–	–	–	–
Amphetamines	–	–	–	–	3.9	–	2.7	–	–	–	–	–
Methamphetamines	–	–	–	–	2.3	–	1.2	2.1	1.9	1.3	2.1	**0.8**
Party drugs	–	–	–	–	–	–	2.4	2.1	–	–	–	–
Ritalin	–	–	–	–	–	–	–	–	2.8	2.0	2.8	0.7
Pain killers	–	–	–	–	–	–	–	–	–	3.6	4.3	-0.5

** Other illegal drugs do not include alcohol, tobacco or marijuana.*

Notes. Dashes (–) indicate a substance was not represented on that particular year's survey.
Change column provides the percentage point change from 2006 to 2008. Changes that are statistically significant at the 95 percent confidence level are bolded.
The superscript numbers and letters are used to describe the changes in questions over time.
Details are available on page 109.

Table 6
Current (30-Day) Substance Use by Year, Grade 10

	Percent of Students											
Substance	**1988**	**1990**	**1992**	**1995**	**1998**	**1999**	**2000**	**2002**	**2004**	**2006**	**2008**	**Change**
Alcohol	–	44.0[1,5]	40.0	37.0[2]	44.9	45.3[3,a]	37.6[a]	29.3	32.6	32.8	31.7	-1.1
Binge Drinking	24.5[4]	20.2	17.9	22.2	27.7	–	23.2	18.7	18.7	19.6	18.4	-1.2
Cigarettes	–	15.5[1]	17.1	20.9[5]	21.8	25.0[3]	19.8	15.0	13.0	14.9	14.4	-0.5
Tobacco, chewing	–	–	–	15.3[2,b]	9.6	10.5[3,b]	4.6[b]	4.8[b]	4.9	6.4	6.7	0.3
Cigars	–	–	–	–	–	15.4[3]	7.9	11.4	11.4	16.8	16.0	-0.8
Tobacco in a pipe	–	–	–	–	–	–	1.9[3]	5.9	5.6	10.1	7.1	**-3.0**
Bidis	–	–	–	–	–	–	4.6[3]	8.0	8.1	12.7	10.4	**-2.3**
Cloves	–	–	–	–	–	–	–	6.3[3]	5.5	9.5	6.7	**-2.8**
Tobacco in a hookah	–	–	–	–	–	–	–	–	–	–	10.0	–
Marijuana	–	10.6[1]	13.2	23.0[2]	26.6	24.3	21.9[3]	18.3	17.1	18.3	19.1	0.8
Other illegal drugs*	–	–	–	–	–	–	–		5.7[3]	7.2	7.0	-0.2
Hallucinogens (psychedelics)	–	–	–		5.8[2,c]		5.8[3,c]	4.0	–	–	–	–
Inhalants	–	–	–	5.4[2,d]	3.9	5.7[d]	3.6[3,d]	3.8	–	5.7	5.6	-0.1
Cocaine	–	2.1[1]	2.1	3.2[2]	3.2	2.6[6]	2.6[3]	2.7	–	–	–	–
Heroin	–	–	–	–	1.3[2]		1.0[3]	–	–	–	–	–
Amphetamines	–	–	–	–	5.6		4.5	–	–	–	–	–
Methamphetamines	–	–	–	–	3.8		2.6	2.9	2.9	2.9	3.6	0.7
Party drugs	–	–	–	–	–	–	6.2	–	–	–	–	–
Ecstasy	–	–	–	–	–	–	–	3.2	2.7	–	–	–
Ritalin	–	–	–	–	–	–	–	–	4.2	5.0	4.9	-0.1
Pain killers	–	–	–	–	–	–	–	–	–	10.0	9.5	-0.5

* *Other illegal drugs do not include alcohol, tobacco or marijuana.*

Notes. Dashes (–) indicate a substance was not represented on that particular year's survey. Change column provides the percentage point change from 2006 to 2008. Changes that are statistically significant at the 95 percent confidence level are bolded.
The superscript numbers and letters are used to describe the changes in questions over time.
Details are available on page 109.

Table 7
Current (30-Day) Substance Use by Year, Grade 12

	Percent of Students											
Substance	**1988**	**1990**	**1992**	**1995**	**1998**	**1999**	**2000**	**2002**	**2004**	**2006**	**2008**	**Change**
Alcohol	–	52.0[1,a]	51.8	44.8[2]	52.0	49.0[3,a]	46.8[a]	42.8	42.6	42.1	40.8	-1.3
Binge Drinking	–	27.8[4]	27.3	26.6	32.7	–	31.8	27.3	25.8	26.1	25.9	-0.2
Cigarettes	–	20.7[1]	22.3	24.0[5]	28.6	35.2[3]	27.6	22.7	19.7	20.0	20.0	0.0
Tobacco, chewing	–	–	–	18.2[2,b]	12.4	11.1[3,b]	8.8[b]	7.5[b]	7.6	8.9	8.6	-0.3
Cigars	–	–	–	–	–	21.2[3]	13.1	15.2	18.3	24.3	20.9	-3.4
Tobacco in a pipe	–	–	–	–	–	–	1.7[3]	5.0	5.0	9.1	6.8	**-2.3**
Bidis	–	–	–	–	–	–	6.5[3]	8.3	8.3	11.8	10.1	-1.7
Cloves	–	–	–	–	–	–	–	5.5[3]	5.5	8.9	7.0	-1.9
Tobacco in a hookah	–	–	–	–	–	–	–	–	–	–	13.1	–
Marijuana	–	15.9[1]	17.3	23.3[2]	28.7	28.0	24.4[3]	24.7	19.5	21.6	23.4	1.8
Other illegal drugs*	–	–	–	–	–	–	–	–	6.8[3]	8.6	8.1	-0.5
Hallucinogens (psychedelics)	–	–	–	–	6.0[2,c]	–	6.5[3,c]	5.1	–	–	–	–
Inhalants	–	–	–	2.7[2,d]	2.3	6.3[d]	2.4[3,d]	3.0	–	3.5	4.5	1.0
Cocaine	–	2.6[1]	2.0	1.9[2]	2.7	2.7[6]	2.8[3]	4.4	–	–	–	–
Heroin	–	–	–	–	0.7[2]	–	0.8[3]	–	–	–	–	–
Amphetamines	–	–	–	–	3.6[2]	–	4.0	–	–	–	–	–
Methamphetamines	–	–	–	–	2.9[2]	–	2.9[3]	3.3	2.7	2.7	3.8	**1.1**
Party drugs	–	–	–	–	–	–	6.8[3]	–	–	–	–	–
Ecstasy	–	–	–	–	–	–	–	3.6[3]	2.7	–	–	–
Ritalin	–	–	–	–	–	–	–	–	3.6[3]	5.2	5.4	0.2
Pain killers	–	–	–	–	–	–	–	–	–	11.6	12.0	0.4

** Other illegal drugs do not include alcohol, tobacco or marijuana.*

Notes. Dashes (–) indicate a substance was not represented on that particular year's survey.
Change column provides the percentage point change from 2006 to 2008. Changes that are statistically significant at the 95 percent confidence level are bolded.
The superscript numbers and letters are used to describe the changes in questions over time.
Details are available on page 109.

Lifetime Substance Use

Lifetime prevalence is the percentage of students who had ever tried a substance, even if on only one occasion. This section presents lifetime substance use results by grade from 1988 to 2008 (see Tables 8 through 11). Although lifetime prevalence trends are of great concern, readers are reminded that these trends reflect, in part, experimental use.

The prevalence of lifetime use for some substances has been assessed differently over time. Superscripts on page 109 describe any changes to survey questions or responses. Therefore, readers should use caution when making strong conclusions about changes over time for these substances.

Table 8
Lifetime Substance Use by Year, Grade 6

	Percent of Students											
Substance	**1988**	**1990**	**1992**	**1995**	**1998**	**1999**	**2000**	**2002**	**2004**	**2006**	**2008**	**Change**
Alcohol	51.4[1,a]	33.0	33.0[a]	33.4[2,a]	39.8	–	21.2[a]	32.7	30.3	30.9	29.2	-1.7
Cigarette (even just a puff)	–	–	–	26.7[3]	26.5	–	15.1	–	–	–	–	–
Cigarette (whole)	–	–	–	–	–	–	7.2[3]	6.2	5.4	4.9	3.8	-1.1
Tobacco, chewing	9.5[1,b]	5.4[b]	5.5	7.1[2,b]	7.8	–	1.8[3,b]	[b]–	–	–	–	–
Marijuana	3.6[1]	1.7	1.9	4.9[2]	7.0	–	2.2[3]	3.4[2]	3.0	3.2	2.7	-0.5
Hallucinogens (psychedelics)	1.5[1,c]	0.8	1.2	1.1[2]	2.6	–	0.8[c]	–	–	–	–	–
Inhalants	13.0[1,d]	7.5[d]	7.7	3.9[2]	7.0	–	2.5	3.6[d]	3.7	3.7	2.9	-0.8
Over–the–counter	–	7.0[1,e]	7.8	2.0[2,e]	–	–	–	–	–	–	–	–
Cocaine	0.8[1]	0.9	1.1	1.3[2]	2.3	–	–	–	–	–	–	–
Steroids	1.7[1]	1.2	1.1	1.2[2]	2.6	–	–	–	–	–	–	–
Other illegal drugs	–	–	–	–	–	–	–	3.3[2]	2.9	3.3	3.8	0.5
Heroin	–	–	–	–	1.7[2]	–	–	–	–	–	–	–
Illegal injection drugs	–	–	–	–	–	–	–	–	–	–	–	–
Amphetamines	–	–	–	–	3.4[2]	–	–	–	–	–	–	–
Methamphetamines	–	0.9[1,g]	–	–	2.3[2,g]	–	–	–	–	–	–	–
Party drugs	–	–	–	–	–	–	0.9[2]	–	–	–	–	–

** Other illegal drugs do not include alcohol, tobacco or marijuana.*

Notes: Dashes (–) indicate a substance was not represented on that particular year's survey.
Change column provides the percentage point change from 2006 to 2008. Changes that are statistically significant at the 95 percent confidence level are bolded.
The superscript numbers and letters are used to describe the changes in questions over time.
Details are available on page 109.

Table 9
Lifetime Substance Use by Year, Grade 8

	Percent of Students											
Substance	**1988**	**1990**	**1992**	**1995**	**1998**	**1999**	**2000**	**2002**	**2004**	**2006**	**2008**	**Change**
Alcohol	68.9[1,a]	60.2	55.3[a]	61.4[2,a]	62.7	–	45.7[3,a]	44.2	42.0	37.6	39.4	1.8
Cigarette (even just a puff)	–	–	–	53.3[3]	49.1	–	37.1	28.6	23.9	19.8	20.1	0.3
Cigarette (whole)	–	–	–	–	–	–	25.3[3]	19.8	15.8	12.7	13.2	0.5
Tobacco, chewing	16.6[1,b]	13.9[b]	13.1	22.9[2,b]	14.8	–	5.2[3,b]	8.0[b]	7.3	–	–	–
Marijuana	14.4[1]	11.2	9.7	27.2[2]	28.2	–	19.7	15.7	14.0	10.7	11.9	1.2
Hallucinogens (psychedelics)	4.1[1,c]	5.7	5.6	9.3[2]	8.7	–	4.7[c]	–	–	–	–	–
Inhalants	17.3[1,d]	17.1[d]	17.4	14.5[2,d]	14.3	–	9.6	–	5.3	5.7	6.1	0.4
Over–the–counter	–	23.2[1,e]	18.4	12.3[2,e]	–	–	–	–	–	–	–	–
Cocaine	2.8[1]	3.4	2.6	5.5[2]	5.2	–	3.3[2]	3.0	3.4	2.4[a]	3.2	0.8
Steroids	3.3[1,f]	2.7	1.9	2.5[2]	2.6	–	2.2[f]	3.1	1.6	1.9	–	–
Other illegal drugs	–	–	–	–	–	–	–	–	–	–	–	–
Heroin	–	–	–	–	2.6[2]	–	1.4	–	–	1.6	–	–
Illegal injection drugs	–	–	–	–	–	–	1.0[2]	1.6	1.4	1.7	–	–
Amphetamines	–	–	–	–	8.4[2]	–	4.3	–	–	–	–	–
Methamphetamines	–	3.0[1,g]	–	–	4.6[2,g]	–	2.0	2.5	3.3	1.9	2.8	0.9
Party drugs	–	–	–	–	–	–	4.8[2]	–	–	–	–	–

** Other illegal drugs do not include alcohol, tobacco or marijuana.*

Notes: Dashes (–) indicate a substance was not represented on that particular year's survey.
Change column provides the percentage point change from 2006 to 2008. Changes that are statistically significant at the 95 percent confidence level are bolded.
The superscript numbers and letters are used to describe the changes in questions over time.
Details are available on page 109.

Table 10
Lifetime Substance Use by Year, Grade 10

	Percent of Students											
Substance	**1988**	**1990**	**1992**	**1995**	**1998**	**1999**	**2000**	**2002**	**2004**	**2006**	**2008**	**Change**
Alcohol	84.1[1,a]	75.7	70.3[a]	73.0[2,a]	79.7	68.9[3,a]	65.0	60.0	60.4	61.2	60.6	-0.6
Cigarette (even just a puff)	–	–	–	59.8[3]	64.1	–	52.2	38.9	35.1	35.5	33.0	-2.5
Cigarette (whole)	–	–	–	–	–	50.1[3]	40.9	29.6	26.3	26.6	25.2	-1.4
Tobacco, chewing	21.5[1,b]	22.1[b]	23.2	30.7[2,b]	25.8	–	14.3[3,b]	13.1[b]	11.6	–	–	–
Marijuana	32.7[1]	21.5	22.8	39.1[2]	49.5	42.4	37.6	32.4	29.5	30.8	30.8	0.0
Hallucinogens (psychedelics)	12.1[1,c]	9.1	11.1	15.4[2]	18.8	–	10.7[c]	–	–	–	–	–
Inhalants	19.5[1,d]	17.7[d]	15.6	12.3[2,d]	15.3	–	11.9	–	6.6	10.7	8.9	-1.8
Over–the–counter	–	27.2[1,e]	22.3	10.4[2,e]	–	–	–	–	–	–	–	–
Cocaine	8.1[1]	4.3	3.5	7.4[2]	9.4	7.7[4]	6.0[2]	5.4	6.0	7.3[5]	7.0	-0.4
Steroids	4.9[1,f]	3.0	2.2	2.1[2]	3.1	3.6[4,f]	2.9[2]	2.9[4]	2.7	3.2	–	–
Other illegal drugs	–	–	–	–	–	–	–	–	–	–	–	–
Heroin	–	–	–	–	3.9[2]	6.3[4]	1.9[2]	–	–	4.7	–	–
Illegal injection drugs	–	–	–	–	–	2.8[4]	1.3[1]	2.1	1.8	2.5	–	–
Amphetamines	–	–	–	–	14.6[2]	–	8.4	–	–	–	–	–
Methamphetamines	–	3.1[1,g]	–	–	9.8[2,g]	–	5.3	4.5[9]	5.1	5.9	4.7	-1.2
Party drugs	–	–	–	–	–	–	9.3[2]	–	–	–	–	–

** Other illegal drugs do not include alcohol, tobacco or marijuana.*

Notes: Dashes (–) indicate a substance was not represented on that particular year's survey.
Change column provides the percentage point change from 2006 to 2008. Changes that are statistically significant at the 95 percent confidence level are bolded.
The superscript numbers and letters are used to describe the changes in questions over time.
Details are available on page 109.

Table 11
Lifetime Substance Use by Year, Grade 12

Percent of Students

Substance	1988	1990	1992	1995	1998	1999	2000	2002	2004	2006	2008	Change
Alcohol	–	83.0[1,a]	79.8[a]	81.9[2,a]	84.2	75.9[3,a]	76.0	74.9	72.6	72.2	72.4	0.2
Cigarette (even just a puff)	–	–	–	67.6[3]	67.4	–	60.9	52.1	47.5	45.0	44.3	-0.7
Cigarette (whole)	–	–	–	–	–	59.6[3]	52.0	42.5	36.8	35.5	34.3	-1.2
Tobacco, chewing	–	28.5[1,b]	27.9	37.7[2,b]	35.0	–	24.8[3,b]	20.0[b]	17.6	–	–	–
Marijuana	–	34.0[1]	32.9	43.5[2]	55.1	57.3	50.5	46.0	41.1	43.1	44.6	1.5
Hallucinogens (psychedelics)	–	13.7[1,c]	16.8	18.7[2]	23.8	–	15.1[c]	–	–	–	–	–
Inhalants	–	16.4[1,d]	13.1	11.0[2,d]	13.3	–	13.1	–	7.1	9.4	9.7	0.3
Over–the–counter	–	27.2[1,e]	22.3	10.4[2,e]	–	–	–	–	–	–	–	–
Cocaine	–	7.8[1]	4.6	7.6[2]	9.7	13.1[4]	9.2[2]	8.2	8.3	9.8[5]	10.5	0.7
Steroids	–	3.2[1,f]	2.4	2.4[2]	3.0	2.6[4,f]	2.9[2]	4.2[4]	2.5	3.9	–	–
Other illegal drugs	–	–	–	–	–	–	–	–	–	–	–	–
Heroin	–	–	–	–	3.6[2]	4.6[4]	2.4[2]	–	–	4.7	–	–
Illegal injection drugs	–	–	–	–	–	3.0[4]	1.5[1]	2.1	1.8	2.9	–	–
Amphetamines	–	–	–	–	14.9[2]	–	10.0	–	–	–	–	–
Methamphetamines	–	4.3[1,g]	–	–	11.0[2,g]	–	7.5	7.2[g]	6.3	7.1	5.6	-1.5
Party drugs	–	–	–	–	–	–	13.5[2]	–	–	–	–	–

** Other illegal drugs do not include alcohol, tobacco or marijuana.*

Notes: Dashes (–) indicate a substance was not represented on that particular year's survey.
Change column provides the percentage point change from 2006 to 2008. Changes that are statistically significant at the 95 percent confidence level are bolded.
The superscript numbers and letters are used to describe the changes in questions over time.
Details are available on page 109.

Current (30-day) Substance Use: Description of Superscript Notes

How the question was asked and changes over time:

1. Question asked as "how often did you use . . . "
2. Question asked as "during the past 30 days, how many times have you . . . "
3. Question asked as "during the past 30 days, on how many days did you . . . "
4. Question asked as "think back over the past two weeks, how many times have you . . . "
5. Question asked as "during the past 30 days, how many cigarettes have you smoked . . . "
6. Question asked as "which describes your use of cocaine (coke, crack or freebase) . . . "

Other changes in question format and wording over time:

a. In 1990, 1992, 1995, and 1998 question worded as "used alcohol," in 1999 worded as "have at least one drink," and in 2000, 2002 and 2004 worded as "drink a glass, bottle, or can."
b. The description of chewing tobacco has changed over time; from smokeless tobacco (chew, plug, snuff) in 1995 and 1998, to chewing tobacco or snuff, such as Redman, Levi Garret, Beechnut, Skoal, Skoal Bandits or Copenhagen in 1999, to chew tobacco or use snuff in 2000 and 2002, to chewing tobacco snuff or dip in 2004.
c. The term hallucinogens was used in 1990, 1992, 1995 and 1998 and then changed to psychedelics in 2000.
d. In 1995, 1998, 2000 and 2002 the description of inhalants only included things you sniff to get high. In 1999 it included sniffed glue, breathed the contents of aerosol spray cans, or inhaled any paints or sprays to get high.

Lifetime Substance Use: Description of Superscript Notes

How the question was asked and changes over time:

1. Question asked as "how often did you use . . . "
2. Question asked as "have you ever in your life, even once used . . . "
3. Question asked as "how old were you, when you first used . . . "
4. Question asked as "how many times have you . . . "

Other changes in question format and wording over time:

a. In 1998 and 1990 three questions were combined to create an alcohol estimate (how often did you use: beer, wine or wine coolers, hard liquor). In 1992, four questions were combined (beer, wine, wine coolers, hard liquor). In 1995 only one question was asked about alcohol (beer, wine, wine coolers, liquor). In 2000 the language changed language to specify more than a sip or two.
b. The description of chewing tobacco has changed from "chewing tobacco" in 1988 to "smokeless tobacco (chew, plug, snuff)" in 1990. In 1995, "spit" was added, then changed to "(chew, dip or snuff)" in 2000, and to "chewing tobacco, snuff or dip" in 2002.
c. The term "hallucinogens" was used in 1990, 1992, 1995 and 1998 and then changed to "psychedelics" in 2000.
d. In 1988 the inhaled substance question included glue, gasoline, paint thinner, spray cans, white out. In 1990 snappers, poppers, rush were added. In 2002 the question was simplified to say only "things you sniff to get high."
e. In 1990 and 1992 the over-the-counter question included drugs purchased from the drug store to get high (diet pills like Dexatrim, stay awake pills like NoDoz and Vivarin, pep pills, Nyquil or other coffee medicine). In 1995 it was shortened to drugs you can get from the drug store to get high.
f. In 1999, 2002, and 2004 "without a doctor's prescription" was added to the steroids question.
g. In 1990 the methamphetamine question was for crystal methamphetamine (crystal meth, ice). In 1998 and 2000 the question was methamphetamine specifically (meth, crystal meth, ice, crank). In 2002 and 2004 a statement was added to not include other types of amphetamines.

Alcohol Use

Alcohol has been consistently reported as the substance most frequently used by Washington's youth. As age-specific survey data illustrate, the number of youth using alcohol increases sharply with each grade. The number of Grade 6 and 8 students who report recent alcohol use is of particular concern because of the strong association between age of initiation and subsequent alcohol abuse and dependence.

Lifetime Alcohol Use, 30-Day Alcohol Use, and Binge Drinking

Figure 42 illustrates lifetime alcohol use, current alcohol use, and binge drinking in 2008.

Lifetime: In 2008, 29 percent of Grade 6 students, 39 percent of Grade 8 students, 61 percent of Grade 10 students, and 72 percent of Grade 12 students reported ever having a sip or two of alcohol (see Appendix A, Item 13).

30 Day: In 2008, 4 percent of Grade 6 students, 16 percent of Grade 8 students, 32 percent of Grade 10 students, and 41 percent of Grade 12 students reported drinking alcohol in the past 30 days (see Appendix A, Item 28).

Binge: In 2008, 3 percent of Grade 6 students, 9 percent of Grade 8 students, 18 percent of Grade 10 students, and 26 percent of Grade 12 students reported drinking five or more drinks in a row in the past two weeks (see Appendix A, Item 60).

The survey question on binge drinking may underestimate excessive alcohol consumption by students. Low-weight and inexperienced drinkers suffer effects from fewer drinks than defined by binge drinking

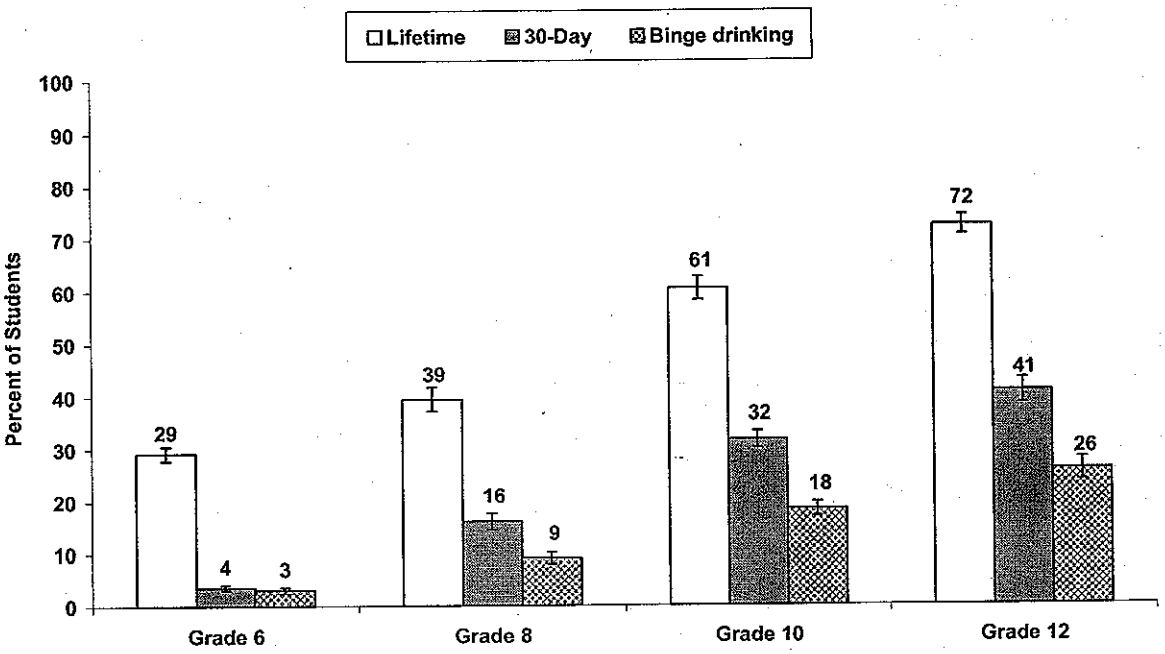
Differences by grade level:

- Among Grade 6, 8, 10 and 12 students, as grade levels increase, each grade was more likely to have ever had a sip or two of alcohol, to use alcohol in the past 30 days, and to binge drinking in the past two weeks.

Differences by gender:

- Grade 6 males were more likely than females to ever had a sip or two of alcohol and have used alcohol in the past 30 days.
- Grade 10 and 12 females were more likely than males to ever have had a sip or two of alcohol.
- Grade 12 males were more likely than females to binge drink in the past 2 weeks.

Figure 42
Lifetime, 30-Day Alcohol Use, and Binge Drinking, Grades 6, 8, 10, and 12 in 2008



Survey Questions:

- How old were you the first time you (or How old were you when you first) had more than a sip or two of beer, wine, or hard liquor (for example: vodka, whiskey, or gin)? Grade 6: Have you ever, even once in your lifetime had more than a sip or two of beer, wine, or hard liquor (for example: vodka, whiskey, or gin)?
- During the past 30 days, on how many days did you: Drink a glass, can or bottle of alcohol (beer, wine, wine coolers, hard liquor)?
- Think back over the last 2 weeks. How many times have you had five or more drinks in a row? (A drink is a glass of wine, a bottle of beer, a shot glass of liquor, or a mixed drink.)

Note: Percentages represent students who reported ever having a sip or two of alcohol in their lifetime, who reported drinking a glass, can or bottle of alcohol in the past 30 days, and who reported drinking five or more drinks in a row at anytime in the past two weeks.

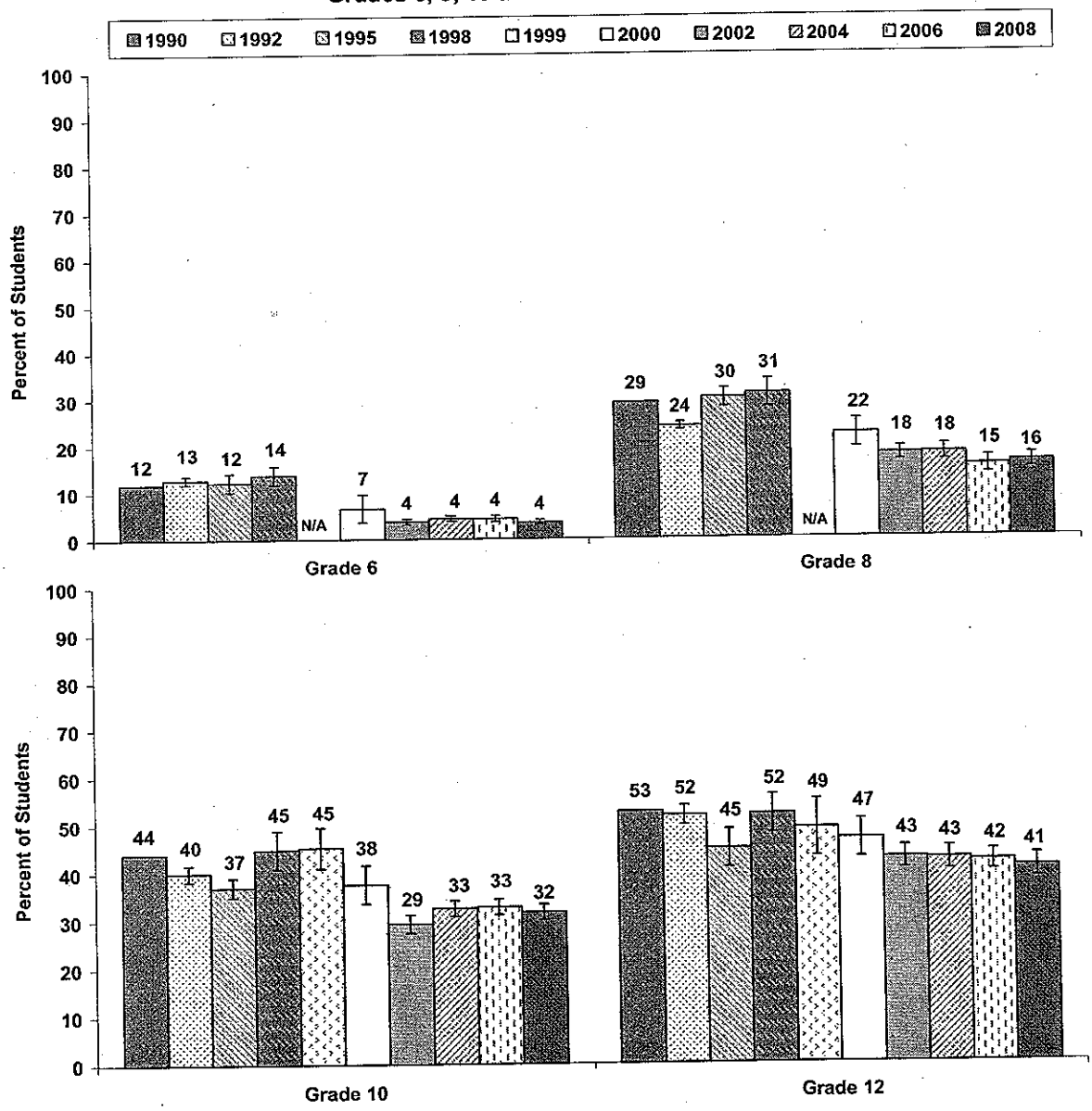
Source: HYS 2008.

Figure 43 shows changes in student 30-day alcohol use from 1990 through 2008.

Differences over time:

- Comparing results from 2006 to 2008:
  - There were no significant differences in 30-day alcohol use.
- Comparing results over time:
  - Among Grade 6, 8, 10 and 12 students, there were significant decreases in 30-day alcohol use from 1990 through 2008.

Figure 43
30-Day Alcohol Use,
Grades 6, 8, 10 and 12 from 1990–2008



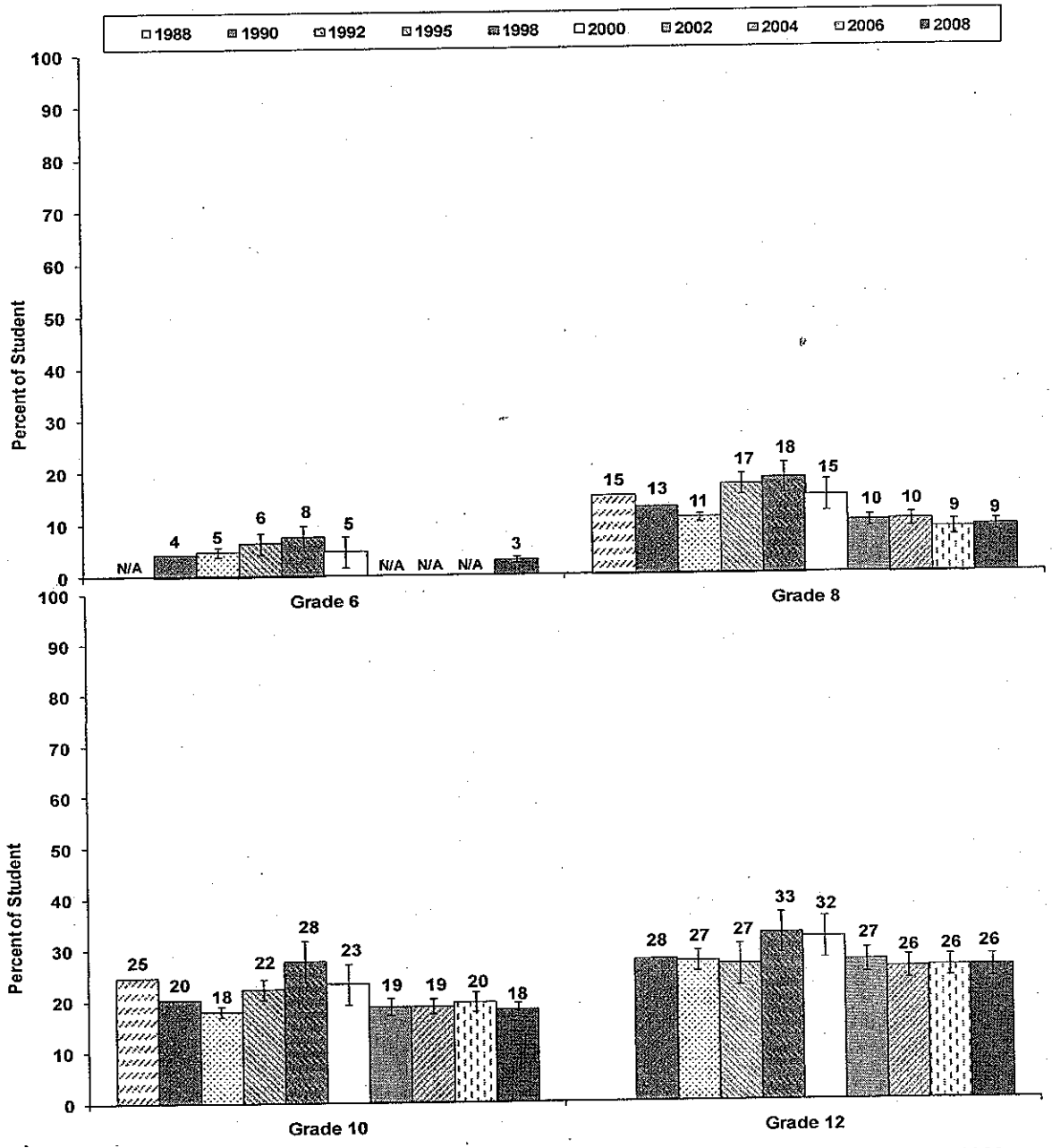
Source: SADUS 1990, WSSAHB 1992, 1995, 1998, and 2000, YRBS 1999, HYS 2002, 2004, 2006 and 2008.

Figure 44 shows changes in student binge drinking from 1988 through 2008.

Differences over time:

- Comparing results from 2006 to 2008:
  - There were no differences in binge drinking.
- Comparing results over time:
  - There were no changes in binge drinking from 1990 to 2008.

Figure 44
Binge Drinking,
Grades 6, 8, 10 and 12 from 1988–2008



Source: SADUS 1988 and 1990, WSSAHB 1992, 1995, 1998 and 2000, HYS 2002, 2004, 2006 and 2008.

Average Age of First Alcohol Use

Some youth begin experimenting with alcohol and other drugs at an early age. The younger the age of drinking onset, the greater the chance that an individual will develop a clinically defined alcohol disorder at some point in life.

Table 12 shows the average age of first use for students who had ever tried a sip or more of alcohol in 2008:

- Grade 10 students, on average, first had more than a sip or two of beer, wine, or hard liquor at 12.7 years of age.
- Grade 10 students, on average, began drinking alcoholic beverages at least once or twice a month at 13.8 years of age.
- These results are similar to the results from previous years.

Table 12
Average Age of First Use and Regular Use of Alcohol in 2008

	Mean Age of First Reported Use		
Behavior	**Grade 8**	**Grade 10**	**Grade 12**
Had more than a sip of beer, wine, or hard liquor	11.4 (± 0.06)	12.7 (± 0.06)	13.9 (± 0.1)
Began drinking at least once or twice a month	12.3 (± 0.1)	13.8 (± 0.1)	15.1 (± 0.1)

Questions:

- How old were you the first time you had more than a sip or two of beer, wine, or hard liquor (for example: vodka, whiskey, or gin)?
- How old were you the first time you began drinking alcoholic beverages regularly, that is, at least once or twice a month?

Note: Age of first use is calculated by excluding students who responded "they had not used," and calculating the mean age of use among those who used at any age.

Source: HYS 2008.

Levels of Problem Drinking: Composite Scale

Figure 45 illustrates the results of a composite measure used to differentiate between experimentation and higher levels of drinking in 2008. The level of drinking is an important consideration in the design of prevention and intervention strategies. By combining frequency of drinking with episodes of binge drinking, planners can implement appropriate levels of intervention.

Experimental drinking: In 2008, 7 percent of Grade 8 students, 5 percent of Grade 10 students, and 6 percent of Grade 12 students reported experimental drinking.

Problem drinking: In 2008, 12 percent of Grade 8 students, 8 percent of Grade 10 students, and 13 percent of Grade 12 students reported problem drinking.

Heavy drinking: In 2008, 13 percent of Grade 8 students, 12 percent of Grade 10 students, and 18 percent of Grade 12 students reported heavy drinking.

Differences by grade level:

- Grade 10 and 12 students were more likely than Grade 8 students to report experimental drinking, problem drinking and heavy drinking.
- Grade 12 students were more likely than Grade 10 students to report problem drinking and heavy drinking.

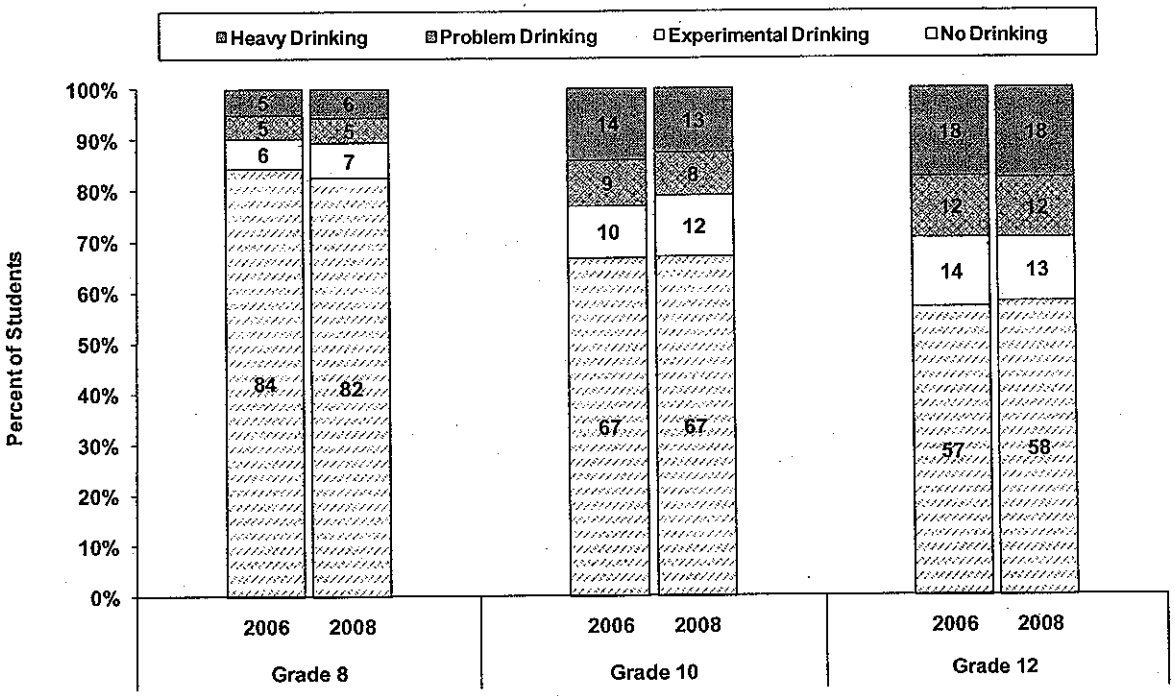
Differences by gender:

- Grade 8, 10 and 12 females were more likely than males to report experimental drinking.
- Among Grade 8, 10 and 12 students there were no differences in problem drinking by gender.
- Grade 10 and 12 males were more likely than females to report heavy drinking.

Differences over time:

- Among Grade 8 and 10 students, there were significant increases in experimental drinking from 2006 to 2008.

Figure 45
Levels of Drinking: Composite Scale,
Grades 8, 10, and 12 from 2006-2008



Notes:

- Experimental drinking represents drinking 1–2 times in the past 30 days and no binge drinking in the past two weeks.
- Problem drinking represents drinking 3–5 times in past 30 day and/or binge drinking in the past two weeks.
- Heavy drinking is drinking represents drinking 6 or more times in past 30 days and/or binge drinking 2 or more times in the past two weeks.

Source: HYS 2008.

Perception of Access to Alcohol and Sources

Figure 46 illustrates the percentage of students who perceived that alcohol would be very hard to get if they wanted some from 1995 through 2008.

In spite of the laws that seek to prevent underage drinking, a high percentage of youth find it easy to obtain alcohol. By far, younger students obtain alcohol most often from friends and family, not by buying it from stores (see Figure 47 and Item 62). Older students are more likely to obtain alcohol from friends or to give money to someone to buy it for them.

In 2008, 67 percent of Grade 6 students, 36 percent of Grade 8 students, 18 percent of Grade 10 students, and 11 percent of Grade 12 students reported that alcohol would be very hard to get (see Appendix A, Item 152).

Differences by grade level:

- Among Grade 6, 8, 10 and 12 students, as grade levels increase, each grade was less likely perceive that alcohol would be very hard to get.

