

**State of Delaware  
Department of Health & Social Services  
Division of Public Health  
Family Health & Systems Management Section**

**Maternal and Child Health  
Title V  
Five Year Needs Assessment  
July 2010**



***DELAWARE HEALTH AND SOCIAL SERVICES***  
***Division of Public Health***  
***MATERNAL AND CHILD HEALTH BUREAU***

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**GLOSSARY OF ACRONYMS**

AAPP	Alliance for Adolescent Pregnancy Prevention
ACOG	American Congress of Obstetricians and Gynecologists
AMCHP	Association of Maternal and Child Health Programs
BMI	Body Mass Index
BRFSS	Behavioral Risk Factor Surveillance System
CAST-5	Capacity Assessment for State Title V
CDC	Centers for Disease Control and Prevention
CYSHCN	Children and Youth with Special Health Care Needs
DDDS	Division of Developmental Disabilities Services
DHMIC	Delaware Healthy Mother and Infant Consortium
DHSS	Department of Health and Social Services
DMMA	Division of Medicaid and Medical Assistance
DPH	Division of Public Health
DSCYF	Department of Services for Children, Youth, and Their Families
ECCS	Early Childhood Comprehensive Services
EPSDT	Early and Periodic, Screening, Diagnosis, and Treatment Program
FIMR	Fetal Infant Mortality Review
FQHC	Federally Qualified Health Center
FSI	Family Support Initiative
HPV	human papillomavirus
HRSA	Health Resources and Services Administration
IDEA	Individuals with Disabilities Education Act
IMTF	Infant Mortality Task Force
KBG	Kick Butts Generation
LBW	Low Birth Weight
MCH	Maternal and Child Health

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MCHB	Maternal and Child Health Bureau
MPA	Masters of Public Administration
MPH	Masters of Public Health
NHANES	National Health and Nutrition Examination Survey
NHSDU	National Household Survey on Drug Use and Health
NOT	Not on Tobacco
NSCH	National Survey of Children's Health
NTD	Neural Tube Defect
OB/GYN	Obstetrics and Gynecology
OBSI	Optimal Birth Spacing Initiative
OLPP	Office of Lead Poisoning Prevention
PID	Pelvic Inflammatory Disease
PRAMS	Pregnancy Risk Monitoring System
SCHIP	State Children's Health Insurance Program
SIDS	Sudden Infant Death Syndrome
SSDI	State Systems Development Initiative
STD	Sexually Transmitted Disease
TATU	Teens Against Tobacco Use
UTI	Urinary Tract Infection
VLBW	Very Low Birth Weight
WIC	Special Supplemental Nutrition Program for Women, Infants, and Children
YRBS	Youth Risk Behavior Survey

**I. EXECUTIVE SUMMARY**

The Delaware Maternal and Child Health (MCH) program began working on the Five Year Needs Assessment early in 2008. The intent was to review, assess, and re-vamp the MCH Block Grant to ensure the state performance measures were not duplicative of national measures and that they truly reflected state priorities. Moreover, it was determined that the 2010 Needs Assessment should serve as a *living document* to guide and serve as a metric for MCH programs and services. In summer 2008, an internal workgroup was established and trained on the Capacity Assessment for State Title V process (CAST-5). In September 2008, the MCH Needs Assessment Workgroup was formally established (SECTION II). This workgroup included the internal Division of Public Health (DPH) workgroup along with families, advocates, clinicians, and organizations serving children and youth with special health care needs (CYSHCN). A total of 35 individuals from across the State of Delaware participated in the needs assessment process (SECTION III).

After the workgroup was formed, tools and strategies were used to help identify state priorities. Over the course of seven months, the MCH Needs Assessment Workgroup established criteria, including weighting and ranking parameters for 33 varied health conditions affecting the MCH population groups (most of these conditions are thoroughly detailed in SECTION IV). By using a dual approach of individual and group ranking of health conditions, workgroup members could be engaged on each condition while still focusing on those that most impacted/interested them. The capacity of Delaware's current MCH-related programs to meet the needs of persons affected by these health conditions was also determined using the MCH Pyramid of Health Services conceptual framework (SECTION V).

Ten state health priorities emerged from the MCH Needs Assessment process (SECTION VI). Delaware's 2010 MCH priorities include:

	<b>2010 Delaware Priority</b>	<b>Description</b>
1	<u>Infant Mortality</u>	Decrease infant mortality and eliminate the disparity in infant mortality among Black women.
2	<u>Low Birth Weight/Preterm Births</u>	Decrease low birth weight ( $\leq 2500$ g) and very low birth weight ( $\leq 1500$ g) births and births occurring between 32 and 36 weeks gestation.
3	<u>Obesity and Overweight Among Children &amp; Teens</u>	Decrease obesity and overweight among children and youth between the ages of 6 and 19.
4	<u>Obesity Among Women of Childbearing Age</u>	Decrease obesity among women of childbearing age - between the ages of 15 and 44.
5	<u>Unintentional Injury Among Infants, Children &amp; Teens</u>	Decrease unintentional injuries and deaths due to unintentional injuries among children and youth between birth and age 21.
6	<u>Teen Smoking</u>	Decrease tobacco use among adolescents.
7	<u>Family Support for Children and Youth with Special Health Care Needs</u>	Increase effectiveness and efficiency of organizations that serve families of children with special health care needs.
8	<u>Developmental Delay</u>	Increase the percentage of children with low/no risk of developmental, behavioral or social delays.
9	<u>Disparities Among Families of Children and Youth with Special Health Care Needs</u>	Decrease disparities in child health, emotional/mental health, health care access/quality and family health indicators among children and youth with special health care needs.
10	<u>Child Oral Health</u>	Decrease the percentage of children with untreated caries and eliminate the disparity in untreated caries among Black children.

The Delaware 2010 Needs Assessment represents the first step in a cycle of continuous improvement of maternal, child, and adolescent health. Between 2010 and 2015, actions and strategies will be implemented, results will be monitored and evaluated (SECTION VII), and necessary adjustments will be made in an effort to enhance the health of women, children, and adolescents in Delaware.

## II. PROCESS FOR CONDUCTING THE NEEDS ASSESSMENT

### A. Goals and Vision

As a Title V Maternal and Child Health Block Grant funded agency, Delaware Department of Health and Social Services (DHSS) is required to conduct a comprehensive needs assessment every five years. Delaware's 2010 Needs Assessment serves as a road map to guide program activities, resource allocation and impact evaluation for programs and services that target MCH populations.

The goal of the needs assessment is to assess the health status of women, infants, children, adolescents, and CYSHCN through the lens of the most up-to-date epidemiologic data, evidence-based practice, and population self-reported needs. It also provides a framework for program activities by outlining state health priorities, indicators, objectives, and activities. The State of Delaware envisions the 2010 Needs Assessment as a *living document* for guiding and measuring programs and services over the next five years.

### B. Leadership

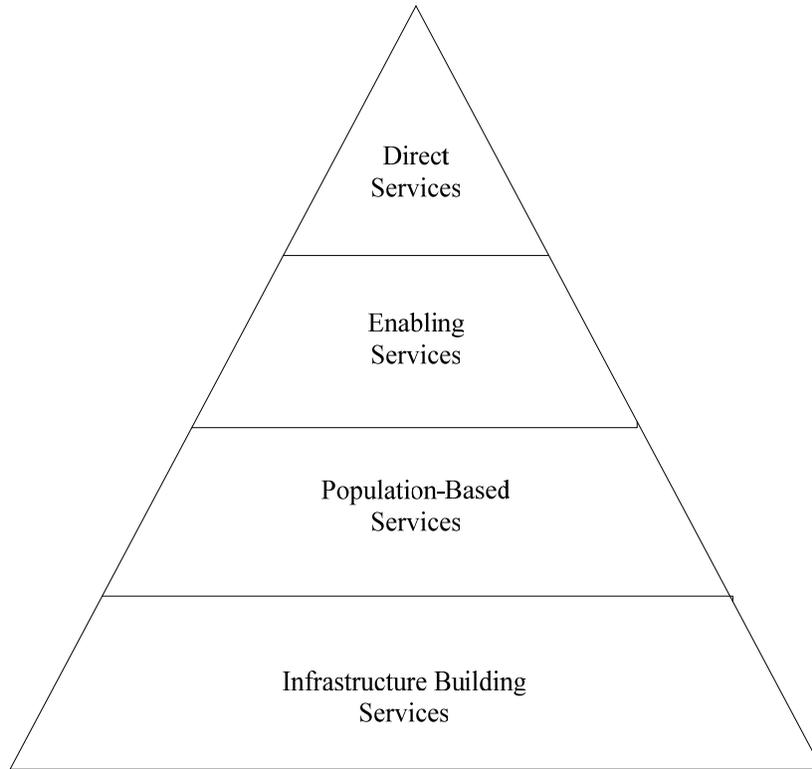
The MCH Director (Ms. Alisa Olshefsky, MPH) led the Delaware 2010 Needs Assessment process. Ms. Olshefsky serves as the Chief of Family Health and Systems Management within the Delaware Division of Public Health. She began outlining the process and timeline for the needs assessment in March 2008. This included conducting a thorough environmental scan of all MCH programs and services DPH provided, either directly or indirectly. The scan also organized programs by the MCH service delivery pyramid (i.e. direct, enabling, infrastructure, or population-based service) and included information on the target populations, outputs, funding sources, evidence base for the program, and whether a formal evaluation had been conducted. The Child Health Director (Dr. Walter Mateja) worked closely with Ms. Olshefsky and oversaw the logistics of organizing the MCH Needs Assessment Workgroup. He was instrumental in conducting data analyses for state identified priorities.

The Center for Family Health Research and Epidemiology (Center) within the Family Health and Systems Management Section conducted thorough reviews of the literature and provided epidemiologic analyses. The Center contracted with APS Healthcare to conduct epidemiologic research and evaluation that was beyond the capacity of Center staff. APS Healthcare staff (Ms. Kimberly Swanson, MPA and Mr. Vikrum Vishnubhakta, MPH) conducted data analyses to quantitatively assess the current health conditions of Delaware's MCH population and to assist in Delaware's goal of developing a more outcomes-oriented needs assessment.

Family leaders and advisors to the MCH Children and Youth with Special Health Care Needs Program were key in ensuring the MCH Needs Assessment Workgroup was inclusive of family input and insight. Over the course of six months, the workgroup maintained at least 25% representation of families at all meetings. This accomplishment was due to the outstanding work of Family to Family, a CYSHCN family-led organization through the University of Delaware, Center for Disabilities Studies.

### C. Methodology

In order to truly understand the current impact of Title V funding and assess system-wide needs, a thorough census of services and programs was conducted by each level of the MCH pyramid (**Figure 1**). A total of 43 programs were identified and examined based on target population, outcomes, evidence base for operation, and evaluation.



**Figure 1: MCH Pyramid of Health Services**

The MCH Director and Child Health Director attended three trainings in 2008 that provided guidance and direction on conducting the MCH needs and capacity assessment. In July 2008, an internal DPH workgroup was established and trained on the HRSA CAST-5 process that examined health system capacity in each of the ten MCH essential services.

The formal MCH Needs Assessment Workgroup (Workgroup) was established in September 2008. This workgroup was made up of key stakeholders in the areas of child health, newborn screening, newborn hearing, State Systems Development Initiative (SSDI), Early Childhood Comprehensive Services (ECCS), health promotion, communicable disease, public health clinical services, health promotion and disease prevention, WIC, minority health, adolescent health, reproductive health, nursing, and executive management. The MCH Needs Assessment Workgroup included the internal DPH workgroup along with families, advocates, clinicians and organizations serving CYSHCN. The workgroup roster is included in the table on the following page.

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<b>Needs Assessment Workgroup Membership and Representation</b>			
<b>Individual</b>	<b>Representative</b>	<b>Internal Workgroup</b>	<b>Expanded Workgroup</b>
Dr. Paul Silverman	DPH Executive Leadership	X	X
Alisa Olshefsky	MCH	X	X
Dr. Walt Mateja	Child Health	X	X
Crystal Sherman	SSDI	X	X
Helen Arthur	ECCS	X	X
Betsy Voss	Newborn Screening	X	X
Janae Aglio	Newborn Hearing	X	X
Joanne White	WIC	X	X
Dr. Martin Luta	Immunizations/Communicable Disease	X	X
Dr. Gloria James	Adolescent & Reproductive Health	X	X
Kathy Collison	Primary Care & Rural Health	X	X
Alvera Aronson	Northern Health Services	X	X
Kathleen Russell	Southern Health Services	X	X
Kristin Bennett	Public Health Nursing	X	X
Judy Chaconas	Health Planning & Resources Management	X	X
George Yocher	PRAMS	X	X
Dr. Greg McClure	Dental Services	X	X
Jill Rogers	Health Promotion & Disease Prevention	X	X
Dr. Charlan Kroelinger	MCH Epidemiology	X	X
Beth MacDonald	CYSHCN	X	X
Marie Renzi	Emergency Medical Services for Children	X	X
Alex Casper	March of Dimes		X
Carol Ann Shumann	Child Development Watch/Early Intervention Part C		X
Barbara Gladders	DPH – Delaware Health Statistics Center		X
Anne Pedrick	Child Death, Near Death & Stillbirth Commission		X
Dana Sawyer	Office of Prevention & Early Intervention – Department of Services for Children, Youth & Their Families		X
Leslie Newman	Children and Families First (Non-profit organization)		X
Midge Barrett	Nemours Health and Prevention Services		X
Valerie Werner	University of Delaware		X
Nancy Widdoes	Child Mental Health		X
Ann Phillips	Parent – CYSHCN and Family to Family		X
Samtra Devard	Parent – CYSHCN and Coordinating Council for Children with Disabilities		X
Adrienne Smalls	Parent - CYSHCN		X
Frank Spinelli	Parent - CYSHCN		X
Cherlynn McKay	Parent - CYSHCN		X

Over the course of seven months (September 2008 – April 2009), the MCH Needs Assessment Workgroup met periodically to identify and prioritize MCH health needs. Tools and strategies from HRSA, the Maternal and Child Health Bureau (MCHB), the Centers for Disease Control and Prevention (CDC), and the Association of Maternal and Child Health Programs (AMCHP) were used to help identify state priorities. A Q-sort procedure was used to select a total of 33 health conditions or health problems. The workgroup identified criteria, weights for each criteria and ranking scales to assess the impact of the criteria for each health problem. As a result, the group created a ranking worksheet (Appendix A) to assist with the

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identification, prioritization, and scoring criteria. Given the diversity in background of the workgroup members, it was important they all had a baseline understanding of the epidemiology, severity, causes and strategies for each of the 33 health problems. Thus, informational fact sheets (incorporated into SECTION IV) were created and distributed for workgroup review. These were modeled on fact sheets created by similar Title V programs (such as the program in Minnesota). Members were divided into six teams and each team was given five to seven health conditions on which to focus. Each individual did a ranking worksheet on all 33 health conditions. Then, as a group, they developed one consensus ranking worksheet on the five to seven assigned health conditions. This dual approach of individual and group review allowed for all members to be engaged on each health condition while still focusing on those that most impacted/interested them.

Each information sheet included the following:

- What is the health condition?
- Facts
- Causes
- Impact and consequences
- Prevention strategies
- Community efforts

The individual and group ranking worksheets were tabulated and the highest ranking health problems were identified. The top health conditions impacting Delaware’s MCH population included:

- Childhood obesity, including among CYSHCN
- Infant mortality
- Low birth weight/Preterm birth
- Child and teen unintentional injuries and deaths (including motor vehicle)
- Obesity and overweight among women of childbearing age
- Teen tobacco use
- Dental health, including among CYSHCN
- Care coordination for CYSHCN
- Family support for CYSHCN, including easy access to information and referrals
- Developmental delay
- Disparities among CYSHCN families
- Child oral health

Needs assessment activities occurred from 2008-2010. A timeline is provided below for reference.

<b>Timeline of Needs Assessment Activities</b>	
<b>Date</b>	<b>Event</b>
March-November 2008	MCH Director and Child Health Director attended several Title V needs assessment trainings through HRSA MCHB and AMCHP.
August 2008	Internal DPH workgroup established.
September 2008	Training of internal DPH workgroup on CAST 5 and overview of needs assessment process.
September 2008	First meeting of the expanded needs assessment workgroup that was inclusive of families, advocates and community partners.
September 08 – April 2009	Monthly/bi-monthly meetings of the needs assessment workgroup to identify and prioritize health conditions impacting Delaware’s MCH population.
December 2008	Meeting with families and youth to discuss CYSHCN-specific issues, unmet needs and priorities.
March 2009	Publication and dissemination of the health problem fact sheets.
April 2009	Q-sort process to determine state priorities.
May 2009	CAST-5 capacity assessment and dissemination of findings.
January-April 2010	Dissemination and feedback from CYSHCN families and community partners

	through state wide coffee klatches and public meetings.
April-May 2010	Dissemination and feedback from statewide MCH partners through the Delaware Healthy Mother & Infant Consortium.
June 2010	Posting of final needs assessment to DPH website for public input.

**D. Methods for Assessing Three MCH Populations & Data Sources**

A range of quantitative and qualitative resources were used to assess the strengths and needs of each of the three MCH populations (SECTION IV). Quantitative data collection included meticulous searches through vital statistics, population-based surveillance, and program evaluation data. Qualitative data collection included structured interviews, surveys, and client observation. Analyses were conducted using Microsoft Access 2003 and SPSS 17.0 on the data collected from the varied sources listed in SECTION II.F.

**E. Methods for Assessing State Capacity**

Although all the health priorities identified by stakeholders through the six-month assessment process are important, the MCH program and DPH do not have the capacity to address them all. In order to systematically analyze the Division’s capacity, the workgroup chose to use the HRSA CAST-5 system. CAST-5 is a methodology for assessing an organization’s capacity to carry out core MCH functions. The internal MCH Needs Assessment Workgroup was trained on the CAST-5 system then completed an assessment on each of the essential services process indicators. In groups of two or three members, the teams scored the level of adequacy and capacity needs. It was determined early in the process that an additional level of “inadequate” needed to be added to the established four levels (minimally adequate, partially adequate, substantially adequate, and fully adequate). Rich comments were provided on each process indicator through a SWON (strengths, weaknesses, opportunities and needs) analysis. This process was conducted over three meetings for a total of 12 hours.

The results revealed areas of strength and opportunities for improvement. The strongest capacity areas were:

- **Essential Service 4.** Mobilize community partnerships between policymakers, health care providers, families, the general public, and others to identify and solve maternal and child health problems;
- **Essential Service 9.** Evaluate the effectiveness, accessibility, and quality of personal health and population-based maternal and child health services; and
- **Essential Service 10.** Support research and demonstrations to gain new insights and innovative solutions to maternal and child health-related problems.

The weakest capacity areas were:

- **Essential Service 2.** Diagnose and investigate health problems and health hazards affecting women, children, and youth;
- **Essential Service 5.** Provide leadership for priority setting, planning, and policy development to support community efforts to assure the health of women, children, youth, and their families; and
- **Essential Service 8.** Assure the capacity and competence of the public health and personal health workforce to effectively and efficiently address maternal and child health needs.

The results clearly showed that the capacity to meet these needs through the MCH Block Grant alone was insufficient. The true capacity to meet the needs in the pyramid of services is found in the extensive and intensive partnerships and coalitions in Delaware.

**Summary of Strengths, Weaknesses, Opportunities and Needs (SWON) by Essential Service**

An assessment for each essential service is provided below.

**Essential Service 1.** Assess and monitor maternal and child health status to identify and address problems.

Topic	Assessment
Level of Adequacy	Partially adequate.
Strengths	Delaware collects key health data including two relatively new sources, the Pregnancy Risk Monitoring System (PRAMS) and the Fetal Infant

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	Mortality Review (FIMR). Data from the Behavioral Risk Factor Surveillance System (BRFSS), Youth Risk Behavior Survey (YRBS), live birth, fetal death, abortion and census are all available in some form. As of 2006, Delaware created a poor birth outcomes registry which links birth and fetal death records using the mother as a primary case identifier.
Weaknesses	Although data is available, vital statistics data is over two years behind. Access to “real time” data to make program decisions is limited. There are organizational barriers to obtaining full data sets for analyses.
Opportunities	Health information technology grants have the potential to yield timely and useful information. Linking data by patient will allow for longitudinal analysis. The recent transition from passive to active surveillance of birth defects provides the opportunity for more complete collection of incidence data on birth defects.
Needs	Additional MCH epidemiology resources are needed in order for DPH to fully fulfill the data-related technical assistance process indicators for Essential Service 1.

**Essential Service 2.** Diagnose and investigate health problems and health hazards affecting women, children, and youth.

Topic	Assessment
Level of Adequacy	Partially adequate.
Strengths	From 2006-2009, Dr. Charlan Kroelinger, a CDC MCH Epidemiologist, was assigned to Delaware. Dr. Kroelinger filled a capacity for MCH epidemiology that had not previously existed. Under her leadership, Delaware obtained PRAMS data, began FIMR, and created the Registry for Improved Birth Outcomes.
Weaknesses	As of April 2009, Dr. Kroelinger returned to the CDC leaving the state with essentially no MCH epidemiology capacity. Without staff with expert analytic skills, investigations and analyses lack the depth needed to fully implement indicators of Essential Service 2.
Opportunities	As of May 2009, DPH contracted with APS Healthcare to provide research, epidemiology and evaluation services for all family health initiatives (e.g. infant mortality elimination, preconception, newborn screening and early childhood comprehensive services). APS Healthcare has staff with the experience and capacity to enhance ongoing surveillance systems and serve as an expert resource on data interpretation.
Needs	Formal merit positions in epidemiology are needed within DPH. During the current fiscal climate, all new positions are frozen.

**Essential Service 3.** Inform and educate the public and families about maternal and child health issues.

Topic	Assessment
Level of Adequacy	Substantially adequate.
Strengths	Delaware has a strong state-wide coalition focused on infant mortality elimination and improving the health of women and children. The Delaware Healthy Mother and Infant Consortium (DHMIC) was created by executive order and is required to submit an annual report to the Governor on progress. The DHMIC and DPH have an excellent working relationship and collaborate on all public education related to maternal and infant health.

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Weaknesses	Due to key staff vacancies in the MCH program, there is limited ability to conduct health education programs on MCH topics.
Opportunities	DPH and DHMIC are collaborating on a new social marketing campaign focused on preconception health care. The campaign will have three components. First, raise awareness about the importance of preconception health care. Second, educate women about the dangers of premature birth. Third, inform the public that free or reduced cost health services are available through state programs. An interactive educational website and messaging via social networking will be included in the campaign. Two reproductive life plans, one for adult women and another for teens, were created in 2009 and will be distributed statewide through clinicians, hospitals, community clinics, schools and school-based wellness centers.
Needs	The new social marketing campaign must include a strong evaluation component to measure the effectiveness of the campaign.

**Essential Service 4.** Mobilize community partnerships between policymakers, health care providers, families, the general public, and others to identify and solve maternal and child health problems.

Topic	Assessment
Level of Adequacy	Substantially adequate.
Strengths	<p>Many key MCH stakeholders already actively collaborate on a variety of initiatives. When concerns arise, it is clear who has the “authority” to act and that entity is charged with addressing the issues. When it involves population-based maternal and child health, DPH is considered the lead agency. DPH provides trend information as requested and actively participates in community and consumer groups. In order to strengthen community groups serving CYSHCN, DPH led a year-long initiative to develop an “umbrella organization” for family support. The request for proposal for the lead agency to serve as the umbrella was released in October 2009. DPH has also renewed its work to engage families during 2008-2009. This included partnering with Family to Family to help develop family leaders, funding parent support initiatives and convening five focus groups with families as part of the five year needs assessment.</p> <p>DPH staff from the Family Health and Systems Management Section serve as facilitators for the state’s largest and most comprehensive maternal and infant health coalition, the DHMIC. The MCH Director, Child Health Director, Director of the Center for Family Health Research and Epidemiology, Reproductive Health Director, ECCS Coordinator, SSDI Coordinator, Primary Care/Rural Health Program Manager and Chief of Health Planning all facilitate committees of the DHMIC. Having DPH staff in key authority roles staffing and facilitating coalition activities ensures that decision-making is streamlined and acted upon.</p>
Weaknesses	Program response tends to be reactive rather than proactive.
Opportunities	Continuing to nurture community partners and including families in MCH decision-making roles will strengthen the program and help the long-term viability of community based organizations. In order to actively engage and obtain community input, MCH intends to create an annual report and feedback tool. Other Title V programs effectively use a similar annual report that allows consumers and stakeholders to be informed about MCH activities and also provides input on MCH needs.

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Needs	A more systematic means of obtaining community input needs to be established.
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**Essential Service 5.** Provide leadership for priority setting, planning, and policy development to support community efforts to assure the health of women, children, youth, and their families.

Topic	Assessment
Level of Adequacy	Partially adequate.
Strengths	DPH MCH has increased efforts to use evidence and current scientific knowledge in the allocation of resources and programs. The statewide preconception program, currently in its third year of operation, was revised to conform to the <i>life course perspective</i> and the current CDC and American Congress of Obstetricians and Gynecologists (ACOG) recommendations on preconception care services.
Weaknesses	An annual state report on MCH status does not occur. Feedback with stakeholders is sporadic and not through formal mechanisms. Political priorities (legislative and executive level of government) often drive programs as opposed to scientific knowledge or evidence.
Opportunities	Relationships between MCH, WIC (Special Supplemental Nutrition Program for Women, Infants, and Children), Medicaid, and other key agencies were strengthened. Formal interagency agreements have been established/updated in the last year.
Needs	Key vacancies within the MCH Bureau must be filled to allow for executive-level staff to support community efforts and provide leadership.

**Essential Service 6.** Promote and enforce legal requirements that protect the health and safety of women, children and youth, and ensure public accountability and their well-being.

Topic	Assessment
Level of Adequacy	Substantially adequate.
Strengths	DPH is actively involved in reviewing and proposing legislation related to MCH, CYSHCN, or legislation that may impact at-risk populations. Over the last three years, key legislative initiatives resulted in laws or changes to Delaware code meant to improve the health of MCH and CYSHCN populations. These include expanding access to state funded hearing aids to children through 18 years of age, increasing the age for mandatory helmet use, mandating insurance coverage of developmental screening, mandating insurance coverage of dental services for CYSHCN, maternal mortality review and expansion of the State Children’s Health Insurance Program (SCHIP) to children up to 250% of federal poverty level.
Weaknesses	DPH has essentially no role in monitoring the quality of care and services delivered to the MCH population.
Opportunities	Expand the focus of Title V-funded services to ensure quality of care is measured and monitored. Enhancing outdated data collection systems to track individual level outcomes will aid in this effort.
Needs	Updated data collection systems that monitor quality outcomes.

**Essential Service 7.** Link women, children and youth to health and other community and family services, and assure access to comprehensive, quality systems of care.

Topic	Assessment
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STATE OF DELAWARE 2010 MCH NEEDS ASSESSMENT

Level of Adequacy	Substantially adequate.
Strengths	DPH MCH tracks calls to the Delaware Helpline, the statewide resource line for social services. Through regular reporting, the program can determine the volume of calls, type of service required and referrals for services. Funding is provided for direct services including preconception care for at-risk women, enhanced prenatal care that includes case management and identification and services for children and youth with special health care needs. Through partnerships with the Office of Minority Health, Office of Primary Care and DHMIC, MCH works to improve the cultural and linguistic competence of providers to enhance their accessibility and effectiveness. Trainings and resources are provided through continuing sessions and on-line, self-paced learning modules. Through the DHMIC, systems of care for women and children are analyzed and recommendations for improvements are made to reduce disparities and enhance access to high quality services.
Weaknesses	DPH has no role in the oversight of public/private insurance health plans.
Opportunities	DPH MCH is currently working on a linked child health data system. This database includes information on newborn metabolic screening, newborn hearing screening, birth defects registry, and autism registry. It is being expanded to include individual-level outcomes data on preconception care, prenatal care, mental health, and nutrition services for women in the state-sponsored program, Healthy Women/Healthy Babies. The child health data system will also capture outcomes on families served through the DPH home visiting program.
Needs	The program needs to expand resources available to provide technical assistance, outreach and service delivery for hard-to-reach populations.

**Essential Service 8.** Assure the capacity and competence of the public health and personal health workforce to effectively and efficiently address maternal and child health needs.

Topic	Assessment
Level of Adequacy	Partially adequate.
Strengths	DPH has strong provider recruitment and retention programs in areas of pediatrics, obstetrics and gynecology (OB/GYN) and family practice. Practitioners are offered financial incentives to practice in underserved and rural areas of Delaware. Incentives increase per year of service. The majority of providers who come to Delaware through recruitment initiatives such as the J-1 visa (non-immigrant visa to promote cultural exchange) remain in Delaware to practice even after their period of service is complete
Weaknesses	The MCH program has yet to develop a formal system to monitor the numbers, types and skills of the MCH labor force.
Opportunities	The MCH program is currently implementing training and continuing education for targeted professional audiences on emerging MCH issues. In March 2010, trainings were offered on pediatric oral health and the importance of the “first visit”. This initiative encourages pediatric providers to assess dental health at the first year well-child visit. A strong partnership with the DPH Dental Program will ensure education in this area continues.
Needs	The program needs to conduct a formal assessment of MCH workforce skills and training needs. The results of the assessment will inform

STATE OF DELAWARE 2010 MCH NEEDS ASSESSMENT

	future trainings and continuing education opportunities.
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**Essential Service 9.** Evaluate the effectiveness, accessibility, and quality of personal health and population-based maternal and child health services.

Topic	Assessment
Level of Adequacy	Substantially adequate.
Strengths	Annual reports of MCH outcomes are shared with private and public sector groups. The annual <i>Kids Count</i> report, which utilizes data from the DPH Health Statistics Center, provides information on key aspects of infant, child, adolescent and maternal health. These data are used to inform policy and advocacy. Additionally, the MCH program strengthened its evaluation and comparative analysis capabilities.
Weaknesses	The program has limited capacity to provide program evaluation technical assistance to local agencies. This is an area of weakness that will be addressed through contracted evaluation services.
Opportunities	Current comparative analysis projects include an assessment of DPH home visiting services. The MCH program provides leadership on a project to assess the applicability of evidence-based home visitation programs to DPH’s program, <i>Smart Start</i> . In collaboration with other community-based MCH organizations, the state will implement an integrated and comprehensive home visiting program where families are referred to different programs (e.g. Nurse-Home Visiting, Health Families America and Parents as Teachers), depending on needs.
Needs	The MCH program needs to improve collaboration with community-based organizations serving MCH and CYSHCN populations. This will enhance program knowledge of technical assistance needs relative to satisfaction, community perceptions of health needs, access, and quality of care.

**Essential Service 10.** Support research and demonstration to gain new insights and innovative solutions to maternal and child health-related problems.

Topic	Assessment
Level of Adequacy	Fully adequate.
Strengths	The MCH program serves as a clearinghouse for MCH research and national findings. This information is regularly shared with providers, public health practitioners and policy makers. MCH researchers in the state regularly consult with DPH for information, guidance, and requests for collaboration.
Weaknesses	The program was found to be fully adequate in this area.
Opportunities	DPH is an important partner with the New Castle County site for the National Children’s Study. The principal investigators consult with DPH for methodological guidance, recruitment strategies, and data requests.
Needs	The MCH program needs to strengthen the MCH epidemiologic capacity within DPH. This can include providing continuing education for existing Division epidemiologists along with establishing a state epidemiologist for MCH. This role was previously filled by a CDC-assigned MCH epidemiologist. However, the position has been vacant since May 2009. Delaware is currently pending the “matching” process

	for a new CDC MCH epidemiologist.
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## F. Data Sources

The following are some of the primary sources used to assess the health of the three MCH populations:

- Behavioral Risk Factor Surveillance System (BRFSS)
- National Survey of Children with Special Health Care Needs (NS-CYSHCN)
- National Survey on Drug Use and Health Report
- Pregnancy Risk Assessment Monitoring System (PRAMS)
- University of Delaware, Youth Risk Behavior Survey (YRBS)
- Bureau of Justice Statistics
- CDC Fact Sheets
- Delaware Birth Cohort Data Set
- Delaware Health Statistics Center
- Kids Count Data Center
- March of Dimes Peristats
- National Center for Health Statistics
- Sudden Infant Death Syndrome (SIDS) Center

## G. Linkages between Assessment, Capacity and Priorities

The assessment of strengths, needs, capacity and selection of priorities was linked by structure and function. The structure of the needs assessment workgroup allowed for representation from all facets of MCH and CYSHCN so priorities were discussed within the context of existing capacity, strengths and needs. However, the function of the Q-sort process and ranking/weighting activities were to allow workgroup members to independently and as a group determine priorities, even if the system did not currently have the capacity to fully address the priorities. It is the intention of the MCH program to build capacity through Title V resources over the next five years to strengthen capacity in areas that are currently weak or inadequate based on the CAST-5 capacity assessment.

## H. Family Involvement in the Needs Assessment Process – “Front End and Back End”

It was a goal of the MCH Bureau to involve families at the front end and back end of the needs assessment process. Extensive efforts were made to ensure that families were represented at all the needs assessment workgroup meetings. Additionally, a separate meeting, organized by Family to Family, took place in fall 2009 to ensure families had an opportunity to have a separate needs and resources discussion. Based on this meeting, the areas of family support and care coordination emerged as high priority issues. Examining the discussion further, it was clear that families felt their needs, including social/emotional needs, were more extensive and required additional supports. Based on this input, the MCH Bureau developed state priority number 9, Disparities among Families of Children and Youth with Special Health Needs, because the data reflected disparities in child health, emotional/mental health, access and quality of family health indicators among CYSHCN. The final state priorities were vetted with families through a variety of communication mechanisms, including in-person meetings, email, mail and internet-based surveys.

## I. Dissemination of Findings

The MCH Bureau initiated a series of intimate in-person “listening sessions” or “coffee klatches” all across Delaware in early April 2010 targeting families of CYSHCN. Sessions lasting 1.5 hours were set for seven sites across all three Delaware counties at well known and easily accessible State Service Centers. A Spanish language interpreter was available. Sign language interpretation was available on request. Both English and Spanish language flyers were disseminated across various partner and contractor email lists and listservs and websites. Turnout was not as high as hoped. However this was the first year of the strategy, the MCH program is confident that this strategy should be institutionalized and become a part of regular outreach to families of CYSHCN.

In April 2010, the Family Support Initiative (FSI), in partnership with MCH, held a partner meeting with CYSHCN-serving organizations and parent-led groups. During the meeting, the Title V needs assessment was discussed and participants were asked to share an executive summary and brief survey with all the parents and families they represent or connect with on a daily basis. Families could select to provide survey feedback via email, web survey, or hard copy through a self-address stamped envelope. Families were asked to respond to three core questions in addition to free form comments.

- If you could give advice to service providers about how they can improve family/individual involvement in decision-making, what would you say?
- Do you feel that our performance measures are on track as it relates to those who support families with special health care needs?
- Is there anything else you would like to tell us that would help us understand how families of children with special health care needs can be served better in Delaware?

Family feedback was incorporated into the final version of the state priorities around CYSHCN. The support of community organizations involved in FSI was essential to wide spread dissemination of the survey. They endorsed the process and shared the information with families they serve.

In May 2010, the MCH program presented to the Delaware Healthy Mother & Infant Consortium regarding the needs assessment. Similar to the CYSHCN forum, DHMIC members were provided an executive summary and asked to complete three questions about the proposed state priorities. The DHMIC was an ideal forum for feedback since the coalition is composed of over eighty organizations serving women, families, infants and youth. Feedback was provided via email and web-based survey.

#### **I. Strengths and Weaknesses of Process**

A key strength was that families were included early and often during the more than one year needs assessment process. Through valued partnerships with Family to Family and the Family Support Initiative, the voice of families and their priorities were heard and valued equal to those of others in the workgroup. The Q-sort process and ranking/weighting of health priorities was also an area of strength. Since workgroup members had different backgrounds and levels of knowledge about each of the 33 health problems, the informational fact sheets helped every member have a baseline working knowledge of the issue so they could make an informed ranking/weighting decision. This was aided by the fact that the MCH program began the needs assessment process more than a year before the due date. This allowed for extensive preparation and time and careful selection of workgroup members. Additionally, workgroup members had over six months to determine priorities after discussion and review of the data. There was never a “rushed” feeling or sense that “time was running out”. This early preparation allowed for a more thoughtful review of the issue and clear consensus building.

As with every large undertaking involving numerous stakeholders there were challenges and shortcomings. A weakness of the process was the amount of time dedicated to dissemination of the draft needs assessment and feedback from partners and families. The MCH program did an excellent job at the “front end” of the process. Plenty of time and energy was dedicated to preparing, training, convening the group, achieving consensus on priorities and including the voices and perspectives of families. However, once the needs assessment was complete only one to two months were dedicated to dissemination and feedback. Given the length of the document, many families and partner agencies were not able to review and digest the information in time to provide feedback. Although there were no formal complaints about the timing, the program plans to allow at least six months for dissemination and feedback for future needs assessments.

### **III. PARTNERSHIP BUILDING & COLLABORATION EFFORTS**

The State of Delaware benefits from close collaboration between private and public agencies that address the maternal and child health needs of the state. The Title V staff work with all agencies and constituency groups to assure that women, infants, children and adolescents, and children and youth with special health care needs and their families have access to needed services.

Coordination of services and programs within the Title V MCH Block Grant program is accomplished through a number of committees and advisory boards with wide-ranging representation. Programs partnered with Title V include, but are not limited to, the following:

- *Delaware Healthy Mothers and Infants Consortium (DHMIC)*. This is a Governor-appointed body consisting of clinicians, nurses, Department executives, academicians, consumers, the faith-based community, and legislators. In addition to these appointed members, the Consortium includes statewide representation from numerous stakeholders in each of its five committees (Data & Science, Education & Prevention, Health Disparities, Standards of Care and Systems of Care). The Consortium is a key body for coordinating maternal and infant health issues in the state, especially issues related to infant mortality.
- *Department of Services for Children, Youth and Their Families (Kids Department)*. This is the primary agency in Delaware responsible for child mental health services (administered by the Division of Child Mental Health Services) and prevention. Areas of collaboration between MCH and the Kids Department include child mental health, early childhood comprehensive systems, school-based health centers, teenage pregnancy prevention and overall child health and family support.
- *Division of Developmental Disabilities Services (DDDS)*. The CYSHCN program collaborates with staff from DDDS on issues related to the disabilities community and systems-wide initiatives including prevention of injuries, specifically traumatic brain injury.
- *Federally Qualified Health Centers (FQHCs)*. FQHCs are vital safety net providers of primary care and mental health services. Through the Healthy Women/Healthy Babies program, MCH partners with most FQHCs in the state to offer enhanced preconception, prenatal and interconception services.
- *Part C Individuals with Disabilities Education Act (Part C IDEA)*. The PART C IDEA program is administered through the Division of Management Services, a sister agency of DPH. The Office of Children with Special Health Care Needs and Child Development Watch work closely with PART C to provide services to children and families between birth and three years of age. Additionally, the ECCS program works with PART C to ensure all Delaware children are healthy and ready to start school.
- *State's Early and Periodic, Screening, Diagnosis, and Treatment Program (EPSDT)*. This is part of the state's Medicaid Program and is administered through the Division of Medicaid and Medical Assistance (DMMA), a sister division to DPH. Staff from the DMMA and DPH routinely meet to discuss crosscutting issues related to outreach, enrollment and services utilization.
- *Title X Family Planning Program*. This program is within the same section as the Title V Maternal and Child Health program and works in close partnership with many MCH-related initiatives including teen pregnancy prevention, women's health, and infant mortality. Title X also supports staff located throughout the state in both contractual programs and public health clinics. Referrals are routinely made between the Title V programs and Title X programs.
- *Women, Infants, and Children Program (WIC)*. The Delaware WIC Program is located within DPH. Title V programs and WIC staff work together at the state's public health clinic sites and on cross-cutting programmatic issues (e.g. media campaigns, education and outreach).

Partners in the community include, but are not limited to, the following:

- Agencies such as Easter Seals and the March of Dimes that are typically represented on a number of maternal and child health committees;
- Children and Families First;
- Prevent Child Abuse Delaware;
- Sussex County Childhood Health Coalition
- Medical Society of Delaware
- Delaware Chapter-American Academy of Pediatrics
- A.I. DuPont Hospital for Children;
- Children's Hospital of Philadelphia;
- Nemours Health and Prevention Services; and
- State hospitals such as Bayhealth, Beebe, Christiana Care Health Systems, St. Francis and Nanticoke.

Additional current advisory and coordinating committees include:

- Birth Defects and Autism Registries Advisory Committee;
- Coordinating Council for Children with Disabilities;
- Developmental Disabilities Council;
- Early Childhood Comprehensive Systems Multi-agency State Team;
- Emergency Services for Children Advisory Board;
- Family Support Coordinating Committee;
- Governor’s Council for Exceptional Citizens
- Healthy Delawareans with Disabilities 2010 (a committee that strategically plans preventing secondary health conditions among persons with disabilities);
- Injury Prevention Coalition;
- Interagency Coordinating Council (an oversight committee for PART C);
- Oral Health Coalition
- Newborn Hearing Advisory Committee;
- Newborn Screening Advisory Committee;
- Traumatic Brain Injury Committee;
- State Systems Development Initiative Advisory Committee; and
- Teen Pregnancy Advisory Board (an advisory committee to the Director of Public Health).

**IV. STRENGTHS AND NEEDS OF THE MCH POPULATION GROUPS**

The strengths and needs of each of the MCH population groups were assessed based on information sheets designed by DPH staff (see methodology in SECTION II.C). The health indicators that were chosen as state priorities are located at the top of each of the population groups.

**A. Pregnant Women, Mothers and Infants: Major Health Issues, Gaps, Disparities**

**a. Infant Mortality** [State Priority]

*Status of Infant Mortality in Delaware*

As shown in **Figure 2**, the infant mortality rate in Delaware continued to increase in the early 2000s to an average level of 8.54 deaths per 1,000 live births during the 2003-2007 period.<sup>1</sup> Delaware’s infant mortality varied within the state as displayed in **Figure 3**. During the 2003-2007 period, the City of Wilmington had the highest infant mortality rate at 12.70 deaths per 1,000 live births and New Castle County (w/o Wilmington) had the highest infant mortality rate by county at 8.43 deaths per 1,000 live births.<sup>1</sup>

Like the overall U.S., Delaware’s infant mortality disparity ratio has remained consistently high with Black women approximately two and a half times more likely to experience an infant death compared with White women (**Figure 4**).<sup>\*1</sup> Additionally, the disparity ratios vary by county with Kent County tending to have the highest disparity ratio and New Castle County (w/o Wilmington) generally having the lowest disparity ratio (**Figure 5**).<sup>1</sup>

During the 2003-2007 period, the primary cause of infant death in Delaware was low birth weight and prematurity.<sup>1</sup> The second leading cause of death, however, varied by racial group. For Black non-Hispanic women, sudden infant death syndrome (SIDS) was the second leading cause of death while birth defects were the second leading cause of death among White non-Hispanic women.<sup>1</sup>

National objectives for reducing infant mortality include the Healthy People 2010 leading health indicator 16-1 - *Reduce fetal and infant deaths*.<sup>2</sup>

	<b>Healthy People 2010 (16-1b)</b>	<b>Delaware, 2003-2007</b>
<b>Infant Mortality Rate</b>	4.50 per 1,000	8.54 per 1,000

\* Disparity Ratio = Infant mortality rate of a group of interest / Infant mortality rate of a comparison group.

Strengths & Needs in Meeting Performance Measures for Infant Mortality

**STRENGTHS**

In 2004, the Governor of Delaware convened an Infant Mortality Task Force (IMTF) to make recommendations for reducing infant deaths in Delaware. Of the 20 recommendations, half were implemented over the following three years including targeted services for women during the preconception, prenatal, and postpartum periods. Additionally, research to explore the causes of infant mortality was undertaken through surveys and implementation of state surveillance systems.

Following the publication of the IMTF recommendations, the DHMIC was convened by the Governor’s Office to replace the previous Prenatal Board. The DHMIC remains responsible for enacting and monitoring the IMTF recommendations.<sup>3</sup> The DHMIC has provided oversight for the initiative, supplied the Governor with an annual progress report, and supported further research to determine risk factors associated with infant deaths. Working in partnership with the Division of Public Health, funds continue to be allocated annually to address the problem of infant deaths, and to introduce programs and legislation to reduce infant mortality.<sup>4,5</sup>

**NEEDS**

The underlying causes of the disparity in infant mortality must be better understood and addressed. The Disparities Committee of the DHMIC and the Data and Science Committee are working collaboratively to explore the causes and develop initiatives to mitigate the disparity.

**b. Low Birth Weight Infants/Preterm Birth** [State Priority]

Status of Low Birth Weight Infants in Delaware

Preliminary 2008 data indicate that Delaware had the 16<sup>th</sup> highest percentage of low birth weight births (births less than 2,500 grams) in the nation at 8.5%.<sup>6</sup> This is an improvement compared to 2007 data when Delaware had the 8<sup>th</sup> highest low birth weight percentage in the nation at 9.3%.<sup>7</sup> The percentage of infants born at low birth weight in Delaware continued to increase in the early 2000s to 9.28% in the 2003-2007 period (**Figure 6**).<sup>6</sup> This compares to the U.S. average of 8.05% during this period (**Figure 6**).<sup>6</sup> Additionally, the percentage of low birth weight births during the 2003-2007 period varied by county with Kent and New Castle reporting 9.30% and 9.75%, respectively (which are markedly higher numbers than the U.S. average) and Sussex reporting 7.81% (which is slightly lower than the U.S. average (**Figure 6**)).<sup>6</sup> On an annual basis, the percentage of low birth weight infants born in Delaware has consistently been significantly higher ( $\alpha = 0.05$ ) than the overall U.S. percentage (**Figure 7**).<sup>6</sup> **Table 1** shows the reported annual percentages of very low birth weight and low birth weight infants in the 1999-2007 period.

National objectives for low birth weight include the Healthy People 2010 objective 16-10 for improving maternal, infant, and child health - *Reduce low birth weight (LBW) and very low birth weight deliveries (VLBW)*.<sup>2</sup> Like the U.S., strategies aimed at reducing low birth weight in Delaware are found as components of infant mortality prevention initiatives. Reducing the prevalence of risk factors associated with poor birth outcomes, such as low birth weight deliveries, is a Delaware Healthy 2010 goal.<sup>8</sup> The percentages are shown below.

	<b>Healthy People 2010 (16-10)</b>	<b>Delaware, 2008</b>
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<b>Low Birth Weight</b>	5.0% weigh less than 2500 g	8.5% weigh less than 2500 g
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Status of Preterm Births in Delaware

According to preliminary 2008 data, Delaware had the 16<sup>th</sup> highest preterm birth rate (less than 37 weeks of completed gestation) in the nation at 12.9%.<sup>6,9</sup> This is an improvement from 2007 when Delaware reported a 14.3% preterm birth rate and ranked 7<sup>th</sup> among states nationwide in preterm birth rates.<sup>6,9</sup> The preterm birth rate for the U.S. was 12.3% in 2008 and 12.7% in 2007.<sup>6</sup> Accordingly, Delaware has narrowed the gap between state and national results.

**Table 2** provides comprehensive data for Delaware up to 2006. In 2006, Delaware reported a preterm birth rate of 13.69% which was an increase of 8.40% from the reported 12.63% of infants born premature in 1998.<sup>6</sup> These numbers are consistent with the lower U.S. average of 11.47% in 1998 compared to 12.73% in 2006 (**Table 2**). Moreover, the percentage of preterm births during the 2002-2006 period varied by county with New Castle and Sussex reporting 13.75% and 13.93%, respectively (markedly higher than the U.S. average) and Kent reporting 12.87%, which is slightly higher than the U.S. average (**Figure 8**).<sup>6</sup> On an annual basis, the percentage of preterm births in Delaware has consistently been significantly higher ( $\alpha = 0.05$ ) than the overall U.S. percentage (**Figure 9**).<sup>6</sup>

Among late preterm birth rates (between 34 and 35 weeks of completed gestation), Delaware ranked 25<sup>th</sup> highest at 8.5% in 2008.<sup>6,9</sup> This is an encouraging development compared to 2007 when Delaware ranked 11<sup>th</sup> highest at 9.9%.<sup>6,9</sup> Moreover, the 2008 figure was lower than the national late preterm birth rate (8.8%) while the 2007 figure was higher the national rate (9.0%).<sup>6</sup>

Preterm birth is the leading cause of infant mortality and morbidity in the United States.<sup>3,10</sup> Preterm-related deaths account for more than one-third of all infant deaths, and more infants die from preterm-related causes than any other cause.<sup>3</sup> Thus, prematurity is the greatest predictor of infant mortality.<sup>1</sup> In Delaware during the 2003-2007 period, the primary cause of infant death was prematurity and low birth weight deliveries.<sup>1</sup>

National objectives for preterm birth include the Healthy People 2010 objective 16-11 for improving maternal, infant, and child health - *Reduce preterm birth incidence to 7.6%*.<sup>2</sup> Like the U.S., strategies aimed at reducing preterm birth in Delaware are found as components of infant mortality prevention initiatives. Reducing the prevalence of risk factors associated with poor birth outcomes, such as preterm deliveries, is a Delaware Healthy 2010 goal.

	<b>Healthy People 2010 (16-11)</b>	<b>Delaware, 2008</b>
<b>Preterm Birth</b>	7.6% born before 37 weeks	12.9% born before 37 weeks

Strengths & Needs in Meeting Performance Measures for Low Birth Weight Infant/Preterm Birth

**STRENGTHS**

Reducing the number of low birth weight/preterm births is the number one strategy of the DHMIC and DPH to reduce infant mortality. The statewide preconception program is aimed to help women achieve optimal health before pregnancy, which can help reduce low birth weight/preterm birth along with addressing maternal health during pregnancy. Additionally, the prematurity prevention program provides progesterone to high-risk women, which has been shown to reduce preterm deliveries.

**NEEDS**

Maternal Health and Prematurity were identified as the largest contributor to infant deaths, based on the Periodic Periods of Risk (PPOR) assessment. The strategies implement to mitigate these risks (preconception care and progesterone) need to be evaluated to ensure they are achieving the desired results.

**c. Inadequate Birth Spacing**

*Status of Inadequate Birth Spacing in Delaware*

Inadequate birth spacing refers to both short and long intervals between pregnancies. The inter-pregnancy interval is calculated as the number of months between the date the last pregnancy ended and the date of conception of the next pregnancy.<sup>11</sup> According to the Pregnancy Nutrition Surveillance System, the inter-pregnancy interval is a maternal health indicator.<sup>11</sup> It is widely agreed among health professionals and confirmed by the Optimal Birth Spacing Initiative (OBSI) research that minimum birth intervals of two years are important for infant, child, and maternal health.<sup>12</sup> OBSI, however, recommends 3-5 year birth intervals as optimal to improve infant, child, and maternal health.<sup>12</sup>

Based on data from the Delaware Health Statistics Center, 20.27% of 70,791 women gave birth within 4-23 months of a previous live birth between 1996 and 2006 (**Figure 10**).<sup>13</sup> As displayed in **Figure 10**, the overwhelming majority of these 20.27% women gave birth within 12-23 months of a previous birth (18.97%) compared with those women who gave birth within 12 months of a previous birth (1.30%).<sup>13</sup>

National objectives for birth spacing include the Healthy People 2010 objective 9.2 for family planning - *Reduce the proportion of births occurring within 24 months of a previous birth*.<sup>14</sup> The DHMIC's Standards of Care Committee has adopted an 18-month birth spacing interval as standard for practitioners in the state.<sup>5</sup> Like other states, strategies aimed at reducing inadequate birth spacing in Delaware are found as components of preconception health programs. Delaware's birth spacing percentages are shown below.

	<b>Healthy People 2010 (9-2)</b>	<b>Delaware, 1996-2006</b>
<b>Birth Spacing</b>	6% born within 24 months of prior birth	20% born within 24 months of prior birth

*Strengths & Needs in Meeting Performance Measures for Inadequate Birth Spacing*

**STRENGTHS**

The DHMIC's Standards of Care Committee has adopted an 18-month birth spacing interval as standard for practitioners in the state.<sup>5</sup> Like other states, strategies aimed at reducing inadequate birth spacing in Delaware are found as components of preconception health programs.

**NEEDS**

Further study of birth spacing and maternal perceptions around birth spacing need to be explored to ensure messages are resonating with the target audience.

**d. Inherited Conditions (Birth Defects)**

*Status of Inherited Conditions in Delaware*

Major structural or genetic birth defects affect approximately 3% of births in the U.S. They are a major contributor to infant mortality, and result in billions of dollars in costs for care.<sup>15</sup> These conditions can cause physical problems, mental retardation, and in some cases, death.<sup>16</sup> Birth defects were the second leading cause of infant death in Delaware in the 2003-2007 period.<sup>1</sup>

Cardiovascular birth defects, such as patent ductus arteriosus, atrial septal defects, and ventricular septal defects, accounted for almost half of all birth defects.<sup>1</sup> A total of 372 birth defects were identified in Delaware in the 2001-2005 period (**Figure 11**). The Delaware Newborn Screening Program screens for over 30 disorders. In 2008, the program confirmed 33 cases including 1 PKU, 7 Sickle Cell Disease, 4 Congenital Hypothyroidism, 4 Galactosemia and 1 Cystic Fibrosis. The Delaware Newborn Hearing Screening program identified 26 newborns with a hearing loss in 2008.

National measures regarding inherited conditions include the following Healthy People 2010 leading indicators: 16-1f - *Reduction in infant deaths related to all birth defects*,<sup>2</sup> 16-1g - *Reduction in infant deaths related to congenital heart defects*,<sup>2</sup> 16-15 - *Reduce the occurrence of spina bifida and other neural tube defects (NTDs)*,<sup>2</sup> and 28 - *Improve the visual and hearing health of the Nation through*

prevention, early detection, treatment and rehabilitation.<sup>17</sup> Reducing inherited conditions is also a Healthy Delaware 2010 goal.<sup>8</sup> Delaware’s birth defects percentages are shown below.

	<b>Healthy People 2010 (16-1f)</b>	<b>Delaware, 2001-2005</b>
<b>Inherited Conditions</b>	1.1% born with birth defects	1.7% born with birth defects

*Strengths & Needs in Meeting Performance Measures for Inherited Conditions*

**STRENGTHS**

Delaware Newborn Screening Program was developed to identify newborn babies with a reportable birth defect. Furthermore, the Delaware Birth Defects Registry collects and analyzes information on children ages 1-5 years with birth defects. As of fiscal year 2010, the registry implemented active surveillance of birth defects.

**NEEDS**

The active surveillance of birth defects is in the first year of implementation. Further refinement of the abstraction tool and reportable conditions are required and will be carried out in the next 1-2 years.

**e. Intimate Partner Violence**

*Status of Intimate Partner Violence in Delaware*

Intimate partner violence is defined as abuse occurring “between two people in a close relationship.”<sup>18</sup> A partner may include any current or former spouses and any dating partner. Abuse is defined as physical such as hitting, kicking, burning, or other force; sexual such as when sex is forced without consent; threatening such as when words, gestures, weapons or any other intent is used to cause harm; and emotional such as when threats involving possessions or loved ones or harming one’s sense of worth occur.<sup>18</sup> Abuse between partners may be random or ongoing.<sup>18</sup>

National data indicates that in 2007, 12% of all victimizations were perpetrated by intimate partners.<sup>19</sup> Of all victimizations, 23.3% of rapes/sexual assaults and 23.1% of all violent assaults against females were by intimate partners.<sup>19</sup>

According to 2008 Delaware PRAMS data and as shown in **Figure 12**, 2.79% of respondents (44 of 1,576) stated “Yes” to the question “During the 12 months before you got pregnant, did your husband or partner push, hit, slap, kick, choke, or physically hurt you in any other way?”; this compares to 3.97% of respondents nationwide (using 2007 U.S. PRAMS data).<sup>20,21</sup> These percentages are statistically significant at  $\alpha = 0.05$ . As shown in **Figure 13**, 2.28% of 2008 Delaware PRAMS respondents (36 of 1,576) stated “Yes” to the question “During your most recent pregnancy, did your husband or partner physically hurt you in any way?”; this compares to 3.04% of respondents nationwide.<sup>20,21</sup> Despite this difference, these percentages are not statistically significant at  $\alpha = 0.05$ .

Using 2007 U.S. PRAMS data, investigators found that between 22% and 39% of women surveyed reported that health care workers discussed physical abuse during prenatal visits.<sup>22</sup> According to 2008 Delaware PRAMS, 33.4% (526 of 1,576 respondents) stated that a health care worker did not talk with them about physical abuse by a partner while 42.51% (670 of 1,576 respondents) claimed a health care worker discussed physical abuse by a partner.<sup>20</sup>

National measures for reducing intimate partner violence include the following Healthy People 2010 health indicators: 15-32 - *Reduce homicides*; 15-34 - *Reduce the rate of physical assault by current or former intimate partners*; 15-35 - *Reduce the annual rate of rape or attempted rape*; 15-36 - *Reduce sexual assault other than rape*; and 15-37 - *Reduce physical assaults*.

	<b>U.S., 2007 PRAMS</b>	<b>Delaware, 2008 PRAMS</b>
<b>Intimate Partner Violence</b>	3.97% reporting violence	2.79% reporting violence

*Strengths & Needs in Meeting Performance Measures for Intimate Partner Violence*

STATE OF DELAWARE 2010 MCH NEEDS ASSESSMENT

**STRENGTHS**

Delaware has an active violence prevention coalition and 24/7 services through a domestic violence hotline.

**NEEDS**

Currently, intimate partner violence is beyond the scope of public health activities, although it is widely recognized as a public health problem. Additional fiscal and staff resources are required to implement intimate partner violence prevention programs through DPH.

**f. Maternal Alcohol Use During Pregnancy**

*Status of Maternal Alcohol Use During Pregnancy in Delaware*

According to the 2008 report from the National Survey of Drug Use and Health, an estimated 11.8% of pregnant women ages 15-44 between 2005 and 2006 consumed alcoholic beverages in the past month.<sup>23</sup> Recent surveys indicate that about 1 in 10 pregnant women reported using alcohol during pregnancy.<sup>24</sup> About 1 in 30 pregnant women engaged in binge drinking (i.e., consuming four or more drinks at one time).<sup>24</sup>

In Delaware, the average reported alcohol consumption rate for pregnant women for the five-year period of 2001 to 2005 was 0.84% for all races/ethnicities, with the highest reported percentage of alcohol consumption at 0.94% among White women followed by 0.92% among Black women (**Figure 14**).<sup>13</sup> As displayed in **Figure 14**, New Castle County had the highest reported alcohol consumption rate among pregnant woman during the five-year period of 2001 to 2005 at 1.08%. Kent County had the lowest rate at 0.42%, and Sussex County had a rate of 0.49%.<sup>13</sup> As displayed in **Table 3**, the alcohol consumption rate among pregnant women in Delaware has decreased by 44.14% from 1.45% in 1998 to 0.81% in 2005.<sup>13</sup>

As shown in **Table 4**, the number of pregnant women in Delaware who reported drinking between 1 and 7 alcoholic beverages weekly has decreased by 35.51% from 1.07% in 1998 to 0.69% in 2005; moreover, the number of pregnant women in Delaware who have reported drinking greater than 7 alcoholic beverages weekly has decreased by 95.45% from 0.22% in 1998 to 0.01% in 2005.<sup>13</sup>

According to 2008 Delaware PRAMS data, 59.90% of respondents (944 of 1,576) claimed that a health care worker informed them during at least one prenatal visit of how alcohol consumption during pregnancy would affect their baby.<sup>20</sup> In addition, 48.86% of respondents (770 of 1,576) had consumed alcohol at least once in the two years prior to completing the survey.<sup>20</sup> Among women who had consumed alcohol at least once in the two years prior to completing the survey, alcohol use decreased from 80.26% in the three months before pregnancy to 12.34% during the last three months of pregnancy (**Table 5**);<sup>20</sup> this decrease is statistically significant at  $\alpha = 0.05$ . Moreover, among women who consumed alcohol at least once in the two years prior to completing the survey, binge drinking decreased from 78.31% in the three months before pregnancy to 11.04% during the last three months of pregnancy (**Table 6**);<sup>20</sup> this decrease is statistically significant at  $\alpha = 0.05$ .

It is important to note that while consumption of alcohol is uncommon among pregnant women in Delaware, many women may underreport their alcohol use because of the stigma associated with prenatal drinking.<sup>25</sup> Underreporting may also result from women drinking before they find out they are pregnant.

National indicators for alcohol include the Healthy People 2010 health indicator 16-17 - *Increase abstinence from alcohol, cigarettes, and illicit drugs among pregnant women*.<sup>2</sup> Reducing alcohol use among pregnant women is a Healthy Delaware 2010 goal.<sup>8</sup>

	<b>Healthy People 2010 (16-17b)</b>	<b>Delaware, 2005</b>
<b>Maternal Alcohol Use</b>	0% consuming alcohol	0.01% consuming alcohol

Strengths & Needs in Meeting Performance Measures for Maternal Alcohol Use During Pregnancy

STRENGTHS

The DHMIC Healthy Women/Healthy Babies program routinely screens women for alcohol use and abuse before, during and after pregnancy. Mental health counseling is available, free of charge, for any women in the program.

NEEDS

Social stigma can promote underreporting of alcohol use during pregnancy. Additional home visiting resources for pregnant women are needed to ensure families receive the education and support needed to abstain from alcohol use during pregnancy.

**g. Maternal Complications of Pregnancy**

Status of Maternal Complications of Pregnancy in Delaware

Nationally, hypertensive disorders complicate 1 to 4% of pregnancies in women without preexisting cardiac abnormalities.<sup>26</sup> Hypertensive disorders can affect between 12% and 22% of pregnancies and are a considerable cause of maternal morbidity and mortality.<sup>26</sup> Preeclampsia may complicate between 3% and 8% of all pregnancies in the U.S.<sup>26</sup> Approximately 9 out of 100 women nationwide have Type I or Type II diabetes and about 3 out of these 9 do not know it.<sup>27</sup> Moreover, pregnant women who have diabetes before pregnancy are considered to have a high-risk pregnancy.<sup>27</sup> It is estimated that between 2% and 10% of pregnant women nationwide are affected by gestational diabetes.<sup>28</sup> Cancer during pregnancy is rare with 1 out of 1,000 women experiencing cancer while pregnant.<sup>29</sup> The most common cancers during pregnancy are not unlike those that typically affect younger people, such as cervical cancer, breast cancer, Hodgkin's lymphoma, malignant melanoma, and thyroid cancer.<sup>29</sup> The most common infectious diseases during pregnancy include bacterial vaginosis, herpes simplex virus 2, chlamydia, trichomoniasis, gonorrhea, hepatitis B, HIV and syphilis.<sup>30</sup> Using national PRAMS data, 2% of women surveyed reported diabetes, 2% reported hypertension, and 1% reported heart problems.<sup>31</sup>

According to 2008 Delaware PRAMS data, approximately four times as many women stated that they had high blood sugar (diabetes) that started during pregnancy compared to diabetes prior to pregnancy. Approximately one of every eight women reported having high blood pressure, hypertension, and/or preeclampsia (**Figure 15**). Moreover, according to 2008 Delaware PRAMS data, 24.94% of participants were diagnosed with a urinary tract infection (UTI), a sexually transmitted disease (STD), or a vaginal infection including bacterial vaginosis or Group B Strep (Beta Strep) during pregnancy.<sup>20</sup> The most commonly reported condition for these participants was a urinary tract infection (**Figure 16**).<sup>20</sup> Finally, 10.79% of mothers reported going to the hospital and staying between 1 and 7 days for a pregnancy complication (**Figure 17**) and 4.12% of mothers stated that they went to the hospital and stayed for more than 7 days for a pregnancy-related complication (**Figure 18**).<sup>20</sup>

National measures for reducing maternal complications during pregnancy include the following Healthy People 2010 health indicators: 16-4 - Reduce maternal deaths; 16-5 - Reduce maternal illnesses and complications due to pregnancy; 25-2 - Reduce gonorrhea; 25-3 - Eliminate sustained domestic transmission of primary and secondary syphilis; 25-4 - Reduce the proportion of adults with genital herpes infection; 25-5 - Reduce the proportion of persons with human papillomavirus (HPV) infection; 25-6 - Reduce the proportion of females who have ever required treatment for pelvic inflammatory disease (PID); 25-8 - Reduce HIV infections in adolescent and young adult females ages 13 to 24 years that are associated with heterosexual contact; 25-13 - Increase the proportion of Tribal, State, and local sexually transmitted disease programs that routinely offer hepatitis B vaccines to all STD clients; 25-15 - Increase the proportion of all local health departments that have contracts with managed care providers for the treatment of nonplan partners of patients with bacterial sexually transmitted diseases (gonorrhea, syphilis, and chlamydia); 25-16 - Increase the proportion of sexually active females ages 25 years and under who are screened annually for genital chlamydia infections; 25-17 - Increase the proportion of pregnant females screened for sexually transmitted diseases (including HIV infection and bacterial vaginosis) during prenatal health care visits, according to recognized standards; 25-18 - Increase the proportion of primary care providers who treat patients with sexually transmitted diseases and who manage cases according to recognized standards; and 25-19 - Increase the proportion of all sexually

*transmitted disease clinic patients who are being treated for bacterial STDs (chlamydia, gonorrhea, and syphilis) and who are offered provider referral services for their sex partners.*<sup>2,32</sup>

	<b>Healthy People 2010 (16-5)</b>	<b>Delaware</b>
<b>Maternal Illness &amp; Complications</b>	24 per 100 deliveries	Numerous indicators

*Strengths & Needs in Meeting Performance Measures for Maternal Complications of Pregnancy*

**STRENGTHS**

The DHMIC Healthy Women/Healthy Babies program provides preconception/interconception, prenatal and post-partum care services. This infrastructure helps eliminate barriers to care for high-risk women.

**NEEDS**

Maternal Health and Prematurity were identified as the largest contributor to infant deaths, based on the Periodic Periods of Risk (PPOR) assessment. The strategies implemented to mitigate these risks need to be evaluated to ensure they are achieving the desired results.

**h. Maternal Depression During Pregnancy & Postpartum**

*Status of Maternal Depression During Pregnancy & Postpartum in Delaware*

Using data collected from the National Health and Nutrition Examination Survey, 2005-2006, 8% of White non-Hispanic women experienced depression compared with 6% of Hispanic women and 5% of Black non-Hispanic women.<sup>33</sup> Depression rates were higher among women living below the poverty level with White non-Hispanic women having the highest rate (18%) compared with Black non-Hispanic (11%) and Hispanic (8%) women.<sup>33</sup> The racial distribution among people living at or above the poverty level shifted resulting in Black non-Hispanic women at the highest rate (8%), followed by Hispanic (6%), then White non-Hispanic (4%) women.<sup>33</sup>

Using 2007 U.S. PRAMS data, the prevalence of postpartum depression was 15.58% among women surveyed.<sup>21</sup> Additionally, only 40% of the women who recognized symptoms of postpartum depression sought professional help or guidance.<sup>31</sup> Women who had infants in a neonatal intensive care unit were more likely to seek help for depression compared with women who had healthy babies.<sup>34</sup> Moreover, non-White women were over 12 times more likely to seek help for postpartum depression compared with White women.<sup>34</sup> Using 2008 Delaware PRAMS data and as shown in **Figure 19**, 7.62% of women respondents felt down, depressed, or hopeless “always” or “often” since the birth of their new baby.<sup>20</sup> Furthermore, 7.23% “always” or “often” expressed little interest or pleasure in doing things since delivery.<sup>20</sup>

National measures for reducing maternal depression during pregnancy and postpartum include the Healthy People 2010 leading health indicator 18-9b - *Increase the proportion of adults with recognized depression who receive treatment.*

	<b>U.S., 2007 PRAMS</b>	<b>Delaware, 2008 PRAMS</b>
<b>Maternal Depression (Postpartum)</b>	15.58% reported frequent postpartum depressive symptoms	7.62% reported “always” or “often” feeling down, depressed, or hopeless

*Strengths & Needs in Meeting Performance Measures for Maternal Depression*

**STRENGTHS**

The DHMIC Healthy Women/Healthy Babies program routinely screens women for depression before, during and after pregnancy using the validated tool PHQ-9. Mental health counseling is available, free of charge, for any women in the program.

**NEEDS**

Social stigma can limit the willingness a person has to admitting feelings of depression after pregnancy. Home visiting services, adherence to the recommended 6 week interconception (post-partum) visiting and wrap around services are require to help identify the symptoms of depression early.

**i. Maternal Smoking During Pregnancy**

*Status of Maternal Smoking During Pregnancy in Delaware*

The average smoking/tobacco use rate for pregnant women nationwide for the 2002-2006 five-year period was 7.26% for all races/ethnicities, with the highest percentage of cigarette smoking and/or tobacco use at 9.95% among White non-Hispanic women followed by 6.01% among Black non-Hispanic women (**Figure 20**).<sup>6,13</sup> In Delaware, the overall rate during that same period was 11.89% with 14.52% use among White women and 10.61% use among Black women (**Figure 20**).<sup>6,13</sup> Moreover, the difference between Delaware and the U.S. for each race/ethnicity category was statistically significant at  $\alpha = 0.05$ .

As shown in **Table 7**, the smoking/tobacco use rate among pregnant women in Delaware has decreased from 13.00% in 1999 to 9.76% in 2006; the smoking/tobacco use rate among pregnant women in the U.S. overall has also decreased with a rate of 11.12% in 1999 compared to 4.03% in 2006.<sup>6,13</sup> As displayed in **Figure 21**, Kent County had the highest smoking/tobacco use rate among pregnant woman during the five-year period of 2002 to 2006 at 16.02%, New Castle County had the lowest rate at 10.54%, and Sussex County had a rate of 12.27%.<sup>13</sup> White women consistently smoke more than Black and Hispanic women both in Delaware and in the U.S. overall.

The 2008 Delaware PRAMS data indicated that 60.03% of respondents (946 of 1,576) stated that a health care worker informed them during at least one prenatal visit of how smoking during pregnancy would affect their baby.<sup>20</sup> Moreover, the survey found that 19.92% of respondents (314 of 1,576) had a history of smoking (smoked at least 100 cigarettes in the two years prior to completing the survey).<sup>20</sup>

Using PRAMS data, researchers have found that very few women who entered prenatal care smoking quit during pregnancy.<sup>35</sup> By contrast, according to 2008 Delaware PRAMS data and as shown in **Table 8**, smoking decreased from 93.99% among women with a history of smoking who smoked during the three months before pregnancy to 52.66% among women with a history of smoking who smoked during the last three months of pregnancy; this decrease is statistically significant at  $\alpha = 0.05$ .<sup>20</sup> With that said, 72.93% of 2008 Delaware PRAMS respondents with a history of smoking reported smoking after pregnancy.<sup>20</sup>

National indicators for smoking include the Healthy People 2010 health indicator 16-17 - *Increase abstinence from alcohol, cigarettes, and illicit drugs among pregnant women*.<sup>2</sup> Smoking cessation among pregnant women is a Healthy Delaware 2010 goal.<sup>8</sup>

	<b>Healthy People 2010 (16-17)</b>	<b>Delaware, 2006</b>
<b>Maternal Smoking During Pregnancy</b>	1% reporting smoking	9.8% reporting smoking

*Strengths & Needs in Meeting Performance Measures for Maternal Smoking During Pregnancy*

**STRENGTHS**

The DPH Tobacco Prevention and Control Program has extensive and successful programs, health education, social marketing and resources for tobacco cessation for special populations such as pregnant women.

**NEEDS**

Additional resources are needed to expand services and resources to pregnant women who smoke and for those who quit smoking during pregnancy but resume after pregnancy.

**j. Sudden Infant Death Syndrome (SIDS)**

*Status of Sudden Infant Death Syndrome in Delaware*

Nationally, the SIDS rate has declined rapidly from 1.3 per 1,000 live births in 1990 to 0.5 per 1,000 live births in 2005 (a 62% decrease).<sup>36</sup> Despite this rate decrease, the disparity ratio has remained consistently high. Black non-Hispanic infants were 1.8 times more likely to experience SIDS compared with White non-Hispanic infants in 2005.<sup>37</sup> In 2005, the SIDS mortality rate for Black non-Hispanic infants was 0.994 per 1,000 live births compared to 0.554 per 1,000 live births for White non-Hispanic infants.<sup>37</sup>

In Delaware, an average of 7.17% of infant deaths that took place between 2001 and 2005 were sudden infant deaths.<sup>13</sup> Between 2001 and 2005, the average number of days for a sudden infant death to occur after birth was 78.63 days (**Figure 22**).<sup>13</sup>

National measures for reducing SIDS include the Healthy People 2010 leading indicator 16-1h - *Reduce deaths from sudden infant death syndrome (SIDS)*.<sup>2</sup> Delaware’s deaths from SIDS per 1,000 births are shown below.

	<b>Healthy People 2010 (16-1h)</b>	<b>Delaware, 2002-2006</b>
<b>Sudden Infant Death Syndrome</b>	0.25 deaths per 1,000 births	0.65 deaths per 1,000 births

Strengths & Needs in Meeting Performance Measures for Sudden Infant Death Syndrome

**STRENGTHS**

In 2008, the Delaware Fetal Infant Mortality Review implemented the Infant Safe-Sleeping Campaign to reduce the number of infant deaths associated with unsafe sleeping practices. Delaware’s Department of Health and Social Services Division of Public Health allocated \$10,000 to fund the FIMR Safe-Sleeping Campaign.

**NEEDS**

Additional resources are needed to expand the safe-sleeping campaign and to provide cribs for families who cannot afford them.

**B. Women of Childbearing Age: Major Health Issues, Gaps, Disparities**

**a. Obesity and Overweight Among Women of Childbearing Age** [State Priority]

Status of Obesity and Overweight among Women of Childbearing Age in Delaware

Overweight is defined as having a body mass index (BMI) between 25 and 29.9. Obesity is defined as having a BMI of 30 or more.<sup>38</sup> The National Center for Health Statistics indicated that in 2006, 62% of all women over age 20 were overweight. Black non-Hispanic women had the highest prevalence of obesity and overweight (80%), followed by Hispanic women (73%) and White non-Hispanic women (58%).

Using BRFSS data, **Table 9** presents the percentage of women ages 18-44 in the 1998-2008 period in both Delaware and the U.S. who are obese.<sup>43</sup> As shown in **Table 9**, the obesity rate in Delaware was less than the overall U.S. in 1999, 2000, 2002, and 2004 and the obesity rate in Delaware was greater than the overall U.S. in 1998, 2001, and 2003. Since 2005, however, the obesity rate in Delaware has consistently been greater than the overall U.S. As shown in **Figure 23**, the five-year average obesity rate for these women has drastically increased over time. For the 2004 to 2008 period, the five-year average obesity rate was 22.72% for Delaware compared to 22.12% for the U.S.<sup>43</sup>

Using 2008 Delaware PRAMS data, 59.76% of participants were either normal weight or underweight, while 18.47% were overweight and 21.77% were considered obese (**Figure 24**).<sup>20</sup> These results were based on BMI measurements: <20.0 (underweight); 20.0-25.9 (normal weight); 26.0-29.9 (overweight); and >29.9 (obese). Black non-Hispanics are more likely to be obese compared with other racial/ethnic groups in Delaware according to the 2005 Report Card on Lifestyle and Fitness in Delaware.<sup>39</sup>

National measures for reducing obesity and overweight among women of childbearing age include the Healthy People 2010 leading health indicator 19-2 - *Reduce the proportion of adults who are obese*.<sup>40</sup> Reducing obesity among pregnant women is a Healthy Delaware 2010 goal.<sup>8</sup> Delaware’s BMI percentages are shown below.

STATE OF DELAWARE 2010 MCH NEEDS ASSESSMENT

	<b>Healthy People 2010 (19-2)</b>	<b>Delaware, 2008 PRAMS</b>
<b>Healthy Weight</b>	60% with BMI between 18.5 and 25	47.73% with BMI between 18.5 and 25

*Strengths & Needs in Meeting Performance Measures for Obesity and Overweight*

**STRENGTHS**

The DPH Physical Activity, Nutrition and Obesity Prevention (PANO) Program has worked with partners to develop a state PANO plan and implemented a coalition, Delaware HEAL. Numerous initiatives are in place to increase access to fresh fruit and vegetables in communities across the state, increase access to physical activity in schools and implement system-level change to reduce obesity.

**NEEDS**

Additional resources are needed to implement all aspects of the state plan.

**b. Binge Alcohol Consumption Among Women of Childbearing Age**

*Status of Binge Alcohol Consumption Among Women of Childbearing Age in Delaware*

Binge alcohol consumption is defined as having 4 or more drinks on at least one occasion in the past month beginning in 2006 and having 5 or more drinks on at least one occasion in the past month prior to 2006.<sup>43</sup>

In Delaware in 2008, 17.1% of women of childbearing age (ages 18-44) reported binge drinking in the past month, compared to 14.8% overall in the U.S.<sup>41</sup> Using BRFSS data, **Table 10** presents the percentage of women ages 18-44 in the 2001-2008 period in both Delaware and the U.S. who engage in binge alcohol consumption.<sup>43</sup> As displayed in **Figure 25**, the five-year average binge alcohol consumption rate for these women has steadily increased over time; for the 2004-2008 period, the five-year average binge alcohol consumption rate was 17.54% for Delaware compared to 13.66% for the U.S.<sup>43</sup> According to 2008 Delaware PRAMS data, 48.86% of respondents (770 of 1,576) had consumed alcohol at least once in the two years prior to completing the survey.<sup>20</sup>

National indicators for alcohol include the following Healthy People 2010 health indicators: 26-11 - Reduce the proportion of persons engaging in binge drinking of alcoholic beverages; 26-12 - Reduce average annual alcohol consumption, and 26-13 - Reduce the proportion of adults who exceed guidelines for low-risk drinking.<sup>42</sup> Reducing alcohol use among pregnant women is a Healthy Delaware 2010 goal.<sup>8</sup>

	<b>Healthy People 2010 (26-11)</b>	<b>Delaware, 2004-2008</b>
<b>Binge Alcohol Consumption</b>	11% reported binge drinking	17.54% reported binge drinking

*Strengths & Needs in Meeting Performance Measures for Binge Alcohol Consumption*

**STRENGTHS**

Delaware colleges and universities educate young women about the dangers of binge drinking and offer resources through student services or health centers. Through the HWHB program, preconception care women are screened for alcohol abuse and offered mental health services free of charge. The Division of Substance Abuse Prevention also offers information and resources.

**NEEDS**

Additional resources are needed to implement a social marketing campaign targeting women of reproductive age to educate them on binge drinking and related health, mental health and other risks (e.g. unprotected sex and potential for sexual assault).

**c. Smoking Among Women of Childbearing Age**

*Status of Smoking Among Women of Childbearing Age in Delaware*

STATE OF DELAWARE 2010 MCH NEEDS ASSESSMENT

Smoking is defined as current smokers who have ever smoked more than 100 cigarettes.<sup>43</sup> Smoking reduces implantation and pregnancy rates.<sup>44</sup> Data from the 2006 National Survey on Drug Use and Health indicate that 30% of childbearing age women use tobacco.<sup>45</sup>

Using BRFSS data, **Table 11** presents the percentage of women ages 18-44 in the 1998-2008 period in both Delaware and the U.S. who smoked.<sup>45</sup> As displayed in **Figure 26**, the five-year average smoking rates for these women has gradually decreased over time. For the 2004-2008 period, the five-year average smoking rate was 22.76% for Delaware compared to 21.98% for the U.S.<sup>43</sup> Moreover, according to 2008 Delaware PRAMS results, 19.92% of respondents (314 of 1,576) had a history of smoking (smoked at least 100 cigarettes in the two years prior to completing the survey).<sup>20</sup>

National measures for reducing preconception smoking among women include the Healthy People 2010 health indicator 27-2a -*Reduce cigarette smoking by adults*.<sup>46</sup> Smoking cessation is also a Healthy Delaware 2010 goal.<sup>8</sup>

	<b>Healthy People 2010 (27-2a)</b>	<b>Delaware, 2004-2008</b>
<b>Smoking Among Young Women</b>	21% reported smoking	22.76% reported smoking

*Strengths & Needs in Meeting Performance Measures for Smoking Among Women of Childbearing Age*

STRENGTHS

The DPH Tobacco Prevention and Control Program has extensive and successful programs, health education, social marketing and resources for tobacco cessation for adult women and women.

NEEDS

Additional resources are needed to expand services and social marketing.

**C. Children and Adolescents: Major Health Issues, Gaps, Disparities**

**a. Child and Teen Injuries & Death** [State Priority]

*Status of Child and Teen Injuries & Death in Delaware*

Once children reach the age of five years, unintentional injuries are the biggest threat to survival.

Unintentional injuries are also a major cause of disabilities, which can have a long-lasting impact on all facets of children’s lives, including relationships, learning and play.<sup>47</sup>

According to the 2008 Delaware Childhood Injury report, the leading causes of injury hospitalizations for children ages 1-19 years in Delaware in the 2002-2005 period were falls at 25.1% (637 of 2,533 injuries), motor vehicle traffic-related injuries at 24.7% (626 of 2,533 injuries), and poisoning at 11.7% (295 of 2,533 injuries).<sup>48</sup> The breakdown of injury hospitalizations by age groups is provided by **Table 12**.

In Delaware in the 2003-2007 period, unintentional injuries comprised 18.43% of the deaths for children between ages 1-19 years.<sup>1</sup> Moreover, in the 2003-2007 period, unintentional injuries were the leading cause of mortality representing 29.3% of deaths (17 of 58 deaths) for ages 1-4 years, 26.1% of deaths (18 of 69 deaths) for ages 5-14 years, and 55.3% of deaths (105 of 190 deaths) for ages 15-19 years (**Table 13** and **Table 14**).<sup>1</sup>

Healthy People 2010 presents a broad set of objectives to address injury – *15 - Reduce injuries, disabilities, and deaths due to unintentional injuries and violence*.<sup>50</sup> In addition, a Healthy Delaware 2010 overall goal is to reduce unintentional injuries, disabilities and death focusing on the community, home, school, and work settings.<sup>8</sup>

	<b>Healthy People 2010 (15-13)</b>	<b>Delaware 2003-2007</b>
<b>Child and Teen Injuries &amp; Death</b>	17.5 deaths per 100,000	13.43 deaths per 100,000

*Strengths & Needs in Meeting Performance Measures for Child and Teen Injuries & Death*

STRENGTHS

NEEDS

The Office of Emergency Medical Services in DPH has worked with partners to create a statewide Injury Prevention Coalition. Although a majority of the coalitions work is related to adults, the infrastructure exists to add childhood injury as a component if additional resources are available.

DPH needs additional resources to implement injury prevention activities. Currently, injury prevention activities are limited and there is no formally established injury prevention program in the Division. Additional resources for injury prevention epidemiology are also needed.

**b. Child & Teen Injuries and Deaths due to Motor Vehicle Incidents** [State Priority]

*Status of Child & Teen Injuries and Deaths due to Motor Vehicle Incidents in Delaware*

Teens accounted for approximately 10% of the national population and roughly 12% of the motor vehicle crash deaths. On a per mile driven basis, teen drivers are four times more likely than older drivers to crash.<sup>49</sup>

As shown in **Table 15**, the motor vehicle-related hospitalization rate in Delaware was highest for teens ages 15-19 years (182.07 per 100,000) and lowest for children ages 1-4 years (19.33 per 100,000).<sup>48</sup> Motor vehicle-related hospitalizations served as the second leading cause of injury-related hospitalizations in Delaware for children ages 1-19 years (**Table 12**) and 19.09% (406 of 2,127) of all injury-related hospitalizations in the 2002-2005 period.<sup>48</sup>

In addition, in Delaware in the 2003-2007 period, motor vehicle-related injuries represented 12.78% of the deaths for children between ages 1-19 years.<sup>1</sup> As indicated in **Table 13**, motor vehicle-related deaths consistently represented the second leading cause of death in Delaware for children ages 1-19 years in the 2003-2007 period.<sup>1</sup> **Table 16** provides the mortality rate per 100,000 for motor vehicle-related injuries.

Healthy People 2010 goals relevant to motor vehicle incidents include: 15-15 - Reduce deaths caused by motor vehicle crashes; 15-16 - Reduce pedestrian deaths on public roads; 15-17 - Reduce nonfatal injuries caused by motor vehicle deaths; 15-18 - Reduce nonfatal pedestrian injuries on public roads; 15-19 - Increase use of safety belts; 15-20 - Increase use of child restraints; and 15-21 - Increase the proportion of motorcyclists using helmets.<sup>50</sup> One of the goals for Healthy Delaware 2010 for the general population is the reduction of injury and disability.<sup>8</sup>

	<b>Healthy People 2010 (15-15)</b>	<b>Delaware, 2003-2007</b>
<b>Child and Teen Injuries &amp; Death due to Motor Vehicle Incidents</b>	9.2 deaths per 100,000	9.31 deaths per 100,000

*Strengths & Needs in Meeting Performance Measures for Motor Vehicle Incidents*

**STRENGTHS**

The Office of Emergency Medical Services in DPH, the Injury Prevention Coalition and Office of Highway Safety all implement awareness programs to prevent injuries and deaths due to motor vehicle incidents.

The Delaware General Assembly has also passed legislation related seat belts, car seats, bike helmets and progressive drivers licenses for youth which are policy changes that have a direct impact on health outcomes.

**NEEDS**

DPH needs additional resources to implement injury prevention activities, especially related to motor vehicle incidents. Currently, injury prevention activities are limited and there is no formally established injury prevention program in the Division. Additional resources for injury prevention epidemiology are also needed.

**c. Childhood Overweight & Obesity** [State Priority]

*Status of Childhood Overweight & Obesity in Delaware*

Progress toward reducing the national prevalence of overweight and obesity is monitored using data from the National Health and Nutrition Examination Survey (NHANES) and the National Survey of Children’s Health (NSCH). The NHANES data (2003–2006) showed that for children nationwide ages 6 –11 years and ages 12–19 years, the prevalence of overweight was 17.0% and 17.6% respectively.<sup>51</sup> The 2007 NSCH data indicated that for children ages 10-17 years nationwide, 32% are overweight (between the 85<sup>th</sup> and 95<sup>th</sup> percentile BMI-for-age) or obese (at or above the 95<sup>th</sup> percentile BMI-for-age).<sup>52</sup> The 2007 NSCH reported that 35% of male children ages 10-17 years nationwide were overweight or obese compared to 27% of female children ages 10-17 years nationwide.<sup>52</sup>

For Delaware, data comparable to NHANES is not currently available. For NSCH, 33% of children ages 10-17 years in Delaware were overweight or obese in 2007.<sup>52</sup> According to the 2007 NSCH, 34% of male children ages 10-17 years in Delaware were overweight or obese compared to 32% of female children.<sup>52</sup> The 2009 YRBS reported that 15.8% of students were overweight according to the NSCH definition and 13.7% were obese according to the NSCH definition.<sup>53</sup> The breakdown of these results by age and race/ethnicity are provided by **Table 17, Table 18, Table 19, and Table 20.**

Healthy People 2010 has the overall goal of promoting health and reducing chronic disease associated with diet and weight through objective 19-3 - *Reduce the proportion of children and adolescents who are overweight or obese.*<sup>40</sup> Moreover, a Healthy Delaware 2010 overall goal is to promote healthy eating habits to decrease risk of chronic disease.<sup>8</sup> Objective 1 is to reduce the proportion of adolescents and adults who are overweight or obese from 29% to 11% for adolescents and from 32% to 23% for adults.<sup>54</sup>

	<b>Healthy People 2010 (19-3)</b>	<b>Delaware, 2009 YRBS</b>
<b>Childhood Overweight &amp; Obesity</b>	5% reported obese	13.7% reported obese

*Strengths & Needs in Meeting Performance Measures for Childhood Overweight & Obesity*

**STRENGTHS**

The DPH Physical Activity, Nutrition and Obesity Prevention (PANO) Program has worked with partners to develop a state PANO plan and implemented a coalition, Delaware HEAL. DPH also works with partners such as Nemours Health and Prevention on interventions focused on reducing childhood obesity.

**NEEDS**

Additional resources are needed to implement the PANO state plan which has a strong focus on childhood overweight and obesity prevention.

**d. Tobacco Use Among Teens** [State Priority]

*Status of Tobacco Use Among Teens in Delaware*

The 2009 Delaware YRBS reported that 47.7% of students tried cigarette smoking at one point in their life, 19.0% smoked cigarettes on one or more of the past 30 days, 11.9% smoked at least one cigarette every day for 30 days, and 6.8% used chewing tobacco, snuff, or dip on one or more of the past 30 days.<sup>53</sup> These results parallel nationwide rates (50.3% of students nationwide tried cigarette smoking at one point in their life, 20.0% smoked cigarettes on one or more of the past 30 days, and 7.9% used chewing tobacco, snuff, or dip on one or more of the past 30 days) using 2007 U.S. YRBS data.<sup>55</sup> Overall, 23.2% of Delaware students have used tobacco in some manner at least once in the past 30 days.<sup>53</sup> In addition, 13.7% (13.8% of males and 13.2% of females) had smoked a whole cigarette for the first time before 13 years of age.<sup>53</sup> Among students who reported current cigarette use, 47.4% (43.8% of males and 51.4% of females) tried to quit smoking cigarettes during the past 12 months.<sup>53</sup> The breakdown of these outcomes by age and race/ethnicity are provided by **Table 21, Table 22, Table 23, Table 24, Table 25, Table 26, Table 27, and Table 28.**

National efforts to reduce teen tobacco use include the following Healthy People 2010 leading health

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indicators: 27-2b - Reduce cigarette smoking by adolescents; 27-2 - Reduce tobacco use by adolescents; 27-3 - Reduce the initiation of tobacco use among children and adolescents; 27-4 - Increase the average age of first use of tobacco products by adolescents and young adults; 27-7 - Increase tobacco use cessation attempts by adolescent smokers; 27-9 - Reduce the proportion of children who are regularly exposed to tobacco smoke at home; 27-11 - Increase smoke-free and tobacco-free environments in schools; 27-14 - Reduce the illegal sales rate to minors through enforcement of laws prohibiting the sale of tobacco products to minors; 27-15 - Increase the number of States and the District of Columbia that suspend or revoke State retail licenses for violations of laws prohibiting the sale of tobacco to minors; 27-16 - Eliminate tobacco advertising and promotions that influence adolescents and young adults, and 27-17 - Increase adolescents' disapproval of smoking.<sup>46</sup>

	Healthy People 2010 (27-2)	Delaware, 2009 YRBS
<b>Tobacco Use Among Teens</b>	21% reported using tobacco	23.2% reported using tobacco

Strengths & Needs in Meeting Performance Measures for Tobacco Use Among Teens

**STRENGTHS**

The DPH Tobacco Prevention and Control Program has extensive and successful programs, health education, social marketing and resources for tobacco cessation for teens. These include teen tobacco prevention programs such as Delaware Kick Butts Generation (KBG), Teens Against Tobacco Use (TATU), Not on Tobacco (NOT), Smoke Screamers, and anti-smoking media campaigns.

**NEEDS**

Additional resources are needed to expand services and social marketing.

**e. Alcohol Use Among Teens**

Status of Alcohol Use Among Teens in Delaware

According to the National Household Survey on Drug Use and Health (NHSDU), 9.9% of 12 to 17 year olds have had five or more drinks (binge drinking) on one occasion in the past month.<sup>56</sup> Among high school students only, the percentage of those reporting binge drinking was 25.5%.<sup>56</sup> The NHSDU estimates that 5.8% – more than 1 in 20 – 12 to 17 year olds meet the clinical definition for alcohol abuse or dependence and are in need of alcohol treatment.<sup>56</sup>

The 2009 Delaware YRBS reported that 71.0% of students had at least one drink of alcohol on one or more days during their life, 43.7% had at least one drink of alcohol on one or more of the past 30 days, and 23.7% had five or more drinks of alcohol in a row within a couple hours (binge drinking) on one or more of the past 30 days.<sup>53</sup> These findings parallel results nationwide (75.0% of students nationwide had at least one drink of alcohol on one or more days during their life, 44.7% had at least one drink of alcohol on one or more of the past 30 days, and 26.0% had five or more drinks of alcohol in a row within a couple hours, binge drinking, on one or more of the past 30 days using 2007 U.S. YRBS data).<sup>55</sup> Moreover, 23.5% of Delaware students had their first drink of alcohol (other than a few sips) before age 13 years and 79.3% of Delaware high school seniors have had at least one drink of alcohol on one or more days during their life (20.7% never used alcohol).<sup>53</sup> The breakdown of these results by age and race/ethnicity are provided by **Table 29, Table 30, Table 31, Table 32, Table 33, Table 34, Table 35, and Table 36.**

National measures for reducing teen alcohol use include the following Healthy People 2010 leading health indicators: 26-10a - Increase the proportion of adolescents not using alcohol or any illicit drugs during the past 30 days; 26-6 - Reduce the proportion of adolescents who report that they rode during the previous 30 days with a driver who had been drinking alcohol; 26-9 - Increase the age and proportion of adolescents who remain alcohol and drug free; and 26-11 - Reduce the proportion of persons engaging in binge drinking of alcoholic beverages.<sup>42</sup>

	Healthy People 2010 (26-9c)	Delaware, 2009 YRBS

<b>HS Seniors Never Used Alcohol</b>	29% never used alcohol	20.7% never used alcohol
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*Strengths & Needs in Meeting Performance Measures for Alcohol Use Among Teens*

<p><b>STRENGTHS</b> DPH offers early intervention services through counseling in the School Based Wellness Centers. The Office of Highway Safety promotes DUI awareness throughout Delaware’s schools, and the Department of Services for Children, Youth, and Their Families (DSCYF) in the Division of Child Mental Health Services provides voluntary behavioral health services to families that qualify.</p>	<p><b>NEEDS</b> Additional resources are needed to expand prevention and counseling services for teens.</p>
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**f. Child Asthma**

*Status of Child Asthma in Delaware*

Child asthma is a major public health problem of increasing concern in the United States. In 2006, an estimated 6.8 million children under age 18 (almost 1.2 million under age 5) had asthma. Over four million (4.1 million) had an asthma attack, and many others have "hidden" or undiagnosed asthma.<sup>57</sup> In 2006, the highest prevalence rate was seen in those ages 5-17 years (106.3 per 1,000 population), with rates decreasing with age.<sup>57</sup> Overall, the rate in those under age 18 years (92.8 per 1,000) was much greater than those over age 18 years (72.4 per 1,000).<sup>57</sup> Approximately 32.6% of hospitalizations due to asthma in 2005 were in those under age 15; however, only 27.8 % of the U.S. population was younger than age 15 years.<sup>57</sup> Nationally, children under age 4 years are more than twice as likely to be hospitalized with asthma compared to any other age group.<sup>58</sup> These children are also about four times as likely to have asthma-related hospitalization as adults.<sup>58</sup>

In 2007, 9% of children under age 18 years nationwide were affected by asthma (i.e., children diagnosed by a doctor or health professional as having asthma and who still have asthma, and who experience one or more of the following: used medication for asthma in the past year, had moderate or severe difficulties due to asthma, had an asthma attack in the past year, and/or had been hospitalized for asthma in the past year).<sup>59</sup> Applying this definition, 11% of children under age 18 in Delaware were affected by asthma.<sup>59</sup> The 2007 Delaware Hospital Discharge summary reported for ages 1-17 years, asthma, pneumonia, and skin and subcutaneous tissue infections made up the top three diagnoses.<sup>60</sup>

National indicators for asthma include the Healthy People 2010 leading health indicator 24 - *Promote respiratory health through better prevention, detection, treatment and education efforts.*<sup>61</sup> Prevention and care of diseases caused by an unhealthy environment is a Healthy Delaware 2010 goal.<sup>8</sup>

	<b>Healthy People 2010 (24-2)</b>	<b>Delaware, 2007</b>
<b>Child Asthma</b>	7.7% [Hospitalizations]	11% [Having Asthma]

*Strengths & Needs in Meeting Performance Measures for Child Asthma*

<p><b>STRENGTHS</b> DPH has an active Healthy Homes program that promotes indoor environments that reduce allergens, toxic exposures and asthma triggers. In addition to an awareness campaign (DelawareHealthyHomes.org), on-site assessment and resources are available.</p>	<p><b>NEEDS</b> DPH does not currently have an active asthma program. Additional resources are needed to examine the epidemiology of childhood asthma and implement adherence and treatment programs.</p>
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**g. Child Maltreatment & Neglect**

Status of Child Maltreatment & Neglect in Delaware

Nationally, more than one million children each year are confirmed victims of child abuse and neglect by state child protective service agencies.<sup>62</sup>

As displayed in **Table 37**, child maltreatment victimization rates between 2004 and 2008 generally increased in Delaware while generally decreasing in the U.S.<sup>63</sup> As also indicated in **Table 37**, the child maltreatment victimization rate in Delaware was consistently lower than the national rate until 2008. Although approximately one of every four (24.08%) children in Delaware in 2008 was Black non-Hispanic, Black non-Hispanic children comprised about one of every two (47.61%) child maltreatment victims in Delaware in 2008 (**Table 38**). As illustrated in **Table 38**, the child maltreatment victimization rate among Black non-Hispanics nationwide in 2008 was approximately two times greater than among White non-Hispanics (16.57 per 1,000 compared to 8.65 per 1,000). The child maltreatment victimization rate among Black non-Hispanics in Delaware in 2008 was approximately three times greater than for White non-Hispanics (21.82 per 1,000 compared to 7.17 per 1,000). **Table 38** also shows that child maltreatment victimization rates among White non-Hispanics in 2008 in Delaware were lower than the national rates (7.17 per 1,000 compared to 8.65 per 1,000), yet child maltreatment victimization rates among Black non-Hispanics in Delaware were higher than national rates (21.82 per 1,000 compared to 16.57 per 1,000). As shown in **Table 39**, neglect represented the top type of child maltreatment in 2008 both in Delaware (42.10% of all cases) and nationwide (71.12% of all cases).

The Healthy People 2010 initiative to reduce child maltreatment is 15-33 - *Reduce maltreatment and maltreatment fatalities of children*.<sup>50</sup> In the Healthy Delaware 2010 plan, one of the thirteen goals is to reduce the number of injuries and deaths due to violence and abuse.<sup>8</sup> Delaware's figures are shown below.

	<b>Healthy People 2010 (15-33)</b>	<b>Delaware, 2008</b>
<b>Child Maltreatment &amp; Neglect</b>	10.3 maltreated per 1,000	11.1 maltreated per 1,000

Strengths & Needs in Meeting Performance Measures for Child Maltreatment & Neglect

**STRENGTHS**

The Division of Family Services is mandated by law to investigate complaints about child abuse and neglect and provides numerous protective services to Delawareans.<sup>64</sup>

**NEEDS**

DPH does not currently have a child abuse and neglect prevention program. These activities are carried out by the Division of Family Services which is part of the Department of Services for Children, Youth & their Families.

**h. Child Oral Health** [State Priority]

Status of Child Oral Health in Delaware

Dental caries are not equally distributed in the population. Nationally, the incidence, prevalence and severity of caries are greater in minority and economically disadvantaged children. Among children ages one - two years, those in families at or below 200% of the federal poverty level are more likely to experience caries. Among children ages 2-5 years, those in families at or below the federal poverty level are 106% more likely to experience dental caries than children in families above the poverty level. Black children are 43% more likely than White children to have untreated caries.<sup>65</sup>

Access to oral health care services for disadvantaged children is a major health issue in Delaware. The 2002 Delaware Smile Survey confirmed the general belief that a significant number of children in Delaware exhibited oral disease and did not have access to routine dental care. The survey of third grade children demonstrated that 30% of children had untreated caries while 54% had a history of dental caries. Only 34% of the children had sealants and 7% had never been to a dentist. Disparities were pronounced for lower socioeconomic and minority children.

National measures for reducing dental caries include the Healthy People 2010 leading health indicator 21-1 - *Reduce the proportion of children and adolescents who have dental caries experience in their primary or permanent teeth.*<sup>66</sup>

	<b>Healthy People 2010 (21-1)</b>	<b>Delaware, 2002</b>
<b>Child Oral Health</b>	11% [Dental Caries Experience]	30% [Untreated Caries] 54% [History of Caries]

*Strengths & Needs in Meeting Performance Measures for Child Oral Health*

**STRENGTHS**

DPH’s Oral Health Program, the Delaware Dental Society, the Delaware Oral Health Coalition, and the Delaware Dental Hygienists’ Association provide support to increase access to dental prevention and treatment.

**NEEDS**

Additional training and support needs to be provided to dental professionals to increase their self-efficacy servicing children with special health needs. Additionally, more resources are needed to expand mobile dental school sealant program to provide early intervention dental screenings to low-income second grade students.

**i. Childhood Cancer**

*Status of Childhood Cancer in Delaware*

In the 2003-2007 period, the age-adjusted incidence of cancer for children ages 1-19 years nationwide was 16.7 per 100,000 (17.6 per 100,000 for males and 15.7 per 100,000 for females).<sup>67</sup> In 2007, the incidence of cancer for children ages 1-19 years nationwide was 17.6 per 100,000 for White non-Hispanics; 12.6 per 100,000 for Black non-Hispanics; and 15.2 per 100,000 for Hispanics.<sup>67</sup>

In the 2003-2007 period, cancer (malignant neoplasms) served as the second leading cause of death for children ages 1-4 years (12.1% or 7 of 58 deaths) and ages 5-14 years (13.0% or 9 of 69 deaths) in Delaware.<sup>1</sup> Malignant neoplasms represented 4.7% (9 of 190) of the deaths for children ages 15-19 years in Delaware in the 2003-2007 period.<sup>1</sup> Due to a very small number of cases, there are no stable rates and discernable disparities for childhood cancer deaths. The number of deaths from childhood cancer are reported in **Table 40**.

Cancer is a focus area of Healthy People 2010 with the overall goal to reduce the number of new cancer cases as well as the illness, disability, and death caused by cancer. The Healthy People 2010 objectives include 3-1 - *Reduce the overall cancer death rate.*<sup>68</sup> Many of the other objectives are to reduce specific cancer death rates. Nevertheless, these objectives focus on adult-related cancers such as breast, cervical, colorectal and prostate cancers.<sup>69</sup> Childhood cancer is not part of the Healthy People 2010 objectives.

	<b>Healthy People 2010 (3-1)</b>	<b>Delaware, 2003-2007</b>
<b>Childhood Cancer</b>	N/A	2.42 deaths per 100,000

*Strengths & Needs in Meeting Performance Measures for Childhood Cancer*

**STRENGTHS**

Efforts to reduce the incidence of childhood cancer center on reducing exposure to potential agents that could cause cancer. This would include enhancing pollution control in the environment, minimizing exposure to X-rays (ionizing radiation), and minimizing exposure to chemicals in the home. The Department of Natural Resources and Environmental Control has oversight of pollution in Delaware. The Division of Public Health has started a Healthy

**NEEDS**

Additional resources are needed to expand social marketing of the Healthy Homes initiative.

Homes awareness campaign. The Delaware Cancer Consortium has brought about greater awareness of cancer related issues, through media campaigns, legislative action, and fostering development of programs.<sup>70</sup>

**j. Drug Use Among Teens**

*Status of Drug Use Among Teens in Delaware*

Past month marijuana use among adolescents ages 12-17 years nationally has decreased from 8.2% in 2002 to 6.8% in 2007.<sup>71</sup> The prevalence of past month marijuana use increases with age (0.09% for 12-13 year olds compared to 13.1% for 16-17 year olds) and is higher among males (7.5% for males compared to 5.8% for females).<sup>71</sup> The 2007 National Survey on Drug Use and Health reports that 9.5% of adolescents ages 12-17 years reported past month use of any illicit drug, 3.3% reported the non medical use of prescription drugs, and 1.2 % reported the use of inhalants.<sup>72</sup>

The 2009 Delaware YRBS reported that 11.4% of students had tried marijuana for the first time before age 13 years and 25.8% had used marijuana one or more times during the past 30 days.<sup>53</sup> The breakdown of these results by age and race/ethnicity are given by **Table 41, Table 42, Table 43, Table 44, Table 45, and Table 46**. Delaware students reported a higher lifetime marijuana use (42.8%) than students nationwide (38.1% according to 2007 U.S. YRBS data); this difference was statistically significant.<sup>53,55</sup> Delaware students did not report a significantly different lifetime cocaine use (5.8%) than students nationwide (7.2% according to 2007 U.S. YRBS data) nor a significantly different lifetime methamphetamine use (4.0%) than students nationwide (4.4% according to 2007 U.S. YRBS data).<sup>55</sup>

As shown in **Figure 30**, more Delaware students tended to report lifetime cocaine use and lifetime ecstasy use than lifetime heroine use and lifetime methamphetamine use.<sup>53</sup> Moreover, more Hispanic students reported lifetime use of each type of illegal drug compared to the other race/ethnicity categories (**Figure 30**).<sup>53</sup>

National measures to reduce teen drug use include the following Healthy People 2010 leading health indicators: 26-10a - Reduce the proportion of adolescents not using alcohol or any illicit drugs during the past 30 days; 26-9 - Increase the age and proportion of adolescents who remain alcohol and drug free; 26-10 - Reduce past-month use of illicit substances; 26-14 - Reduce steroid use among adolescents; 26-15 - Reduce the proportion of adolescents who use inhalants; 26-16 - Increase the proportion of adolescents who disapprove of substance use; and 26-17 - Increase the proportion of adolescents who perceive great risk associated with substance abuse.<sup>42</sup>

	<b>Healthy People 2010 (26-10a)</b>	<b>Delaware, 2007 YRBS</b>
<b>Drug Use Among Teens (Marijuana)</b>	17.4% used marijuana	43.9% used marijuana

*Strengths & Needs in Meeting Performance Measures for Drug Use Among Teens*

**STRENGTHS**

In Delaware, the Division of Public Health offers early intervention services through counseling in the School Based Wellness Centers, and the Department of Services for Children, Youth, and Their Families provides various substance abuse prevention programs.

**NEEDS**

Additional resources are needed to expand early intervention services through School Based Wellness Center and middle schools.

**k. Lead Poisoning**

Status of Lead Poisoning in Delaware

CDC determined that blood lead levels at or above 10 micrograms per deciliter ( $\mu\text{g}/\text{dL}$ )<sup>73</sup> are cause for concern. As shown in **Figure 31**, the percentage of children under age 6 with blood lead levels at or exceeding 15  $\mu\text{g}/\text{dL}$  – well-above the level of concern – has generally decreased between 2000 and 2009.<sup>74</sup> This significant reduction in the incidence of lead poisoning is attributable primarily to a series of aggressive steps initiated in 1994 to address this problem.<sup>75</sup> In Delaware between 2000 and 2009, 254 children under age 6 have been identified as having a blood lead level exceeding 15  $\mu\text{g}/\text{dL}$  out of 132,458 tested.<sup>74</sup>

Elevated BLLs do not occur equally across all population groups. Children from low-income families were four times more likely to have BLLs greater than or equal to 10  $\mu\text{g}/\text{dL}$  as are children from middle-income families.<sup>75</sup> Black children were more than 4 times as likely to have elevated BLLs as White children.<sup>75</sup> In addition, Hispanic children were more than 2.5 times as likely to have elevated BLLs as White children.<sup>75</sup>

National measures to reduce lead poisoning include the Healthy People 2010 health indicator 8-11 - *Eliminate elevated blood lead levels in children.*<sup>76</sup>

	<b>Healthy People 2010 (8-11)</b>	<b>Delaware, 2009</b>
<b>Lead Poisoning</b>	0% BLL $\geq$ 15 $\mu\text{g}/\text{dL}$	0.05% BLL $\geq$ 15 $\mu\text{g}/\text{dL}$

Strengths & Needs in Meeting Performance Measures for Lead Poisoning

STRENGTHS

The DPH Office of Lead Poisoning Prevention (OLPP) protects the health of Delawareans by preventing childhood lead poisoning and promoting health among children (ages 1-6 years) through education, safe environments, screening and early intervention.<sup>77</sup>

NEEDS

Additional resources are needed to increase awareness about the dangers of childhood lead exposure.

**I. Sexually Transmitted Diseases Among Teens**

Status of Sexually Transmitted Diseases Among Teens in Delaware

The CDC released a study in 2008 that estimated one in four (26%) young women between ages 14-19 years in the United States – or 3.2 million teenage girls – was infected with at least one of the most common sexually transmitted diseases (HPV, chlamydia, herpes simplex virus, and trichomoniasis).<sup>78</sup> The study also found that Black non-Hispanic teenage girls were most severely affected. In fact, approximately 48% of young Black non-Hispanic women were infected with an STD compared to 20% of young White non-Hispanic women.<sup>78</sup>

In 2007, Delaware ranked 14<sup>th</sup> among 50 states in Chlamydia infections (407.6 per 100,000) and ranked 12<sup>th</sup> among 50 states in gonorrheal infections (151.5 per 100,000).<sup>79</sup> Delaware reported rates of chlamydia among women (581.5 cases per 100,000) that were 2.6 times greater than those among men (223.3 cases per 100,000).<sup>79</sup> Chlamydia rates for teens ages 15-19 years increased from 22.16 per 1,000 in 2007 to 24.91 per 1,000 in 2008 to 29.27 per 1,000 in 2009 (**Table 47**).<sup>80</sup> As indicated in **Table 48**, the disparity ratio\* between the percentage composition of chlamydia cases among White non-Hispanics and Black non-Hispanics increased from 2007 (1.89 times greater among Black non-Hispanics) to 2009 (2.32 times greater among Black non-Hispanics).<sup>80</sup>

Gonorrhea rates for teens ages 15-19 years decreased from 5.59 per 1,000 in 2007 to 4.89 per 1,000 in 2008 to 4.63 per 1,000 in 2009 (**Table 47**).<sup>80</sup> Despite the decreases, the disparity ratio between the percentage composition of gonorrhea cases among White non-Hispanics and Black non-Hispanics increased from 2007 (3.12 times greater among Black non-Hispanics) to 2009 (5.38 times greater among Black non-Hispanics) as displayed in **Table 48**.<sup>80</sup>

As displayed in **Table 49**, the percentage of high school students in Delaware who reported varied sexual behaviors generally remained consistent between 2001 and 2009.<sup>53</sup> According to the 2009 YRBS, the percentage of Delaware students who ever had sexual intercourse (57.5%) was higher than the percentage of students nationwide who ever had sexual intercourse (47.8% using 2007 U.S. YRBS data); this difference was statistically significant.<sup>53,55</sup> Delaware students also reported higher rates of being currently sexually active (42.9%)<sup>†</sup> and having had sexual intercourse with four or more persons during their life (21.0%) compared to nationwide rates (35.0% and 14.9%, respectively, using 2007 U.S. YRBS data).<sup>53,55</sup>

*Strengths & Needs in Meeting Performance Measures for Sexually Transmitted Diseases*

National measures regarding STD issues include the Healthy People 2010 leading health indicator 25 - *Promote responsible sexual behaviors, strengthen community capacity, and increase access to quality services to prevent sexually transmitted diseases (STDs) and their complications.*<sup>32</sup> Note that the Healthy People 2010 goal presents new cases only, whereas the Delaware data assesses both new and existing cases. Responsible sexual behavior is a Healthy Delaware 2010 goal.<sup>8</sup>

	<b>Healthy People 2010 (25-1 &amp; 25-2)</b>	<b>Delaware, 2009</b>
<b>Chlamydia Among Teenage Women</b>	N/A	2,927 per 100,000 [teens ages 15-19]
<b>Gonorrhea Among Teenage Women</b>	19 per 100,000 persons [new cases]	463 per 100,000 [teens ages 15-19]

*Strengths & Needs in Meeting Performance Measures for Sexually Transmitted Diseases*

**STRENGTHS**

The DPH STD Prevention Program provides statewide management, education and training for the prevention and treatment of sexually transmitted diseases.

**NEEDS**

Additional resources are needed to promote STD prevention among teens, especially African-American teens and those in rural Sussex County.