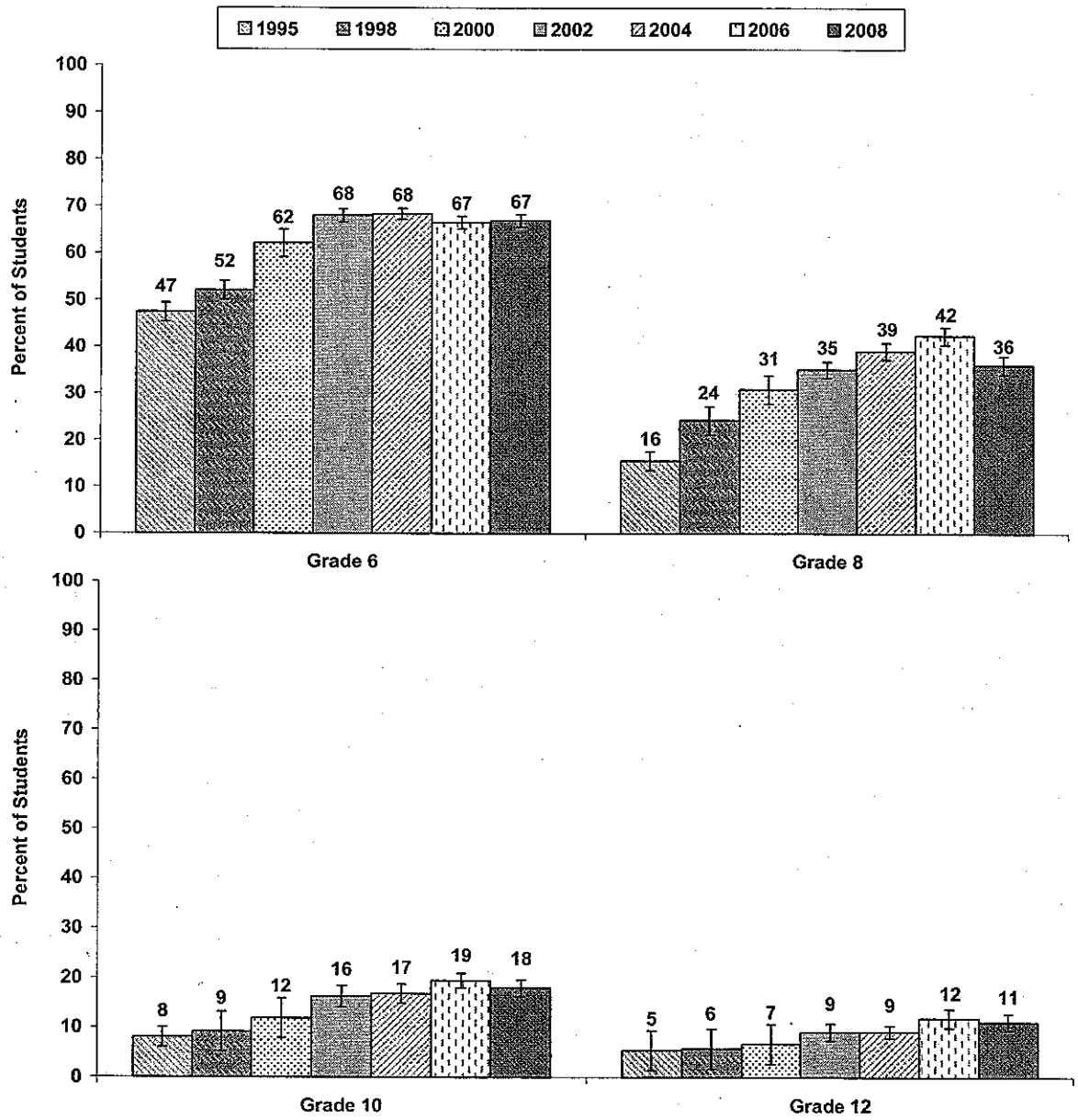
Differences by gender:

- Grade 6 females were more likely than males to perceive that alcohol is very hard to get.
- Grade 8 and 10 males were more likely than females to perceive that alcohol is very hard to get.

Differences over time:

- Comparing results from 2006 to 2008:
  - Among Grade 8 students, there was a significant decrease in the perception that alcohol would be very hard to get.
- Comparing results over time:
  - Among Grade 8, 10 and 12 students, there were significant increases in the perception that alcohol would be very hard to get from 1995 through 2008.

Figure 46
Perception That Access to Alcohol is Very Hard,
Grades 6, 8, 10, and 12 from 1995–2008



Question: If you wanted to get some beer, wine, or hard liquor (for example: vodka, whiskey, or gin), how easy would it be for you to get some?

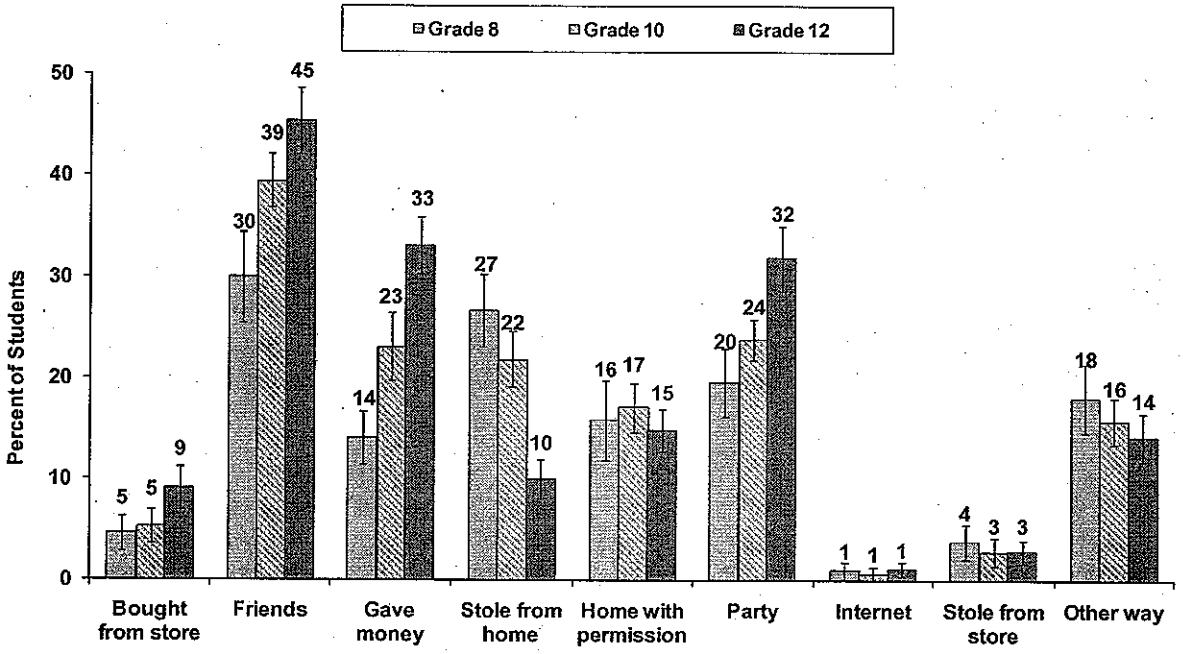
Note: Percentages represent students who reported it would be very hard to get alcohol if they wanted some.

Source: WSSAHB 1995, 1998 and 2000, HYS 2002, 2004, 2006 and 2008.

Usual Sources of Alcohol

Figure 47 illustrates the percentage of students got alcohol in the past 30 days and where they unusually obtained (see Appendix A, Item 62).

Figure 47
Usual Sources of Alcohol among Current Alcohol Drinkers, Grades 8, 10, and 12 in 2008



Question: During the past 30 days, how did you usually get alcohol (beer, wine, or hard liquor)? Choose all that apply.

Notes:

- Proportions represent students who used alcohol in the last 30 days and where they usually obtained their alcohol. Students could check multiple responses.
- Students who reported that they "did not get alcohol in the past 30 days" were not included in the results.
- The sample sizes for the 2008 results in this figure are: 554 Grade 8; 973 Grade 10; and 1,045 Grade 12 students.

Source: HYS 2008.

Perception of Risk from Daily Alcohol Consumption

Figure 48 illustrates the percentage of students who perceived that there was great risk in having one or two drinks of alcohol every day from 1992 through 2008.

Because alcohol use is so widely accepted in our culture, it is not surprising that youth do not appreciate the possible harmful effects of alcohol consumption.

In 2008, 30 percent of Grade 6 students, 33 percent of Grade 8 students, 37 percent of Grade 10 students, and 35 percent of Grade 12 students perceived great risk in having one or two drinks of alcohol every day (see Appendix A, Item 209).

Differences by grade level:

- Grade 6 students were less likely than students in Grades 10 and 12 to perceive great risk having more than one or two drinks every day.

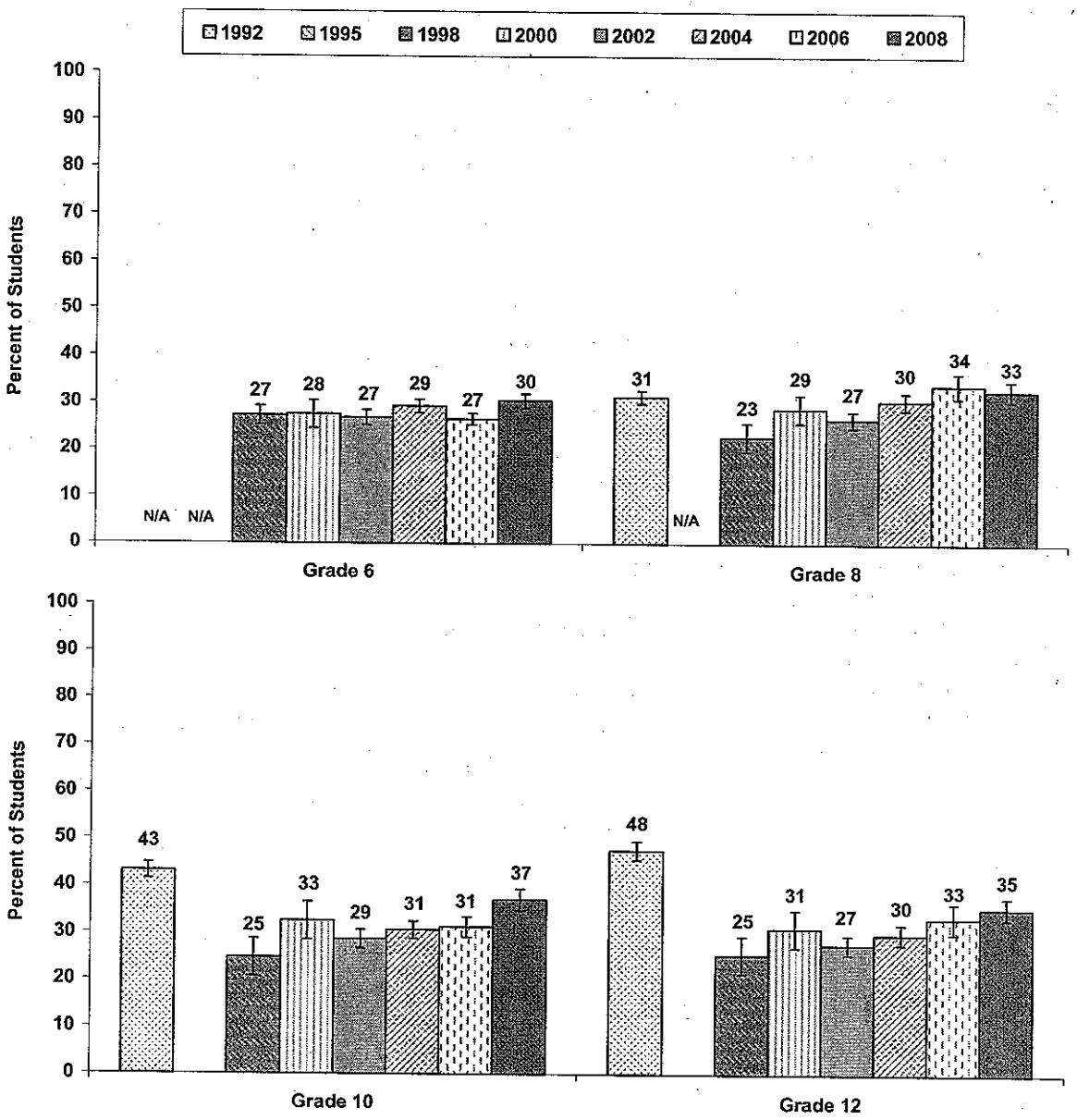
Differences by gender:

- Grade 6, 8, 10 and 12 females were more likely than males to perceive great risk in having more than one or two drinks of alcohol every day.

Differences over time:

- Comparing results from 2006 to 2008:
  - Among Grade 6 and 10 students, there were significant increases in the perception of great risk in having one or two drinks of alcohol every day.
- Comparing results over time:
  - Among Grade 12 students, there was a significant decrease in the perception of great risk in having one or two drinks of alcohol every day from 1992 through 2008.

Figure 48
Perception of Great Risk from Daily Alcohol Consumption, Grades 6, 8, 10, and 12 from 1992–2008



Question: How much do you think people risk harming themselves if they take one or two drinks of an alcoholic beverage (wine, beer, a shot of liquor) nearly every day?

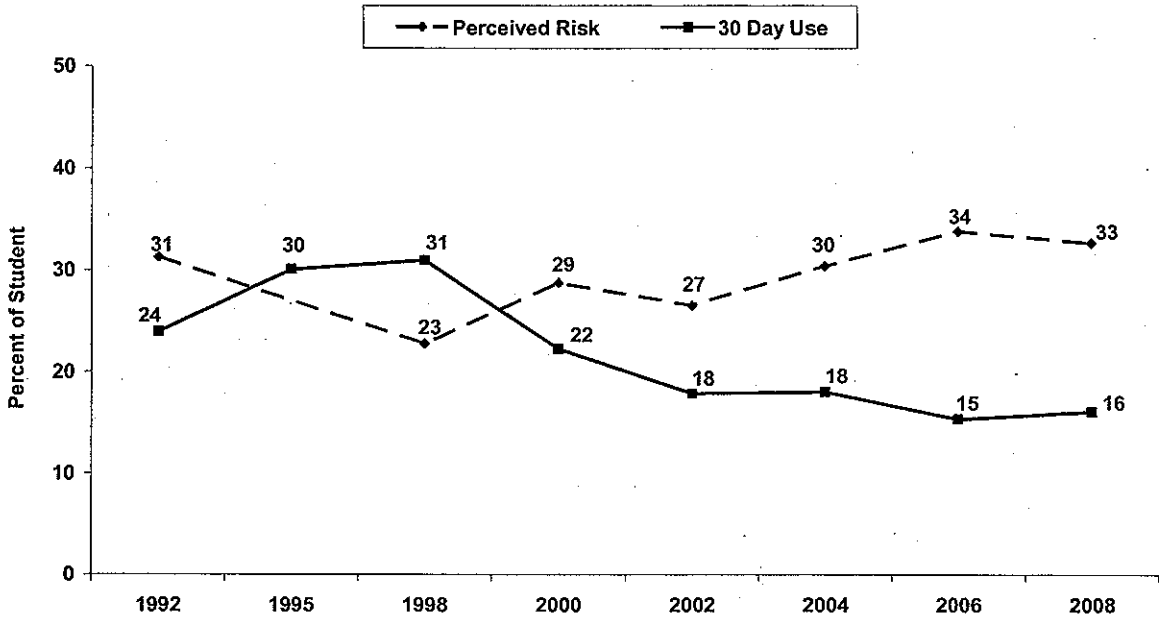
Note: Percentages represent students who that there is great risk from daily alcohol consumption.

Source: WSSAHB 1992, 1995, 1998 and 2000, HYS 2002, 2004, 2006 and 2008.

Figure 49 shows the association between the perceived risk of daily alcohol use and the prevalence of alcohol use in the past 30 days for Grade 8 students in 2008.

In recent years, increased perception of great risk of daily alcohol use was associated with decreased 30-day alcohol use.

Figure 49
Perception of Great Risk and Alcohol Use, Grade 8 from 1992–2008



Questions:

- How much do you think people risk harming themselves if they take one or two drinks of an alcoholic beverage (wine, beer, a shot of liquor) nearly every day?
- During the past 30 days, on how many days did you: Drink a glass, can or bottle of alcohol (beer, wine, wine coolers, hard liquor)?

Notes:

- Percentages represent students who reported that there was great risk in having one or two drinks of alcoholic beverages every day and that they had used alcohol in the past 30 days.
- The question about perceived risk was not asked in 1995.

Source: WSSAHB 1992, 1995, 1998 and 2000, HYS 2002, 2004, 2006 and 2008.

Tobacco Use

Historically, cigarettes have been the most popular tobacco product used by youth. Youth cigarette smoking rates peaked in the late 1990s but have dropped significantly since. Recently, youth have been experimenting with other types of tobacco. Currently, cigars are the most common type of tobacco used among students in Grades 8, 10 and 12. Among Grade 10 students who used any tobacco in the past 30 days, almost three-quarters of them used multiple types of tobacco products.

Lifetime and 30-Day Cigarette Smoking

Figure 50 illustrates the percentage of students in 2008 who have ever smoked a whole cigarette in their lifetime and who have smoked a cigarette in the past 30 days (see Appendix A, Items 12 and 21)

Lifetime: In 2008, 4 percent of Grade 6 students, 13 percent of Grade 8 students, 25 percent of Grade 10 students, and 34 percent of Grade 12 students reported ever having smoked a whole cigarette.

30-Day Smoking: In 2008, 1 percent of Grade 6 students, 7 percent of Grade 8 students, 14 percent of Grade 10 students, and 20 percent of Grade 12 students reported smoking a cigarette in the past 30 days.

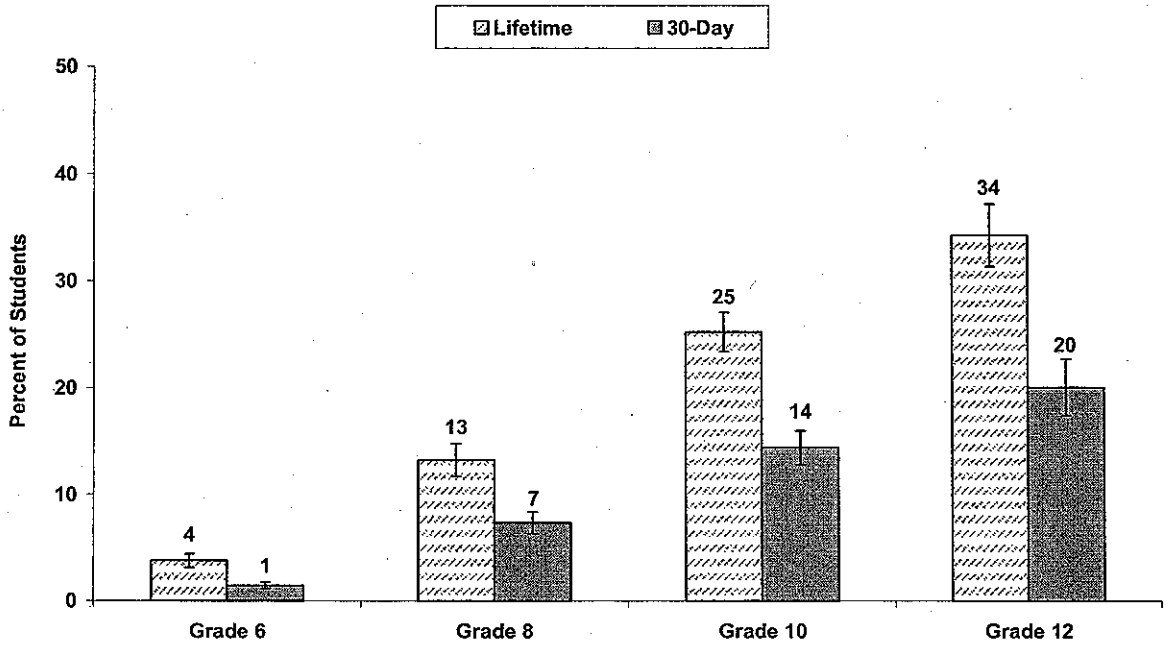
Differences by grade level:

- Grade 12 students were more likely than Grade 6, 8 and 10 students to have ever smoked a whole cigarette and to have smoked cigarettes in the past 30 days.
- Grade 10 students were more likely than Grade 6 and 8 students to have ever smoked a whole cigarette and to have smoked cigarettes in the past 30 days.
- Grade 8 students were more likely than Grade 6 students to have ever smoked a whole cigarette and to have smoked cigarettes in the past 30 days.

Differences by gender:

- Grade 6 males were more likely than females to have ever smoked a whole cigarette.
- Grade 12 males were more likely than females to have smoked cigarettes in the past 30 days.

Figure 50
Lifetime and 30-Day Cigarette Use,
Grades 6, 8, 10, and 12 in 2008



Survey Questions:

- How old were you the first time you smoked a whole cigarette?
- During the past 30 days, on how many days did you: Smoke cigarettes?

Notes:

- Lifetime percentage represents students who had ever smoked a whole cigarette at any age in their life.
- 30-day percentages represent students who smoked cigarettes on any days in the past 30 days.

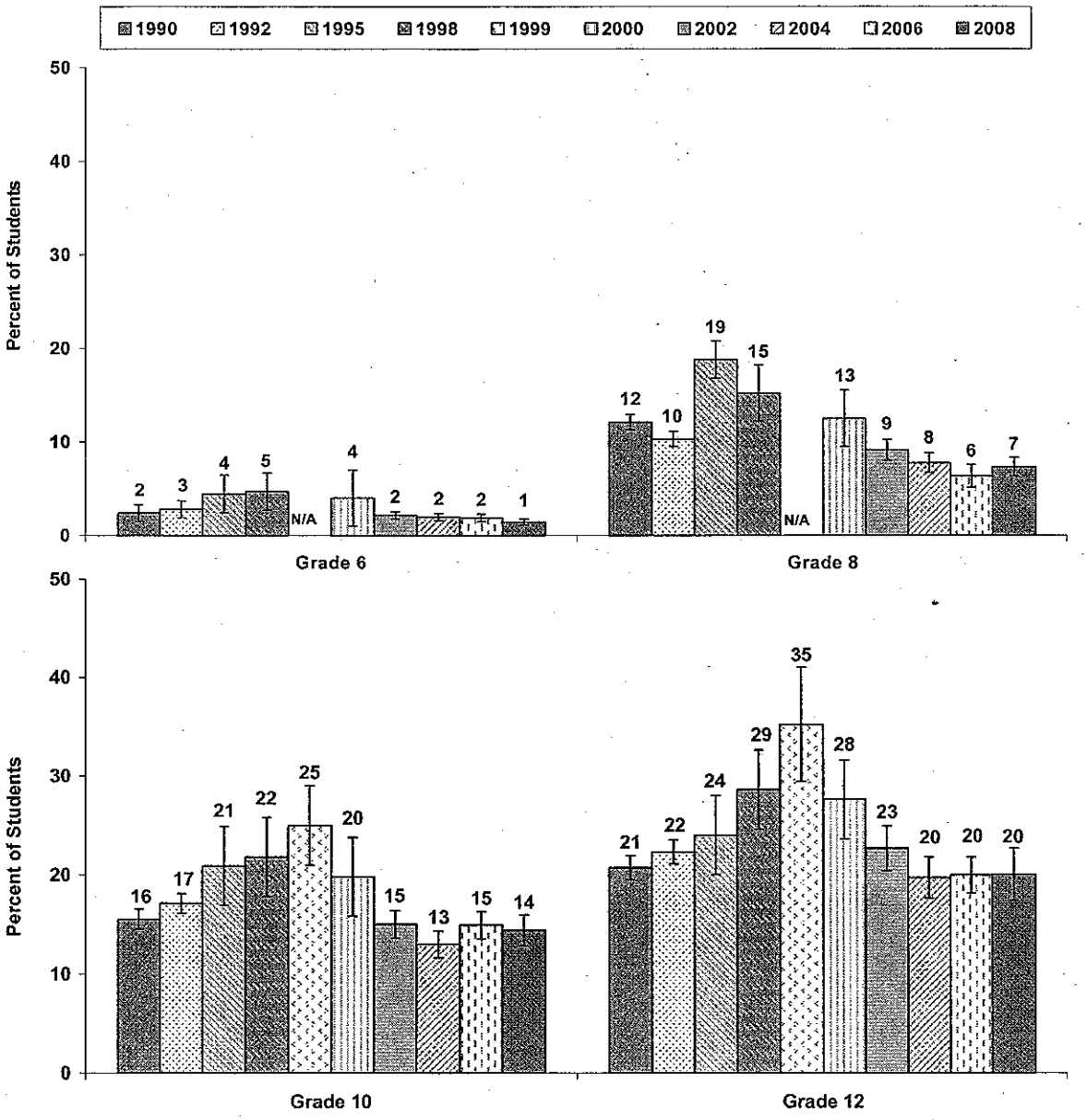
Source: HYS 2008.

Figure 51 illustrates the percentage of students who smoked a cigarette in the past 30 days from 1990 to 2008.

Differences over time:

- Comparing results from 2006 to 2008:
  - There were no differences from 2006 to 2008
- Comparing results over time:
  - Among Grade 6 students, there was a significant decrease in 30-day cigarette smoking from 1995 to 2008.
  - Among Grade 12 students, there was a significant increase in 30-day cigarette smoking from 1990 to 1999, then a significant decrease from 1999 to 2008.

Figure 51
30-Day Cigarette Smoking,
Grades 6, 8, 10, and 12 from 1990–2008



Average Age of First Cigarette Smoking

Table 13 shows the average age of first use for students who had ever tried a puff and students who had smoked a whole cigarette.

The earlier youth begin smoking cigarettes, the more likely they are to become strongly addicted to nicotine. Nine out of 10 adult smokers began smoking when they were teens or earlier (Health and Human Service, 1995 and 2006).

- Grade 10 students, on average, first smoked a puff of a cigarette at 12.4 years of age.
- Grade 10 students, on average, first smoked a whole cigarette at 12.8 years of age.

These results are similar to those from previous Healthy Youth Survey administrations.

Table 13
Average Age of First Cigarette Use in 2008

	Mean Age of First Reported Use		
Behavior	**Grade 8**	**Grade 10**	**Grade 12**
Smoked a cigarette, even just a puff	11.5 (± 0.1)	12.4 (± 0.2)	13.3 (± 0.2)
Smoked a whole cigarette	11.6 (± 0.08)	12.8 (± 0.1)	14.0 (± 0.2)

Questions:
- How old were you the first time you smoked a cigarette, even just a puff?
- How old were you the first time you smoked a whole cigarette?

Note: Age of first use is calculated by excluding students who responded "they had not smoked," and calculating the mean age of use among those who smoked at any age.

Source: HYS 2008.

30-Day Chewing Tobacco Use

Figure 52 illustrates the percentage of students who used chewing tobacco in the past 30 days from 1995 to 2008.

Using chewing tobacco represents a significant health risk and is not a safe substitute for smoking cigarettes. Chewing tobacco causes cancers of the mouth, pharynx and esophagus; gum recession; and an increased risk for heart disease and stroke. Youth chewing tobacco use can lead to a lifetime of addiction to nicotine, and frequently leads to habitual cigarette smoking (U.S. Department of Health and Human Services, 1994, National Cancer Institute, 1992, World Health Organization 2007, Tomar 2003).

In 2008, chewing tobacco use in the past 30 days was reported by 1 percent of Grade 6 students, 3 percent of Grade 8 students, 7 percent of Grade 10 students, and 9 percent of Grade 12 students (see Appendix A, Item 22).

Differences by grade level:

- Among Grade 6, 8, 10 and 12 students, as grade levels increase, each grade was more likely to have used chewing tobacco in the past 30 days

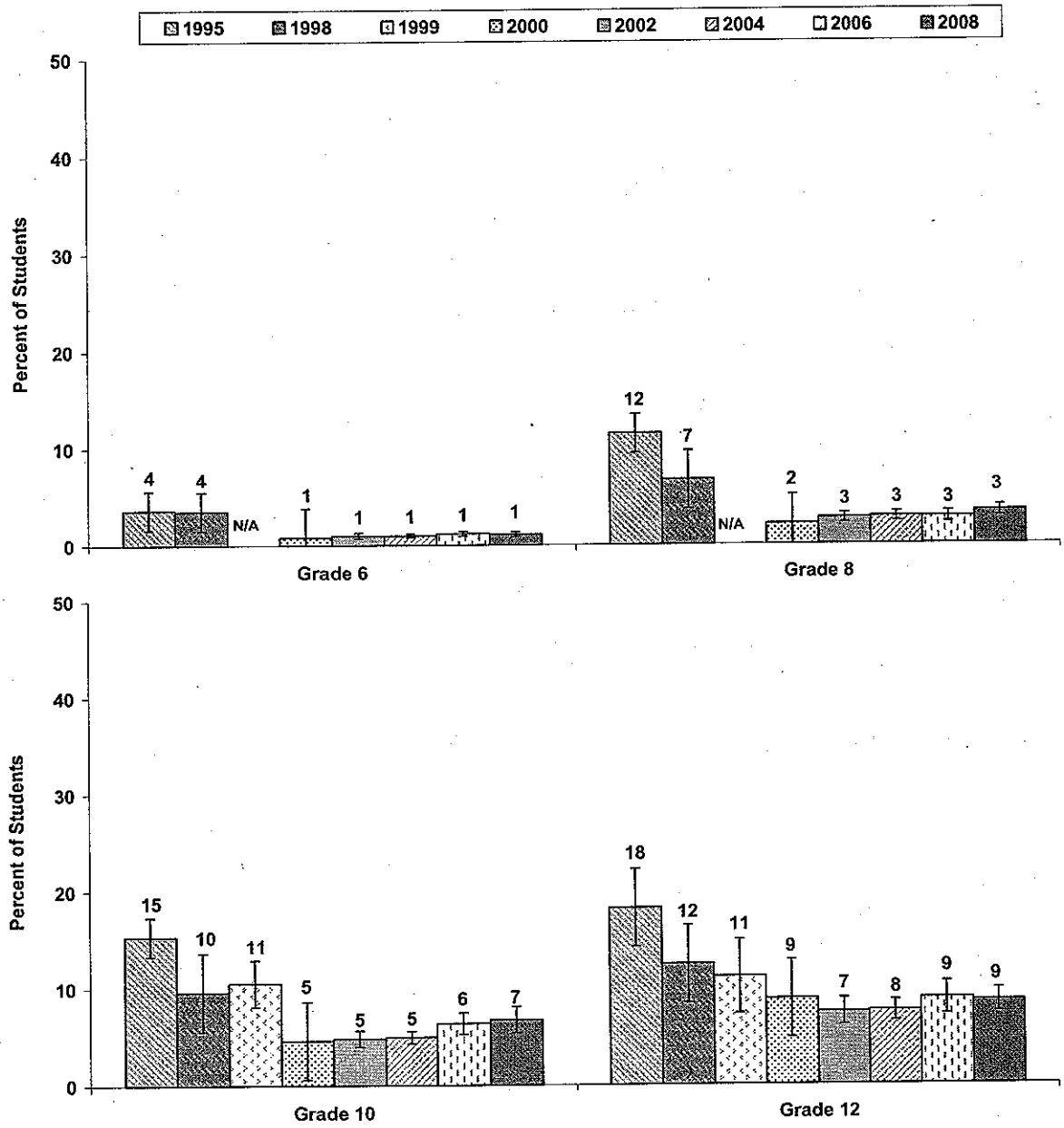
Differences by gender:

- Grade 6, 8, 10 and 12 males were more likely than females to report having used chewing tobacco in the past 30 days.

Differences over time:

- Comparing results from 2006 to 2008:
  - There were no differences from 2006 to 2008.
- Comparing results over time:
  - Among Grade 8 and 10 students, there were significant decreases in 30-day chewing tobacco use from 1995 through 2008.

Figure 52
30-Day Chewing Tobacco Use,
Grades 6, 8, 10 and 12 from 1995–2008



Survey Question: During the past 30 days, on how many days did you: use chewing tobacco, snuff, or dip?

Note. Percentages represent students who reported that they had used chewing tobacco on any days in the past 30 days.

Source: WSSAHB 1995, 1998 and 2000, YRBS 1999, HYS 2002, 2004, 2006 and 2008.

Susceptibility to Cigarette Smoking

Figure 53 illustrates the percentage of students who are susceptible to starting to smoke cigarettes from 1995 to 2008.

Youth who have not made a firm commitment against smoking cigarettes are considered susceptible to smoking. They may or may not have smoked recently or in their lifetime, but their susceptibility predicts that given the opportunity or an accepting environment they may initiate smoking. This measure was developed by Pierce, Gilpin, Farkas, and Merritt (1996) and has been found to predict progression to smoking within a longitudinal study of youth behaviors.

Susceptibility to cigarette smoking is a composite measure, using the results of the two questions: If one of your best friends offered you a cigarette, would you smoke it? (see Appendix A, Item 37); and Do you think that you will smoke a cigarette anytime in the next year? (see Appendix A, Item 38). If a student does not respond "definitely not" to both questions, then they are considered to be susceptible to smoking.

In 2008, 13 percent of Grade 6 students, 27 percent of Grade 8 students, 33 percent of Grade 10 students, and 37 percent of Grade 12 students were susceptible to smoking (see Appendix A, Item 48).

Differences by grade level:

- Grade 10 and 12 students were more likely than Grade 6 and 8 students to be susceptible to smoking.
- Grade 8 students were more likely than Grade 6 students to be susceptible to smoking.

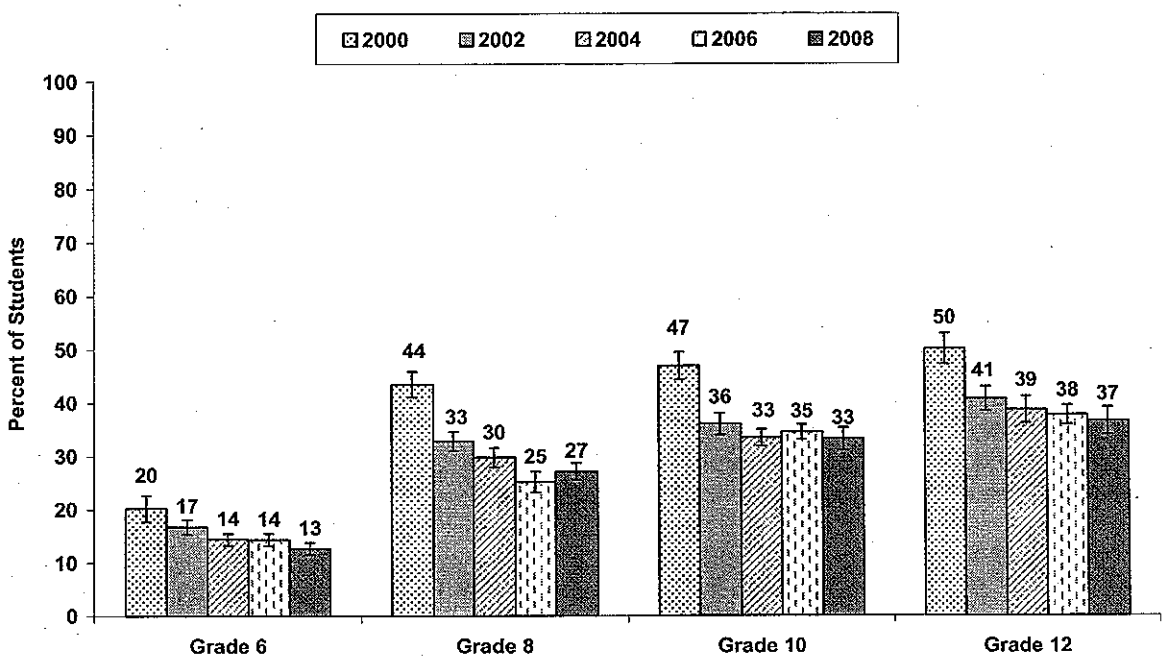
Differences by gender:

- Grade 6 and 12 males were more likely than females to be susceptible to smoking.

Differences over time:

- Comparing results from 2006 to 2008:
  - Among Grade 6 students, there was a significant increase in susceptibility to smoking.
- Comparing results over time:
  - Among Grade 6, 8 and 12 students, there were significant decrease to susceptibility to smoking from 2000 through 2008.

Figure 53
Susceptibility to Cigarette Smoking,
Grades 6, 8, 10, and 12 from 2000–2008



Survey Questions:

- If one of your best friends offered you a cigarette, would you smoke it?
- Do you think that you will smoke a cigarette anytime in the next year?

Note: Susceptibility to cigarette smoking is a composite measure, using the results of the two questions above. If a student does not respond "definitely not" to both questions then they are susceptible to smoking.

Source: WSSAHB 2000, HYS 2002, 2004, 2006 and 2008.

Prevention Messages From School Instruction

Figure 54 illustrates the percentage of students who received information at school about the dangers of tobacco use in the past year from 2004 to 2008.

Evidence suggests that instruction that addresses the short- and long-term negative physiologic and social consequences of tobacco use, social influences on tobacco use, peer norms, and life skills can prevent or reduce tobacco use among students (Starr et al., 2005).

In 2008, 79 percent of Grade 6 students, 76 percent of Grade 8 students, 69 percent of Grade 10 students, and 50 percent of Grade 12 students reported having received tobacco prevention instruction at school at least once during the past year (see Appendix A, Item 43).

Differences by grade level:

- Grade 6 students were more likely than Grade 10 and 12 students to have received tobacco prevention instruction in the past year.
- Grade 8 and 10 students were more likely than Grade 12 students to have received tobacco prevention instruction in the past year.

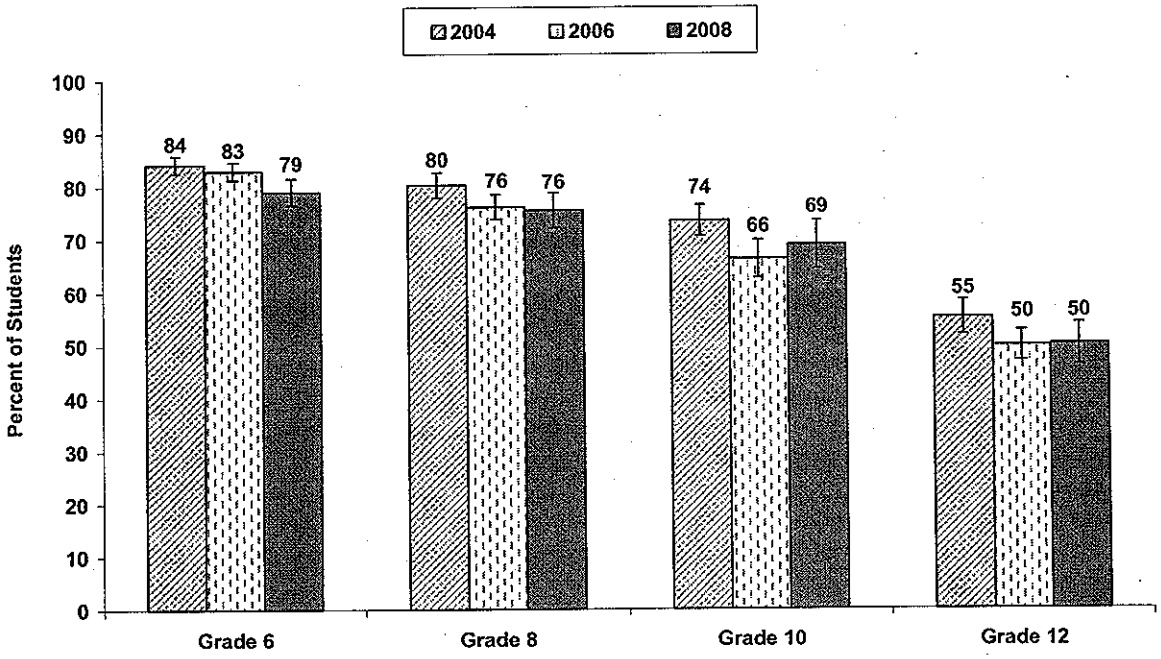
Differences by gender:

- Grade 6, 8 and 10 females were more likely than males to receive tobacco prevention instruction in the past year

Differences over time:

- Among Grade 6 students, there was a significant decrease in receiving tobacco prevention instruction at school at least once during the past year from 2006 to 2008.

Figure 54
Tobacco Prevention Instruction in Class, Grades 8, 10, and 12 from 2004–2008



Survey Question: During the past year in school, how many times did you get information in classes about the dangers of tobacco?

Note: Percentages represent students who reported that they received instruction in class at least once in the past year.

Source: HYS 2004, 2006 and 2008.

Students were also asked whether during the past year they had practiced tobacco refusal skills in class through role playing exercises (see Appendix A, Item 44). Because refusal skills are commonly taught to younger students, the percentages of student who reported practicing refusal skills are lower for the older grades. In 2008, 43 percent of Grade 6 students, 35 percent of Grade 8 students, 26 percent of Grade 10 students, and 11 percent of Grade 12 students reported practicing saying no to tobacco.

Tobacco Prevention Messages From Parents

Figure 55 illustrates the percentage of students who discussed the dangers of tobacco use with their parents from 2000 through 2008.

Studies have found that parental actions, attitudes, and opinions about smoking have a great deal of influence on whether or not their children smoke (Newman 1989, Distefan 1998).

In 2008, 81 percent of Grade 6 students, 74 percent of Grade 8 students, 71 percent of Grade 10 students, and 67 percent of Grade 12 students reported having parental discussions about the dangers of tobacco (see Appendix A, Item 54).

Differences by grade level:

- Grade 6 students were more likely than Grade 8, 10 and 12 students to discuss the dangers of tobacco with parents.
- Grade 8 and 10 students were more likely than Grade 12 students to discuss the dangers of tobacco with parents.

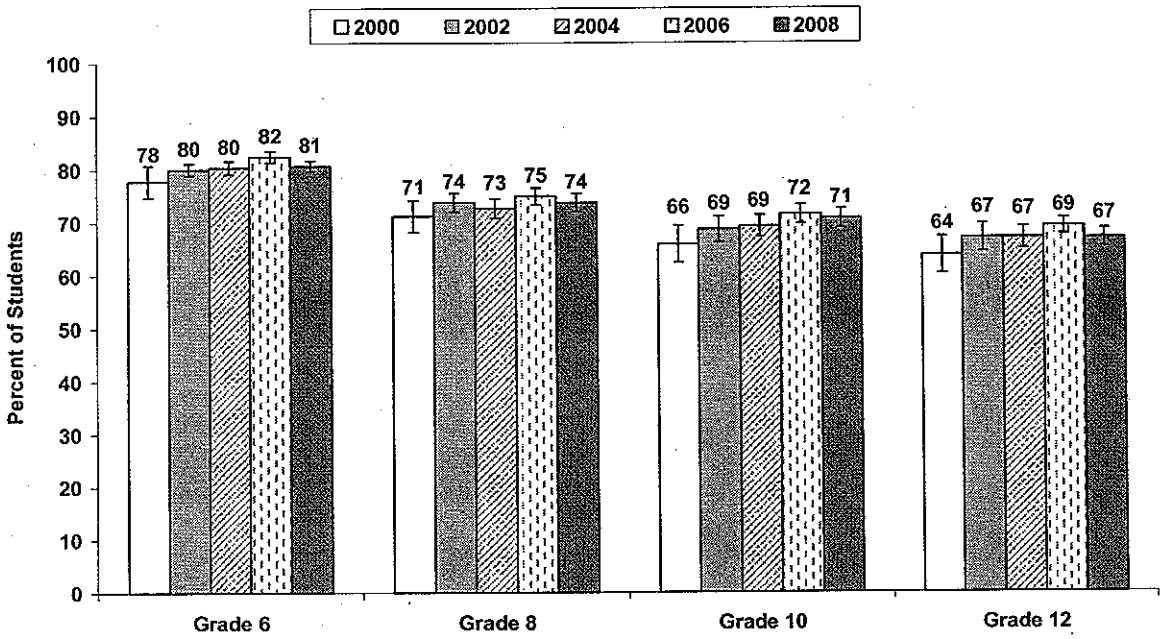
Differences by gender:

- Grade 10 and 12 males were more likely than females to have discussed the dangers of tobacco with parents.

Differences over time:

- Comparing results from 2006 to 2008:
  - Among Grade 6 students, there was a significant decrease in discussing the dangers of tobacco with parents.
- Comparing results over time:
  - There were no changes in discussing the dangers of tobacco with parents from 2000 through 2008.

Figure 55
Parental Discussions about the Dangers of Tobacco, Grades 6, 8, 10, and 12 from 2000–2008



Survey Question: Has either of your parents (or guardians) discussed the dangers of tobacco use with you?

Note. Percentages represent students who reported that either of their parents or guardians had discussed with them the dangers of tobacco use.

Source: WSSAHB 2000, HYS 2002, 2004, 2006 and 2008.

Tobacco Prevention Messages From the Media

Figure 56 illustrates the percentage of students who were exposed to television or radio ads about the dangers of cigarette smoking at least weekly in the past 30 days from 2000 through 2008.

There is strong evidence that mass media campaigns are effective in reducing youth tobacco use, when implemented in combination with tobacco price increases, school-based education, and other community education programs (Task Force on Community Preventive Services 2005).

In 2008, 43 percent of Grade 8 students, 44 percent of Grade 10 students, and 46 percent of Grade 12 students reported seeing or hearing anti-smoking media messages at once a week in the past 30 days (see Appendix A, Item 52).

Differences by grade level:

- There were no differences by grade level.

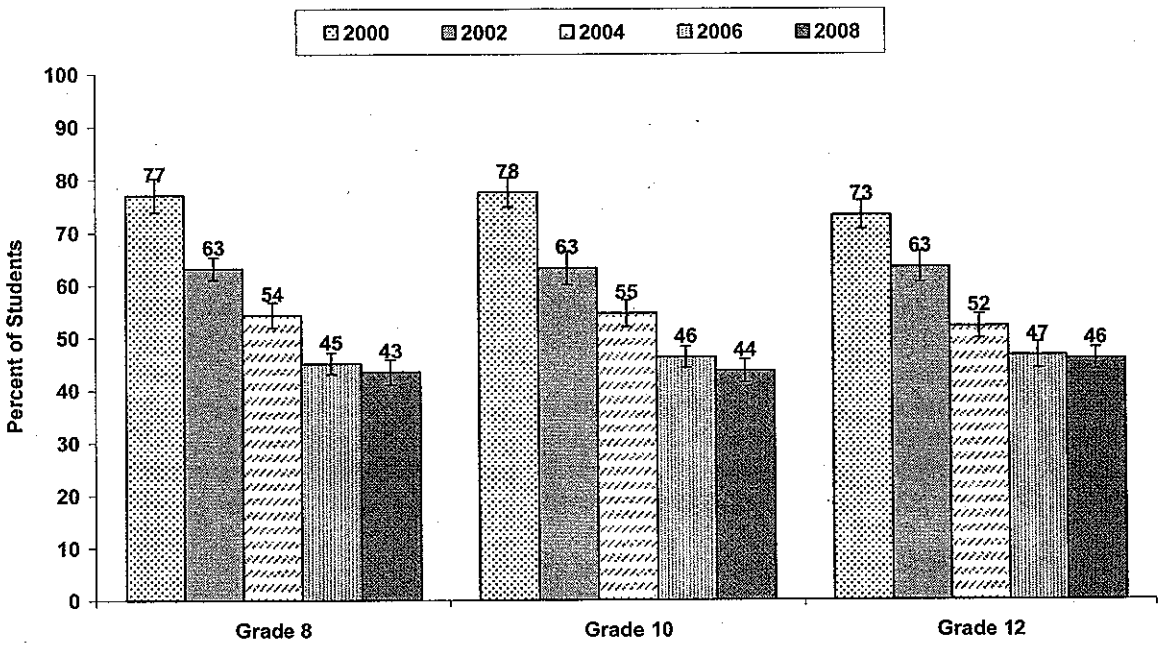
Differences by gender:

- There were no differences by gender.

Differences over time:

- Comparing results from 2006 to 2008:
  - There were no differences from 2006 to 2008.
- Comparing results over time:
  - Among Grade 8, 10 and 12 students, there were significant decreases in seeing or hearing anti-smoking media messages at least once a week in the past 30 days from 2000 through 2008.

Figure 56
Exposure to Antismoking Television and Radio Ads, Grades 8, 10, and 12 from 2000–2008



Survey Question: During the past 30 days, have you seen or heard commercials on TV, the Internet, or on the radio about the dangers of cigarette smoking?

Note: Percentages represent students who reported that they had seen or heard commercials on television, the Internet, or on the radio about the dangers of smoking at least once a week in the past 30 days.

Source: WSSAHB 2000, HYS 2002, 2004, 2006 and 2008.

Secondhand Smoke Exposure

Figure 57 illustrates the percentages of students who were in the same room with someone who was smoking cigarettes in the past week from 2000 to 2008.

Secondhand smoke exposure causes disease and premature death in children and adults who do not smoke. Scientific evidence indicates that there is no risk-free level of exposure to secondhand smoke (U.S. Department of Health and Human Services, 2006c).

In 2008, 27 percent of Grade 6 students, 40 percent of Grade 8 students, 47 percent of Grade 10 students, and 49 percent of Grade 12 students reported being exposed to secondhand smoke in a room (see Appendix A, Item 51).

Differences by grade level:

- Grade 6 students were less likely than grade 8, 10 and 12 students to be exposed to secondhand smoke in a room in the past week.
- Grade 8 students were less likely than grade 10 and 12 students to be exposed to secondhand smoke in a room in the past week.

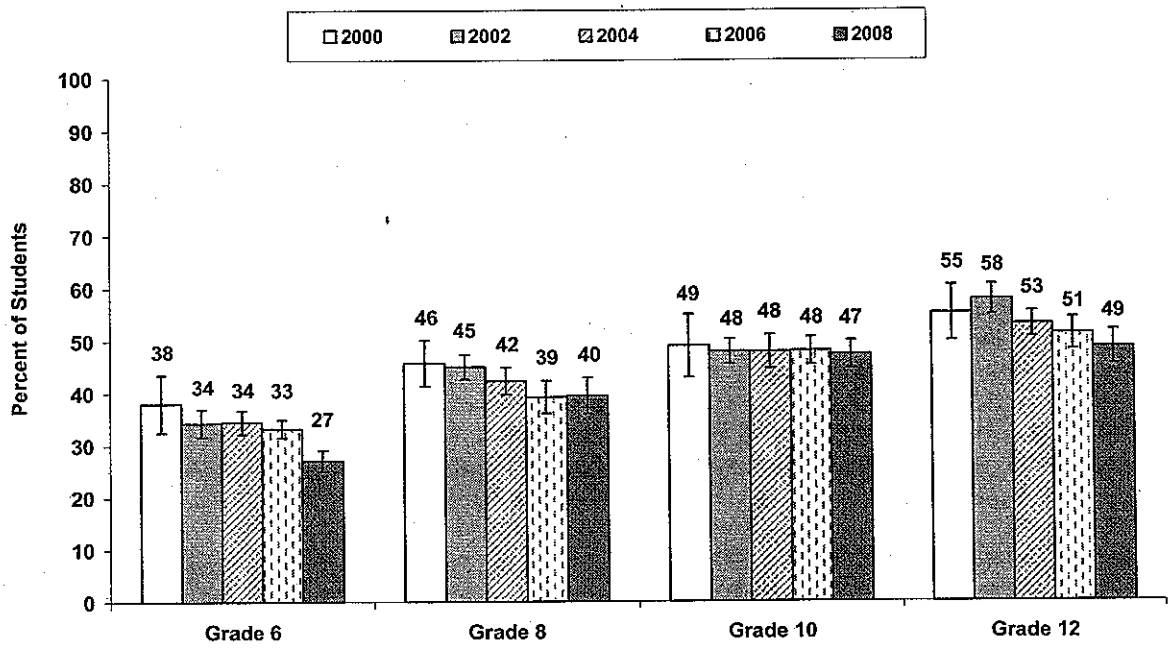
Differences by gender:

- There were no differences by gender.

Differences over time:

- Comparing results from 2006 to 2008:
  - Among Grade 6 students, there was a significant decrease in exposure to secondhand smoke in a room.
- Comparing results over time:
  - Among Grade 8 and 12 students, there were significant decreases in being exposed to secondhand smoke in a room from 2000 through 2008.

Figure 57
Exposure to Secondhand Smoke in a Room, Grades 6, 8, 10, and 12 from 2000–2008



Survey Question: During the past 7 days, on how many days were you in the same room with someone who was smoking cigarettes?

Note. Percentages represent students who reported they had been exposed to secondhand smoke in a room in the past week.

Source: WSSAHB 2000, HYS 2002, 2004, 2006 and 2008.

Perception of Harm from Secondhand Smoke

Figure 58 illustrates the percentages of students who perceive that secondhand smoke is definitely harmful from 2000 through 2008.

In 2008, 61 percent of Grade 6 students, 63 percent of Grade 8 students, 67 percent of Grade 10 and Grade 12 students reported that secondhand smoke was definitely harmful (see Appendix A, Item 48).

Differences by grade level:

- Grade 6 students were less likely than Grade 10 and 12 students to perceive secondhand smoke as definitely harmful.
- Grade 8 students less likely than Grade 10 and 12 students to perceive secondhand smoke as definitely harmful.

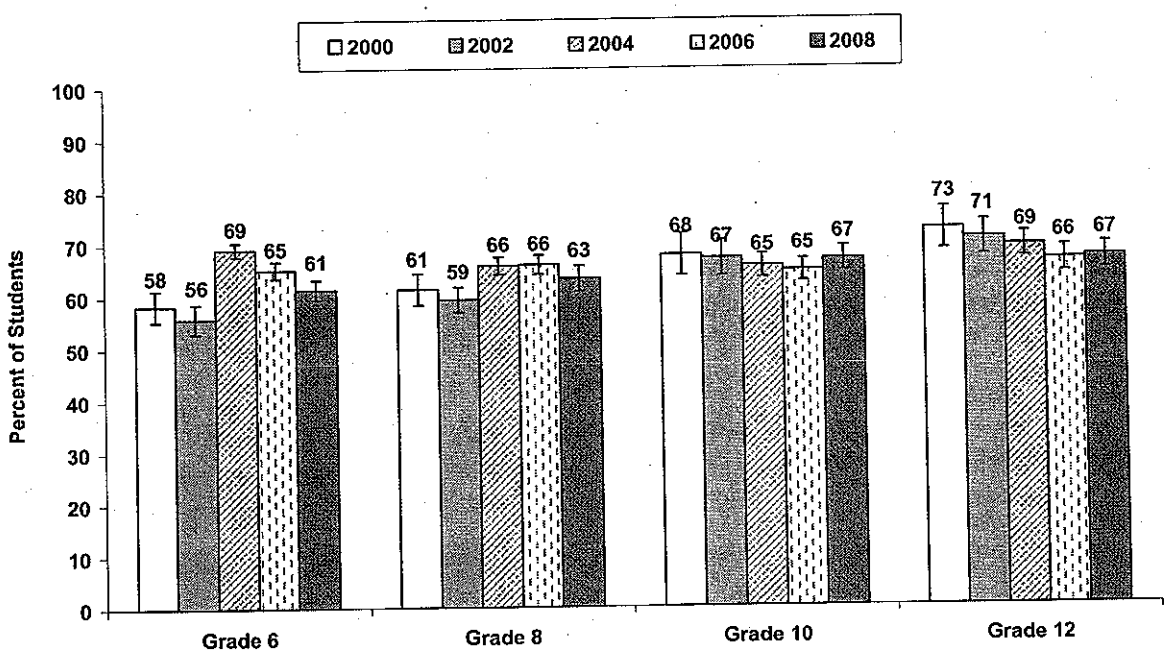
Differences by gender:

- Grade 6, 10, and 12 females were more likely than males to perceive secondhand smoke as definitely harmful.

Differences over time:

- Comparing results from 2006 to 2008:
  - Among Grade 6 students, there was a significant decrease in the perception that secondhand smoke is definitely harmful.
- Comparing results over time:
  - Among Grade 12 students, there was a significant decrease in the perception that secondhand smoke is definitely harmful from 2000 through 2008.

Figure 58
Perception of Definite Harm from Secondhand Smoke, Grades 6, 8, 10, and 12 from 2000–2008



Survey Question: Do you think the smoke from other people's cigarettes (secondhand smoke) is harmful to you?

Note: Percentages represent students who reported they perceived that smoke from other people's cigarettes is definitely harmful.

Source: WSSAHB 2000, HYS 2002, 2004, 2006 and 2008.

Perception of Access to Cigarettes

Figure 59 illustrates the percentage of students who reported that obtaining cigarettes would be very hard if they wanted to get some from 1995 to 2008.

There is strong evidence that community mobilization, along with additional interventions such as strong local laws for tobacco retailers, active enforcement of retailer sales laws, and retailer education with reinforcement are effective in reducing youth tobacco use and access to tobacco products from commercial sources (Task Force on Community Preventive Services 2005).

In 2008, 71 percent of Grade 6 students, 44 percent of Grade 8 students, 23 percent of Grade 10 students, and 12 percent of Grade 12 students reported that it would be very hard to get cigarettes (see Appendix A, Item 153).

Differences by grade level:

- Among Grade 6, 8, 10 and 12 students, as grade levels increase, each grade was less likely to perceive that cigarettes would be very hard to get.

Differences by gender:

- Grade 6 females were more likely than males to perceive that cigarettes are very hard to get.
- Grade 8 males were more likely than females to perceive that cigarettes are very hard to get.

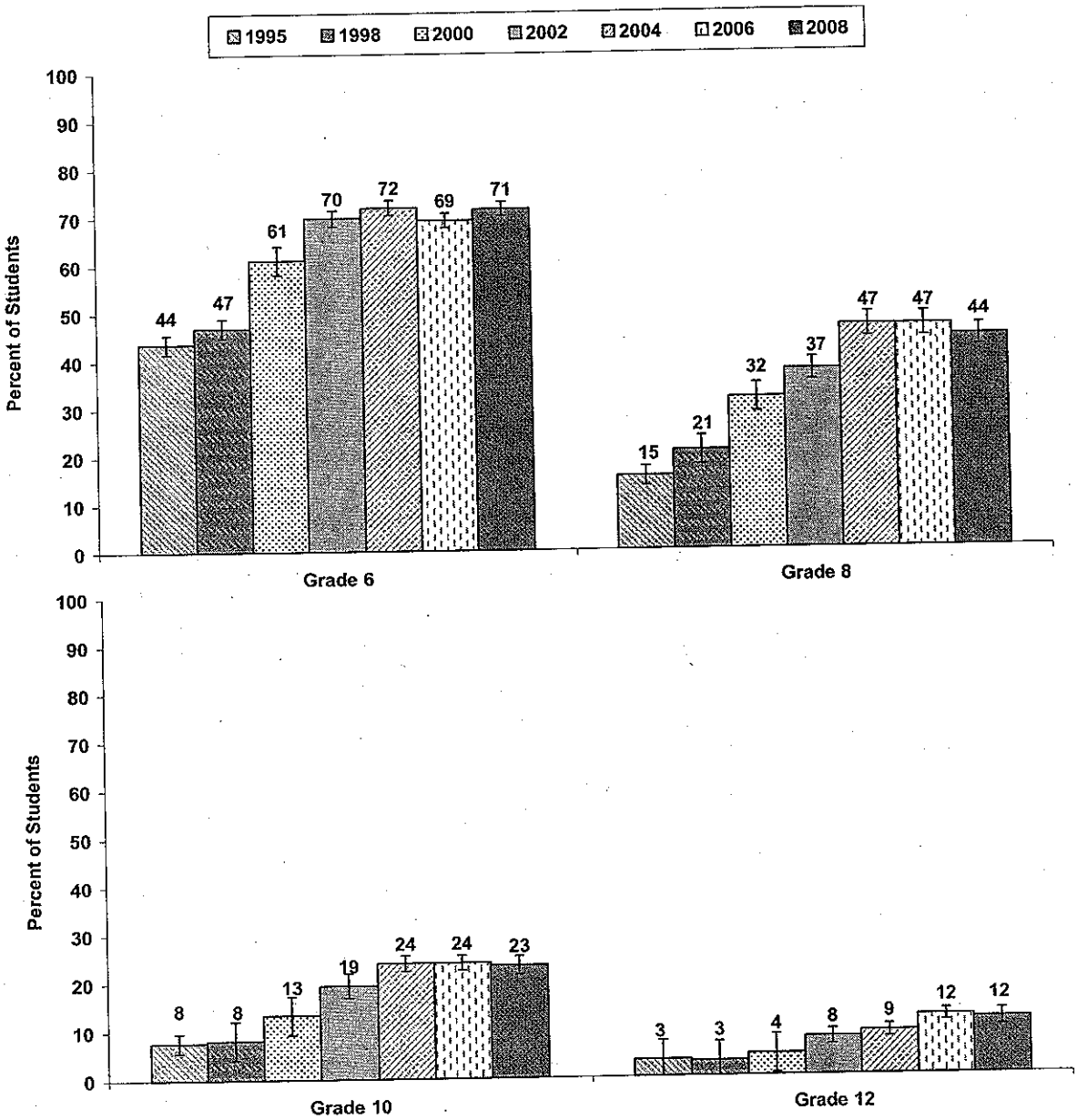
Differences by gender:

- Among Grade 12 students males were more likely than females to report very easy access to cigarettes.

Differences over time:

- Comparing results from 2006 to 2008:
  - Among Grade 6 students, there was a significant increase in the perception that it would be very hard to get cigarettes.
- Comparing results over time:
  - Among Grade 6, 8, 10 and 12 students there were significant increases in the perception that it would be very hard to get cigarettes from 1995 through 2008.

Figure 59
Perception of Access to Cigarettes as Very Hard
Grades 6, 8, 10, and 12 from 1995–2008



Survey Question: If you wanted to get some cigarettes, how easy would it be for you to get some?

Note. Percentages represent students who reported it would be very hard to get cigarettes if they wanted some.

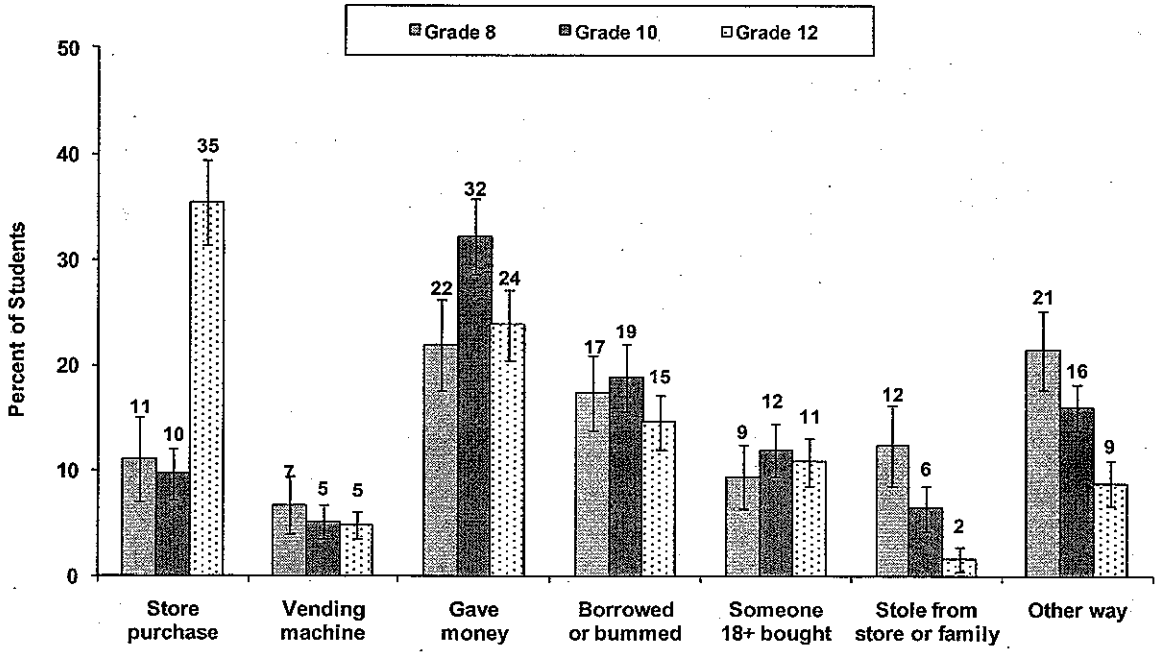
Source: WSSAHB 1995, 1998 and 2000, HYS 2002, 2004, 2006 and 2008.

Usual Sources of Tobacco

Figure 60 illustrates how students who used tobacco in the past 30 days usually got their tobacco in 2008 (see Appendix A, Item 56) .

Despite laws restricting access to tobacco, youth still obtain it from a variety of sources. Younger youth who are experimenting with tobacco usually get it from friends or parents. Older, more addicted youth, usually purchase their tobacco or ask friends over 18 to buy it for them.

Figure 60
Usual Sources of Tobacco among Current Tobacco Users, Grades 8, 10, and 12 in 2008



Question: During the past 30 days, how did you usually get your own tobacco? (Choose only one answer.)

Notes:

- Proportions represent students who smoked cigarettes in the last 30 days and where they usually got their tobacco.
- Students who reported that they "did not get tobacco in the past 30 days" were not included in the results.
- The sample sizes for this figure are 374 for Grade 8; 606 for Grade 10; and 658 for Grade 12.

Source: HYS 2008.

Perception of Risk from Regular Cigarette Smoking

Figure 61 illustrates the percentage of students who perceive that people greatly risk harming themselves if they smoke a pack of cigarettes or more a day from 1990 to 2008.

In 2008, 64 percent of Grade 6 students, 74 percent of Grade 8 students, 76 percent of Grade 10 students, and 77 percent of Grade 12 students reported there was great risk in smoking a pack or more of cigarettes a day (see Appendix A, Item 206).

Differences by grade level:

- Students in Grade 6 were less likely than students in Grades 8, 10, and 12 to perceive great risk in smoking a pack or more of cigarettes a day.

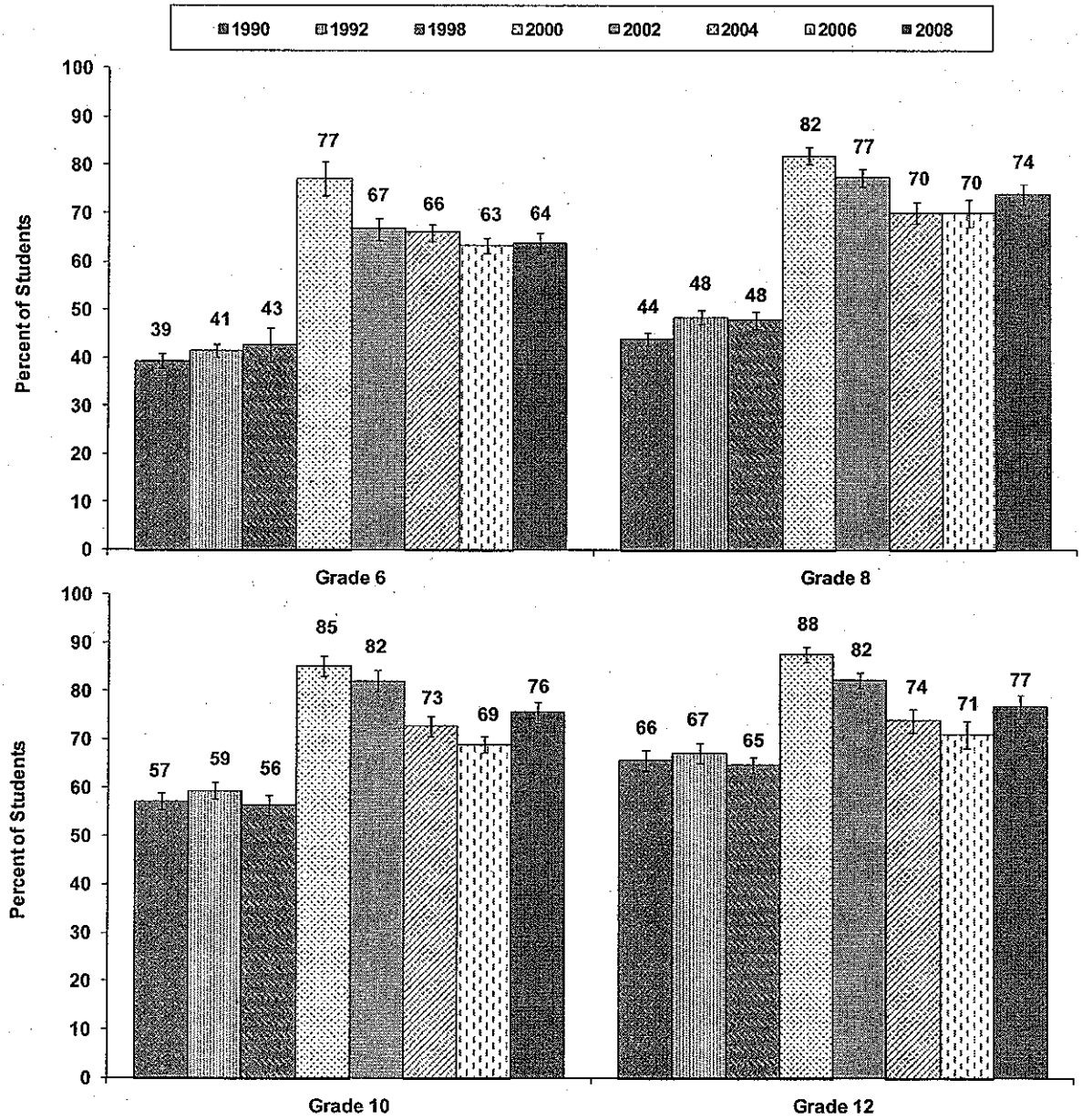
Differences by gender:

- Grade 6, 8, 10 and 12 females were more likely than males to perceive great risk in smoking a pack or more of cigarettes a day.

Differences over time:

- Comparing results from 2006 to 2008:
  - Among Grade 8, 10 and 12 students, there were significant increases in the perception of great risk from smoking a pack of cigarettes or more a day.
- Comparing results over time:
  - Among Grade 6 students, there was a significant increase in the perception of great risk from smoking a pack of cigarettes or more a day from 1990 through 2000.
  - Among Grade 8 students, there was a significant decrease in the perception of great risk from smoking a pack of cigarettes or more a day 1990 through 2008.

Figure 61
Perception of Great Risk from Regular Cigarette Smoking, Grades 6, 8, 10, and 12 from 1990–2008



Survey Question: How much do you think people risk harming themselves if they: Smoke one or more packs of cigarettes per day?

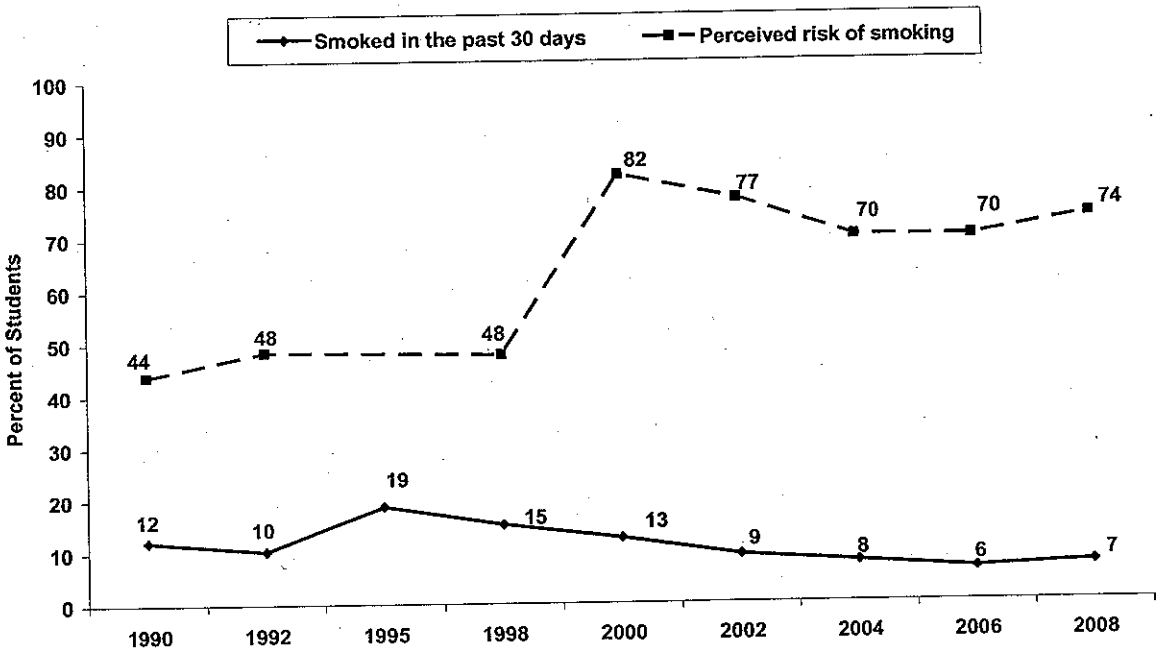
Note: Percentages represent students who reported there is great risk from smoking a pack or more of cigarettes a day.

Source: WSSAHB 2000, HYS 2002, 2004, 2006 and 2008.

Relationship Between Perceived Risk and Level of Cigarette Use

Figure 62 shows the association between the perceived risk of harm from smoking a pack or more of cigarettes per day and the prevalence of cigarette smoking in the past 30 days for Grade 8 students. Youth who do not perceive a great risk in tobacco use are at a higher risk to use it.

Figure 62
Perception of Great Risk and Cigarette Smoking, Grade 8 from 1990–2008



Survey Questions:
- How much do you think people risk harming themselves if they: Smoke one or more packs of cigarettes per day?
- During the past 30 days, on how many days did you: Smoke cigarettes?

Notes:
- Percentages represent students who reported that there was great risk in smoking a pack or more of cigarettes per day and that they had smoked cigarettes in the past 30 days.
- The question about perceived risk was not asked in 1995.

Source: SADUS 1990, WSSAHB 1992, 1995, 1998 and 2000, HYS 2002, 2004, 2006 and 2008.

Other Drugs: Marijuana Use

Marijuana has been the most widely used illicit drug since the state's first survey of youth substance use in 1988. It is also by far the primary drug used by youth entering treatment. Trends in use have been associated with youth perception of the risk of marijuana use—that is, as perception of risk declined during the 1990s, the prevalence of marijuana use grew. Then, as perception of risk rose in the early 2000s, marijuana use declined.

Lifetime and 30-Day Marijuana Use

Figure 63 illustrates the percentage of students in 2008 who have ever tried marijuana in their lifetime (see Appendix A, Items 210 and 211) and the percentage who used marijuana in the past 30 days (see Appendix A, Item 29).

Lifetime: In 2008, 3 percent of Grade 6 students, 12 percent of Grade 8 students, 31 percent of Grade 10 students, and 45 percent of Grade 12 students who reported ever smoking marijuana.

30-Day: In 2008, 1 percent of Grade 6 students, 8 percent of Grade 8 students, 19 percent of Grade 10 students, and 23 percent of Grade 12 students reported smoking marijuana in the past 30 days.

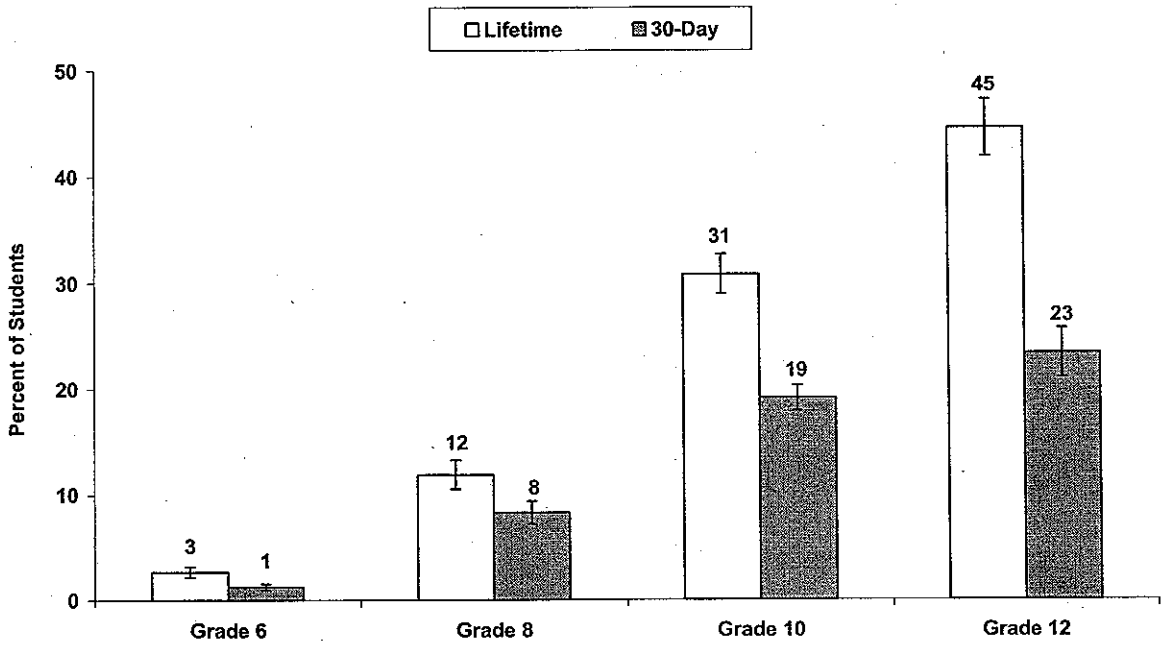
Differences by grade level:

- Among Grade 6, 8, 10 and 12 students, as grade levels increase, each grade was more likely to have ever used marijuana and to have used marijuana in the past 30 days.

Differences by gender:

- Grade 6, 8, 10 and 12 males were more likely than females to have ever used marijuana and to have used marijuana in the past 30 days.

Figure 63
Lifetime and 30-Day Marijuana Use,
Grades 6, 8, 10, and 12 in 2008



Survey Questions:

- How old were you the first time you smoked marijuana?
- During the past 30 days, on how many days did you: Use marijuana or hashish (grass, hash, pot)?

Notes:

- Lifetime percentage represents students who had ever smoked marijuana at any age in their life.
- 30-day percentages represent students who used marijuana on any days in the past 30 days.

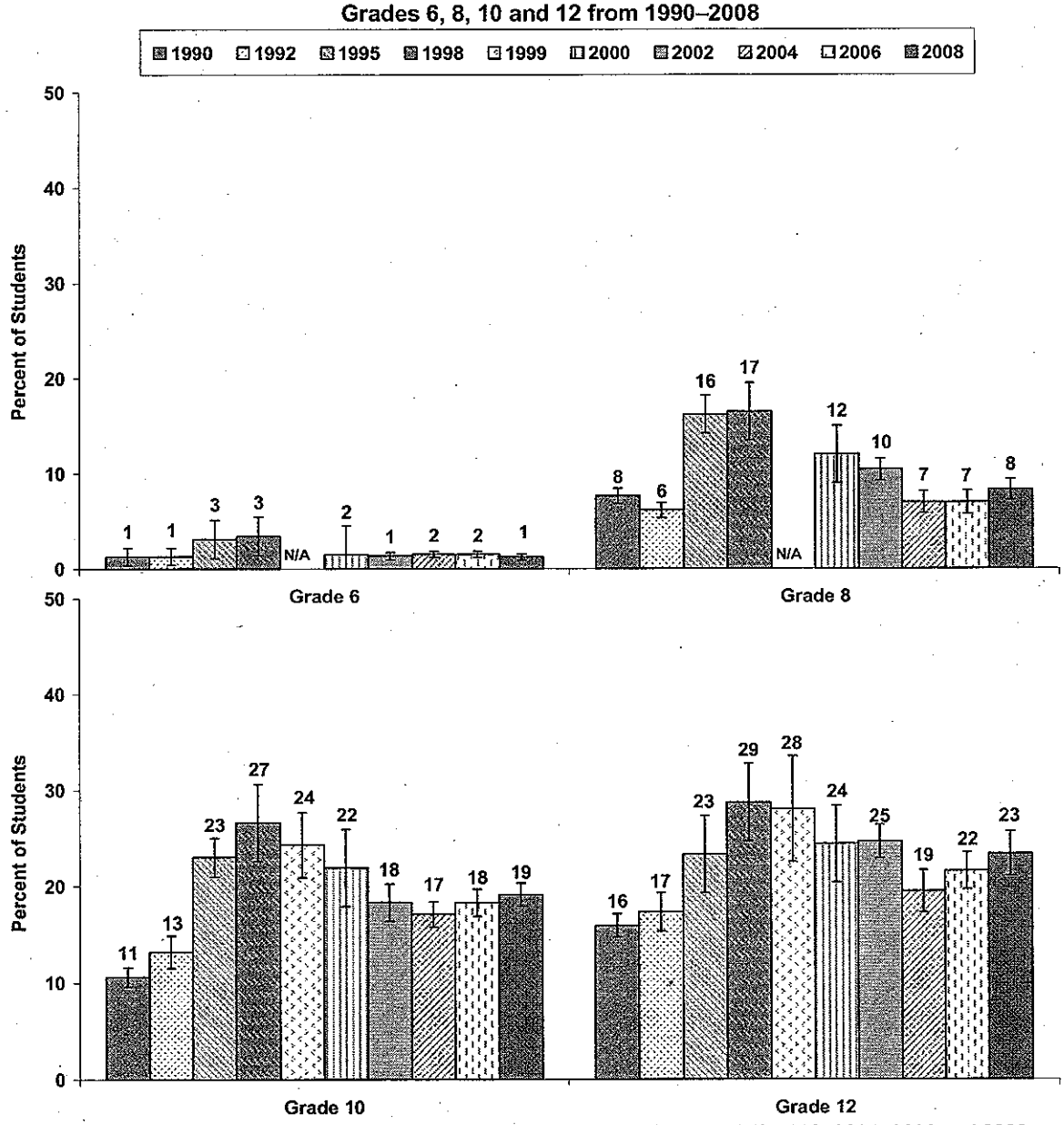
Source: HYS 2008.

Figure 64 illustrates the percentage of students who smoked marijuana in the past 30 days from 1990 to 2008.

Differences over time:

- Comparing results from 2006 to 2008:
  - There were no differences from 2006 to 2008.
- Comparing results over time:
  - Among Grade 8 students, there was a significant decrease in past 30-day marijuana use from 1995 through 2008.

Figure 64
30-Day Marijuana Use,
Grades 6, 8, 10 and 12 from 1990–2008



Source: SADUS 1990, WSSAHB 1992, 1995, 1998 and 2000, YRBS 1999, HYS 2002, 2004, 2006 and 2008.

Average Age of First Marijuana Use

Table 14 shows the average age of first use for students who had ever tried marijuana.

Some students begin experimenting with marijuana at an early age. Grade 10 students reported that on average they first smoked marijuana at 13.2 years of age.

These results are similar to those reported in 2006.

Table 14
Average Age of First Marijuana Use in 2008

	Mean Age of First Reported Use		
Behavior	**Grade 8**	**Grade 10**	**Grade 12**
Smoked marijuana	12.0 (±0.1)	13.2 (±0.1)	14.3 (±0.1)

Question: How old were you the first time you smoked marijuana?

Note: Age of first use is calculated by excluding students who responded "they had not used," and calculating the mean age of use among those who used at any age.

Source: HYS 2008.

Perception of Access to Marijuana

Figure 65 illustrates the percentage of students who reported that obtaining marijuana would be very hard if they wanted to get some.

A recent study based on a national survey (Caulkins and Pacula, 2006) found that among people of all ages, most marijuana users obtain the drug for free (59 percent), from a friend or relative (88 percent), and through indoor transactions (87 percent). Only 6 percent reported purchasing marijuana from a stranger.

In 2008, 86 percent of Grade 6 students, 63 percent of Grade 8 students, 31 percent of Grade 10 students, and 20 percent of Grade 12 students reported that it would be very hard to get marijuana (see Appendix A, Item 154).

Differences by grade level:

- Among Grade 6, 8, 10 and 12 students, as grade levels increase, each grade was less likely to perceive that marijuana would be very hard to get.

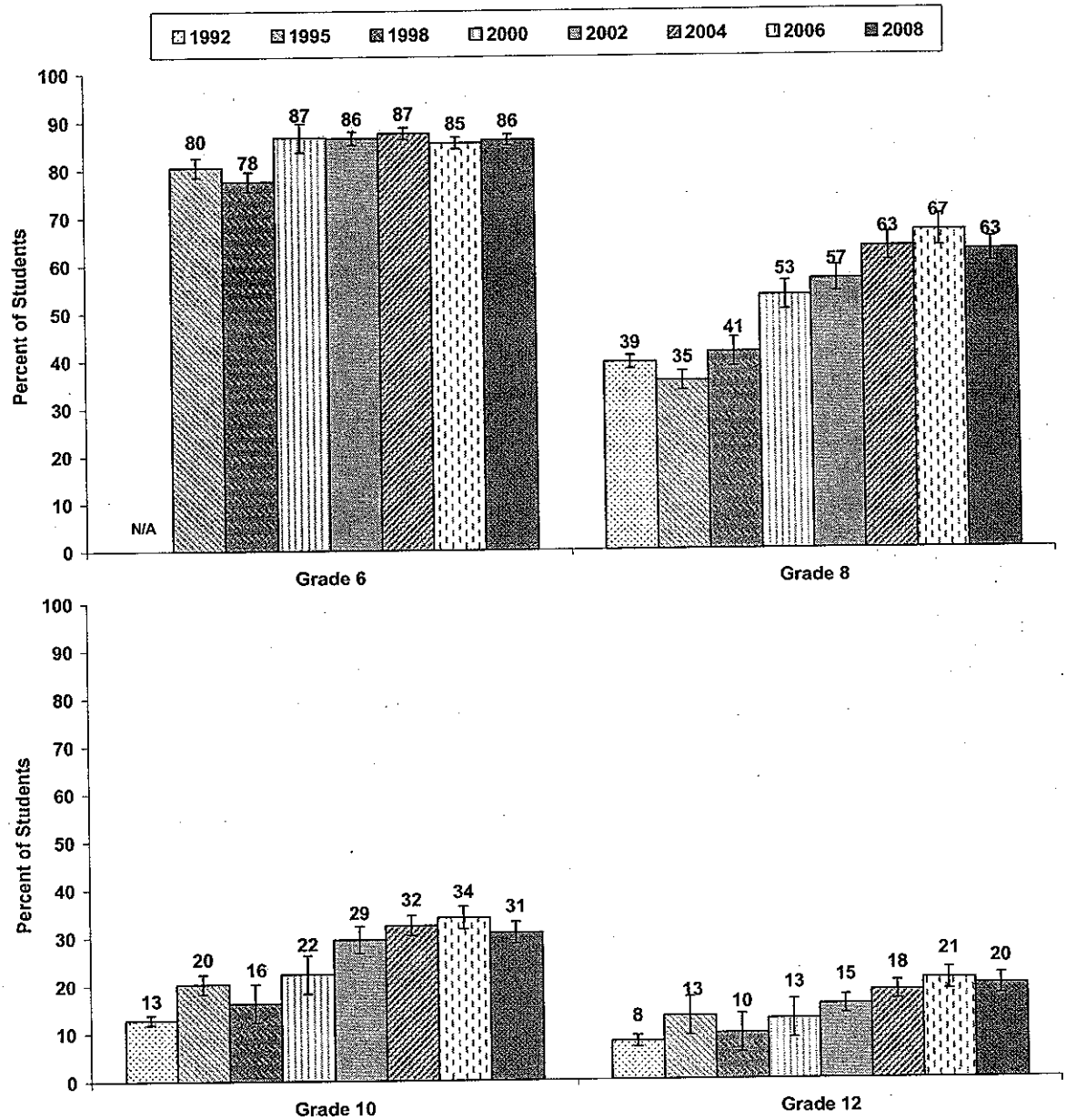
Differences by gender:

- Grade 6 females were more likely than males to perceive that marijuana would be very hard to get.