**m. Teen Pregnancy**

*Status of Teen Pregnancy in Delaware*

**Table 50** outlines the percentage of Delaware high school students that used contraception during sexual intercourse according to the 2009 YRBS.<sup>53,55</sup>

As displayed in **Table 51**, the nationwide teen pregnancy rate for women ages 15-19 years in the 2002-2006 period remained steady between 40 per 1,000 and 43 per 1,000.<sup>81</sup> At the same time, the teen pregnancy rate for women ages 15-19 years in Delaware in the 2002-2006 period steadily decreased from 46 per 1,000 to 42 per 1,000.<sup>81</sup> In similar fashion, the nationwide teen pregnancy rate for younger teens (ages 15-17 years) in the 2002-2006 period remained consistent between 21 per 1,000 and 23 per 1,000 while the teen pregnancy rate for younger teens in Delaware in the 2002-2006 period somewhat decreased from 25 per 1,000 to 22 per 1,000 (**Table 51**).<sup>81</sup>

The disparity ratio\* in the teen pregnancy rate for women ages 15-19 years in Delaware has substantially decreased. Although the teen pregnancy rate among White non-Hispanic women ages 15-19 years in Delaware narrowly averaged between 34.4 per 1,000 and 35.9 per 1,000 in the five-year periods measured between 1999 and 2007, the teen pregnancy rate among Black non-Hispanic women ages 15-19 years in Delaware decreased constantly from 80.7 per 1,000 in the 1999-2003 period to 67.4 per 1,000 in the 2003-2007 period (**Table 52**).<sup>81</sup> This resulted in a disparity ratio for a Black non-Hispanic teen pregnancy rate 2.25 times the White non-Hispanic teen pregnancy rate in the 1999-2003 period to a Black non-Hispanic teen pregnancy rate 1.93 times the White non-Hispanic teen pregnancy rate in the 2003-2007 period.<sup>81</sup>

<sup>†</sup> Currently Sexually Active refers to having had sexual intercourse with at least one person during the last three months.

Finally, the teen pregnancy rate for women ages 15-19 years is markedly different in each of Delaware’s three counties. In the 2003-2007 period, Sussex County had the highest teen pregnancy rates for both White non-Hispanics and Black non-Hispanics while New Castle County reported the lowest teen pregnancy rates for both race/ethnicity categories (**Table 53**).<sup>81</sup> New Castle County, however, featured the highest disparity ratio (teen pregnancy rate 2.06 times higher among Black non-Hispanics) as derived from **Table 53**.<sup>81</sup>

National measures to reduce teen pregnancy include the following Healthy People 2010 health indicators: 9-7 - *Reduce pregnancies among adolescent females*; 9-8 - *Increase the proportion of adolescents who have never engaged in sexual intercourse before age 15 years*; 9-9 - *Increase the proportion of adolescents who have never engaged in sexual intercourse*; 9-10 - *Increase the proportion of sexually active, unmarried adolescents ages 15 to 17 years who use contraception that both effectively prevents pregnancy and provides barrier protection against disease*; and 9-11 - *Increase the proportion of young adults who have received formal instruction before turning age 18 years on reproductive health issues*.<sup>14</sup> One of Delaware’s Healthy 2010 goals is to promote responsible sexual behavior to prevent pregnancy among teens.<sup>8</sup>

	<b>Healthy People 2010 (9-7)</b>	<b>Delaware, 2003-2007</b>
<b>Teen Pregnancy</b>	43 pregnant per 1,000 women	43.0 pregnant per 1,000 women

Strengths & Needs in Meeting Performance Measures for Teen Pregnancy

**STRENGTHS**

DPH funds various programs aimed at reducing teen pregnancy including the Alliance for Adolescent Pregnancy Prevention (AAPP) program and prevention programs through the Department of Services for Children, Youth and their Families.<sup>82</sup>

**NEEDS**

Additional resources are needed to expand evidence-based pregnancy prevention services. Community support is also needed to allow reproductive health services in School Based Health Centers.

**n. Vaccine Preventable Illnesses**

Status of Vaccine Preventable Illnesses in Delaware

Although most infants and toddlers have received all recommended vaccines by age 2, many under-immunized children remain, leaving the potential for outbreaks of disease. Many adolescents and adults are under-immunized as well, missing opportunities to protect themselves against diseases such as hepatitis B, influenza, and pneumococcal disease. CDC works closely with public health agencies and private partners to improve and sustain immunization coverage and to monitor the safety of vaccines.<sup>83</sup> For 2005 and 2006, the diseases mentioned above had a relatively small number of cases nationally in the younger age group compared to adults (**Table 54**).<sup>84,85</sup> In Delaware, the number of cases of vaccine preventable diseases is small (**Table 55**).<sup>86</sup> Only influenza, which requires a yearly injection, has a large number of cases.<sup>86</sup>

The percentage of two-year-olds immunized nationwide has increased from 72.50% in 2003 to 77.40% in 2007 (**Table 56**).<sup>87</sup> Likewise, as shown in **Table 56**, the percentage of two-year-olds immunized in Delaware increased from 66.10% in 2003 (below the nationwide average) to 80.30% in 2007 (above the nationwide average).<sup>87</sup> In 2007, Delaware ranked 8<sup>th</sup> in the percentage of two-year-olds immunized.<sup>87</sup> Despite these favorable statistics, the percentage of children ages 19-35 months in Delaware who are fully immunized has decreased from 88.00% in 2006 to 72.00% in 2008 (**Table 57**).<sup>87</sup>

The Healthy People 2010 has a series of objectives related to child and adolescent vaccine coverage: 14-22 - *Achieve and maintain effective vaccination coverage levels for universally recommended vaccines among young children*; 14-23 - *Maintain vaccination coverage levels for children in licensed day care facilities and children in kindergarten through the first grade*; 14-24 - *Increase the proportion of young*

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children and adolescents who receive all vaccines that have been recommended for universal administration for at least 5 years; 14-25 - Increase the proportion of providers who have measured the vaccination coverage levels among children in their practice population within the past 2 years; 14-26 - Increase the proportion of children who participate in fully operational population-based immunization registries; and 14-27 - Increase routine vaccination coverage levels for adolescents.<sup>88</sup>

Increasing the vaccination level of children is part of Healthy Delaware 2010 under the category of preventive services use.<sup>8</sup> By 2010, the goal is to increase the proportion of children under age 35 months who receive all vaccines that have been recommended for universal administration from 80% to 90%.

	Healthy People 2010 (14-22)	Delaware, 2007
Vaccine Preventable Illness	90% vaccinated	72.00%

Strengths & Needs in Meeting Performance Measures for Vaccine Preventable Illnesses

STRENGTHS

The Division of Public Health Immunization Program's goal is to prevent vaccine-preventable diseases by making sure children and adults receive the vaccines they need. The program assures:

- All children have access to vaccines;
- Healthcare providers are aware of immunization standards of practice;
- The latest recommendations on vaccines are available to providers; and
- Providers and the public have access to up-to-date answers to vaccine questions

NEEDS

Additional resources are needed to raise awareness among parents of the importance of immunizations and having their children up-to-date.

**o. Youth Homicide & Suicide**

Status of Youth Homicide & Suicide in Delaware

Nationally, homicide was the second leading cause of death in the 10-24 age group.<sup>89</sup> In 2006, 5,958 people ages 10-24 years were murdered, an average of 16 per day.<sup>89</sup> Of these, 87% (5,159) of the homicide victims were male, 13% (799) of the victims were female, and 84% of the victims were killed with a firearm.<sup>89</sup> For Black non-Hispanics ages 10-24 years, homicide was the leading cause of death in 2006.<sup>89</sup> The homicide rate among Black non-Hispanic males ages 10-24 years was 62.2 per 100,000 compared to 3.4 per 100,000 for White non-Hispanic males ages 10-24 years.<sup>89</sup>

As displayed in **Table 58**, homicide was the 6<sup>th</sup> leading cause of death for children ages 1-4 years (1.7% or 1 of 58 deaths), the 4<sup>th</sup> leading cause of death for children ages 5-14 years (7.2% or 5 of 69 deaths), and the 2<sup>nd</sup> leading cause of death for children ages 15-19 years (14.7% or 28 of 190 deaths) in Delaware in the 2003-2007 period.<sup>1</sup> For all children ages 1-19 years in Delaware in the 2003-2007 period, deaths caused by homicide ranged from 3.51% to 5.04% (**Table 13**).<sup>1</sup>

In 2006, among 15-24 year olds, suicide accounted for 12.0% of all deaths nationwide and was the third leading cause of death.<sup>90</sup> In 2007, 14.5% of students grades 9-12 seriously considered suicide in the previous 12 months (18.7% of females and 10.3% of males).<sup>90</sup> Moreover, 6.9% of students grades 9-12 nationwide reported making at least one suicide attempt in the previous 12 months (9.3% of females and 4.6% of males).<sup>90</sup> Hispanic female high school students in grades 9-12 reported a higher percentage of suicide attempts (14.0%) than their White non-Hispanic (7.7%) or Black non-Hispanic (9.9%) counterparts.<sup>90</sup>

Suicide was the 5<sup>th</sup> leading cause of death for children ages 5-14 years (4.3% or 3 of 69 deaths) and the 3<sup>rd</sup> leading cause of death for children ages 15-19 years (12.1% or 23 of 190 deaths) in Delaware in the 2003-2007 period (**Table 58**).<sup>1</sup> As indicated by **Table 13**, deaths caused by suicide for all children ages 1-19 years in Delaware in the 2003-2007 period ranged from 1.66% to 4.97%.<sup>1</sup> According to the 2009 YRBS, 13.5% of Delaware high school students seriously considered attempting suicide during the last 12 months (9.8% of male high school students and 17.2% of female high school students) and 8.2% of Delaware high school students actually attempted suicide one or more times during the last 12 months (5.0% of male high school students and 10.8% of female high school students).<sup>53</sup> These figures are similar to the results nationwide (using 2007 U.S. YRBS data, 14.5% seriously considered attempting suicide during the last 12 months and 6.9% actually attempted suicide one or more times during the last 12 months).<sup>55</sup>

Healthy People 2010 has a goal of reducing injuries, disabilities and deaths from unintentional injuries and violence. These goals include: *15-32 Reduce homicide in general to 3 per 100,000 from a baseline of 6.5*, *15-39 Reduce weapon carrying by adolescents on school property*, and *18-2 Reduce the rate of suicide attempts by adolescents*.<sup>50,91</sup> A Healthy Delaware 2010 goal is to eliminate the incidence of children and adolescents in possession of weapons in school from 6.2% to 0%.<sup>8</sup>

	Healthy People 2010 (15-32 & 18-1)	Delaware, 2003-2007
<b>Youth Homicide</b>	5.0 deaths per 100,000	2.5 deaths per 100,000
<b>Youth Suicide</b>	3.0 deaths per 100,000	2.1 deaths per 100,000

*Strengths & Needs in Meeting Performance Measures for Youth Homicide & Suicide*

**STRENGTHS**

Efforts in Delaware include Crisis Intervention Services through the Division of Substance Abuse and Mental Health (DSAMH), the Delaware Suicide Prevention Coalition.<sup>92</sup> Mental health services are also available through senior high school School Based Health Centers.

**NEEDS**

Additional resources are needed to raise awareness among parents of the signs and symptoms of depression or suicidal behaviors.

**p. Youth Violence**

*Status of Youth Violence in Delaware*

Youth violence is widespread in the United States. In 2006, 5,958 young people ages 10-24 were murdered.<sup>89</sup> In 2007, more than 668,000 young people ages 10-24 were treated in emergency departments for injuries sustained from violence.<sup>89</sup> In 2007, of a nationally-representative sample of students in grades 9-12, 4.2% reported being in a physical fight one or more times in the previous 12 months that resulted in injuries that had to be treated by a doctor or nurse.<sup>89</sup> Moreover, 35.5% of a nationally-represented sample of youth in grades 9-12 reported being in a physical fight in the 12 months preceding the 2007 survey with a higher prevalence among males (44.4%) than females (26.5%).<sup>89</sup> In 2007, juveniles accounted for 16% of all violent crime arrests with 1,350 juveniles nationwide arrested for murder, 3,580 arrested for forcible rape, and 57,650 arrested for aggravated assault.<sup>93</sup>

According to the 2009 YRBS results, the percentage of Delaware high school students who carried a weapon such as a gun, knife, or club on one or more of the last 30 days increased to a record level of 18.5% (**Table 59**).<sup>53</sup> This result parallels the value reported nationwide (18.0% using 2007 U.S. YRBS data).<sup>55</sup> In addition, the percentage of students who carried a gun on one or more of the last 30 days has reached a peak of 6.3% (**Table 59**).<sup>53</sup>

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National indicators for youth violence include the Healthy People 2010 leading health indicator: *15 Reduce injuries, disabilities, and deaths due to unintentional injuries and violence*. Support activities that target a reduction of injuries and deaths due to violence and abuse are a Healthy Delaware 2010 goal.<sup>8</sup>

	<b>Healthy People 2010 (15-38)</b>	<b>Delaware, 2009 YRBS</b>
<b>Youth Violence</b>	32% in physical fights over last year	30.4% in physical fights over last year

Strengths & Needs in Meeting Performance Measures for Youth Violence

STRENGTHS

Youth violence prevention programs in Delaware include the Title IV Safe & Drug-Free Schools Program, the Delaware Attorney General's Office, and School-Based Wellness Services.

NEEDS

Additional resources are needed to implement violence prevention programs in schools.

**D. Children with Special Health Care Needs: Major Health Issues, Gaps, Disparities**

**a. Developmental Delay** [State Priority]

Status of Developmental Delay in Delaware

Developmental delay refers to when a child's development lags behind established normal ranges for his or her age. Some children have global delays, meaning they lag in all developmental areas.<sup>94</sup>

Developmental delays differ from other types of learning disabilities in that they may improve with intervention and may eventually disappear. For that reason, it is important to be aware of early signs of a problem. Developmental delays can exist in one or more of the following: behavior; cognitive skills; communication; emotional skills; fine and gross motor skills; and social skills.

In 2007, 19% of children nationwide under age 18 years were classified as having special health care needs (i.e., children with an increased risk of chronic physical, developmental, behavioral, or emotional conditions and who also required health and related services of a type or amount beyond that required by children generally).<sup>95</sup> In 2007, 24% of children under age 18 years in Delaware were classified in this manner; this places Delaware (along with Alabama, Arkansas, Kentucky, and Louisiana) as the states with highest percentage of children with special health care needs.<sup>95</sup> This is an increase from 15% in 2001 and 17% in 2005-2006.<sup>95</sup>

In 2006, 908 children ages 0-3 years received early intervention services in accordance with Part C in Delaware.<sup>96</sup> Of these children, 59% were White non-Hispanic, 28% were Black non-Hispanic, 11% were Hispanic, 2% were Asian or Pacific Islander, and 0.1% were American Indian or Alaska Native (**Figure 32**).<sup>96</sup> Children ages 2-3 years accounted for 55% of the children receiving services while 32% were ages 1-2 years and 12% were birth to 1 year of age (**Figure 33**).<sup>96</sup> Finally, 62% of the children receiving services were female and 38% were male (**Figure 34**).<sup>96</sup>

National measures regarding developmental delay issues include the Healthy People 2010 leading health indicators: *16-14 Reduce the occurrence of developmental disabilities*.<sup>102</sup> Moreover, parents' concerns about their child's learning, development, and behavior can be an indication of a child's risk for developmental, behavioral and/or social delays. Eight items asking about specific parental concerns, derived from the Parents' Evaluation of Developmental Status<sup>®</sup>, are included in the 2007 National Survey of Children's Health (NSCH).<sup>97</sup>

	<b>U.S., 2007 NS-CSHCN</b>	<b>Delaware, 2007 NS-CSHCN</b>
<b>CYSHCN Developmental Delay</b>	73.6% children qualify as low or no risk for delays	74.2% children qualify as low or no risk for delays

Strengths & Needs in Meeting Performance Measures for Developmental Delay

STRENGTHS

Delaware screening initiatives such as the

NEEDS

Additional training of providers is needed on the use

Developmental Comprehensive Screening project and the ABCD Screening Academy Project, led by the ECCS program,, Child Development Watch and DE-AAP, have been the catalyst to building strong linkages between health professionals, families and resources. The programs facilitated the passage of legislative House Bill (HB) No. 199-Developmental Screening of Infants and Toddlers which requires Delaware private insurers to cover developmental screening at the recommended AAP well-child visit intervals.

of standardized screening tools, including those available electronically for inclusion in electronic medical records. Providers need to be educated about the new Delaware law (as of July 2009) that requires insurance companies to reimburse for age appropriate developmental screening. Finally, additional resources are needed to address the gap in sustaining technical assistance and training for early childhood providers (e.g. health care/child care etc.) and establishing medical home structures for children and their families.

**b. Disparities among Families of CYSHCN [State Priority]**

*Status of Disparities Among Families of CYSCHN in Delaware*

Based on findings from the 2007 National Survey on Children’s Health (NSCH), a number of key disparities have been identified for CYSCHN when compared to their peers without special needs. These disparities are most pronounced in four key areas: Child Health Indicators; Emotional and Mental Health Indicators; Health Care Access and Quality Indicators; and Family Health Indicators. According to the 2007 NSCH:

1. Disparities in Child Health Indicators

*General Health.* Among those aged 0-17 years in Delaware, 71.0% of CYSCHN were reported to be in overall excellent or very good health. This compared to 88.7% of non-CYSHCN.<sup>97</sup>

*Oral Health.* Among those aged 1-17 years in Delaware, 64.1% of CYSHCN were reported to have teeth that were in excellent or very good condition. This compared to 75.2% of non-CYSHCN. In this same age range, although not statistically significant, 15.2% of CYSHCN were reported to have two or more oral health problems in the past six months. This compared to 8.1% of non-CYSHCN.<sup>97</sup>

2. Disparities in Emotional and Mental Health

*Parental Concern.* Among those aged 4 months to 5 years in Delaware, 58.0% of parents of CYSHCN reported concern over their child’s physical, behavioral or social development. This compared to 36.4% of parents of non-CYSHCN.<sup>97</sup>

*At-Risk Children.* Among those aged 4 months to 5 years in Delaware, 28.5% of CYSHCN were reported to be at high risk for developmental, behavioral, or social delay. This compared to 7.2% of non-CYSHCN.<sup>97</sup>

*Social Behaviors.* Among those aged 6-17 years in Delaware, 81.1% of CYSHCN were reported to consistently exhibit positive social behaviors. This compared to 94.6% of non-CYSHCN.

Furthermore, among this same age cohort, 24.8% of CYSHCN were reported to often exhibit problematic social behaviors. This compared to 4.5% of non-CYSHCN.<sup>97</sup>

3. Disparities in Health Care Access and Quality

*Continuous and Coordinated Health Care.* Among those aged 0-17 in Delaware, 48.4% of CYSHCN were reported to have a medical home that provided continuous, coordinated, comprehensive, family-centered and compassionate health care services. This compared to 63.6% of non-CYSHCN.<sup>97</sup>

*Effective Care Coordination.* Among children needing care coordination in the past year, 52.1% of CYSHCN were reported to receive effective care coordination. This compared to 79.3% of non-CYSHCN.<sup>97</sup>

*Specialist Care.* Among children that needed specialist care in the past year, 14.2% of CYSHCN were reported to have had problems getting specialist care. This compared to 3.9% of non-CYSHCN.<sup>97</sup>

4. Disparities in Family Health

*Mother's Health.* Among children in Delaware that lived with their mother, 53.9% of mothers of CYSHCN were reported to be in very good or excellent general health. This compared to 66.6% of mothers of non-CYSHCN.<sup>97</sup>

*Mother's Mental/Emotional Health.* Among children in Delaware that lived with their mother, 63.2% of mothers of CYSHCN were reported to have very good or excellent mental or emotional health. This compared to 75.4% of mothers of non-CYSHCN.<sup>97</sup>

*Fathers Mental/Emotional Health.* Among children in Delaware that lived with their father, 71.4% of fathers of CYSHCN were reported to have very good or excellent mental or emotional health. This compared to 82.2% of fathers of non-CYSHCN.<sup>97</sup>

Strengths & Needs in Meeting Performance Measures for Reducing Disparities among Families of CYSCHN

STRENGTHS

One of the two overarching goals of Healthy People 2010 is to eliminate health disparities.<sup>98</sup> The disparities in these four key areas have been – and must continue to be – consistently addressed through all programming focusing on CYSCHN in Delaware. In Delaware, the DHMIC Health Disparities Committee facilitated a multi-agency public-private initiative to plan the development of state standards for culturally and linguistically appropriate services in health care (CLAS) for the MCH population. Facilitated by the ECCS program, this initiative has been identified as a key priority area and collaborative partnerships have been integrated into a broad statewide partnership. Coordination of efforts will be integrated with the newly formed Health Equity Consortium (*formerly the governor appointed Health Disparities Task Force*).

NEEDS

A thorough environmental scan of existing services and gaps is required to understand what resources are available, what resources are available but underutilized and what resources are family-centered and culturally appropriate to meet unaddressed needs.

c. Family Support of CYSHCN [State Priority]

Status of Family Support of CYSCHN in Delaware

A primary goal of Title V programs has been the promotion of family-centered, coordinated care for CYSCHN and the development of community-based system of services for CYSHCN and their families.<sup>100</sup> Progress toward achieving this goal can be measured through six critical indicators, two of which are directly linked to family support of CYSCHN:

1. Families of CYSCHN have adequate private and/or public insurance to pay for the services they need. Health insurance coverage helps ensure access to family-centered care for CYSHCN, and the availability of private or public insurance is strongly linked with the ability to obtain community-based services such as medical care, dental care, mental health services, medical equipment, supplies and prescriptions.<sup>100</sup> Although Medicaid and the Children's Health Insurance Program (CHIP) have

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made a significant contribution to decreasing the number of uninsured children, the problem of underinsurance persists.<sup>100</sup>

According to the 2005-06 NS-CYSHCN, approximately 62.0% of families of CYSCHN nationwide claimed to have adequate private and/or public insurance to pay for the services they need.<sup>100</sup> In Delaware, approximately 63.2% of families of CYSCHN reported in the same manner.<sup>100</sup>

2. Families of CYSCHN partner in decision-making at all levels and are satisfied with the services they receive. Family-centered care is based on the recognition that children live within the context of families—which may include biological, foster, and adoptive parents, step-parents, grandparents, other family caregivers, and siblings.<sup>100</sup> Family-centered care is a process to ensure that the organization and delivery of services, including health care services, meet the emotional, social, and developmental needs of children and that the strengths, and priorities of their families are integrated into all aspects of the service system.<sup>100</sup> Moreover, family-centered care recognizes that families are the ultimate decision-makers for their children with children gradually taking on more and more of this decision-making as they mature.<sup>100</sup>

The 2005-06 NS-CYSHCN reported that 57.4% of families of CYSCN nationwide partner in decision making at all levels and are satisfied with the services they receive; in Delaware, 61.1% of families of CYSCN responded similarly.<sup>100</sup> In addition, 89.1% of respondents nationwide and 88.1% of Delaware respondents stated that community-based services for CYSHCN are organized so families can use them easily.<sup>100</sup>

National measures regarding family support of CYSHCN include the Healthy People 2010 leading health indicators: *1-1 Increase the proportion of persons with health insurance* and *16-23 Increase the proportion of Territories and States that have service systems for children with special health care needs.*<sup>102,99</sup>

	<b>Healthy People 2010</b>	<b>Delaware, 2005-06 NS-CSHCN</b>
<b>Family Support of CYSHCN: Financial</b>	100% [Healthy People 2010 (1-1)]	63.2% state they have adequate insurance to pay for needed services.
<b>Family Support of CYSHCN: Services</b>	100% [Healthy People 2010 (16-23)]	88.1% state community-based services are organized so that families can use them easily.

*Strengths & Needs in Meeting Performance Measures for Family Support of CYSHCN*

**STRENGTHS**

In coordination with the myriad of statewide developmental screening initiatives, Delaware formed the Act Early State Team to attend the Region III Act Early Summit in Philadelphia, PA. The team shared important information and worked to identify current gaps and develop a state strategic plan to address early identification, service provision and coordination issues for families and children with ASD and other related disabilities. The current momentum in Delaware has enabled increased knowledge, skills and motivation for families to access quality care for their children. Programs in Delaware include Child

**NEEDS**

A thorough environmental scan of existing services and gaps is required to understand what resources are available, what resources are available but underutilized and what resources are family-centered and culturally appropriate to meet unaddressed needs.

Development Watch, Child Development Watch  
(Part C) SNAP, Family to Family, and ECCS.

**d. CYSHCN Coordination of Medical Care Issues**

*Status of CYSHCN Coordination of Medical Care Issues in Delaware*

Parents of CYSHCN most often negotiate a maze of services and several separate providers to ensure that their children receive appropriate care. This inefficient and uncoordinated system has enormous financial and emotional implications for families, communities, and health insurers as well. The key is the partnership between the primary care professional and the broad range of other community providers and programs serving CYSHCN and their families. The medical home concept includes a responsibility for primary care professionals to become knowledgeable about all the community services and organizations families can access.

This concept was evaluated using a series of questions from the National Survey Children with Special Health Care Needs, (NS-CYSHCN) including:

- Whether the child has a personal doctor or nurse;
- Whether he or she has a usual source of sick and well-child care;
- Whether the child has had problems obtaining needed referrals;
- Whether the doctor listens carefully to the parent;
- Whether the doctor is sensitive to the family’s customs;
- Whether the doctor provides the family with enough information;
- Whether the parent feels like a partner in the child’s care;
- Whether the family receives interpretation services when needed.

All of these criteria were met by 47.1% of CYSHCN.<sup>100</sup> Children in higher-income families were also more likely to have medical homes: 56% of children with family incomes of 400 percent of poverty or more achieved this outcome compared to 34% of children in poverty.<sup>100</sup>

The 2005-06 NS-CYSHCN reported that 69.8% of parents with children with special needs answered that nobody helps with arranging or coordinating care for their child.<sup>100</sup> As shown in **Table 60A-D**, this survey also reported more than 30% of parents with CYSHCN reported feeling less than very satisfied with communication between themselves and their doctor.<sup>101</sup>

National measures for reducing medical care coordination issues include the Healthy People 2010 leading health indicators: *16-22 Medical homes for children with special health care needs.*<sup>102</sup>

	<b>Healthy People 2010 (16-22)</b>	<b>Delaware, 2007 NS-CYSHCN</b>
<b>CYSHCN Coordination of Medical Care</b>	100% of CYSHCN have a medical home	48.4% of CYSHCN have a medical home

*Strengths & Needs in Meeting Performance Measures for CYSHCN Coordination of Medical Care*

**STRENGTHS**

In Delaware, programs such as the State Council for Persons with Disabilities, the Delaware Special Needs Alert Program (SNAP), and Family to Family/Family Voices, help in improving coordination of services for CYSHCN. Additionally, the Office of Primary Care and Rural Health and the University of Delaware Center of Applied Demography and Survey Research (CADSR) produces the Primary Care Physician in Delaware report which began to survey physicians regarding the medical home concept in 2008. Access to medical homes is also a

**NEEDS**

A thorough environmental scan of existing services and gaps is required to understand what resources are available, what resources are available but underutilized and what resources are family-centered and culturally appropriate to meet unaddressed needs. Additional resources are needed to address the gap in sustaining technical assistance and training for early childhood providers (e.g. health care/child care etc.) and establishing medical home structures for children and their families.

priority area for ECCS and is integrated into the developmental screening initiatives in the state.

**e. CYSHCN Transition Issues**

*Status of CYSHCN Transition Issues in Delaware*

Studies indicate that 90% of CYSHCN reach their 21<sup>st</sup> birthday and 45% of CYSHCN lack access to a physician who is familiar with their health condition. Moreover, 40% of CYSHCN use the emergency system of care versus 25% of typical youth annually. CYSHCN are three times more likely to live on income under \$15,000 annually.<sup>103</sup>

According to the 2005-06 NS-CYSHCN, fewer than half of parents with teens with special needs reported that health care providers talked about meeting health care needs in adulthood.<sup>100</sup> A 2008 American Academy of Pediatrics survey confirmed that fewer than half of pediatricians are providing transition support services such as discussing insurance options, making transition plans, or offering educational materials; in addition, very few initiate transition planning early.<sup>104</sup> The 2005-06 NS-CYSHCN reported that 12.9% of health care providers in Delaware talked about meeting health care needs in adulthood to the parents of teens with special health care needs (Table 61A-B).<sup>100</sup>

*Strengths & Needs in Meeting Performance Measures for CYSHCN Transition Issues*

National measures for reducing transition issues include the Healthy People 2010 leading health indicators: *16-23 Increase the proportion of Territories and States that have service systems for children with special health care needs.*<sup>102</sup>

	Healthy People 2010 (16-23)	Delaware, 2005-2006 NS-CYSHCN
<b>CYSHCN Transition Discussed</b>	100%	44.8%

*Strengths & Needs in Meeting Performance Measures for CYSHCN Transition Issues*

**STRENGTHS**

Programs in Delaware include the State Council for Persons with Disabilities, the Developmental Disabilities Council, the Coordinating Council for Children with Disabilities and the Division of Developmental Disabilities Services. A.I. DuPont/Nemours has an office dedicated to transition services. Finally, F2F assists families with issues around transition.

**NEEDS**

Additional resources are needed to expand transition training for youth and their parents through the University of Delaware, Center for Disabilities Studies. Three trainings were offered in 2009-2010, but additional training is needed in this area.

**V. MCH PROGRAM CAPACITY BY PYRAMID LEVELS**

**A. Direct Health Services & Enabling Services**

Access and coverage has remained as one of Delaware’s priority needs. Delaware takes great steps to provide care for pregnant mothers, infants, and children with special health care needs. The Title V grant money allowed Delaware to establish programs to target its biggest health challenges such as infant mortality and reducing disparities in birth outcomes as well as services for children with special health care needs.

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

Preconception care and early prenatal care are recognized as a critical component of health care for women of reproductive age.<sup>105</sup> Access to care and early entry into care are essential for healthy birth outcomes. The DHMIC lead the effort to increase the number of women receiving preconception and prenatal care. In 2008, 15,000 women were enrolled in preconception care program which is a 231% increase since 2007. The Health Women/Healthy Babies program offers services such as:

- Preconception care
- Prenatal care

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- Progesterone-17 to women at risk of preterm birth
- Interconception care
- Folic acid
- Reproductive life planning
- Access to social work services;
- Contraceptive counseling;
- Immunizations for women;
- Mental health services;
- Nutrition counseling;
- Oral health education;
- Pre-pregnancy planning;
- Family planning;
- Tobacco cessation counseling.

Furthermore, Delaware developed targeted programs to increase access to care for both infants and pregnant women. In 2008, Delaware reached more than 20% of all pregnant women in the state. These programs consist of:

- Counseling from other mothers, outreach workers, nurses, social workers and nutritionists on how to better care for themselves and their infants up to two years after giving birth;
- Enrolling women in Medicaid;
- Providing costly medicine to pregnant women;
- Providing progesterone to at-risk women;
- Providing translation services and bilingual services to Spanish-speaking families and providers.

**The Healthy Women Healthy Babies Program (HWHB):** The program began in 2010 and provides prenatal care for women who are at risk for poor birth outcomes. The DPH HWHB targets Black women and women whose most recent pregnancy resulted in a poor birth outcome. The risk factors that providers are looking for are:

- BMI greater than or equal to 30;
- Chronic disease;
- Federal Poverty Level at or below 300%;
- High stress (based on self-reported Perceived Stress Scale);
- Late entry into prenatal care (after first trimester);
- Maternal age over 35;
- Maternal age under 18;
- Mental Illness (based on clinical diagnosis and/or self-reported Patient Health Questionnaire);
- Risk for birth defects.

Women receive HWHB services at Westside Health, Christiana Care, Dr. Cecil Gordon's practice, Planned Parenthood, Delmarva Rural Ministries, La Red and Children and Families First. DPH reimburses clinics based on four bundled service options. Bundle Service A includes services for clinical interventions, risk assessment, and health promotion. Bundle Service B includes mental health counseling. Bundle Service C includes services for prenatal care and interconception visits, and Bundle D includes services for nutrition and obesity prevention services.

**Cribs for Kids®:** In June 2009, a partnership was developed between the Delaware Division of Public Health, Nemours Health and Prevention Services of the Nemours Foundation (Nemours), and the Child Death, Near Death and Stillbirth Commission (CDNDSC) to implement the first Cribs for Kids® program in Delaware. Any mother is entitled to a free crib if she meets the following criteria:

- Due to deliver the baby in six weeks;
- Has an infant who is younger than six months of age;
- Is unable to purchase a crib by any other means.

Nemours has been designated as the nonprofit organization that will be the gatekeeper for the donated funds from the community. CDNDSC will house the cribs for distribution and will continue to partner on events to secure funds for the program. The education will be provided to the family by a Division of Public Health (DPH) nurse. The preventive part of the program is the education that must be given by the nurse on unsafe sleeping practices for infants. This is an evidence-based program that has had very good

outcomes in other states in reducing infant unsafe sleeping deaths and is an excellent example of collaborative partnerships in Delaware on behalf of children. The training and full implementation started in the fall of 2009.

**Availability of Specialty Care Services**

In Delaware, there are several options for pediatric specialty care clinics and hospitals. Although Delaware is a small state consisting of three counties, access to pediatric specialty services can be difficult for some rural populations, regardless of Medicaid eligibility or insurance status. Women who are in childbearing years can receive preconception care, pregnancy planning, and prenatal care at hospitals and clinics throughout all three counties in Delaware.

**Christiana Care Health Systems:** Includes two hospitals – Christiana Hospital and Wilmington Hospital – which have more than 7,000 babies born at its facilities. The hospitals include maternity centers and neonatal intensive care units which have 24/7 nurses, perinatologists to manage high-risk pregnancies, and board-certified neonatologists to care for premature or sick newborns. Christiana Care also runs a Healthy Beginnings which is the HWHB-funded program for women.

**Nemours/Alfred I. duPont Hospital for Children:** Located in Wilmington and is a 200-bed teaching hospital integrated with the Nemours Children’s Clinic staff. Alfred I. duPont Hospital provides more than 30 specialties of neonatal intensive care units, pediatric medicine, surgery and dentistry in a patient- and family-centered environment.

**St. Francis Hospital:** Located in Wilmington and provides gynecological and obstetrical services to women at every stage of their reproductive life.

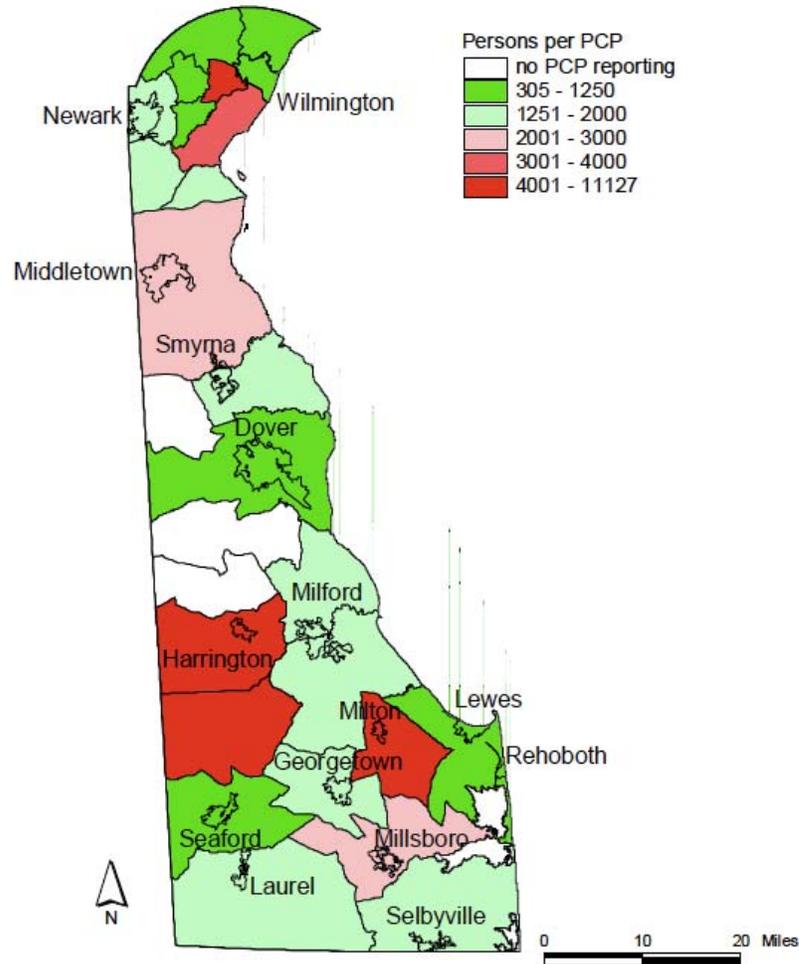
**The Birth Center: Holistic Women's Health Care:** Located in Wilmington provides routine as well as alternative maternity and gynecological care. The Birth Center also offers classes and support groups. The Birth Center employs Certified Nurse Wives (CNM), Registered Nurses, and consulting physicians.

**Primary Care**

Delaware, like other states, faces a shortage of health professionals. According to the University of Delaware, Center for Applied Demography & Survey Research 2008 Survey and the database that combines survey results from 2008 with the results over the previous five rounds of the survey, the number of physicians with an active practice in Delaware is estimated at approximately 2,255, and of those, 863 are practicing primary care physicians (PCPs) in Delaware. Given Delaware’s population of 873,772, there were about 1,187 persons served by each full-time equivalent primary care physician in 2008. For the three counties, the estimates are 1,718 for Kent County, 1,059 for New Castle County, and 1,310 for Sussex County.

Seven out of the 27 Census County Divisions have a potential shortage. Specifically, Kent County, Sussex County, and parts of the City of Wilmington have been federally designated as health professional shortage areas (HPSA). There are particular shortages among primary care physicians, dentists, nurses and mental health professionals. These shortages threaten the ability of health care facilities in Delaware to provide timely access to quality care. The HPSA map below illustrates the shortages of PCPs .

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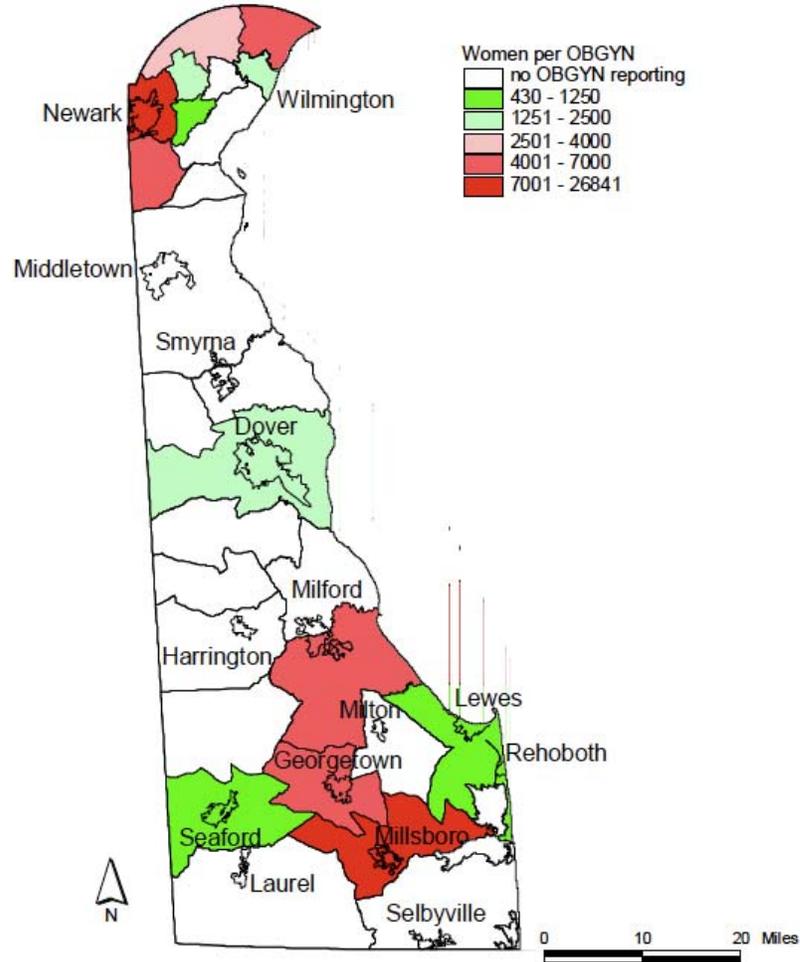
### **Obstetrician-Gynecologists (OB/GYN)**

According to the Center for Applied Demography and Survey Research and DPH Office of Primary Care, there were 83 practicing OB/GYNs in Delaware in 2008. Kent and Sussex counties are the most underserved areas. Sixty-four percent of OB/GYNs practice in New Castle County, 2% practice in Sussex County, and 14% practice in Kent County. Most OB/GYNs practice near a hospital which means many women are expected to travel. Only 13 out of the 27 Census County Divisions have OB/GYN practice sites. Delaware is expanding prenatal programs in areas where there are shortages of OB/GYNs.

Primary care physicians and OB/GYNs are in high demand and may not be always available to their patients. Furthermore, OB/GYN physicians continue to eliminate obstetrics from their practices.<sup>106</sup> To help bridge the gap, advanced practice nurses (APN), certified nurse midwives (CNM), and physician assistants (PA) must be readily available.

The use of Midwifery and Midwives Model of Care is increasing as people are exploring alternatives to traditional maternity and labor care.<sup>107</sup> In 2005, The Birth Center delivered about 80 babies a year and in 2009 the Center delivered approximately 160 births and is anticipating an increase for 2010. Because the majority of childbearing women are healthy and CNMs earn less than their physician counterparts, CNMs are in an ideal position to fill the gap left by the decrease in obstetrics. An increase in midwifery in Delaware would help expand the availability of primary care and women's health services.<sup>108</sup>

## STATE OF DELAWARE 2010 MCH NEEDS ASSESSMENT



### **Primary Care Physicians**

The Delaware Division of Professional Regulation reports that the number of licensed physicians increased from 3,610 in 2005 to the previously indicated 4,283 in 2008. The Primary Care Physician Survey indicates an increase in the number of physicians in New Castle County and in Sussex County, while the number of full-time equivalent physicians has leveled off in Kent County.

**Delaware's Medicaid Managed Care Program:** The Medicaid managed care program covers all of the basic Medicaid services as well as an enhanced care program for pregnant women and comprehensive EPSDT services. Pregnancy and postpartum home visits are also covered under the plan through the DPH nurse home visiting program, Smart Start. Family planning benefits are extended for all women with Medicaid for two years after they lose eligibility for comprehensive coverage. Freedom of choice for family planning services is still protected so that a woman may go to any qualified provider for family planning services regardless of the plan in which she is enrolled.

Pregnant women, regardless of insurance status, identified as “at-risk” may obtain Smart Start services that are provided through DPH. Funding for DPH Smart Start services is provided through Title V, Medicaid, and revenue dollars. Smart Start services include:

- Education on optimal health during and after pregnancy;
- Helps find resources in the community for needs such as housing, transportation or child care;
- Teaches an understanding of how the body changes during pregnancy and child birth;
- Assists with postpartum skills including infant care, infant development and breastfeeding;

- Teaches parenting skills.

**Community Healthcare Access Program (CHAP):** To be eligible for this program, individuals must be a resident of Delaware, uninsured, ineligible for state medical assistance programs, and meet financial eligibility guidelines. CHAP helps provide access to primary care doctors, medical specialists, and other health resources including prescription programs, laboratory and radiology services. Medical services are provided in the community through community-based health care centers and private doctors who participate in the Medical Society of Delaware's Voluntary Initiative Program (VIP). VIP is a network of private physicians statewide who accept CHAP patients into their practices and serve as their health home or provide medical subspecialty services. CHAP recipients receive discounted medical services based upon their income.

The target population for CHAP is comprised of approximately 20% of the state's uninsured population, about 20,720 adults. Since the inception of the program in 2001, and as of August 31, 2008, CHAP has served over 16,923 uninsured patients and enrolled 3,253 in other state and federal medical assistance programs such as Medicaid and the Veteran's Administration. In 2007 and 2008, a new element was added to the CHAP program to improve health status by implementing a health promotion and disease management component, focused on high risk and high need patients. This was accomplished by administering health risk assessments and adherence to best practices through chart reviews. Between 2008-2009, there were improvements in smoking cessation, services for diabetics, lifestyle improvements for people with hypertension and flu shots for asthmatics. In 2009, program evaluation included a new evaluation dimension on birth outcomes and prenatal care.<sup>109</sup>

**b. Children and Adolescents**

Title V provides funding for Delaware to provide direct child health services such as EPSDT, immunizations, counseling, TB screening, lead screening and health education through the DPH public health clinics. These services are provided primarily to the uninsured, under-insured and a small number of Medicaid clients when referred by their primary care physician. Additionally, the Nemours/duPont Pediatric Clinics provide direct services to the pediatric population. There are clinics situated throughout the state; seven in New Castle County, two in Kent County and eight in Sussex County. Annually, the hospital serves over 80,000 outpatient clients and 120,000 in the primary care sites.

**The State Children's Health Insurance Program (SCHIP):** The Delaware Healthy Children Program began on January 1, 1999. The program offers affordable health insurance for children up to age 19 in moderate income households. There is a monthly fee-based on family income (fee not to exceed \$25 per month regardless of family size). The Program covers everything from routine checkups to eye exams to doctor and hospital services. Families covered by the Delaware Healthy Children Program enjoy an extensive list of services for a single low monthly rate without co-payments. Services covered include:

- |                                     |   |
|-------------------------------------|---|
| • Ambulance services;               | • Lab work;                             |
| • Assistive technology;             | • Limited home health and nursing care; |
| • Case management and coordination; | • Mental health counseling;             |
| • Developmental Delay;              | • Physician services;                   |
| • Drug/alcohol abuse treatment;     | • Physical therapy;                     |
| • Eye exams;                        | • Prescription drugs;                   |
| • Hospice care;                     | • Speech/hearing therapy;               |
| • Hospital Care;                    | • Well-baby and well-child checkups;    |
| • Immunizations;                    | • X-rays.                               |

Coverage includes well visits for babies and children, immunizations, prescription drugs and vision care and other routine services. It also includes services for CYSHCN such as therapies and home health when medically necessary.

**Vaccines:** In January 2008, DPH transitioned to a new centralized vaccine distribution system that allows

providers to submit orders directly to DPH. The CDC processes and ships the orders. This process will increase use. Each year, over 232,000 doses of vaccine are distributed by the Vaccines for Children program to Delaware medical providers.

**Women, Infant, and Children (WIC) Program:** A federally-funded program that safeguards the health of low-income pregnant, breastfeeding and postpartum women, and infants and children up to five years of age. The program provides nutritious foods, information on healthy eating, breastfeeding support, and referrals to other healthcare, welfare and social services.

**School-Based Wellness Center Services:** Centers deliver medical, mental health and nutrition services to youth in 28 of 32 high schools in Delaware. The Centers provide a mix of comprehensive medical and mental health services, health education and preventive services such as:

- Behavioral and social support;
- Diagnosis and treatment of injury or illness;
- Health education;
- Mental health services;
- Preventive and primary care;
- Referral to primary care physician;
- Nutrition services.

### **Oral Health**

Delaware is taking steps to reduce the shortage of oral health access. Delaware's federally-designated dental health provider shortage areas are Sussex and Kent counties and Wilmington's Southbridge area. Efforts are being made to increase dental access for children and Medicaid recipients. The Bureau of Oral Health and Dental Services established the following programs:

**Dental Care on Wheels:** Populations in need will benefit from a mobile van with two state-of-the-art treatment rooms for providing comprehensive dental services. Although the van will primarily be used to provide services at schools, it will also be available for dental services for preconception and pregnant women through the Healthy Women/Healthy Babies (HWHB) program.

**Planning Grant:** A \$200,000 dental planning grant from the Health Resources and Services Administration (HRSA) was awarded to the Bureau of Oral Health and Dental Services (BOHDS) in August 2008. The Bureau used the one-year grant to develop strategies to increase access to dental care.

**Seal-A-Smile Program (SAS):** Second graders without regular dentists receive complimentary screenings and sealants on permanent molars through the SAS program. SAS visited 34 schools in 2008, its fourth year. However, significant staff shortages rendered the SAS program inactive in 2009. The program reconvened in April 2010 to serve two elementary schools; one in Sussex and one in Kent County. The Bureau provides equipment and supplies and coordinates volunteer dentists and dental hygienists with the Delaware State Dental Society, the Delaware Dental Hygienists' Association and the Delaware Department of Education.

**State Loan Repayment Program:** The Bureau worked with the Delaware Health Care Commission to qualify its dentists and dental hygienists who work 37.5 hours for the loan repayment program to incentivize dentists to practice in underserved areas.

### **c. Children and Youth with Special Health Care Needs**

According to the 2008 national survey of CYSHCN, there are approximately 34,522 CYSHCN in Delaware.<sup>100</sup> CYSHCN may need substantial care and costly medical interventions. Families of children and youth with special health care needs face challenges in securing comprehensive health, educational, and social services. As a result, care may be fragmented, duplicative, confusing, and unnecessarily

costly. Case management or care coordination is a method of overcoming some of the obstacles experienced by these children and their families. The main strategy to enhance coordination of medical care issues is ensuring primary care physicians (PCP) have processes in their offices that support care plans that are developed by the PCP, family and medical staff. Care plans should include goals, services, interventions and referral contacts. The Family Support Initiative, sponsored through Title V, is working with Family to Family (F2F) to develop standard care plans for use by CYSHCN families.

**Delaware Newborn Screening Program (NSP):** Identifies newborn babies with one of a number of rare disorders. Some disorders, if not identified and treated soon after birth, can result in developmental delay or mental retardation, serious medical problems, or even death. For every \$1 spent on newborn screening, \$9 in medical care and treatment costs are saved – resulting in a national savings of \$36 million every year.<sup>110</sup> Newborn screening, together with rapid diagnosis and treatment, prevents mental retardation, illness, and death in newborns. It also saves millions of dollars in treatment, home, and institutional cost. The program includes:

- Newborn Hearing Screening;
- Newborn Screening for Metabolic Disorders;
- Autism Surveillance and Registration Program;
- Birth Defects Surveillance Registry.

**Child Development Watch:** IDEA Part C statewide early intervention program for children ages birth to 3. The program's mission is to enhance the development of infants and toddlers with disabilities or developmental delays and to enhance the capacity of their families to meet the needs of their young children. Services include:

- Clinical Nurse Specialist with specialty training in CYSHCN;
- Developmental Nurse Specialists;
- Medical social work;
- Physicians/nurses;
- Psychologists;
- PT/OT/ST consultants.

**Oral Health:** The University of Delaware's Center for Disabilities Studies and the Delaware State Dental Society analysis' found providing oral health for CYSHCN is extremely difficult due to complex mobility, financing and provider issues that people with disabilities encounter when accessing dental care. The Bureau of Oral Health developed activities for children with special health care needs in its Targeted State MCH Oral Health Service Systems grant. The organizations partnered in 2009 and established an alliance to develop solutions for these problems.

Delaware has one of the best dental Medicaid programs in the country, where the reimbursement is 85% of the dentist's usual fee. Although 45% of the practicing dentists in Delaware are enrolled in Medicaid, there are many dentists who do not provide a significant amount of services. According to the 2005 Dentists in Delaware Report, the dentist to client ratios has worsened. These numbers are especially significant in the Kent and Sussex County areas where our most vulnerable children are still underserved, especially the CYSHCN population. The state has recently enacted legislation, Senate Bill 65, which now allows parents of CYSHCN to secure dental care for a child with a severe disability irrespective of "in-network" restrictions. This promotes the availability of in-network practitioners willing and able to treat children with special health needs.

**Primary Care and Physical Therapy, Occupational Therapy, and Speech:** The majority of CYSHCN receive care at the Alfred I. duPont Hospital for Children (AI). It is the largest health care provider for children with disabilities in Delaware and operates one of the nation's largest subspecialty group practices devoted to pediatric health care. In 2002, over 500 young adults being treated at AI for chronic illnesses, disabilities, or diseases aged out of services and needed to transition to community-based adult health care.<sup>111</sup> The transition process and the young adults' access to primary care physicians and specialists are areas Delaware is targeting for improvement.

The Alfred I. duPont Hospital for Children has instituted Specialty Clinics particularly to address the needs of CYSHCN in Kent and Sussex Counties. The need for Specialty Clinics outside of the hospital is made known through reviews of clinic appointment books. The hospital has established standards regarding how long a child should wait for an appointment and how far a family should travel to an appointment. Once a need is identified a clinic is established (i.e., Cleft Palate Clinic at the Williams State Service Center three times a year and Orthopedic Clinic in Seaford). Plans are underway for a Cardiac Clinic in Seaford and Hematology Clinic in Sussex County. Clinics are held every month unless the need indicates otherwise. The specialty clinics provide many service providers (MDs, RNs, Nutritionists, Social Workers, and Dentists) at one location and at the same clinic visit for a child to receive comprehensive services.

Children and families of CYSHCN also receive services at Easter Seals. The organization employs therapists, teachers and other health professionals help people with disabilities to achieve their goals. The philosophy includes families as active members of any therapy program, and offers the support families need. Easter Seals services include:

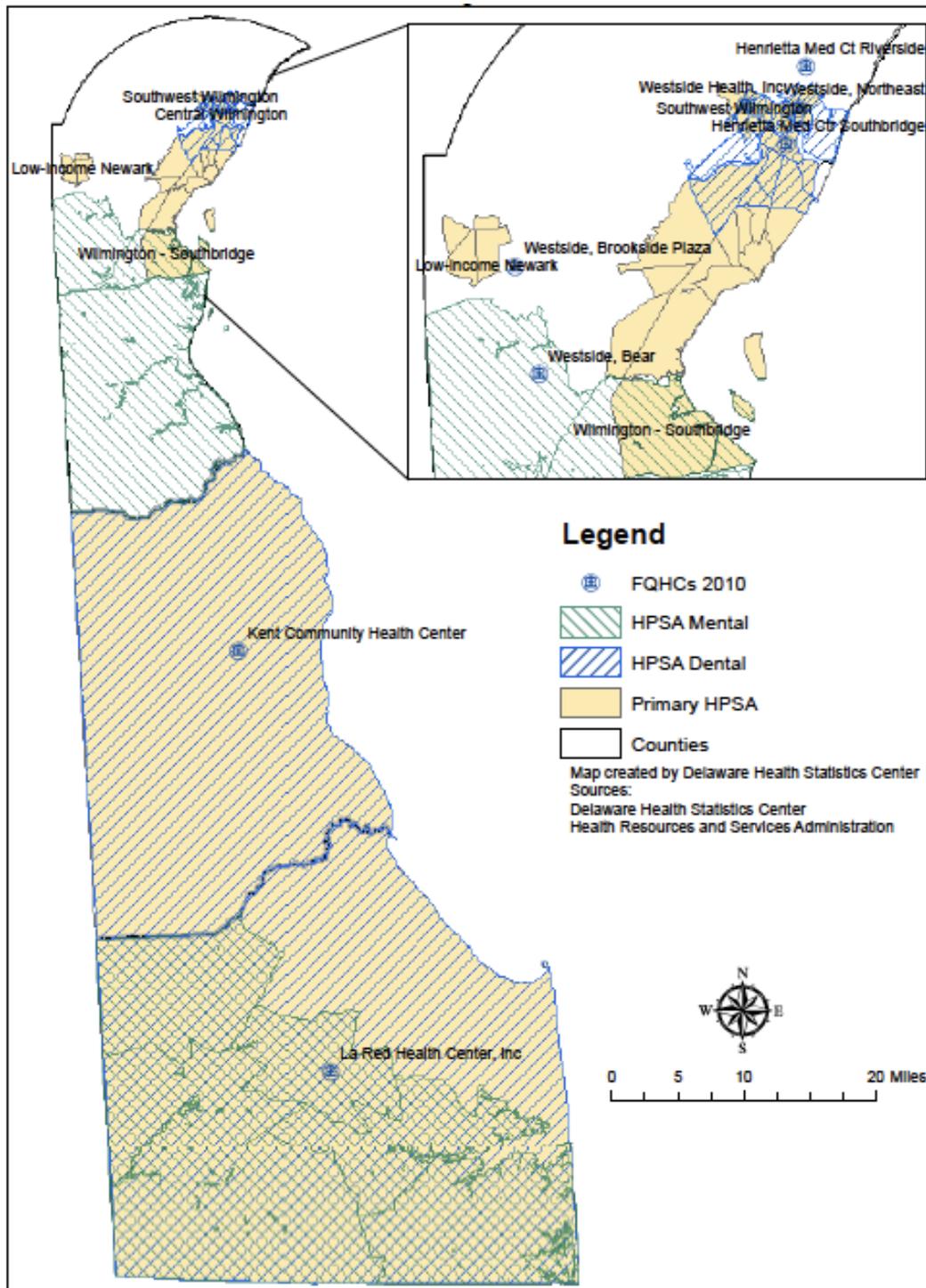
- Camping and Recreation;
- Child Care;
- Early Intervention;
- Job Training and Employment;
- Medical Rehabilitation;
- Occupational Therapy;
- Physical Therapy;
- Speech and Hearing Therapy.