Differences over time:

- Comparing results from 2006 to 2008:
  - There were no differences from 2006 to 2008.
- Comparing results over time:
  - Among Grade 8, 10 and 12 students there were significant increases in the perception that getting marijuana would be very hard from 1992 through 2008.

Figure 65
Perception of Access to Marijuana as Very Hard, Grades 6, 8, 10 and 12 from 1992–2008



Survey Question: If you wanted to get some marijuana, how easy would it be for you to get some?

Note. Percentages represent students who reported it would be very hard to get marijuana if they wanted some.

Source: WSSAHB 1992, 1995, 1998 and 2000, HYS 2002, 2004, 2006 and 2008.

Perception of Risk from Regular Marijuana Use

Figure 66 illustrates the percentage of students who perceive that people greatly risk harming themselves if they use marijuana regularly.

Long-term trend data from Monitoring the Future suggests that perceived risk of marijuana use is a leading indicator of actual use. That is, during the 1970s, and again in the 1990s, as the perception of risk fell, the use of marijuana rose (Johnston, O'Malley, Bachman, and Schulenberg). There is no clear trend in the data from 2000 to 2008.

In 2008, 67 percent of Grade 6 students, 63 percent of Grade 8 students, 52 percent of Grade 10 students, and 45 percent of Grade 12 students reported there was great risk in using marijuana regularly (see Appendix A, Item 208).

Differences by grade:

- Among Grade 6, 8, 10 and 12 students, as grade levels increase, each grade was less likely to perceive great risk in using marijuana regularly.

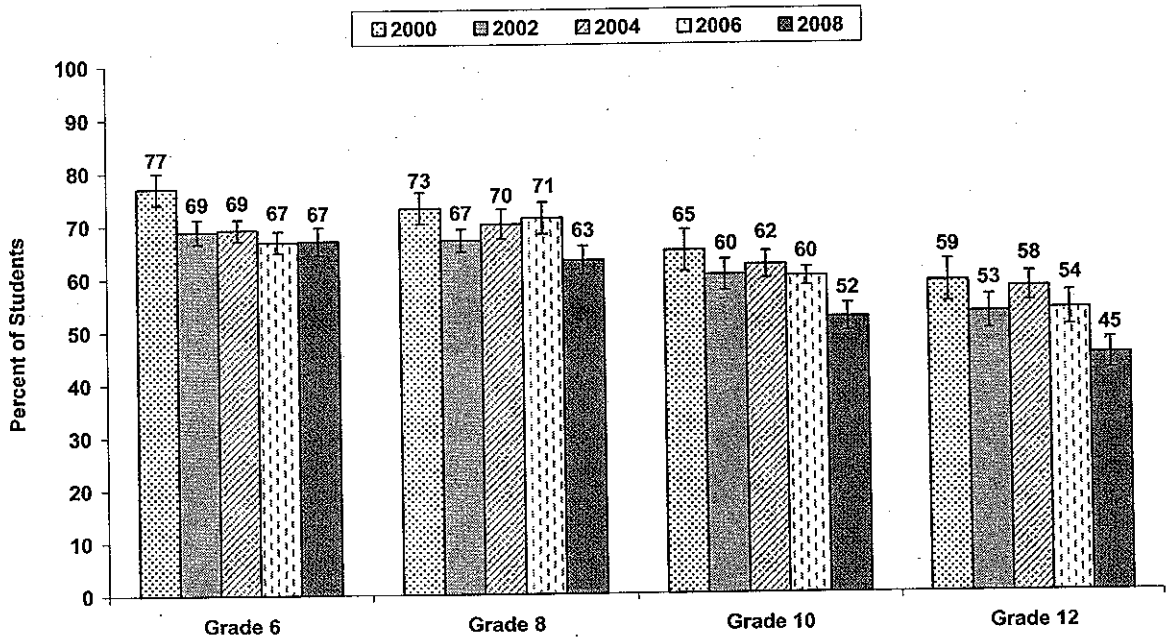
Differences by gender:

- Grade 8, 10 and 12 females were more likely than males to perceive great risk in regular marijuana use.

Differences over time:

- Comparing results from 2006 to 2008:
  - Among Grade 8, 10 and 12 students, there were significant decreases in the perception of great risk from using marijuana regularly.
- Comparing results over time:
  - There were no changes from 2000 through 2008.

Figure 66
Perception of Risk from Regular Marijuana Smoking, Grades 6, 8, 10, and 12 from 2000–2008



Survey Question: How much do you think people risk harming themselves if they: Smoke marijuana regularly? (at least once or twice a week)

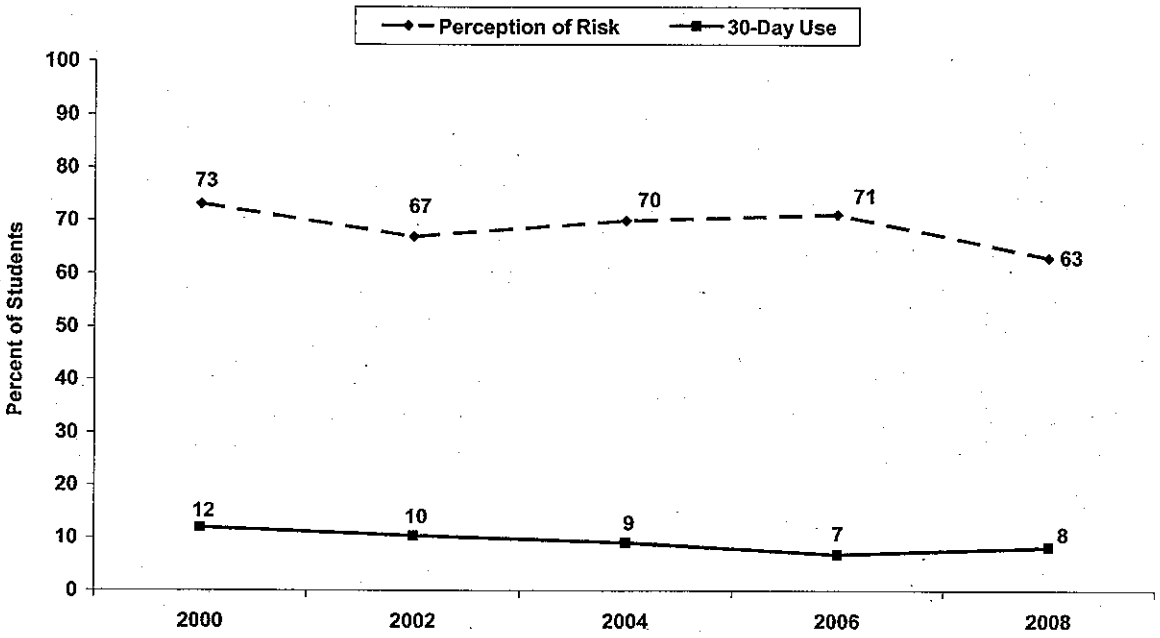
Note: Percentages represent students who reported there is great risk from regular marijuana use.

Source: WSSAHB 2000, HYS 2002, 2004, 2006 and 2008.

Relationship between Perceived Risk and Level of Marijuana Use

Figure 67 shows the association between the perceived risk of regular marijuana use and the prevalence of marijuana use in the past 30 days for Grade 8 students.

Figure 67
Perception of Great Risk and Marijuana Use,
Grade 8 from 2000–2008



Survey Questions:
- How much do you think people risk harming themselves if they: Smoke marijuana regularly (at least once or twice a week)?
- During the past 30 days, on how many days did you: Use marijuana or hashish (grass, hash, pot)?

Note: Percentages represent students who reported that there was great risk in smoking marijuana regularly and that they had used marijuana in the past 30 days.

Source: WSSAHB 2000, 2002, 2004, 2006 and 2008.

Other Drugs Not Including Alcohol, Tobacco, or Marijuana

The Healthy Youth Survey also tracks drugs that are less common than alcohol, tobacco, and marijuana. The drugs that are included in the survey can change over time. For instance, early surveys included prescription drugs, but they were eliminated as concerns about party drugs grew. Now prescription drugs are back on the survey. New drugs continually surface and young people rediscover older drugs, often because they are less aware of the adverse consequences of the drugs. This is the case with methamphetamine use.

Lifetime and 30-Day Other Drug Use (Not Including Alcohol, Tobacco, or Marijuana)

Figure 68 illustrates the percentage of Grade 6 students in 2008 who have ever tried other illegal drugs in their lifetime (see Appendix A, Item 19) and the percentage of Grade 8, 10 and 12 students in 2008 who used other illegal drugs (not including alcohol, tobacco or marijuana) in the past 30 days (see Appendix A, Item 30).

Lifetime: In 2008, 4 percent of Grade 6 students reported ever using other illegal drugs.

30 Day-Use: 3 percent of Grade 8 students, 7 percent of Grade 10 students, and 8 percent of Grade 12 students reported using other illegal drugs (not including alcohol, tobacco or marijuana) in the past 30 days.

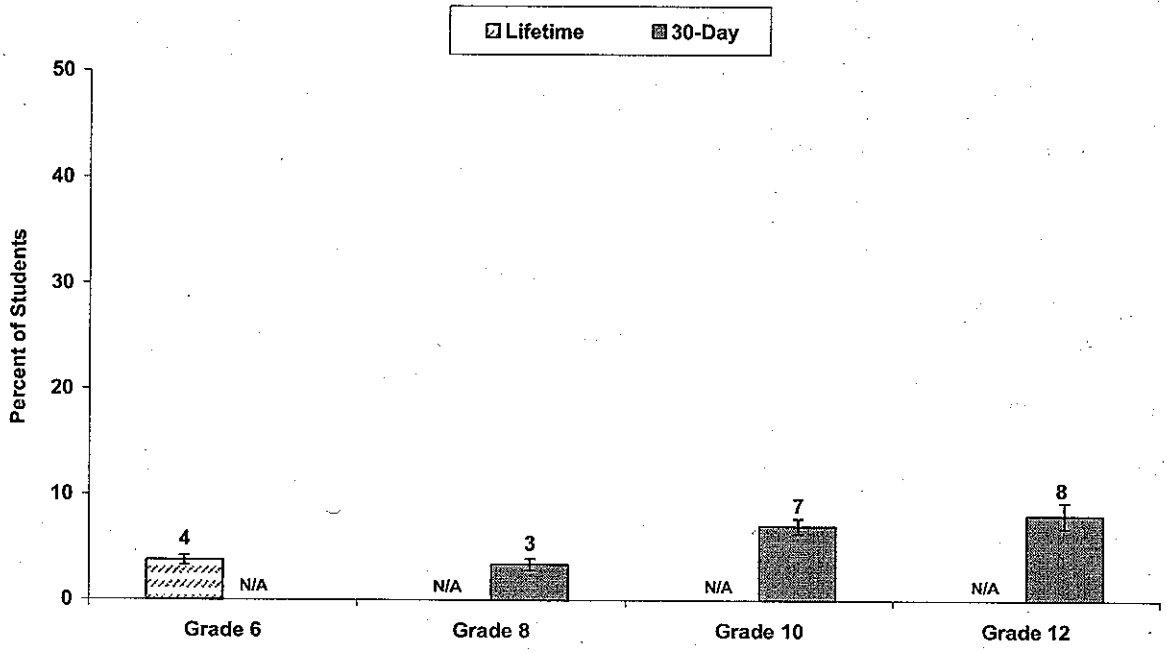
Differences by grade level:

- Grade 10 and 12 students were more likely than Grade 8 students to use other illegal drugs in the past 30 days.

Differences by gender:

- Grade 8, 10 and 12 males were more likely than males to use other illegal drugs in the past 30 days.
- There was no difference in lifetime other illegal drug use by gender among Grade 6 students.

Figure 68
Lifetime and 30-Day Other Drug Use (not Including Alcohol, Tobacco, or Marijuana), Grades 6, 8, 10, and 12 in 2008



Survey Questions:

- Have you ever, even once in your lifetime, used other illegal drugs?
- During the past 30 days, on how many days did you: not counting alcohol, tobacco, or marijuana, use another illegal drug?

Notes:

- Lifetime percentage represents Grade 6 students who had ever smoked an illegal drug during their life.
- 30-day percentages represent students who used other illegal drugs on any days in the past 30 days.

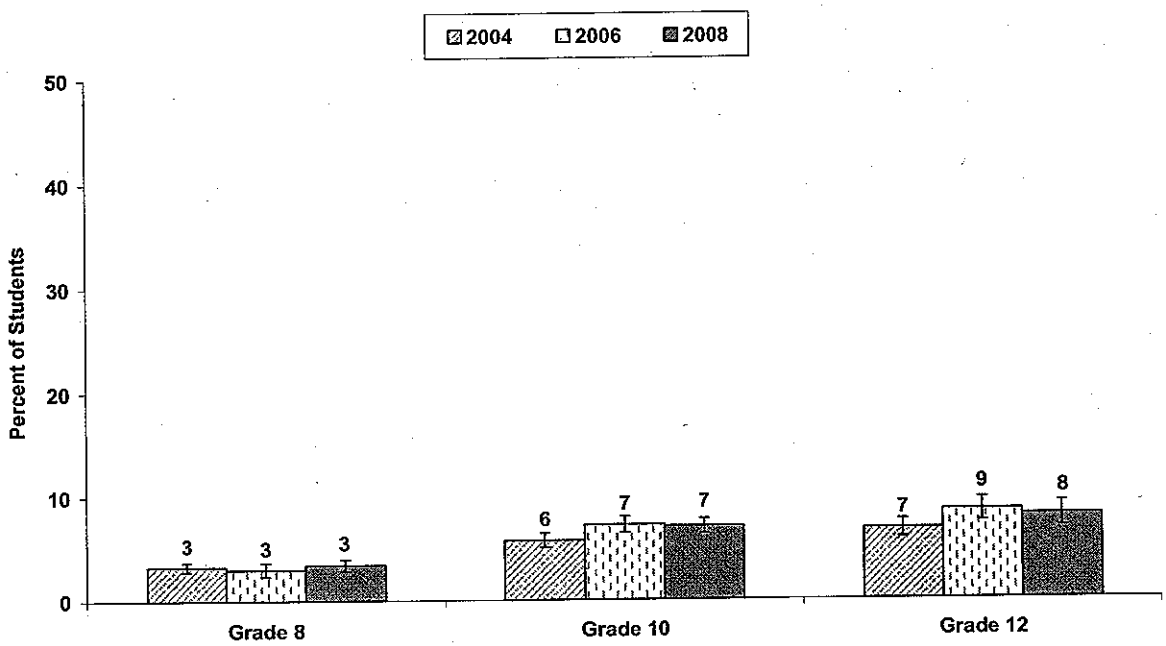
Source: HYS 2008.

Figure 69 illustrates the percentage of students who used other illegal drugs (not including alcohol, tobacco or marijuana) in the past 30 days from 2004 through 2008.

Differences over time:

- There were no differences from 2006 to 2008.

Figure 69
30-Day Other Drug Use (not Including Alcohol, Tobacco, or Marijuana), Grade 8, 10, and 12 from 2004–2008



Survey Question: During the past 30 days, on how many days did you: not counting alcohol, tobacco, or marijuana, use another illegal drug?

Note: 30-day percentages represent students who used other illegal drugs on any days in the past 30 days.

Source: HYS 2004, 2006 and 2008.

Methamphetamine Use

Figure 70 illustrates the percentage of students who ever used methamphetamines in the lifetime and students who used methamphetamines in the past 30 days as reported in 2008 (see Appendix A, Items 15 and 32).

Methamphetamine, a subclass of amphetamines, was at one time called "speed." During the past several years, media reports have sometimes referred to methamphetamine use as an epidemic. This reflects the environmental and familial consequences of methamphetamine production. Nationally, methamphetamine use has been declining, including most recently among young adults (Substance Abuse and Mental Health Services Administration 2009).

Methamphetamine use in the past 30 days was reported by 2 percent of Grade 8 students and 4 percent of Grade 10 and 12 students.

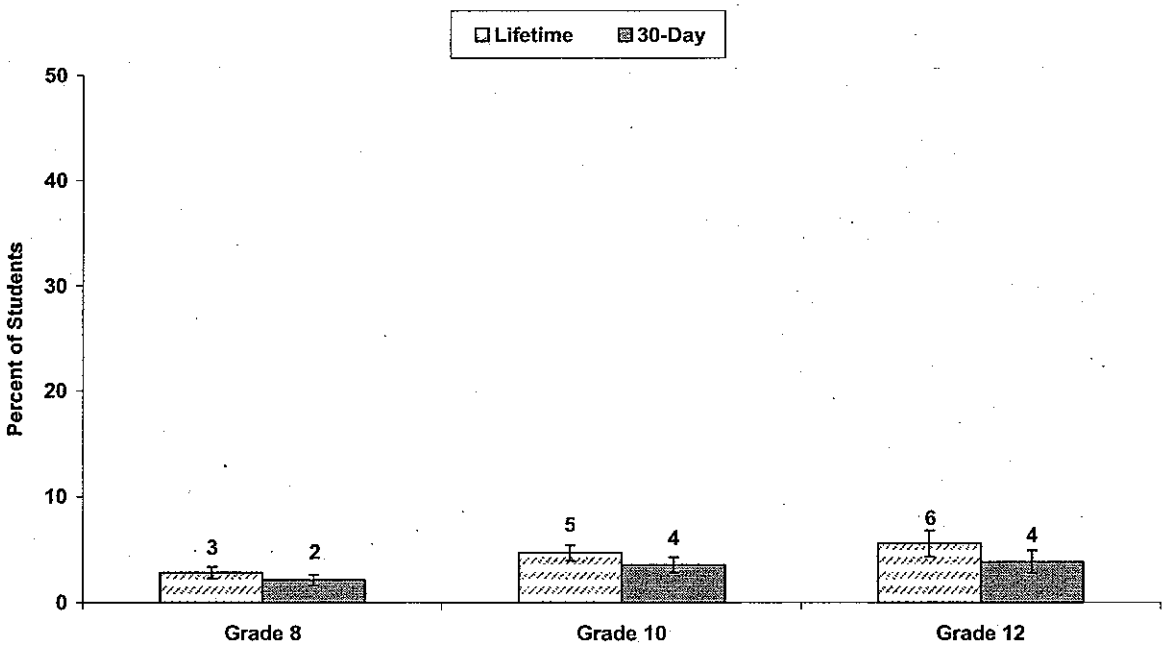
Differences by grade level:

- Grade 10 and 12 were more likely than Grade 8 students to ever use methamphetamines in their lifetime and to use methamphetamines in the past 30 days.

Differences by gender:

- Grade 8, 10 and 12 males were more likely than females to ever use methamphetamines in their lifetime and to use methamphetamines in the past 30 days.

Figure 70
Lifetime and 30-Day Methamphetamine Use,
Grades 8, 10, and 12 in 2008



Questions:

- How old were you the first time you used methamphetamines (meth, crystal meth, ice, crank)? Do not include other types of amphetamines.
- During the past 30 days, on how many days did you: Use methamphetamines (meth, crystal meth, ice, crank)? Do not include other types of amphetamines.

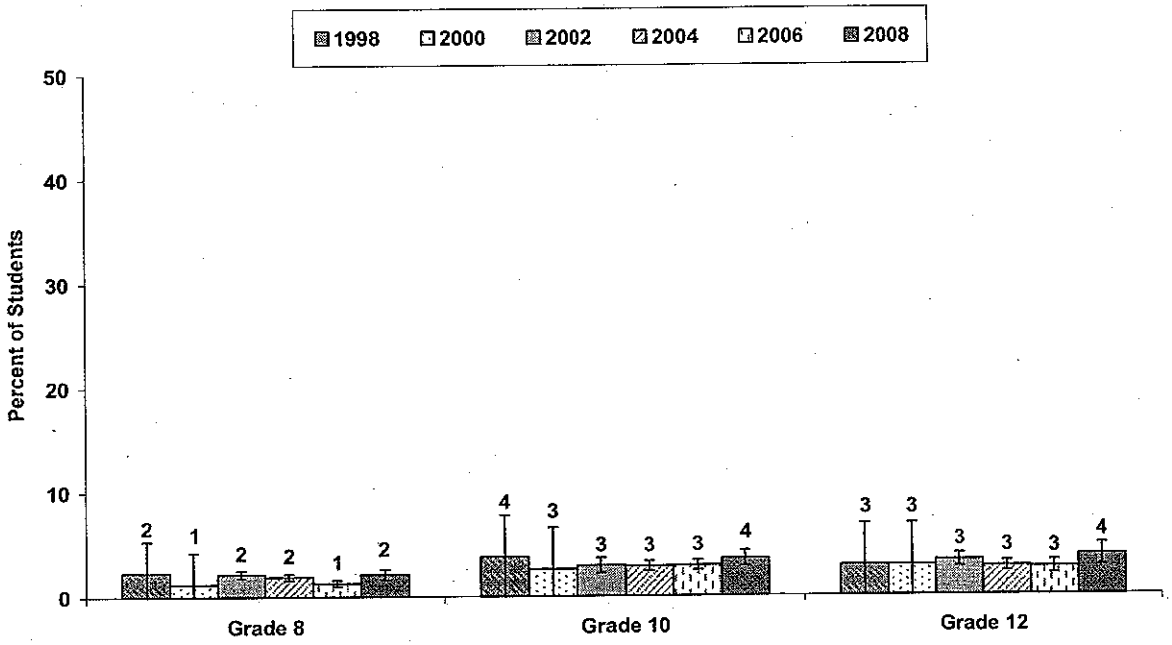
Source: HYS 2008

Figure 71 illustrates the percentage of students who used methamphetamines in the past 30 days from 1998 through 2008.

Differences over time:

- Comparing results from 2006 to 2008:
  - Among Grade 8 and 12 students, there were significant increases in methamphetamine use in the past 30 days.
- Comparing results over time:
  - There were no changes from 1998 through 2008.

Figure 71
30-Day Methamphetamine Use,
Grade 8, 10, and 12 from 1998–2008



Question: During the past 30 days, on how many days did you: Use methamphetamines (meth, crystal meth, ice, crank)? Do not include other types of amphetamines.

Note. 30-day percentages represent students who reported using methamphetamines (meth, crystal meth, ice, crank) on any days in the past 30 days.

Source: WSSAHB 1998 and 2000, HYS 2002, 2004, 2006 and 2008.

Inhalant Use

Figure 72 illustrates the percentage of students who ever used inhalants in their lifetime, and students who used inhalants in the past 30 days as reported in 2008 (see Appendix A, Items 17 and 33).

Inhalants are fumes or gases that can be inhaled for the purpose of getting high. Inhalants include common household products such as glue, gasoline, solvents such as nail polish remover, and propellants in certain products such as whipped cream dispensers.

Lifetime: In 2008, 3 percent of Grade 6 students, 6 percent of Grade 8 students, 9 percent of Grade 10 students, and 10 percent of Grade 12 students reported ever using inhalants.

30 Day Use: In 2008, 6 percent of Grade 8 students, 6 percent of Grade 10 students, and 5 percent of Grade 12 students reported inhalant use in the past 30 days.

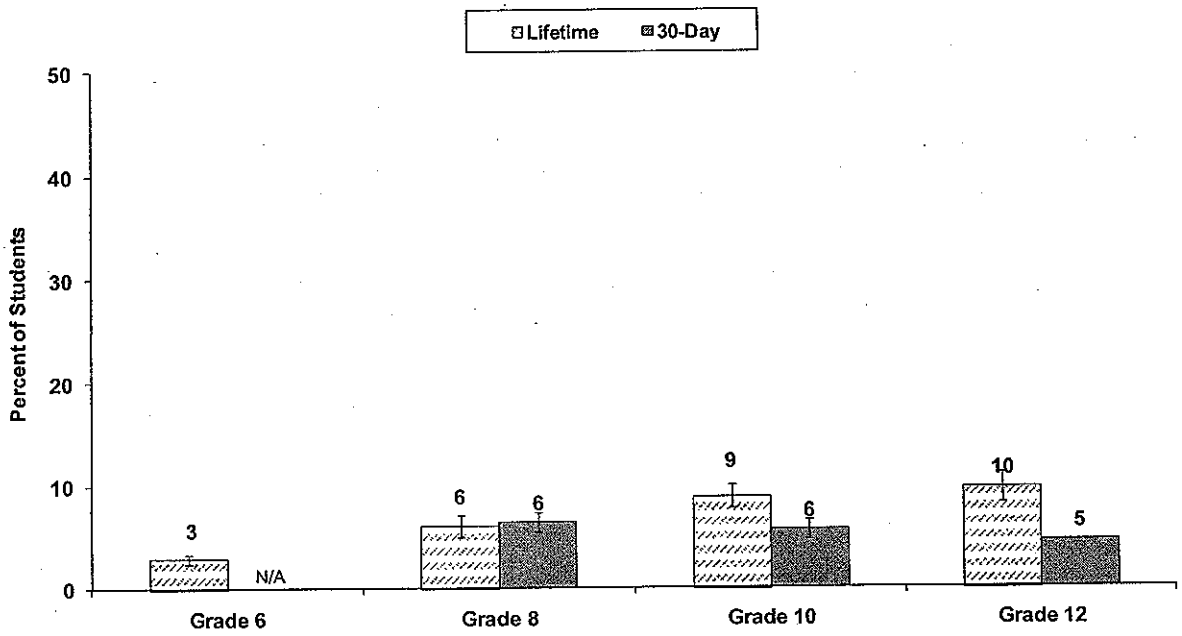
Differences by grade level:

- Grade 8, 10, and 12 students were more likely than Grade 6 students to have ever used inhalants in their lifetime.
- Grade 10 and 12 students were more likely than Grade 8 students to have ever used inhalants in their lifetime.
- Grade 8 students were more likely than Grade 12 students to use inhalants in the past 30 days.

Differences by gender:

- Among Grade 12 students, males were more likely than females to use inhalants in their lifetime.
- Among Grade 8 students, females were more likely than males to use inhalants in the past 30 days.

Figure 72
Lifetime and 30-Day Inhalant Use,
Grades 6, 8, 10, and 12 in 2008



Questions:

- How old were you the first time you: Used inhalants?
- Have you ever, even once in your lifetime, used inhalants (things you sniff to get high)?
- During the past 30 days, on how many days did you: Use inhalants (things you sniff to get high?

Notes:

- Lifetime percentage represents students who had ever used inhalants at any age in their life (Grades 8, 10 and 12) or had ever used inhalants once in the life (Grade 6).
- 30-day percentages represent students who used inhalants on any days in the past 30 days.

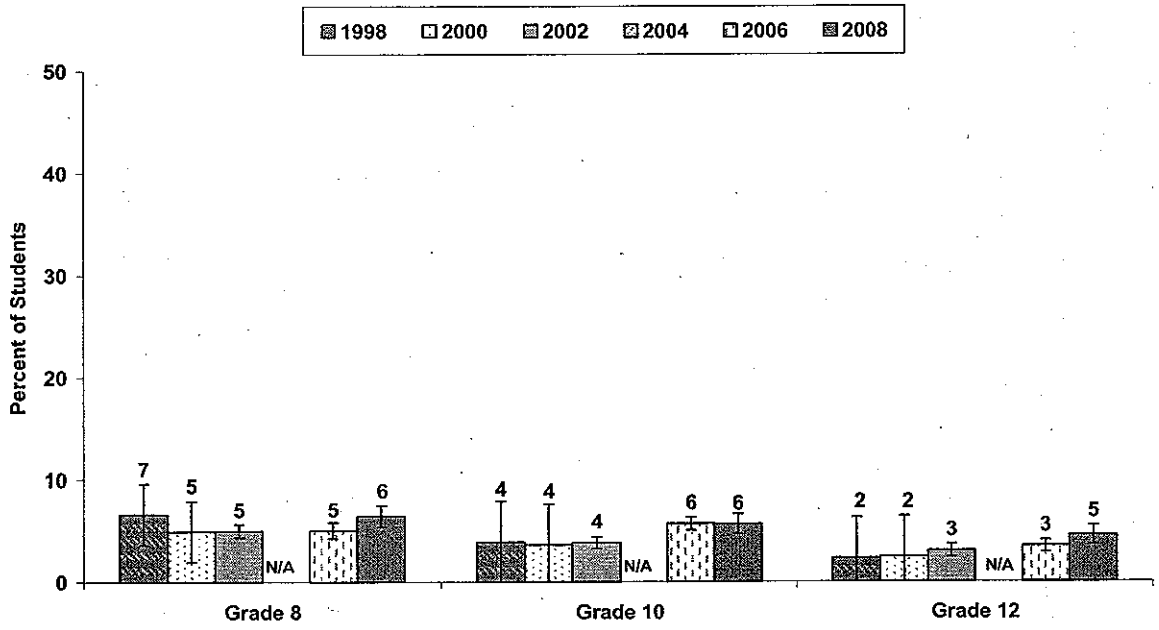
Source: HYS 2008.

Figure 73 illustrates the percentage of students who used inhalants in the past 30 days from 1998 through 2008.

Differences over time:

- Comparing results from 2006 to 2008:
  - Among Grade 8 students, there was a significant increase in 30-day inhalant use.
- Comparing results over time:
  - Among Grade 10 students, there was a significant increase in 30-day inhalant use from 1998 through 2008.

Figure 73
30-Day Inhalant Use,
Grade 8, 10, and 12 from 1998–2008



Question: During the past 30 days, on how many days did you: Use inhalants (things you sniff to get high)?

Note. Percentages represent students who reported that they used inhalants on any days in the past 30 days.

Source: WSSAHB 1998 and 2000, HYS 2002, 2006 and 2008.

Painkiller Use

Figure 74 illustrates the percentage of students who used painkillers "to get high" in the past 30 days in 2006 and 2008.

Awareness and concern are growing regarding the many types of prescription drugs that youth use to get high. HYS 2006 and 2008 included a new question about specific narcotics or painkillers, a class of drugs that is both common and dangerous. The 2008 survey also asked a question about where or how youth obtain prescription painkillers.

Use of painkillers to get high in the past 30 days was reported by 4 percent of Grade 8 students, 10 percent of Grade 10 students, and 12 percent of Grade 12 students (see Appendix A, Item 35).

Differences by grade level:

- Among Grade 8, 10 and 12 students, as grade levels increase, each grade was more likely to use painkillers to get high in the past 30 days.

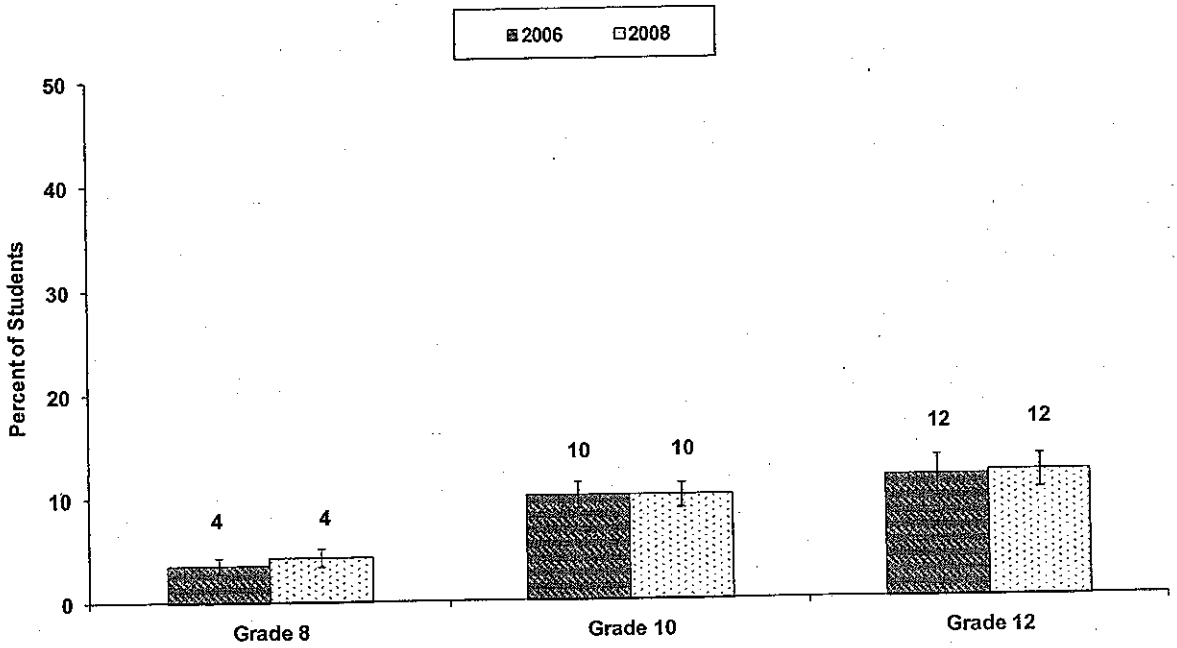
Differences by gender:

- Grade 12 males were more likely than females to use painkillers to get high in the past 30 days.

Differences over time:

- There were no differences from 2006 to 2008.

Figure 74
30-Day Painkiller Use,
Grade 8, 10, and 12 from 2006–2008



Question: During the past 30 days, on how many days did you: Use a pain killer to get high, like Vicodin, OxyContin (sometimes called Oxy or OC) or Percocet (sometimes called Percs)?

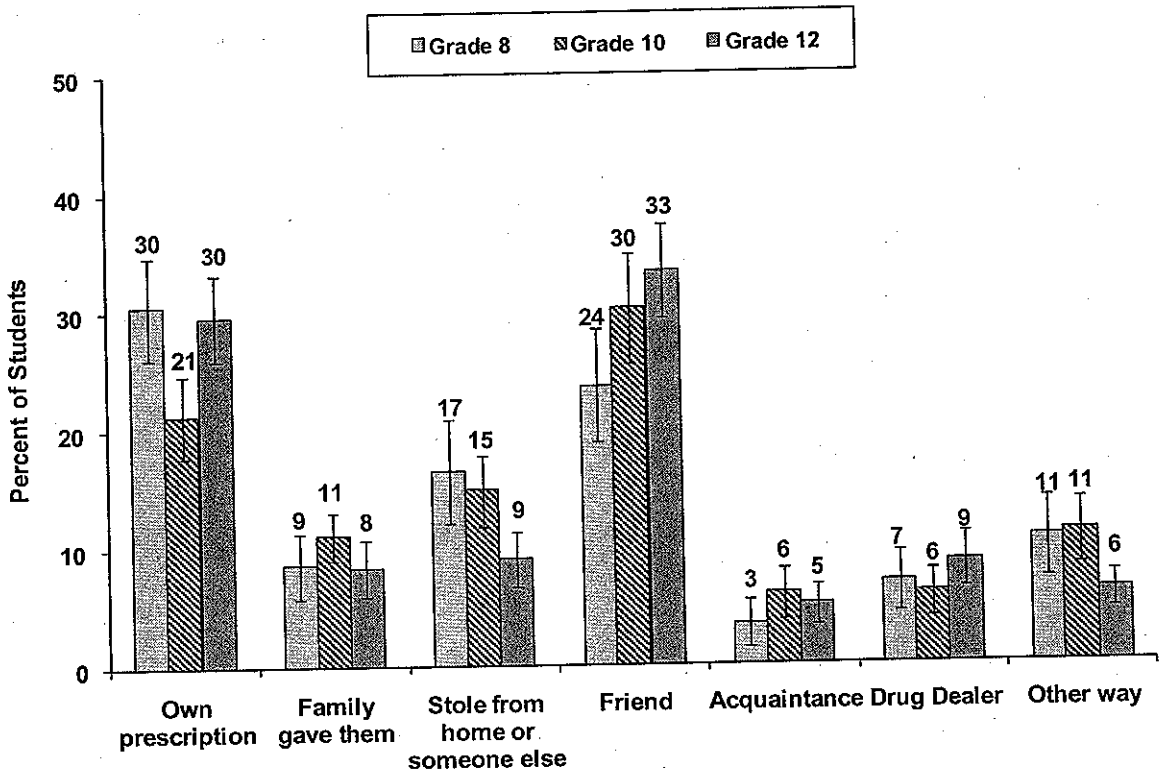
Note. Percentages represent students who reported using painkillers to get high on any days in the past 30 days.

Source: HYS 2006 and 2008.

Usual Sources of Painkillers

Figure 75 illustrates how students who ever used painkiller to get high usually got them in 2008 (see Appendix A, Item 56).

Figure 75
Usual Sources Of Painkillers To Get High Among Ever Users, Grades 8, 10, and 12 in 2008



Question: If you have EVER used pain killers to get high, where did you usually get them? (Choose only one answer.)

Notes:
- Proportions represent students who ever used painkillers to get high and where they usually got them.
- Students who reported that they "did not use pain killers to get high" were not included in the results.
- The sample sizes for this figure are 351 for Grade 8; 537 for Grade 10; and 577 for Grade 12.

Source: HYS 2008.

Ritalin Use (Without Doctor's Orders)

Figure 76 illustrates the percentage of students who used Ritalin without a doctor's order in the past 30 days as reported from 2004 through 2008.

Ritalin is the brand name of the stimulant methylphenidate, which is commonly prescribed for children with attention deficit disorders. Though controversial, the drug is relatively inexpensive and easily available. Ritalin is used by some youth for effects that are similar to those of cocaine and amphetamines.

Use of Ritalin without a doctor's orders in the past 30 days use was reported by 3 percent of Grade 8 students, 5 percent of Grade 10 students, and 5 percent of Grade 12 students (see Appendix A, Item 34).

Differences by grade level:

- Grade 10 and 12 students were more likely than students in Grade 8 to report using Ritalin without a doctor's orders in the past 30 days.

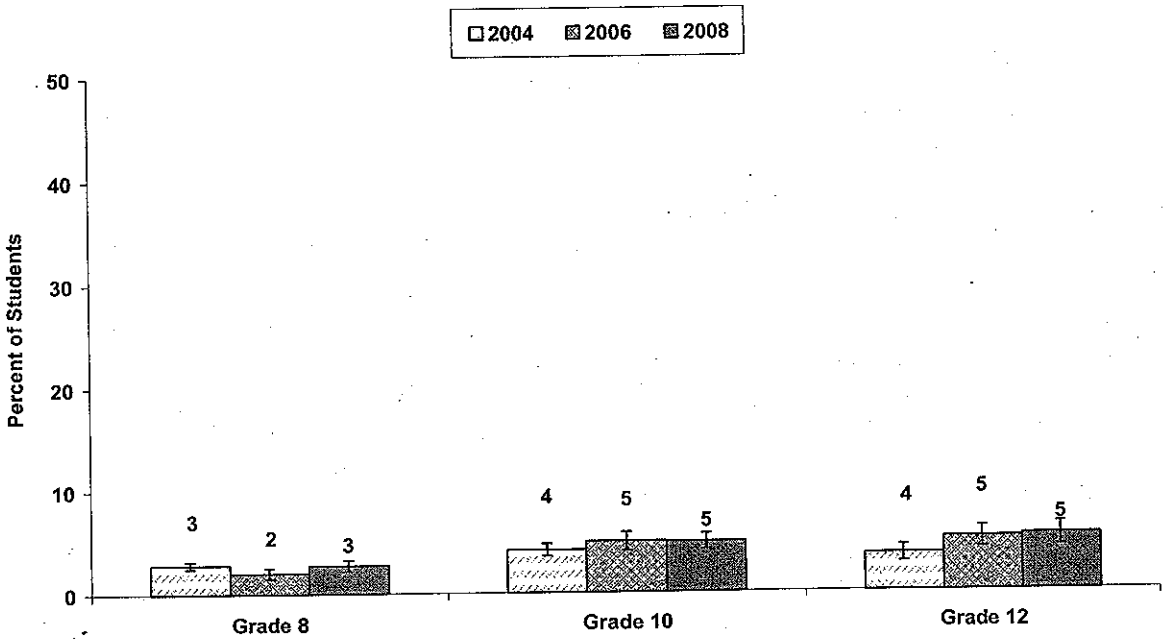
Differences by gender:

- Grade 8 and 12 males were more likely than females to use Ritalin without a doctor's orders in the past 30 days.

Differences over time:

- There were no differences from 2006 to 2008.

Figure 76
30-Day Ritalin Use (Without Doctor's Orders), Grade 8, 10, and 12 from 2004–2008



Question: During the past 30 days, on how many days did you: use Ritalin without a doctor's orders?

Note: Percentages represent students who reported using Ritalin on any days in the past 30 days.

Source: HYS 2004, 2006 and 2008.

9. Risk and Protective Factors

This chapter covers a broad set of questions about health behaviors and the risk factors and protective factors associated with them. Risk factors are characteristics of individuals and their families, schools, and communities that make them more vulnerable to ill health and poor lifestyle choices. Similarly, protective factors exert a positive influence or buffer against the negative influence of risk in these social environments. The Healthy Youth Survey includes many questions directly related to health, but most of the risk and protective factors measured in the survey are associated with behaviors such as substance use, violence, and staying in school. The presence of multiple risk factors predicts an increased likelihood that an individual will engage in these behaviors, whereas the presence of protective factors helps to buffer the effect of risk factors and increase resilience.

Research over several decades has identified risk factors that are associated with increased likelihood of health risk behaviors including alcohol, tobacco, and other drug abuse (Dryfoos, 1991; Hawkins et al., 1992; Kandel, Daview, Karus, and Yamagucchi, 1986); violence and delinquent behaviors (Bensley, Spieker, VanEenwyk, and Schoder, 1999; Brewer, Hawkins, Catalano, and Neckerman, 1995; Herrenkohl, Chung, and Catalano, 2004; Wasserman et al., 2003); and driving after drinking (Sabel, Bensley, and VanEenwyk, 2004).

Another body of research has focused on young people's ability to overcome the odds that challenge them (Werner and Smith, 1989) and to succeed in spite of a preponderance of risk in their environments. Benard (1991) summarized this literature on protective factors, citing the longitudinal research of Werner and Smith and Rutter (1979) in the formulation of a construct termed *resilience*. Resnick et al. (1997) found that parent-family connectedness and perceived school connectedness were protective against every health risk behavior measured in their study except history of pregnancy. Parental expectations regarding school achievement and school connectedness were also associated with lower levels of health risk behaviors (except in the case of suicide, in which only parent-family connectedness was protective).

Using these multiple strands of research, Hawkins and Catalano at the University of Washington's Social Development Research Group developed a theoretical framework based on a model of social development which hypothesizes that strong bonds serve as protective factors against behaviors that violate socially accepted standards. Attachment (a positive emotional link) and commitment (a personal investment) are the components of the social bond. The theory hypothesizes that when social groups produce strong bonds of attachment and commitment in members and promote clear standards for behavior, these groups increase behavior consistent with those standards and prevent behavior that violates them (Hawkins, Guo, Hill, Battin-Pearson, and Abbott, 2001).

By addressing risk and protective factors, families, schools, and communities can help promote positive social development. Early and sustained intervention through the elementary grades should put children on a developmental trajectory leading to more positive outcomes and fewer problem behaviors over the long term. These risk and protective factors represent promising inputs for prevention and intervention programs and policies.

The data presented in this chapter represent Washington State as a whole. The level of these indicators of risk and protection likely vary by community. Communities can compare community-level data to state-level data—and to county-level data where available—to determine which risk and protective factors are priorities for their communities to address. Communities can then implement prevention interventions for specific populations or geographical areas where risk exposure is high and protection is low.

The 1995, 1998, 2000, 2002, 2004, 2006, and 2008 survey administrations in Washington included substantial coverage of risk and protective factors using standardized assessment tools developed by the Social Development Research Group (Arthur et al.,1998; Arthur, Hawkins, Pollard, Catalano, and Baglioni, 2002) and published in their Communities That Care survey. These risk and protective factors are organized into four domains of influence: community, family, school, and peer-individual. HYS 2008 assessed six risk factors among students in Grade 6 and 16 risk factors (one of which was optional) among students in Grades 8, 10, and 12 (see Table 15).

More information on the risk and protective Factors used in the HYS is available at: http://www.hys.wa.gov/Reporting/RPHistory.pdf

Table 15
Risk Factors Included In 2008

Domain	Risk Factor
Community	Laws and norms favorable toward drug use[a]
	Perceived availability of drugs[a]
	Perceived availability of handguns
	Low neighborhood attachment
School	Academic failure[a]
	Low commitment to school[a]
Peer-Individual	Early initiation of drug use
	Early initiation of antisocial behavior
	Favorable attitudes toward antisocial behavior
	Favorable attitudes toward drug use[a]
	Perceived risk of drug use[a]
	Friends' use of drugs
	Rewards for antisocial involvement
	Intentions to use
	Interactions with antisocial peers
Family	Poor family management

Note. Because the family domain was measured on an optional page on HYS 2008, not all of the participating schools asked these questions and the number of students who answered the questions in this domain was smaller than the numbers of respondents for the other domains. Thus the results for the family domain are not included in this report.
[a] Included on the Grade 6 version of the survey.

The HYS 2008 administration also assessed six protective factors among students in Grade 6 and 10 protective factors among students in Grades 8, 10, and 12 (see Table 16). Again, the results for the optional family domain are not included in this report.

Table 16
Protective Factors Included In 2008

Domain	Protective Factor
Community	Opportunities for prosocial involvement
	Rewards for prosocial involvement [a]
School	Opportunities for prosocial involvement
	Rewards for prosocial involvement [a]
Peer-Individual	Social skills
	Belief in the moral order
	Interaction with prosocial peers [a]
	Prosocial involvement [a]
Family	Opportunities for prosocial involvement [a]
	Rewards for prosocial involvement [a]

Note. Because the family domain was measured on an optional page on HYS 2008, not all of the participating schools asked these questions and the number of students who answered the questions in this domain was smaller than the numbers of respondents for the other domains. Thus the results for the family domain are not included in this report.
[a] Included on the Grade 6 version of the survey.

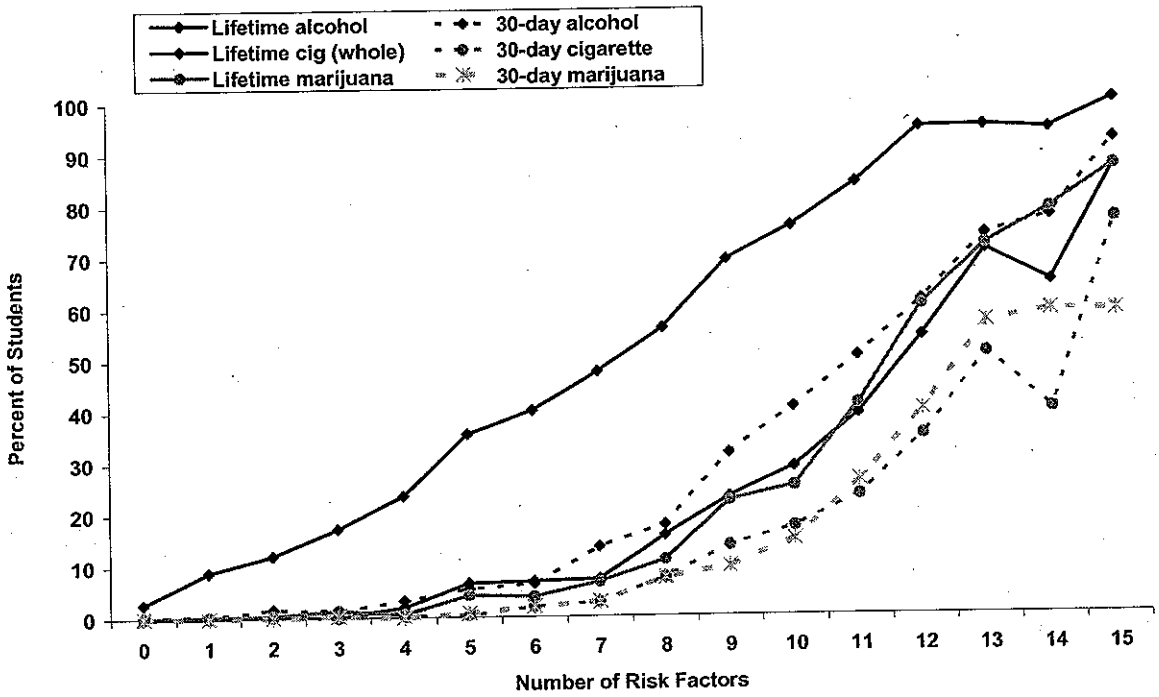
This chapter presents HYS 2008 results for the assessment of risk and protection at each grade level in the community, school, and peer-individual domains. The relationships between risk and protective factors and the major health risk behaviors of substance use and violent and delinquent behavior are also presented. Readers should remember that all results are based on student self-report and therefore represent perceptions of risk and protection, which might not be accurate. Furthermore, the statistical relationships between risk and protective factors and health risk behaviors are not necessarily causal. Rather, the statistical relationships indicate an association or co-occurrence of these factors and behaviors. Both the risk factor and the behavior may be associated with a third factor such as poverty or other factors that were not addressed in this study. Similarly, some apparent relationships may be confounded with age.

Each risk and protective factor scale is calculated as the average score of the students' responses to one or more questions. Students whose scores placed them above a cut point, determined by the Social Development Research Group's research, were considered at risk on a given risk factor or resilient on a given protective factor.

Research has also suggested a cumulative effect in the influence of risk and protection on these health risk behaviors (Bry, McKeon, and Pandina, 1982; Newcomb, Maddahian, and Skager, 1987; Werner and Smith, 1989). In addition to examining the specific influence of a given risk or protective factor, examining the relationship between multiple risk or protective factors and these behaviors is important. This examination helps illustrate whether students who are at high risk on more risk factors are more likely to engage in health risk behaviors than students who are at high risk on fewer factors. An examination of the relationship between multiple risk or protective factors and health risk behaviors also helps show whether students who are well protected are less likely to engage in these behaviors than students who are less protected.

Figure 77 displays the relationship between the number of risk factors present and the use of alcohol, cigarettes, and marijuana for students in Grade 8. Perhaps the most obvious interpretation is the clear, linear relationship between the number of risk factors present and the prevalence of lifetime and 30-day alcohol, cigarette, and marijuana use. As the number of risk factors for individual students increased, the more likely they were to use alcohol, cigarettes and marijuana. These findings are consistent with the findings from the 1995, 1998, 2000, 2002, 2004 and 2006 survey administrations.

Figure 77
Relationship Between Substance Use And Number Of Risk Factors, Grade 8 in 2008

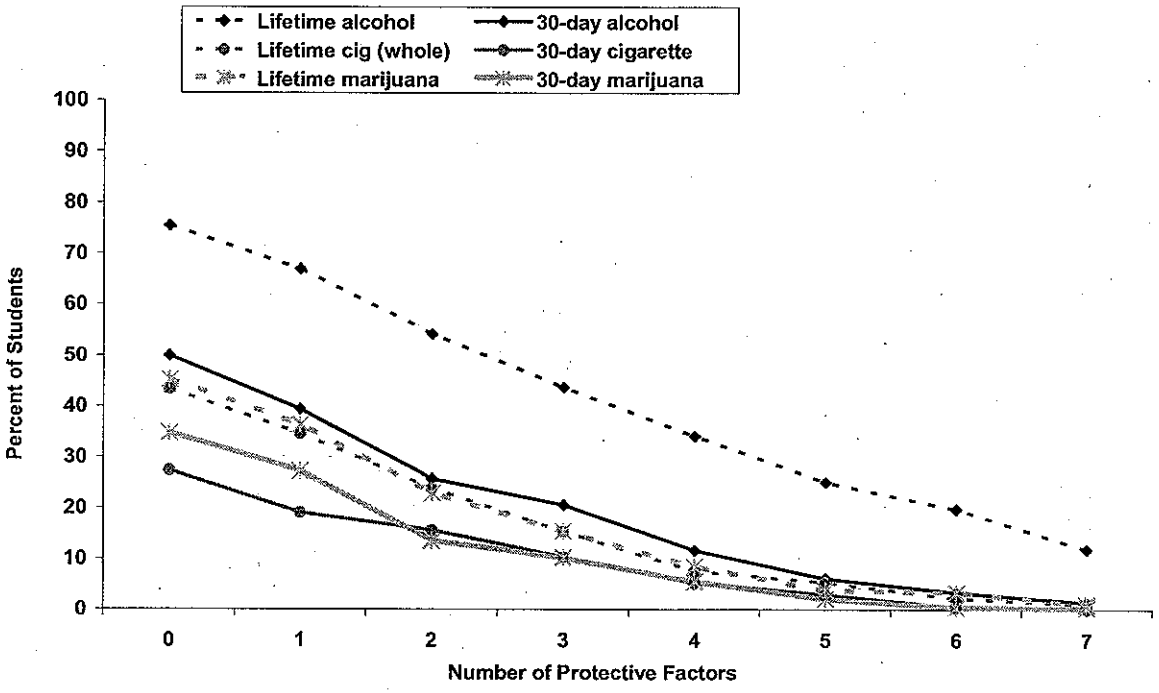


Note: Percentages represent students who reported using alcohol, cigarettes, or marijuana in their lifetime or in the past 30 days according to each number or risk factors (0 through 15).

Source: HYS 2008.

Figure 78 is a similar display relating the presence of protective factors to the use of alcohol, cigarettes, and marijuana. Again, the overall relationship is strong: increased levels of protection were clearly associated with lower rates of alcohol, cigarette, and marijuana use. Protective factors have also been found to have a buffering effect on the presence of risk factors (DeWit, Silverman, Goodstadt, and Stoduto, 1995; Gabriel, Deck, Einspruch, and Nickel, 1997; Jessor, Van den Bos, Vanderryn, Costa, and Trubin, 1995).

Figure 78
Relationship Between Substance Use And Number Of Protective Factors, Grade 8 in 2008



Note: Percentages represent students who reported using alcohol, cigarettes, or marijuana in their lifetime or in the past 30 days according to each number or protective factors (0 through 7).

Source: HYS 2008.

Community Domain: Risk Factors

HYS 2008 assessed four risk factors in the community domain (only the second and third of these were measured by the Grade 6 survey, which is shorter):

- *Low neighborhood attachment.* Students who do not feel a part of the neighborhood in which they live and feel that what they do there does not make a difference in their lives are at higher risk for crime and substance abuse.
- *Laws and norms favorable toward drug use.* The policies a community holds in relation to health and problem behaviors are communicated through laws, social practices, and expectations, and are related to use.
- *Perceived availability of drugs.* Perceptions of the availability of alcohol and other drugs have been shown to predict use of these substances.
- *Perceived availability of handguns.* Perceptions of the availability of handguns may be related to the use of handguns.

Table 17 details the percentages of students at risk on the scales in the community domain. The only significant difference from 2006 to 2008 was an increase in the percentage of Grade 8 students at risk on the perceived availability of drugs.

Table 17
Profile of Community Risk Factors,
Grades 6, 8, 10, and 12 from 2000–2008

	Percent of Students Who Reported Risk																			
Risk Factor	**Grade 6**					**Grade 8**					**Grade 10**					**Grade 12**				
	2000	**2002**	**2004**	**2006**	**2008**	**2000**	**2002**	**2004**	**2006**	**2008**	**2000**	**2002**	**2004**	**2006**	**2008**	**2000**	**2002**	**2004**	**2006**	**2008**
Low neighbor-hood attachment	48.6	–	–	–	–	35.0	41.1	–	36.6	34.5	43.8	45.0	–	47.9	44.8	48.2	46.9	–	50.2	53.3
Laws and norms favorable toward drug use	37.5	37.1	37.1	37.0	35.9	33.3	33.0	29.8	28.2	28.3	44.1	38.7	40.1	39.1	36.7	42.3	39.3	37.3	35.8	34.4
Perceived availability of drugs	26.8	23.6	**22.5[a]**	**24.6[c]**	23.5	34.9	29.3	23.0	20.9	**24.8[d]**	48.8	35.5	31.8	32.7	34.2	55.9	45.2	40.5	38.1	39.4
Perceived availability of handguns	22.7	–	–	–	–	35.7	36.4	34.4	31.6	34.9	25.3	21.9	21.0	21.5	20.7	32.6	26.2	26.6	25.5	24.4
Transitions and mobility	–	–	–	–	–	–	–	50.5	–	–	–	–	57.7	–	–	–	–	50.3	–	–

Note: Percentages represent students at risk based upon their risk factor scale scores.
Dashes (–) indicate that the risk factor was not included in the survey that year.

Changes that are statistically significant at the 95 percent confidence level are bolded.
[a] Statistically significant change from 2000 to 2004. [b] Statistically significant change from 2002 to 2004.
[c] Statistically significant change from 2004 to 2006. [d] Statistically significant change from 2006 to 2008.
[x] Items in the risk or protective factor changed over time; the result is not comparable.

Community Domain: Protective Factors

There are two community protective factor scales. Only rewards for prosocial involvement was measured on the Grade 6 survey.

- *Opportunities for prosocial involvement.* Youth need opportunities to participate meaningfully in activities in the community (in 2002 the items in this scale were modified for the Healthy Youth Survey and are therefore different than those used by the Social Development Research Group).
- *Rewards for prosocial involvement.* Youth need rewards for positive participation in prosocial activities.

Table 18 details the percentages of students resilient on the protective factor scales in the community domain. The only significant differences from 2006 to 2008 were increases in the percentage of Grade 10 and Grade 12 students resilient on the factor rewards for prosocial involvement.

Table 18
Profile of Community Protective Factors,
Grades 6, 8, 10, and 12 from 2000–2008

	Percent of Students Who Reported Protective Factors																			
Protective Factor	Grade 6					Grade 8					Grade 10					Grade 12				
	2000	2002	2004	2006	2008	2000	2002	2004	2006	2008	2000	2002	2004	2006	2008	2000	2002	2004	2006	2008
Opportunities for prosocial involvement	42.4	25.8	–	–	–	56.5	50.7	72.3	69.2	66.6	48.9	46.6	72.4	**66.1**[c]	69.2	47.1	42.7	70.9	69.3	71.3
Rewards for prosocial involvement	67.4	48.0	**38.6**[a,b]	37.9	36.4	52.6	54.9	56.6	54.0	54.0	55.7	60.3	60.4	**56.2**[c]	**62.2**[d]	51.5	55.1	56.6	56.8	**62.0**[d]

Note: Percentages represent students at protected based upon their protective factor scale scores.
Dashes (–) indicate that the risk factor was not included in the survey that year.

Changes that are statistically significant at the 95 percent confidence level are bolded.
[a] Statistically significant change from 2000 to 2004. [b] Statistically significant change from 2002 to 2004.
[c] Statistically significant change from 2004 to 2006. [d] Statistically significant change from 2006 to 2008.
[x] Items in the protective factor changed over time; the result is not comparable.

School Domain: Risk Factors

HYS 2008 included two risk factors in the school domain. Readers should note that the items used to create the low commitment to school risk factor changed slightly in 2002. Although analyses conducted by the Social Development Research Group indicate that the revised scale is comparable to the scales used prior to 2002, readers should use caution in comparing the results on this risk factor with the results from 2000.

- *Academic failure.* Children fail in school for many reasons, but research indicates that the very experience of failure—regardless of whether the failure is linked to the students' abilities—places them at higher risk for negative behavior.
- *Low commitment to school.* When young people cease to see the school role as viable, they are at higher risk of engaging in the health risk behaviors.

Table 19 details the percentages of students at risk on factors in the school domain. The only significant differences from 2006 to 2008 was a decrease in the percentage of Grade 6 students at risk on the factor low commitment to school.

Table 19
Profile of School Risk Factors,
Grades 6, 8, 10, and 12 from 2000–2008

	Percent of Students Who Reported Risk																			
Risk Factor	Grade 6					Grade 8					Grade 10					Grade 12				
	2000	2002	2004	2006	2008	2000	2002	2004	2006	2008	2000	2002	2004	2006	2008	2000	2002	2004	2006	2008
Academic failure	39.9	41.2	40.6	41.5	42.4	41.4	47.3	48.2	45.9	47.5	38.2	46.8	47.2	**50.6**[c]	48.2	41.3	48.5	46.6	50.1	51.4
Low commitment to school	35.2	40.5	44.4	**52.0**[c]	**43.0**[d]	39.4	34.4	37.1	36.2	38.6	42.5	37.3	40.7	39.9	38.2	47.3	37.6	42.2	40.8	41.4

Note: Percentages represent students at risk based upon their risk factor scale scores.
Dashes (–) indicate that the risk factor was not included in the survey that year.

Changes that are statistically significant at the 95 percent confidence level are bolded.
[a] Statistically significant change from 2000 to 2004.
[b] Statistically significant change from 2002 to 2004.
[c] Statistically significant change from 2004 to 2006.
[d] Statistically significant change from 2006 to 2008.
[x] Items in the risk or protective factor changed over time; the result is not comparable.

School Domain: Protective Factors

Two school domain protective factors were assessed for Grades 8, 10, and 12; only rewards for prosocial involvement was included on the Grade 6 survey.

- *Opportunities for prosocial involvement.* When young people are given more opportunities to participate meaningfully in important activities at school, they are less likely to engage in problem behaviors.
- *Rewards for prosocial involvement.* When young people are recognized and rewarded for their contributions at school, they are less likely to be involved in health risk behaviors.

Table 20 shows the percentages of students resilient on the protective factors in the school domain. There were significant differences from 2006 to 2008 in both school domain protective factors. In both Grade 6 and Grade 8 there was a decline in the protective factor rewards for prosocial involvement. In Grade 8 there was a decline in the protective factor opportunities for prosocial involvement.

Table 20
Profile of School Protective Factors,
Grades 6, 8, 10, and 12 from 2000–2008

	Percent of Students Who Reported Protective Factors																			
Protective Factor	**Grade 6**					**Grade 8**					**Grade 10**					**Grade 12**				
	2000	**2002**	**2004**	**2006**	**2008**	**2000**	**2002**	**2004**	**2006**	**2008**	**2000**	**2002**	**2004**	**2006**	**2008**	**2000**	**2002**	**2004**	**2006**	**2008**
Opportunities for prosocial involvement	59.2	–	–	–	–	60.5	62.6	62.2	64.0	**59.8**[d]	57.4	59.6	58.5	57.7	59.0	57.7	63.5	61.2	61.6	60.7
Rewards for prosocial involvement	60.1	50.5	52.3	52.8	**49.8**[d]	52.8	52.1	53.4	56.5	**53.1**[d]	59.3	61.4	61.2	61.1	63.5	45.0	45.8	44.6	45.4	46.8

Note: Percentages represent students protected based upon their protective factor scale scores.
Dashes (–) indicate that the risk factor was not included in the survey that year.

Changes that are statistically significant at the 95 percent confidence level are bolded.
[a] Statistically significant change from 2000 to 2004. [b] Statistically significant change from 2002 to 2004.
[c] Statistically significant change from 2004 to 2006. [d] Statistically significant change from 2006 to 2008.
[x] Items in the protective factor changed over time; the result is not comparable.

Peer-Individual Domain: Risk Factors

HYS 2008 assessed nine risk factors in the peer-individual domain; only two of these factors were included on the Grade 6 survey: favorable attitudes toward drug use, and perceived risk of drug use

- *Early initiation of drug use.* Research shows that the earlier an individual begins using alcohol, tobacco, and other drugs, the more likely he or she is to develop drug use problems as an adult.
- *Early initiation of problem behavior.* Research shows that the earlier an individual begins engaging in delinquent and violent behavior, the more likely he or she is to develop delinquent or violent behavior problems in adolescence.
- *Favorable attitudes toward antisocial behavior.* Young people who accept or condone antisocial behavior are more likely to engage in health risk behaviors.
- *Favorable attitudes toward drug use.* Young people who have positive or accepting attitudes toward drug use are more likely to engage in a variety of health risk behaviors.
- *Perceived risk of use.* Young people who do not perceive a risk in using alcohol, tobacco, and other drugs are at higher risk of engaging in substance use.
- *Friends' use of drugs.* Young people whose friends use drugs are more likely to engage in health risk behaviors.
- *Rewards for antisocial involvement.* Young people who believe that they are favorably perceived as a result of engaging in antisocial behavior are more likely to engage in that behavior.
- *Intentions to use.* Young people who intend to use alcohol or other drugs as an adult are more likely to do so as they become older.
- *Interaction with antisocial peers.* Young people who interact with antisocial peers are more likely to engage in antisocial behaviors.

Table 21 details the risk factor results in the peer-individual domain. There are only two significant differences from 2006 to 2008. Among Grade 8 students there was an increase in the percentage of students at risk on the factor intention to use. Among Grade 12 students there was a significant decrease in the percent of students at risk on the factor rewards for antisocial involvement.

Table 21
Profile of Peer-Individual Risk Factors, Grades 6, 8, 10, and 12 from 2000–2008

Percent of Students Who Reported Risk

Risk Factor	Grade 6					Grade 8					Grade 10					Grade 12				
	2000	2002	2004	2006	2008	2000	2002	2004	2006	2008	2000	2002	2004	2006	2008	2000	2002	2004	2006	2008
Early initiation of drug use	27.1	–	–	–	–	44.8	27.4	24.6	**19.8**[c]	20.8	45.5	32.5	29.2	31.4	29.3	48.7	37.5	33.0	32.9	32.3
Early initiation of antisocial behavior	18.0	–	–	–	–	28.9	33.3	32.9	30.6	33.9	31.8	36.7	35.4	39.4	41.4	33.4	38.1	35.2	**39.4**[c]	41.3
Favorable attitudes toward antisocial behavior	32.3	–	–	–	–	36.6	32.6	33.3	31.2	34.8	43.4	39.3	41.0	**44.7**[c]	45.9	41.9	43.4	41.8	42.5	42.5
Favorable attitudes toward drug use	23.5	22.6	22.2	21.4	20.9	34.4	27.8	27.2	**22.9**[c]	24.8	45.4	37.6	35.0	37.2	37.2	47.1	40.8	36.7	34.8	37.7
Perceived risk of drug use	24.9	32.3	30.3	**32.7**[c]	31.9	34.9	38.3	35.0	33.0	33.9	28.5	34.8	33.7	35.0	35.6	35.8	43.4	38.4	40.6	43.3
Friends' use of drugs	22.9	–	–	–	–	37.5	28.5	27.2	**22.8**[c]	25.6	42.2	30.7	27.6	29.7	28.8	43.4	36.9	25.9	26.5	27.2
Rewards for antisocial involvement	25.4	–	–	–	–	42.7	49.2	48.8	46.2	47.7	38.1	41.8	44.7	47.2	44.0	43.6	53.9	55.2	57.9	**53.8**[d]
Intentions to use	–	–	–	–	–	–	27.9	28.3	26.1	**30.7**[d]	–	37.1	37.3	**40.7**[c]	42.6	–	26.2	26.3	28.2	30.7
Interaction with antisocial peers	–	–	48.4	–	–	–	–	41.7	41.5	44.6	–	–	45.2	**51.8**[c]	51.0	–	–	46.1	**52.7**[c]	54.0

Note: Percentages represent students at risk based upon their risk factor scale scores.
Dashes (–) indicate that the risk factor was not included in the survey that year.

Changes that are statistically significant at the 95 percent confidence level are bolded.
[a] Statistically significant change from 2000 to 2004.
[b] Statistically significant change from 2002 to 2004.
[c] Statistically significant change from 2004 to 2006.
[d] Statistically significant change from 2006 to 2008.
[x] Items in the risk or protective factor changed over time; the result is not comparable.

Peer-Individual Domain: Protective Factors

Two of the four protective factors in the peer-individual domain were included on the Grade 6 survey: interaction with prosocial peers, and prosocial involvement.

- *Social skills.* Young people who are socially competent and engage in positive interpersonal relations with their peers are less likely to participate in negative health risk behaviors.
- *Belief in the moral order.* Young people who have a belief in what is right or wrong are at lower risk for engaging in problem behaviors.
- *Interaction with prosocial peers.* Young people who interact with peers who are a positive influence are at lower risk for engaging in problem behaviors.
- *Prosocial involvement.* Young people who are engaged in positive social activities are at lower risk for engaging in problem behaviors.

Table 22 shows the profile of the peer-individual protective factors across grade levels. From 2006 to 2008 there was a significant decrease in the percentage of Grade 6 students resilient on both of the protective factors, interaction with prosocial peers and prosocial involvement. Among Grade 8 students there was a decrease in students protected or resilient as measured by the scale belief in the moral order.

Table 22
Profile of Peer-Individual Protective Factors,
Grades 6, 8, 10, and 12 from 2000–2008

Protective Factor	Percent of Students Who Reported Protective Factors																			
	Grade 6					Grade 8					Grade 10					Grade 12				
	2000	2002	2004	2006	2008	2000	2002	2004	2006	2008	2000	2002	2004	2006	2008	2000	2002	2004	2006	2008
Social skills	–	–	–	–	–	66.1	69.2	70.7	71.1	68.8	55.4	64.0	60.8	**56.9** [c]	58.1	64.2	67.2	70.3	67.1	68.4
Belief in the moral order	56.8	–	–	–	–	64.4	66.1	64.2	65.5	**61.2** [d]	69.2	71.4	68.6	**65.5** [c]	66.8	57.4	55.7	55.4	53.2	53.2
Interaction with prosocial peers	–	–	48.4	46.2	**43.2** [d]	–	–	54.7	55.8	57.0	–	–	56.9	55.3	55.0	–	–	54.1	52.1	52.6
Prosocial involvement	–	–	43.3	43.6	**40.4** [d]	–	–	40.0	**54.0** [c]	–	–	–	45.1	**54.3** [c]	–	–	–	43.3	**49.7** [c]	–

Note: Percentages represent students protected based upon their protective factor scale scores.
Dashes (–) indicate that the risk factor was not included in the survey that year.

Changes that are statistically significant at the 95 percent confidence level are bolded.
[a] Statistically significant change from 2000 to 2004. [b] Statistically significant change from 2002 to 2004. [c] Statistically significant change from 2004 to 2006.
[d] Statistically significant change from 2006 to 2008. [x] Items in the protective factor changed over time; the result is not comparable.

10. Conclusion

The 2008 administration of the Washington State Healthy Youth Survey continued the collaborative tradition of state agencies assessing the health of youth throughout the state. Sponsoring agencies included the Department of Health, the Office of Superintendent of Public Instruction, the Department of Social and Health Services' Division of Behavioral Health and Recovery, the Department of Commerce, the Family Policy Council and the Liquor Control Board. RMC Research Corporation conducted the survey. This survey was the 11th of its kind in the state since 1988.

The results in this report chart trends in health behaviors and related risk and protective factors over the past 18 years. The number of schools and students participating in the survey has increased substantially for each of the past five administrations. These conclusions are a summary of results from the 2008 Healthy Youth Survey, and changes since the last survey administration in 2006.

Physical Activity and Dietary Behavior

Washington youth could increase their level of physical activity and improve their diet.

- Self-reported height and weight data indicate that about 11 percent of Grade 8, 10 and 12 students were obese, and another 14 to 16 percent were overweight.
- Between 48 and 53 percent of Grade 8, 10 and 12 students watched television or played video games three or more hours an average school day.
- Between 22 and 28 percent of Grade 8, 10 and 12 students ate fruit and vegetables five or more times a day.
- Between 9 and 15 percent of Grade 6, 8, 10 and 12 students drank two or more sodas on the previous day.

In the past two years, drinking two or more sodas decreased among Grade 10 and 12 students. Drinking soft drinks at school also decreased among Grade 12 students, and buying the drinks at school decreased among Grade 8, 10 and 12 students.

School Climate

As students age they are less likely to report enjoying school.

- About 28 percent of Grade 6, 17 percent of Grade 8, 14 percent of Grade 10 and 11 percent of Grade 12 students almost always enjoyed school in the past year.
- Between 18 and 23 percent of Grade 6, 8 and 10 students and 30 percent of Grade 12 students skipped a whole day of school in the past month.

In the past two years, enjoying school decreased and skipping school increased among Grade 8 students.

Washington youth generally feel safe at school, although a few reported carrying weapons and fighting and some reported being bullied or harassed.

- Between 81 and 88 percent of Grade 6, 8, 10 and 12 students felt safe at school.
- However, 30 percent of Grade 6, 29 percent of Grade 8, 23 percent of Grade 10 and 16 percent of Grade 12 students were bullied in the past 30 days.
- Between 3 and 8 percent of Grade 6, 8, 10 and 12 students carried a weapon at school in the past thirty days.
- About 16 percent of Grade 8, 13 percent of Grade 10, and 8 percent of Grade 12 students fought at school in the past year.

In the past two years, feeling safe at school increased among Grade 10 and 12 students, but fighting at school increased among Grade 12 students.

Despite laws and policies restricting the use of substances at school, some Washington youth still reported using them. Youth may need resources to prevent them from starting to use substances or to help them quit.

- About 8 percent of Grade 8, 17 percent of Grade 10 and 20 percent of Grade 12 students were drunk or high at school in the past year.
- About 4 percent of Grade 8, 9 percent of Grade 10 and 11 percent of Grade 12 students used tobacco on school property in the past thirty days.
- Between 60 and 66 percent of Grade 8, 10 and 12 students had a school staff member to discuss substance-related problems with.

In the past two years, being drunk or high at school increased among Grade 8 students, while access to school staff to discuss substance-related problems decreased among Grade 8 and 10 students.

Unintentional Injury Behaviors

Almost all Washington youth reported wearing their seat belt most of the time or always when riding in a vehicle. However, some reported driving after drinking and some reported riding with a driver who had been drinking.

- Between 19 and 24 percent of Grade 8, 10 and 12 students rode in a vehicle in the past thirty days driven by someone who had been drinking.
- About 6 percent of Grade 10 and 12 percent of Grade 12 students drove a vehicle in the past thirty days after they had been drinking alcohol.

Intentional Injury Behaviors

Washington youth reported experiencing depressive feelings, which may ultimately lead to suicidal and risk-taking behaviors.

- Between 24 and 30 percent of Grade 8, 10 and 12 students experienced depressive feelings during the past year (i.e., had ever felt so sad or hopeless almost every day for two weeks in a row that they stopped doing some usual activities).
- Between 7 and 9 percent of Grade 8, 10 and 12 students attempted suicide in the past year.

Some Washington youth reported engaging in violent behaviors like fighting or participating in gangs that may involve violence.

- Between 31 and 37 percent of Grade 6, 8 and 10 students and 24 percent of Grade 12 students were in a physical fight in the past year.
- Between 7 and 9 percent of Grade 8, 10 and 12 students were a member of a gang in the past year.

In the past two years, overall fighting decreased among Grade 6 students, but increased among Grade 8, 10 and 12 students. In the past two years, gang membership decreased among Grade 10 students.

Alcohol, Tobacco and Other Drug Use

Alcohol remains the substance most commonly used by Washington youth, followed by marijuana and cigarettes.

- About 4 percent of Grade 6, 16 percent of Grade 8, 32 percent of Grade 10 and 41 percent of Grade 12 used alcohol use in the past thirty days.

- About 1 percent of Grade 6, 8 percent of Grade 8, 19 percent of Grade 10 and 23 percent of Grade 12 reported used marijuana in the past thirty days.
- About 1 percent of Grade 6, 7 percent of Grade 8, 14 percent of Grade 10 and 20 percent of Grade 12 reported smoked cigarettes in the past thirty days.

Access to alcohol and cigarettes is difficult for younger youth, but becomes easier as youth age.

- About 67 percent of Grade 6, 36 percent of Grade 8, 18 percent of Grade 10 and 11 percent of Grade 12 thought alcohol would be very hard to get.
- About 71 percent of Grade 6, 44 percent of Grade 8, 23 percent of Grade 10 and 12 percent of Grade 12 thought cigarettes would be very hard to get.

In the past two years, the perception that alcohol is very hard to get decreased among Grade 8 students; but the perception that cigarettes would be very hard to get increased among Grade 6 students.

Washington youth perceive the risk of harm from using substances differently according to the substance, with cigarette smoking having the greatest risk of harm, followed by regular marijuana use, then daily alcohol use.

- Between 64 and 77 percent of Grade 6, 8, 10 and 12 students perceived great risk in smoking a pack or more of cigarettes daily.
- Between 45 and 67 percent of Grade 6, 8, 10 and 12 students perceived great risk in regular marijuana use.
- Between 30 and 37 percent of Grade 6, 8, 10 and 12 students perceived great risk in drinking alcohol daily.

In the past two years, the perception of risk from daily drinking increased among Grade 6 and 10 students. The perception of risk from pack a day smoking and regular marijuana use also increased among Grade 8, 10 and 12 students.

Many youth in Washington reported receiving information about the dangers of tobacco at school or from their parents.

- Between 69 and 79 percent of Grade 6, 8 and 10 students and about 50 percent of Grade 12 students reported receiving tobacco prevention instruction at school.
- Between 67 and 81 percent of Grade 6, 8, 10 and 12 students reported their parents talked to them about the dangers of tobacco.

In the past two years, both receiving tobacco instruction in class and parental discussions about tobacco decreased among Grade 6 students.

Most Washington youth believe that secondhand smoke is harmful to them, but many are still exposed to it.

- Between 61 and 67 percent of Grade 6, 8, 10 and 12 students perceived secondhand smoke was definitely harmful.
- About 27 percent of Grade 6 students and between 40 and 49 percent of Grade 8, 10 and 12 students.

In the past two years, the perception of harm from secondhand smoke increased and exposure to secondhand smoke decreased and among Grade 6 students.

This report details the findings from the 2008 administration of the Healthy Youth Survey. HYS 2008 continued Washington State's ongoing effort to assess the health of youth throughout the state. The results of the survey will be used by stakeholders at the state, county, district, school, and community levels who are interested in developing and improving prevention and intervention programs to better the lives of youth.

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Oral Health

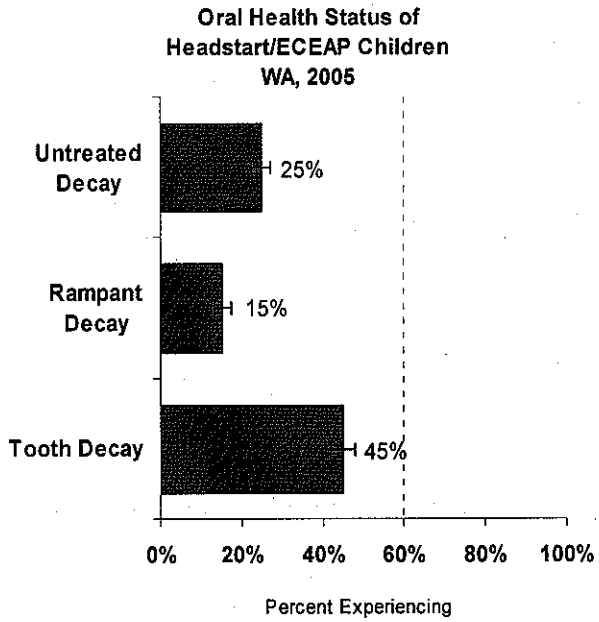
Publicly funded services to address Oral Health are described in Oral Health Services.

Definition: Oral health deals with the prevention and treatment of common oral and craniofacial diseases and conditions such as tooth decay and periodontal (gum) disease. In this chapter, tooth decay is used as a measure of poor oral health. Rampant decay is defined as 7 or more teeth decayed, missing, or filled.

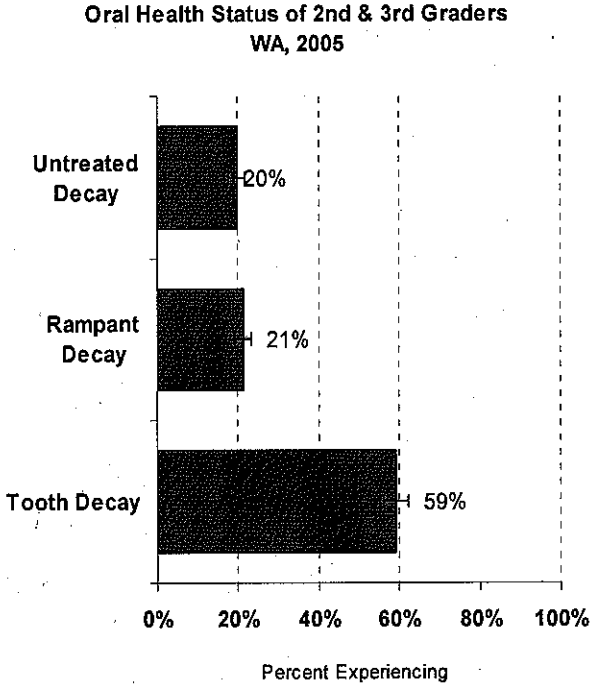
Key Findings:

- Oral health is an essential component of health and quality of life. Tooth decay is the single most common chronic disease of childhood (5 times more common than asthma), and affects about 78% of all children by age 17.[1]
- Poor oral health affects children's ability to concentrate and learn, as well as their speech development, eating habits, activity levels and self-esteem.[1]
- Tooth decay is a problem for Washington's children. In 2005, about 59% of 2nd-3rd graders experienced decay compared to the HP2010 objective of 42% for children 6-8 yrs. About 21% experienced rampant decay.[2,3]
- Many children are not getting the dental care they need. The 2005 Washington State Smile Survey showed that about 20% of 2nd-3rd graders experienced untreated decay, and only 45% had received dental sealants. HP2010 objectives are 21% and 50%, respectively.[2,3]
- Low income children also experience high rates of decay. No Washington data of all preschool children are available, however, 45% of Headstart/ECEAP children experienced decay compared to the HP2010 objective of 11% for all 2-4 year olds.[2,3]
- Oral health disparities persist in our state, with minority, low-income, and non-English speaking children having the highest levels of dental disease, highest levels of untreated decay, and the lowest levels of dental sealants.
- Community water fluoridation is the most cost-effective, equitable, and safe mans to provide protection from tooth decay. The Centers for Disease Control and Prevention indicate that 59% of the Washington population has access to optimally fluoridated water through public water systems compared to the HP2010 objective of 75%.[3,4]
- Research suggests a potential relationship between poor oral health during pregnancy and preterm/low birthweight deliveries. Treating periodontal disease during pregnancy may lead to improved birth outcomes. Cariogenic bacteria may also be transmitted by the mother to the child.[5]
- PRAMS data for 2001-2003 show that about 28% of mothers overall reported needing to see a dentist for a problem during their pregnancy, with women on Medicaid much more likely to report a dental problem than Non-Medicaid women.[6,7]
- Approximately 69% of mothers who reported a dental problem also reported they went to the dentist during their pregnancy. This varied by Medicaid status. Only about 58% of TANF women and S-women who reported a dental problem said they went to the dentist compared to about 84% of Non-Citizens and 76% of Non-Medicaid women who reported a dental problem.[6,7]

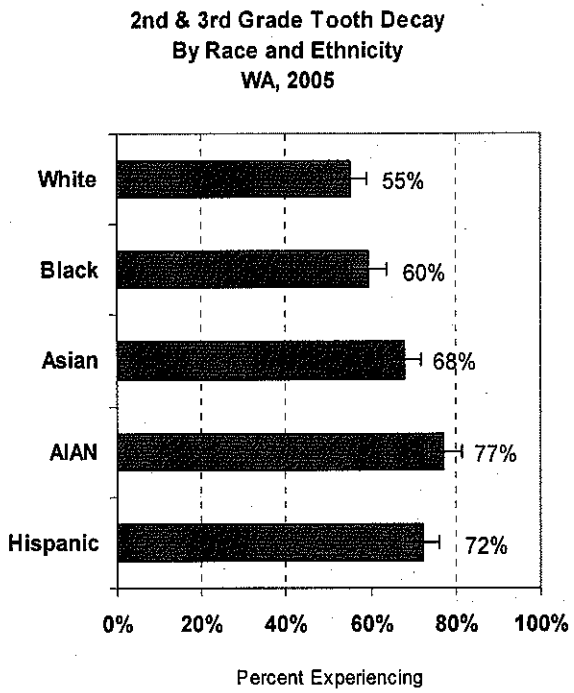
Head Start/ECEAP Children



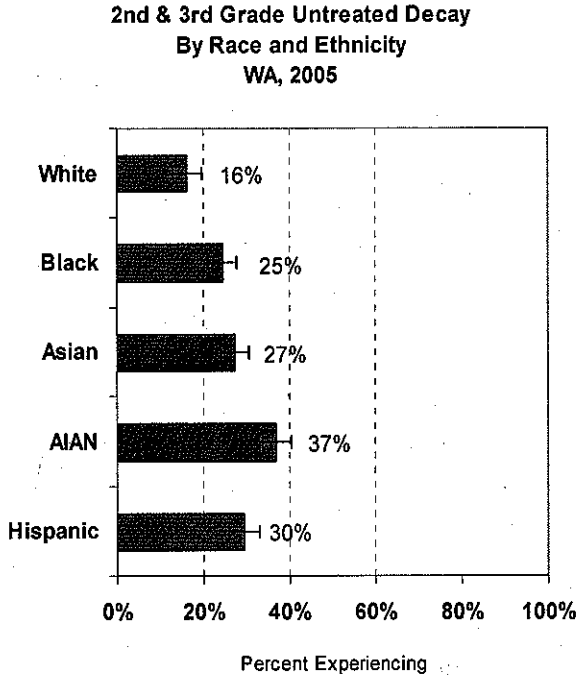
2nd and 3rd Graders



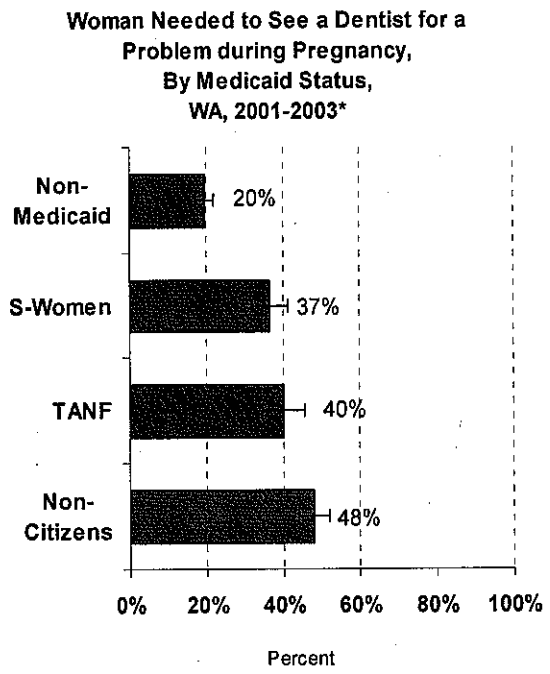
Tooth Decay



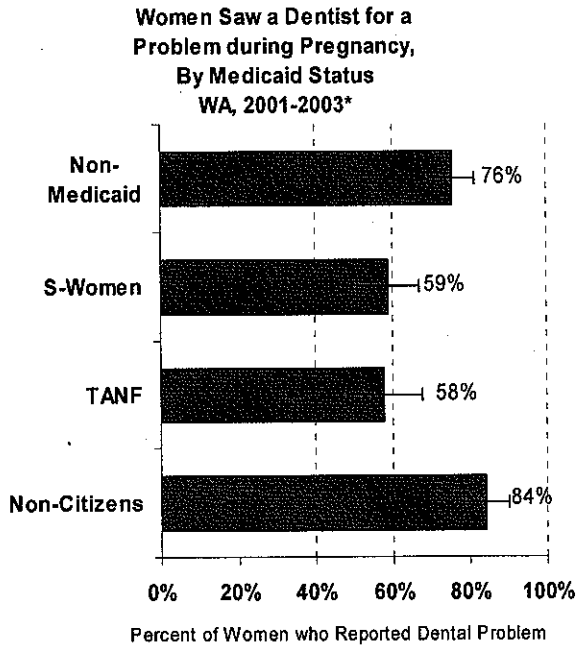
Untreated Decay



Needed Dental Care



Received Dental Care



* Medicaid women received maternity care paid for by Medicaid. They are divided into three major subgroups (from highest to lowest socioeconomic status): **S-Women** - those women who are citizens and eligible to receive Medicaid because they are pregnant and have incomes at or below 185% FPL, **TANF** - those women who are very low income (generally < 50% FPL) and receive cash assistance (TANF) in addition to Medicaid, and **Non-Citizens** - those women who are not citizens and are eligible to receive Medicaid because they are pregnant and have incomes at or below 185% FPL. Non-citizens are not eligible for TANF although their incomes are often lower than women on TANF. All three Medicaid groups have incomes below most Non-Medicaid women.