**Respite Care:** Respite services are provided in a limited capacity to CYSHCN who do not require skilled nursing. It is more difficult to find service providers for technology dependent children. Typically, private and public health care insurance does not support respite care. However, there are some available sources of funding. The Division of Mental Retardation (DMR) receives state funds for respite. DMR provides two weeks of respite care to their clients. Parents are given the option to obtain their own respite care provider or the DMR will designate a provider. United Cerebral Palsy (UCP) offers several state-wide choices of respite care such as center-based weekend day care; summer day camp; and center-based weekend care. Easter Seals provides respite for children 6 to 14 with a disability. The respite services include weekends and over-night summer camps in Maryland. The family must pay for the weekend services although there is limited financial assistance from Easter Seals for the summer camp. The state's Autism Program also provides services to families of its students. Families are entitled to 24 hours of monthly respite care, plus an additional 7 days per year. Parents provide some payment and the State Department of Education subsidizes the remainder.

**d. Priority State Concern: Mental Health Providers in Health Professional Shortage Areas**

A map designating Health Professional Shortage Areas for primary care, mental health and dental services is provided below. This map clearly demonstrates that a great deal of the state (including two of the three counties) are considered Health Professional Shortage Areas. Of particular concern is the shortage of mental health professional in Kent and Sussex counties. The Center for Applied Demography & Survey Research survey conducted in 2005, found that there are approximately 763 mental health professionals with an active practice in Delaware. Of those mental health professionals, 112 practices in Sussex County, 124 practiced in Kent County and 527 practiced in New Castle County.

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**e. Emerging Issues Impacting Direct and Enabling Services**  
**Financial Access and Cultural Acceptability**

Racial and ethnic disparities exist in burden of illness and death experienced by Black, Hispanic, and Asian populations when compared to the population as a whole. Black infant mortality rates are higher than White rates in all three Delaware counties.<sup>112</sup> Overall, the rate in Delaware was 17.1% for Blacks, compared to 6.8% for Whites, and 7.2% for Hispanics. According to the 2007 National Healthcare Disparities Report, Hispanics receive poorer quality care than non-Hispanics and data indicates that this

trend is getting worse, not better. When looking at preventative care, the Hispanic population has the lowest percentage of people accessing regular dental care and colon cancer screenings. Delaware is uncovering if disparities may be attributed to health care delivery, socioeconomic status, culture, language, or personal behavior.

Language barriers remain a major challenge in Delaware. Languages spoken include numerous Spanish dialects, Chinese, Creole, Haitian, Hindi/Urdu, Korean, Vietnamese, and several African dialects. Hospitals and community health clinics do offer some translation services and bi-lingual programs but often in just Spanish and English. The DHMIC sponsored programs provide Spanish-language interpretation services for more than 500 patients per year. Continued outreach efforts are needed to educate families on community-based systems that are available in rural areas.

The DPH Office of Minority Health is responsible for data collection and analysis relevant to minority health status and disparities. The Office ensures DPH programs are tailored to eliminate disparate morbidity and mortality rates of minority populations and works to strengthen community and government partnerships to solve key health concerns and prevent disease. The Office also works to promote workforce diversity and develop culturally competent public health systems.

**f. Linkages to Promote Cross-System Access to Direct and Enabling Services**

The Medicaid Manage Care Organization CYSHCN committee, of which DPH is a member, works collaboratively to ensure the needs of children with special needs and families are met through the state Medicaid programs. This forum links direct and enabling service providers to overcome systemic or bureaucratic barriers to care.

Similarly, the Interagency Coordinating Council (ICC) is charged with creating linkages across systems to promote direct and enabling services for children and families services under Part C of IDEA. The ICC is the advisory group to the Birth to Three Early Intervention System, and includes parents, education professionals, pediatric and early intervention providers, a child care provider, advocates, a representative from Early Head Start, a legislator, and others representing the designated state agencies. The ICC meets four times each year and the committees meet quarterly or as necessary to develop and implement improvement activities. The ICC Executive Committee meets quarterly prior to ICC meetings. Delaware Department of Health and Social Services (DHSS) is the lead agency for Part C in Delaware. The Program is administered by the Birth to Three staff within the Division of Management Services, and children and families eligible for Part C services are served through Child Development Watch (CDW) within the Division of Public Health.

The Delaware Early Childhood Council (DECC) and its partners have been focused on the Policy Matters and Fiscal Mapping project. The DECC partnered with the Delaware Business Roundtable Education Committee and other early childhood stakeholders to undertake an early childhood policy audit and fiscal mapping initiative. To advance the alignment of planning, policy and funding for *Early Success: Delaware's Early Childhood Plan*, the Markell-Denn Administration in concert with Dr. Sharon Lynn Kagen at Columbia University and The Finance Project undertook the Policy Matters and fiscal mapping effort. A committee lead by Lieutenant Governor Matt Denn and Connie Bond-Stuart (President of PNC Bank Delaware) was formed for this joint effort. This has been a tremendous opportunity for the state to gather national insight on Delaware's early childhood system and establish a clear, long-term vision and short-term actionable strategies for improvement.

Through the Policy Matters analysis, the committee has prioritized three short-term actionable strategies:

1. Consolidating early childhood services within the Department of Education;
2. Providing full financing of Delaware Stars to encourage participation by all programs with strong consideration of tiered reimbursement as a mechanism;
3. Building a stronger early childhood accountability system including integrated data systems.

Delaware's commitment to cross systems linkage has been expressed through Governor Jack Markell's reactivation

of the Interagency Resource Management Committee (IRMC). The Interagency Resource Management Committee (IRMC) was established by the legislature in Fiscal Year 1992. There are five members: 1) Secretary of DOE; 2) Secretary of DHSS; 3) Secretary of Services for Children, Youth and Their Families; 4) Director of Management and Budget, and the Controller General. The IRMC coordinates the delivery of early care and education services in Delaware through interagency collaboration for services for children with disabilities and offers administrative oversight for the state Early Childhood Assistance program. The IRMC monitors and support the implementation of “*Early Success: Delaware’s Early Childhood Plan.*” Under Governor Ruth Ann Minner’s eight year administration, the IRMC had been inactive. The reactivation of the IRMC is a huge accomplishment for Delaware’s early childhood community.

## B. Population-Based Services

The state of Delaware works to reach broad populations through its programs, media and education campaigns, and by providing access to services all over the state.

### a. Pregnant Women, Mothers and Infants

**Family Planning and STD Prevention:** Reproductive health services are provided throughout the state through DPH clinics and Title X delegate sites. These include:

- Children and Families First (ARC) (4 locations);
- Delmarva Rural Ministries, Inc. (1 location);
- Delaware State University (DSU students only) (1 location);
- Henrietta Johnson Medical Center (2 locations);
- La Red Health Center, Inc (1 location);
- Planned Parenthood of Delaware (5 locations);
- Westside Health (4 locations).

**Breastfeeding Promotion:** Research shows that there is no better food than breast milk for a baby’s first year of life. Breastfeeding provides many health and nutritional benefits to the baby but also provides, economical and emotional benefits to mother.<sup>113</sup> The State of Delaware encourages mothers to breastfeed their infants through public campaigns and providing resources to mothers.

**WIC Program** (previously mentioned): A federally-funded program supports WIC mothers who choose to breastfeed by providing information through counseling and breastfeeding educational materials, support through peer counselors and allowing them to be eligible to participate in WIC longer than non-breastfeeding mothers. Mothers also may receive an enhanced food package and breast pumps, breast shells or nursing supplementers to help support the initiation and continuation of breastfeeding. There is a statewide toll-free number available for questions and concerns.

The Delaware WIC program supports and implements the WIC National Breastfeeding Campaign: ‘Loving Support Makes Breastfeeding Work’. The goals of the campaign are to encourage WIC participants to initiate and continue breastfeeding; increase referrals for breastfeeding support; increase general public acceptance and support of breastfeeding through local media, and the distribution of baby blankets, breastfeeding resource texts, and other marketing materials to facilities that participate in the project. DPH facilitates obtaining breast pumps and special formulas as needed for special needs infants. Furthermore, WIC supports breastfeeding rooms where any breastfeeding mom can pump or breastfeed in comfort and privacy. Each room has a glider and an ottoman, an electric hospital-grade pump, a refrigerator for storing expressed milk and breastfeeding literature.

**Nursing Mothers, Inc. (NMI):** Is a volunteer, not-for-profit organization dedicated to helping women and their families by offering mother-to-mother support and non-medical information as well as free literature resources. Breastfeeding classes are free of charge and are held at The Birth Center and at the Christiana Care Hospital. Lactation consultants, free of charge, are located at St. Francis Hospital, Beebe Medical Center-Lewes, Bayhealth Hospitals, and at Christiana Hospital.

**Newborn Screening Program** (previously mentioned): A program responsible for identifying, in the newborn period, certain disorders which, if untreated, result in mental retardation and other disabilities. Nearly 90% of babies born in the U.S. live in states that require screening for at least 21 serious disorders. Delaware has made great strides nationwide that requires screening for 30 core, treatable conditions. Delaware Public Health regulations require that all babies be screened. However, regulations permit families to decline screening for their baby if their religion prohibits such testing. The Newborn Screening Program distributes specialized formula to infants with PKU through the Specialty Formula Fund in Delaware.

DPH staff will continue to support the screening program by providing follow-up in the home when screenings have not occurred in the hospital (i.e., home births) or a repeat screen is needed. Delaware has an outstanding record in meeting this need. Every birthing hospital participates.

**Newborn Hearing Screening Program:** Funding for hearing screens is provided through federal grants. All birthing sites are required to provide hearing screening prior to discharge. The incidence of hearing loss in newborns is 2-3 per 1,000 births.<sup>114</sup> The screening is completely safe and can be administered within the first day of life. The screening will show whether the baby's hearing is normal, or if further testing is needed. Parents will receive the results of the hearing screening before they leave the birthing site. If the newborn does not pass, re-screening is necessary. This occurs in 1 out of 10 newborns. The hospital will schedule an appointment for a parent to have the re-screening within one month. DPH's efforts include coordinating activities with the Delaware Infant Hearing Assessment and Intervention Program, centralizing hearing screening data and tracking, and providing follow-up on babies who fail the screens. All Delaware birthing facilities provide hearing screening prior to discharge.

**Growing Together Package:** A set of resources about child development that parents receive after a child is born. The package contains materials for parents to understand how their child is developing and reminders on what testing is needed within the first two years of life. Materials included are on topics such as Newborn Metabolic Screening, Lead Testing, Dental Care, Well-Child visits, Immunizations and Vaccines. The package is most helpful to first time parents.

**b. Children & Adolescents**

**Delaware's Early Childhood Comprehensive Systems Initiative (ECCS):** A federal grant project awarded to the Division of Public Health in 2003 from the MCHB of the U.S. Department of Health and Human Services. The ECCS project, positioned within the DPH MCH Bureau, is part of a nationwide initiative to build and implement comprehensive systems of care that support family and community approaches to promote positive early development and early school success for young children. The overall purpose of the program is to plan, develop, and implement collaborations and partnerships among a broad range of public and private programs to enhance the development of young children, birth through age five, including those children with special health care needs. The two major goals of ECCS are:

- 1) Ensure that all of Delaware's children, including those with special health care needs, are healthy and ready to learn by school entry.
- 2) Ensure that Delaware parents and families have knowledge of- and access to- appropriate services for their children including medical, mental health, quality early care and education, parent education and family supports.

School readiness involves all aspects of a child's development: health, mental health, cultural identity, general knowledge, language, motivation and enthusiasm for learning. In 2003, Delaware launched a statewide effort to focus on developing, implementing and sustaining comprehensive early childhood programs through collaborative partnerships and multi-agency systems building initiatives. The ECCS program strives to better coordinate the comprehensive early child serving systems and create a system that is well integrated and will connect Delaware families to needed services.

ECCS accomplishes this by addressing several core components:

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- Access to Medical Homes;
- Access to family-centered practices providing comprehensive physical and child development services for all children including CYSHCN;
- Access to family-centered practices providing assessment, intervention and referral of children with developmental, behavioral or psycho-socio problems;
- Availability of services to address the needs of children at-risk for mental health problems;
- Early care and education services from birth through five years of age that support children's early learning, health and development of social competence;
- Service delivery pathways to facilitate entrance of at-risk children into appropriate child serving systems of care;
- Services that provide support to parents in their role as prime educators of their children;
- Services to address the stressors that impair parents/families development, knowledge and access to early child serving systems and resources that enable them to nurture and support the healthy development of their children.

In Delaware, ECCS has been accredited with major systems change efforts across a broad spectrum of early childhood initiatives, most notably early care and education. This year, ECCS will heighten statewide awareness in six priority areas to facilitate increased awareness and support effective decision making and policy change to improve health outcomes and support school readiness for young children. These areas include:

1. Addressing Health Disparities for young children and their families;
2. Physical Activity, Obesity and Nutrition prevention in early childhood;
3. Patient-Centered Medical Homes;
4. Developmental Screening;
5. Child Care Health Consultant;
6. Enhancing Statewide Home Visitation.

**Children & Families First:** A private, non-profit social service agency that strengthens families and communities by providing a continuum of quality social, educational and mental health services statewide. Services are provided out of eight CFF offices, as well as in schools, clients' homes, and other convenient community locations. CFF is a merger of five organizations, including the Children's Bureau, Family Service Delaware, Turnabout Counseling, the Prenatal Association of Delaware, and most recently, The Family & Workplace Connection. CFF is a recipient of the Evidence-Based Home Visiting Grant through the Administration for Children and Families. Through this grant, they have implemented Nurse-Family Partnership in Delaware for the first time and helped convene a statewide Advisory Council on Home Visiting, which includes DPH as a partner agency.

**Delaware Safe Kids:** The Delaware SAFE KIDS Coalition is a non-profit organization dedicated to reducing unintentional childhood injury in children from birth to age 14. This program is an affiliate of the National SAFE KIDS Campaign®.

**Immunizations:** To increase rates of immunizations in the State of Delaware, the Delaware Department of Education, the Delaware Office of Child Care Licensing, the Delaware WIC program, and the Delaware Adult Flu Coalition partner together to better monitor and improve immunization rates among populations. Funding for immunizations is provided through federal and state dollars. School nurses assist in ensuring all children transferring or entering school for the first time in Delaware are compliant with their immunizations. DPH makes an extra effort to reach special and rural populations by providing specific immunization clinics to the Amish population and to the rural residents in Sussex County. The DPH Northern Health Services Director is the lead of the statewide Immunization Coalition.

**Tuberculosis:** There are three public health clinics, one in each county, that provide Tuberculosis (TB) screening, diagnosis and treatment.

### **Lead Poisoning Prevention**

Substantial progress has been made in the past decade, both nationally and in Delaware, to reduce the incidence of lead poisoning in children under the age of six. The General Assembly passed the Childhood Lead Poisoning Prevention Act and established the Office of Lead Poisoning Prevention (OLPP). The Act requires blood lead screening of children at or around 12 months of age and proof of screening prior to child care or school enrollment. The mission of OLPP is to protect the health of Delawareans by preventing childhood lead poisoning and promoting health among children (0-6 years of age) through education, safe environments, screening and early intervention. Delaware blood-lead testing is performed largely through the child's primary health care provider.

The OLPP provides four core services:

- Promotes the testing of all children at 12-months-of-age, and repeat testing of those at high risk until six years of age;
- Provides case management and inspection, for lead hazards, in homes of children with elevated blood-lead levels;
- Offers health education and distributes materials on the causes and effects of lead poisoning among young children, and how to identify and reduce lead hazards;
- Analyses results of children identified with elevated blood lead to determine those at increased risk and thus target prevention activities to priority areas and populations.

**Alliance for Adolescent Pregnancy Prevention (AAPP):** Supported through a contract from DPH, AAPP implements evidence-based teen pregnancy prevention interventions in schools and community settings. AAPP is operated by Delaware's largest health system, Christiana Care.

**c. Children with Special Health Care Needs**

Newborn genetic and hearing screenings and follow up are provided by DPH. The programs are previously mentioned in the pregnant mothers and infant section.

**Child Development Watch – Part C**

As previously mentioned, the Part C Birth to Three Early Intervention System was created, as a result of Part C, a section of the Individuals with Disabilities Education Act (IDEA), to "enhance the State's capacity to provide quality early intervention services and expand and improve existing early intervention services being provided to infants and toddlers with disabilities and their families." The Part C Birth to Three program is funded by both State and Federal Part C dollars.

The Part C Birth to Three program is an interagency effort consisting of the Divisions of Management Services, Public Health, Social Services, Developmental Disabilities Services, and the Division for the Visually Impaired, in Delaware Health and Social Services; the Department of Education; the Department of Services for Children, Youth and Their Families; and private agencies. While Child Development Watch within the Division of Public Health, is responsible for Part C Birth to Three program operations, the Division of Management Services is responsible for implementing the Part C mandate including service delivery, billing and contractual arrangements with providers.

Under Part C Birth to Three, the following types of services are provided:

- Assistive technology device and services
- Audiology
- Family training and counseling
- Health services
- Medical services for evaluation purposes only
- Nursing services
- Nutrition services
- Occupational therapy
- Physical therapy

- Psychological services
- Social work services
- Developmental services
- Speech-language pathology
- Transportation

**D. Infrastructure Building Services**

Delaware prides itself in building and maintaining partnerships and collaborations with both state and federal organizations. Many organizations and coalitions are working to improve maternal and child health in the state of Delaware. Within DPH, a performance improvement initiative led by the Division Director is re-focusing the organizations priorities to focus on core services within public health and specific health priorities. The aim is to have DPH working at the “bottom of pyramid” on population-based and infrastructure-building services. The four Division priorities include:

- Healthy lifestyles
- Health reform
- Disparities elimination
- Organizational development

Through the use of strategy mapping and process improvement, the DPH transformational initiative will increase accountability and cohesion among services and programs. DPH also plans to apply for public health department national accreditation.

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

The targeted effort of providers, DPH, and the Delaware Healthy Mother and Infant Consortium (DHMIC) and its subcommittees to reach pregnant women and mothers is very successful. In 2008, the prenatal programs reached almost 20% of all pregnancies in Delaware.

**PRAMS:** With support from the DHMIC, DPH applied for and obtained CDC funding to implement the Pregnancy Risk Assessment Monitoring Systems (PRAMS) survey in 2007. Since then, DPH has increased the response rate from 63% in 2007 to 78% in 2008, which exceed the CDC required response rate.

2009 Accomplishments:

- PRAMS surveyed 1,577 women between two and four months postpartum who gave birth in Delaware.
- PRAMS oversampled among minority women and those with an infant death to ensure appropriate representation among the high-risk population.

2010 Goals:

- Begin analysis of PRAMS data. Issue the first comprehensive PRAMS report.
- Use PRAMS results to change current state programs and streamline services to high-risk women.
- Use PRAMS results to create a report of pregnancy risks for targeted intervention.

**Child Death, Near Death and Stillbirth Commission (CDNDSC):** Delaware’s child death review process was established by legislation passed on July 19, 1995, after a pilot project showed the effectiveness of such a review process for preventing future child deaths. The statute was amended in 2002, and again in 2004, changing the name from the Delaware Child Death Review Commission to the Child Death, Near Death and Stillbirth Commission (CDNDSC). The mission of the commission is to safeguard the health and safety of all Delaware children as set forth in 31 Del. C. c. 3. The key objectives are:

- Review in a confidential manner, the deaths of children under the age of 18, near-deaths of abused and/or neglected children and stillbirths occurring after at least 20 weeks of gestation.

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- Provide the Governor, General Assembly and Child Protection Accountability Commission with recommendations to alleviate those practices or conditions that impact the mortality of children.
  - Assist in facilitating appropriate action in response to recommendations.
- The CDNDSC has the authority to create up to three regional child death review panels and three regional Fetal Infant Mortality Review (FIMR) teams to conduct retrospective reviews of all child deaths, near deaths due to abuse/neglect and stillbirths (after 20 weeks gestation) that occur in the state. The Commission provides meaningful system-wide recommendations to prevent the deaths and/or near deaths of children and improve services to children. The process brings professionals and experts from a variety of disciplines together to conduct retrospective case reviews, create multi-faceted recommendations to improve systems and encourage interagency collaboration to end the mortality of children in Delaware.

**CDNDSC/Fetal and Infant Mortality Review:** Reviews every fetal and infant death in Delaware using the Fetal and Infant Mortality Review (FIMR) process, which includes reviewing medical records, death certificates and other health information, and interviewing mothers. FIMR helps to inform why there is a high number of fetal and infant deaths in Delaware. The information received from interviews with mothers helps make recommendations for changes in public health programs and interventions.

The top four issues identified in 2008-2009 were:

- preexisting medical conditions;
- medial and social services and community resources that were available and not used;
- obesity and poor nutrition;
- preterm labor.

More specifically, 71 percent of women interviewed had a preexisting medical condition, 40 percent had inadequate or delayed referrals for home-based services; 26 percent were obese and 24 percent had inadequate nutrition or anemia in the first trimester; and 32 percent went into preterm labor. The DHMIC is the community action arm or implementation teams for FIMR findings.

**FIMR Infant Safe Sleeping Practice:** The Infant Safe Sleeping Practice Subcommittee was created in FY2006 after the Commission reviewed 57 infant and child sleep-related deaths during fiscal years 2003–2007. During July 2007, the subcommittee embarked on a media campaign to increase awareness of safe sleeping practices. This campaign included exterior and interior prevention messages on DART buses throughout the state.

**Delaware Birth Defects Registry:** A statewide program that collects and analyzes information on children with birth defects. By collecting information for a statewide registry, Public Health officials hope to identify health, environmental and genetic risk factors which could lead to pinpointing the causes and prevalence of birth defects. The Delaware Birth Defects Registry is designed to collect information on children diagnosed under the age of five with a birth defect. The children are residents of Delaware or their parents are Delaware residents. Confidentiality is a key component of the program. All information is kept in utmost confidence using strict security measures.

**Division of Public Health (DPH) Center for Family Health Research and Epidemiology:** Monitors trends affecting infant mortality by looking at national, state and local data, creates reports using results from DHMIC's studies. The center monitors, evaluates and documents its progress to reduce infant mortality and eliminate disparities in birth outcomes.

### Research Accomplishments:

- Conducted phase I and II Prenatal Periods of Risk (PPOR);
- Analyzed the contributors to low birth weight among African-American women;
- Developed an evaluation plan for the Healthy Women/Healthy Babies program;
- Submitted two collaborative articles in national journals.

**March of Dimes:** The March of Dimes-Delaware Chapter (MOD) works to improve the health of babies by preventing birth defects, prematurity and infant mortality. The mission is accomplished through research, community services, education and advocacy and collaborations with many organizations to save babies' lives. Delaware's MOD also is one of 15 chapters to support the NICU Family Support Program which provides direct service and support to families with infants in the NICU of Christiana Care. Through partnership, families are directly linked to community programs to assist with transition from hospital to home for the most vulnerable babies prior to discharge. DPH will continue to collaborate with the March of Dimes in a joint effort to increase access to quality prenatal care, reduce the number of premature births and birth defects and improve health outcomes of all children. The MOD staff serve on DHMIC committees.

**b. Children and Adolescents**

**Department of Education (DOE):** The Delaware Health and Social Services and the Department of Education work collaboratively to develop programs promoting the health of all children in Delaware. Examples include the delivery of EPSDT services in the school setting and in providing support for School-Based Health Centers. Currently there are commissions on Health Education, Health Services, and Physical Education, Nutrition Services, School Climate, Staff Wellness, and Counseling Services. The Coordinated School Health Program Team is composed of a variety of health and education related agencies, private, and public including parents. They recruited school applicants to participate in a needs assessment of health needs in their respective schools. After identifying the specific needs, plans were developed to target those needs. The DOE has also collaborated with DPH in development of the Part C early intervention efforts. Staff are also housed and incorporated into the CDW team and serve as liaisons for transition and Individuals with Disabilities Education Act (IDEA B and C) issues. The Office of Health Services, DOE, in partnership with the DPH provides training to school nurses on teen pregnancy prevention, lead poisoning, tuberculosis, immunizations, bio-terrorism and emergency preparedness and public health resources. Delaware has a comprehensive system of school nurses, with one in each school and most private schools. There are over 320 full and part time school nurses in Delaware that serve students in public and private schools.

**Head Start State Collaborations Office**

The **Office of Head Start State Collaboration** in the Delaware Department of Education serves as a liaison between the regional Head Start office, Head Start/Early Head Start grantees and state agencies providing services to low-income families. The mission of the Office's Collaboration Project is to create a visible presence for Head Start/Early Head Start at the state level in policymaking, partnerships, initiatives, and decisions that affect low-income children and their families. Goals of this project include: 1) coordinating with and supporting implementation of Early Success, Delaware's early care and education system; 2) ensuring Head Start/ Early Head Start participation in state level initiatives related to educational opportunities, childcare, inclusion, health, literacy, community services, welfare reform, and homelessness; and 3) facilitating the involvement of HS/EHS in state policies, plans, processes, and decisions affecting the HS/EHS eligible population and other low-income families related to dental services, mental health services, and services to children with disabilities.

**Head Start, Early Head Start and Early Childhood Assistance Program:**

Head Start is a 40 year old federally funded program operated by local public and private non-profit and for-profit agencies to provide comprehensive child development services to children at or below the poverty, with a special focus on helping preschoolers from age three years to school entry develop the early reading and math skills they need to be successful in school. In 1995, the Early Head Start program was established to serve pregnant women and children from birth to three years of age in recognition of the mounting evidence that the earliest years matter a great deal to children's growth and development. Migrant Head Start was established to provide continuity of Head Start services to children of migrant farm workers. Children ages birth to five years whose families qualify based on the federal poverty

income guidelines and the federal definitions of migrant and seasonal farm workers are eligible for Migrant Head Start.

The Early Childhood Assistance Program (ECAP) consists of 12 state funded pre-kindergarten programs for four-year-olds living at or below the federal poverty level. The ECAPs are administered by the Delaware Department of Education and operated by community-based organizations throughout the state, including existing Head Start grantees (which operate three ECAPs), school districts, community organizations and other early childhood agencies. The Department of Education, in cooperation with the Interagency Resource Management Committee (IRMC), oversees the implementation and operation of the state's pre-kindergarten initiative, called the Early Childhood Assistance Program (ECAP). ECAP was established in 1994 to address the need for improved school readiness by giving income eligible four-year-old children at least one year of preschool and reducing the waiting lists at Head Start centers.

Head Start is administered by DOE through community-based organizations throughout the state. Both Head Start/Early Head Start programs and ECAPs operate according to the Head Start Performance Standards (45 CFR part 1304) to serve preschool children and their families. Approximately 1,926 children between ages three and five are served by the traditional Head Start program. The Division of Public Health participates on the Head Start State Collaboration project, which was established to develop state level partnerships for planning and policy development for Head Start eligible children and their families. Priority areas include welfare reform, health/oral health care access, childcare, social and emotional wellness, disabilities, educational opportunities, volunteerism, literacy, and homelessness. The Head Start State Collaboration Office director serves on the ECCS Multi-agency State Team the Delaware Early Childhood Council. According to the 2009 Head Start Needs Assessment, the following are global strengths and needs for the Delaware Head Start population: .

**Global Strengths:** Both HS/EHS programs and ECAPs appear to be resourceful in meeting the needs of families and children and are committed to the spirit of local and state collaboration. (However, time and resource limitations often mean programs are not able to collaborate, particularly at the state level, to the extent they would like to.) These strengths are reflected in how well programs perform on monitoring visits and in child outcomes. For example a 2007-08 outcomes study (Cornwell, 2008) of 262 Head Start and ECAP children that assessed progress on the *Creative Curriculum* revealed that these children made significant progress, with children achieving, on average, 58% of the skills overall at the highest level of the curriculum by the end of the year. These strengths are also reflected in programs' abilities to make linkages to connect families with key resources and referrals to support families and meet their needs, even though formal collaboration agreements may not always be in place.

**Global Needs:** Perhaps the major need that cuts across a number of priority areas (e.g., Homelessness Services, Child Care, Welfare/Child Welfare, Community Services, and Partnering with Local Education Agencies) relates to meeting the new full day/full year service definitions in the revised Head Start Act. The change in the definition of full day from 6 to 8 hours to over 8 hours has several implications. First, programs will need to gather new information about the number of families in need of full-day/full-year services. Given the new definition, currently available information is not adequate for identifying the extent of the need. Second, the array of program options and services will need to be reviewed to identify possible enhancements to meet the extended definition and possibly increased need. Finally, existing partnerships may need to be enhanced, or new ones developed, to meet program service gaps related to child care, community services, and a variety of other areas.

Another need that crosses a number of Head Start priority areas relates to outreach to other agencies around conducting professional development for program staff. The needs assessment results suggest that HS/EHS programs and ECAPs may benefit from help other agencies in the community could provide to program administrators and other program staff around three areas: 1) understanding the available services offered by these agencies; 2), strategies these agencies use to provide for the needs of families; and 3) how HS/EHS programs and ECAPs can most appropriately/effectively meet the needs of the families they serve.

**Early Success:**

The original *Early Success* document was developed in 1999 by more than one hundred statewide stakeholders. This document focused solely on improving the early care and education system. Recognizing the various policies, programmatic and fiscal obstacles ahead, members of the ECCS Steering Committee and members of the Delaware Early Care and Education Council formed an alliance in 2006. Under the guidance of the ECCS grant, a multi-agency collaborative group was formed to revise the *Early Success* document into what is referred to as *Early Success: Delaware's Early Childhood Plan II*. *Early Success II* is a living document and emphasizes the need to build "Ready Families," "Ready Communities," "Ready Early Care and Education," and "Ready Schools" to ensure "Ready Children." The plan is broad-based, visionary, and recognized as a national model. The alliance resulted in the formation of the Delaware Early Childhood Council (DECC) which was codified in the Delaware code in June, 2007. The DECC receives administrative support from the Department of Education, Office of Early Childhood and operates under the auspices of the Interagency Resource Management Committee (IRMC). As noted earlier, the IRMC was established by the legislature in Fiscal Year 1992. It had been inactive for the last eight years, however, was reactivated in 2010 under Governor Jack Markell's administration.

The Department of Education's Office of Early Childhood is a key collaborator with the Division of Public Health on the early childhood comprehensive systems effort. The various implementation strategies of *Early Success: Delaware's Plan for Early Childhood* will continue to guide the early childhood initiatives to promote health, safety and positive social emotional outcomes for Delaware's young children. In an effort to provide a comprehensive approach of early childhood services to all families, the ECCS and the Office of Early Childhood, with full support from members of the DECC, have partnered to provide a seamless early child system of care. This venture is the catalyst to enable DPH to provide statewide leadership on child health and development issues through multiple public/private collaborations.

**Early Childhood Work Groups:** The Early Childhood Education workgroup provides leadership to ensure that Delaware delivers an equitable and effective system of education for young children in full compliance with federal and state law. The group ensures that the interests of young children are represented in all aspects of Delaware's education reform. The group operates, oversees and monitors programs made possible by both federal and state funds.

The School Support Services workgroup includes programs and support services necessary to assure a supportive and healthy environment that nurtures academic growth and development. The group is responsible for the development of programs and services in the areas of:

- Nutrition Programs;
- School Climate and Discipline;
- School Health Services;
- Student Services and Special Populations.

**Delaware Oral Health Coalition:** Promotes good oral health through its Awareness and Prevention Committee and its Integrated Delivery Systems Committee. The Coalition was instrumental in developing the Oral Health Awareness Campaign. Members developed a curriculum for all health classes and presented it to the Delaware Department of Education for review. It also reviewed topics such as Medicaid enrollment for dentists, improving access to care in underserved areas, and expanding the dental residency program downstate.

**DHSS Division of Management Services (DMS):** Provides human resources, budget development, and evaluation services to other DHSS divisions. DMS provides a statewide continuum of mental health and substance abuse (behavioral health) treatment programs for children and youth. These services have graduated levels of intensity and restrictiveness that are child-centered and family-focused. DMS also houses the Birth to Three Office, which provides administration for Part C. Birth to Three is a statewide, comprehensive, coordinated, multidisciplinary, interagency system that provides early intervention services and supports for infants and toddlers with disabilities and developmental delays and their families. DMS staff provides overall management for the system and ensure compliance with the federal requirements of the Individuals with Disabilities Education Improvement Act of 2004, which provides

funding to help support the system.

Children and their families receive early intervention supports and services by Child Development Watch within the Division of Public Health, with staff drawn from DPH and DDDS. Major external partners, through interagency agreements and contracts, are Department of Education; Department of Services for Children, Youth and Their Families; Christiana Care Health Services, Inc.; Alfred I. duPont Hospital for Children; and community providers.

**DHSS Division for the Visually Impaired (DVI):** The DPH Child Development Watch works with DVI to provide service coordination for children with visual impairments or who blind.

**DHSS Office of Emergency Medical Services:** Delaware first received EMSC grant funding in 1997 and the program officially began with the hiring of a program coordinator in 1998. Some examples of cutting-edge work underway with support from the EMSC program are projects to: provide specific education and equipment for all levels of pediatric emergency care providers; ensure that Delaware EMS protocols are developed to meet the needs of children; to develop emergency care and disaster education and training programs for child care agencies; and ensure that all state trauma/disaster plans address pediatric needs. More detailed information on Emergency Services for Children is outlined in Section VI.

**Department of Services for Children, Youth, and Their Families (DSCYF):** Established in 1983 by the General Assembly of the State of Delaware and collaborates closely with the DPH. Its primary responsibility is to provide and manage a range of services for children who have experienced abandonment, abuse, adjudication, mental illness, neglect, or substance abuse. Its services include prevention, early intervention, assessment, treatment, permanency, and after care. The KidsDepartment employs approximately 1,200 staff at 31 locations, who serve over 8,000 children on any given day. Among the workforce are 52 Family Crisis Therapists (FCTs), who work in elementary schools throughout the state. Additionally, the Department provides licenses to nearly 2,200 daycare operations, which provide services for more than 49,000 children in Delaware.

The Division of Child Mental Health Services (DCMHS) increased access to mental health treatment for young (pre-school) children in 2009. DCMHS was awarded the Child Mental Health Initiative (CMHI) grant to create a system of care for infants and young children from birth to 5 years with serious emotional disturbances and their families. This Substance Abuse and Mental Health Services Administration (SAMHSA) grant for \$6 million over 6 years is using SAMHSA recognized evidenced based trainings in Trauma-Focused Cognitive Behavioral Therapy (TF-CBT), Patient-Centered Interaction Therapy (PCIT) and Infant Caregiver Training. The CMHI grant is primarily a treatment focused grant that will help Delaware rebuild its mental health infrastructure through mass training efforts. To date, forty-four (44) out-patient clinicians in Delaware were trained by DCMHS to use Parent-Child Interaction Therapy (PCIT). PCIT, an evidence-based mental health treatment, is designed to reduce problem behaviors and increase pro-social behaviors for 2-5 year old children with very challenging, disruptive behaviors.

**Division of Family Services (DFS):** Services provided are child oriented and family focused. The Foster Care staff work with Delaware's foster families to protect and nurture children; meet the children's developmental needs and address developmental delays; support relationships between children and their families; promote permanency planning leading to reunification with the child's family or other safe nurturing relationships intended to last a lifetime. The Office of Child Care Licensing strives for a high standard of care and ensures safe environments for children by providing guidance, training and support to many day care providers throughout the state, and investigating complaints concerning day care facilities. The Division's Office of Children's Services also assesses families with problems and provides them with supportive services to empower them to protect and nurture their children.

**Division of Youth Rehabilitative Services (DYRS):** Provides services to youth who have been adjudicated delinquent and ordered by the court system to receive rehabilitative services. DYRS works closely with the community and DPH through the Community Advisory Board, DYRS serves approximately 5,000 youth per year, ranging from probation to secure care incarceration. In Delaware,

there are five secure care facilities that provide secure detention for youth and 24-hour custodial care and treatment for incarcerated, adjudicated youth. Secure care also provides appropriate education, treatment, counseling, recreation, vocational training, medical care, and family focused case management for youth in secure residential facilities. Furthermore, the DYRS Community Services unit provides probation and aftercare services to approximately 3,000 youth per year, in addition to overseeing 47 contracts with providers offering residential and nonresidential programs and services. Community Services operate to ensure that the risks to the public is minimized, youth are served in the least restrictive environment appropriate for their needs, and the families of the youth are strengthened through Community Services intervention.

**American Academy of Pediatrics (AAP):** The DPH has established close partnerships with health professional programs including the Delaware Chapter of the American Academy of pediatrics (AAP). The AAP, Medicaid, and the Family Health Section have participated on the vaccine committee, EPSDT implementation committee, and lead poisoning prevention committee. The AAP has also been involved in the injury prevention efforts of DPH, Part C planning, the medical home project, and breastfeeding promotion as well as on a scientific committee addressing the problem of infant mortality.

Most recently, DE-AAP and DPH collaborated on the *Developmental Comprehensive Screening Project* (DCS). DCS is a statewide initiative to improve child outcomes, improve referral, comprehensive care, and be culturally sensitive. The one year project was implemented at four pediatric practices sites in Delaware (2 in Sussex, 1 in Kent and 1 in New Castle) including 9 physicians, 3 physician assistants, and 5 nurse practitioners. The project objectives were to: .

- Engage the parent in the developmental screening process and provide educational and early intervention service resources. The Parent Resource Center (PRC) will contain resources for children birth to age five.
- Enhance the primary care provider's ability to complete regular, consistent and time-efficient developmental screenings within select well-child visits using a validated developmental screening tool.
- Establish and report on essential statewide data for developmental screening for children, birth to age five to promote early identification and enhanced intervention services in the community including an evaluative study to include baseline data, projected outcomes, and actual outcomes of the project.

c. **Children with Special Health Care Needs**

The state collaborates with many state and federal agencies and organizations in the formulation of coordinated policies, standards, data collection and analysis, financing of services, and program monitoring to assure comprehensive, coordinated services for CYSHCN and their families.

For children birth to three, the Division of Public Health works closely with several state agencies to ensure collaboration in the continuation of a statewide, comprehensive, coordinated, multidisciplinary, and interagency service delivery system for infants and toddlers with disabilities and/or developmental delays who are eligible under Part C of the Individuals with Disabilities Education Act (IDEA).

The Delaware Coordinating Council for Children with Disabilities (DCCCD or CCCD) has been active as an advisory committee for the CYSHCN program. This has increased both the formal and informal interagency collaboration statewide.

Title V provides leadership and funding for services for CYSHCN in the state. Furthermore, other private and public agencies work closely with this population.

**The Office of Children with Special Health Care Needs:** Provides statewide leadership through partnerships with key stakeholders including families, CYSHCN, as well as state and community organizations. The Office collaborates closely with the programs below.

**The Autism Surveillance and Registration, or an Autism Registry:** Enables the DHSS and DPH to

collect basic descriptive information on the individuals with autism, to track changes in prevalence over time, to inform the planning of service delivery to children with autism and their families, and to facilitate autism research. The purpose of the Autism Registry is to provide an accurate and continuing source of data concerning autism to provide information to Public Health officials. The Autism Registry will gather data to assist with: prevalence estimation, cluster investigation, risk factor identification, and outcome assessment.

**Birth to Three - Early Intervention/Part C Coordinator:** The Program for Infants and Toddlers with Disabilities (Part C of IDEA) is a federal grant program that assists Delaware in operating a comprehensive statewide program of early intervention services for infants and toddlers with disabilities, ages birth through age 2 years, and their families. Children and their families receive early intervention supports and services by Child Development Watch within the DPH, with staff drawn from DPH and Developmental Disabilities Services (DDDS). The external partners, through interagency agreements and contracts, are Department of Education; Department of Services for Children, Youth and Their Families; Christiana Care Health Services, Inc.; Alfred I duPont Hospital for Children; and community providers.

**Section 619/Special Education for Ages 3-5 Coordinators:** This program provides free appropriate public education (FAPE) for children, ages 3 through 5 years, with disabilities in Delaware.

**State Interagency Coordinating Council (ICC) Chairs:** The ICC advises appropriate agencies on the unmet needs in early childhood special education and early intervention programs for children with disabilities, assists in the development and implementation of policies that constitute a statewide system, and assists all appropriate agencies in achieving full participation, coordination, and cooperation for implementation of a statewide system.

**Delaware Coordinating Council for Children with Disabilities (DCCCD):** A non-profit organization that provides professionals and parents with a centralized forum on issues and services for children throughout Delaware with all types of disabilities. The main functions of the council are:

- Facilitate closer interagency cooperation by collecting and disseminating facts regarding children with disabilities in Delaware;
- Join other groups in their efforts to meet the service needs of children with disabilities
- Make recommendations for new or improved services for children with disabilities;
- Promote the coordinated action among all service providers and organizations, both public and private, concerned with the service needs of children with disabilities;
- Sponsor special studies and training programs on particular service needs or program developments.

**CYSHCN Survey:** To better understand the CYSHCN population and the needs and challenges they face, the CDC conducted a telephonic survey in 2005–2006 titled the National Survey of Children with Special Health Care Needs. The results did provide valuable information for Delaware but due to a small sample size and lack of a diverse sample, the results were not representative of CYSHCN in Delaware. The DPH is conducting an additional mail survey in 2010 to try to capture a broader and more representative sample. The CDC is aware of the survey and offered assistance if needed.

**Transition of Care for CYSHCN:** A major challenge to CYSHCN and their families is the transition into adult care. Collaborations exist between family members, physicians, therapists, educators, and service providers who belong to DCCCD, the Office of Children with Special Health Care Needs, DPH, and the Alfred I. duPont Hospital for Children Transition Committee to understand the struggles to navigate and transition to adult care for young adults with chronic conditions and disabilities. The Delaware Transition Initiative at the Alfred I. duPont Hospital for Children established the Transition Survey Project to further explore young adults and families issues when they transition from specialized pediatric health care systems into community-based adult health care systems. The major takeaways from the survey demonstrated the significant lack of specialized providers for young adults, the lack of

assistance and education families and the youth receive about the process, and the lack of communication between current and future providers. The CYSHCN survey the DPH is conducting in 2010 is also addressing the transition issue and hopes to make positive changes in the near future.

**Family Support Initiative (FSI):** The FSI, or umbrella organization concept, was developed by the MCH Director in 2008 after a site visit with the Rhode Island MCH program. Rhode Island had a successful model for CYSHCN and family support services where an umbrella organization (Rhode Island Parent Information Network) helped convene and strengthen resources and services through a network of CYSHCN organizations. In Delaware, the goal is that the umbrella organization convenes partner organizations (either formal organizations or parent groups) whose work focuses on meeting the needs of CYSHCN. Partner organizations provide input and strategic guidance as part of an Advisory Council to the umbrella organization. CYSHCN are strongly represented as part of the organization's governance structure. The umbrella organization has the "bird's eye view" and works with partner organizations to decrease duplication in services, increase access to services and address unmet needs to ensure the system of CYSHCN family support is meeting the needs of families. The umbrella organization is expected to plan strategically, craft collaborative funding proposals that will lead to sustainability for the umbrella organization, benefit Delawarean families, and fully demonstrate collective purpose and action.

Through a Request for Proposal, the University of Delaware, Center for Disabilities Studies was selected to lead the FSI. Since the establishment in March 2010, the project director, also a parent of a child with special needs, has developed the structure of the FSI and began working on an environmental scan which will be complete in fall 2010.

The FSI is expected, at a minimum, to address performance through these systems-level and targeted organizational-level actions:

- 1) Increase efficiency of the systems serving children, youth and young adults with special health care needs by
    - a. Reducing fragmentation and duplication
    - b. Enhancing collaboration
  - 2) Care coordination
  - 3) Capacity-building of organizations, parents, youth and young adults through assessment and coordinated training. Assessment of organizations within the umbrella should include, at a minimum, the following:
    - a. Governance
    - b. Sustainability
    - c. Strategic Planning
    - d. Evaluation
- It is expected that the Umbrella Organization will work with partner organizations to complete an organizational assessment and a strategic plan.
- 4) Provide information and referral services that reflect the complex information needs of families.

Over a dozen CYSHCN organizations have already committed to be members of the Family Support Initiative.

**State Council for Persons with Disabilities:** The mission is to unite, in one council, disability advocates and State agency policy makers to ensure that individuals with disabilities are empowered to become fully integrated within the community. The council's adopted role is "to provide leadership through advice giving and advocacy for the education of and amelioration of unmet needs of citizens of all ages who are exceptional."

**Delaware Special Needs Alert Program (SNAP) Program:** Identifies children 0-21 years of age with special health care needs and lets them meet with emergency medical staff in their home before they may need to call 911.

**Delaware Family Voices Family to Family Health Information Center (F2F)** is a network of families helping families of children and youth with disabilities and special health care needs (CYSHCN) and is funded by the federal Maternal and Child Health Bureau. F2F uses the federal and state MCHB priorities to guide their activities. F2F provides direct information and referral, parent matching, support groups, conferences, topical calls, resource guides, list serves, newsletters, and surveys.

**Department of Health and Social Services (DHSS) Division of Social Services Child Care Office:** The Division of Social Services, Child Care Office manages the child care services to support families with young children to enable the caretaker to hold a job, obtain training or meet special needs of the child. Child care may also be provided in child abuse cases to help protect the child. The service is available for children from infancy through twelve years of age. DSS determines eligibility based on the need for service and income. The income limit is currently set at 200% of the Federal Poverty Level (FPL). DPH and DSS-Child Care Office have partnered to ensure that health and safety standards in all licensed child care centers and home statewide are improved through training, technical assistance and regulations.

**DHSS Division of Developmental Disabilities Services (DDDS):** Division of Developmental Disabilities Services (DDDS), DPH collaborates with DDDS on traumatic brain injury issues, respite care, and Child Development Watch operations. The DDDS provides an array of services for individuals with mental retardation and other specific developmental disabilities and their families, who meet eligibility criteria.

**d. State Role in Development and Implementation of Standards of Care and Evaluation**

**Standards of Care**

DPH collaborates with the Delaware Healthy Mother & Infant Consortium (DHMIC) Standards of Care Committee to develop and implement standards of care for maternal and child health. The Standards of Care Committee is led by a well-respected perinatologist and composed of members from all birth hospitals in the state. The committee revises and endorses the Delaware Prenatal Standards of Care Guidelines which are provided to all hospitals.

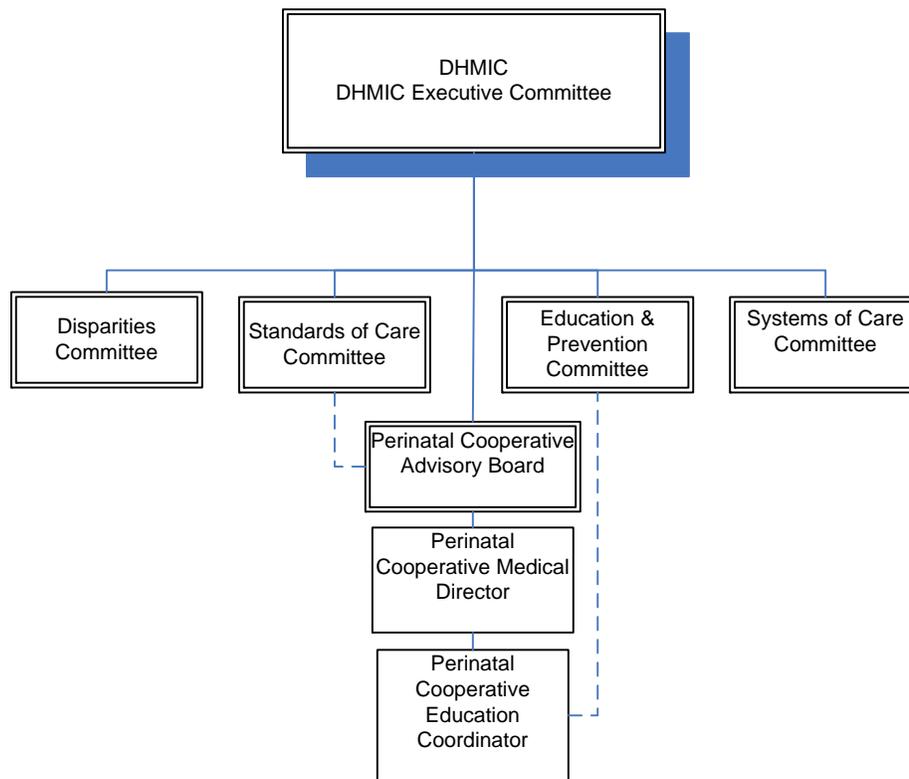
In fiscal year 2010, the DHMIC and DPH plan to support the development of a statewide perinatal collaborative to share best practices and ensure all Delaware women receive high quality perinatal care to improve birth outcomes.

**Structure:**

The **Delaware Prenatal Cooperative** would be established under the umbrella of the DHMIC and would intersect with the DHMIC Standards of Care Committee (organizational structure below). The Prenatal Cooperative Board (Advisory Board) would be composed of representatives from birth hospitals. A Medical Director and Prenatal Education Coordinator would be tasked with oversight, education, and technical assistance. The Division of Public Health, Center for Family Health Research and Epidemiology, would receive and report on selected data indicators.

Member organizations would agree to collect and report specific data elements relevant to the clinical priorities selected by the Board. For example, if a priority selected were the use of antenatal steroids for those at risk of preterm delivery, organizations would report the use of steroids and birth outcomes. The Division of Public Health would receive, compile and analyze data by site. In a non-punitive manner, data would be shared with members of the Prenatal Cooperative as a component of continuous quality improvement (CQI).

Working collectively with the Standards of Care Committee, the Prenatal Cooperative Board would determine intervention strategies, review data and implement CQI initiatives to increase adherence to perinatal best practices.



**Benefits:**

Members of the Perinatal Cooperative would have free access to:

- Current data to use for benchmarking and quality assurance/improvement.
- Best practices in clinical care through internet-based continuing education and discussion forums.
- In-office education and technical assistance through the Perinatal Education Coordinator.

**Evaluation**

DPH has focused on increasing evaluation and assessment of programs and services, especially for the largest state funded MCH program, Healthy Women/Healthy Babies (HWHB). DPH worked with epidemiology and research contractor, APS Healthcare, to develop a data collection module and evaluation plan. The evaluation is divided into two parts: 1) descriptive study of HWHB and 2) outcome evaluation.

**(1) Descriptive Study:**

**Objective:** Descriptive study is to serve as a qualitative process evaluation of the HWHB program.

**Evaluation points:**

1. Defining the HWHB program on paper (i.e. Ideally, what services are SUPPOSED to be delivered, to whom, how, why, when, etc.)
2. In reality, to what extent is the HWHB program being implemented—Are the sites delivering all the intended services and to the intended population according to the model?

## STATE OF DELAWARE 2010 MCH NEEDS ASSESSMENT

3. Assess and document the degree of fidelity and variability in program implementation
4. Assess data collection—HWHB data module, other methods
5. Compare multiple HWHB sites and providers (e.g. Nutrition counselors, mental health counselors, etc) with respect to fidelity

### **Expected results of the study:**

1. Identify the gaps between program design and delivery at each of the HWHB sites and amongst HWHB providers.
2. Provide managers and DPH feedback on the quality of implementation
3. Provide program accountability-- to HWHB providers, to patients, to DPH
4. Improve the quality of the program by refining delivery components
5. Show a realistic relationship between the intervention and the outcomes by linking what components of the intervention are responsible for outcomes

### **Study Methods:**

1. Site visits
2. Observation
3. Interviews with HWHB providers, data entry staff
4. Assessment of # of patients served, services received, compare with aggregate #s in data entry for consistency?

### **Overall Site questions:**

- How many years has the organization existed?
- How long has the program been operating?
- What type of reputation does the agency have in the community? What about the program?
- Is public transportation accessible to the facility? Is parking available?
- Do you think patient enrollment is good? Why or why not? What do you think is influencing participation and retention?

### **HWHB Staffing Questions:**

- Who conducts the initial patient assessment when they enter HWHB?
- Who delivers the follow-up Bundles A, B, C, D? (Probe for consistency of staffing, identify gaps in staffing)
- How is HWHB staff hired?
- How supportive are staff and management of each other?
- What qualifications does HWHB staff have?
- How is HWHB staff trained?
- How is data entry staff trained?
- What are staff demographics? (Race/ethnicity, gender, age)

### **HWHB Services:**

- How do you determine a patient should receive HWHB services?
- How do you determine what bundles a patient receives?
- Are all bundles being delivered at site?
- # of bundles being done at each site (Compare to data entry for consistency)
- What services were available before/after HWHB?

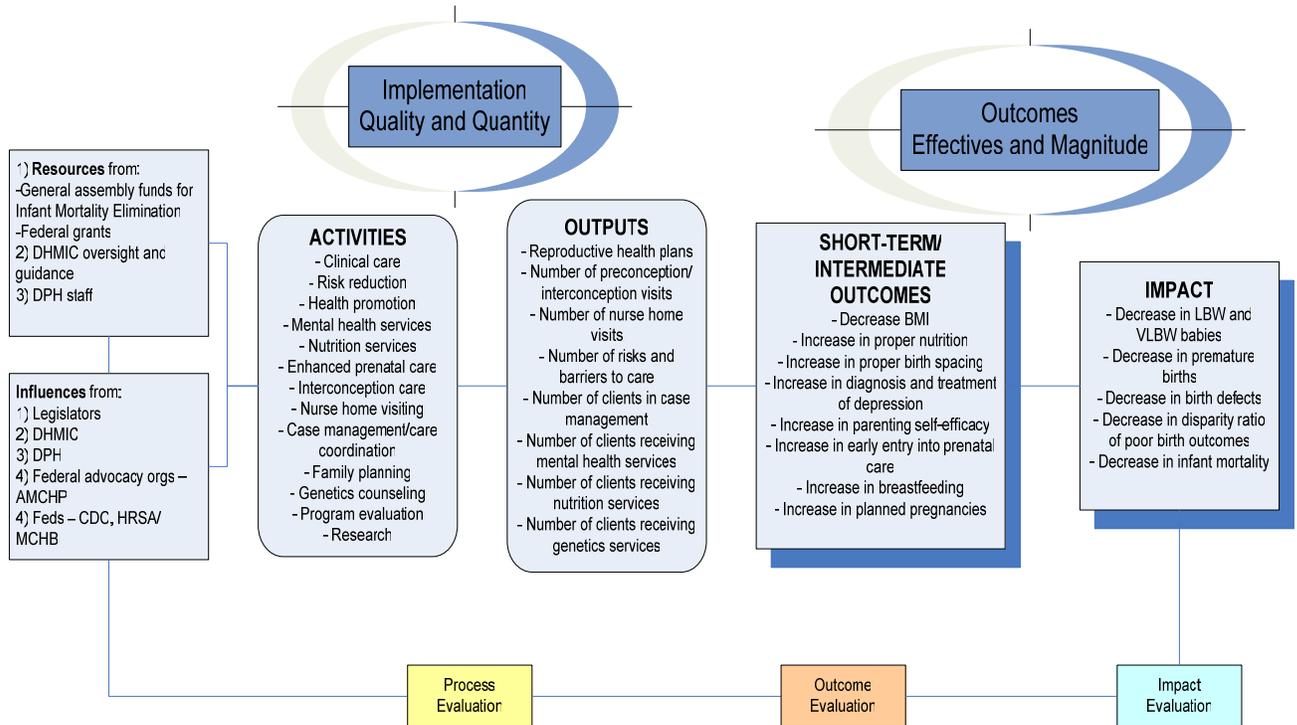
### (2) Outcome Evaluation

There are two components to the outcome evaluation. The first component analyzes the overall comparative capability of the HWHB data collection instrument. The second component of the evaluation

process focuses on how to best evaluate the effectiveness of the HWHB module. This part of the evaluation protocol has two components:

- **Lead Measurement Evaluation:** Appraisal of how lead measures change over time in the HWHB target population. Lead measures are those indicators that are more easily measured in the clinical practice setting and are linked to maternal well-being and/or birth outcomes..
- **Lag Measurement Evaluation:** Appraisal of how lag measures change over time in the HWHB target population. Lag measures are those indicators that are not easily controlled in the clinical practice setting and often take more time to measure. Examples of lag measures include infant deaths and premature births.