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6. Washington Pregnancy Risk Assessment Monitoring System (PRAMS), 2001-2003. Washington State Department of Health.
7. First Steps Database, Research and Data Analysis Division, Washington State Department of Social and Health Services.

Endnotes

a. AIAN – American Indian/Alaska Native
b. API – Asian or Pacific Islander
c. Significance based on 95% confidence intervals

Immunizations/ Vaccine Preventable Diseases

Publicly funded services to address Immunizations are described in Immunization Program CHILD Profile, and Early and Periodic Screening, Diagnosis and Treatment

Key Findings:

- In 2004, about 78% of children 19-35 months of age in Washington State received all recommended immunizations (4:3:1:3:3). This is statistically comparable to the 2004 national rate of 81%.[1,b]
- In 2004, estimated immunization coverage rates for children entering kindergarten or first grade (school entry-level) included: DTaP/Td: 92%, Polio: 92%, Measles: 95%, Mumps: 96%, Rubella: 96%, and Hep B: 94%.[1]
- Underimmunization can occur when needed vaccines are not administered during acute or chronic care medical visits and when multiple vaccines are not given during the same visit. Transportation problems, lack of immunization schedule at home, multiple family moves, multiple providers, and objections to some immunizations may also serve as barriers to adequate immunization. The 4th DTaP, recommended to be administered between 15 and 23 months, is the most frequently missed immunization.[1,3]

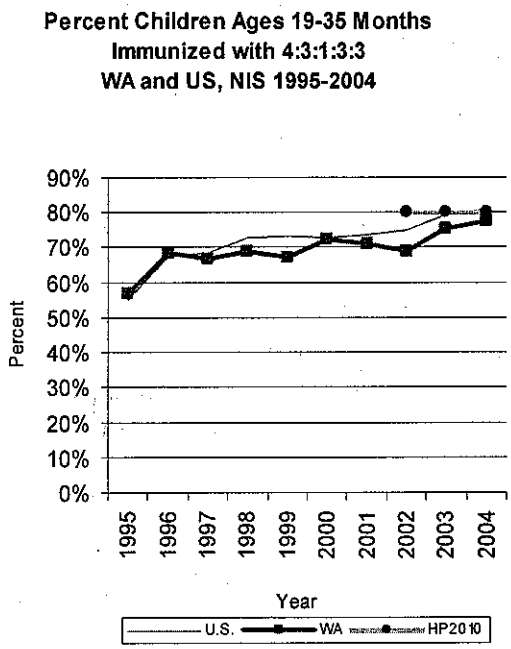
Definition: The standard measure of appropriate immunization for two-year olds is a series of vaccinations that includes 4 doses of diphtheria, tetanus, pertussis (DTP or DTaP), 3 doses polio, 1 dose measles, mumps and rubella (MMR), 3 doses haemophilus influenzae type b (Hib) and 3 doses Hepatitis B (4:3:1:3:3). This measure has fluctuated over time.[a]

- Washington is one of about 20 states that permit immunization exemptions for school admittance due to personal or philosophical reasons. In 2004, the statewide exemption rate for children in Washington schools was approximately 4%. Over 95% of those exemptions were for personal or philosophical reasons. Other exemptions are for medical and religious reasons.[1,2]
- As the following graphs show, although cases are rare and rates low, outbreaks of other vaccine-preventable diseases still occur, emphasizing the importance of continued immunization.
- The last diphtheria case seen in Washington was in 1979. There have been no recent wild type (non-vaccine related) polio cases in Washington and the last vaccine-related case was in 1993. In Washington State, there have been three cases of tetanus in recent years in 1997, 2000 and 2005.
- Pertussis rates in Washington are high and there have been several years since 1995 when the rates exceeded 7 per 100,000. In 2004, Washington's pertussis incidence rate (13.7/100,000) was the 12th highest in the US and the number of cases was more than four and a half times the number reported in 2001.[2,3]

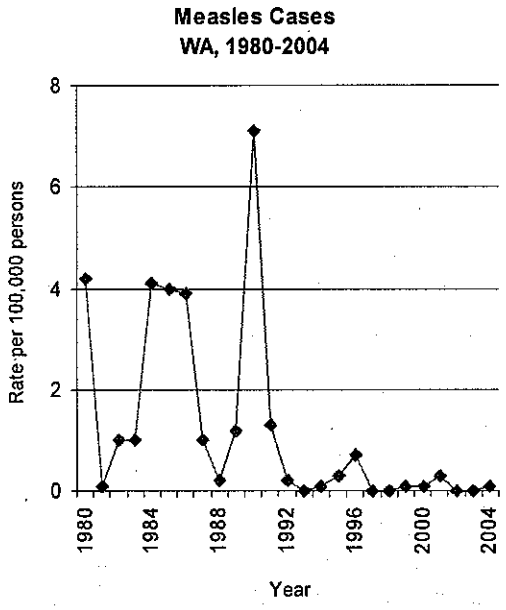
- In 2004, the NIS estimated coverage rate for varicella vaccination of children 19-35 months of age in Washington State was approximately 78%. The coverage rates for this vaccine for the State has risen consistently since 1996 when it was about 6%, but has continued to remain lower than the rate for the United States as a whole which was about 88% in 2004.[1]

- Several Local Health Jurisdictions (LHJs) have conducted, or are in the process of conducting, county or other small area preschool immunization coverage surveys. These counties are Thurston, Snohomish, Grant, Grays Harbor, Spokane, Clark, King, Lincoln, Yakima, Whatcom, Benton, Franklin, and Kittitas, Pierce and Cowlitz.[2,3]

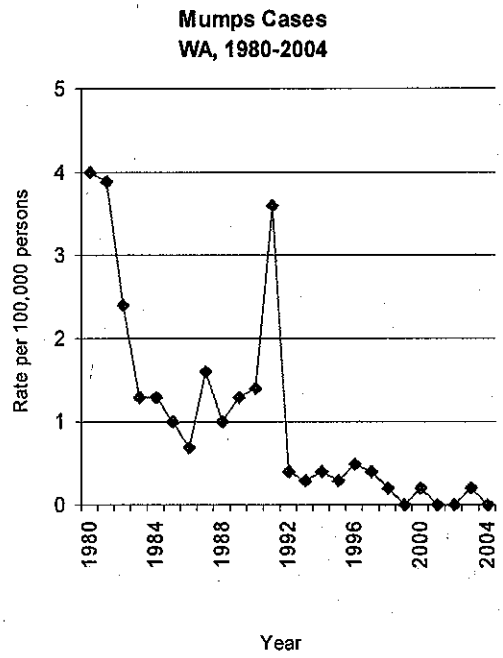
Immunization Rates [1]



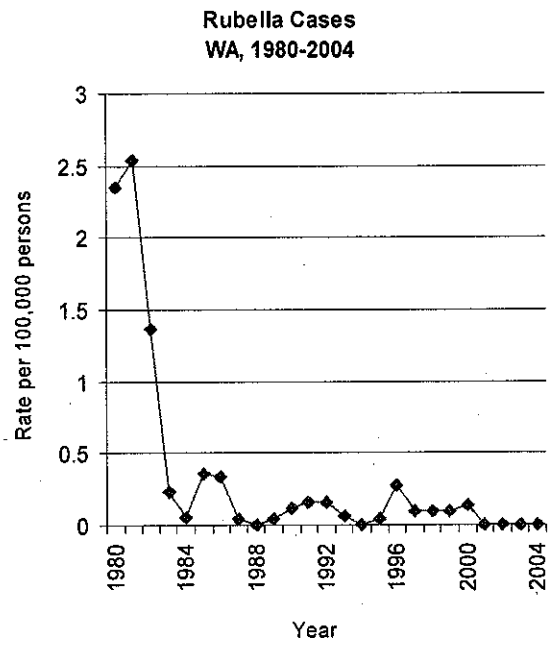
Measles Disease [3]



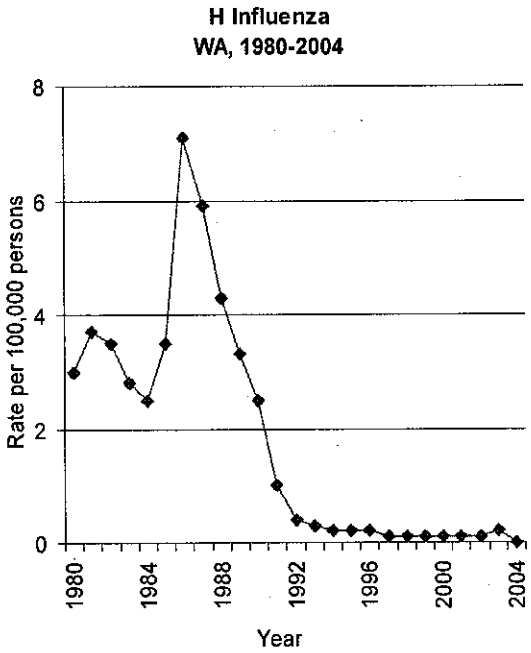
Mumps Disease [3]



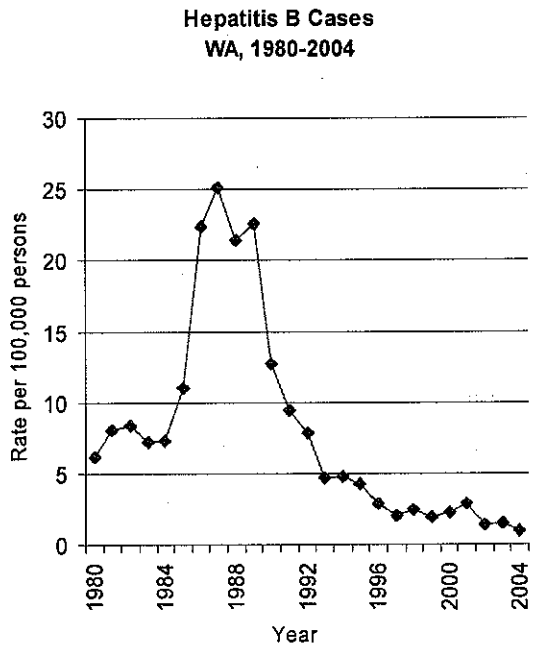
Rubella Disease [3]



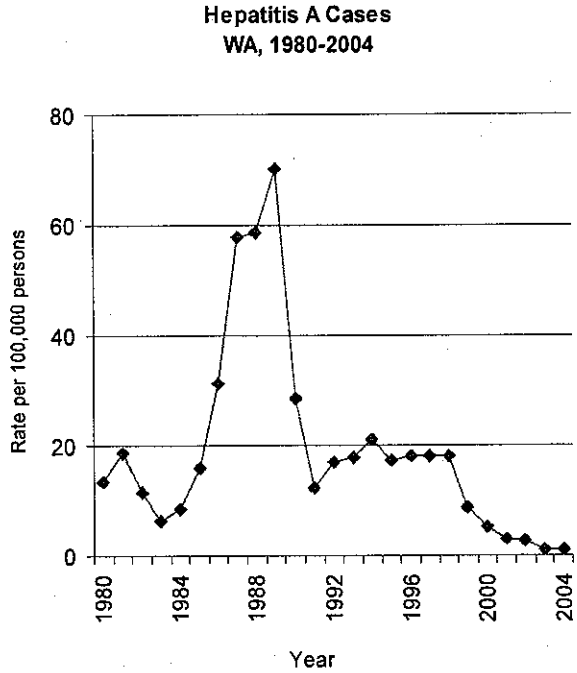
Haemophilus Influenzae Invasive Disease [3]



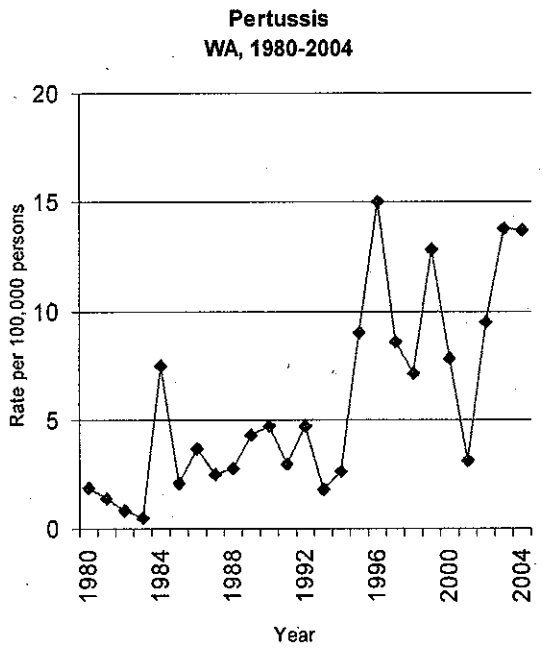
Acute Hepatitis B Disease [3]



Acute Hepatitis A Disease [3]



Pertussis Disease [3]



Data Sources

1. National Immunization Survey, Centers for Disease Control and Prevention. 2004
2. IMMENU School Data Software, Washington State Department of Health Immunization Program. 2004
3. Washington State Annual Communicable Disease Reports, Department of Health. 2004

Endnotes

a. *Abbreviations:* **DTP** - Diptheria, Tetanus and whole cell Pertussis vaccine; **DTaP** - Diptheria, Tetanus and acellular Pertussis vaccine; **DT-** Diptheria, Tetatnus vaccine (Pediatric); **Td-** Tetanus, Diptheria vaccine (Adult); **MMR-** Measles, Mumps, Rubella vaccine; **Hib-** Haemophilus influenzae type b; **HepB-** Hepatitis B; **HepA-** Hepatitis A

b. Significance is based on 95% confidence intervals

Washington State Department of Health

Prenatal Care

Publicly funded services to address Prenatal Care are described in First Steps and Within Reach chapters.

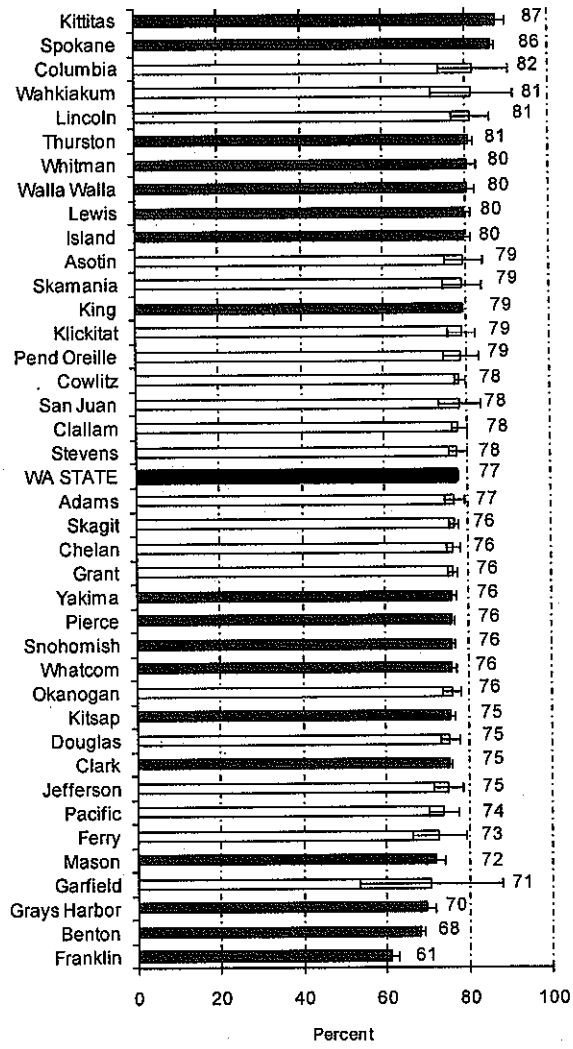
Key Findings:

- Early and continuous prenatal care is an important strategy for improving the long-term health of the mother and preventing adverse birth outcomes.[1]
- In 2008, an estimated 77 percent of Washington State pregnant women entered prenatal care during the first trimester (first three months) of pregnancy.[2] This rate has declined from 81 percent in 2003.[2]
- Over the same time period, the percent of women receiving late prenatal care (in the third trimester or not at all) rose from 4.4 to 5.8 percent, or about 4900 women in 2008.[2]
- National-level data are not available as two versions of the birth certificate are in use in different states. However, first trimester care has declined recently for both versions of the birth certificate.[1]
- First trimester prenatal care varies by county of residence. This variability may be due in part to the number of providers available and the proportion of women receiving Medicaid coverage.[5]
- In 2006-2008, higher proportions of women 30-39 years, non-Hispanic White women, and women not receiving Medicaid coverage reported beginning prenatal care services in the first trimester.[2,4]
- Washington has not met the Healthy People 2010 goal to increase the percentage of all pregnant women who receive prenatal care in the first trimester to 90 percent.[3, b]

Definition: Prenatal care is comprehensive medical care provided during pregnancy, labor, delivery, and postpartum. Services include screening and treatment for medical conditions, and identification and interventions for behavioral risk factors associated with poor birth outcomes. Prenatal care is monitored by the proportion of women initiating care in the first three months of pregnancy (first trimester).

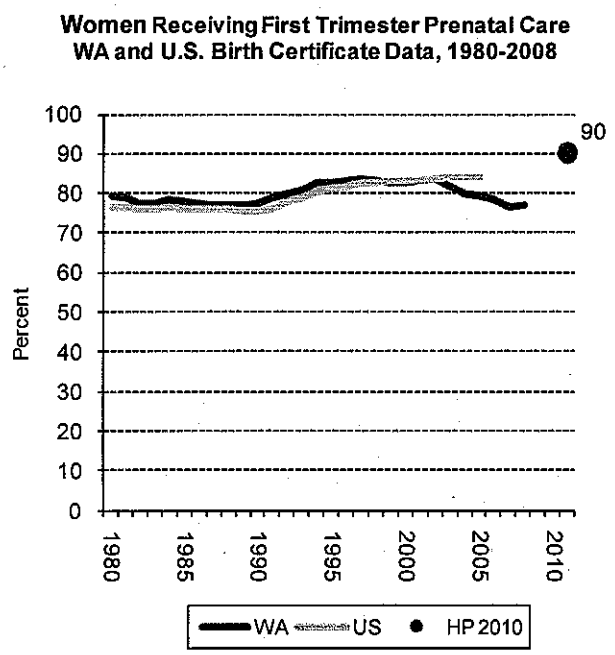
County [2]

Women Receiving First Trimester Prenatal Care by County WABirth Certificate Data, 2006-2008

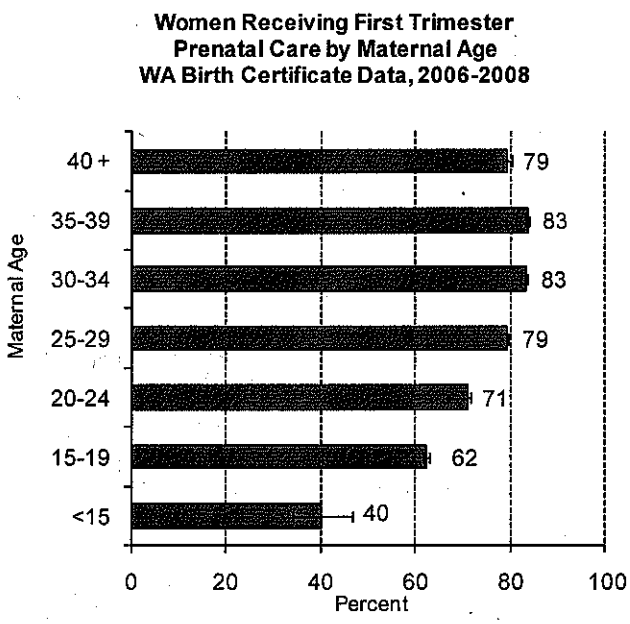


Significantly different from state rate, $p<.05$.

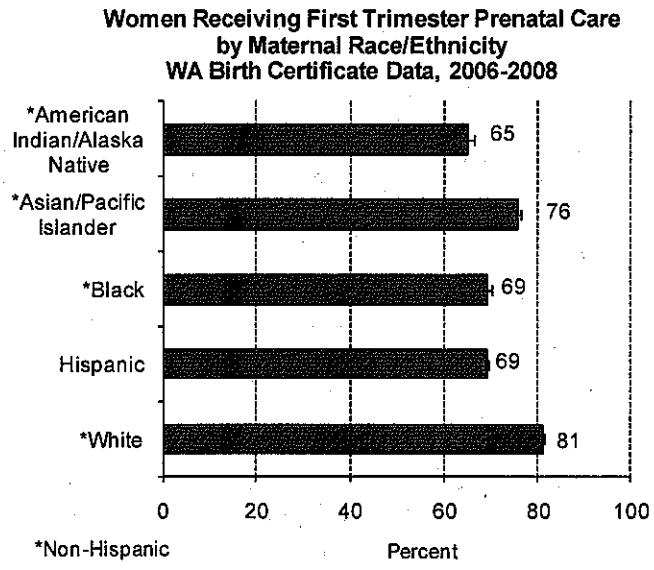
Time Trend [1,2,3, a]



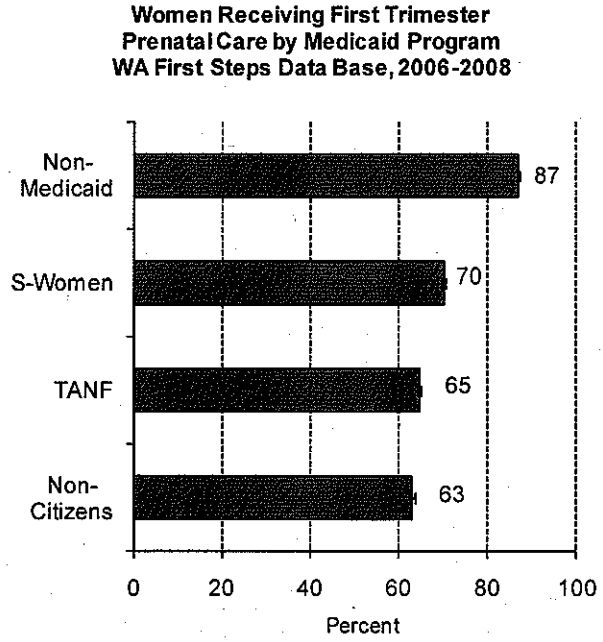
Maternal Age [2]



Race and Ethnicity [2]



Medicaid Status [4,b]



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2. *Washington State Birth Certificate Data: Vital Registration System Annual Statistical Files, Births 1980-2008.* (December 2009). Olympia, WA: Washington State Department of Health.
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Endnotes

a. Break in trend lines at 2003 is due to a change in how prenatal care is reported on 2003 revision of the US Standard Birth Certificate. Washington prenatal care data before and after 2003are not directly comparable. In 2003, Washington was one of the first states to adopt the new revision of the US Standard Birth Certificate. As of 2006, 18 states had adopted the new revision. A national rate of first trimester prenatal care is not available because states use two different data collection methods which are not directly comparable.

b. Medicaid women received maternity care paid for by Medicaid. They were divided into three major subgroups (from highest to lowest socioeconomic status) based on program eligibility effective through 2008: **S-Women** were women eligible for the pregnancy medical assistance "S" program.. These women were U.S. citizens and were eligible to receive Medicaid because they were pregnant and had incomes at or below 185% of the federal poverty line; **TANF** were women enrolled in the Temporary Assistance for Needy Families (TANF) program. These women were very low income (generally < 50% of the federal poverty line) and received cash assistance (TANF) in addition to Medicaid; and **Non-Citizens** were women who were not U.S. citizens. They were eligible to receive Medicaid because they were pregnant and had incomes at or below 185% of the federal poverty line. Non-citizens were not eligible for TANF although their incomes were often lower than women on TANF. All three Medicaid groups had incomes below most non-Medicaid women.

Washington State Department of Health

Child Weight and Physical Activity

Publicly funded services to address Child Weight and Physical Activity are described in Immunization Program CHILD Profile, Nutrition Services, Early and Periodic Screening, Diagnosis and Treatment, and School-Based Health Centers.

Definition: Children are considered obese if they are in the top 5 percent for Body Mass Index (BMI) by age and gender based on growth charts developed by the Centers for Disease Control and Prevention (2004). Children are considered overweight if they are in the top 15 percent but not in the top 5%.

Child Weight

- In 2008, about 11 percent of Washington 8th, 10th and 12th graders were obese based on self-reported height and weight. About another 14-16 percent were overweight. Males were more likely than females in all secondary school grades to be obese. [1]
- Among 10th graders, Hispanics and Non-Hispanic Pacific Islanders and Blacks and were more likely than Non-Hispanic Whites to be obese. [1]
- Obesity increased significantly for 12th grade from 2002 to 2008, but has been consistent for 8th and 10th grade students in that time.[1]
- Among 10th graders, obesity and overweight rates were significantly higher in Garfield, Grant, Mason, Okanogan and Yakima counties compared to the state. They were significantly lower in Klickitat and Island counties. [1]
- Nationally, the percentage of children and adolescents who are defined as overweight has more than doubled since the early 1970s. In 2007, about 13 percent of 10th graders nationally were obese, and 16 percent were overweight.[2]
- Obesity is a leading indicator for Healthy People 2010, one objective being to reduce the proportion of children and adolescents who are overweight or obese to 5 percent by 2010.[3]

Physical Activity

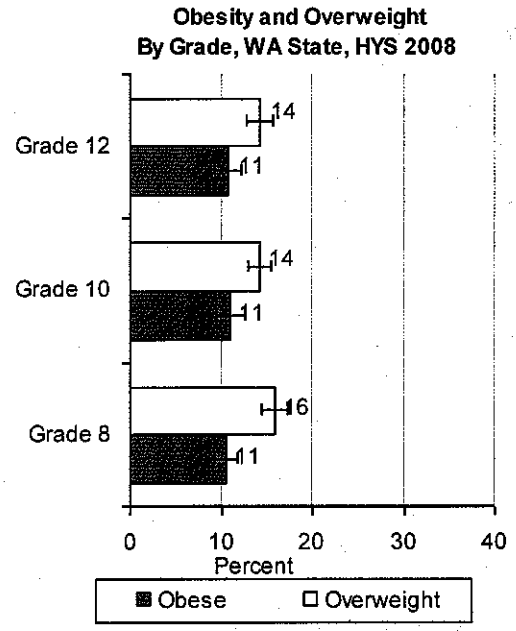
- In 2005, the USDA recommended that children and adolescents exercise for at least 60 minutes every day. The Washington State Department of Health measures this as exercising daily at least 5 days in the past week. In 2008, 62 percent of Washington 6th graders, 46 percent of 8th graders, 44 percent of 10th graders and 40 percent of 12th graders met this recommendation. Boys were more likely than girls to meet this recommendation (Data not shown). [1,4]
- In Washington, about 68 percent of 8th graders in 2008 attended at least one physical education class a week compared to about 40 percent of 12th graders (Data not shown).[1]

Nutrition and Screen Time

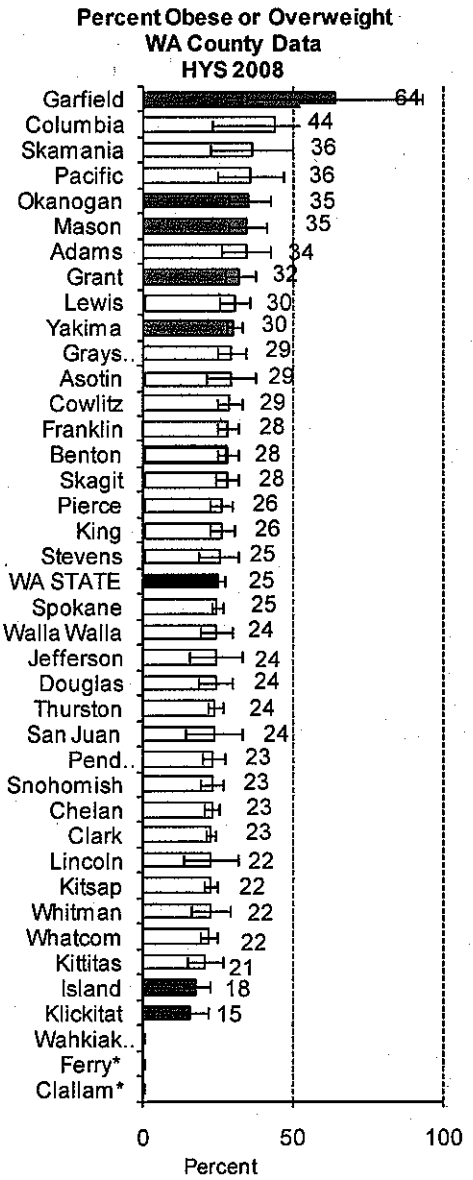
- In 2008, 9 percent of 6th graders, 13 percent of 8th graders, and 15 percent of both 10th and 12th graders reported drinking two or more sodas on the previous day. Males in all grades were more likely than females to drink two or more sodas on the previous day (Data not shown).[5]
- Students who regularly eat dinner with their family are more likely to eat fruits and vegetables at least 5 times a day and are less likely to have had two or more sodas on the previous day (Data not shown).[1]
- The percent of students drinking two or more sodas in the previous day decreased for all grades since 2002 while the percent eating fruits and vegetables five or more times a day significantly increased for 10th graders only (Data not shown).[1]

- In 2008, about 70 percent of both 8th and 10th graders and 73 percent of 12th graders reported watching television less than three hours on an average school day. The Healthy People 2010 objective is to increase the proportion of adolescents who view television less than 3 hours on a school day to 75 percent.[1,3]
- In 2008, about 51 percent of 8th graders, 53 percent of 10th graders, and 48 percent of 12th graders reported three or more hours of screen time on an average school day (either watching television or playing video games or using a computer for fun). Boys in all grades were more likely to report three or more hours a day of screen time than girls.[1]
- Students in Grades 8, 10 and 12 with three or more hours of screen time a day during school days were about twice as likely to be overweight as students with less than three hours of screen time a day.[1]

Grade [1]



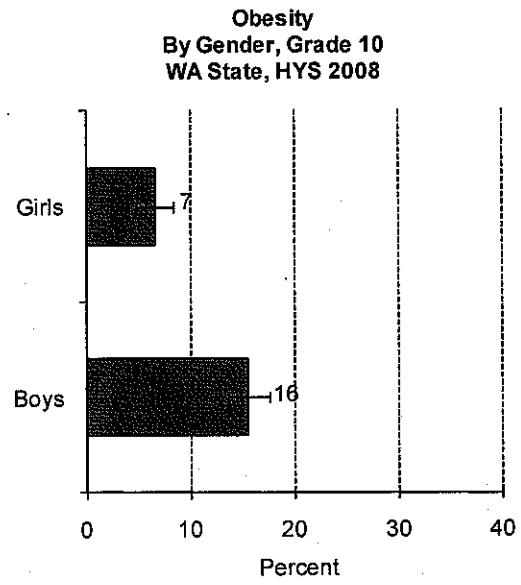
County [1]



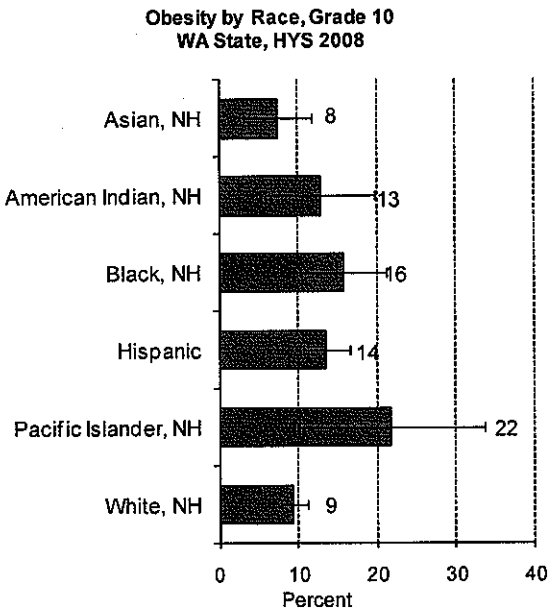
**County rate not calculated if less than 5 events or Relative Standard Error > 30 percent*

Significantly different from state based on significance testing

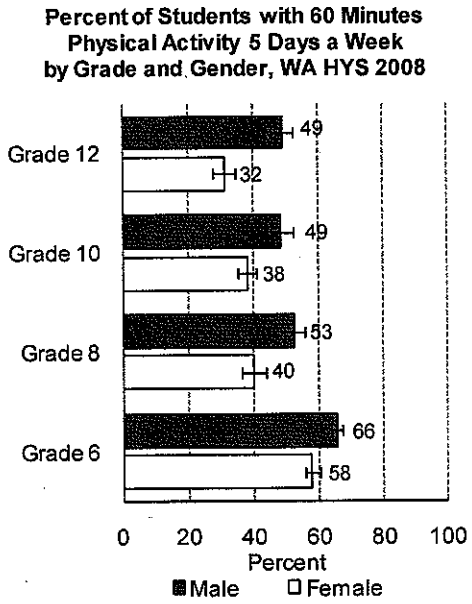
Gender [1]



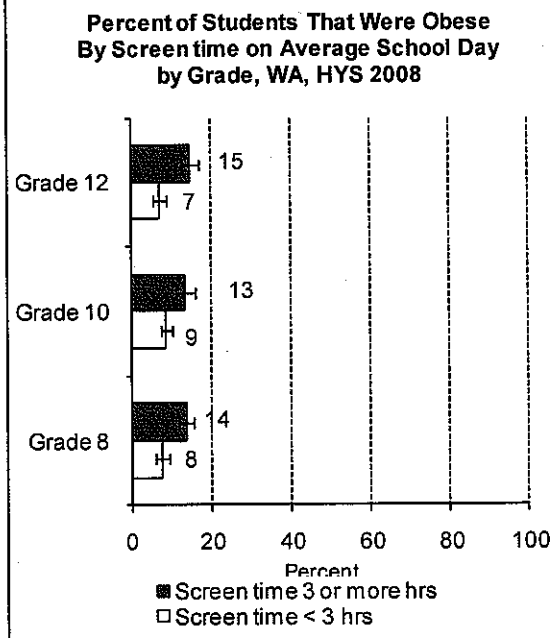
Race and Ethnicity [1,a]



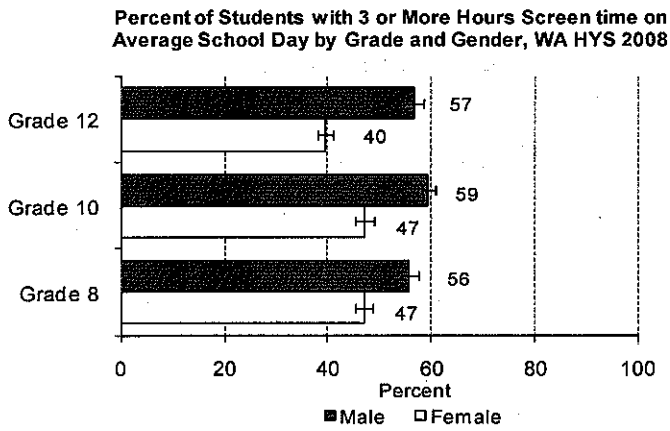
60 minutes Physical Activity [1]



Screen time by Obese Status [1]



Screen time by Grade and Gender [1,b]



Data Sources

1. *Washington State Healthy Youth Survey 2002-2008* [Data file]. Washington State Office of Superintendent of Public Instruction, Department of Health, Department of Social and Health Services, the Family Policy Council, the Liquor Control Board , the Department of Commerce and RMC Research Corporation.
2. Centers for Disease Control and Prevention. (2008, Jun 6). Table 82. Percentage of high school students who were obese and who were overweight, by sex, race/ethnicity, and grade — United States, Youth Risk Behavior Survey, 2007. *Youth Risk Behavior Surveillance System (YRBSS). Morbidity and Mortality Weekly Report, Surveillance Summaries* (Vol. 57, No. SS-4). Retrieved from http://www.cdc.gov/mmwr/PDF/ss/ss5704.pdf
3. U.S. Department of Health and Human Services. (2000). Healthy People 2010: Understanding and Improving Health. 2nd edition. Washington, DC: U.S. Government Printing Office.
4. U.S. Department of Health and Human Services. (2005, January). *Dietary Guidelines for Americans, 2005*. 6th edition. Washington, DC: U.S. Government Printing Office. Retrieved March 2010, from http://www.health.gov/dietaryguidelines/dga2005/document/default.htm
5. Washington State Department of Health, Office of the Superintendent of Public Instruction, Department of Social and Health Services, Department of Commerce, Family Policy Council, Liquor Control Board and RMC Research Corporation (2010). *Washington State Healthy Youth Survey 2008 Analytic Report*. Olympia, WA: Washington State Department of Health.

Notes:

a. NH = Non-Hispanic. American Indian/Alaska Native, Asian Pacific Islander, black and white students excluded those who identified as Hispanic.
b. Total Hours of Television Watched, Video Games Played or Computer Use for fun on Average School Day

Washington State Department of Health

Adolescent Pregnancy [a]

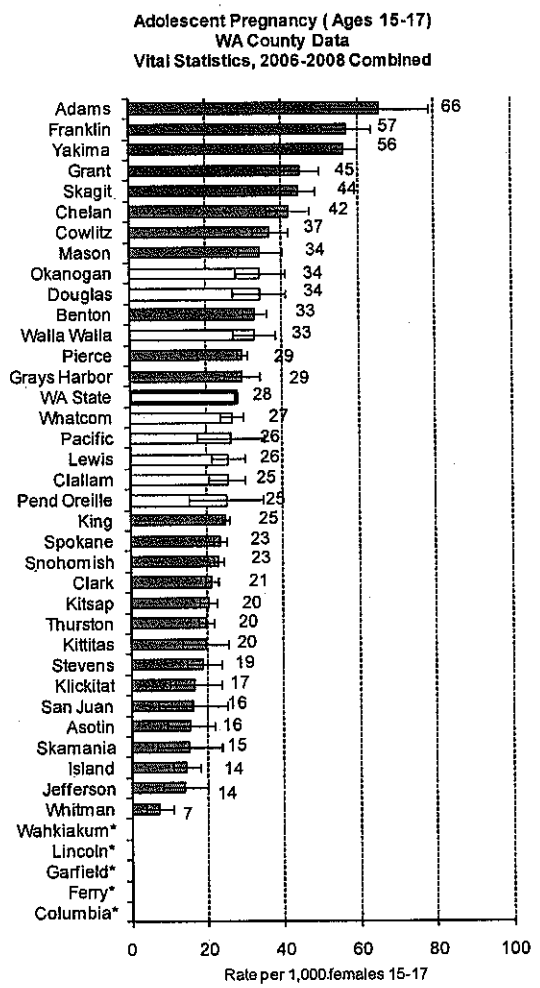
Publicly funded services to address Adolescent Pregnancy are described in School-Based Health Centers, Family Planning and Teen Pregnancy Prevention

Key Findings

- Washington's adolescent pregnancy rate in 2008 was 26.7 per 1,000 women ages 15-17 years. This represented 3,673 pregnancies. The most recent national rate available is the 2005 adolescent pregnancy rate of 40.2 per 1,000.[1,2]
- Washington's adolescent pregnancy rate was less than half the 1990 rate of 57.9 per 1,000 women ages 15-17.[1,b]
- Approximately 58% of adolescent pregnancies resulted in live births for a total of 2,131 births in 2008.[c] The Washington adolescent birth rate in 2008 was 15.5 per 1,000 females ages 15-17, compared to the national rate of 22.2 per 1,000 women ages 15-17 years in 2007.[1,3]
- Reliable data on adolescent abortions by race and ethnicity are not available, so race and ethnicity data from live births only are presented here. Adolescent birth rates are significantly higher in Hispanics, and Non-Hispanic Blacks and American Indian/Alaska Natives when compared to Non-Hispanic Whites and Asian/Pacific Islanders. Hispanics have the highest rates and Asians the lowest.[b]
- Washington meets the Healthy People 2010 objective of no more than 43 pregnancies per 1,000 women 15-17 years old.[4]

Definition: Adolescent pregnancies are estimated by adding together reported births, induced abortions, and fetal losses for women ages 15-17 years. Spontaneous abortions (miscarriages) occurring prior to 20 weeks gestation are not included because we have no way of accurately estimating them.

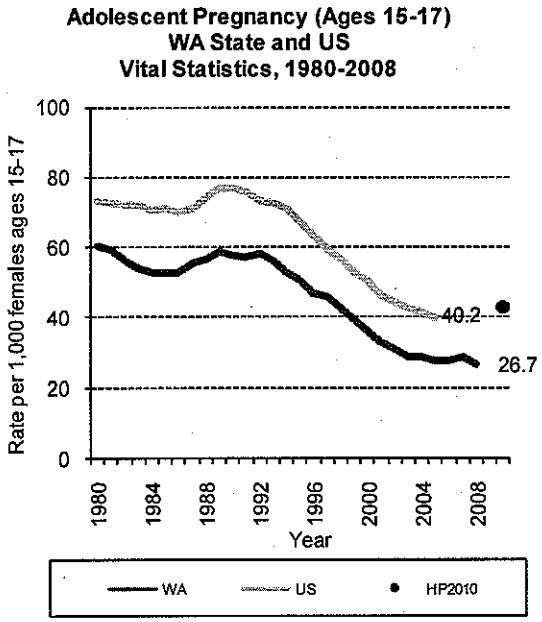
County [1,b]



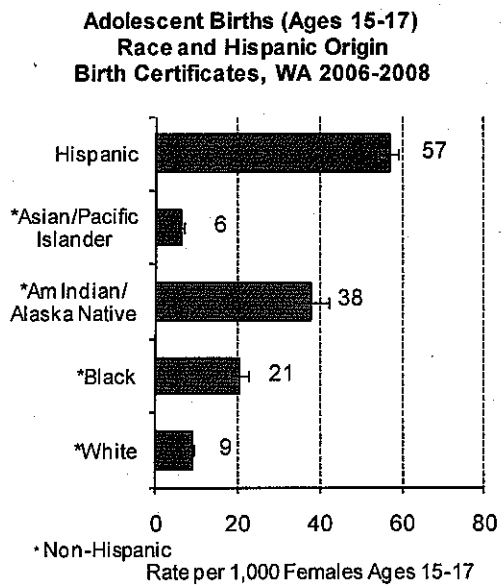
**County rates not calculated if less than 5 events or Relative Standard Error >30 percent.*

Significantly different from state rate at p<0.05

Time Trend [1,2]



Race and Ethnicity (Live Births) [5]



Data Sources

1. Center for Health Statistics, Washington State Department of Health, Washington State Pregnancy and Induced Abortion Statistics 2008, "Table 16 and 17, Birth and Abortion Indicators by County of Residence, 2008", http://www.doh.wa.gov/ehsphl/chs/chs-data/abortion/ViewDown.htm.
2. Ventura SJ, Abma JC, Mosher WD, Henshaw SK. Estimated pregnancy rates for the United States, 1990–2005: An update. National vital statistics reports; Vol 58 no 4. Hyattsville, MD: National Center for Health Statistics. 2009. "Table 2 Pregnancy, live birth, induced abortion, and fetal loss by age race and Hispanic origin of woman: United States, 1990-2004". Website: http://www.cdc.gov/nchs/data/nvsr/nvsr58/nvsr58_04.pdf .
3. Hamilton BE, Martin JA, Ventura SJ. Births: Preliminary data for 2007. National vital statistics reports, Web release; Vol 57 no 12. Hyattsville, MD: National Center for Health Statistics. Released March 18, 2009. "Table 2. Births and birth rates, by age, race and Hispanic origin of mother, final 2005 and preliminary 2006". Website: http://www.cdc.gov/nchs/data/nvsr/nvsr57/nvsr57_12.pdf.
4. Department of Health and Human Services (US). Healthy People 2010: Understanding and Improving Health. 2nd edition. Washington DC: US Government Printing Office; November 2000.
5. Center for Health Statistics, Washington State Department of Health, Washington State Birth Certificate data: Vital Statistics 2008. Population data accessed via CHAT March 2010.

Endnotes

a. In this section, adolescents are 15-17 year olds unless otherwise indicated. Analysis was restricted to 15-17 year olds because they are school age. Pregnancy among women younger than 15 is a rare event and women older than 17 are at a lower risk for poor birth outcomes. For more information, see the Health of Washington State Chapter on Infant Mortality: http://www.doh.wa.gov/hws/doc/MCH/MCH-IM2007.pdf
b. Statistical significance based on Z-test at $p < .05$
c. Adolescent pregnancy rates are based on live births, abortions, and reported fetal deaths per 1,000 females ages 15-17. Birth rates are based on live births per 1,000 females ages 15-17.

For persons with disabilities, this document is available on request in other formats. To submit a request, please call 1-800-525-0127 (TDD/TTY 1-800-833-6388).

Washington State Department of Health

First Steps Services

What are the services?

First Steps is a program in Washington State that provides support services in addition to prenatal care to low-income pregnant women and infants. It helps low-income pregnant women get the health and social services they need in order to promote healthy birth outcomes and reduce infant morbidity and mortality. Services are delivered by a network of both public and private agencies across Washington State. The program is managed by the Washington State Department of Social and Health Services (DSHS) with assistance from the Washington State Department of Health (DOH). DSHS provides Medicaid funding for all First Steps services.

The components of First Steps support services are:

- Full scope medical services, including prenatal care, delivery and postpartum follow-up, dental and vision care and one year of full medical care for the newborn.
- Maternity Support Services: These are preventive health services designed to supplement prenatal visits and include screening, assessment, clinical interventions, education, care coordination and case management. Services are provided in an office or the client's home by an interdisciplinary team comprised of registered nurses, registered dietitians, behavioral health specialists and community health workers. The level of maternity support services and content of visits provided depends on the needs of the woman. Interventions are based on identified risk factors and focus on improving pregnancy, healthy birth outcomes, early parenting outcomes, and self-sufficiency.
- Infant Case Management: Infant case management (ICM) improves the welfare of infants by providing their parent(s) with information and assistance in order to access needed medical, social, educational, and other services. Parent(s) and the infant are screened for risk factors related to issues that may impact the infant's welfare, health, and/or safety. These services are provided by qualified infant case managers.
- Childbirth Education consists of at least 8 hours of childbirth education classes in a group setting focused on improving health during pregnancy, improving labor and delivery outcomes and healthy parenting outcomes.
- Additional Services include expedited alcohol and drug assessment and treatment services and family planning. After two months post delivery women are eligible to receive family planning services that continue for 10 months after other First Steps benefits end. Also available is access to a public education and referral toll-free line through the Family Health Hotline (For additional information, see the WithinReach chapter)
- Transportation and interpreter services are provided as needed to and from all medical, dental, vision, maternity support, infant case management and childbirth education services.

First Steps Website: http://hrsa.dshs.wa.gov/firststeps

Washington State Department of Health

In 2009, the Legislature directed the program to reduce the Maternity Support Services budget by 20% and focus resources on those women most likely to have poor birth outcomes. To implement both of these directives, the program underwent a redesign. Program staff conducted a literature review, examined Washington state specific birth outcomes data, and facilitated numerous sessions allowing professional providers the opportunity to give input on the state team's recommendations. Evidence-based targeted risk factors related to low birth weight/ premature birth were selected for inclusion on a screening tool to determine the level of service for which a woman qualifies.

The following 2006 birth certificate data shows the risk factors for low birth weight/infant mortality:

No Prenatal Care	19.4%	Underweight	8.8%
Prior Low Birth Weight Baby	18.2%	Asian	8.1%
Hypertension	17.2%	Smoked during pregnancy	7.6%
Prior Fetal Death	14.6%	Primiparous (1st child)	6.5%
Prior Premature Baby	11.7%	Single woman	6.4%
Unknown Prenatal Care	11.6%	Diabetes	6.1%
African American	9.8%	Hispanic	5.4%
Identified Use of Alcohol or Drugs	9.6%	None of the Above	1.9%

How/where is the service provided?

Women learn about First Steps services through multiple sources, including when they have a pregnancy test, when they apply for medical coupons online or in person, when they visit their health care provider, when applying for the Women, Infants and Children Supplemental Nutrition Program (WIC), or by contacting the toll-free Family Health Hotline at 1.800.322.2588 or online at www.parenthelp123.org. They can apply for First Steps by visiting their local DSHS Community Service Office (CSO). They can access and submit an application online at https://fortress.wa.gov/dshs/f2ws03esaapps/onlinecso/applying.asp

First Steps support services are provided by approximately 71 private and public agencies in over 131 sites throughout the state. All agencies either provide or partner with agencies that provide the Women, Infants and Children Supplemental Nutrition Program (WIC). (For additional information, see the *Nutrition Services* Chapter.)

Eligibility

All pregnant women in the State of Washington whose income is at or below 185% of the Federal Poverty Level (FPL) are eligible for Medicaid-paid maternity care, including First Steps support services.

Maternity Support Services may be provided only during the "maternity cycle," which means

from the onset of pregnancy through the end of the month in which the 60th day postpartum occurs.

Infant Case Management Services are restricted to infants less than one year old whose parent(s)' income is at or below 185% FPL. Qualifying criteria for an infant include:

- Having a parent(s) who needs assistance in accessing medical, social, education and/or other services to meet the infant's basic health and safety needs
- Not receiving any duplicate case management services funded throught Title XIX Medicaid.

Who is receiving the service?

In 2008, 42,629 women received Medicaid paid prenatal care and/or delivery services. Of these women, approximately 72.3% received maternity support services.[1]

The table below shows the numbers of women who received any MSS/ICM support services as a percent of Medicaid deliveries, as well as the breakdown by age, race/ethnicity.

Washington Women with Medicaid-paid Births in 2008[1]

Categories by Age and Race/Ethnicity	State Totals	Non-Medicaid Deliveries		Medicaid Deliveries		Total Maternity Support Services & Infant Case Management	
	#	#	% Births	#	% Births	#	% Medicaid Births
State Totals	88,800	46,171	52.0%	42,629	48.0%	30,834	72.3%
Women ≤ 17 yrs	2,175	161	7.4%	2,014	92.6%	1,690	83.9%
Women 18-19 yrs	5,202	593	11.4%	4,609	88.6%	3,567	77.4%
White, Non-Hispanic Women	54,852	34,236	62.4%	20,616	37.6%	12,759	61.9%
Hispanic Women	17,197	3,365	19.6%	13,832	80.4%	11,693	84.5%
African American Women , Non Hispanic	3,282	1,026	31.3%	2,256	68.7%	1,994	88.4%
Native American Women, Non Hispanic	1,458	320	21.9%	1,138	78.1%	636	55.9%
Asian Women, Non Hispanic	7,380	5,425	73.5%	1,955	26.5%	1,572	80.4%
Pacific Islander, Non-Hispanic	934	310	33.2%	624	66.8%	518	83.0%
More than one race, Non-Hispanic	2897	1196	41.3%	1701	58.7%	1252	73.6%
Other/Unknown	800	293	36.6%	507	63.4%	410	80.9%

Washington State Department of Health

[1] Cawthon, L. Maternity Support Services and Maternity Infant Case Management Use by Women with Medicaid-paid Births in 2008, Washington State Department of Social and Health Services First Steps Database, 12/22/09

Medicaid-paid births include women who delivered a live birth or fetal death greater than 20 weeks whose deliveries were covered by Medicaid. A delivery is considered covered by Medicaid if the mother received Medicaid-paid prenatal or delivery services or if she was enrolled in Medicaid managed care for at least 3 of the 6 months prior to delivery.

Issues/Concerns

The elimination of the Community Service Office Family Planning Nurse Program will likely decrease identification and referrals of eligible women to maternity support and infant case management services.

Both the general economic downturn and the program redesign implemented in July, 2009 have put a strain on maternity support and infant case management providers' financial viability. Over the last couple of years, some providers have ceased offering services, which has left gaps in capacity. As providers drop out, communities have had to restructure established systems to maintain stability. This will likely continue for the next few years.

After two months post partum when women are no longer eligible for pregnancy medical coverage, many lose health coverage because of the financial burden. Loss of health coverage inhibits the continuity of care for women with chronic health concerns, and restricts interconception care for women who have experienced high risk deliveries (low birth weight or preterm deliveries)

Tobacco Prevention & Treatment Services for Pregnant Women

What is the service?

- Publicly funded interventions aimed at assisting pregnant and postpartum women to quit smoking, reduce tobacco use, and avoid secondhand smoke exposures have been incorporated into the medical package for pregnant and postpartum women on Medicaid as well as First Steps Maternity Support Services for low-income pregnant women. [See *First Steps* Services for additional information on this program]
- These services are the result of collaborative efforts of staff from the Department of Health Maternal and Infant Health Program, Tobacco Prevention and Control Program, Women Infants and Children Nutrition Program and the Department of Social and Health Services Health Services and Recovery Administration.

First Steps Tobacco Cessation Services

Description
First Steps providers are required to ask each client about tobacco usage and secondhand smoke exposure throughout her pregnancy and two months postpartum, and each client is offered an appropriate and individualized intervention. Providers are trained in motivational interviewing and systems change. Some First Steps providers have been trained about and are piloting the use of the Washington Tobacco QuitLine (WAQL) Fax Referral Program (see below) to enhance tobacco cessation interventions.

How/where provided
First Steps visits are conducted in First Steps agency offices or in the woman's home.

Eligibility
All pregnant women on Medicaid are eligible for First Steps Maternity Support Services.

Medicaid Smoking Cessation Benefit for Pregnant Women

Description
Washington Medicaid covers smoking cessation counseling for pregnant women as part of its fee-for-service scope of benefits. Included in this benefit is payment for Zyban, a pharmaceutical treatment for nicotine addition, when appropriate. DOH staff provide training and consultation about the benefit and guidelines for prescribing Zyban, including the development of a provider reference card which has been distributed to all obstetrical providers statewide.

How/where provided
Services are provided statewide by medical providers in their offices.

Eligibility
Low income (< 185% federal poverty level) pregnant women on Medicaid; Zyban is only covered for pregnant women over 18 years.

QuitLine

Description
The Department of Health funds the toll-free Washington Tobacco QuitLine (WAQL)(1-877-270-STOP) or www.quitline.com, which provides individual counseling, referrals to local cessation programs, and tobacco cessation kits. The QuitLine has a specialized intervention protocol for pregnant women. Pregnant women regardless of health coverage can be enrolled in the Free and Clear telephone multi-week intensive program.

In June 2005, the WAQL implemented the QuitLine Fax Referral Program. This program aims to reduce the barriers faced by health care providers in helping tobacco users quit by integrating the cessation activities into routine health care. The program is available to obstetric providers during the initial implementation phase. The medical provider asks and documents tobacco use, advises users to quit, and assesses interest in quitting. Pregnant women interested in quitting are directly referred to the WAQL using a faxed referral form. The WAQL confirms the referral and contacts the pregnant woman to assist in developing a quit plan and to arrange referrals. After the implementation phase, fax referral will be expanded to all First Steps providers.

How/where provided
Statewide by phone

Eligibility
Any Washington State smoker is eligible for the QuitLine, only pregnant women are eligible for the fax referral at this time.

Who is Receiving the Services

Pregnant Women Receiving Publicly Funded Smoking Cessation Services in Washington, 2004

	First Steps Maternity Support Services[1]		Medicaid[2]		Washington QuitLine[3]	
Age	#	%	#	%	#	%
< 18	758	7.5%	26	7.7%	n/a	n/a
18-19	1,315	13.0%	42	12.5%	n/a	n/a
20-24	3,704	36.5%	143	42.4%	n/a	n/a
25-34	3,666	36.1%	101	30.0%	n/a	n/a
35-44	701	6.9%	22	6.5%	n/a	n/a
45+	8	0.1%	3	0.9%	n/a	n/a
Total	10,152	100%	337	100%	234	100%

[1] These data should be interpreted with caution. At this point in time, First Steps providers are not consistently billing for their assessment efforts. Conlon D. Tobacco Cessation Performance Measure (S9075) Total Clients by Age of Client, Fiscal Year 2005 Dates of Service. Washington State Department of Social and Health Services, Health and Recovery Services Administration, 11/16/05
[2] This includes Zyban prescriptions and/or smoking cessation counseling provided to pregnant/post-partum women in 2004 and paid through August 2005. Conlon D. Zyban prescriptions and/or smoking cessation counseling – pregnant/post-partum women, clients served and expenditures by client age calendar year 2004 dates of service. Washington State Department of Social and Health Services, Health and Recovery Services Administration, 9/2/05.
[3] Data are from calls form the Washington QuitLine, 2004.

Issues/Concerns

- Pregnant women on Medicaid have high rates of tobacco use.
- Many women quit smoking just before or during pregnancy, however relapse rates approach 70%.[4]
- Many First Steps and medical providers still do not know about Medicaid's counseling benefit and/or do not bill for assessment and cessation services.
- Need to develop strategies to reach primary care providers who serve women on Medicaid to increase the number of providers who complete a brief intervention and refer women to the WAQL, preferably prior to pregnancy.
- Medicaid clients on Healthy Options are not eligible for the counseling benefit. Healthy Options contracts require a smoking cessation intervention for all pregnant women but this is not specified. Five plans currently cover Zyban for Pregnant women.
- There remains controversy regarding the use of Nicotine Replacement Therapy and Zyban during pregnancy.
- DOH will expand the fax referral program to all medical providers to increase the number of all Medicaid recipients who smoke who access the WAQL services.

[4] Goldenberg RL, Klerman LV et al. Smoking in Pregnancy: final thoughts. Tobacco Control 2000; 9 (Suppl III):iii85-iii86.

Safety Net Services

What is the service?

- The Institute of Medicine defines safety net providers as "those providers that organize and deliver a significant level of health care and other health-related services to uninsured, Medicaid, and other vulnerable patients."[1] In Washington State, safety net providers offer primary care, dental, and mental health services. While there is some variation, clinics primarily serve clients enrolled in Medicaid, Medicare, or Basic Health, or who are uninsured.
- Safety net providers include Community and Migrant Health Centers, Free or Charity Care Clinics, Public Health Clinics, Rural Health Clinics, residency programs, public hospitals, and tribal clinics.[2]
- 2002-2003 estimates of Washington State's primary care physician safety net capacity[3] indicate that out of approximately 1,800 FTEs (excluding King and Pierce counties, as data are not yet available)
    - 71% of private practice physician capacity is not in a safety net role
    - 9% of physician capacity is in Community and Migrant Health Centers
    - 16% of physician capacity is in Rural Health Clinics
    - 2% of physician capacity are in tribal clinics and 2% are in residency programs
    - Physician capacity by clinic type varies considerably by urban and rural counties. Rural counties tend to have a lower percentage (42%) of private practice, and a higher percentage (44%) of physician capacity in Rural Health Clinics. See *Washington's Primary Care Safety Net: Structure and Availability* for more information.

How/where is the service provided?

Community and Migrant Health Centers (CMHCs)

- Many CMHCs receive federal funding and are referred to as Federally Qualified Health Centers (FQHCs)
- Many CMHCs also receive state funding through the Community Health Services Program, based out of the Washington State Health Care Authority
- CMHCs focus on providing services to those who are underinsured or have Medicaid or Basic Health
- CMHCs are second only to the emergency room in providing care to the uninsured in most communities
- There are approximately 100 clinic sites in Washington, 80 with dental care, and 30 with mental health/wellness services

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[1] Institute of Medicine, *America's Health Care Safety Net: Intact but Endangered*. 2000. http://www.nap.edu/books/030906497X/html/21.html

[2] Schueler, V *Washington's Primary Care Safety Net: Structure and Availability*. Office of Community and Rural Health, Washington State Department of Health. http://www.doh.wa.gov/hsqa/ocrh/har/Wapcnet.doc

[3] Schueler, V *Washington's Primary Care Safety Net: Structure and Availability*. Office of Community and Rural Health, Washington State Department of Health. http://www.doh.wa.gov/hsqa/ocrh/har/Wapcnet.doc. Physician capacity is defined as the total FTE (1 FTE = 40 hours a week of direct patient care).

Free or Charity Care Clinics

- Operated by community service organizations or churches, with donated labor and materials
- Some clinics receive state funding through the Community Health Services Program
- Approximately 20 free or charity clinics in Washington

Public Health Clinics

- Public Health Seattle-King County has four primary medical care and five dental clinics, which primarily provide preventive care and care for the homeless
- Most of Washington's local health jurisdictions do not provide direct medical care

Rural Health Clinics (RHCs)

- Located outside urbanized areas in Health Professional Shortage Areas
- Clinics receive enhanced reimbursement for Medicaid and Medicare patients
- As of March 2004, there were 106 Federally Certified Rural Health Clinics in Washington State
- The number of RHCs has steadily increased over the past three years. This increase is expected to continue over the next 3-5 years.
- Most clinics limit sliding fee and charity care to less than 5% of total patients seen

Primary Care Residency Programs

- Located in Bremerton, Olympia, Seattle, Spokane, Tacoma, Vancouver, Yakima, Colville and Goldendale.
- Programs provide training to resident physicians as part of their post-graduate education
- The program has not grown, and may contract over time. This may be due to the decreasing percentage of medical students entering primary care, the increased malpractice insurance costs, and difficulty matching residents with open residency slots.

Tribal Health Clinics

- Of the 29 federally recognized tribes in Washington State, 23 operate tribal health clinics
- Four of these clinics are operated by the Indian Health Service and are open only to tribal members
- The remaining clinics (operating under federal Indian Self-Determination and Education Act) increasingly rely on Medicare, Medicaid, other third-party revenue sources, and revenue from tribal enterprises.[4] Some of these clinics are open to non-members.

Eligibility

Safety Net clinics primarily serve clients enrolled in Medicaid, Medicare, or Basic Health, or who are uninsured.

[4] Schueler, V *Washington's Primary Care Safety Net: Structure and Availability.* Office of Community and Rural Health, Washington State Department of Health. http://www.doh.wa.gov/hsqa/ocrh/har/Wapcnet.doc.

Who is receiving the Service?

Community and Migrant Health Centers (CMHCs), that are Federally Qualified Health Centers (FQHCs) [5]***:***

Number of Visits and Clients at FQHCs in Washington State, 2003:

	# visits	# clients
Medical Service	1,409,514	396,994
Dental Service	389,026	156,468
Mental Health Services	21,923	8,174
Total	**1,820,463**	**561,636**

Number of Pregnant Clients at FQHCs in Washington State, 2003: **12,591**

Age and Sex of Clients at FQHCs in Washington State, 2003:

Age	Female	Male	Total Number Served
0-4	49.6%	50.4%	60,172
5-14	50.3%	49.7%	92,850
15-17	57.2%	42.8%	23,402
18-19	64.7%	35.3%	15,851
20-44	61.4%	38.6%	208,574
45-64	58.3%	41.7%	83,780
65+	60.6%	39.4%	22,064
Total	**57.3%**	**42.7%**	**506,693**

Race and Ethnicity of Clients at FQHCs in Washington State, 2003:

Race/Ethnicity	Number	Percent
Hispanic	188,481	37.2%
White	221,744	43.8%
Black	27,997	5.5%
Native American or Alaska Native	8,470	1.7%
Asian or Pacific Islander	32,731	6.5%
unreported	27,270	5.4%
Total	**506,693**	**100.0%**

[5] Data provided by the Washington Association of Community and Migrant Health Centers. Data provided include 19 of the 23 FQHC grantees in Washington. The total number of clients may have clients counted more than once, since a single patient may receive medical, dental or mental health services. Utilization counts may also include duplicates.

Payment Type of Clients at FQHCs in Washington State, 2003:

Payment Type	Number	Percent
Sliding Scale/uninsured	183,403	36.2%
Medicaid	194,462	38.4%
Basic Health	46,332	9.1%
Medicare	21,599	4.3%
Private Insurance	60,897	12.0%
Total	**506,693**	**100.0%**

Community Health Services

- Data on clinics that receive Community Health Services Program funding are available at http://www.hca.wa.gov/chs/doc/ar2004.pdf through the Washington State Health Care Authority (http://www.chs.hca.wa.gov/)

Free or Charity Care Clinics

- Approximately 40,000 patient visits in 2003.[6] These data are not regularly collected.

Public Health Clinics

- For information on clients served in the Health Care for the Homeless program, see the 2003 annual report at http://www.metrokc.gov/health/hchn/2003-annual-report.pdf.

Rural Health Clinics (RHC)

- Estimated 1.62 million patient visits to the 102 RHCs open in 2002.[7]
- RHCs had a median of 18% of visits from Medicaid patients, and 25% of visits from Medicare patients.[8]

Tribal Health Clinics

- See the American Indian Health Commission for Washington State website for a summary report of services available for federally recognized tribes: http://www.aihc-wa.org/AIHCDP/AIHCDP/2003_AIHCDP/Profiles.pdf .

Primary Care Residency Programs

- Compared with private providers, the programs often accept more publicly insured or uninsured patients[9]

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[6] Schueler, V *Washington's Primary Care Safety Net: Structure and Availability.* Office of Community and Rural Health, Washington State Department of Health. http://www.doh.wa.gov/hsqa/ocrh/har/Wapcnet.doc

[7] *Rural Health Clinic Report (not yet released).* Washington Area Health Education Centers.

[8] *Rural Health Clinic Report (not yet released).* Washington Area Health Education Centers.

[9] Schueler, V *Washington's Primary Care Safety Net: Structure and Availability.* Office of Community and Rural Health, Washington State Department of Health. http://www.doh.wa.gov/hsqa/ocrh/har/Wapcnet.doc

Issues/Concerns

- The percentage of the state's uninsured population being seen at CMHCs has increased from 31% in 2000 to 33% in 2003.[10] CMHC funding is not adequate for the increase of uninsured residents. The growth rate of CMHCs is expected to slow or contract over the next 2-3 years.[6]

- Several sources of information exist with respect to medical access for Medicaid clients, but the state has no source of information about overall access to care. Many providers do not accept Medicaid clients for care, although this problem is difficult to quantify. Information based on Medicaid databases has indicated generally stable, if problematic, access patterns statewide with some local areas of increasing access issues. Medicaid databases do not indicate an overall increasing concentration of visits in the FQHC sector of providers.

[10] Kavoussi, Rebecca, Burchfield, Erin *Stretching the Safety Net: The Rising Uninsured at Washington's Community Health Centers.* Save Health Care in Washington. December, 2004. http://www.savehealthcareinwa.org/wedo/research/rsrch00001-exec.php

Care Coordination Services

What is the service?

The American Academy of Pediatrics[1] defines care coordination as a collaborative process that links children and families to services and resources in a coordinated manner to maximize the potential of children and provide them optimal health care.

The role of care coordinators in Washington State public agencies is to coordinate and connect the supports, services, and resources for children and parents at home, child care, school, and other community settings such as medical providers and managed care plans. Providers include Local Health Departments, Neurodevelopmental or Developmental Disability Centers, Regional Offices in each of the six Department of Social and Health Services (DSHS) Regions, schools, Regional Support Networks for mental health services, medical providers, managed care plans, and many others. Care Coordinators may also be parents who help other parents become Care Coordinators for their child.

Ideally, a care coordinator would be the single point of entry to facilitate services across a variety of health and educational systems. But, because the number and variety of issues facing families is so unique and the service delivery system is complex with funding from multiple sources, we now have situations where there may be more than one care coordinator for a child and family. Every situation is unique and different, and each care coordinator may address one or more type of need for the child and family. See also the *Family Support* chapter for additional services offered by peer support organizations.

How/where is the service provided?

Local Health Departments

- Children with Special Health Care Needs (CSHCN) Coordinators are public health nurses located in local health departments across the state.
- CSHCN Coordinators help families access needed services for their children ages birth to 18 such as medical care and other interventions; refer families to health insurance programs, provide screening, and conduct assessment.

Local Contractors of the Infant and Toddler Early Intervention Program (ITEIP)

- Throughout the state, Family Resources Coordinators (FRC) provide service coordination activities for children birth to three. Each FRC has demonstrated knowledge and understanding about infants and toddlers eligible under Individuals with Disabilities Education Act (IDEA), Part C, the regulations in Part C 34, CFR Part 303, the nature and scope of services available under Washington State's Infant Toddler Early Intervention Program (ITEIP), the system of payment for services in Washington State programs, and other pertinent information.

[1] Pediatrics Vol.104 No. 4 October 1999, 978-981.

- The FRC is responsible for:
    1. Coordinating all services across agency lines.
    2. Serving as a single point of contact in helping parents to obtain the services and assistance they need.
    3. Assisting parents in gaining access to early intervention services and other services identified in the Individual Family Service Plan (IFSP).
    4. Coordinating the provision of early intervention services and other services that the child needs or receives.
    5. Facilitating the timely delivery of available services, and continuously seeking appropriate services and situations necessary to benefit the development of each child served for the duration of the child's eligibility.

Regional Offices in each of the six DSHS Regions and outstations in the Regions

- Division of Developmental Disabilities (DDD) Case Resource Managers determine eligibility for services, identify needs, and develop, monitor, and coordinate service plans. This person also authorizes payments for division services and other services available though the Aging and Disabilities Services Administration.

- The DDD Case Resource Manager is responsible for:
    1. Determining eligibility for DDD services.
    2. Doing needs assessments.
    3. Developing a Plan of Care for people with DDD waivers.
    4. Completing a Mini Assessment (by 2006) on people eligible for DDD but receiving no paid service.
    5. Completing a Full Assessment (by 2007) on all people receiving DDD service.
    6. Authorizing services via Social Services Payment System.
    7. Monitoring and coordinating authorized services.
    8. Providing resource information and referral services for clients birth through adulthood.
    9. Participating in County Interagency Coordinating Council efforts.

Schools

- School Nurses provide case management for students in her/his case load and interact with parents, providers, community, and school resources to provide a school environment that is safe, healthy, and conducive to learning.

- Case management of children with special health care needs involves activities designed to ensure the health and educational success of the child at school. It is the position of the National Association of School Nurses that school nurses have knowledge, experience and authority to be the case manager for children with special health care needs. This includes, but is not limited to:
    1. Having knowledge about services needed by students with special health care needs, after collaboration with student, family and health care provider.

2. Having knowledge about community services and assisting families in obtaining needed services.
3. Screening for students who would qualify and benefit from case management services for their health care needs.
4. Providing leadership in interdisciplinary team meetings to assist in planning needed services to meet the health and educational needs of the students.
5. Implementing the health team's care plan by providing direct or indirect care.
6. Coordinating continuity of care between home and school.
7. Monitoring and evaluating interventions and implementation of the health care plan.
8. Monitoring and evaluating progress toward health and educational goals.
9. Training, monitoring, and evaluating personnel delegated to perform specific nursing care.

Regional Support Networks

- Mental Health Rehabilitation services are integrated treatment services recommended by a mental health professional and provided by state licensed Community Mental Health Agencies. Services are provided to seriously mentally ill adults and seriously emotionally disturbed children for whom the services are determined to be medically necessary. These services must be provided to reach the goals of an Individualized Service Plan.

Medical Homes

- A Medical Home is an approach for providing health care and community services in a coordinated way. It is not a place. It's a relationship with a group of doctors, nurses, and other health care providers who know the children and their families. Medical Homes include pediatrician offices, family practice offices, or clinics that provide or arrange for care coordination for children with special health care needs. In a Medical Home, a child's health care provider knows and respects the child and the family, understands the child's needs, provides routine care like regular checkups and immunizations, works as an equal partner with families to make decisions about the child's health, and helps to coordinate the child's health care.
- **Tools to help organize a child's health information**
    1. Children's Hospital and Regional Medical Center's Care Notebook
    2. Mary Bridge Children's Hospital Care Notebook
    3. Los Angeles Medical Home Project Parent Notebook *(available in Spanish)*
    4. Washington State Medical Home website: http://www.medicalhome.org
- **Find community resources**
    1. Starting Point Resource Guide – Washington State
    2. Washington State County Resource Guides
- **Information about financial planning for children with special health care needs**
    1. American Academy of Pediatrics Future and Estate Planning

2. Exceptional Parent Magazine Life Planning

- **Preparing for a child's visit to the doctor**
  1. Bright Futures for Families - Materials
  2. "Building Early Intervention Partnerships With Your Child's Doctors: Tips from and for Parents (WA State Infant toddler Early Intervention Program, Department of Social and Health Services).

Who is receiving the Service?

(Note: The following programs are not mutually exclusive. Numbers should not be added together.)

CSHCN Programs in Local Health Departments
Number of Clients (0-18) in Washington State, 2004

	# clients[2]
Total Number of Children Served	10,185

Infant and Toddler Early Intervention Program (ITEIP)
Number of Children (0-3) in Washington State, October 2003- September 2004

	# clients[3]
Total Number of Children Served	6,806

Developmental Disabilities, 2004
Number of Children (0-17) in Washington State, July 2002 – June 2003

	# clients[4]
Total Number of Children Served	16,225

Regional Support Network, 2004
Number of Children (0-17) in Washington State, July 2002 – June 2003

	# clients[4]
Total Number of Children Served	37,175

[2] Child Health Intake Form (CHIF) statewide database, Washington State Department of Health, CSHCN Program, 2004.
[3] Infant and Toddler Early Intervention Program (ITEIP) data, October 2003-September 2004.
[4] DSHS Human Services in Your County, July 2002 – June 2003. Research and Data Analysis Division. Washington State Department of Social and Health Services, 2005. Available at http://www1.dshs.wa.gov/pdf/ms/rda/clientdata/03state.pdf

Schools in Class I Districts

The 66 Class I districts indicate the number of identified cases of specific health conditions. Additionally, these districts report the number of each specific health condition considered life-threatening per RCW 28A 210.320. This information is another data source pointing to the number and severity of health conditions present in school districts across the state. For the 2003-04 school year, the 66 Class I districts reported the following data:[5]

Disease/Condition	Number of Diagnosed Cases	Percent of Student Population	Number of Life-Threatening Cases	Percent of Diagnosed Cases Considered Life-Threatening
Asthma	28,836	5.2	2,314	8
Diabetes	1,394	0.2	1,204	86
Severe Allergies	7,765	1.4	4,199	54
Heart Conditions	1,866	0.3	262	14
Seizures	3,013	0.5	859	28
ADHD/ADD	17,544	3.0	105	.06
Neuropsychological Disorders	4,548	0.8	188	4
Others	2,475	0.4	297	12
Total	67,441	12.0	9,428	14

Issues/Concerns

- The system of care for children with special health care needs is complex, making it difficult for families to identify payment sources, locate family support, and access needed services. Families need and desire a primary point of contact for care coordination who helps them navigate the health, social service, and educational systems and can most adequately meet the needs of the child and family.
- Care coordination in Washington State is fragmented.
- In many cases, a child's care coordinator coordinates only portions of the scope of services that the child uses.
- In many cases, a child may have multiple care coordinators from multiple agencies who may not communicate with each other.
- The term care coordinator has different meanings among agencies.
- Many of the policy and procedure barriers can be addressed through increased communication and collaboration across local agencies.

[5] Washington State Office of Superintendent Public Instruction, 2004.

Washington State Department of Health

Tobacco Prevention & Treatment Services for Youth

What is the service?

- The Washington State Tobacco Prevention and Control Program supports comprehensive tobacco prevention and treatment services through a variety of partners, including community and tribal programs, public awareness and education, school programs, quit programs, policy and enforcement, and assessment and evaluation.
- Goals include: identifying and eliminating tobacco-related disparities, preventing youth from beginning to use tobacco, increasing quitting among tobacco users, and eliminating exposure to secondhand smoke.[1]
- Website: http://www.doh.wa.gov/tobacco

Community and Tribal Programs

Description

Washington State funds tobacco prevention and control programs around the state.

How/where provided

Programs are provided in all 39 counties, in 26 of the 29 federally recognized tribes, and in 6 priority population groups (African American, Asian Pacific Islander, Hispanic, Urban American Indians, sexual minorities, and low socio-economic status).

Target Audience: Washington State residents.

Youth Public Awareness and Education

Description

A combination of grass-roots approaches are used to raise awareness about the dangers of smoking and secondhand smoke, and to prevent youth from smoking.

How/where provided

Through various media sources, including the No Stank You web site: http://www.nostankyou.com

Target Audience: Washington State youth.

1 Washington State Department of Health, "Tobacco Prevention and Control Program Five-Year Strategic Plan" April 2009.

School-based Tobacco Prevention Programs

Description

Schools receive funding to create tobacco-free school environments that consistently enforce tobacco policies (everyday, all day and by everyone), deliver evidence-based tobacco prevention curriculum, provide supportive interventions for youth who use tobacco, and provide school staff and families information about the dangers of tobacco use.

How/where provided

- The state's nine Educational Service Districts offer services to Washington's 295 school districts.
- Services are enhanced through partnership with the Office of the Superintendent for Public Instruction, non-profit agencies, and other local agencies.

Eligibility: All middle and high schools are eligible

Target Audience: Washington State students in grades 6^{th}-10^{th} are targeted, since this is the age most youth begin using tobacco.

Quit Programs

Description

The Department of Health funds the toll-free Washington Tobacco QuitLine (1-877-270-STOP or www.quitline.com) which provides individual counseling, referrals to local cessation programs, and tobacco cessation kits.

How/where provided

- Information about the QuitLine is distributed by local health departments, cessation outreach specialists, and non-profit agencies.
- In addition, health care providers are trained to assist patients with cessation activities.

Eligibility: Any Washington State tobacco user.

Target Audience: Current tobacco users.

Policy and Enforcement

Description

State and Federal laws are enforced to restrict the sale of tobacco to minors. Local efforts are supported through the partnerships among the Department of Health, state Attorney General, Liquor Control Board, and local law enforcement agencies.

How/where provided

- Retailers are educated about federal and state requirements, and compliance checks conducted to ensure that tobacco sales to youth stay below 20 percent of total sales.
- During 2009 random compliance checks, youth were able to purchase tobacco in 9% of attempts.

Target Audience: Tobacco retailers.

Who is Receiving the Services [2]

Grade	Percent reported receiving information about the dangers of tobacco in school during the past year (2008)	Percent reporting hearing or seeing commercials about the dangers of cigarette smoking in the last month (2008)
6th	79%	-
8th	76%	71%
10th	69%	73%
12th	50%	74%

Highlights [1]

Youth cigarette smoking has been cut in half since the start of the Tobacco Prevention Program in 1998/1999:

6th graders – 70% decrease
8th graders – 52% decrease
10th graders –42% decrease
12th graders – 43% decrease

Issues/Concerns

- Approximately 45 Washington kids begin smoking each day, despite the progress made to date.[3]
- Every year there is a new group of youth that needs tobacco prevention messages.
- In spite of the Tobacco Programs' success, funding was significantly decreased in 2009. This resulted in cuts in prevention services and the elimination of the statewide youth media campaign.
- Healthcare resources are continually drained by tobacco-related diseases.
- Health disparities in smoking affect communities disproportionately.
- About 10% of babies are born to mothers who smoked during their pregnancy.[3]
- Sustainable funding is required to maintain decreases in tobacco use rates and to counter tobacco industry advertising.

[2] Washington State Healthy Youth Survey 2008. Washington State Office of Superintendent of Public Instruction, Department of Health, Department of Social and Health Services, and Department of Commerce, Family Policy Council, Liquor Control Board, and RMC Research Corporation. Web site: https://fortress.wa.gov/doh/hys
[3] Washington State Department of Health, "Tobacco Prevention and Control Program Progress Report" March 2009.

Washington State Department of Health

Substance Abuse Treatment Services for Youth in Washington State

What are the services?

- The Division of Behavioral Health and Recovery (DBHR), of the Washington State Department of Social and Health Services, is the state agency providing both publically funded treatment and prevention services for chemically dependent adolescents and their families. Both drug and alcohol abuse and dependencies are addressed.
- DBHR collaborates with agencies, non-profit organizations, tribes, and local government to provide services for individuals and communities.
- DBHR contracts for and manages a comprehensive continuum of intervention, screening, assessment, and treatment services. These target indigent, low-income, and Medicaid-eligible youth and their families. Funded services include the Alcohol Drug Helpline and the Teenline, school based intervention services through Office of Superintendent of Public Instruction (OSPI), contracts with counties for outpatient assessment and treatment services, and direct contracts with public and private agencies for stabilization/detoxification and residential services.
- Helpful publications on the website: A Guide for Parents: Chemical Dependency Treatment Options for Minors Under Age 18; and Referral and Resource Guide For Adolescent Chemical Dependency Treatment (Both publications available from the Washington State Clearinghouse: 1-800-562-1260 or clearinghouse@adhl.org and on the DBHR website)
- Website: http://www.dshs.wa.gov/dasa/

How/where are services provided?

Alcohol and Drug Helpline and Teenline

Description

The Alcohol Drug Helpline targets the general population in Washington State. The Teenline is a crisis intervention and referral service that offers help and support to youth, their families and those that work with youth throughout Washington State. The crisis line is usually staffed by teen volunteers Monday through Thursday from 3:00 – 5:00pm. Calls made other than this time between the hours of 8:00am to 10:00pm are staffed by adult employees.

Eligiblity: All youth

How/where provided:
Alcohol Drug Helpline: http://www.adhl.org/
TEL: 206-722-3700 (Seattle) 800-562-1240 (WA only)
Hours 8:00am to 10:00pm
Teen Line: http://www.theteenline.org/ 206-722-4222 or 877-345-8336

Served: In 2009, the Teenline staff responded to 1,658 teen calls and 25 emails. They made 1,349 referrals to youth agencies.

Stabilization and Detoxification Services

Description
These services provide a safe, temporary, protective environment for at-risk/runaway youth who are experiencing harmful effects of intoxication and/or withdrawal from alcohol and other drugs, in conjunction with emotional and behavioral crisis, including co-existing or undetermined mental health symptoms. For youth ages 13 – 17, services address the needs of and treatment outcomes for youth who need chemical dependency and other treatment services but who may not be able to access these services due to acute intoxication and medical, psychological, and behavioral problems associated with their alcohol/drug use.

Eligibility
Open to all youth regardless of income or financial resources.