The evaluation logic model is provided below.



**e. CYSHCN: Examination of the Four Constructs of a Service System**

The DPH MCH program is working steadily and creatively to address CYSHCN system-building opportunities. Just as the MCH program honors and leverages individual, family and community strengths in its work and strives to avoid practices that use a deficits-based approach to “fixing” people, DPH has a number of critical assets and core strategies it is using it builds infrastructure for an effective service system.

Chief among Delaware’s assets is the array of non-profit organizations and health care providers which work tirelessly to serve individuals with special health care needs and their families. These organizations, include both small and large non-profits, sister state agencies and academic institutional partners, have been enumerated in other portions of this report. Another key asset with respect to building infrastructure is the very close cooperation between agencies and organizations made somewhat easier

given the size of the State. The core strategy for Delaware must be collaboration as limited funding is available.

The Family Support Initiative (FSI) and four constructs of a service system are discussed below.

**(1) State program collaboration with other State agencies and private organizations**

The central strategic element of Delaware's approach to CYSHCN programming is the formation of a single, umbrella organization (i.e. Family Support Initiative) which will serve a focal point for needs assessment, evaluation (surveys of parents and organizations), planning, policy development, coordination, and systems of care. The umbrella organization is facilitated by the University of Delaware, Center for Disability Studies (CDS), under contract to DPH MCH. In public health, the foundation of program planning is needs assessment and analysis of data from which will spring planning, policy development, and other infrastructure-related services. In fiscal year 2010, CDS was awarded the contract, held a kick-off meeting to continue the process of pulling together partners for a collaborative process, developed and will release an environmental scan survey for partners to complete and which will be used to establish a central Information and Referral (I&R) system.

**(2) State support for communities**

Contracts are let to organizations that serve CYSHCN, some of which includes expectations of hiring parents to facilitate family input to CYSHCN processes and programs. This includes Family to Family, Parent Information Center and the Coordinating Council for Children with Disabilities. Each organization is responsible for serving families and communities within their own scope of service. Through the umbrella organization, or Family Support Initiative, the University of Delaware, Center for Disability Studies (CDS) will be responsible for conducting a thorough environmental scan to determine communities whose needs are not being met within the current system. Funding will be provided to CDS through the Title V Block Grant for direct support of communities with service deficient areas.

DPH MCH will be engaging communities directly in the fall of 2010 to conduct a mixed methods survey that replicates key parts of the CDC telephone survey of parents and families of CYSHCN. Through this project, and partially based on this step of the needs assessment process, the program will be better positioned to drive funding, policy and leverage funds to community.

**(3) Coordination of health components of community-based systems**

**Delaware Early Hearing and Detection Intervention (EHDI) Program**

The EHDI staff is responsible for the surveillance and tracking of approximately 13,000 initial hearing screenings per year. The EHDI staff also provides case management for infants who do not pass an initial hearing screen (over 300 infants per year). The case management of infants for hearing consists of ensuring completion of a second hearing screen for infants who do not pass the first screen, and ensuring that assessment and diagnosis for infants with congenital hearing loss is completed. The Delaware EHDI program includes newborn hearing screening in eight birthing sites (six hospitals, one birth center and one midwife who serves the Amish community in Kent County). Delaware's EHDI program is dedicated to the early detection of hearing loss among all newborn infants in the state. The program has adopted the National EHDI goals and seeks to ensure that newborns are screened by one month of age, that congenital hearing loss is identified and diagnosed by three months of age and that infants with hearing loss are referred to- and enrolled into- appropriate and necessary early intervention services by six months of age.

**Delaware Newborn Metabolic Screening Program (NSP)**

The NSP screens for over 30 disorders. In 2008, the program confirmed 33 cases including 1 PKU, 7 Sickle Cell Disease, 4 Congenital Hypothyroidism, 4 Galactosemia and 1 Cystic Fibrosis. Those diagnosed with a condition/disorder receive coordination and follow-up to ensure they are linked into medical care and treatment.

**Family Support Initiative (FSI)**

During the development phase of the umbrella organization/Family Support Initiative, three areas were identified for care coordination improvement.

- centralized one-stop I&R system,
- medical homes, and
- transition

All three of these areas are critical manifestations of coordination of health components for CYSHCN. DPH MCH plans for robust results in the next few years in these three priority areas.

**(4) Coordination of health services with other services at the community level**

For this construct, DPH MCH considers the Division of Management Services and the Department of Education (DOE) as its major partner in coordination of health services with other services at the community level. From Child Development Watch to adult transition, strong working relationships with school district personnel, state DOE and their contractors is essential. Representatives from DOE and school districts are actively participating in the development of the umbrella organization. Family to Family, funded in part with Title V funds, engages with parents in support of health issues for CYSHCN in school settings. Child Development Watch (IDEA Part C), operated through the Division of Management Services, and DPH coordinates health care services and other services for families of children birth to three identified as having or at risk of having special needs.

The work of coordination among services, especially around medical home and transition issues, will begin once the two key foundational components of the needs assessment are completed. These two components are: 1) the environmental scan conducted by CDS over summer 2010; and, 2) the replication of the CDC survey of CYSHCN is completed in fall 2010.

Delaware’s MCH program let several contracts under \$50,000 in this reporting period to address several infrastructure building services for CYSHCN. These contractors were responsible for infrastructure related issues. Specifically, Health Equity Associates (HEA), the organization that had conducted key informant interviews of major CYSHCN stakeholders in the prior reporting period. HEA has helped develop the structure and function of the umbrella organization and has been instrumental in carrying out CYSHCN duties while the state funded CYSHCN director position is frozen due to the state budget deficit.

The EHDI program supports a new Delaware Chapter of Hands and Voices which recently received a 501 (3) (C) tax exemption in 2010. DPH will implement the *Guide by Your Side* program through contractual arrangements with the Delaware Hands and Voices Chapter. This program will improve the case management of infants with hearing loss by reducing loss to follow-up and increasing entry into appropriate early intervention services. Additionally, the *Guide by Your Side* Program will assist in data collection and reporting.

**VI. STATE PRIORITIES**

**A. List of Potential Priorities**

The following is a list of all health conditions affecting the MCH populations that were considered for inclusion as a state priority need:

- Child & Teen Deaths due to Motor Vehicles
- Child & Teen Injuries and Deaths
- Child Asthma
- Child Maltreatment and Neglect
- Child Oral Health
- Childhood Cancer
- Childhood Obesity
- CYSHCN Coordinating Medical Care
- CYSHCN Transition Issues
- Developmental Delay
- Disparities among Families of CYSHCN
- Family Support of CYSHCN

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- Homicide/Suicide Among Teens
- Inadequate Birth Spacing
- Infant Mortality
- Inherited Conditions (Birth Defects)
- Intimate Partner Violence
- Lead Poisoning
- Low Birth Weight Infants
- Maternal Alcohol Use During Pregnancy
- Maternal Complications of Pregnancy
- Maternal Depression
- Maternal Smoking During Pregnancy
- Obesity and Overweight Among Women
- Preconception Smoking
- Preterm Birth
- STDs Among Teens
- Sudden Infant Death Syndrome (SIDS)
- Teen Alcohol Use
- Teen Drug Use
- Teen Pregnancy
- Teen Tobacco Use
- Vaccine Preventable Diseases
- Youth Violence

Each of these health conditions is discussed in greater detail in SECTION IV.

Although all 34 health conditions considered for inclusion as a state priority need are important, a methodology was conducted to ensure Delaware is focusing its efforts most effectively. The methodology used included a rationale ranking system.

The five categories used to for the rationale were:

- No good measurement exists to quantify the problem
- It is not enough of a problem in the state
- It is already a national performance measure
- It is outside of the MCH scope of service
- The issue is too broadly focused

The first category, no good measurement, indicates there is not a validated measure that captures the condition or there is no data available to understand the severity of the condition. For example, self-reported data measures, such as PRAMS, used to capture incidence of maternal alcohol use or maternal depression, are known for underreporting due to stigma associated with prenatal drinking or pre or postpartum depression.

The second category, not enough of a problem, does not indicate the problem isn't important to Delaware but it relates to severity of the condition related to the other conditions when performing the Q-sort procedure. Furthermore, the condition may be closely tied to other priorities so interventions for the conditions are captured through the state priority efforts. For example, inadequate birth spacing and Sudden Infant Death Syndrome (SIDS) are both related to the top three state priorities, infant mortality and low birth weight/preterm birth.

The third category, already a national performance measure, indicates the condition is a Title V- Maternal Child Health National Performance Measure and Delaware is already closely monitoring, measuring, and implementing interventions around the condition.

The fourth category, outside of the MCH scope, indicates the condition may partially relate to MCH efforts but more closely aligns with another department of institution. An example is children maltreatment and neglect and homicide among teens, although there are MCH efforts around these conditions, the major efforts are undertaken by the Department of Services for Children, Youth and their Families and the Department of Justice

The fifth category, the issue is too broadly focused, indicates the condition is a multifaceted condition which involves collaboration from various institutions and the incidence and severity is not easily captured. For example, maternal complications of pregnancy, involves not only the MCH, but clinicians, geneticists, and hospitals and efforts around interventions can vary from methods to preventing gestational diabetes to interventions to reduce hemorrhages requiring transfusions.

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<b>Health Conditions affecting the MCH Populations</b>	
<b>Health Condition</b>	<b>Rationale for why it was not included as a state priority</b>
Child Asthma	No good measurement/ Issue is too broadly focused
Child Maltreatment and Neglect	No good measurement/ Outside of the MCH scope
Childhood Cancer	Outside of the MCH scope /Issue is too broadly focused
CYSHCN Transition Issues	Already a national performance measure
Homicide/Suicide Among Teens	Outside of the MCH scope (Homicide)/ Already a national performance measure (Suicide)
Inadequate Birth Spacing	Not enough of a problem
Inherited Conditions (Birth Defects)	Issue is too broadly focused
Intimate Partner Violence	No good measurement
Lead Poisoning	Not enough of a problem
Maternal Alcohol Use During Pregnancy	No good measurement
Maternal Complications of Pregnancy	Issue is too broadly focused
Maternal Depression	No good measurement/ Issue is too broadly focused
Maternal Smoking During Pregnancy	Already a national performance measure
Preconception Smoking	Already a national performance measure
STDs Among Teens	Issue is too broadly focused
Sudden Infant Death Syndrome (SIDS)	Not enough of a problem
Teen Alcohol Use	Issue is too broadly focused
Teen Drug Use	Issue is too broadly focused
Teen Pregnancy	Already a national performance measure
Vaccine Preventable Diseases	Already a national performance measure
Youth Violence	No good measurement/ Issue is too broadly focused

**B. Methodologies for Ranking/Selecting Priorities**

Over the course of seven months (September 2008 – April 2009), the MCH Needs Assessment Workgroup met periodically to identify and prioritize MCH health needs. Tools and strategies from HRSA, MCHB, CDC, and AMCHP were used to help identify state priorities. The Q-sort procedure was used to select a total of 33 health conditions or health problems. The workgroup identified criteria, weights for each criteria and ranking scales to assess the impact of the criteria for each health problem. As a result, the group created a ranking worksheet (Appendix A) to assist with the identification, prioritization, and scoring criteria. Given the diversity in background of the workgroup members, it was important they all have a baseline understanding of the epidemiology, severity, causes and strategies for each of the 33 health problems. Thus, informational fact sheets were created and distributed for workgroup review. These were modeled from fact sheets created by similar Title V programs such as Minnesota’s. Members were divided into 6 teams and each was given 5-7 health conditions on which to focus. Each individual did a ranking worksheet on all 33 health conditions, then, as a group, they developed one consensus ranking worksheet on the 5-7 assigned health conditions. This dual approach of individual and group review allowed for all members to be engaged on each health condition while still focusing on those that most impacted/interested them.

Each information sheet included the following:

- What is the Health Condition;
- Facts;
- Causes;
- Impact and Consequences;
- Prevention Strategies;
- Community Efforts.

The individual and group ranking worksheets were tabulated and the highest ranking health problems were identified. The top health conditions impacting Delaware’s MCH population included:

- Childhood Obesity, including among CYSHCN;

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- Developmental Delay
- Infant Mortality;
- Low Birth Weight/Preterm Birth;
- Child and Teen Unintentional Injuries and Deaths (Including Motor Vehicle);
- Obesity and Overweight Among Women of Childbearing Age;
- Dental health, including among CYSHCN
- Teen Tobacco Use;
- Care Coordination for CYSHCN;
- Family support for CYSHCN, including easy access to information and referrals.

Needs assessment activities occurred from 2008-2010. A timeline is provided below for reference.

<b>Timeline of Needs Assessment Activities</b>	
<b>Date</b>	<b>Event</b>
March-November 2008	MCH Director and Child Health Director attended several Title V needs assessment trainings through HRSA MCHB and AMCHP.
August 2008	Establishment of internal DPH workgroup.
September 2008	Training of internal DPH workgroup on CAST V and overview of needs assessment process.
September 2008	First meeting of the expanded needs assessment workgroup that was inclusive of families, advocates and community partners.
September 08 – April 2009	Monthly/Bi-Monthly meetings of the needs assessment workgroup to identify and prioritize health conditions impacting Delaware’s MCH population.
December 2008	Meeting with families and youth to discuss CYSHCN-specific issues, unmet needs and priorities.
March 2009	Publication and dissemination of the health problem Fact Sheets.
April 2009	Q-sort process to determine state priorities.
May 2009	CAST-V capacity assessment and dissemination of findings.
January-April 2010	Dissemination and feedback from CYSHCN families and community partners through state wide coffee klatches and public meetings.
April-May 2010	Dissemination and feedback from statewide MCH partners through the Delaware Healthy Mother & Infant Consortium.
June 2010	Posting of final Needs Assessment to DPH website for public input.

**C. Priorities Compared with Prior Needs Assessment**

Ten state health priorities emerged from the MCH Needs Assessment process (SECTION VI). Delaware's MCH priorities include:

	<b>2010 Delaware Priority</b>	<b>Description</b>
1	<u>Infant Mortality</u>	Decrease infant mortality and eliminate the disparity in infant mortality among Black women.
2	<u>Low Birth Weight/Preterm Births</u>	Decrease low birth weight ( $\leq 2500$ g) and very low birth weight ( $\leq 1500$ g) births and births occurring between 32 and 36 weeks gestation.
3	<u>Obesity and Overweight Among Children &amp; Teens</u>	Decrease obesity and overweight among children and youth between the ages of 6 and 19.
4	<u>Obesity Among Women of Childbearing Age</u>	Decrease obesity among women of childbearing age - between the ages of 15 and 44.
5	<u>Unintentional Injury Among Infants, Children &amp; Teens</u>	Decrease unintentional injuries and deaths due to unintentional injuries among children and youth between birth and age 21.
6	<u>Teen Smoking</u>	Decrease tobacco use among adolescents.

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7	<u>Family Support for Children and Youth with Special Health Care Needs</u>	Increase effectiveness and efficiency of organizations that serve families of children with special health care needs.
8	<u>Developmental Delay</u>	Increase the percentage of children with low/no risk of developmental, behavioral or social delays.
9	<u>Disparities Among Families of Children and Youth with Special Health Care Needs</u>	Decrease disparities in child health, emotional/mental health, health care access/quality and family health indicators among children and youth with special health care needs.
10	<u>Child Oral Health</u>	Decrease the percentage of children with untreated caries and eliminate the disparity in untreated caries among Black children.

The priority needs in the Delaware 2005 Needs Assessment are provided on the following page.

<b>2005 Delaware Priority</b>	<b>Description</b>
<u>Nutrition Services for Children &amp; Teens</u>	Ensure nutrition services to children and adolescents.
<u>Dental Health for Children &amp; Teens</u>	Improve dental health of children and adolescents.
<u>CYSHCN Coordination of Services</u>	Ensure medical home and coordinated services to children with special health care needs.
<u>Access to Care</u>	Improve access to care in Kent and Sussex Counties and for Black women throughout the state.
<u>Teen Pregnancy</u>	Reduce teen births.
<u>Preventable Disease for Children &amp; Teens</u>	Reduce preventable diseases in children and adolescents.
<u>Preventable Injury for Children &amp; Teens</u>	Reduce preventable injuries to children and adolescents.
<u>Mental Health for Children &amp; Teens</u>	Improve the mental health of children and adolescents through prevention and the assurance of appropriate treatment.
<u>Infant Mortality</u>	Reduce Black infant mortality.
<u>Barriers to Delivery of Care</u>	Reduce the barriers to delivery of care to pregnant women and women of child bearing years and reduce those risk factors resulting in infant mortality and congenital abnormalities in their infants.

The difference in listed priorities was a result of changes in both the methods and mindset that occurred during the needs assessment development process. As detailed in SECTION II.C, the MCH Needs Assessment Workgroup selected the top ten priorities for the 2010 Needs Assessment out of a possible 33 health conditions (30 of which are described in SECTION IV) by using a systematic ranking procedure. In the 2005 Needs Assessment, the MCH Needs Assessment Workgroup – then referred to as the MCH Steering Committee – used a list of priorities that was duplicative of national performance measures and received specific recommendations for CYSHCN-related priorities from the Coordinating Council for Children with Disabilities. In addition to this change in methods, a more consensus-building and outcome-oriented approach was taken throughout the entire 2010 Needs Assessment process. By choosing the priorities through a meticulous ranking protocol, consensus-building among all the stakeholders was consistently exercised in the process.

Furthermore, since the priorities listed in the 2010 Needs Assessment were chosen from a list of measurable health conditions, the outcome measures involved tended to be more quantitatively-driven as compared to the 2005 Needs Assessment. The methods to quantitatively assess the Obesity and Overweight Among Children & Teens and Teen Smoking priorities, for example, are more robust than the described method to measure improvements in access to care, a previously-designated top priority. In similar manner, unlike the 2005 Needs Assessment, the 2010 Needs Assessment features a well-designed outcome measures section (SECTION VII) that tasks the stakeholders to achieve the set national and state performance goals.

#### **D. Priority Needs and Capacity**

The tables below outline each of the top ten priorities and what Delaware is doing currently and anticipates achieving. The top two priorities: infant mortality and low birth weight/preterm birth are closely related. Because of the overlap, many of targeted MCH programs in Delaware address both issues which is why there is one chart for both health conditions.

##### **a. Infant Mortality**

Infant Mortality is a top priority in Delaware since the Infant Mortality Rate (IMR) is consistency higher than the U.S. average. In 2005, the Governor convened an Infant Mortality Task Force (IMTF) to make recommendations for reducing infant deaths in Delaware. The task force put together list of 20 recommendations. The task force developed into the DHMIC. The Consortium united with the DPH to establish infant mortality programs. Of the 20 recommendations, half were implemented over the following three years including targeted services for women during the preconception, prenatal, and postpartum periods. Additionally, research to explore the causes of infant mortality was undertaken through surveys and implementation of state surveillance systems. Through the combined effort of DHMIC and the DPH and support from the Governor's office and the Delaware Legislature, the DHMIC prenatal programs reached 20% of all Delaware pregnancies in 2008. Furthermore, Delaware's IMR decreased for the second consecutive period. From 2002-2006 to 2003-2007, IMR declined 3%, from 8.8 infant deaths per 1000 live births in 2002-2006 to 8.5 in 2003-2007.<sup>1</sup> The rate is still too high especially when at looking at racial disparities. The data show a disparity in infant deaths among Black mothers compared to Caucasian mothers, with the largest disparity evident in Sussex County. At 16.9 deaths per 1,000 live births, the rate for Blacks in Sussex County is over three times as high as the rate for Caucasians, which stands at 5.0 per 1,000.

During the 2003-2007 period, the primary cause of infant death in Delaware was low birth weight and prematurity.<sup>1</sup> The second leading cause of death, however, varied by racial group. For Black non-Hispanic women, sudden infant death syndrome (SIDS) was the second leading cause of death while birth defects were the second leading cause of death among White non-Hispanic women.<sup>1</sup>

##### **b. Low Birth Weight Infants/Preterm Birth**

Infant low birth weight is a major predictor of infant mortality. Low birth weight babies are more likely than normal weight babies to have health problems during the newborn period. Low birth weight babies may also suffer from Respiratory Distress Syndrome and require additional oxygen and mechanical ventilation to breathe until their lungs mature.<sup>115</sup> Other problems common in low birth weight infants include neurological problems, weakened immune system, and difficulty regulating body temperature, eating and gaining weight. In addition, low birth weight infants are at risk for experiencing Sudden Infant Death Syndrome.

Delaware has the eighth worst infant low birth weight percentage in the nation.<sup>7</sup> The percentage of low birth weight infants born in Delaware continued to increase in the early 2000s to 9.28% in the 2003-2007 period.<sup>1</sup>

Preterm birth is the leading cause of infant mortality and morbidity in the United States. Preterm-related deaths account for more than one-third of all infant deaths, and more infants die from preterm-related causes than any other cause. Proper birth spacing is found to be a factor in preterm birth and a maternal

health indicator. Health professionals' consensus is that minimum birth intervals of two years are important for infant, child and maternal health.<sup>12</sup> Interpregnancy intervals (IPIs) of less than 6 or 12 months are associated with an increased risk of preterm birth.<sup>116</sup> A meta-analysis of 67 studies showed IPIs shorter than 6 months were associated with increased risks of preterm birth, low birth weight deliveries, and small-for-gestational age (SGA) infants compared with interpregnancy intervals of 18 to 23 months.<sup>117</sup>

Pyramid Level	Capacity of the State of Delaware to Meet the Need
<p><b>Direct Health Care Services</b></p>	<p><b>Smoking Cessation (All):</b> The State of Delaware funds multiple interventions to reduce maternal smoking during pregnancy including:</p> <ul style="list-style-type: none"> <li>• Healthy Women/Healthy Babies program aimed at recruiting women when they find out they are pregnant and providing services through the postpartum period;</li> <li>• Preconception Care program aimed at recruiting non-pregnant women of childbearing age for care;</li> <li>• Delaware Quitnet/Quitline focused on smoking cessation;</li> <li>• DelaWELL program initiated to offer referrals to Delawareans who want to engage in healthier lifestyles;</li> <li>• Delaware Tobacco Program created a specific social marketing campaign for OB/GYNs and primary care physicians who treat pregnant women. In addition to posters and educational materials, women are given a “quit kit” that includes stress relieving items and information about tobacco cessation support services.</li> </ul> <p><b>Eliminate/Reduce Alcohol Use During Pregnancy (All):</b></p> <ul style="list-style-type: none"> <li>• Healthy Women/Healthy Babies program screens for alcohol use/abuse and provides access to free mental health services for preconception, pregnant and post-partum women;</li> <li>• Fetal Alcohol Syndrome/Drug Effects prevention program aimed at high risk and underserved populations throughout Delaware;</li> <li>• Residential services include short-term/variable length-of-stay treatment (30 days or less), long-term treatment, and halfway houses. In addition to serving women in all of the residential treatment programs, one residential treatment program is targeted specifically to women, including pregnant women and women with infants;</li> <li>• Delaware Helpline offers 24-hour addiction counseling referrals.</li> </ul> <p><b>Premature Labor (All):</b> Between January and June 2008, 61% of high-risk women who received progesterone therapy through the Prematurity Prevention Program avoided premature labor and delivery. The DPH and DHMIC provides 17 Alpha Hydroxy Progesterone Caproate (17P), the only drug demonstrated to reduce premature birth, to high-risk women across the state through a network of health care providers.</p> <p><b>Maternal Complications (All):</b> The State of Delaware funds multiple interventions to reduce maternal complications during pregnancy including:</p> <ul style="list-style-type: none"> <li>• Delaware HIV/AIDS Prevention Program ensures HIV treatment and prevention services are offered throughout Delaware;</li> <li>• Women’s Wellness Expo is an annual conference open to the public that focuses on women’s health issues;</li> <li>• Delaware Diabetes Prevention and Control Program offers information on diabetes and also an emergency medical diabetes fund for uninsured Delawareans;</li> </ul>

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	<ul style="list-style-type: none"> <li>• Delaware Cancer Consortium supports increased cancer prevention and screening throughout Delaware;</li> <li>• Tuberculosis Elimination Program supports monitoring, consultation, and treatment of tuberculosis throughout the state;</li> <li>• Delaware Sexually Transmitted Disease Prevention Program provides education, training, prevention, and treatment of STDs.</li> </ul> <p><b>Delaware Folic Acid Coalition:</b> Established to increase the number of women who consume the recommended 400 micrograms of folic acid daily through education and free samples.</p>
<p><b>Enabling Services</b></p>	<p>Delaware is targeting low-income mothers and underserved areas that are at higher risk of premature birth, low birth weight infants, and infant mortality with the use of multiple programs.</p> <p><b>Healthy Women, Healthy Babies Model (HWHB) (All):</b> The HWHB model touches women’s lives on many levels. HWHB provides health care, mental health and nutritional services for women before, during and after pregnancy. During fiscal year 2009, the program served 11,382 women across the state. Of those women served who were pregnant, 95% did not have a pregnancy complication.</p> <p><b>Access to Care (All):</b> Delaware is working to improve access to care for populations disproportionately impacted by infant mortality. The Access to Care program helps provide services to women of childbearing age in Delaware. Delaware is working to remove the barriers to care for this population which include: lack of bilingual services, lack of transportation, lack of insurance to cover services and lack of specialized providers like pediatricians or obstetricians in certain regions.</p> <p>DHMIC developed a reproductive health education and social media tool that will reach 100,000 in the first year and hopes to reach many more in 2010.</p> <p><b>Smart Start (All):</b> A nurse home visiting program: Provides in-home prenatal services to Medicaid eligible expectant women;</p> <ul style="list-style-type: none"> <li>• Provides answers to questions about pregnancy, delivery and the early days after the birth of the baby;</li> <li>• Helps expectant women choose the right foods to eat during pregnancy;</li> <li>• Helps find resources in the community for needs such as housing, utilities, transportation or child care;</li> <li>• Teaches an understanding of how the body changes during pregnancy and child birth;</li> <li>• Teaches parenting skills.</li> </ul>
<p><b>Population-Based Services</b></p>	<p><b>Safe Sleeping Campaigns (IM):</b> Educates the public about infant sleep safety DPH implemented a Statewide Media Campaign to educate the public about infant mortality risk factors.</p> <p><b>HIV Testing Media Campaign (All):</b> DHMIC promotes Perinatal HIV testing social marketing to prevent the transmission of the virus from mothers to their babies.</p> <p><b>Violence Prevention (All):</b> Intimate partner violence during pregnancy is associated with miscarriage, low birth weight infant deliveries, premature birth, and neonatal deaths.<sup>118,119</sup> To reduce the rate of violence, the following programs address intimate partner violence:</p>

	<ul style="list-style-type: none"> <li>• Healthy Women/Healthy Babies</li> <li>• Division of Substance Abuse and Mental Health training programs by licensed social workers for state staff.</li> <li>• Delaware Coalition Against Domestic Violence acts as an educational and informational resource for member agencies and the community.</li> <li>• SAFE Program in Kent and Sussex Counties providing emergency and transitional services, housing assistance, employment, transportation, and educational services.</li> <li>• Domestic Violence Advocacy Center in Kent and Sussex Counties providing support for court proceedings and hearings.</li> <li>• Abriendo Puertas in Sussex County providing transitional housing, court advocacy, transportation and translation and bilingual assistance.</li> <li>• The DPH Office of Women’s Health sponsored a conference in May 2010 to raise awareness and spur action to eliminate domestic violence.</li> </ul>
<p><b>Infrastructure -Building Services</b></p>	<p><b>DHMIC (All):</b> Is made up of individuals and groups from all across Delaware that work on maternal and child health. The DPH and DHMIC work with the Governor’s Office and the legislature to bring awareness and support to MCH programs.</p> <p><b>SIDS (IM):</b> The American Academy of Pediatrics launched its Back to Sleep Campaign in the early 1990s aimed at reducing the number of sudden infant death cases. The purpose of the program is to inform parents, infant caregivers, and health care professionals about the importance of placing infants on their backs to sleep. Data from the National Center for Health Statistics at the Centers for Disease Control indicate that the SIDS mortality rate dropped by more than 50% since the Back-Sleep Campaign launch (between 1992 and 2002). The DHMIC, DPH and Child Death, Near Death and Stillbirth Commission continue to sponsor the Back to Sleep Campaign through social marketing and awareness/education.</p> <p><b>Fetal and Infant Mortality Review Board (FIMR) (All):</b> The board reviews every fetal and infant death in Delaware using the Fetal and Infant Mortality Review (FIMR) process, which includes reviewing medical records, death certificates and other health information, and interviewing mothers. FIMR helps inform why there is a high number of fetal and infant deaths in Delaware. The committees of the DHMIC are considered the “community action teams” for FIMR and in that capacity implement programs to mitigate factors contributing to infant deaths. For example, in 2010, the DHMIC created a <i>Kicks Count</i> campaign to educate providers and women about the importance of monitoring fetal movement and seeking immediate medical care if decreased movement occurs. This campaign was a direct result of FIMR findings in 2008-2009.</p> <p><b>Birth Defects Registry (All):</b> A statewide program that collects and analyzes information on children with birth defects to identify health, environmental and genetic risk factors which could lead to pinpointing the causes and prevalence of birth defects.</p>

**c. Child/Teen Obesity and Overweight**

A child’s weight status is determined based on an age- and sex-specific percentile for BMI rather than by the BMI categories used for adults. Classifications of overweight and obesity for children and adolescents are age and sex specific because children’s body compositions vary as they age and vary between boys and girls.<sup>120</sup> The definition for being overweight or obese is:

- Overweight is defined as a BMI at or above the 85th percentile and lower than the 95th percentile.
- Obesity is defined as a BMI at or above the 95th percentile for children of the same age and sex.

The 2007 NSCH data indicated that for children ages 10-17 years nationwide, 32% are overweight (between the 85<sup>th</sup> and 95<sup>th</sup> percentile BMI-for-age) or obese (at or above the 95<sup>th</sup> percentile BMI-for-age).<sup>52</sup> The 2007 NSCH reported that 35% of male children ages 10-17 years nationwide were overweight or obese compared to 27% of female children ages 10-17 years nationwide.<sup>52</sup> For NSCH, 33% of children ages 10-17 years in Delaware were overweight or obese in 2007.<sup>52</sup> According to the 2007 NSCH, 34% of male children ages 10-17 years in Delaware were overweight or obese compared to 32% of female children.<sup>52</sup>

The link between early childhood and the onset of childhood obesity has been identified as a growing concern in Delaware. In collaboration with the Health Promotion and Disease Prevention Section, the Title V MCH Program provided start-up funds for the development of a childhood obesity curriculum, "Healthy Habits - Healthy Start." The goal of "Healthy Habits, Healthy Start" is to train childcare providers in Delaware in how to use tools to increase physical activity and healthy eating of the children in their care while keeping in mind current childcare regulations. The tools in this training are the Sesame Street Healthy Habits for Life Resource Kit and Nemours Best Practices for Healthy Eating: A Guide to Help Children Grow Up Healthy. Under this project, the University of Delaware's Cooperative Extension, with input from Nemours Health and Prevention Services developed a curriculum consisting of 2 three hour sessions. Trainings commenced in January 2010 and have been offered on a monthly basis.

**Physical Activity, Nutrition and Obesity Prevention (PANO)**

The Delaware Healthy Eating and Active Living (DE HEAL) coalition convened its first meeting with elected Officers of the Leadership Team on May 18, 2010. The DE HEAL is charged with developing an action plan to identify early interventions that promote healthy eating and active living to prevent overweight and obesity across the life span. Millions of America's children spend many hours in out-of-home child care each day. Delaware has made great progress in leading the nation in healthy eating through the revisions in the Child and Adult Food Program. Policies for nutrition, physical activity, screen media, and training to child care providers are important tools for getting children on track for good health. Obesity prevention must start early in life. Child care practices and policies can have widespread and long-term impact. Child care providers, however, will require more support, training, technical assistance, and funding from public and private resources to improve children's physical and social development. The Early Childhood Comprehensive Systems (ECCS) program, located with the MCH Bureau, will strengthen and formalize this partnership. ECCS has been recruited to actively participate on the Early Childhood Work Group for the DE HEAL.

In response to the recent 2008 Physical Activity Guidelines, the Health Promotions and Disease Prevention section within DPH is coordinating statewide efforts of the Centers for Disease Control and Prevention's (CDC) National Physical Activity Plan. The National Physical Activity Plan places an emphasis on collaboration among a variety of sectors including: Public Health; Healthcare; Education; Business/Industry; Media; Parks, Fitness, Recreation and Sport; Non-profit; and Transportation and Community Planning. There is much emphasis toward policy, system and environment (PSE) strategies in addressing obesity. While the approach of education, awareness, and early intervention has been the traditional approach in addressing obesity, the PSE approach will support the traditional approach by allowing for sustainable behavior change at the community level. The Health Promotions and Disease Prevention section has been providing ongoing training workshops on PSE throughout the state as this approach will require extensive statewide collaboration.

Pyramid Level	Capacity of the State of Delaware to Meet the Need
<b>Direct Health Care Services</b>	<b>Student Fitness:</b> All Delaware students now participate in strength and endurance testing in the 4th, 8th, and 9th or 10th grades; results are shared with parents in the Fitnessgram® (assessment) along with information developed by Nemours

	<p>Health and Prevention Services (NHPS) to help families understand the results.</p> <p>Delaware Department of Parks and Recreation sponsor “Kids Day at Trap Pond,” an event to promote physical activity while introducing 900 students to Delaware parks.</p> <p><b>Promoting Healthy Activities Together (“PHAT”):</b> An eight-week hip-hop dance-based method of engaging girls has been proven to particularly successful with high participation rates in Delaware. While NHPS provided seed support, this program is fully funded in 2009 by the Wilmington City Council and Henrietta Johnson Medical Center.</p> <p><b>Sussex County Childhood Health Coalition:</b> With support from DPH and Nemours Health and Prevention Services, the Coalition is implementing various community-level interventions to increase physical activity within families and increase access to healthy foods.</p> <p><b>Physical Activity, Nutrition and Obesity Prevention (PANO):</b> promotes physical activity through our "Get up and Do Something" campaigns. . PANO sponsors a "viral campaign" for youth to submit a 30 second commercial.  <a href="http://www.getupanddosomething.org/">http://www.getupanddosomething.org/</a></p> <p>PANO promote physical activity through the Lt. Governor's Challenge.</p> <p>Smart Start, and Child Development Watch Programs each have nutritionists as part of their case management teams.</p>
<p><b>Enabling Services</b></p>	<p><b>Educational Services:</b> Many strategies for reducing obesity involve education of the parent, caregiver or child on healthy lifestyle choices. DPH Health Promotion &amp; Disease Prevention programs promote the NHPS concepts through media campaigns, education in schools, and through parenting classes and programs such as WIC. Some of the concepts used include:</p> <ul style="list-style-type: none"> <li>• Encourage kids to be physically active every day and to try a variety of sports and activities;</li> <li>• Restrict TV, computer, and video game time to no more than 2 hours of quality content each day (and none for kids under 2);</li> <li>• Stock and serve a variety of healthy foods and keep those with added fat and sugar to a minimum;</li> <li>• Eat meals together as often as possible — and without TV as an added guest!;</li> <li>• Don't use food as a reward for good behavior or try to stop bad behavior with treats;</li> <li>• Ditch the clean-plate club. When kids say they're full, let them stop eating even if there's food left on the plate.<sup>121</sup></li> </ul>
<p><b>Population-Based Services</b></p>	<p>The Healthy Delaware 2010 overall goal is to promote healthy eating habits to decrease risk of chronic disease. Objective 1 is to</p>

	<p>reduce the proportion of adolescents and adults who are overweight or obese from 29% to 11% for adolescents and from 32% to 22.9% for adults.<sup>54</sup></p> <p>DPH is involved with several interventions to reduce childhood obesity. Some of them include:</p> <ul style="list-style-type: none"> <li>• WIC services for nutrition education for mothers and young children;</li> <li>• Nemours Health and Prevention Services (NHPS) has created the 5-2-1-Almost None healthy lifestyle message.<sup>54</sup> The purpose is to educate children and parents with a simple to follow guideline: <ul style="list-style-type: none"> <li>○ Eating at least five servings of fruits and vegetables a day,;</li> <li>○ Watching two or fewer hours of screen time a day;</li> <li>○ Getting one or more hours of physical activity a day;</li> <li>○ And drinking almost no sugary beverages.</li> </ul> </li> </ul> <p>DPH encourages children to walk or bike to school as well as participating in physical activity. Additionally, DPH is exploring the lack of access to affordable, healthy food choices in certain neighborhood food markets since it is a barrier to purchasing healthy foods and making smarter choices and purchases. DPH, in collaboration with partners, established a farmer's market in Kent County in 2009.</p> <p><b>Policy goals:</b> Changes in Delaware schools' policy resulted in a requirement to provide at least 150 minutes of physical activity per week, increasing access to fruits and vegetables, decreasing access to high calorie/low nutrient foods in the environment, and collecting and reporting BMI and fitness data. Currently 11 school districts, representing 76,400 students, are engaged in Nemours Health and Prevention Services (NHPS) collaborative learning series and are actively making changes to promote and enable 5-2-1-Almost None healthy lifestyle habits.</p> <p><b>Healthy Habits - Healthy Start:</b> Is a childhood obesity curriculum that trains childcare providers in Delaware to use tools to increase physical activity and healthy eating of the children in their care. Training is offered in person through the Cooperative Extension and on-line training will be available late 2010.</p> <p><b>Delaware Coalition for Healthy Eating and Active Living (DE HEAL):</b> Is a Coalition that meets on a quarterly basis. The major goals include:</p> <ul style="list-style-type: none"> <li>• Increase physical activity</li> <li>• Increase the consumption of fruits and vegetables</li> <li>• Decrease the consumption of sugar-sweetened beverages</li> <li>• Increase breastfeeding initiation and duration</li> <li>• Reduce the consumption of energy dense foods</li> <li>• Decrease television viewing</li> </ul>
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	<p>DE HEAL has are 6 committees:</p> <ul style="list-style-type: none"> <li>• Families &amp; Communities</li> <li>• Schools</li> <li>• Worksites</li> <li>• Healthcare</li> <li>• Social marketing &amp; Communications</li> <li>• Environment &amp; policy</li> </ul>
<p><b>Infrastructure-Building Services</b></p>	<p><b>Delaware Primary Care Initiative on Childhood Overweight:</b> is an ongoing multi-year Delaware initiative involves fifteen practices, including eight Nemours practices, serving 33,400 children. The initiative led by Nemours Health and Prevention Services with endorsement from the DE-AAP, Delaware Health and Social Services, and the National Initiative on Children's Healthcare Quality (NICHQ). The Initiative continued to focus on enhancing providers' pediatric prevention and weight management skills through quality improvement strategies, education, and practical tools. In 2008 more than 80% of the reporting practices were measuring and counseling families about BMI routinely at well child visits.</p> <p>The boards of the Medical Society of Delaware and the Delaware Chapter of the American Academy of Pediatrics, representing more than 500 physicians, officially endorsed and agreed to promote the "Expert Committee Recommendations on Assessment, Prevention, and Treatment of Child and Adolescent Overweight." This is the strongest effort to date to ensure that obesity prevention and management is a standard of care for all pediatric health professionals in the state.</p> <p>On May 20, 2010 Governor Jack Markell signed an Executive Order to create the Council on Health Promotion and Disease Prevention. The council will provide greater opportunity for strategic coordination across state government and will contribute positively to the statewide effort to promote healthy eating and active living to prevent over weight and obesity in Delaware.</p>

**d. Obesity Among Women of Childbearing Age**

Data from the National Health and Nutrition Examination Survey indicate that the prevalence of obesity among women has slightly increased over time from 33% in 2003-2004 to 35% in 2005-2006.<sup>122</sup> The National Center for Health Statistics indicates that in 2006, 62% of all women over age 20 were overweight. Black non-Hispanic women had the highest prevalence of obesity and overweight (80%), followed by Hispanic women (73%) and White non-Hispanic women (58%). The total cost of obesity and overweight in the U.S. in 2001 was \$117 billion, \$61 billion in direct cost, and \$56 billion in indirect costs.<sup>123</sup> Delaware BRFSS data indicate that 63% of residents between ages 18 and 64 are overweight or obese. Twenty-three percent (23%) of adult women in Delaware are considered obese.<sup>124</sup>

Specific demographic characteristics are associated with obesity and overweight such as increasing age, race, childhood poverty, less education, and marital status.<sup>125</sup> Health conditions causing obesity and overweight include food cravings, hormone changes, pregnancy, depression or anxiety, physical inactivity, stress, stressful life events, personality disorders, lifetime tobacco use, self-rated health, and

body image.<sup>126</sup> Weight gain among woman was more likely to contribute to a poor health self-rating compared with women who do not gain weight.<sup>127</sup> Chronic conditions associated with obesity and overweight include hypertension, diabetes, and other metabolic disorders.<sup>128</sup>

**Physical Activity, Nutrition and Obesity Prevention (PANO)**

PANO is working hard and making great strides in addressing the ever increasing issue of obesity. PANO formed the Delaware Coalition for Healthy Eating and Active Living (DE HEAL) to assess and implement programs in DE. DE HEAL and the activities being conducted is listed above in the Child/Teen Obesity and Overweight section.

Pyramid Level	Capacity of the State of Delaware to Meet the Need
<b>Direct Health Care Services</b>	<p><b>Counseling:</b> To address the issues noted above, the DPH and DHMIC provide access to mental and physical health services to women of the childbearing age.</p> <p><b>Healthy Women/Healthy Babies Program:</b> Aimed at recruiting women when they find out they are pregnant and providing services through the postpartum period. The program teaches women how to cope with their chronic disease while pregnant and how to manage medication and eat correctly. The preconception program helps prepare women’s bodies for pregnancy and gives women the tools to learn to maintain a healthy weight, eat a nutritious diet, including adequate amounts of folic acid daily, managing chronic disease, as well as being tobacco and substance free. Women in the program have access to free nutrition services through a licensed registered dietician.</p> <p><b>Smart Start:</b> Provides nutritional counseling for women who need additional services beyond what the nurse is able to provide.</p>
<b>Enabling Services</b>	<p><b>Women, Infant, and Children (WIC) Program:</b> Promotes healthier eating habits. WIC is a federally funded program that safeguards the health of low-income pregnant, breastfeeding and postpartum women, and infants and children five years of age. The program provides nutritious foods, information on healthy eating, breastfeeding support, and referrals to other healthcare, welfare and social services.</p> <p><b>PRAMS:</b> A survey about the behaviors, beliefs, practices, and experiences of new mothers before, during and after pregnancy. A group of new mothers who gave birth between two and four months in Delaware are selected to participate.</p>
<b>Population-Based Services</b>	<p><b>PANO/DE HEAL:</b></p> <ul style="list-style-type: none"> <li>• Will implement tracking locations of places where Delawareans get their food (Farmers markets, super markets, convenience stores).</li> <li>• Working on a project with Delaware Department of Transportation (DelDOT) to provide bicycle facilities.</li> <li>• Have an Memorandum of Agreement with DE Parks and Recreation to provide better food choices in all DE Parks. This includes menu items at concession stands as well as vending machines.</li> <li>• Working with DelDOT on providing signage for bicycle routes.</li> <li>• Supports locally grown fruits and vegetables all throughout summer through a Farmers' Market at the Legislative Mall in the</li> </ul>

	<p>state capital.</p> <ul style="list-style-type: none"> <li>Promotes healthy guidelines: Increase physical activity; Increase the consumption of fruits and vegetables; Decrease the consumption of sugar-sweetened beverages; Increase breastfeeding initiation and duration; Reduce the consumption of energy dense foods; and Decrease television viewing.</li> </ul>
<p><b>Infrastructure-Building Services</b></p>	<p>Providers, program administrators, DPH, DeHEAL and DHMIC all work together to promote healthy eating habits and regular exercise. They also work to ensure nutrition counseling is provided for low income mothers.</p>

**e. Unintentional Injury and Mortality among Children and Youth**

The term covers a wide variety of incidents that occur from intentional and unintentional events which result in injury or death. Injuries can result from such things as motor vehicle accidents, falls, choking, firearms, fires, poisoning, athletic events, to name a few. Injuries may be severe enough to cause death. Once children reach the age of five years, unintentional injuries are the biggest threat to their survival. Risk for injury death varied by race. Injury death rates were highest for American Indian and Alaska Natives and were lowest for Asian or Pacific Islanders. Overall death rates for Whites and Blacks were approximately the same.<sup>129</sup>

In Delaware in the 2003-2007 period, unintentional injuries comprised 18.43% of the deaths for children between ages 1-19 years.<sup>1</sup> Moreover, in the 2003-2007 period, unintentional injuries were the leading cause of mortality representing 29.3% of deaths (17 of 58 deaths) for ages 1-4 years, 26.1% of deaths (18 of 69 deaths) for ages 5-14 years, and 55.3% of deaths (105 of 190 deaths) for ages 15-19 years.

**The Special Needs Alert Program (SNAP):** recognizes children with special medical needs child when the family calls 911. Since 2004, parents/guardians have enrolled over 181 children in SNAP statewide. Part of enrollment is completing a set of forms which includes a consent form giving permission to share medical information with local EMTs and paramedics so they can access it on the way to, or prior to an emergency call. Once paperwork is completed, the information is entered in a secure SNAP electronic database located in the Office of EMS. The child’s medical information is given to the 911 dispatch center, the county based paramedic service and the local fire company upon enrollment and is made accessible to responding units.

The program was evaluated and deemed effective in a small sample of 17 parents/caregivers surveyed by the University of Delaware Center for Disabilities Studies in 2006. At that time only 32 children were enrolled in the program. In 2009, another survey of 62 families (out of 161 families participating in 2009) was conducted and results show once again, that both families and responders are mostly satisfied with SNAP. Survey results also highlight the need to provide more education to providers on how to care for children with special health care needs. From the fall 2009 survey demographic information it appears that SNAP has been successful in reaching a wide variety of families with various medical conditions statewide. The program is promoted by mainly by pediatricians, school nurses and EMS agencies.

SNAP is currently funded by grants from the Department of Health and Human Services, Health Resources and Services Administration, Maternal and Child Health Bureau and the Assistant Secretary for Preparedness and Response, Hospital Preparedness Program Cooperative Agreement. The program is managed within the Office of EMS through a contract with Easter Seals, Delaware and Maryland’s Eastern Shore.

**Child and Teen Injuries and Deaths Due to Motor Vehicle Incidents:** Young drivers and occupants (teens and children) have a very high rate of injury and death from motor vehicle accidents compared with other age groups. For younger children, injuries are due to improper seat belt use, improper safety

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seat placement and riding in the front of a vehicle rather than the back. For teen drivers, injuries from crashes are attributed to speeding and inattentive driving and lack of seat belt use.<sup>49</sup>

The motor vehicle-related hospitalization rate in Delaware was highest for teens ages 15-19 years (182.07 per 100,000) and lowest for children ages 1-4 years (19.33 per 100,000).<sup>48</sup> Motor vehicle-related hospitalizations served as the second leading cause of injury-related hospitalizations in Delaware for children ages 1-19 years and 19.09% (406 of 2,127) of all injury-related hospitalizations in the 2002-2005 period.<sup>48</sup>

In addition, in Delaware in the 2003-2007 period, motor vehicle-related injuries represented 12.78% of the deaths for children between ages 1-19 years.<sup>1</sup> Motor vehicle-related deaths consistently represented the second leading cause of death in Delaware for children ages 1-19 years in the 2003-2007 period.<sup>1</sup>

Pyramid Level	Capacity of the State of Delaware to Meet the Need
<p><b>Direct Health Care Services</b></p>	<p><b>Home Visiting Services:</b> Home visiting by nurses to families at high risk of injury is used in Delaware for a wide range of purposes, including improving the home environment, family development and addressing child behavior. Improvement in the quality of the home environment is associated with a reduced risk of some types of injury, for example falls in very young children, with the greatest impacts found in programs using professional visitors with longer visitation schedules and those supplying and explaining safety devices.</p> <p><b>Delaware Emergency Medical Services for Children (EMSC):</b> Delaware’s current EMSC Partnership programs include:</p> <ul style="list-style-type: none"> <li>• Partnered with the duPont Hospital for Children to provide ten Special Children’s Outreach and Pre-hospital Education Courses (SCOPE) courses were provided across the state in the past year with over 250 participants attending;</li> <li>• Provided disaster preparedness training to over 150 child care center directors and in home child care providers;</li> <li>• Implemented the Risk Watch childhood injury prevention program in 734 classrooms across the state;</li> <li>• Conducted pediatric emergency preparedness training and protocols for physicians offices across the state;</li> <li>• Implemented the Risk Watch childhood injury prevention program in 734 classrooms across the state;</li> <li>• Partnered with the Delaware SAFE KIDS Coalition for the last four years to provide an annual childhood injury prevention conference aimed at teachers, nurses, EMS personnel and child care providers;</li> <li>• Provided pediatric education annually at the Delaware Volunteer Firemen’s Association convention to over 250 emergency care providers;</li> </ul> <p><b>SNAP:</b> recognizes children with special medical needs when the family calls 911. The child’s medical information is given to the 911 dispatch center, the county based paramedic service and the local fire company upon enrollment and is made accessible to responding units.</p> <p><b>Intervention Services:</b> The DPH offers early intervention services through counseling in the School-Based Wellness Centers. In 2007-2008, 484 counseling sessions were completed for students with substance use issues. The Department of Services for Children, Youth</p>

	<p>and Their Families (DSCYF), Division of Child Mental Health Services provides voluntary behavioral health services to children up to the age of 18 and their families who:</p> <ul style="list-style-type: none"> <li>• Do not have insurance to cover behavioral health services;</li> <li>• Have Medicaid and who require more than the basic Medicaid 30-hour annual outpatient benefit available through the Diamond State Health Care Plan.</li> </ul> <p>The Office of Prevention and Early Intervention (OPEI) promotes safe and healthy children, nurturing families and building strong communities. OPEI works with children, youth, families, communities, schools and more to provide activities for children and youth to prevent:</p> <ul style="list-style-type: none"> <li>• Child abuse;</li> <li>• Dependency;</li> <li>• Neglect;</li> <li>• Juvenile delinquency;</li> <li>• Mental health disorders;</li> <li>• Tobacco, drug and alcohol abuse.</li> </ul> <p><b>Promoting Responsible Sexual Behavior, A Healthy Delaware 2010 Goal: Programs in Delaware include:</b></p> <ul style="list-style-type: none"> <li>• The DPH provides testing, counseling and treatment for gonorrhea, syphilis, chlamydia, and other conditions that can be sexually transmitted;</li> <li>• The Sexually Transmitted Disease Program provides statewide management, education and training for the prevention and treatment of sexually transmitted diseases;</li> <li>• School-Based Wellness Centers provide a range of health services that include STD testing and counseling and are tailored to meet that needs of teens;</li> <li>• Under Title X of the Public Health Services Act, the DPH offers a wide range of reproductive health services and supplies to both teens and adults. Services include but are not limited to physical exams including pap smear and clinical breast exam, birth control supplies, STD testing and HIV education, counseling and testing.</li> </ul>
<p><b>Enabling Services</b></p>	<p><b>Promote Safe Environments:</b> Children living in poverty are more likely to be exposed to hazardous environments including high-volume, fast-moving traffic, lack of space and facilities for safe play, cramped living conditions, unprotected windows and open roofs, and stairs without handrails. DPH works to educate those in high risk areas on how to build safe environments.</p> <p>DPH conducts education campaigns on product recalls and promotes changing the design and manufacture of products can reduce the risk of an injury, reduce access to a hazard or reduce the severity of an injury.</p> <p>Delaware has made considerable progress in implementing a safer transport infrastructure, including around schools and kindergartens. For example, ensuring there is dedicated bike paths or sidewalks near schools.</p> <p><b>KidsHealth:</b> Sponsored by the Nemours Foundation and promoted by DPH and Delaware practitioners and has extensive information for</p>

	<p>parents on child safety issues. They have a parent, child, and teen health site. KidsHealth also provides families with perspective, advice, and comfort about a wide range of physical, emotional, and behavioral issues that affect children and teens.</p> <p>To do this, the editorial staff communicates complex medical information in language that readers can understand and use. KidsHealth articles, animations, games, and other content go through a rigorous medical review by pediatricians and other medical experts.</p>
<p><b>Population-Based Services</b></p>	<p><b>Child Helmet Law Updated:</b> Amends Title 21 relating to child helmet requirements. This Act updates the Delaware Code to reflect the Consumer Product Safety Commission’s 1999 regulations that established helmet manufacturing safety standards for both bicycle and mixed-use helmets. This Act requires 16- and 17-year-olds to wear a conforming helmet when operating bicycles, motorized scooters and skateboards. It exempts objectors citing religious convictions, but objections must be part of the tenets and practices of a recognized church or religious denomination rather than personal religious convictions</p> <p><b>Reducing Motor Vehicle Related-Deaths:</b> The reduction of motor vehicle related deaths and nonfatal injuries are two goals in Healthy People 2010. Delaware is working to increase seatbelt use, use of child restraints, and having more States require graduated driving licenses for teens. The Delaware DMV does have a graduated license program and are working to increase use of the program. The EMS for Children Office, Division of Motor Vehicles (DMV), State Police, and Office of Highway Safety all have education campaigns that address safety and driver behavior.</p> <p><b>The Healthy Delaware 2010:</b> The overall goal is to reduce unintentional injuries, disabilities and death focusing on the community, home, school, and work settings. In an effort to raise parents' awareness about the leading causes of child injury in the United States and how they can be prevented, the Centers for Disease Control and Prevention has launched the “Protect the Ones You Love” initiative.<sup>130</sup> Delaware is supporting this initiative through providing facts and tips for preventions on the following areas: burns, falls, road traffic injuries, drowning, and sports injuries.</p>
<p><b>Infrastructure-Building Services</b></p>	<p><b>Delaware Emergency Medical Services for Children (EMSC) Partnerships:</b> Delaware EMSC has been actively involved in joint projects with over 20 different organizations and state agencies to promote pediatric emergency care and to enhance emergency preparedness.</p> <ul style="list-style-type: none"> <li>• Supported in part by the Alfred I. duPont Hospital for Children since 1997. Federal grant funds pay for two full-time employees and Alfred I. duPont pays for one full-time employee to support improving pediatric emergency care statewide;</li> <li>• Developed a Coalition made up of over 60 people statewide interested in improving pediatric emergency care in Delaware. This Coalition is led by Hazel Ocampo, MD and Sue Kost, MD, two pediatric emergency physician experts from the duPont Hospital for Children, our only pediatric tertiary care facility in</li> </ul>

	<p>the state;</p> <ul style="list-style-type: none"> <li>• Partnered with the duPont Hospital for Children, Delaware State Fire School, the Fire Marshal’s Office, Children’s Fire Safety Foundation, Department of Education, Delaware State Police and the SAFE KIDS Coalition to implement Risk Watch in classrooms statewide;</li> <li>• Partnered with Family and Workplace Connection, American Red Cross, the Office of Child Care Licensing, New Castle County Emergency Management and the Delaware Emergency Management Agency to develop a disaster preparedness curriculum for child care agencies in Delaware;</li> <li>• Partnered with the Department of Education to provide Managing School Emergencies Courses for School Nurses statewide.</li> <li>• The SNAP Program (described above)</li> </ul> <p>A Strategic Plan for Injury Prevention (2005-2010) has been developed by expert work teams from the Delaware Coalition for Injury Prevention with guidance from the Division of Public Health’s Office of Emergency Medical Services. The plan provides a framework to address nine core injuries: falls, motor vehicle injuries, traumatic brain and spinal cord injuries, suicide and suicide attempts, poisoning, fire injuries, dog bites, firearm injuries, and drowning and submersion injuries. The work teams used the public health approach to define each problem, identify risks and causes, and develop interventions to increase the public’s awareness about the preventability of these injuries. The plan also seeks to reduce environmental risks, impact public policy and decision-making, and redirect the economic and social losses caused by injury.</p>
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**f. Teen Smoking**

Teen tobacco use includes smoking (cigarettes, cigars) and the use of smokeless tobacco. Most adults addicted to tobacco in the United States started smoking during adolescence, and without intervention, most current teenage smokers can be expected to continue smoking into adulthood.