Served
Approximately 403 youth between 13 -17 received detoxification services in 2008; There are seven sites throughout the State serving regional populations.
Note: Parental consent is recommended but not required since this is not a treatment service.

Screening, Assessment, Outpatient Services

Description
Screening, Assessment and Outpatient Services provide assessments and alcohol/drug counseling for youth and families, including outreach, case management, group and individual, and referral to treatment. Services address misuse through abuse of alcohol and drugs, aftercare services and post-residential treatment. Services may include Group Care Enhancement which provides outpatient services at youth group homes as a way to reduce barriers and increase access to treatment. DBHR sub-contracts with all 39 counties to provide these services.

Eligibility
Youth ages 10 - 18, whose family incomes are below 220% of the federal poverty level, and who do not have access to treatment through health insurance mechanisms.

Served
See description in **Who Is Receiving Services.**
Note: Parental consent required for any treatment of minor under age 13; minor ages 13 – 17 may consent to outpatient services.

Residential and Recovery House Services

Description
DBHR contracts with residential providers for different treatment modalities to address addiction and other life issues and their severity. Modalities take into account whether a "secure" setting is needed.

- Level I: for youth with primary diagnosis of chemical dependency with less complicating mental health, other emotional, behavioral problems. Length of stay variable 30 – 45 days.
- Level II: for youth with primary diagnosis of chemical dependency and symptoms of mental health diagnosis or problems requiring concurrent management. Variable length of stay 30 – 90 days.
- Recovery House: for youth needing sober supportive home after residential treatment stay. Treatment focus is longer term recovery and life skills development as well as relapse prevention. Length of stay variable up to 120 days.
- Total beds: 180

Eligibility
Same as Outpatient Services. Regional providers but open to all youth in state.

Served
See description in **Who Is Receiving Services.**
Note: Parental consent required for any minor under age 18; except "self-consent for youth who meet definition of Child In Need of Services (CHINS) when parent unable or unwilling to provide consent.

Prevention and Intervention Services

Description
Teen Line: See information under Alcohol and Drug Helpline

Prevention/Intervention Services (Office of Superintendent of Public Instruction) Funding is provided through local, state, and federal funds. Services place prevention/intervention specialists in schools for comprehensive student assistance programs. These programs address problems associated with substance use, early prevention and intervention, assistance in referrals to assessment and treatment, and strengthening transition back to school for students who have had problems of alcohol and other drug abuse and dependency. (See additional description of school-based services in *Substance Abuse Prevention Services for Youth* chapter.)

Eligibility
Help Line and Teen Line open to all residents.

Served
See information in *Substance Abuse Prevention Services for Youth* chapter.

Who is receiving the service?

Data from the SFY 2009 Treatment and Assessment Reports Generation Tool (TARGET) provides a description of the population receiving treatment.

- **Gender**: 65% male and 35% female.
- **Race**: 58% White (Non-Hispanic), 6% Black, 17% Hispanic, 6% Native American, 2% Asian/Pacific Islander, 9% Multiple Race, 2% Other.
- **Age**: 40% are under the age of 16.
- **Schooling**: 16% not enrolled in school; and 18% dropped out/suspended from school.
- **Substance use history**: *23% began using their primary substance by age 11; 93% began using their primary substance before age 16;* 5% had used needles to inject illicit drugs; 66% were chemically dependent at time of admission. Marijuana is the most frequently cited drug of abuse in youth admissions. *75% of youth admitted for treatment also report alcohol use.*
- **Type of treatment services**: The majority of youth admissions are for outpatient services: 77% outpatient, 20% intensive inpatient, and 3% recovery house services.
- **Mental health needs**: 14% had a diagnosed mental disability; 16% were currently receiving mental health services; 14% were currently on prescribed psychiatric medications.
- **Criminal history**: 44% were on parole or probation at the time of substance abuse treatment
- **Other socioeconomic factors**: 20% had been a victim of domestic violence; 32% used the emergency room for one or more visits in the last year.

The Treatment Gap:
In SFY 2007, 6,160 youth received treatment services by DBHR (formerly DASA), out of an estimated 19,591 eligible individuals needing and eligible for DASA-funded treatment. The following table illustrates the treatment gap, or underserved need. [1]

SFY 2007 Youth Treatment Gap Rates in Washington State for Publicly Funded Chemical Dependency Services

Target Population	Needing & Eligible for DASA-Funded Treatment	Received Treatment with DASA-Funded Support	Number of Eligible Individuals Unserved	Treatment Gap Rate (Unserved Need)
Adolescents (Ages 12-17)	19,951	6,160	13,431	68.6%

[1] Division of Alcohol and Substance Abuse. 2008 Tobacco, Alcohol, and Other Drug Abuse Trends in Washington State, p. 179. Accessed January 2010 at: http://www.dshs.wa.gov/pdf/hrsa/dasa/2008-Trends%20Report.pdf

Priority populations:
Services address and prioritize youth who are on the street, homeless, running away from home, injection drug using, and pregnant and parenting.

Assistance with Transportation:
Financial assistance is available to those youth and families who qualify for residential treatment, and who are in need of financial assistance with transportation to attend family treatment activities. Review of criteria and eligibility for this "Family Hardship" funding is determined by the residential treatment provider.)

Issues/challenges for Youth Treatment System:

- There is an increased need for co-occurring substance use and mental health programs to better treat the symptomlogy presented by a number of youth entering into treatment services.
- There is an on-going need for training in techniques to improve engagement, retention, and completion using cognitive behavioral approaches compatible with alcohol and drug addiction treatment.
- Since 2006, there is an increase in number of court ordered referrals for males from Juvenile Justice sources, such as local courts, and drug courts.
- The Youth Treatment System has limited capacity and funding options.
- It is reported that the current public funding available only covers 24% of those indigent, low-income youth and families in need treatment services.[2]
- Due to capacity, there can be wait lists at treatment programs. This can result in missing the "window of opportunity" for admitting youth to treatment services.
- Based on concern reported by family and care providers of youth and other stakeholders, there is an increased interest and need for "secure" facilities for youth.
- The DBHR Trends report indicates that the primary diagnosis of youth entering into treatment services is for marijuana abuse and addiction. This report also indicates a recent trend in the increased abuse of prescription-type opiates (non-heroin opiates and synthetics, oxycodone/ hydrocodone, prescribed opiate substitute).
- There is an on-going need and commitment to improving responsiveness and sensitivity to the diverse ethnic and cultural lives of youth and families who enter into treatment services.
- See Adolescent Strategic Plan for additional information: http://www.dshs.wa.gov/pdf/hrsa/dasa/Adolescent%2520Strategic%2520Plan%2520Final.pdf

Treatment Works – Outcomes One Year After Treatment:
(Washington State Division of Alcohol and Substance Abuse One-Year Adolescent Outcomes Report 1997; Treatment Outcomes for Youth Admitted to Residential Chemical Dependency Treatment Under the Provisions of the "Becca" Bill 1997)

- Declines in school and work problems
- Improved school performance, attendance, and academic achievement

[2] Washington State Department of Social and Health Services. Division of Behavioral and Health Services. Tobacco, Alcohol, and Other Drug Abuse Trends in Washington State Report 2008

- Declines in psychiatric symptoms
- Declines in legal involvement
- Declines in medical service utilization

How to Refer a Youth to Treatment:

Each DBHR-contracted youth provider is responsible for determining a youth's clinical and financial eligibility for treatment at that contracted facility. Those youth who already have medical coupons are approved for DBHR funding. Youth who are low-income may be eligible for DBHR-funding, and those families with some third party insurance who may not be able to afford costs of treatment not covered by insurance may also be eligible for partial or full funding.

Generally, it is best to refer a youth to an outpatient treatment program for an initial assessment of chemical dependency, although if the need for residential treatment has been established, youth may be referred directly to a contracted residential facility, with arrangements for continuing care at a local outpatient provider.

For more detailed information about referral and financial processes, and lists of programs, age of consent issues, refer to:

A Guide for Parents: Chemical Dependency Treatment Options for Minors Under Age 18; and Referral and Resource Guide for Adolescent Chemical Dependency Treatment located on DBHR website or from the Washington State Alcohol Drug Clearinghouse.

For assistance in finding treatment resources:

For assistance in finding treatment resources:

Eric Larson	DBHR Region One and Two Treatment Manager	509-225-6232
Melinda Trujillo	DBHR Region Three Treatment Manager	360-658-6862
Bob Leonard	DBHR Region Four Treatment Manager	206-272-2188
Ruth Leonard	DBHR Region Five and Six Treatment Manager	360-725-3742

For persons with disabilities, this document is available on request in other formats. To submit a request, please call 1-800-525-0127 (TDD/TTY 1-800-833-6388).

Early and Periodic Screening, Diagnostic, and Treatment (EPSDT)

What is the service?

- The Early and Periodic Screening, Diagnosis and Treatment (EPSDT) program is a federal preventive health care benefit. The purpose of this program is to screen clients 20 years of age and younger in order to identify physical and/or mental health problems. If a physical or mental health problem is identified, the client should be treated or referred to an appropriate provider for treatment. EPSDT is designed to encourage continuing access to health care.
- Dual objectives:[3]
  - Ensure accessibility and availability of resources
  - Facilitate the use of these resources by recipients and their families
- Services available include:[1, 3]
  - Comprehensive health and developmental history, including a developmental assessment of physical and mental health
  - Comprehensive physical examination
  - Immunizations, based on the current approved Advisory Committee on Immunization Practices schedule
  - Laboratory tests, including mandatory lead screening
  - Vision, hearing, and dental screening
  - Health education and anticipatory guidance
- Websites:
  - http://fortress.wa.gov/dshs/maa/CHIP/ClientGuide/HealthyKidsEPSDT.html
  - http://www.cms.hhs.gov/medicaid/epsdt/default.asp

How/where is the service provided?

- Provided by physicians, specially trained nurses, nurse practitioners, and physician assistants
- If recipients receive positive screen, can either be treated or referred appropriately
- Required screening periods:[3]
  - Ages 1-2 years = three screenings
  - Ages 2-6 years = one screening per year
  - Ages 7-20 years = one screening every 2 years (except foster care = one per year, and within one month of placement)
- Recommended screening periods:[3]
  - 1st = Birth to 6 weeks
  - 2nd = 2-3 months old
  - 3rd = 4-5 months old
  - 4th = 6-7 months old
  - 5th = 9-11 months old

[1] Maternal and Child Health Bureau, Maternal and Child Library, "Knowledge Path: Early and Periodic Screening, Diagnosis, and Treatment Services". Website: http://www.mchlibrary.info/KnowledgePaths/kp_EPSDT.html. Accessed 5/15/05

Eligibility

- Below 21 years old
- No cost to client if eligible for Medical Assistance[2, 3]

Who is receiving the service?

Washington State EPSDT Participation, FY 2004[4]

Age Groups	Total Individuals Eligible for EPSDT[5]	Total Eligibles Who Should Receive at least one Initial or Periodic Screen[6]	Total Eligibles Receiving at least one Initial or Periodic Screen[7]	Percent Receiving At Least one Initial or Periodic Screen[8]
<1	37,187	37,201	30,711	82.6%
1-2	83,626	69,449	56,565	81.4%
3-5	115,484	97,054	47,967	49.4%
6-9	134,968	85,083	27,716	32.6%
10-14	153,813	52,341	34,675	66.4%
15-18	104,644	42,950	16,840	39.2%
19-20	31,164	10,294	1,566	15.2%
Total	661,357	394,372	216,040	54.8%

The data presented above reflects all individuals < 21 enrolled in Medicaid regardless of whether they receive fee-for-service or managed care services. Seventy percent of Medicaid children are enrolled in managed care in the state of Washington. Through its managed care organization (MCO) contracts, the Department of Social and Health Services Medicaid program requires health plans to report performance measures on a yearly basis. One of the available measurement tools in the health care industry is the Health Plan Employer Data and Information Set (HEDIS). HEDIS is used by more than ninety percent of health plans in the U.S. to measure quality.

Among the HEDIS performance measures reported to Medicaid each year are well-child care measures. EPSDT screenings are often provided in the context of well child care visits. The HEDIS well child care measures look at the adequacy of well-child care for infants, birth to 15 months of age, children 3 to 6 years of age, and adolescents 12 to 18 years of age. Samples of

[2] Washington State Department of Health, "Side-by-side comparison of EPSDT, USPSTF, and AAP". Website: http://www.doh.wa.gov/SBOH/Meetings/Meetings_2000/2000-10_11/documents/Tab05-EPSDTSide-by-side.doc Accessed 5/15/05
[3] Washington State Department of Social and Health Services, Medical Assistance Administration, "Early Periodic Screening, Diagnosis, and Treatment (EPSDT) Program". Website: http://fortress.wa.gov/dshs/maa/download/billinginstructions/epsdt_bis_11-12-04.pdf. Posted 11/04
[4] Washington State Department of Social and Health Services, Medical Assistance Administration, 2004 data from CMS-416 form. 2004 Washington data are not yet posted, however 2003 Washington data are posted at www.cms.hhs.gov/medicaid/epsdt/ep2003.pdf.
[5] Unduplicated number of individuals < 21 years determined to be eligible for EPSDT services.
[6] Unduplicated number of individuals <21 who should receive at least one EPSDT service based on the average period of eligibility of clients and scheduled periodicity of services.
[7] Unduplicated number of individuals who received at least one documented EPSDT service
[8] Percent of the total eligibles who should receive a screen who actually received at least one documented initial or periodic screen.

children from each age category are selected and the rate of children receiving well-child care is calculated for each age category. Children are randomly selected for inclusion in the rate calculation based on continuous enrollment criteria with one health plan. Children and adolescents must be enrolled in one health plan for 12 continuous months (with allowance of a one month gap in enrollment) to be included; infants must be enrolled from 31 days of age (allowing a one month gap in enrollment) to 15 months of life. The statewide average among all MCOs reported in 2004 is presented below.[9]

- Medicaid Well Child Visits in First 15 months (receiving at least one visit): 98.6%
- Medicaid Well Child Visits in First 15 months (receiving at least six visits): 40.0%
- Medicaid Well Child Visits of 3-6 year olds (receiving at least one visit per year): 51.0%
- Medicaid Adolescent Well Care Visits of 12-18 year olds (receiving at least one visit per year): 33.3%

Issues/concerns

- Both increasing the number of children who receive preventive health exams, and improving the quality of the preventive care they receive have been persistent issues, despite several comprehensive quality improvement initiatives.
- Low numbers of specialty Medicaid providers may limit access to specialty care referrals for conditions discovered during screening exams.
- Reimbursement terminology for preventive exams may be confusing to parents, providers, and payers
- Providers may lack the communication skills necessary to explain health information to parents, particularly those with lower medical literacy.
- The current structure and content of EPSDT exams may no longer be the best way to ensure the highest quality preventive care to children. HRSA and DOH are in the process of considering initiatives that would increase the value and relevance of the EPSDT exam to clinicians, parents, and children.

[9] Washington State Dept of Social and Health Services Medical Assistance Administration, "Washington State 2004 HEDIS Report", 2005. Available at http://fortress.wa.gov/dshs/maa/newsdoc/2004HEDISReport1605.pdf

Stakeholder Input Survey

2010 MCH Needs Assessment

Every five years the Office of Maternal and Child Health (OMCH) at the Department of Health (DOH) does a needs assessment. This process identifies public health priorities for improving the health of mothers and children in Washington State. These priorities guide local and state public health activities toward specific goals.

In 2005, we used input from internal and external stakeholders to establish the nine broad OMCH priority areas listed below. The 2010 needs assessment will identify sub-priorities in each area to focus on from 2010 to 2015.

Your responses to this survey will help identify potential sub-priorities. We have provided a few sub-priority examples. Please select your top two sub-priorities in each area. If your sub-priority is not one of the examples listed, please select other and enter your suggestion. In either case, briefly explain the reason(s) for your choice and the best strategy to achieve it.

The information from this survey will be released to the needs assessment steering committee. The committee will determine OMCH's focus over the next five years based on survey results and other input. The survey takes about 15 minutes. If you have any questions, please contact Shumei Yun at (360) 236-3553 or Email Shumei Yun.

Priority area #1: Adequate nutrition and physical activity

Your sub-priority #1:

- ☐ Increase access to healthy foods
- ☐ Reduce food insecurity
- ☐ Increase breastfeeding
- ☐ Promote worksite policies that encourage physical activities and good nutrition.
- ☐ Increase the number of schools that provide daily quality physical education
- ☐ Other _____

Why did you choose this sub-priority? (Please be brief.)

What is the best strategy to achieve this? (Please be brief.)

Your sub-priority #2:

- ☐ Increase access to healthy foods
- ☐ Reduce food insecurity
- ☐ Increase breastfeeding
- ☐ Promote worksite policies that encourage physical activities and good nutrition
- ☐ Increase the number of schools that provide daily quality physical education
- ☐ Other _____

Why did you choose this sub-priority? (Please be brief.)

What is the best strategy to achieve this? (Please be brief.)

Priority area #2: Lifestyles free of substance use and addiction

Your sub-priority #1:

- ☐ Prevent youth from initiating tobacco use
- ☐ Prevent tobacco use during pregnancy and among women of reproductive age
- ☐ Prevent alcohol abuse during pregnancy and among women of reproductive age
- ☐ Prevent alcohol abuse among youth
- ☐ Prevent illegal drug use among youth
- ☐ Prevent illegal drug use during pregnancy and among women of reproductive age
- ☐ Other _____

Why did you choose this sub-priority? (Please be brief.)

What is the best strategy to achieve this? (Please be brief.)

Your sub-priority #2:

- ☐ Prevent youth from initiating tobacco use
- ☐ Prevent tobacco use during pregnancy and among women of reproductive age
- ☐ Prevent alcohol abuse during pregnancy and among women of reproductive age
- ☐ Prevent alcohol abuse among youth
- ☐ Prevent illegal drug use among youth
- ☐ Prevent illegal drug use during pregnancy and among women of reproductive age
- ☐ Other _____

Why did you choose this sub-priority? (Please be brief.)

What is the best strategy to achieve this? (Please be brief.)

Priority area #3: Optimal mental health and healthy relationships

Your sub-priority #1:

- ☐ Prevent maternal depression
- ☐ Prevent depression and suicides among children and youth
- ☐ Prevent intimate partner violence
- ☐ Prevent youth bullying, especially to those with disabilities
- ☐ Promote healthy social and emotional development of children
- ☐ Promote healthy attachment between infants and parents
- ☐ Other_____

Why did you choose this sub-priority? (Please be brief.)

What is the best strategy to achieve this? (Please be brief.)

Your sub-priority #2:

- ☐ Prevent maternal depression
- ☐ Prevent depression and suicides among children and youth
- ☐ Prevent intimate partner violence
- ☐ Prevent youth bullying, especially to those with disabilities
- ☐ Promote healthy social and emotional development of children
- ☐ Promote healthy attachment between infants and parents
- ☐ Other_____

Why did you choose this sub-priority? (Please be brief.)

What is the best strategy to achieve this? (Please be brief.)

Priority area #4: Health Equity

Your sub-priority #1
Please select your target group and outcome.

Your target group	Your target outcome
☐ Black	☐ Low birth weight
☐ Asian	☐ Infant mortality
☐ Native American	☐ Premature death
☐ Hispanic	☐ Obesity
☐ GLBT	☐ Access to quality care
☐ Rural	☐ Other
☐ Infants	
☐ Early childhood	
☐ Adolescence	
☐ Children with special needs	
☐ Other _____	

For other, please enter your suggestions below:

Why did you choose this sub-priority? (Please be brief.)

What is the best strategy to achieve this? (Please be brief.)

Your sub-priority #2
Please select your target group and outcome.

Your target group	Your target outcome
☐ Black	☐ Low birth weight
☐ Asian	☐ Infant mortality
☐ Native American	☐ Premature death
☐ Hispanic	☐ Obesity
☐ GLBT	☐ Access to quality care
☐ Rural	☐ Other
☐ Infants	
☐ Early childhood	
☐ Adolescence	
☐ Children with special needs	
☐ Other _____	

For other, please enter your suggestion below:

Why did you choose this sub-priority? (Please be brief.)

What is the best strategy to achieve this? (Please be brief.)

Priority area #5: Safe and healthy communities

Your sub-priority #1

- ☐ Promote injury free communities
- ☐ Promote healthy behaviors
- ☐ Promote safe drinking water and good indoor air quality
- ☐ Promote violence free communities
- ☐ Build communities that strengthen families and prevent child abuse and neglect
- ☐ Other_____

Why did you choose this sub-priority? (Please be brief.)

What is the best strategy to achieve this? (Please be brief.)

Your sub-priority #2

- ☐ Promote injury free communities
- ☐ Promote healthy behaviors
- ☐ Promote safe drinking water and good indoor air quality
- ☐ Promote communities that encourage disease prevention
- ☐ Promote violence free communities
- ☐ Build communities that strengthen families and prevent child abuse and neglect
- ☐ Other_____

Why did you choose this sub-priority? (Please be brief.)

What is the best strategy to achieve this? (Please be brief.)

Priority area #6: Healthy physical growth and cognitive development

Your sub-priority #1

- ☐ Improve school readiness
- ☐ Promote high quality child care centers and preschools
- ☐ Prepare parents to help their children achieve their full potential
- ☐ Promote healthy behaviors among adolescents
- ☐ Promote healthy behaviors among pregnant women
- ☐ Promote appropriate preventive care for infants, children, adolescent, and women of reproductive age.
- ☐ Other_____

Why did you choose this sub-priority? (Please be brief.)

What is the best strategy to achieve this? (Please be brief.)

Your sub-priority #2

- ☐ Improve school readiness
- ☐ Promote high quality child care centers and preschools
- ☐ Prepare parents to help their children achieve their full potential
- ☐ Promote healthy behaviors among adolescents
- ☐ Promote healthy behaviors among pregnant women
- ☐ Promote appropriate preventive care for infants, children, adolescent, and women of reproductive age.
- ☐ Other_____

Why did you choose this sub-priority? (Please be brief.)

What is the best strategy to achieve this? (Please be brief.)

Priority area #7: Sexually responsible and healthy adolescents and women

Your sub-priority #1

- ☐ Reduce unintended pregnancies;
- ☐ Reduce adolescent pregnancies
- ☐ Promote healthy sexual relationships
- ☐ Promote education on safe and effective contraception, STD prevention, vaccination, and birth spacing
- ☐ Promote comprehensive sex education among youth
- ☐ Promote access to screening for sexually transmitted diseases (STDs)

☐ Promote access to family planning services
☐ Other_____

Why did you choose this sub-priority? (Please be brief.)

What is the best strategy to achieve this? (Please be brief.)

Your sub-priority #2

☐ Reduce unintended pregnancies
☐ Reduce adolescent pregnancies
☐ Promote healthy sexual relationships
☐ Promote education on safe and effective contraception, STD prevention, vaccination, and birth spacing
☐ Promote comprehensive sex education among youth
☐ Promote access to screening for sexually transmitted diseases (STDs)
☐ Promote access to family planning services
☐ Other_____

Why did you choose this sub-priority? (Please be brief.)

What is the best strategy to achieve this? (Please be brief.)

Priority area #8: Access to preventive and treatment services for the maternal and child population

Your sub-priority #1

☐ Promote access to preventive care (e.g. prenatal care, vaccinations, and preventive dental care)
☐ Increase insurance coverage for children and women of reproductive age
☐ Increase the proportion of women who get screened for and help with pregnancy risks
☐ Reduce barriers to mental health treatment
☐ Other_____

Why did you choose this sub-priority? (Please be brief.)

What is the best strategy to achieve this? (Please be brief.)

Your sub-priority #2

- ☐ Promote access to preventive care (e.g. prenatal care, vaccinations, and preventive dental care)
- ☐ Increase insurance coverage for children and women of reproductive age
- ☐ Increase the proportion of women who get screened for and help with pregnancy risks
- ☐ Reduce barriers to mental health treatment
- ☐ Other_____

Why did you choose this sub-priority? (Please be brief.)

What is the best strategy to achieve this? (Please be brief.)

Priority area #9: Quality screening, identification, intervention, and care coordination

Your sub-priority #1

- ☐ Promote timely and adequate preventive care (e.g. *Early and adequate prenatal care, age-appropriate vaccinations, appropriate preventive dental care, and early identification and treatment of medical conditions)*
- ☐ Increase the availability of medical homes for children, women and families
- ☐ Increase screening of children's social emotional development
- ☐ Increase screening of maternal depression
- ☐ Increase early screening and identification of birth defects, developmental delay, and chronic illness in children
- ☐ Other_____

Why did you choose this sub-priority? (Please be brief.)

What is the best strategy to achieve this? (Please be brief.)

Your sub-priority #2

- ☐ Promote timely and adequate preventive care (e.g. *Early and adequate prenatal care, age-appropriate vaccinations, appropriate preventive dental care, and early identification and treatment of medical conditions)*
- ☐ Increase the availability of medical homes for children, women and families
- ☐ Increase screening of children's social emotional development

- ☐ Increase screening of maternal depression
- ☐ Increase early screening and identification of birth defects, developmental delay, and chronic illness in children
- ☐ Other_____

Why did you choose this sub-priority? (Please be brief.)

What is the best strategy to achieve this? (Please be brief.)

39. Where do you work?

-	Local Health Jurisdiction	
-	Washington State Department of Health	
-	Other state agency	
-	Hospital/clinic	
-	Universities/Research Institute	
-	Other (please specify):	-

40. Which county do you live in?

If you have additional comments, please provide them here:

Thank you for your participation. If you have any questions, please contact Beth Anderson at (360) 236-3553 or Email: Shumei Yun. You will now be redirected to the Department of Health web site.

Office of Maternal and Child Health Stakeholder Interviews

Background and Methods

In 2009 and 2010, the Office of Maternal and Child Health (OMCH) began the process of collecting information for the 2010 OMCH Needs Assessment. The OMCH Needs Assessment is completed every five years as part of the Title V Block Grant, which is funded through the Maternal and Child Health Bureau, Health Resources and Service Administration. OMCH is composed of six programs: Maternal, Infant, Child and Adolescent Health; Genetic Services; Child Profile and Immunizations, Children with Special Health Care Needs, Oral Health, and MCH Assessment.

In spring of 2010, OMCH conducted 51 key informant interviews with program partners, contractors, and other stakeholders. The purpose of the interviews was to learn more about the needs of OMCH stakeholders and partners, how they view OMCH's role, and improvements that can be made in the office. This information will be used for the 2010 OMCH Needs Assessment and for making organizational improvements within the office.

Data Collection

Key informant interviews

Staff and managers from each OMCH program identified a total of 69 key program stakeholders and partners. These individuals included staff, parents, and providers from local health jurisdictions, state agencies, local and state organizations, other offices within the Department of Health, the University of Washington, hospitals, and clinics.

Riley Peters, PhD, the OMCH Director, emailed the identified stakeholders and partners an invitation to participate in the key informant interviews. Each email included a list of key informant interview questions and the OMCH priorities. The OMCH priorities were initially developed through the 2005 Needs Assessment, and are currently in the process of being reviewed for the 2010 Needs Assessment.

Sixteen OMCH staff, representing each OMCH program, followed-up with potential participants and conducted the interviews. Stakeholders and interviewers were matched through random assignment, determined through a random number generator. All interview staff received a brief training before conducting interviews. Training topics included guidance on using prompts to facilitate the interview, notetaking, interview length, and review of relevant background information.

The interviews were conducted by phone in March and April of 2010. Interviews typically lasted between 10 to 35 minutes. None of the interviews were audio recorded. Interviewers took notes during the interviews. Out of 69 key informants, a total of 51 interviews were conducted, for a completion rate of 74%.

Interview questions

The interview was composed of five questions, which were shared with stakeholders before the interview. These questions include:

1) What do you think the role of the WA State MCH Office should be?
2) What do you/your organization need from the Office?
3) What have you valued from the Office in the past?

4) How might the Office improve to work more efficiently and/or effectively with you/your organization?
5) What should the future focus/priorities be for the Office that will help you/your organization in its mission/work?

Data Analysis

Interview notes were entered into Microsoft Word. They were then imported and analyzed in NVivo 8, a qualitative analysis software.

Coding

All interview notes were reviewed and coded into themes and sub-themes. Themes were developed based on topic and context, using an inductive and iterative process. While most of the key informant comments fell into clear topics (for example, convening groups or providing data), there was less distinction between perceived roles, stakeholder needs, and what stakeholders valued (though suggestions for improvement were more easily identified). Comments on roles, needs, values, or suggested improvements did not necessarily correspond to the related interview question. For this reason, coding was based on topic, not interview question, and relied on context. Comments were coded into multiple themes or sub-themes, when applicable.

Results

Overview of themes

While stakeholders represented a wide variety of agencies and organizations, the comments fell into 10 major themes (Table 1), with the majority of comments in the first 5 themes (Figure 1).

The theme that was mentioned most often in the interviews was OMCH's function in convening groups and communicating information, followed by providing expertise; data and assessment; funding; and policy and advocacy work (Table 1 and Figure 1).

Table 1. Overview of Major Themes and Sub-Themes
Key Informant Interviews, OMCH

1. **Convening Groups & Communicating Information**
   - Convenes partners and stakeholders
   - Communicates information and educates others
   - Coordinates services and systems
2. **Providing Expertise**
   - Best practices
   - Staff expertise
   - Tools, materials, and training
3. **Providing Data and Assessment**
4. **Funding - Comments and Issues**
5. **Providing Policy and Advocacy**
6. **Broad Comments on Public Health Role and Leadership**
7. **Appreciation for OMCH Staff**
8. **Focusing on Prevention**
9. **Contracts - Comments and Issues**
10. **Role in Health Care Reform**

Figure 1. Major Themes, Key Informant Interviews, OMCH

This chart provides an ***overview*** of how comments were distributed by primary themes. It is not exact and is dependent on the subjective interpretation of the analysts. Approximately 400 comments were coded into the categories listed above. Each individual who had a comment coded into a sub-theme was counted only once, regardless of the number of comments. Please note that each category in this chart includes many sub-themes (not shown). This chart only provides information on the number of comments, not the quality, usefulness, or depth of the information provided. Please see the Strengths and Limitations section for more information.

Detail by theme

Quotes from interviewer notes have been included in the section below. Since we do not have transcripts of the interviews, the quotes were paraphrased by the interviewer during the time of the interview. They do not represent exactly what was said by the person being interviewed.

Within each theme, quotes were chosen to represent both the commonly mentioned issues as well as the range of comments. Both 'positive' and 'negative' comments and feedback are represented. In general, themes that were mentioned most often have more quotes. In addition, the quotes included in this report are those that have broad applicability to all or most of OMCH, or even the Department of Health as a whole. Quotes that are specific to one MCH population or activity have not been included in the examples below.

As you will see, a number of quotes listed below are related to multiple themes. While they were coded into multiple themes during the analysis, for this report, quotes are only used as an example for a single theme or subtheme.

1. Convening Groups and Communicating Information

The topic mentioned most often during the key informant interviews was OMCH's role in **convening partners and stakeholders.** Key informants see this role as being unique to OMCH, and appreciate the office's willingness to collaborate and connect to the benefit of all partners.

> *"I love that DOH does not dictate, but pulls partners together and really collaborates - everybody gains and the citizens and state as a whole benefits."*
>
> *"[We] value how staff/office encourages collaboration, and builds on others' current and previous work."*
>
> *"Value expertise and coordination in bringing together disparate professions and backgrounds to work on MCH issues."*
>
> *"Spirit of cooperation. Lack of territoriality. True cooperation. Convening groups with different funding sources."*

At the same time, many believe that OMCH can strengthen relationships, provide more follow-through, be more inclusive in their work with partners, and engage with partners at a higher level.

> *"As role of convener – follow through, don't let things just fizzle out without coming to some conclusion or next steps when funding is reduced or capacity to convene is reduced."*
>
> *"Be a convener- can be more neutral which can help with knotty situations/ turf issues."*
>
> *"Currently, we could be missing great opportunities due to silos, lack of collaboration, and lack of knowledge about goals. If we knew more, we could do more."*

"MCH Office needs to bring stakeholders into the process beyond program planning."

During the interview, key informants mentioned activities that parallel OMCH's role as a convener of stakeholders. One of these roles includes **communicating information and educating others:**

"The Office of MCH provides a way to communicate with many partners."

"[Need an] alert to things going on instate that impact the health of MCH population."

Overall, stakeholders had many suggestions on how OMCH could improve communication. For example, many mentioned that they would like OMCH to have additional focus on communicating with and educating the public, partners, legislature, and others on maternal and child health issues as well as OMCH's role in working with these issues.

"[We] depend on OMCH for leadership - defining a vision, goals, and objectives and selling them to the public, legislators, and stakeholders."

OMCH should focus on being more active around educating other agencies about children's safety and health issues and all MCH priorities.

"[Need] clear communication about program activities and coordination efforts"

"[Need] feedback. Make sure that someone is circling-back with the group to let people know what comes of the process of reorganizing [OMCH], this interview, etc. Asked for input at every grant, but never hear back."

"What's your role and what's our role? By identifying roles and understanding goals, we can find new ways to collaborate, identify overlaps, and ensure we're all working toward improved health for all."

A smaller number of interviewees also stated that OMCH's role includes **coordinating services and systems** across the state.

"Systems development work, convening partners, collaborative spirit, willing to work together to improve systems and services for children and families."

"Provide coordination for existing state wide programs that improve health status of families integrate efforts/ programs in MCH."

2. Providing Expertise

OMCH is viewed by many as an important resource for **expertise.** Providing information on ***best practices*** was frequently mentioned as a key role for OMCH, for both now and in the future.

"Identify and spread information about Best Practices related to health."

"How does information get from journals and research to practice by general public - we all need to figure that out."

"Whatever we decide - be sure to communicate to local partners and provide information on best practice and potential interventions to address the issues."

In addition, stakeholders were very satisfied with the high level of ***staff expertise*** and guidance provided by OMCH staff.

"Continue acting in role of experts and conveners."

"[It is] hard to be experts; [we] need that from the state."

Other topics related to resources that were commented upon include providing needed ***tools, materials, and training***.

"[OMCH should be a] clearinghouse for information and referral; health information and specific health information should be accessible to the public; the public needs to know how to find programs that can provide services; brochures with broad program info are needed."

"MCH does a good job of getting information out, but on the ground level they're not always sure what to do with it. It would be helpful to be part of a comprehensive effort."

"[OMCH needs to work on] coordinating information together. Federal information provided, State information provided, lots of resources available, but not necessarily working together to utilize the same resources. How do we bring together information so we're not duplicating efforts?"

3. Providing Data and Assessment

Another frequently mentioned theme was related to **data and assessment.** Stakeholders believe that data collection, needs assessment, data reports, program evaluation, and surveillance are a key role for OMCH. Stakeholders appreciate the data and reports provided by OMCH, as well as the data and analysis expertise, county-level data, data sharing, and technical assistance.

"Data: Need to do statewide data collection, needs assessment, understanding the status of children and families across the state, [information] .. about their health and risk factors that connect to health and cost of health."

"Data Reports to help advocates understand issues, develop strategies; data reports ... help people drill down into the issues. DOH is the hub, and critical for data."

"Providing expertise (technical assistance and guidance) and data in these areas to LHJs, organizations and coalitions; advise them on areas that should be addressed."

"Sharing of data between state programs and local level programs – working together toward a common goal and using data at both levels."

Suggested improvements include increased partnerships and collaboration with researchers, academia, and others, more communication on data that are available, examining how data have been used by programs and stakeholders, and improving and integrating electronic data collection systems.

> *"Partnerships with researchers and academia – DOH collects a lot of data but doesn't always have capacity to work with the data- researchers could do this- look at data related to levels of service and outcomes; use findings to leverage programs, improve programs, improve data collection and data entry."*

> *"When data are presented and distributed, what happens next? What is OMCH doing with the data, what should stakeholders be doing…? Knowing who collected data and what the next steps are, may present opportunities for collaboration and efficiencies."*

> *"Improve coordination and integration of data systems."*

> *"Statewide data collection system-web based if possible."*

4. Funding – Comments and Issues

Another topic mentioned was **funding.** Stakeholders value the financial support from OMCH. They have also felt the effect of decreased funding, and would like to collaborate and partner more with OMCH to write grants and identify and ensure stable funding.

> *"Staff is very creative in the past when funds decrease, i.e., they come up with creative ideas and use of resources when they are tight."*

> *"Partner to write grants – building systems that are stable, comprehensive, collaborative across agencies"*

> *"Advocate for funding. If DOH can't do that, at least provide information that helps build the case for funding."*

> *"…when funds decrease, I need leadership from OMCH on plan B. I expect the state at that time to set up meetings or somehow acknowledge lack of funding and provide insight on what others are doing. If we lose funding for a county, let's have a meeting and brainstorm how to address, i.e., convene stakeholders over a demise of a program."*

5. Providing Policy and Advocacy

OMCH is valued by stakeholders for their role and work in **policy and advocacy.** Some key informants stated that they would like to see OMCH take a larger and more pro-active role in policy and legislative change.

> *"When questions come from the legislature, it is great to have a public/private partnership on program development."*

> *"Be more proactive in working with partners to shape policy vs waiting to be asked."*

> *"OMCH and all of DOH need to be more vocal with children issues with other levels of government and agencies."*

6. Public Health and Leadership

There were a number of comments that could not be easily classified. Often, these comments fell into a broader **public health role or leadership** category**:**

"[OMCH's role is] to support positive health for women and children in Washington."

"Help LHJs think outside the box."

"Provide a strong backbone to lead and support providers to do what is right, despite politics."

"Maintain overall picture and unified focus of carrying out services using the resources we have in place, despite changes in funding, leadership, etc. Stay focused on providing help to the community, don't get caught up in the changes or "can't do…".

"I realize financial constraints facing our state, but we must have a vision and encourage innovation…OMCH is not just about survival but about planning and having a 5 year vision and planning for it, addressing reasons for this particular vision and selling it."

7. Appreciation for OMCH Staff

The high quality work and leadership of **OMCH staff** was mentioned many times. Staff are viewed as efficient, knowledgeable, responsive, and having a spirit of cooperation. Suggestions for improvement include having updated phone numbers and position descriptions so stakeholders can determine the best staff person to talk with. In addition, a couple of key informants mentioned that the organizational structure and hierarchy of OMCH was a barrier.

"Openness to questions and supportive feedback from program staff."

"Personnel/people are marvelous, dedicated to kids, and they do everything they can."

"State government tends to be hierarchical ….that is a barrier. Higher level micromanagement prevents [timely] work [from] being done…How MCH uses internal personnel can be inflexible…not always, but it does happen."

8. Focusing on Prevention

OMCH's role in promoting **prevention** was mentioned throughout the interviews.

"In an ideal world, funding sources would be restructured to emphasize prevention."

"Target resources to prevention since its less expensive than treating the disease."

9. Contracts - Comments and Issues

Contracts were mentioned by stakeholders during the interviews:

"[Appreciates the] spirit of collaboration in development of statement of work in contract to keep it realistic."

"Currently our contracts are re-negotiated every year. To step back and have some strategic planning to develop the big picture 5 year view and how each contract fits."

"The last couple of years have seemed like a frenzy to get the contract together – less strategic planning. Need more planning about what we do, what each contractor is doing – making sure that all contractors are coordinated."

10. Role in Health Care Reform

OMCH's role in **health care reform** was mentioned a number of times, especially in regards to future roles.

"Health care reform - look for opportunities - understand it. Lead in developing policy and work with local and state agencies on how to best use this opportunity for MCH population benefit."

"Implementation of health care reform and the policies – potentially there could be a greater emphasis on assessment (what impact are we having?)."

Strengths and Limitations

Qualitative analysis is always subject to the interpretation and bias of the analysts. In order to account for this, as much as possible, we completed a short validation exercise. This exercise included 1) comparing the initial coding schemes of two independent qualitative analysts 2) revising the coding scheme, as needed 3) recoding a sample of interviews, and 4) revising the final coding scheme.

Overall, there was a high level of agreement and overlap between the analysts' coding. Approximately 90% of the items coded had agreement on primary themes. Minor revisions to the final coding were made based on the 10% of text that did not have primary theme consistency. These revisions consisted mostly of combining two themes into one theme. Final coding categories were improved as a result of this exercise, which were used for this report.

The main limitation to this study was the reliance on interviewer notes for qualitative analysis, instead of interview transcripts. Because there were multiple interviewers, who received only a brief training, the quality and format of the notes varied widely. Most interviewers provided detailed notes, while a few interviewers summarized responses into brief phrases. Due to time limitations, we could not conduct further interviews with key informants to clarify or obtain more detailed information. Information provided in the abbreviated interview notes contained less detail and richness. Because of this, it was more difficult to determine context of the comments and to code into themes. Comments from these interviews are less likely to be fully represented in the analysis and this report.

In addition, interview notes with less amount of detail have a fewer 'number' of comments, compared with interview notes with more detail. Because of this, we did not provide exact numbers or percentages of comments by theme. Figure 1 provides some information on the distribution of comments by theme, however is meant to provide an overall idea of the distribution. Figure 1 needs to be interpreted with care, as the distribution of comments does not necessarily represent the usefulness, relevance, richness of the comments.

Ideally, we would have used transcripts from audio recordings for the qualitative analysis, or had fewer interviewers with a higher level of training. However, given the short timeline, we worked with the resources and time that were available. Qualitative methods and analysis are also an unfamiliar topic for many OMCH staff. A previous OMCH staff assessment identified training in qualitative methods as the top training need.

Another potential limitation to this project is the varying range of familiarity that stakeholders and partners may have about OMCH. While it is clear that most of the comments were directed specifically to OMCH, they may also reflect the interviewees' perspective and experience with the Department of Health in general, or even other state agencies.

Summary and Conclusion

In spring of 2010, the Office of Maternal and Child Health conducted 51 key informant interviews with key stakeholders and partners. Questions for stakeholders and partners included how they view the role of OMCH, what they need and value from the office, and improvements that the office can make. Notes from the interviews were analyzed and coded into themes and sub-themes.

The majority of information collected during the key informant interviews fell into 10 primary themes. Around 75% of the comments were coded into the top 5 themes: OMCH's function in convening groups and communicating information, followed by providing expertise; data and assessment; funding; as well as policy and advocacy. Other themes included general comments on the role of public health, appreciation that stakeholders have for OMCH staff, the need for OMCH to focus on prevention, comments about contracts, and OMCH's role in health care reform.

Key informants provided rich information and varying perspectives on how they view OMCH, what they value, and improvements they would like to see. In addition to specific topics or themes, there were also central phrases that were found through out the comments – whether the key informant was discussing funding, data, policy, or another topic. These phrases included leadership, inclusion, coordination, communication, strategic planning, and looking for new opportunities. These phrases were used in comments that described OMCH's strengths as well as where we can make improvements. They represent a 'way of doing business,' which can be applied to the work done by individual staff as well as broader office and organizational environment. This 'way of doing business' seems to be valued by stakeholders as much as the particular topics in discussion.

Thank you to all partners and stakeholders who participated in the key informant interviews.