The 2009 Delaware YRBS reported that 47.7% of students tried cigarette smoking at one point in their life, 19.0% smoked cigarettes on one or more of the past 30 days, 11.9% smoked at least one cigarette every day for 30 days, and 6.8% used chewing tobacco, snuff, or dip on one or more of the past 30 days.<sup>53</sup> These results parallel nationwide rates (50.3% of students nationwide tried cigarette smoking at one point in their life, 20.0% smoked cigarettes on one or more of the past 30 days, and 7.9% used chewing tobacco, snuff, or dip on one or more of the past 30 days using 2007 U.S. YRBS data).<sup>55</sup> Overall, 23.2% of Delaware students have used tobacco in some manner at least one in the past 30 days.<sup>53</sup> In addition, 13.7% (13.8% of males and 13.2% of females) had smoked a whole cigarette for the first time before age 13 years.<sup>53</sup> Among students who reported current cigarette use, 47.4% (43.8% of males and 51.4% of females) tried to quit smoking cigarettes during the past 12 months.<sup>53</sup>

<b>Pyramid Level</b>	<b>Capacity of the State of Delaware to Meet the Need</b>
<b>Direct Health Care Services</b>	<p><b>Counseling:</b> The DPH offers free cessation counseling through the Delaware Quitline.</p> <p>DPH also has a Quitnet program that is dedicated to providing comprehensive resources and support for people trying to stop smoking. The program consists of: learning from science-based stop smoking</p>

	<p>resources, getting quitting tips and advice from expert counselors, getting quit support from the QuitNet community and creating a personal quit smoking plan.</p> <p>Delaware healthcare providers encourage teenagers to abstain from smoking or to quit if they currently smoke. The question is asked on paperwork given at providers' offices. If the teen is having trouble quitting, providers can prescribe prescription medication or recommendations of over-the-counter nicotine replacement treatments.</p> <p>Furthermore, School-Based Health Centers are a resource for teens to receive information on quitting and counseling from trained professionals.</p> <p><b>Programs:</b></p> <p><b>Anti-Ash Brigade (AAB):</b> For kids in grades 4-6. The AAB is a Delaware youth movement for children aged 8-12, dedicated to promoting the understanding of the dangers of tobacco use. The AAB is committed to decreasing the initiation of tobacco use through educational programs kids will understand. The AAB teaches Delaware youngsters how to avoid falling into the tobacco-use trap, handle-peer pressure and truly understand the dangers of tobacco use. Through age appropriate educational, social, and advocacy efforts, AAB members will become healthy lifestyle advocates.</p> <p><b>Delaware Kick Butts Generation (KGB):</b> A youth-led program in schools and communities to counter tobacco marketing. KGB has developed its own website at <a href="http://www.ysmoke.org">www.ysmoke.org</a>. KGB started in 1999 with only 13 members and has grown to 12,000 members. The major goals for KGB are:</p> <ul style="list-style-type: none"> <li>• Clean Delaware beaches every year – the KGB has collected over one million butts in 5 years;</li> <li>• Advocating for tobacco-free beaches in Delaware</li> <li>• Pushing for ID checks on tobacco purchases;</li> <li>• Supporting excise tax on tobacco products to deter youth from smoking;</li> <li>• Taking on Hollywood and advocating for cigarette-free movies</li> <li>• Educating everyone on the dangers of secondhand smoke;</li> <li>• Supporting national anti-tobacco initiatives like pushing for strong FDA regulation on tobacco products;</li> <li>• Educating thousands of Delaware youth every years about the dangers of tobacco;</li> <li>• Running the Portable Anti-Tobacco Carnival for kids in elementary school.</li> </ul> <p><b>Teens Against Tobacco Use (TATU):</b> An established curriculum about tobacco use taught by youth for youth. Free workshops are offered to teach youth effective tools against tobacco use in Delaware.</p> <p><b>Not on Tobacco (NOT):</b> An American Lung Association program that helps kids in schools and communities quit smoking. NOT is a unique smoking cessation program that enables teens to overcome their addiction to tobacco in a safe, non-judgmental environment. NOT</p>
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	<p>programs give school and community groups a unique package to help teens quit.</p> <p><b>Smoke Screamers:</b> A Boys and Girls Club tobacco prevention and educational program that contains a physical activity component.</p>
<p><b>Enabling Services</b></p>	<p><b>Surveys:</b> Delaware conducts multiple surveys to assess the use and prevalence of tobacco among youth. The data is used to target specific pollutions and areas and to develop cessation programs. The surveys are conducted annually and are: Delaware Youth Tobacco Survey Questionnaire, Delaware Secondary School Student Questionnaire, Delaware Youth Risk Behavior Survey: High School Questionnaire, Delaware Youth Risk Behavior Survey: Middle School Questionnaire and the Delaware 5th Grade Student Questionnaire.</p>
<p><b>Population-Based Services</b></p>	<p><b>Educational Campaigns:</b> The DPH funds and conducts media campaigns such as anti-smoking TV commercial contests for Kent, Sussex, and New Castle county high schools, anti-smoking T-shirt design competitions in middle schools and high schools, and anti-smoking billboard design contest for youth.</p> <p><b>Preconception Smoking:</b> The State of Delaware funds multiple interventions to reduce maternal smoking during or before pregnancy including:</p> <ul style="list-style-type: none"> <li>• Healthy Women Healthy Babies (HWHB) program aimed at recruiting women when they find out they are pregnant and providing services through the postpartum period;</li> <li>• HWHB also includes a preconception care program aimed at recruiting non-pregnant women of childbearing age for care;</li> <li>• DelaWELL program initiated to offer information and services to Delaware state employees who want to engage in healthier lifestyles.</li> </ul> <p><b>Recent State Statutes:</b> Distribution of Tobacco Products: This bill requires a person engaged in the sale or distribution of tobacco products to demand proof of age from a prospective purchaser or recipient of such products who is under the age of 27 years. A notice is to be posted conspicuously at each tobacco vending machine as well as at each point of purchase. Also, the bill makes it unlawful to maintain such products except in a tobacco vending machine in any display accessible to customers that are not under the control of a cashier or employee. A recent law increased the tax on cigarettes from \$1.15 to \$1.60 per 20-cigarette pack.</p>
<p><b>Infrastructure-Building Services</b></p>	<p><b>Delaware Tobacco Prevention and Control Program (TPCP):</b> A group that collaborates with the IMPACT Delaware Tobacco Prevention Coalition, health care organizations, youth and community groups, educational organizations, grassroots networks, and state agencies. The TPCP supports and enforces national efforts to reduce teen tobacco use include the Healthy People 2010 leading health indicators: to reduce cigarette smoking by adolescents, reduce tobacco use by adolescents, reduce the initiation of tobacco use among children and adolescents, increase the average age of first use of tobacco products by adolescents and young adults, increase tobacco use cessation attempts by adolescent smokers, reduce the proportion of children who are regularly exposed to tobacco smoke at home, increase smoke-free and tobacco-free</p>

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	environments in schools, including all school facilities, property, vehicles, and school events, reduce the illegal sales rate to minor through enforcement of laws prohibiting the sale of tobacco products to minors, increase the number of States and the District of Columbia that suspend or revoke State retail licenses for violations of laws prohibiting the sale of tobacco to minors, eliminate tobacco advertising and promotions that influence adolescents and young adults, and increase adolescents' disapproval of smoking.
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**g. Family Support of Children and Youth with Special Health Care Needs**

Family support of children and youth with special health care needs (CYSHCN) is a multi-faceted approach to ensure parents, siblings and extended family have the resources, information, social support through informed networks and emotional support to care for a child with special needs. Family support must be family-centered – it must meet them where they are and provide what they need in a culturally and linguistically appropriate manner. Since it is a diverse service and a one size fits all approach will fail, DPH MCH program has undertaken a year long stakeholder-led initiative to determine the needs and approach to better meet the diverse support needs of families. The result is the development of an umbrella organization, called the Family Support Initiative, which has been described extensively in other sections of the narrative.

<b>Pyramid Level</b>	<b>Capacity of the State of Delaware to Meet the Need</b>
<b>Direct Health Care Services</b>	<p><b>Child Development Watch (Part C):</b> The early intervention program provides families with information, referral and care coordination through the use of nurses and other health/mental health professionals.</p> <p><b>SNAP:</b> recognizes children with special medical needs when the family calls 911. The child's medical information is given to the 911 dispatch center, the county based paramedic service and the local fire company upon enrollment and is made accessible to responding units.</p>
<b>Enabling Services</b>	<p><b>Family to Family:</b> Supported through HRSA MCHB and Title V, Family to Family is a family-led parent empowerment and education program that guides families into services and helps develop family leaders.</p>
<b>Population-Based Services</b>	<p><b>Child Development Watch (Part C):</b> The early intervention program serves all families regardless of income or insurance status. Once families are referred and determined to meet program eligibility criteria, they can receive services free of cost.</p>
<b>Infrastructure-Building Services</b>	<p><b>Data Driven Systems Building:</b> Several data-driven CYSHCN initiatives are in place or will be implemented in the next year. These include:</p> <ul style="list-style-type: none"> <li>- Environmental scan conducted by the contracted lead of the umbrella organization/family support initiative.</li> <li>- Statewide CYSHCN survey replicating the CDC survey of families of children with special health care needs.</li> <li>- Family input on MCH five-year needs assessment through in-person sessions, online survey and hard copy survey.</li> </ul>

**h. Developmental Delay**

Developmental delays differ from other types of learning disabilities in that they may improve with intervention and may eventually disappear. For that reason, it is important to be aware of early signs of a

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problem. Developmental delays can exist in one or more of the following: behavior; cognitive skills; communication; emotional skills; fine and gross motor skills; and social skills.

Pyramid Level	Capacity of the State of Delaware to Meet the Need
<p><b>Direct Health Care Services</b></p>	<p><b>Newborn Hearing Screening Program:</b> All birthing sites are required to provide hearing screening prior to discharge. DPH home visiting staff through Smart Start support the screening program by providing follow-up in the home when screenings have not occurred in the hospital.</p> <p><b>Delaware Newborn Screening Program (NSP):</b> Identifies newborn babies with one of a number of rare disorders. The program includes:</p> <ul style="list-style-type: none"> <li>• Autism Surveillance and Registration Program</li> <li>• Birth Defects Surveillance Registry</li> <li>• Newborn Hearing Screening</li> <li>• Newborn Screening for Metabolic Disorders</li> </ul> <p><b>Child Development Watch:</b> A statewide early intervention program for children ages birth to 3. Early intervention services include:</p> <ul style="list-style-type: none"> <li>• Clinical Nurse Specialist with specialty training in CSHCN</li> <li>• Developmental Nurse Specialists</li> <li>• Medical social work</li> <li>• Physicians/nurses</li> <li>• Psychologists</li> <li>• PT/OT/ST consultants</li> </ul>
<p><b>Enabling Services</b></p>	<p><b>Early Childhood Comprehensive Systems (ECCS):</b></p> <ul style="list-style-type: none"> <li>• Ensures that parents and families have knowledge of- and access to- appropriate services for their children including medical, mental health, quality early care and education, parent education and family supports.</li> <li>• Ensures all children, including those with special health care needs, are healthy and ready to learn by school entry.</li> </ul> <p><b>Head Start:</b> Head Start is administered through community-based organizations throughout the state. There are three locations in Kent County, four in Sussex County, and twelve in New Castle County. Early Childhood Assistance Programs are state funded, comprehensive child development programs for low-income families with children age four and eligible for kindergarten the following year.</p>
<p><b>Population-Based Services</b></p>	<p><b>Delaware’s ABCD Screening Academy Project:</b> built on ECCS promotes positive child physical and mental health. The program:</p> <ul style="list-style-type: none"> <li>• Promotes a heightened awareness of the importance of developmental screening among managed care companies which serve the Medicaid population.</li> <li>• Implements the use of the PEDS (Parents Evaluation of Developmental Status) as a developmental screening tool in all of the ABCD demonstration sites.</li> <li>• Spreads the use of objective, validated screening tools as part of well child care by hosting an ABCD Stakeholder’s Forum dedicated to promoting structured developmental screening throughout the state.</li> </ul>

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<p><b>Infrastructure-Building Services</b></p>	<p>The Developmental Disabilities Council, The Newborn Hearing Advisory Committee, the Newborn Screening Advisory, and the Early Childhood Comprehensive Systems Advisory Council all collaborate closely to ensure developmental delays are caught early and coordinated care is provided.</p>
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**i. Disparities among Families of Children and Youth with Special Health Care Needs**

Disparities among families with CYSHCN are becoming increasingly evident every year. Research shows that a number of key disparities have been identified for Children with Special Health Care Needs (CSHCN) when compared to their peers without special needs. These disparities are most pronounced in four key areas: Child Health Indicators; Emotional and Mental Health Indicators; Health Care Access and Quality Indicators; and Family Health Indicators.

Pyramid Level	Capacity of the State of Delaware to Meet the Need
<p><b>Direct Health Care Services</b></p>	<p><b>Child Development Watch Part C:</b> Services are provided for:</p> <ul style="list-style-type: none"> <li>• Assistive technology device and services</li> <li>• Audiology</li> <li>• Family training and counseling</li> <li>• Health services</li> <li>• Medical services for evaluation purposes only</li> <li>• Nursing services</li> <li>• Nutrition services</li> <li>• Occupational therapy</li> <li>• Physical therapy</li> <li>• Psychological services</li> <li>• Social work services</li> <li>• Developmental services</li> <li>• Speech-language pathology</li> <li>• Transportation</li> </ul> <p>Easter Seals: provides children and families services such as:</p> <ul style="list-style-type: none"> <li>• Camping and Recreation</li> <li>• Child Care</li> <li>• Early Intervention</li> <li>• Job Training and Employment</li> <li>• Medical Rehabilitation</li> <li>• Occupational Therapy</li> <li>• Physical Therapy</li> <li>• Speech and Hearing Therapy</li> </ul> <p><b>Autism Society of Delaware:</b> Supports families and children affected by autism spectrum disorders by offering:</p> <ul style="list-style-type: none"> <li>• Vocational services, including assessment, placement, job development, job training and follow-along services</li> <li>• Supported employment</li> <li>• Self-employment</li> </ul>

	<ul style="list-style-type: none"> <li>• Social and recreational opportunities</li> <li>• Volunteer experiences</li> <li>• Meaningful community activities</li> <li>• Family support</li> </ul>
<p style="text-align: center;"><b>Enabling Services</b></p>	<p><b>Inclusion Conference:</b> the annual conference focuses on including kids with disabilities in traditional classrooms. Strategies and successful techniques for doing that are presented by both national and local experts. Topics on inclusion range from daycare to post secondary education. Annually over 300 teachers, school administrators, parents and professionals attend.</p> <p><b>Medicaid and Children’s Health Insurance Program (CHIP):</b> enable families to gain medical care, dental care, mental health services, medical equipment, supplies and prescriptions.</p> <p><b>Family Voices of Delaware (FV DE):</b> assists families of CYSHCN and the professionals who serve them through: direct information and referral, parent matching, support groups, conferences, topical calls, resource guides, list serves, newsletters, and surveys.</p> <p><b>The Bureau of Oral Health:</b> developed activities for CYSHCN to increase access to dental services through the Targeted State MCH Oral Health Service Systems grant.</p> <p><b>CYSHCN Survey:</b> the DPH is conducting a mail survey in 2010 to try to capture a broader and more representative sample than the CDC 2007’s NS-CSHNC. DPH will work closely with DOE and Alfred I. duPont Hospital for Children on this project.</p>
<p style="text-align: center;"><b>Population-Based Services</b></p>	<p><b>Best Buddies Program:</b> is a national program started in several Delaware schools and has now expanded to nineteen (19) middle and high schools in all three counties with over 400 students participating. The object of the program is to pair a student with a disability with a student without a disability for social interaction. The interaction takes place, not only in school, but also outside of school during non-school hours.</p> <p><b>Developmental Disabilities Council Public Awareness Campaign:</b> the project objective is to educate the general public to better understand people with disabilities in Delaware. The tag line for the campaign is “We are just like you”. The intent is to show Delawareans with disabilities living, working, paying taxes, attending school, playing, getting married, raising a family and enjoying life just like everyone else. The campaign will show that, with the proper supports in the community, Delawareans with disabilities can enjoy the same quality of life as the rest of the population.</p> <p><b>The Center for Disabilities Studies:</b> promotes independence and productivity so individuals and families can fully participate in the life of the community education, prevention, service, and research related to disabilities.</p>

	<p><b>Recreation DE Music School Program:</b> the project provides music therapy to kids with disabilities, primarily autism. It develops specific goals for each student such as improved speech, sensory awareness, self-expression, stress management, attention to the teacher and tasks, fine and gross motor skills, socialization skills and ease of transitions. Each student receives individual attention from the teachers.</p> <p><b>CYSHCN Survey:</b> DPH is conducting a mail survey in 2010 to try to capture a broader and more representative sample than the CDC 2007's NS-CSHNC. DPH will work closely with DOE and Alfred I. duPont Hospital for Children on this project.</p>
<p><b>Infrastructure-Building Services</b></p>	<p><b>Delaware People First:</b> is a self-advocacy organization supported by The Arc of Delaware where families, individuals, and providers meet to discuss issues affecting people with intellectual and developmental disabilities. Additionally, members plan group trips throughout the year, such as Washington, D.C. New York City and local theater, to help them grow socially, to learn more about self-advocacy and to have fun together.</p> <p><b>Governor's Advisory Council for Exceptional Citizens (GACEC):</b> the council monitors outcomes and improvements for students with exceptionalities. The council also:</p> <ul style="list-style-type: none"> <li>• advises the state educational agency of unmet needs within the state in the education of children with disabilities;</li> <li>• comments publicly on any rules or regulations proposed for issuance by the state regarding the education of children with disabilities and the procedures for distribution of funds under this part; and</li> <li>• assists the state in developing and reporting such data and evaluations</li> </ul> <p><b>State Council for Persons with Disabilities (SCPD):</b> The mission of the SCPD Council for Persons with Disabilities is to unite, in one Council, disability advocates and State agency policy makers to ensure that individuals with disabilities are empowered to become fully integrated within the community.</p>
<p><b>Pyramid Level</b></p>	<p><b>Capacity of the State of Delaware to Meet the Need</b></p>
<p><b>Direct Health Care Services</b></p>	<p><b>Child Development Watch Part C:</b> Services are provided for:</p> <ul style="list-style-type: none"> <li>• Assistive technology device and services</li> <li>• Audiology</li> <li>• Family training and counseling</li> <li>• Health services</li> <li>• Medical services for evaluation purposes only</li> <li>• Nursing services</li> <li>• Nutrition services</li> <li>• Occupational therapy</li> </ul>

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	<ul style="list-style-type: none"> <li>• Physical therapy</li> <li>• Psychological services</li> <li>• Social work services</li> <li>• Developmental services</li> <li>• Speech-language pathology</li> <li>• Transportation</li> </ul>
<p><b>Enabling Services</b></p>	<p><b>Recreation DE Music School Program:</b> the project provides music therapy to kids with disabilities, primarily autism. It develops specific goals for each student such as improved speech, sensory awareness, self-expression, stress management, attention to the teacher and tasks, fine and gross motor skills, socialization skills and ease of transitions. Each student receives individual attention from the teachers.</p> <p><b>Inclusion Conference:</b> the annual conference focuses on including kids with disabilities in traditional classrooms. Strategies and successful techniques for doing that are presented by both national and local experts. Topics on inclusion range from daycare to post secondary education. Annually over 300 teachers, school administrators, parents and professionals attend.</p>
<p><b>Population-Based Services</b></p>	<p><b>Best Buddies Program:</b> is a national program started in several Delaware schools and has now expanded to nineteen (19) middle and high schools in all three counties with over 400 students participating. The object of the program is to pair a student with a disability with a student without a disability for social interaction. The interaction takes place, not only in school, but also outside of school during non-school hours.</p> <p><b>Developmental Disabilities Council Public Awareness Campaign:</b> the project objective is to educate the general public to better understand people with disabilities in Delaware. The tag line for the campaign is “We are just like you”. The intent is to show Delawareans with disabilities living, working, paying taxes, attending school, playing, getting married, raising a family and enjoying life just like everyone else. The campaign will show that, with the proper supports in the community, Delawareans with disabilities can enjoy the same quality of life as the rest of the population.</p>
<p><b>Infrastructure-Building Services</b></p>	<p><b>Delaware People First:</b> is a self-advocacy organization supported by The Arc of Delaware where families, individuals, and providers meet to discuss issues affecting people with intellectual and developmental disabilities. Additionally, members plan group trips throughout the year, such as Washington, D.C. New York City and local theater, to help them grow socially, to learn more about self-advocacy and to have fun together.</p> <p>The Bureau of Oral Health developed activities for children with special health care needs in its Targeted State MCH Oral Health Service Systems grant</p>

**j. Child Oral Health**

Delaware is taking steps to reduce the shortage of oral health access. The DPH’s Oral Health Program, the Delaware Dental Society, the Delaware Oral Health Coalition, and the Delaware Dental Hygienists Society all collaborate to provide support to increase access to dental prevention and treatment.

In 2008, the Delaware Oral Health Coalition (DOHC) launched a statewide “Healthy Smile, Healthy You!” outreach and education campaign aimed at raising awareness about the prevention of dental disease and improving oral health in Delaware. As a result, the DOHC frequently receives requests from schools and community groups (Boys & Girls Clubs, YMCA, Head Start, etc.) to conduct programs related to oral health and hygiene. Tooth Troop a volunteer was developed to bridge this gap and makes it possible to support these requests and provide valuable oral health education to children and their families throughout the state.

<b>Pyramid Level</b>	<b>Capacity of the State of Delaware to Meet the Need</b>
<b>Direct Health Care Services</b>	<p><b>Dental Care on Wheels:</b> Populations in need will benefit from two state-of-the-art treatment rooms for providing comprehensive dental services Although the van will primarily be used to provide services at schools, it will also be available for community programs.</p> <p><b>Seal-A-Smile Program (SAS):</b> Second graders without regular dentists receive complimentary screenings and sealants on permanent molars through the SAS program.</p>
<b>Enabling Services</b>	<p><b>Seal-A-Smile Program (SAS):</b> The Bureau provides equipment and supplies and coordinates volunteer dentists and dental hygienists with the Delaware State Dental Society, the Delaware Dental Hygienists’ Association and the Delaware Department of Education.</p>
<b>Population-Based Services</b>	<p><b>DPH Delaware Oral Health Program:</b> The goal is to improve oral health and wellness for the people of Delaware. These mirror those of the Surgeon General’s “Call to Action to Promote Oral Health which are:</p> <ul style="list-style-type: none"> <li>• To promote oral health</li> <li>• To improve quality of life</li> <li>• To eliminate oral health disparities</li> </ul> <p><b>Tooth Troop:</b> is a volunteer network that provides dental services for schools and community groups. The Tooth Troop can provide training for non-dental professionals to conduct oral health awareness and education programs.</p>

<p style="text-align: center;"><b>Infrastructure- Building Services</b></p>	<p><b>Oral health continuing education:</b> DPH MCH program provides child oral health continuing education to non-dentist professionals who are engaged in health or day care of children and youth. The training is “Open Wide” developed by the National Maternal and Child Oral Health Resource Center (NMCOHRC). DPH MCH (through contract with HEA) adapted the on-line program for in-person training. It was offered in Sussex County to child care providers and received overwhelming response. Additional sessions are scheduled for fall 2010.</p> <p><b>Planning Grant:</b> A \$200,000 dental planning grant from the Health Resources and Services Administration (HRSA) was awarded to the Bureau of Oral Health and Dental Services (BOHDS) in August 2008. The Bureau used the one-year grant to develop strategies to increase access to dental care.</p> <p><b>State Loan Repayment Program:</b> The Bureau worked with the DHCC to qualify its dentists who work 37.5 hours for the loan repayment program to lure dentists to areas with poor access.</p> <p><b>State Oral Health Collaborative Systems Grant (SOHCS):</b> the purpose of the grant is to improve access to dental care and to reduce the burden of oral disease among children in Delaware. The SOHCS will:</p> <ul style="list-style-type: none"> <li>• Bolster state oral health programs whose patients include women and children eligible for Medicaid and the State Children's Health Insurance Program.</li> <li>• Support broad-based efforts to improve overall dental coverage by stimulating planning and public/private partnerships and by integrating community support systems.</li> <li>• Be used to treat and prevent early childhood decay through dental sealant and other prevention programs.</li> </ul> <p><b>Delaware Oral Health Coalition:</b> is to provide leadership and advocacy so that the people of Delaware can access affordable, quality oral health care. Emphasis is placed on early prevention and maintenance as they contribute to total health and well being.</p>
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**II. OUTCOME MEASURES – FEDERAL AND STATE**

Delaware uses program activities to measure and evaluate the progress of reaching State and Federal outcome measures. Continuous Quality Improvement (CQI) is a priority for Delaware. Delaware will track the measures below on an annual basis and make improvements to the programs based on results. The summary below discusses relationships between State program activities, National Performance Measures, and State Performance Measure to the Outcome Priority Measures

**a-b. Infant Mortality, Low Birth Weight Infants, Prematurity**

Having a healthy baby is the top priority for DPH. The following program activities target mothers to reduce incidence of infant mortality, low birth weight, and prematurity:

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- Delaware Quitnet/Quitline
- Delaware Sexually Transmitted Disease Program
- DelaWELL
- Fetal Alcohol Syndrome/Drug Effects Prevention Program
- FIMR Process
- Healthy Start Programs
- HWHB
- Reproductive Health Services
- Providing 17 Alpha Hydroxy Progesterone Caproate (17P)
- Providing Folic Acid
- Safe Sleeping Campaigns
- Smart Start

The progress made in Delaware is being tracked through the State Performance Measures below.

State Performance Measure	State 2009 Results	State 2012 Goal
Reduce infant mortality and eliminate the disparity in infant mortality for Black women.	8.3 per 1,000 live births	4.5 per 1,000 live births
Reduce low birth weight (<=2500 grams) and very low birth weight (<=1500 grams) deliveries.	94 per 1,000 below 2,500 g	76 per 1,000 below 2,500 g
Reduce births occurring between 32 and 36 weeks gestation.	112.4 per 1,000 live births	80 per 1,000 live births

The MCH program activities engaged by the State of Delaware for Infant Mortality, Low Birth Weight Infants, and Prematurity also align with the following national performance measures:

National Performance Measure	State 2007 Results	State 2012 Goal
Percent of very low birth weight infants delivered at facilities for high-risk deliveries and neonates.	79.3%	82%
Percent of infants born to pregnant women receiving prenatal care beginning in the first trimester.	73.9%	80%
Percentage of women who smoke in the last three months of pregnancy.	6.8%	5.5%
The rate of birth (per 1,000) for teenagers aged 15 through 17 years.	22.0	20

**c. Obesity Among Women of Childbearing Age**

Obesity is an increasing issue and a major focus of the MCH programs in Delaware. The following programs target obesity among women of childbearing age:

- DeHEAL
- HWHB
- Physical Activity, Nutrition, and Obesity Prevention Program
- PRAMS
- Smart Start Nutritional Counseling
- WIC Program

The progress made in Delaware is being tracked through the State Performance Measure below.

State Performance Measure	State 2009 Results	State 2012 Goal
Decrease obesity among women of childbearing age, those between 15-	27%	15%

44.		
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**d. Child/Teen Obesity and Overweight**

Child and teen obesity is becoming an increasing problem in the U.S. as well as in Delaware and we hope to reduce the incidence with our programs. The following programs target childhood obesity:

- DeHEAL
- Sussex County Child Health Coalition
- Delaware Primary Care Initiative on Childhood Overweight
- Delaware schools’ policy resulted in a requirement to provide at least 150 minutes of physical activity per week, increasing access to fruits and vegetables, decreasing access to high calorie/low nutrient foods in the environment, and collecting and reporting BMI and fitness data.
- Get up and Do Something
- Nemours Health and Prevention Services; 5-2-1-Almost None Program
- Promoting Healthy Activities Together (“PHAT”)
- Student Fitness: all Delaware students now participate in strength and endurance testing in the 4th, 8th, and 9th or 10th grades; results are shared with parents in the Fitnessgram® (assessment) along with information developed by Nemours to help families understand the results.
- WIC Program

The progress made in Delaware is being tracked through the State Performance Measure below.

State Performance Measure	State 2009 Results	State 2012 Goal
Decrease obesity and overweight among children and youth between the ages of 6-19.	17%	5% [Children and adolescents aged 6 to 19 years]

The MCH program activities engaged by the State of Delaware for Child/Teen Obesity and Overweight also align with the following national performance measure:

National Performance Measure	State 2007 Results	State 2012 Goal
Percentage of children, ages 2 to 5 years, receiving WIC services with a Body Mass Index (BMI) at or above the 85th percentile.	20.2%	17%

**e. Unintentional Injury Mortality Among Children and Youth**

Preventing avoidable death and injury among children and youth is essential to the State of Delaware. The following programs target unintentional injury mortality among children and youth:

- Delaware DMV Graduated license program
- Delaware Emergency Medical Services for Children (EMSC)
- KidsHealth
- “Protect the Ones You Love” Initiative
- Revised Child Helmet Laws
- Safe Kids Coalition
- Teenage drug and alcohol abuse counseling and education

The progress made in Delaware is being tracked through the State Performance Measure below.

State Performance Measure	State 2009 Results	State 2012 Goal
Decrease unintentional injuries among children and youth 0-21.	13.43 per 100,000	17.5 per 100,000

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The MCH program activities engaged by the State of Delaware for unintentional injury mortality among children and youth also align with the following national performance measure:

National Performance Measure	State 2007 Results	State 2012 Goal
Rate of deaths of children aged 14 years and younger caused by motor vehicle crashes.	1.8 per 100,000	1.7 per 100,000

**f. Teen Smoking**

Delaware is committed to reduce the incidence of teenage smoking. The following programs target teenage smoking:

- Anti-Ash Brigade
- Delaware Kick Butts Generation (KBG)
- Delaware Tobacco Prevention and Control Program (TPCP)
- Delaware Youth Risk Behavior Survey
- Delaware Youth Tobacco Survey Questionnaire
- Not on Tobacco (NOT)
- Quitline
- Quitnet
- Smoke Screammers
- Teens Against Tobacco Use (TATU)

The progress made in Delaware is being tracked through the State Performance Measure below.

State Performance Measure	State 2009 Results	State 2012 Goal
Decrease tobacco use among adolescents.	15% <sup>‡</sup>	Target: 10%

**g. Developmental Delay**

Developmental delay is when children do not reach their developmental milestones at the expected times. It is an ongoing major or minor delay in the process of development. Delay can occur in one or many areas—for example, gross or fine motor, language, social, or thinking skills. Developmental Delay is most often a diagnosis made by a doctor based on strict guidelines. Usually, though, the parent is the first to notice that their child is not progressing at the same rate as other children the same age. The following programs target developmental delay:

- Delaware Newborn Screening Program
- Autism Surveillance and Registration Program
- Birth Defects Surveillance Registry
- Child Development Watch
- Early Childhood Comprehensive Systems (ECCS)
- Head Start
- Delaware’s ABCD Screening Academy Project

The progress made in Delaware is being tracked through the National Survey on CYSHCN.

	State 2005-06 Results	State 2012 Goal
<b>CYSHCN Developmental Delay</b>	74.2% children qualify as low or no risk for delays	85% children qualify as low or no risk for delays

**h. Family Support of Children and Youth with Special Health Care Needs**

A primary goal of Title V programs is the promotion of family-centered, coordinated care for CYSCHN and the development of community-based system of services for CYSHCN and their families. The

<sup>‡</sup> 11<sup>th</sup> Graders.

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following programs target increased family support of CYSHCN:

- Family Support Initiative
- Child Development Watch (Part C)
- SNAP
- Family to Family
- Easter Seals
- Autism Society of DE
- ECCS

The progress made in Delaware is being tracked through the National Survey on CYSHCN.

	State 2005-06 Results	State 2012 Goal
<b>Family Support of CYSHCN: Financial</b>	63.2% state they have adequate insurance to pay for needed services.	75% state they have adequate insurance to pay for needed services.
<b>Family Support of CYSHCN: Services</b>	88.1% state community-based services are organized so that families can use them easily.	95% state community-based services are organized so that families can use them easily.

i. **Disparities among Families of Children and Youth with Special Health Care Needs**

Based on findings from the 2007 National Survey on Children’s Health (NSCH), a number of key disparities have been identified for CYSCHN when compared to their peers without special needs. Delaware is focusing on targeting the disparities in four areas: Child Health Indicators; Emotional and Mental Health Indicators; Health Care Access and Quality Indicators; and Family Health Indicators. Delaware will measure progress through all state and federal performance measures related to CYSHCN as well as the NS-CYSHCN. Furthermore, a survey will be conducted in 2010 to gain a better perspective and more insight on the disparities among Delawarean families of CYSHCN. The following programs target Disparities among Families of CYSHCN:

- Family Support Initiative
- Child Development Watch (Part C)
- SNAP
- Family to Family
- Easter Seals
- ECCS
- EMSC

	State 2007 Results	State 2012 Goal
<b>Disparities among CYSHCN families</b>	64% of CYSHCN 1-17 have teeth in excellent or very good condition.	75% of CYSHCN 1-17 have teeth in excellent or very good condition.
<b>Disparities among CYSHCN families</b>	58% of parents of CYSHCN 4 months to 5 years were concerned over their child’s physical, behavioral or social development.	45% of parents of CYSHCN 4 months to 5 years were concerned over their child’s physical, behavioral or social development.
<b>Disparities among CYSHCN families</b>	52% of CYSHCN who needed specialist care had problems receiving the care.	45% of CYSHCN who needed specialist care had problems receiving the care.
<b>Disparities among CYSHCN families</b>	54% of mothers of CYSHCN reported being in very good or excellent physical health.	75% of mothers of CYSHCN reported being in very good or excellent physical health.

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<b>Disparities among CYSHCN families</b>	63% of mothers of CYSHCN reported to be in very good or excellent mental/emotional health	75% of mothers of CYSHCN reported to be in very good or excellent mental/emotional health
<b>Disparities among CYSHCN families</b>	71% of fathers of CYSHCN reported to be in very good or excellent mental/emotional health	75% of fathers of CYSHCN reported to be in very good or excellent mental/emotional health

j. **Child Oral Health**

Great strides have been made to increase access to dental prevention and treatment. The DPH's Oral Health Program, the Delaware Dental Society, the Delaware Oral Health Coalition, and the Delaware Dental Hygienists Society provide support to increase access to dental prevention and treatment. The following programs target increased use of child oral health services:

- Dental Care on Wheels
- Seal-A-Smile Program (SAS)
- DPH Delaware Oral Health Program
- Tooth Troop
- State Loan Repayment Program
- State Oral Health Collaborative Systems Grant (SOHCS) Delaware Oral Health Coalition

The progress made in Delaware is being tracked through the 2002 Delaware Smile Survey.

	<b>State 2007 Results</b>	<b>State 2012 Goals</b>
<b>Child Oral Health</b>	30% [Untreated Caries] 54% [History of Caries]	25% [Untreated Caries] 45% [History of Caries]

**VIII. NEEDS ASSESSMENT SUMMARY**

The top priority needs for the 2010 Needs Assessment include:

	<b>2010 Delaware Priority</b>	<b>Description</b>
1	<u>Infant Mortality</u>	Decrease infant mortality and eliminate the disparity in infant mortality among Black women.
2	<u>Low Birth Weight/Preterm Births</u>	Decrease low birth weight ( $\leq 2500$ g) and very low birth weight ( $\leq 1500$ g) births and births occurring between 32 and 36 weeks gestation.
3	<u>Obesity and Overweight Among Children &amp; Teens</u>	Decrease obesity and overweight among children and youth between the ages of 6 and 19.
4	<u>Obesity Among Women of Childbearing Age</u>	Decrease obesity among women of childbearing age - between the ages of 15 and 44.
5	<u>Unintentional Injury Among Infants, Children &amp; Teens</u>	Decrease unintentional injuries and deaths due to unintentional injuries among children and youth between birth and age 21.
6	<u>Teen Smoking</u>	Decrease tobacco use among adolescents.
7	<u>Family Support for Children and Youth with Special Health Care Needs</u>	Increase effectiveness and efficiency of organizations that serve families of children with special health care needs.
8	<u>Developmental Delay</u>	Increase the percentage of children with low/no risk of developmental, behavioral or social delays.
9	<u>Disparities Among Families of Children and Youth with Special Health Care Needs</u>	Decrease disparities in child health, emotional/mental health, health care access/quality and family health indicators among children and youth with special health care needs.
10	<u>Child Oral Health</u>	Decrease the percentage of children with untreated caries and eliminate the disparity in untreated caries among Black children.

It is essential to recognize that two of the ten priorities – Infant Mortality, Low Birth Weight/Preterm Birth – are strongly linked both in pathophysiology and in MCH-related programming (discussed in SECTION V). Likewise, programs for Obesity and Overweight Among Children & Teens and Obesity Among Women of Childbearing Age are also quite similar (discussed in SECTION V). Having these two sets of priorities – one set on poor birth outcomes and the other set on obesity – will allow stakeholders to better focus attention and resources on these two broad critical health conditions.

Although the 2005 Needs Assessment and 2010 Needs Assessment differed in both approach and process, some of the priorities between the two were quite similar. For Infant Mortality, the focus of reducing the Black infant mortality rate in the 2005 Needs Assessment was altered in the 2010 Needs Assessment to also include an elimination of infant mortality disparity. Unintentional Injury Mortality Among Children & Teens parallels a priority listed in the previous needs assessment to reduce preventable injury.

Compared to the 2005 Needs Assessment, the 2010 Needs Assessment documents a greater number of MCH-related mergers and partnerships between varied state and private organizations. As detailed in SECTION V, some examples of these collaborations include, but are not limited to:

- *Cribs for Kids*® (partnership between the Delaware Division of Public Health, Nemours Health, and the Delaware Child Death, Near Death and Stillbirth Commission (CDNDSC));
- *Children & Families First* (merger of the Children's Bureau, Family Service Delaware, Turnabout Counseling, the Perinatal Association of Delaware, and The Family & Workplace Connection);
- *Delaware Emergency Medical Services for Children* (partnered with the Alfred I. duPont Hospital for Children, the Delaware SAFE KIDS Coalition, and Easter Seals of Delmarva to engage in diverse emergency-related services).

Such relationships have allowed the participating organizations to more comprehensively address the needs of their targeted MCH population groups.

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Finally, it is important to note that the capacities at each pyramid level have expanded since the submission of the prior needs assessment. This is particularly present with the establishment of the Delaware Healthy Mother and Infant Consortium (DHMIC) which has helped enhance population-based and infrastructure building services through the Fetal Infant Mortality Review (FIMR) and the Healthy Women/Healthy Babies (HWHB) program, respectively. New media and education campaigns, such as the HIV Prevention of Vertical Transmission and Safe Sleeping Campaign, have expanded population-based services. Lastly, the increase in services related to oral health (described in SECTION V) demonstrates an expansion in the direct health care services pyramid level.

**APPENDIX**  
**Appendix A**  
**Appendix B**  
**Appendix C**

FIGURES & TABLES

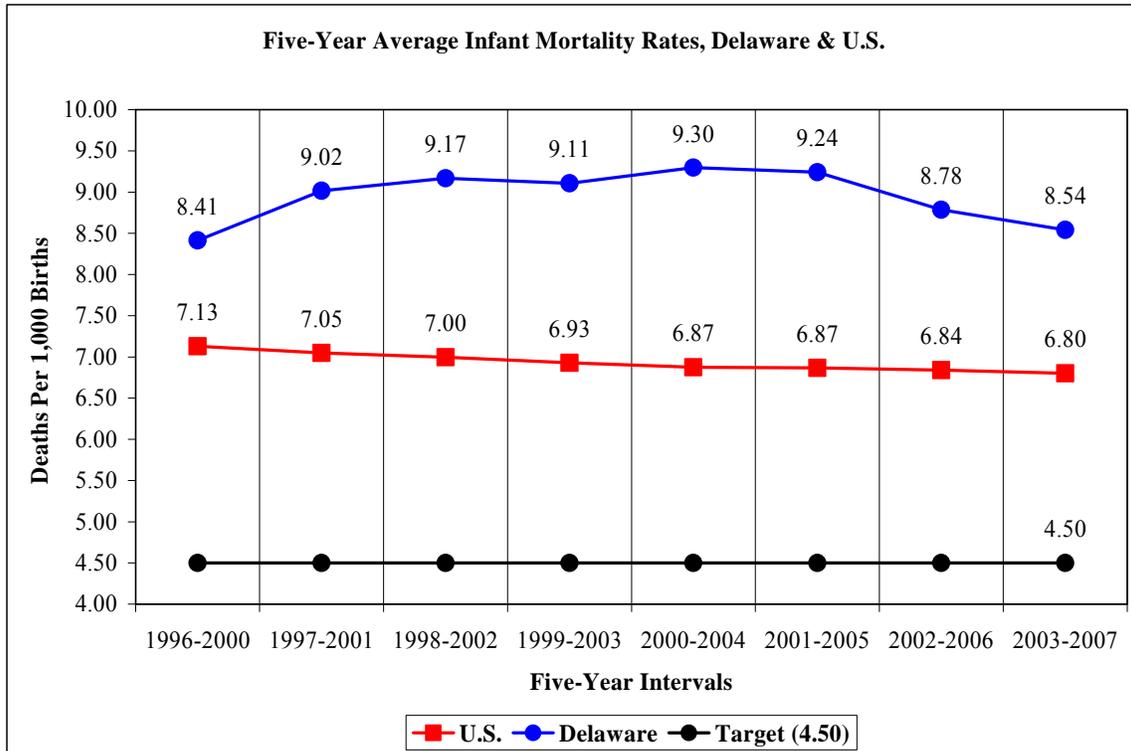


Figure 2: Five-Year Average Infant Mortality Rates, Delaware & U.S.<sup>1</sup>

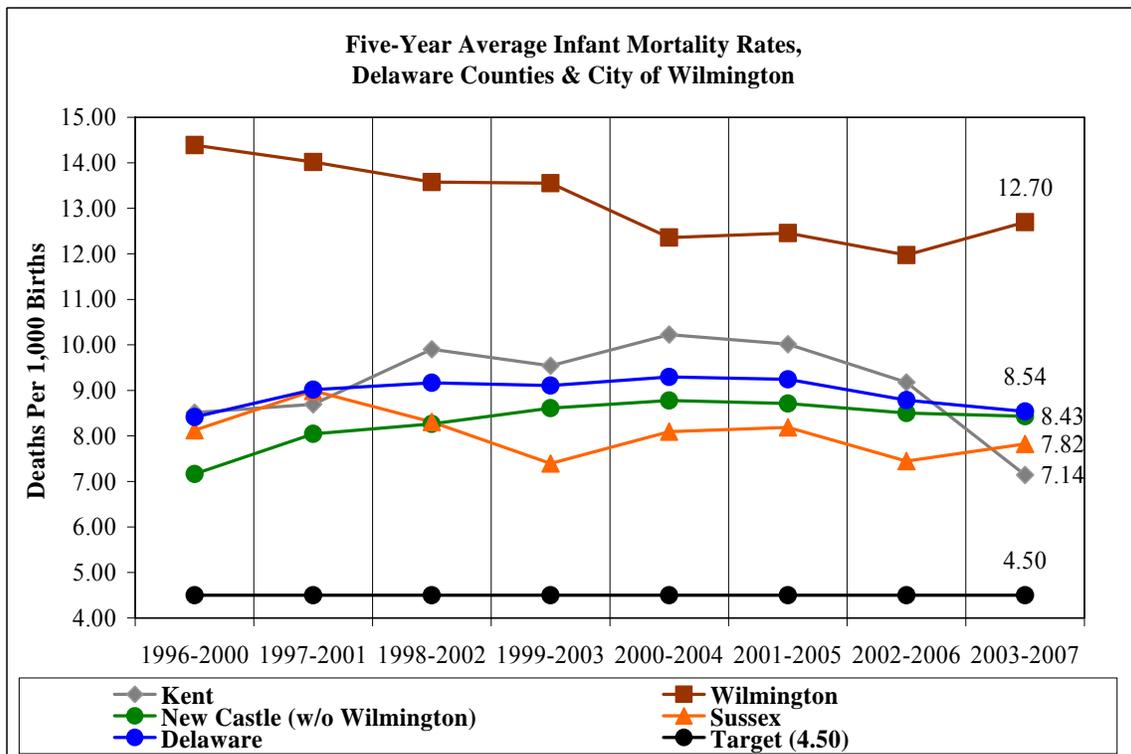


Figure 3: Five-Year Average Infant Mortality Rates, Delaware Counties & City of Wilmington.<sup>1</sup>

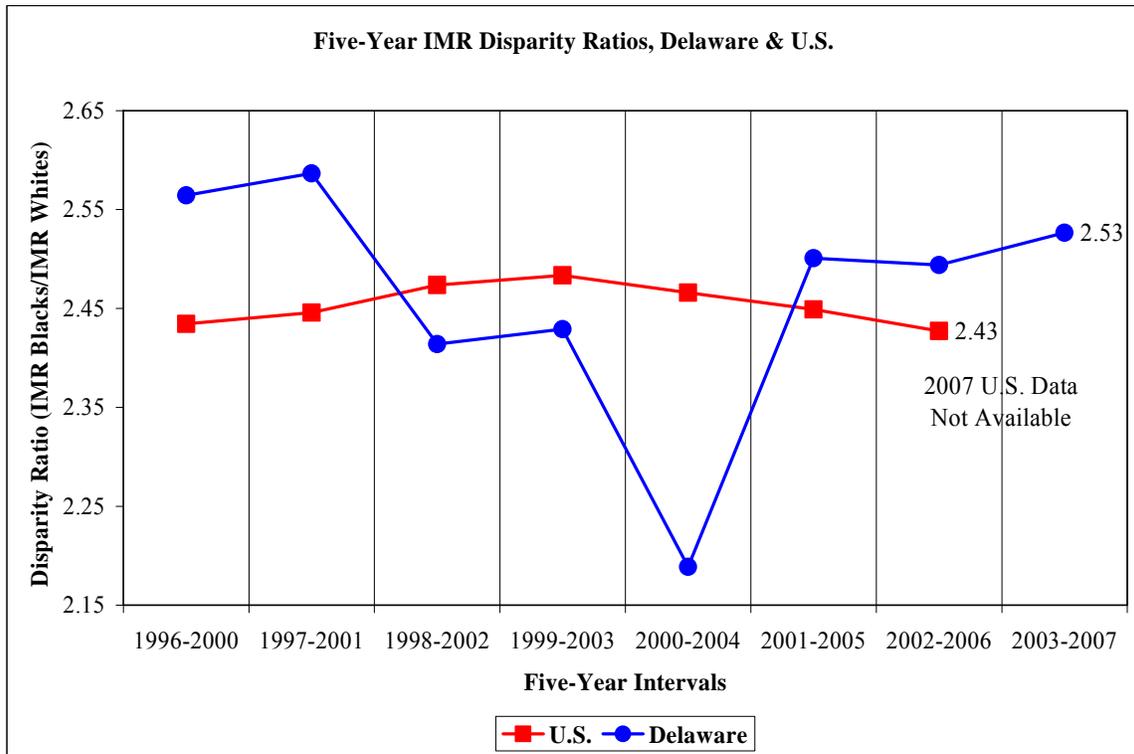


Figure 4: Five-Year IMR Disparity Ratios, Delaware & U.S.<sup>1</sup>

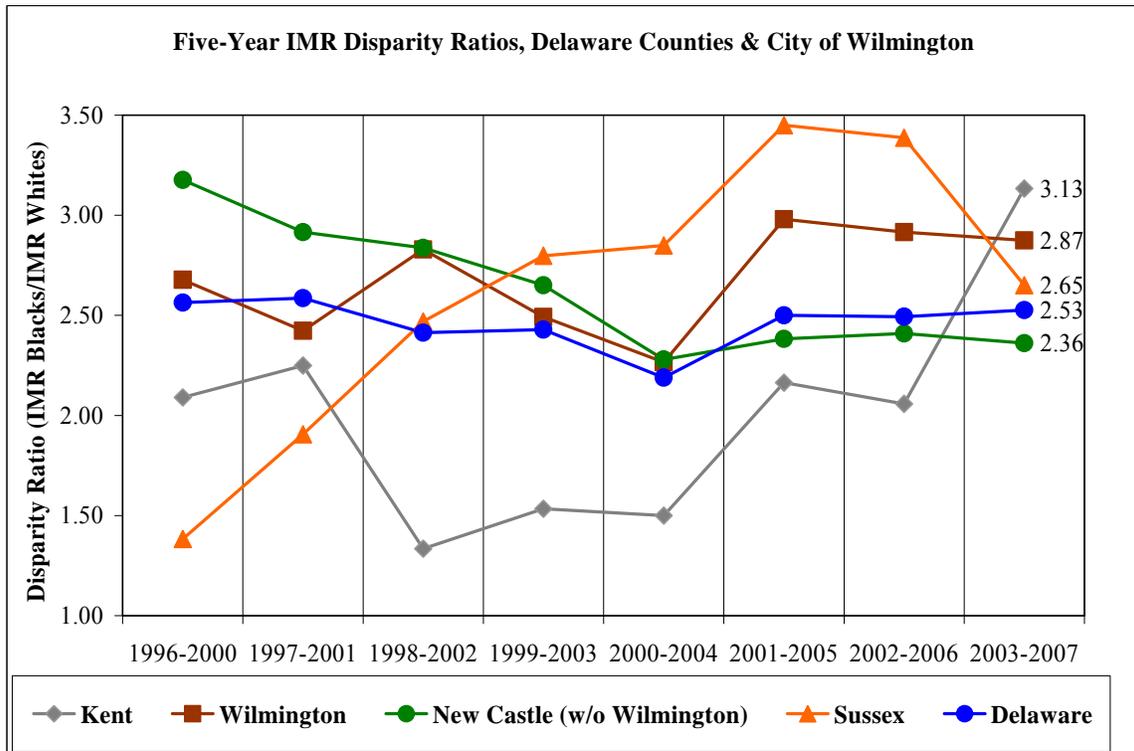
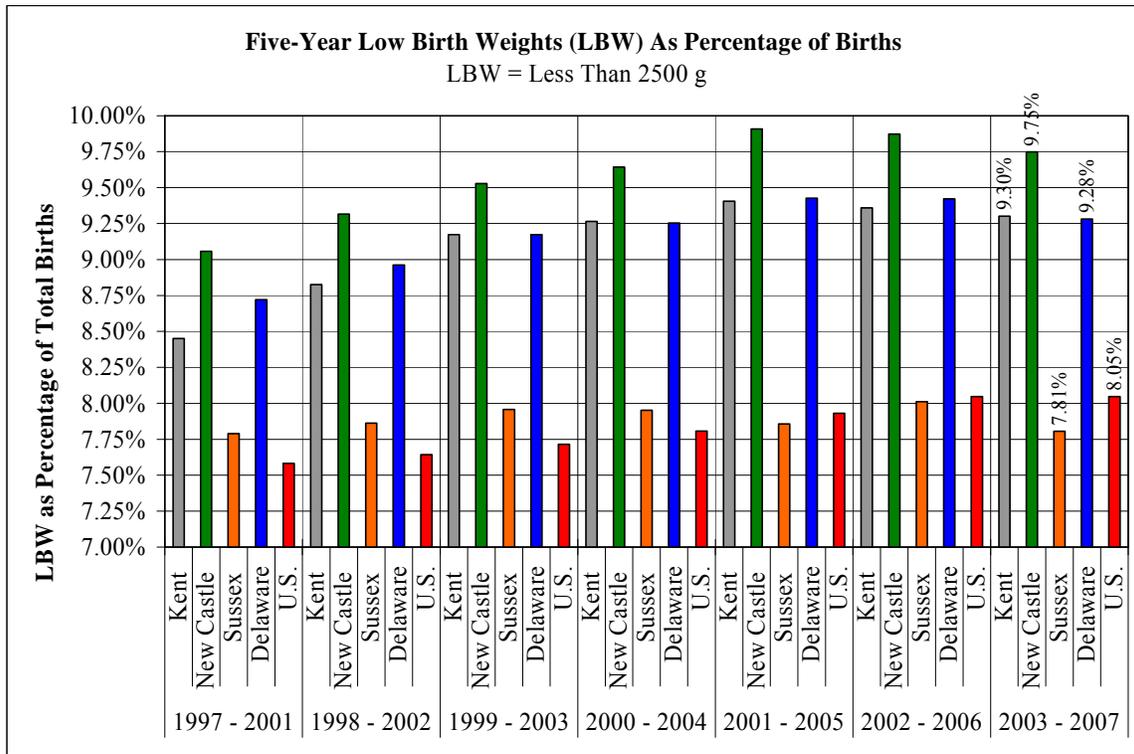
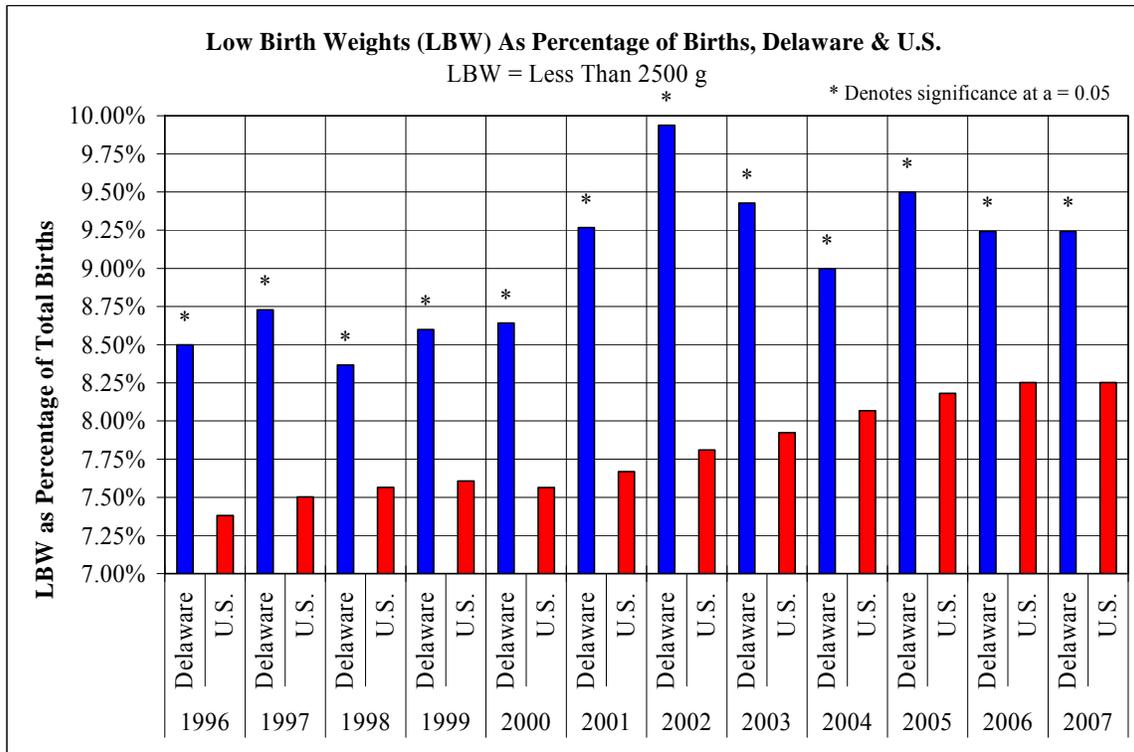


Figure 5: Five-Year IMR Disparity Ratios, Delaware Counties & City of Wilmington.<sup>1</sup>



**Figure 6: Five-Year Low Birth Weights (LBW) As Percentage of Births.<sup>6</sup>**  
2006 data used for 2007 U.S.



**Figure 7: Low Birth Weights (LBW) As Percentage of Births, Delaware & U.S.<sup>6</sup>**  
2006 data used for 2007 U.S.

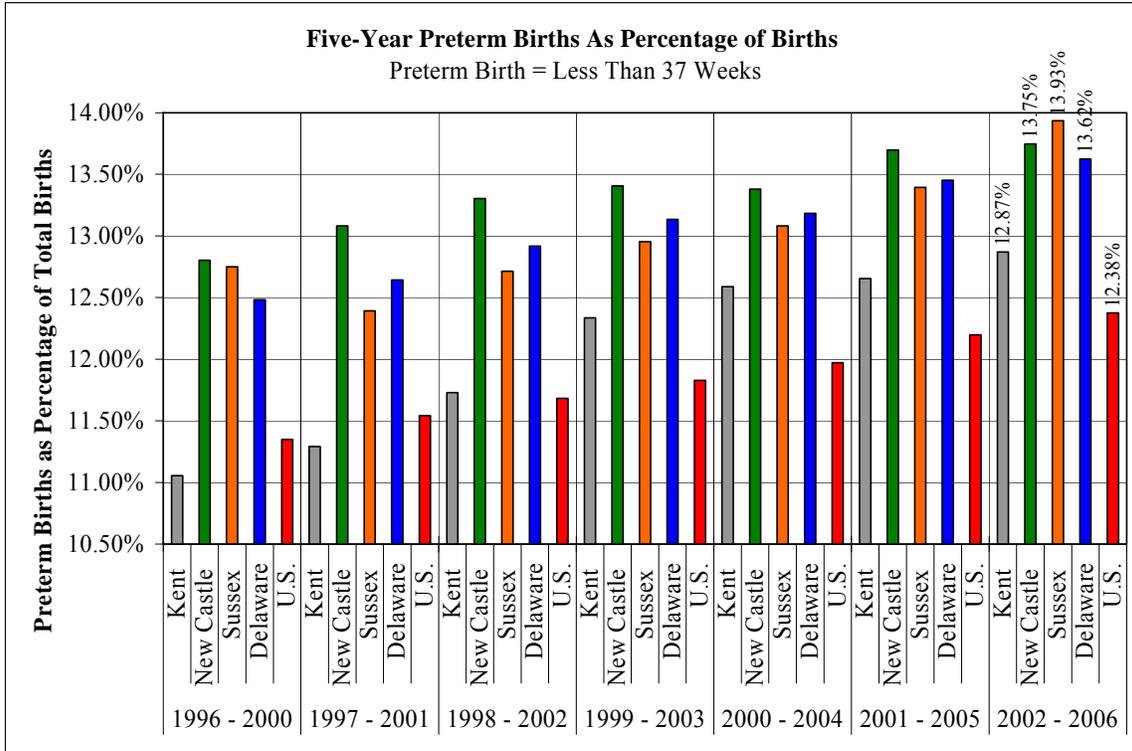


Figure 8: Five-Year Preterm Births As Percentage of Births.<sup>6</sup>

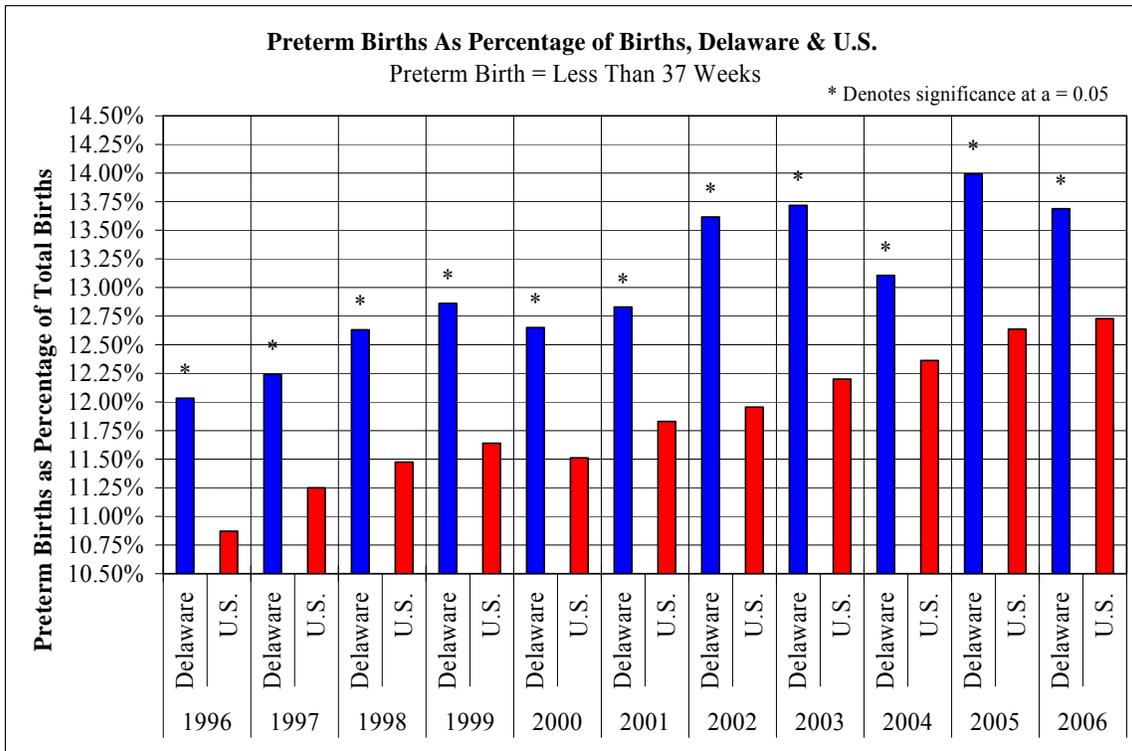
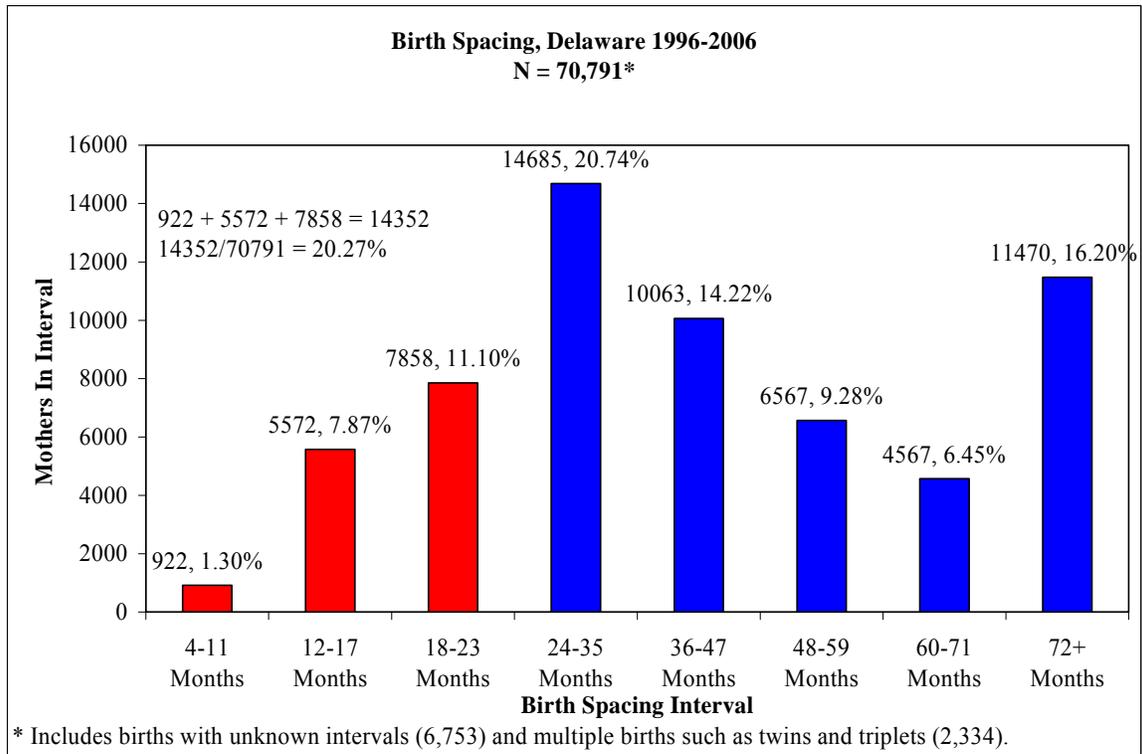
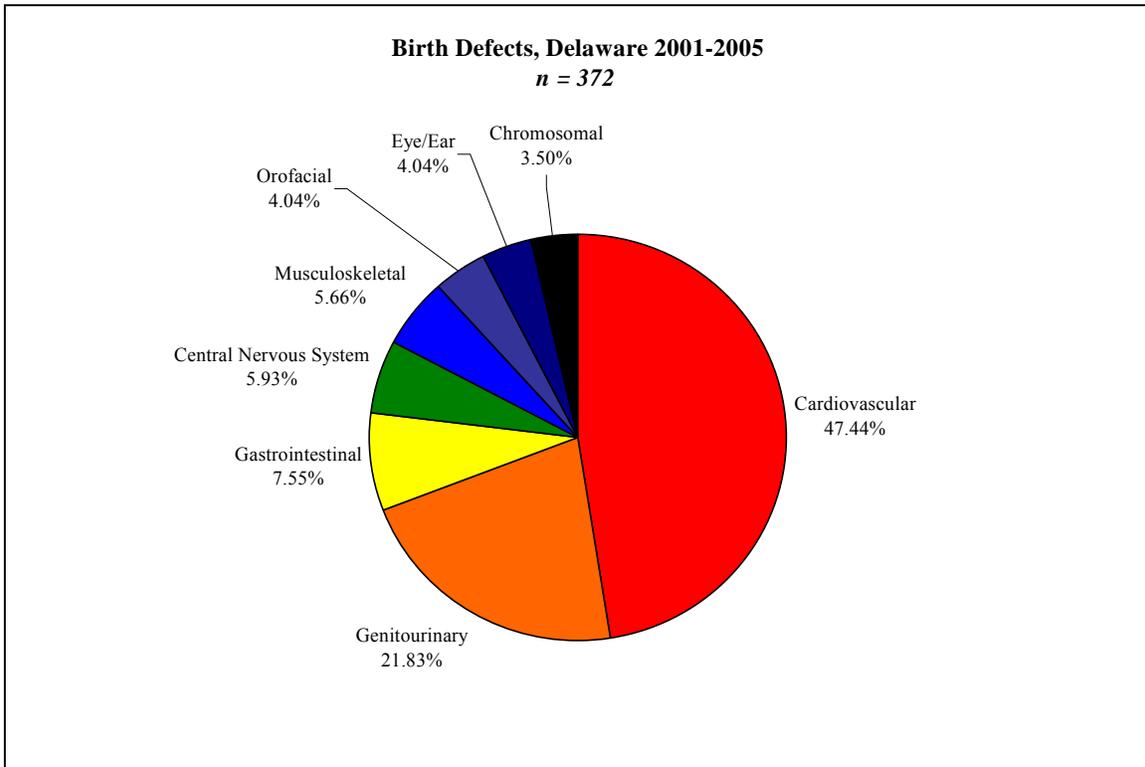


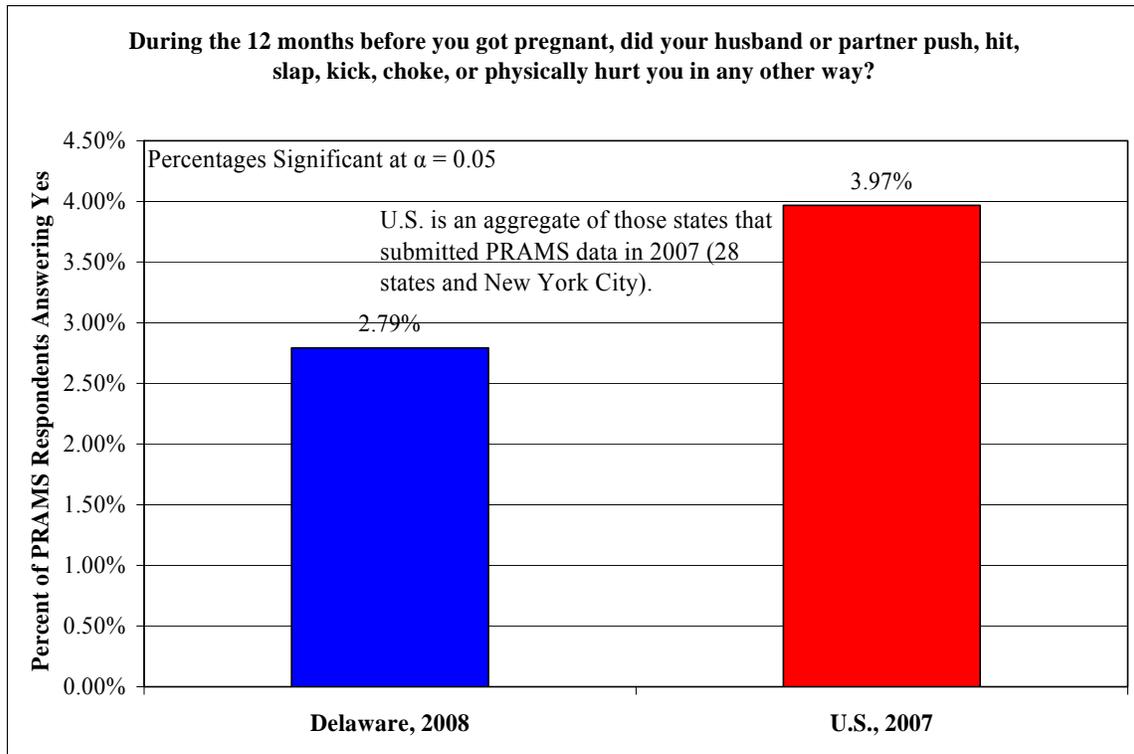
Figure 9: Preterm Births As Percentage of Births, Delaware & U.S.<sup>6</sup>



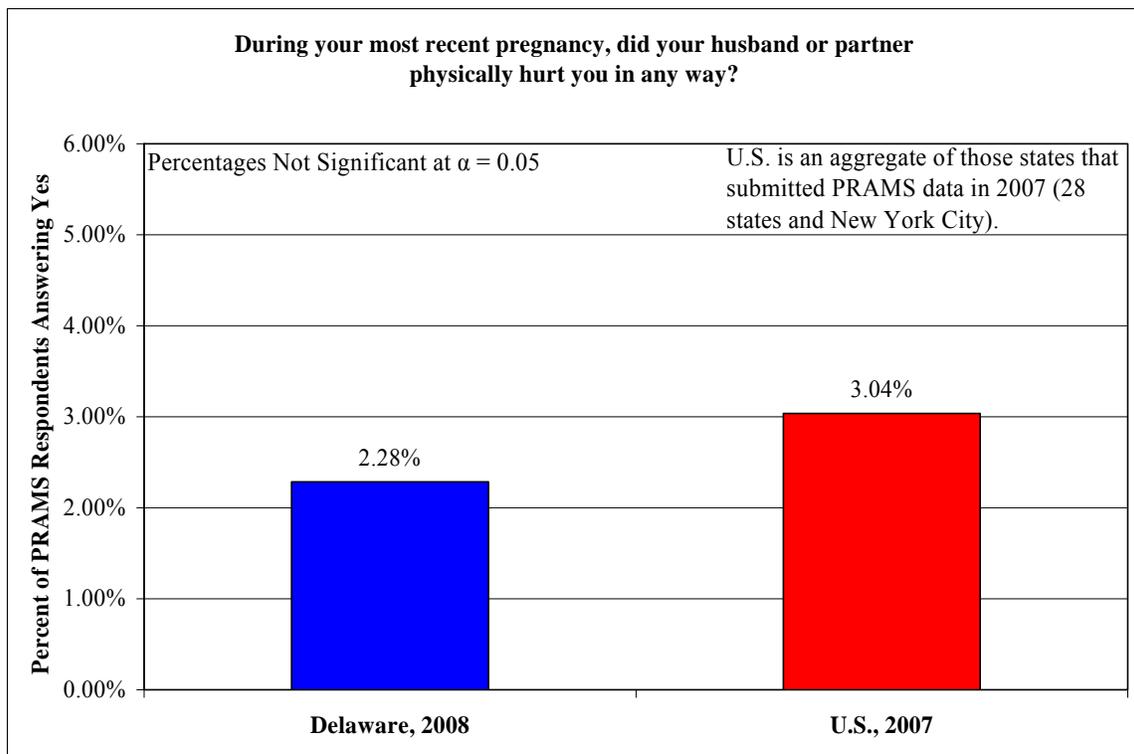
**Figure 10: Birth Spacing, Delaware 1996-2006.<sup>13</sup>**



**Figure 11: Birth Defects, Delaware 2001-2005.<sup>1</sup>**



**Figure 12: Percentage of PRAMS Respondents Answering Yes to Abuse – Physical Question 1.**<sup>20</sup>



**Figure 13: Percentage of 2007 PRAMS Respondents Answering Yes to Abuse – Physical Question 2.**<sup>20</sup>

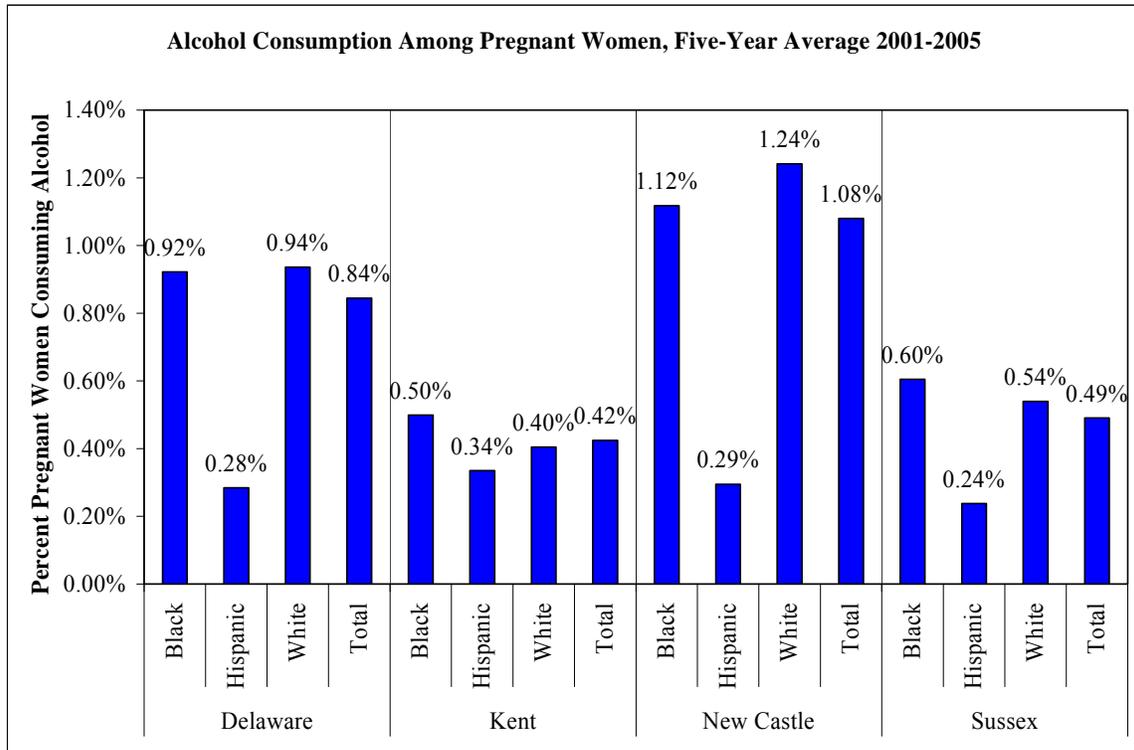


Figure 14: Alcohol Consumption Among Pregnant Women, Five-Year Average 2001-2005.<sup>13</sup>

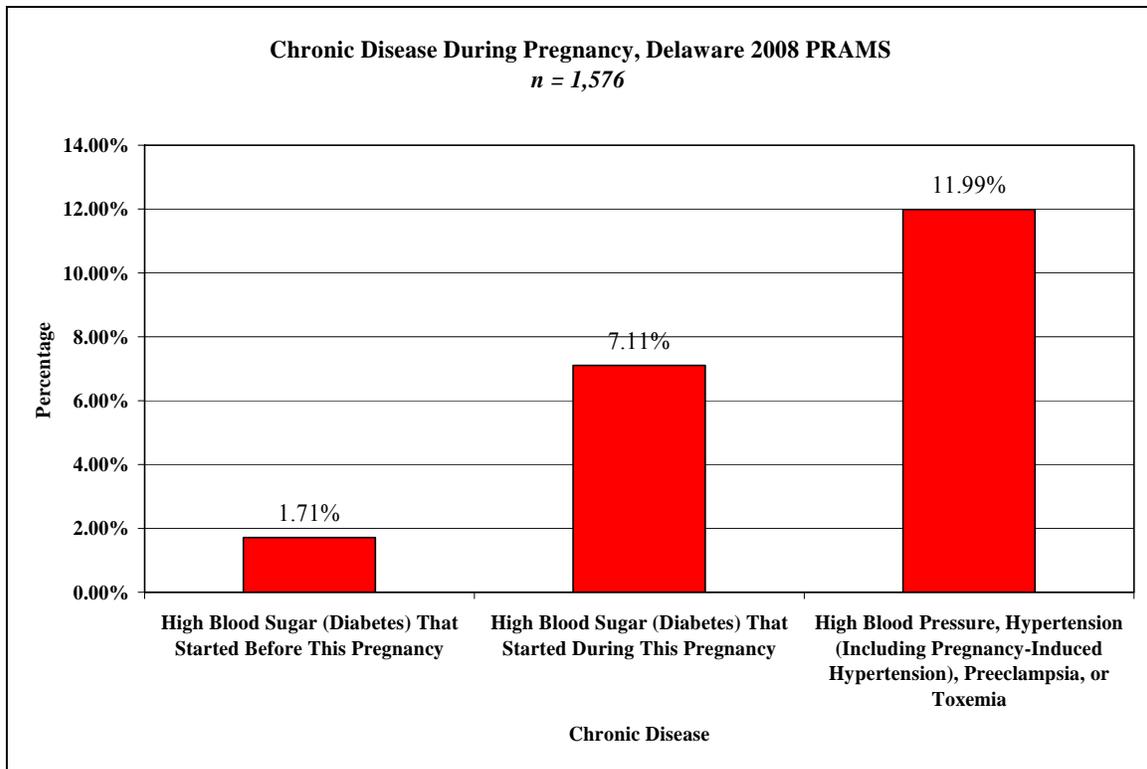


Figure 15: Chronic Disease During Pregnancy, Delaware 2008 PRAMS.<sup>20</sup>

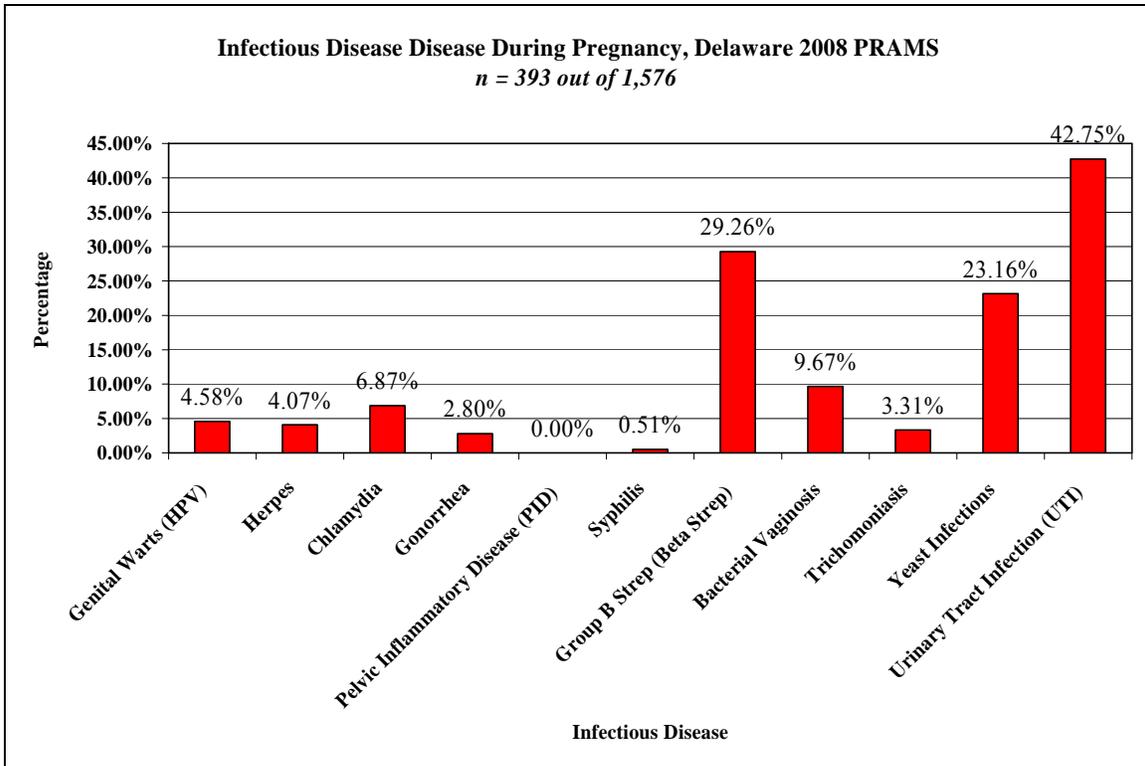


Figure 16: Infectious Disease During Pregnancy, Delaware 2008 PRAMS.<sup>20</sup>

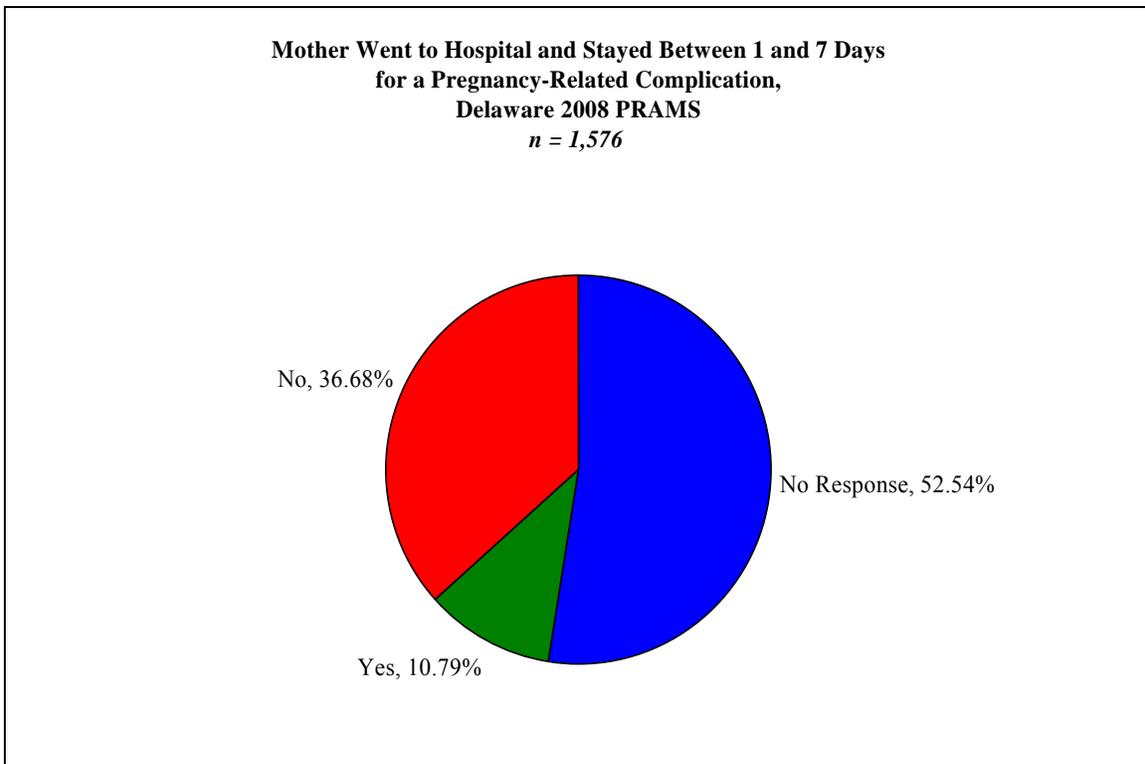
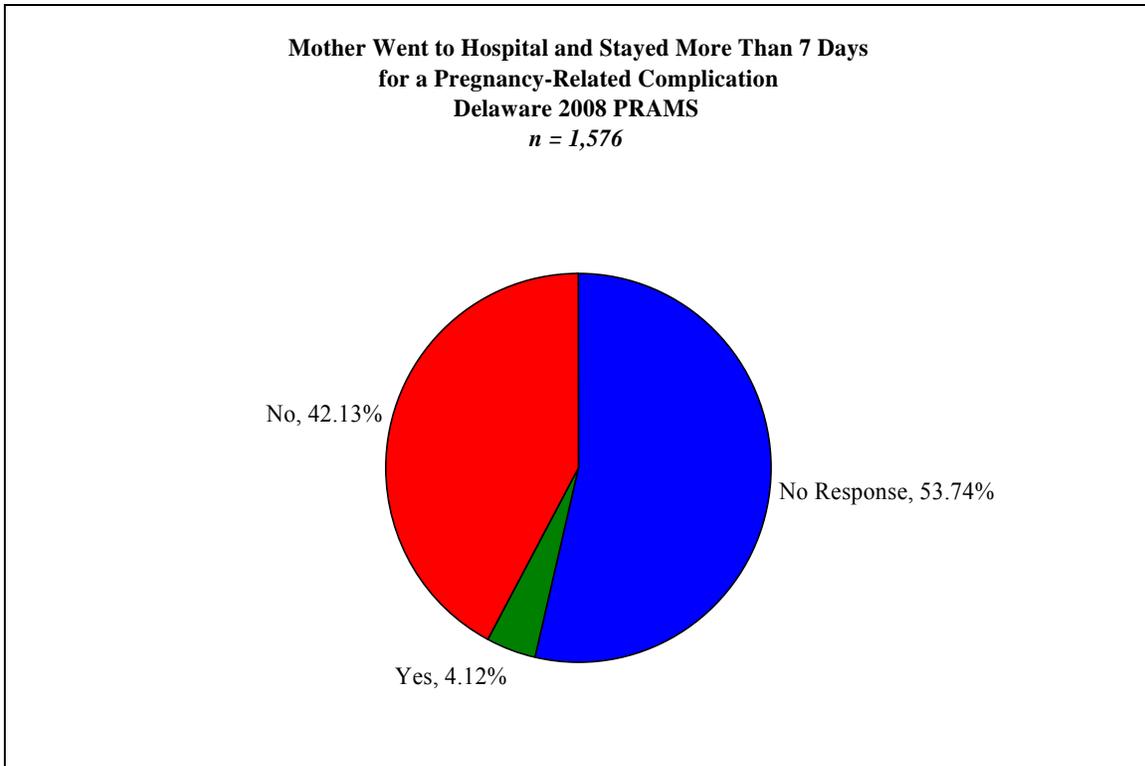
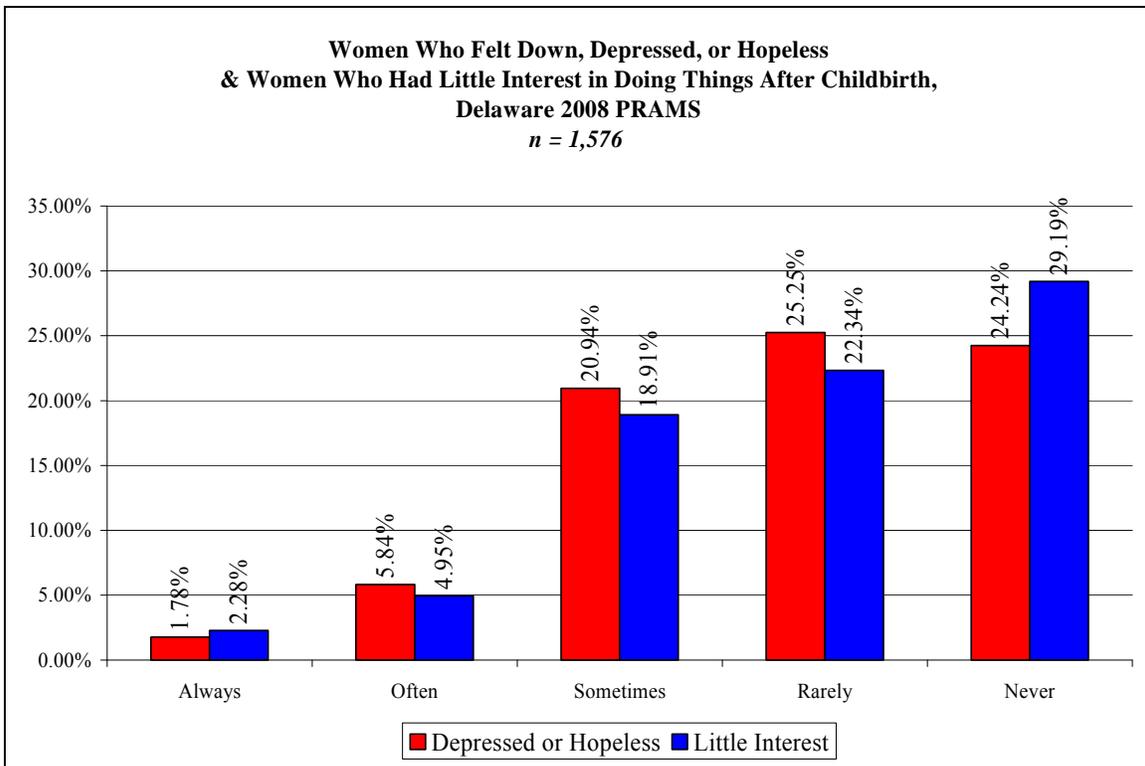


Figure 17: Mother Went to Hospital and Stayed Between 1 and 7 Days for a Pregnancy-Related Complication.<sup>20</sup>



**Figure 18: Mother Went to Hospital and Stayed at Least 1 Day for a Pregnancy-Related Complication.<sup>20</sup>**



**Figure 19: Women Who Felt Down, Depressed, or Hopeless & Women Who Had Little Interest in Doing Things After Childbirth, Delaware 2008 PRAMS.<sup>20</sup>**

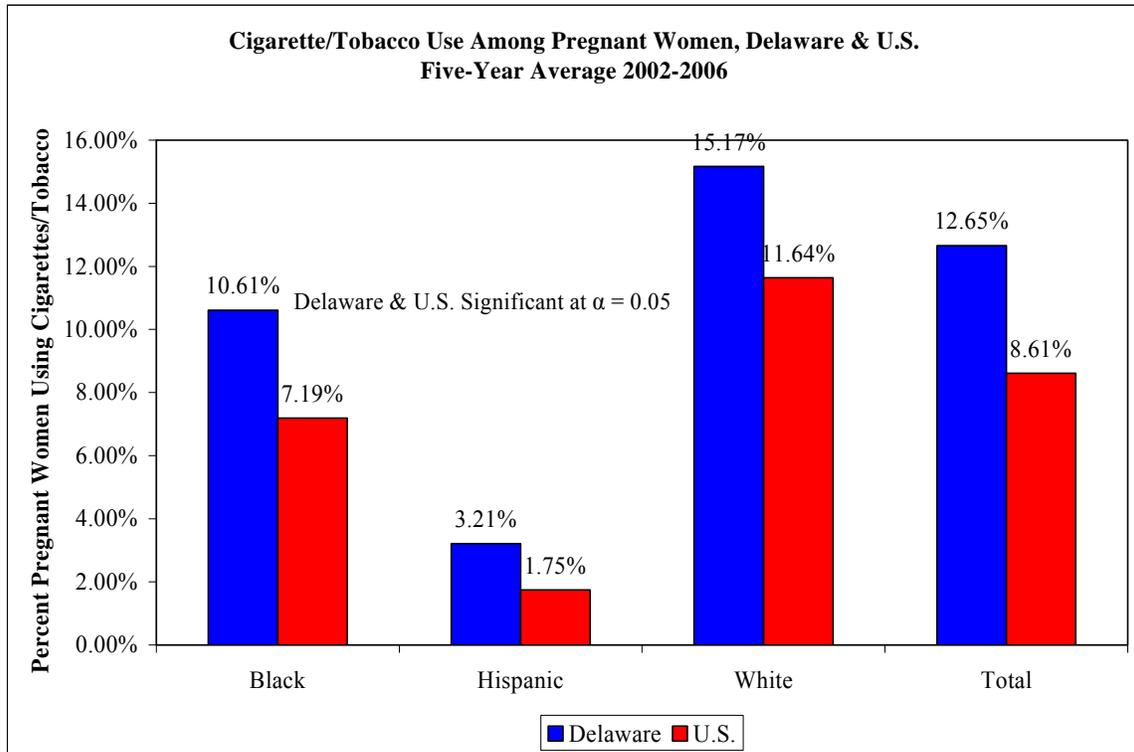


Figure 20: Cigarette/Tobacco Use Among Pregnant Women, Delaware & U.S. Five-Year Average 2001-2005.<sup>6,13</sup>

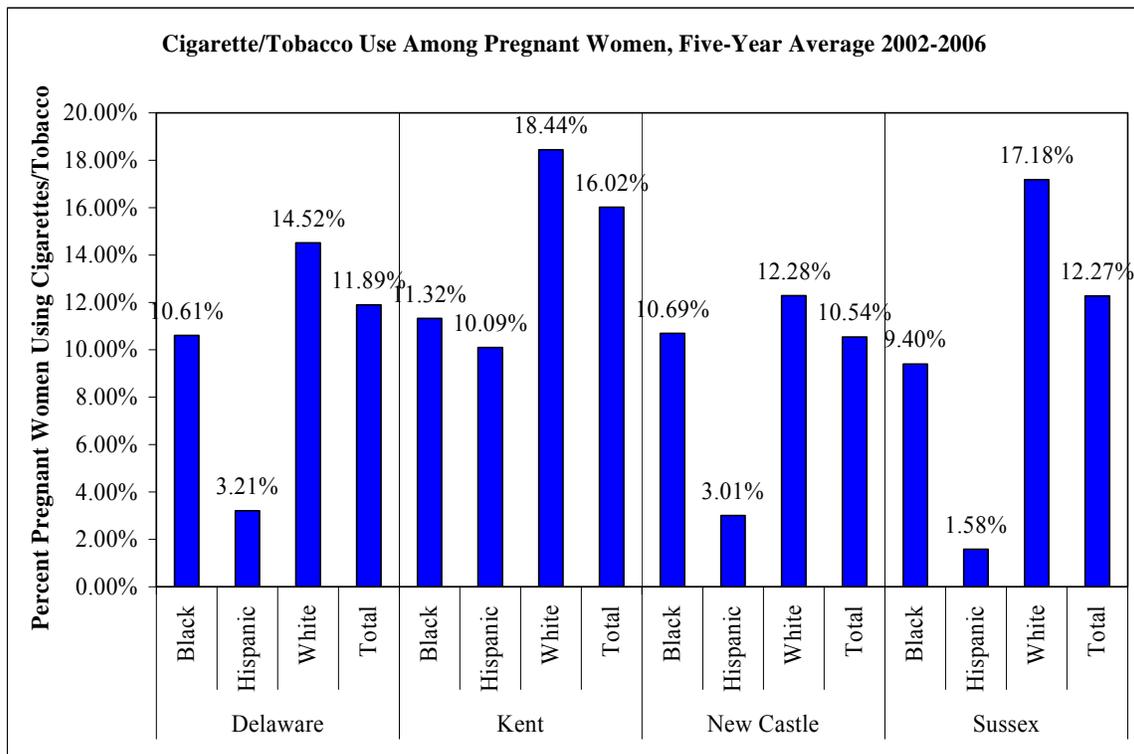


Figure 21: Cigarette/Tobacco Use Among Pregnant Women, Five-Year Average 2002-2006.<sup>13</sup>

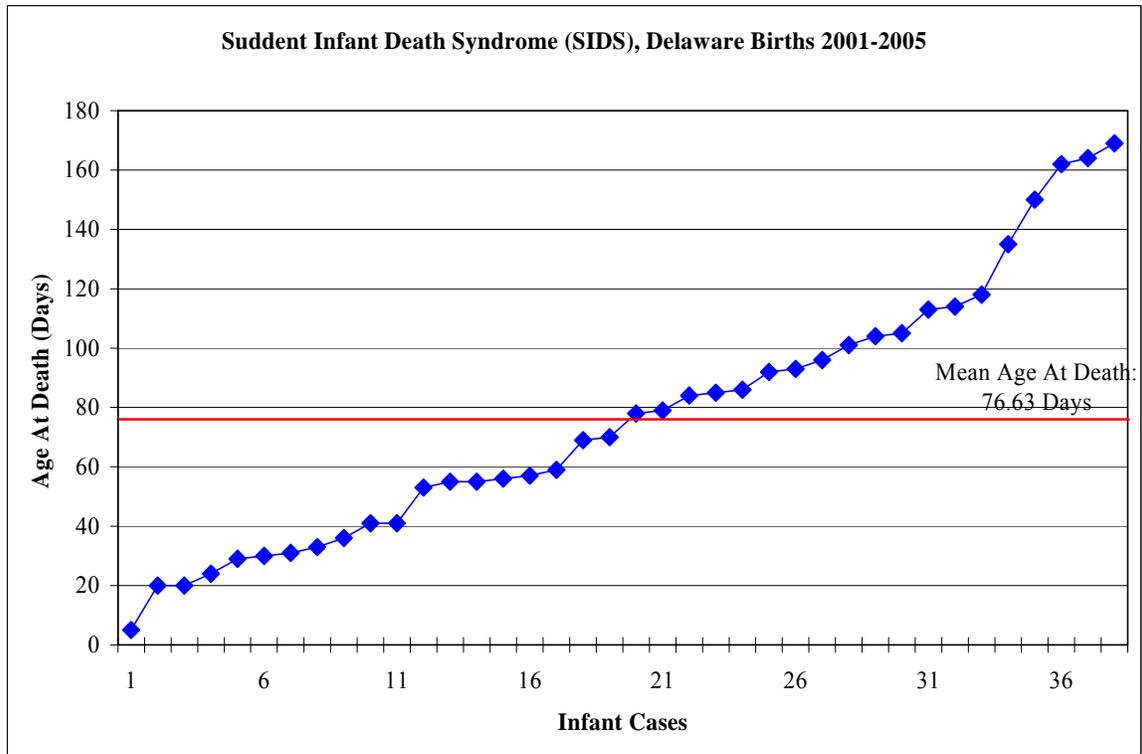


Figure 22: Sudden Infant Death Syndrome (SIDS), Delaware Births 2001-2005.<sup>13</sup>

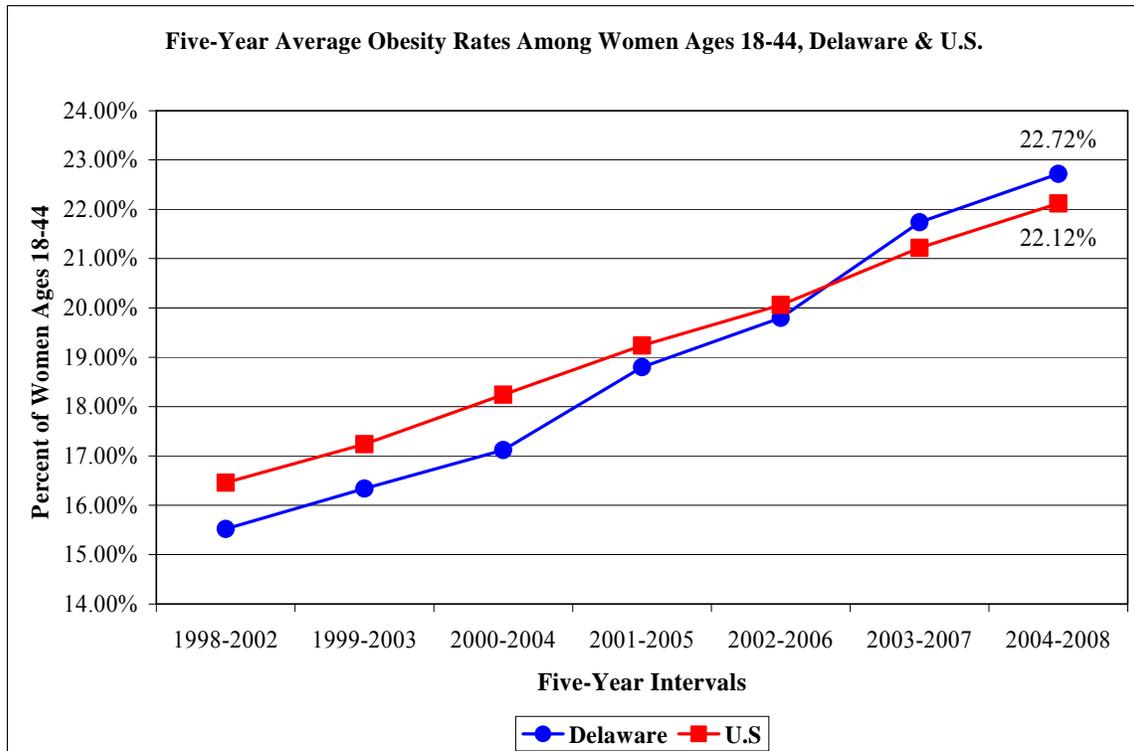


Figure 23: Five-Year Average Obesity Rates Among Women Ages 18-44, Delaware & U.S.<sup>43</sup>

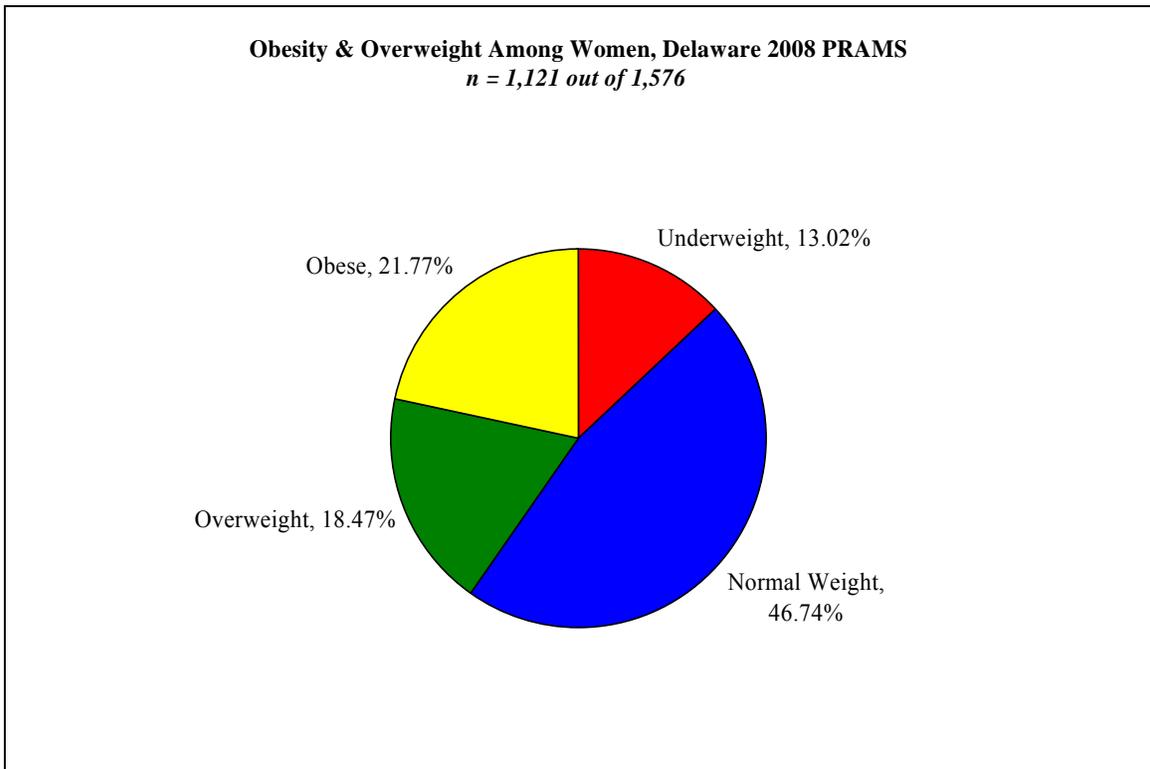


Figure 24: Obesity & Overweight Among Women, Delaware 2008 PRAMS.<sup>20</sup>

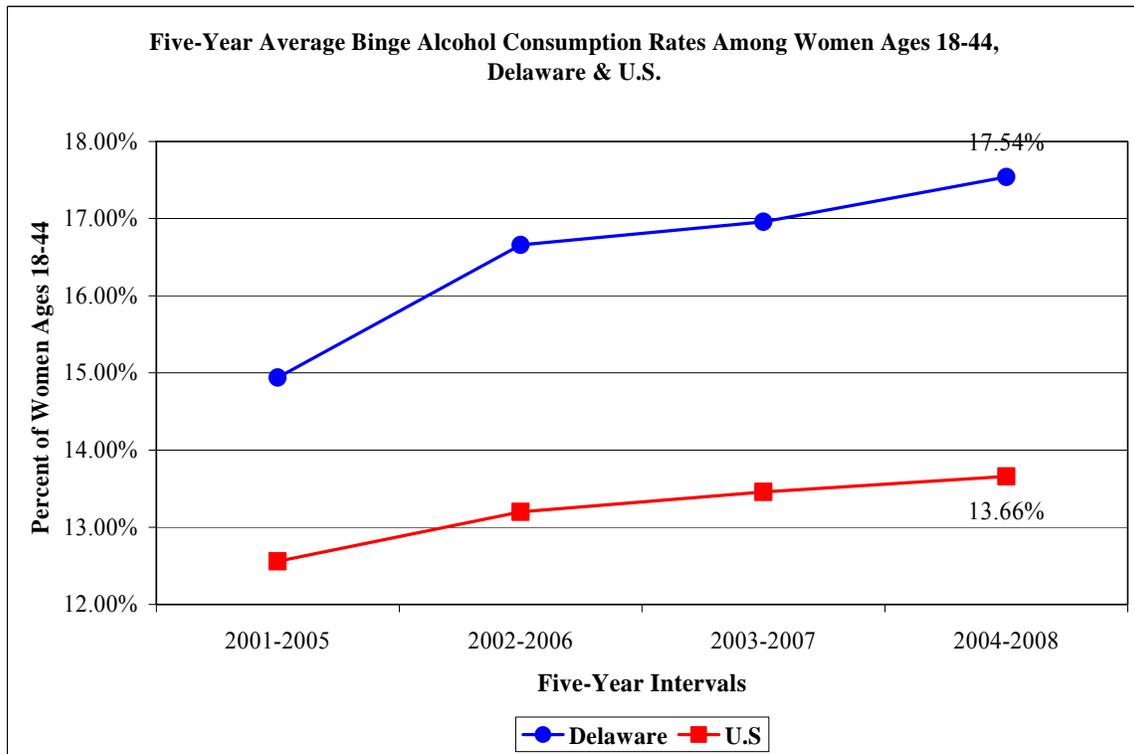


Figure 25: Five-Year Average Binge Alcohol Consumption Rates Among Women Ages 18-44, Delaware & U.S.<sup>43</sup>

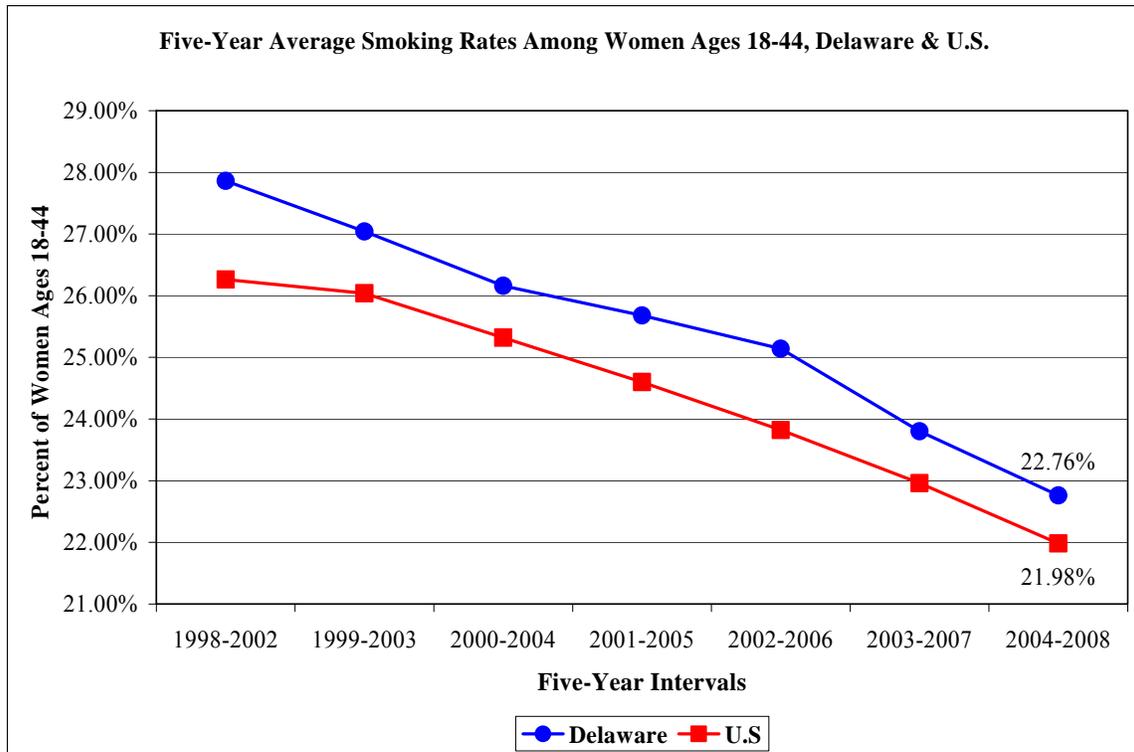


Figure 26: Five-Year Average Smoking Rates Among Women Ages 18-44, Delaware & U.S.<sup>43</sup>

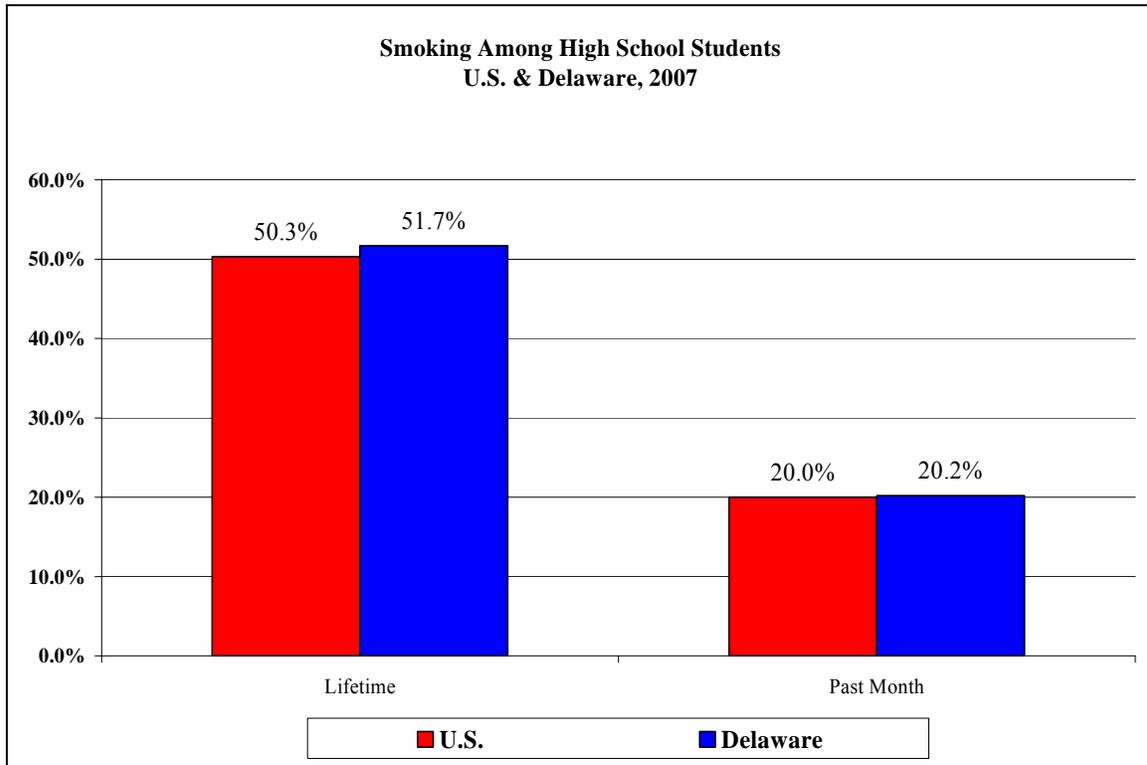


Figure 27: Smoking Among High School Students U.S. & Delaware, 2007.<sup>53</sup>

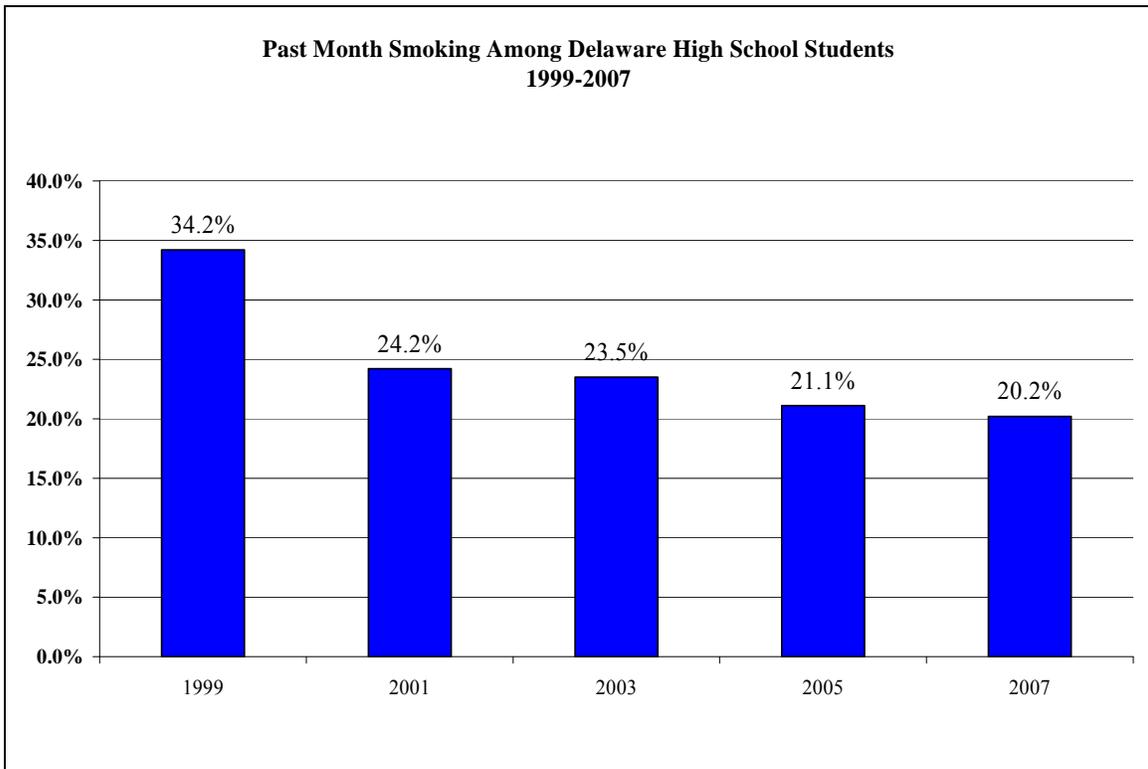


Figure 28: Past Month Smoking Among Delaware High School Students, 1997-2007.<sup>53</sup>

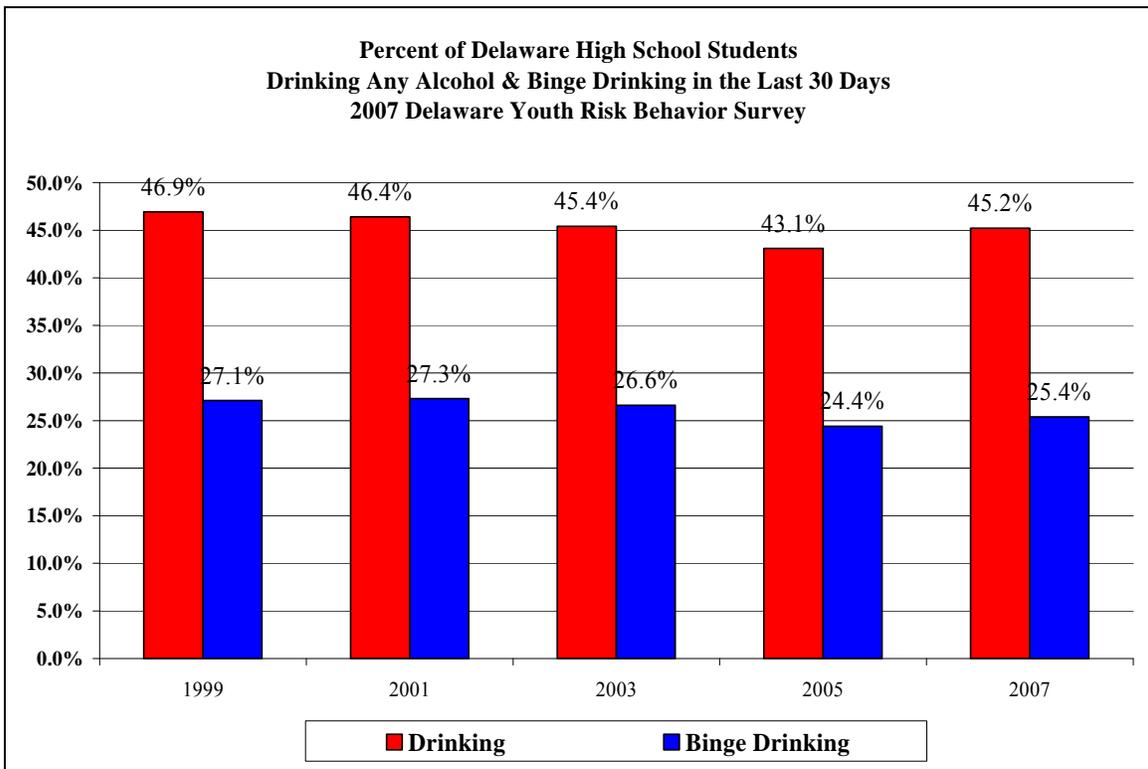


Figure 29: Percentage of Delaware High School Students Drinking Any Alcohol & Binge Drinking in the Last 30 Days.<sup>53</sup>

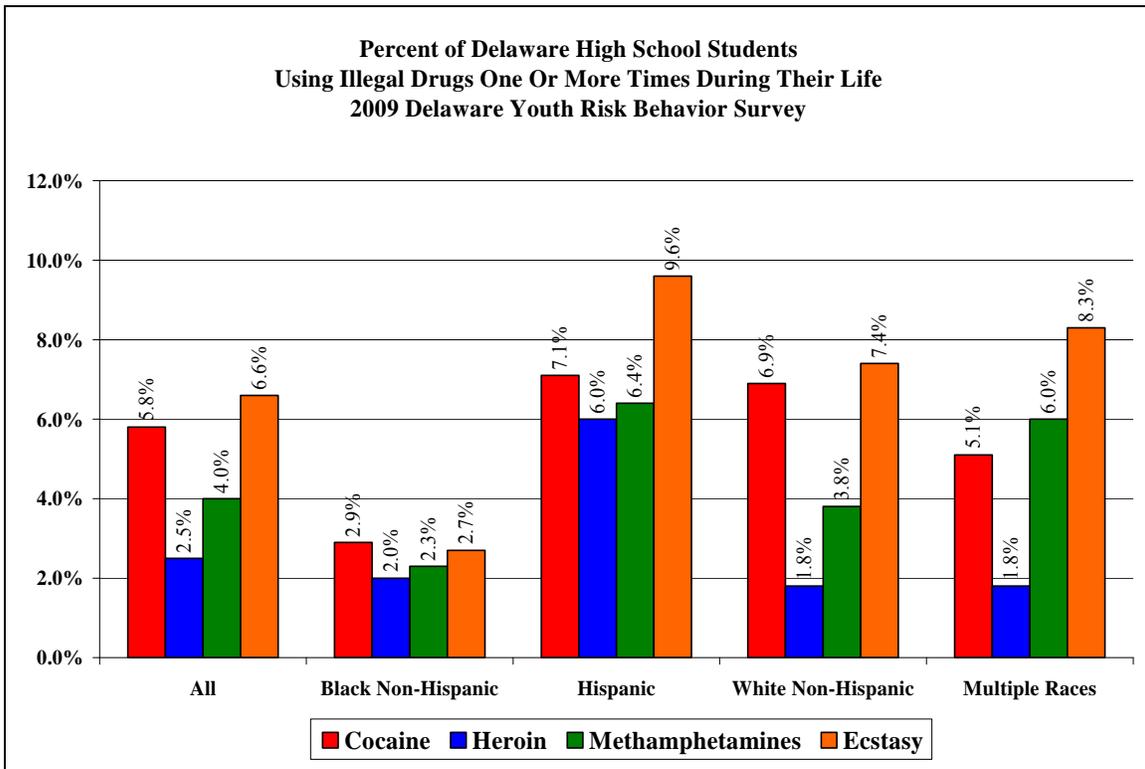


Figure 30: Percentage of Delaware High School Students Using Illegal Drugs One Or More Times During Their Life.<sup>53</sup>

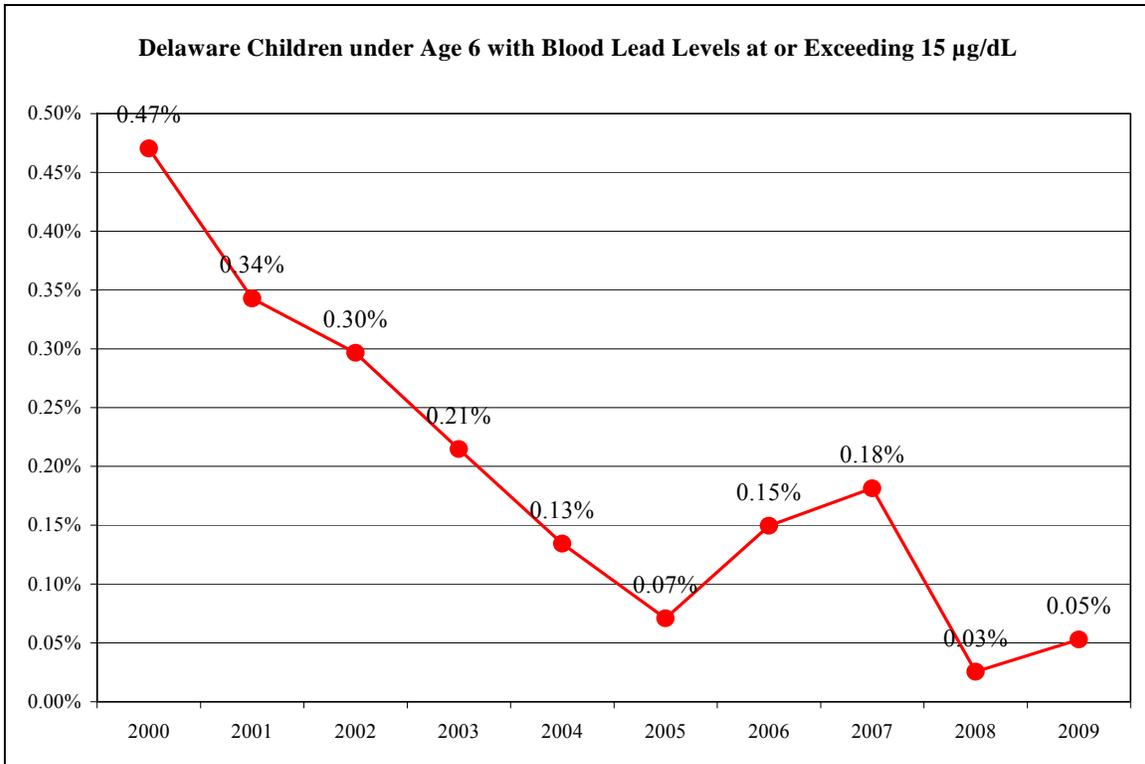
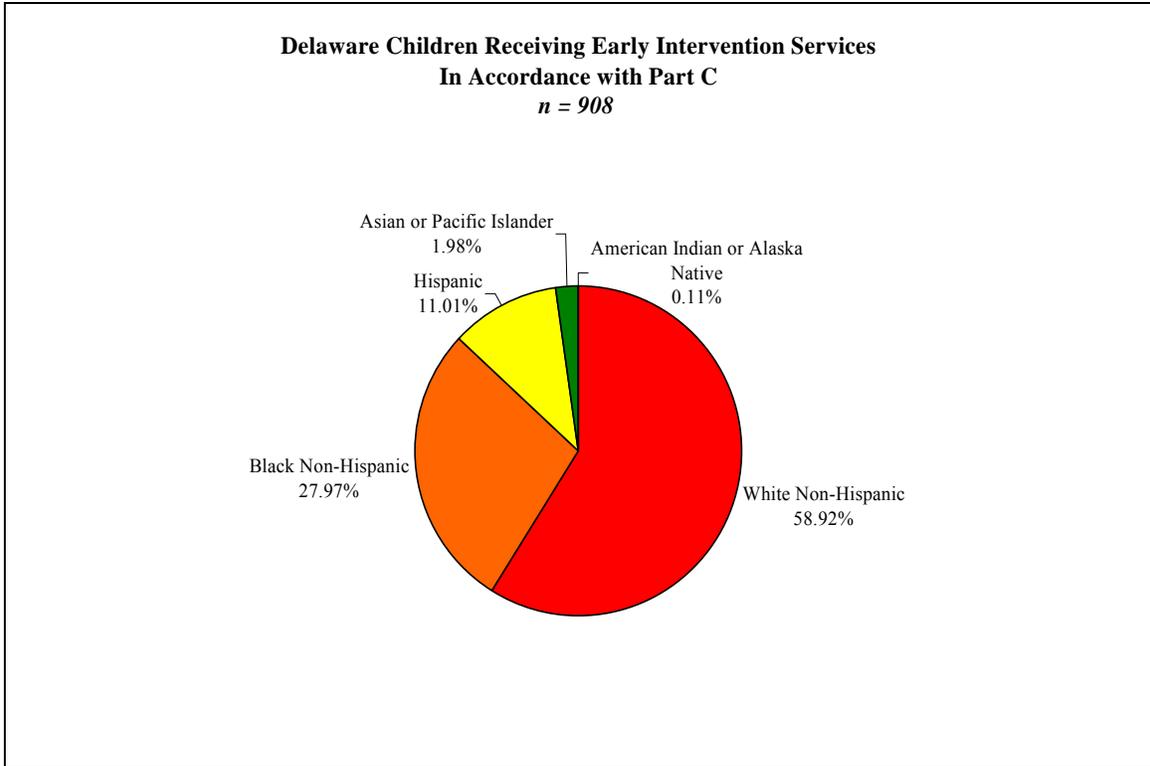
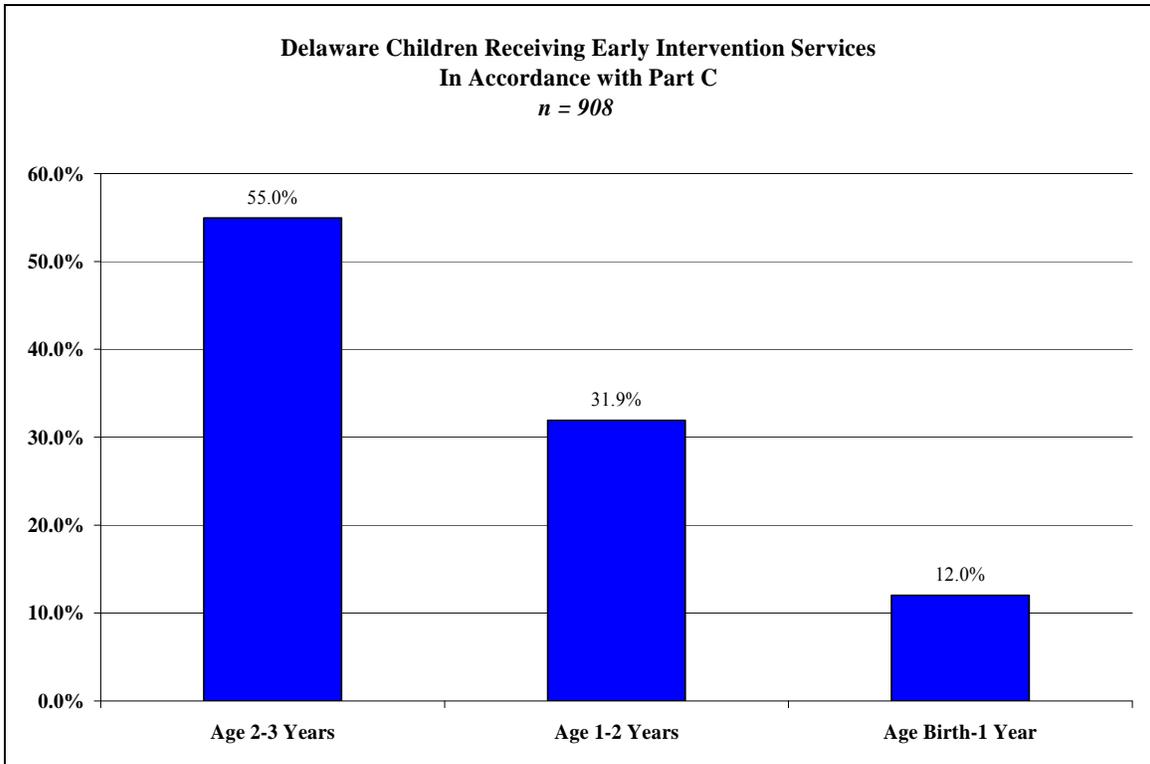


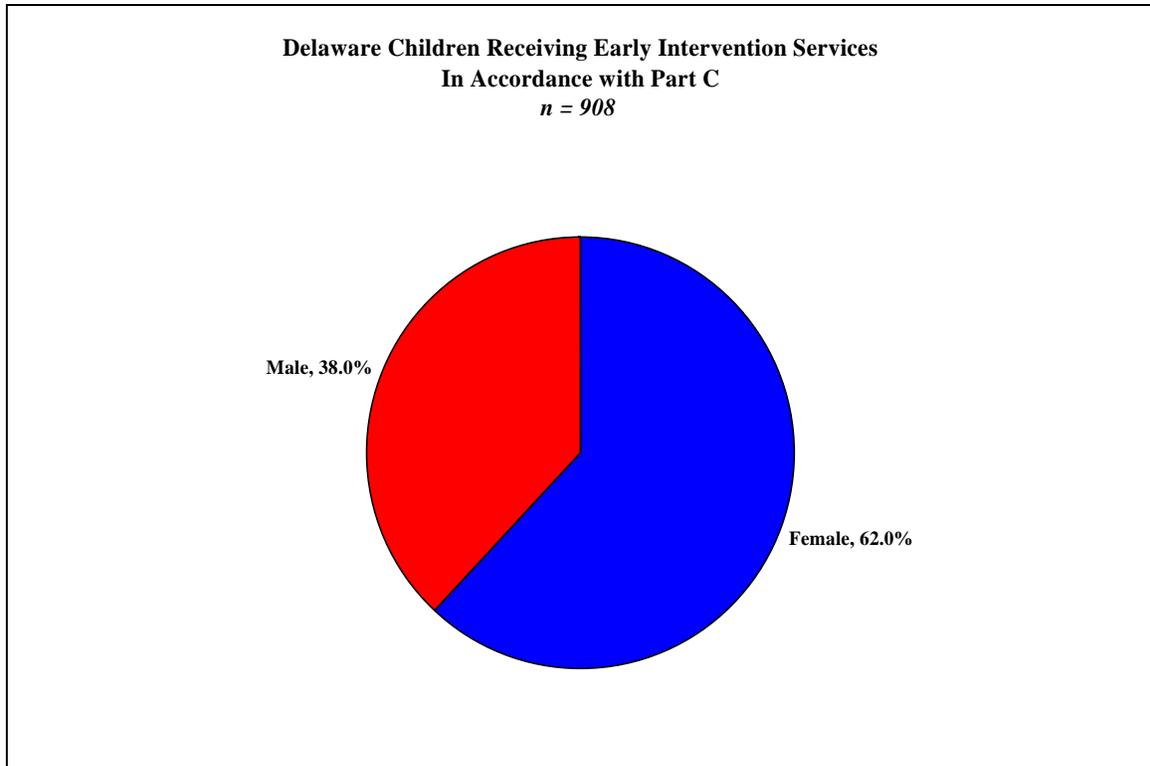
Figure 31: Delaware Children under Age 6 with Blood Lead Levels at or Exceeding 15 µg/dL.<sup>74</sup>



**Figure 32: Delaware Children Receiving Early Intervention Services, Race & Ethnicity.<sup>96</sup>**



**Figure 33: Delaware Children Receiving Early Intervention Services, Age.<sup>96</sup>**



**Figure 34: Delaware Children Receiving Early Intervention Services, Gender.<sup>96</sup>**

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Year	Location	Very Low Birth Weight	Low Birth Weight Only	Total Low Birth Weight
		1499 grams or less	1500 grams – 2499 grams	2499 grams or less
1999	Kent	1.78%	6.98%	8.77%
	New Castle	2.07%	6.79%	8.86%
	Sussex	1.51%	5.93%	7.44%
	Delaware	1.92%	6.68%	8.60%
	U.S.	1.45%	6.16%	7.61%
2000	Kent	2.11%	6.44%	8.55%
	New Castle	1.90%	6.76%	8.66%
	Sussex	1.55%	7.12%	8.68%
	Delaware	1.87%	6.77%	8.64%
	U.S.	1.43%	6.14%	7.56%
2001	Kent	1.70%	7.59%	9.29%
	New Castle	1.73%	8.11%	9.84%
	Sussex	1.70%	5.64%	7.34%
	Delaware	1.72%	7.54%	9.27%
	U.S.	1.44%	6.23%	7.67%
2002	Kent	1.96%	7.95%	9.92%
	New Castle	2.01%	8.41%	10.42%
	Sussex	1.85%	6.43%	8.28%
	Delaware	1.97%	7.96%	9.94%
	U.S.	1.46%	6.35%	7.81%
2003	Kent	2.08%	7.26%	9.34%
	New Castle	2.21%	7.65%	9.86%
	Sussex	1.42%	6.63%	8.05%
	Delaware	2.04%	7.39%	9.43%
	U.S.	1.45%	6.48%	7.92%
2004	Kent	1.89%	7.33%	9.22%
	New Castle	1.59%	7.85%	9.43%
	Sussex	1.33%	6.09%	7.42%
	Delaware	1.59%	7.41%	9.00%
	U.S.	1.47%	6.59%	8.07%
2005	Kent	1.99%	7.26%	9.25%
	New Castle	2.23%	7.75%	9.98%
	Sussex	1.72%	6.48%	8.20%
	Delaware	2.09%	7.41%	9.50%
	U.S.	1.49%	6.69%	8.18%
2006	Kent	1.59%	7.48%	9.06%
	New Castle	2.16%	7.51%	9.67%
	Sussex	1.57%	6.55%	8.12%
	Delaware	1.94%	7.31%	9.24%
	U.S.	1.48%	6.77%	8.25%
2007	Kent	1.74%	7.89%	9.63%
	New Castle	1.81%	7.99%	9.80%
	Sussex	1.16%	6.09%	7.25%
	Delaware	1.66%	7.58%	9.24%
	U.S.	N/A	N/A	N/A

Table 1: Very Low Birth Weight & Low Birth Weight Percentages, 1999 – 2007.<sup>6</sup>

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Year	Location	Preterm Birth Percentage (Births <37 Weeks)
1998	Kent	10.53%
	New Castle	13.03%
	Sussex	13.28%
	Delaware	12.63%
	U.S.	11.47%
1999	Kent	11.50%
	New Castle	13.40%
	Sussex	12.24%
	Delaware	12.86%
	U.S.	11.64%
2000	Kent	11.74%
	New Castle	12.83%
	Sussex	12.89%
	Delaware	12.65%
	U.S.	11.51%
2001	Kent	11.79%
	New Castle	13.44%
	Sussex	11.76%
	Delaware	12.83%
	U.S.	11.83%
2002	Kent	13.10%
	New Castle	13.82%
	Sussex	13.39%
	Delaware	13.62%
	U.S.	11.96%
2003	Kent	13.55%
	New Castle	13.54%
	Sussex	14.48%
	Delaware	13.72%
	U.S.	12.20%
2004	Kent	12.76%
	New Castle	13.27%
	Sussex	12.88%
	Delaware	13.11%
	U.S.	12.36%
2005	Kent	12.07%
	New Castle	14.42%
	Sussex	14.46%
	Delaware	13.99%
	U.S.	12.64%
2006	Kent	12.87%
	New Castle	13.68%
	Sussex	14.46%
	Delaware	13.69%
	U.S.	12.73%

Table 2: Preterm Birth Percentages, 1998 – 2006.<sup>6</sup>

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		1998	1999	2000	2001	2002	2003	2004	2005
<b>Delaware</b>	Black	1.49%	1.51%	0.78%	1.34%	1.22%	0.72%	0.79%	0.54%
	Hispanic	0.78%	0.35%	0.39%	0.37%	0.39%	0.15%	0.33%	0.18%
	White	1.50%	1.45%	0.92%	0.85%	0.99%	0.70%	1.05%	1.09%
	<b>Total</b>	<b>1.45%</b>	<b>1.37%</b>	<b>0.83%</b>	<b>0.92%</b>	<b>0.97%</b>	<b>0.63%</b>	<b>0.88%</b>	<b>0.81%</b>
<b>Kent</b>	Black	0.90%	1.69%	0.00%	0.65%	1.08%	0.37%	0.00%	0.38%
	Hispanic	1.35%	1.20%	0.00%	0.96%	0.00%	0.00%	0.71%	0.00%
	White	0.85%	1.24%	0.69%	0.48%	0.49%	0.45%	0.24%	0.36%
	<b>Total</b>	<b>0.89%</b>	<b>1.35%</b>	<b>0.49%</b>	<b>0.55%</b>	<b>0.61%</b>	<b>0.41%</b>	<b>0.21%</b>	<b>0.34%</b>
<b>New Castle</b>	Black	1.66%	1.58%	0.94%	1.63%	1.22%	0.93%	1.15%	0.65%
	Hispanic	0.80%	0.19%	0.61%	0.44%	0.37%	0.12%	0.34%	0.21%
	White	1.68%	1.17%	0.95%	1.10%	1.24%	0.87%	1.42%	1.56%
	<b>Total</b>	<b>1.61%</b>	<b>1.20%</b>	<b>0.92%</b>	<b>1.17%</b>	<b>1.13%</b>	<b>0.79%</b>	<b>1.20%</b>	<b>1.11%</b>
<b>Sussex</b>	Black	1.46%	1.00%	0.98%	0.92%	1.41%	0.24%	0.22%	0.23%
	Hispanic	0.51%	0.44%	0.00%	0.00%	0.52%	0.26%	0.21%	0.19%
	White	1.57%	2.69%	1.06%	0.40%	0.66%	0.41%	0.73%	0.49%
	<b>Total</b>	<b>1.43%</b>	<b>2.02%</b>	<b>0.89%</b>	<b>0.46%</b>	<b>0.77%</b>	<b>0.35%</b>	<b>0.51%</b>	<b>0.37%</b>

Table 3: Alcohol Consumption Among Pregnant Women, 1998 – 2005.<sup>13</sup>

	1998	1999	2000	2001	2002	2003	2004	2005
Between 1 and 7	111	114	77	85	86	60	92	76
	1.07%	1.10%	0.71%	0.81%	0.79%	0.55%	0.85%	0.69%
Greater Than 7	23	5	2	2	5	2	1	1
	0.22%	0.05%	0.02%	0.02%	0.05%	0.02%	0.01%	0.01%
None	10225	10290	10739	10430	10742	10763	10774	10996
	98.71%	98.86%	99.27%	99.17%	99.16%	99.43%	99.14%	99.30%
<b>Total</b>	<b>10359</b>	<b>10409</b>	<b>10818</b>	<b>10517</b>	<b>10833</b>	<b>10825</b>	<b>10867</b>	<b>11073</b>

Table 4: Average Number of Alcoholic Beverages Consumed Weekly by Pregnant Women, Delaware 1998 – 2005.<sup>13</sup>

	3 Months Before Pregnancy	Last 3 Months of Pregnancy
<b>No Alcohol Consumed</b>	152	675
	19.74%	80.26%
<b>Alcohol Consumed</b>	613	90
	87.66%	12.34%
<b>Total</b>	<b>1576</b>	<b>1576</b>

Table 5: PRAMS Alcohol Consumption, Delaware 2008.<sup>20</sup>

	3 Months Before Pregnancy	Last 3 Months of Pregnancy
<b>No Binge Alcohol Consumption</b>	167	685
	21.69%	88.96%
<b>Binge Alcohol Consumption</b>	594	80
	78.31%	11.04%
<b>Total</b>	<b>1576</b>	<b>1576</b>

Table 6: PRAMS Binge Alcohol Consumption, Delaware 2008.<sup>20</sup>

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		1999	2000	2001	2002	2003	2004	2005	2006
<b>U.S.</b>	Black	8.74%	8.59%	8.58%	8.28%	7.46%	6.16%	5.47%	2.68%
	Hispanic	2.49%	2.36%	2.22%	2.11%	1.80%	1.52%	1.09%	0.78%
	White	14.47%	14.29%	14.31%	13.80%	12.19%	9.51%	8.37%	5.86%
	Total	11.12%	10.84%	10.70%	10.24%	9.00%	7.04%	6.08%	4.03%
<b>Delaware</b>	Black	11.33%	13.28%	12.41%	12.15%	10.32%	11.77%	10.27%	8.53%
	Hispanic	4.36%	5.62%	4.00%	4.10%	2.88%	2.86%	3.35%	2.85%
	White	14.74%	14.68%	15.62%	15.78%	14.53%	14.74%	15.17%	12.38%
	Total	13.00%	13.45%	13.56%	13.41%	11.93%	12.27%	12.09%	9.76%
<b>Kent</b>	Black	11.18%	14.10%	12.17%	13.88%	11.96%	12.18%	9.00%	9.58%
	Hispanic	4.82%	4.44%	8.65%	11.32%	7.27%	12.14%	9.49%	10.24%
	White	17.17%	18.84%	20.42%	19.00%	19.19%	20.24%	17.11%	16.68%
	Total	15.08%	16.98%	17.65%	17.23%	16.57%	17.49%	14.47%	14.32%
<b>New Castle</b>	Black	11.96%	14.24%	13.17%	12.48%	10.17%	12.29%	11.17%	7.35%
	Hispanic	5.03%	7.50%	4.27%	4.34%	2.70%	2.13%	3.30%	2.56%
	White	13.22%	12.56%	13.44%	13.56%	12.30%	12.92%	13.72%	8.93%
	Total	12.21%	12.50%	12.39%	12.15%	10.47%	11.26%	11.45%	7.36%
<b>Sussex</b>	Black	8.77%	8.33%	9.66%	8.19%	8.87%	9.17%	7.99%	12.75%
	Hispanic	2.63%	1.47%	1.72%	1.57%	2.06%	1.49%	1.56%	1.25%
	White	17.64%	17.64%	17.78%	19.88%	16.60%	14.75%	17.41%	17.28%
	Total	13.72%	13.35%	13.61%	14.18%	12.18%	10.69%	11.75%	12.55%

Table 7: Cigarette Smoking/Tobacco Use Among Pregnant Women, 1999 – 2006.<sup>6,13</sup>

	3 Months Before Pregnancy	Last 3 Months of Pregnancy
<b>Did Not Use Cigarettes/Tobacco</b>	19	151
	6.01%	47.34%
<b>Used Cigarettes/Tobacco</b>	297	168
	93.99%	52.66%
<b>Total</b>	316	319

Table 8: PRAMS Cigarette Smoking/Tobacco Use Among Pregnant Women With A History of Cigarette Smoking/Tobacco Use, Delaware 2008.<sup>20</sup>

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
<b>Delaware</b>	16.3%	15.0%	13.4%	18.0%	14.9%	20.4%	18.9%	21.8%	23.0%	24.6%	25.3%
<b>U.S</b>	15.3%	15.2%	16.4%	17.6%	17.8%	19.2%	20.2%	21.4%	21.7%	23.6%	23.7%

Table 9: Obesity Rates Among Women Ages 18-44, Delaware & U.S.<sup>43</sup>

	2001	2002	2003	2004	2005	2006	2007	2008
<b>Delaware</b>	11.7%	16.4%	14.2%	16.3%	16.1%	20.3%	17.9%	17.1%
<b>U.S</b>	12.3%	13.3%	13.8%	12.0%	11.4%	15.5%	14.6%	14.8%

Table 10: Binge Alcohol Consumption Rates Among Women Ages 18-44, Delaware & U.S.<sup>43</sup>

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
<b>Delaware</b>	26.6%	30.1%	25.9%	27.2%	29.5%	22.5%	25.7%	23.5%	24.5%	22.8%	17.3%
<b>U.S</b>	26.0%	26.4%	27.1%	26.3%	25.5%	24.9%	22.8%	23.5%	22.4%	21.2%	20.0%

Table 11: Smoking Rates Among Women Ages 18-44, Delaware & U.S.<sup>43</sup>

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	Ages 1-4		Ages 5-9		Ages 10-14		Ages 15-19		Total	
<b>Fall</b>	196	38.28%	186	47.45%	141	30.26%	111	14.66%	634	29.81%
<b>Motor Vehicle Traffic</b>	42	8.20%	71	18.11%	104	22.32%	406	53.63%	623	29.29%
<b>All Other Injuries</b>	45	8.79%	34	8.67%	52	11.16%	73	9.64%	204	9.59%
<b>Struck By, Against</b>	24	4.69%	25	6.38%	58	12.45%	51	6.74%	158	7.43%
<b>Poisoning</b>	71	13.87%	12	3.06%	0	0.00%	25	3.30%	108	5.08%
<b>Other Classifiable</b>	66	12.89%	24	6.12%	17	3.65%	0	0.00%	107	5.03%
<b>Transport, Other</b>	0	0.00%	12	3.06%	31	6.65%	48	6.34%	91	4.28%
<b>Pedal Cyclist, Other</b>	0	0.00%	28	7.14%	33	7.08%	0	0.00%	61	2.87%
<b>Overexertion</b>	0	0.00%	0	0.00%	15	3.22%	20	2.64%	35	1.65%
<b>Suffocation</b>	32	6.25%	0	0.00%	0	0.00%	0	0.00%	32	1.50%
<b>Cut/Pierce</b>	0	0.00%	0	0.00%	0	0.00%	23	3.04%	23	1.08%
<b>Unspecified</b>	19	3.71%	0	0.00%	0	0.00%	0	0.00%	19	0.89%
<b>Fire/burn</b>	17	3.32%	0	0.00%	0	0.00%	0	0.00%	17	0.80%
<b>Natural Environment</b>	0	0.00%	0	0.00%	15	3.22%	0	0.00%	15	0.71%
<b>Total</b>	<b>512</b>		<b>392</b>		<b>466</b>		<b>757</b>		<b>2127</b>	

Table 12: Hospitalizations by Injury by Age, Delaware 2002-2005.<sup>48</sup>

	2003		2004		2005		2006		2007		Total	
<b>Accidents</b>	27	15.79%	39	21.55%	26	16.05%	33	20.50%	25	17.99%	150	18.43%
<b>Motor Vehicle</b>	20	11.70%	28	15.47%	19	11.73%	22	13.66%	15	10.79%	104	12.78%
<b>Other Accident</b>	7	4.09%	11	6.08%	6	3.70%	11	6.83%	8	5.76%	43	5.28%
<b>Suicide</b>	7	4.09%	3	1.66%	3	1.85%	8	4.97%	5	3.60%	26	3.19%
<b>Homicide</b>	6	3.51%	9	4.97%	8	4.94%	6	3.73%	7	5.04%	36	4.42%
<b>Total (All)</b>	<b>171</b>		<b>181</b>		<b>162</b>		<b>161</b>		<b>139</b>		<b>814</b>	

Table 13: Injuries Resulting in Mortality in Delaware, Children Ages 1-19.<sup>1</sup>

	2003	2004	2005	2006	2007	Total
<b>Accidents</b>	27	39	26	33	25	150
<b>Population Ages 1-19</b>	219687	221881	223704	225091	226665	1117028
<b>Rate per 100,000</b>	12.29	17.58	11.62	14.66	11.03	13.43

Table 14: Accidents Resulting in Death per 100,000 in Delaware, Children Ages 1-19.<sup>1</sup>

	Ages 1-4	Ages 5-9	Ages 10-14	Ages 15-19
<b>Motor Vehicle Traffic Injuries, 2002-2005</b>	42	71	104	406
<b>Population, 2002-2005</b>	217266	212651	230787	222987
<b>Rate Per 100,000</b>	19.33	33.39	45.06	182.07

Table 15: Motor Vehicle Injury Hospitalization Rates, Delaware 2002-2005.<sup>48</sup>

	2003	2004	2005	2006	2007	Total
<b>Accidents</b>	20	28	19	22	15	104
<b>Population Ages 1-19</b>	219687	221881	223704	225091	226665	1117028
<b>Rate per 100,000</b>	9.10	12.62	8.49	9.77	6.62	9.31

Table 16: Motor Vehicle-Related Injuries Resulting in Death per 100,000 in Delaware, Children Ages 1-19.<sup>1</sup>

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Age	Total	Male	Female
<b>Total</b>	15.8%	14.8%	16.8%
<b>15 or younger</b>	15.0%	15.7%	14.4%
<b>16 or 17</b>	15.8%	15.0%	16.7%
<b>18 or older</b>	16.9%	12.7%	21.9%

**Table 17: Percentage of Students by Age Who Were Overweight, Delaware 2009 YRBS.<sup>53</sup>**

Race/Ethnicity	Total	Male	Female
<b>Total</b>	15.8%	14.8%	16.8%
<b>Black Non-Hispanic</b>	18.4%	16.4%	20.3%
<b>Hispanic</b>	19.4%	14.8%	23.9%
<b>White Non-Hispanic</b>	13.3%	13.0%	13.7%
<b>Multiple Races</b>	19.7%	N/A	N/A

**Table 18: Percentage of Students by Race/Ethnicity Who Were Overweight, Delaware 2009 YRBS.<sup>53</sup>**

Age	Total	Male	Female
<b>Total</b>	13.7%	15.3%	11.8%
<b>15 or younger</b>	16.6%	19.6%	13.5%
<b>16 or 17</b>	11.9%	13.2%	10.4%
<b>18 or older</b>	13.3%	13.7%	12.8%

**Table 19: Percentage of Students by Age Who Were Obese, Delaware 2009 YRBS.<sup>53</sup>**

Race/Ethnicity	Total	Male	Female
<b>Total</b>	13.7%	15.3%	11.8%
<b>Black Non-Hispanic</b>	16.5%	15.8%	17.2%
<b>Hispanic</b>	16.2%	19.2%	13.2%
<b>White Non-Hispanic</b>	11.2%	14.7%	7.2%
<b>Multiple Races</b>	22.3%	N/A	N/A

**Table 20: Percentage of Students by Race/Ethnicity Who Were Obese, Delaware 2009 YRBS.<sup>53</sup>**

Age	Total	Male	Female
<b>Total</b>	47.7%	44.8%	50.6%
<b>15 or younger</b>	40.7%	33.8%	47.3%
<b>16 or 17</b>	49.9%	49.4%	50.4%
<b>18 or older</b>	55.6%	53.3%	58.1%

**Table 21: Percentage of Students by Age Who Tried Cigarette Smoking, Delaware 2009 YRBS.<sup>53</sup>**

Race/Ethnicity	Total	Male	Female
<b>Total</b>	47.7%	44.8%	50.6%
<b>Black Non-Hispanic</b>	45.0%	42.7%	47.3%
<b>Hispanic</b>	55.0%	53.4%	56.3%
<b>White Non-Hispanic</b>	48.8%	44.6%	53.6%
<b>Multiple Races</b>	44.7%	N/A	N/A

**Table 22: Percentage of Students by Race/Ethnicity Who Tried Cigarette Smoking, Delaware 2009 YRBS.<sup>53</sup>**

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Age	Total	Male	Female
<b>Total</b>	19.0%	18.7%	19.1%
<b>15 or younger</b>	15.2%	11.3%	18.4%
<b>16 or 17</b>	19.6%	21.2%	17.9%
<b>18 or older</b>	25.0%	26.0%	24.0%

**Table 23: Percentage of Students by Age Who Smoked At Least One Cigarette in Last 30 Days, Delaware 2009 YRBS.<sup>53</sup>**

Race/Ethnicity	Total	Male	Female
<b>Total</b>	19.0%	18.7%	19.1%
<b>Black Non-Hispanic</b>	12.9%	13.1%	12.7%
<b>Hispanic</b>	19.0%	21.3%	16.2%
<b>White Non-Hispanic</b>	23.2%	22.2%	24.4%
<b>Multiple Races</b>	16.6%	N/A	N/A

**Table 24: Percentage of Students by Race/Ethnicity Who Smoked At Least One Cigarette in Last 30 Days, Delaware 2009 YRBS.<sup>53</sup>**

Age	Total	Male	Female
<b>Total</b>	11.9%	10.9%	12.7%
<b>15 or younger</b>	8.1%	6.3%	9.2%
<b>16 or 17</b>	12.4%	11.2%	13.5%
<b>18 or older</b>	17.9%	18.4%	17.4%

**Table 25: Percentage of Students by Age Who Smoked At Least One Cigarette Every Day in Last 30 Days, Delaware 2009 YRBS.<sup>53</sup>**

Race/Ethnicity	Total	Male	Female
<b>Total</b>	11.9%	10.9%	12.7%
<b>Black Non-Hispanic</b>	5.7%	6.6%	4.8%
<b>Hispanic</b>	10.5%	11.3%	8.8%
<b>White Non-Hispanic</b>	16.4%	14.1%	19.0%
<b>Multiple Races</b>	8.4%	N/A	N/A

**Table 26: Percentage of Students by Race/Ethnicity Who Smoked At Least One Cigarette Every Day in Last 30 Days, Delaware 2009 YRBS.<sup>53</sup>**

Age	Total	Male	Female
<b>Total</b>	6.8%	10.4%	2.8%
<b>15 or younger</b>	5.1%	6.8%	2.8%
<b>16 or 17</b>	7.3%	11.9%	2.2%
<b>18 or older</b>	8.5%	12.6%	4.1%

**Table 27: Percentage of Students by Age Who Used Chewing Tobacco, Snuff, or Dip in Last 30 Days, Delaware 2009 YRBS.<sup>53</sup>**

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Race/Ethnicity	Total	Male	Female
Total	6.8%	10.4%	2.8%
Black Non-Hispanic	1.8%	3.2%	0.5%
Hispanic	7.8%	8.7%	4.7%
White Non-Hispanic	9.5%	15.2%	3.4%
Multiple Races	2.8%	N/A	N/A

Table 28: Percentage of Students by Race/Ethnicity Who Used Chewing Tobacco, Snuff, or Dip in Last 30 Days, Delaware 2009 YRBS.<sup>53</sup>

Age	Total	Male	Female
Total	71.0%	68.5%	73.7%
15 or younger	64.0%	57.2%	70.5%
16 or 17	74.1%	72.3%	76.1%
18 or older	76.4%	79.5%	73.0%

Table 29: Percentage of Students by Age Who Had At Least One Drink of Alcohol, Delaware 2009 YRBS.<sup>53</sup>

Race/Ethnicity	Total	Male	Female
Total	71.0%	68.5%	73.7%
Black Non-Hispanic	64.2%	62.7%	65.6%
Hispanic	74.9%	71.2%	78.2%
White Non-Hispanic	75.4%	73.4%	77.8%
Multiple Races	74.9%	N/A	N/A

Table 30: Percentage of Students by Race/Ethnicity Who Had At Least One Drink of Alcohol, Delaware 2009 YRBS.<sup>53</sup>

Age	Total	Male	Female
Total	23.5%	23.6%	23.0%
15 or younger	27.9%	24.3%	30.8%
16 or 17	21.4%	24.5%	17.9%
18 or older	20.1%	19.3%	20.9%

Table 31: Percentage of Students by Age Who Had Their First Drink of Alcohol (Other Than A Few Sips) Before Age 13 Years, Delaware 2009 YRBS.<sup>53</sup>

Race/Ethnicity	Total	Male	Female
Total	23.5%	23.6%	23.0%
Black Non-Hispanic	21.6%	20.7%	22.4%
Hispanic	33.9%	36.2%	30.6%
White Non-Hispanic	22.0%	23.2%	20.6%
Multiple Races	26.5%	N/A	N/A

Table 32: Percentage of Students by Race/Ethnicity Who Had Their First Drink of Alcohol (Other Than A Few Sips) Before Age 13 Years, Delaware 2009 YRBS.<sup>53</sup>

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Age	Total	Male	Female
<b>Total</b>	43.7%	41.3%	46.2%
<b>15 or younger</b>	36.0%	27.8%	43.7%
<b>16 or 17</b>	46.0%	45.5%	46.7%
<b>18 or older</b>	53.2%	56.1%	50.1%

**Table 33: Percentage of Students by Age Who Had At Least One Drink of Alcohol in Last 30 Days, Delaware 2009 YRBS.<sup>53</sup>**

Race/Ethnicity	Total	Male	Female
<b>Total</b>	43.7%	41.3%	46.2%
<b>Black Non-Hispanic</b>	38.5%	35.8%	40.9%
<b>Hispanic</b>	44.8%	39.9%	48.4%
<b>White Non-Hispanic</b>	49.0%	46.4%	52.1%
<b>Multiple Races</b>	38.8%	N/A	N/A

**Table 34: Percentage of Students by Race/Ethnicity Who Had At Least One Drink of Alcohol in Last 30 Days, Delaware 2009 YRBS.<sup>53</sup>**

Age	Total	Male	Female
<b>Total</b>	23.7%	24.7%	22.6%
<b>15 or younger</b>	17.8%	15.0%	20.1%
<b>16 or 17</b>	25.3%	26.8%	23.8%
<b>18 or older</b>	31.3%	37.9%	24.1%

**Table 35: Percentage of Students by Age Who Had Five Or More Drinks of Alcohol Within A Couple Hours in Last 30 Days, Delaware 2009 YRBS.<sup>53</sup>**

Race/Ethnicity	Total	Male	Female
<b>Total</b>	23.7%	24.7%	22.6%
<b>Black Non-Hispanic</b>	15.6%	18.2%	13.2%
<b>Hispanic</b>	25.6%	26.2%	24.4%
<b>White Non-Hispanic</b>	28.7%	28.2%	29.3%
<b>Multiple Races</b>	22.3%	N/A	N/A

**Table 36: Percentage of Students by Race/Ethnicity Who Had Five Or More Drinks of Alcohol Within A Couple Hours in Last 30 Days, Delaware 2009 YRBS.<sup>53</sup>**

	2004	2005	2006	2007	2008
<b>Delaware</b>					
Victims	1581	1960	1933	2116	2278
Child Population	199309	201872	203461	205038	206229
Rate Per 1,000	7.93	9.71	9.50	10.32	11.05
<b>U.S.</b>					
Victims	877120	900642	885681	751038	758289
Child Population	72980124	74410211	73244985	71065917	73583538
Rate Per 1,000	12.02	12.10	12.09	10.57	10.31

**Table 37: Child Maltreatment Victimization Rates, Delaware & U.S.<sup>63</sup>**

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	Black Non-Hispanic		Hispanic		White Non-Hispanic		Total
<b>Delaware</b>							
Victims	1084	47.61%	274	12.03%	864	37.94%	2277
Child Population	49668	24.08%	23385	11.34%	120484	58.42%	206229
Rate Per 1,000	21.82		11.72		7.17		11.04
<b>U.S.</b>							
Victims	160243	23.53%	151941	22.31%	329776	48.42%	681140
Child Population	9669958	14.11%	15571271	22.72%	38127964	55.64%	68527760
Rate Per 1,000	16.57		9.76		8.65		9.94

Table 38: Child Maltreatment Victimization Rates & Percentages by Race, 2008.<sup>63</sup>

	Medical Neglect	Neglect	Physical Abuse	Psychological Maltreatment	Sexual Abuse	Other
<b>Delaware</b>						
Victims	24	959	409	634	201	208
Total	2278	2278	2278	2278	2278	2278
Percent	1.05%	42.10%	17.95%	27.83%	8.82%	9.13%
<b>U.S.</b>						
Victims	16783	539322	122350	55196	69184	68498
Total	758289	758289	758289	758289	758289	758289
Percent	2.21%	71.12%	16.14%	7.28%	9.12%	9.03%

Table 39: Child Maltreatment Types for Victims, 2008.<sup>63</sup>

	2003	2004	2005	2006	2007	Total
Cancer Mortality	5	8	5	6	3	27
Population Ages 1-19	219687	221881	223704	225091	226665	1117028
Rate per 100,000	2.28	3.61	2.24	2.67	1.32	2.42

Table 40: Mortality from Cancer per 100,000 in Delaware, Children Ages 1-19.<sup>1</sup>

Age	Total	Male	Female
Total	42.8%	43.5%	42.0%
15 or younger	30.4%	28.5%	31.8%
16 or 17	46.3%	46.9%	45.8%
18 or older	58.6%	63.9%	52.8%

Table 41: Percentage of Students by Age Who Used Marijuana One or More Times During Their Life, Delaware 2009 YRBS.<sup>53</sup>

Race/Ethnicity	Total	Male	Female
Total	42.8%	43.5%	42.0%
Black Non-Hispanic	43.5%	46.1%	41.1%
Hispanic	46.5%	50.1%	43.3%
White Non-Hispanic	43.3%	42.9%	44.0%
Multiple Races	40.5%	N/A	N/A

Table 42: Percentage of Students by Race/Ethnicity Who Used Marijuana One or More Times During Their Life, Delaware 2009 YRBS.<sup>53</sup>

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Age	Total	Male	Female
<b>Total</b>	11.4%	14.2%	8.5%
<b>15 or younger</b>	12.4%	13.7%	11.1%
<b>16 or 17</b>	9.6%	13.4%	5.7%
<b>18 or older</b>	14.4%	17.2%	11.3%

**Table 43: Percentage of Students by Age Who Tried Marijuana For The First Time Before Age 13 Years, Delaware 2009 YRBS.<sup>53</sup>**

Race/Ethnicity	Total	Male	Female
<b>Total</b>	11.4%	14.2%	8.5%
<b>Black Non-Hispanic</b>	11.2%	15.2%	7.2%
<b>Hispanic</b>	14.0%	13.6%	14.6%
<b>White Non-Hispanic</b>	11.1%	14.7%	7.4%
<b>Multiple Races</b>	10.8%	N/A	N/A

**Table 44: Percentage of Students by Race/Ethnicity Who Tried Marijuana For The First Time Before Age 13 Years, Delaware 2009 YRBS.<sup>53</sup>**

Age	Total	Male	Female
<b>Total</b>	25.8%	26.7%	24.7%
<b>15 or younger</b>	18.0%	15.6%	19.7%
<b>16 or 17</b>	28.0%	30.1%	25.8%
<b>18 or older</b>	35.6%	38.8%	32.1%

**Table 45: Percentage of Students by Age Who Used Marijuana One Or More Times During In Last 30 Days, Delaware 2009 YRBS.<sup>53</sup>**

Race/Ethnicity	Total	Male	Female
<b>Total</b>	25.8%	26.7%	24.7%
<b>Black Non-Hispanic</b>	25.8%	28.4%	23.2%
<b>Hispanic</b>	24.2%	26.5%	21.5%
<b>White Non-Hispanic</b>	27.2%	27.4%	27.1%
<b>Multiple Races</b>	22.2%	N/A	N/A

**Table 46: Percentage of Students by Race/Ethnicity Who Used Marijuana One Or More Times During In Last 30 Days, Delaware 2009 YRBS.<sup>53</sup>**

	2007		2008		2009	
	Chlamydia	Gonorrhea	Chlamydia	Gonorrhea	Chlamydia	Gonorrhea
<b>All Races</b>	22.16	5.59	24.91	4.89	29.27	4.63

**Table 47: Cases per 1,000 of Chlamydia and Gonorrhea for Teens Ages 15-19, Delaware 2007-2009.<sup>80</sup>**

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	2007				2008				2009			
	Chlamydia		Gonorrhea		Chlamydia		Gonorrhea		Chlamydia		Gonorrhea	
<b>White Non-Hispanic</b>	402	30.6%	75	22.6%	408	27.4%	55	18.8%	469	26.8%	41	14.8%
<b>Black Non-Hispanic</b>	762	58.0%	233	70.2%	905	60.9%	226	77.4%	1,089	62.3%	222	80.1%
<b>Hispanic</b>	80	6.1%	12	3.6%	101	6.8%	4	1.4%	106	6.1%	7	2.5%
<b>Asian/Pacific Islander</b>	4	0.3%	1	0.3%	3	0.2%	1	0.3%	3	0.2%	0	0.0%
<b>American Indian Alaskan Native</b>	1	0.1%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
<b>All Races</b>	1,315		332		1,487		292		1,749		277	

**Table 48: Cases of Chlamydia and Gonorrhea for Teens Ages 15-19, Delaware 2007-2009.<sup>80</sup>**

<b>Sexual Behavior</b>	<b>2001</b>	<b>2003</b>	<b>2005</b>	<b>2007</b>	<b>2009</b>
Percentage of students who ever had sexual intercourse.	52.7%	57.3%	55.1%	59.3%	57.5%
Percentage of students who had sexual intercourse for the first time before age 13 years.	9.6%	11.3%	10.8%	9.6%	9.7%
Percentage of students who had sexual intercourse with four or more people during their life.	16.7%	20.6%	19.1%	21.8%	21.0%
Percentage of students who had sexual intercourse during the past three months.	39.2%	42.7%	39.2%	45.3%	42.9%
Percentage of students who had ever been taught in school about AIDS or HIV infection.	91.2%	92.3%	91.4%	90.4%	88.8%

**Table 49: Sexual Behaviors Among High School Students, Delaware YRBS 2001-2009.<sup>53</sup>**

<b>Sexual Behavior</b>	<b>2001</b>	<b>2003</b>	<b>2005</b>	<b>2007</b>	<b>2009</b>
Among students who had sexual intercourse during the past three months, the percentage who used a condom during last sexual intercourse [Males].	69.8%	71.0%	70.8%	75.9%	69.5%
Among students who had sexual intercourse during the past three months, the percentage who used birth control pills to prevent pregnancy before last sexual intercourse [Females].	24.4%	21.8%	19.2%	19.3%	21.5%

**Table 50: Contraception Use Among High School Students, Delaware YRBS 2001-2009.<sup>53</sup>**

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	2002	2003	2004	2005	2006
<b>Delaware</b>					
15 to 17	25	24	26	23	22
18 to 19	78	78	70	76	68
15 to 19	46	45	44	44	42
<b>U.S.</b>					
15 to 17	23	22	22	21	22
18 to 19	73	71	70	70	73
15 to 19	43	42	41	40	42

Table 51: Teen Births per 1,000 for Teens Ages 15-19.<sup>81</sup>

	1999-2003	2000-2004	2001-2005	2002-2006	2003-2007
White Non-Hispanic	35.9	34.8	34.4	34.8	35.0
Black Non-Hispanic	80.7	76.4	72.3	69.1	67.4
Total	47.1	45.4	44.3	43.6	43.0

Table 52: Teen Births per 1,000 in Delaware by Race/Ethnicity for Teens Ages 15-19.<sup>81</sup>

	Kent	New Castle	Sussex
White Non-Hispanic	36.2	29.9	49.8
Black Non-Hispanic	71.1	61.6	88.1
Total	45.1	37.8	58.6

Table 53: Teen Births Per 1,000 in Delaware by County for Teens Ages 15-19, 2003-2007.<sup>81</sup>

Disease	2005	2006
Haemophilus Influenzae B	174	574
Hepatitis A	1643	1267
Hepatitis B, Acute	530	375
Influenza, Pediatric Mortality (not new cases but deaths)	45	43
Measles	43	21
Meningococcal	712	652
Mumps	193	3736
Pertussis	17426	10021
Pneumococcal, Drug Resistant	497	644
Rubella	3	0
Tetanus	4	8

Table 54: Number of Cases for Selected Diseases, United States 2005-2006, Ages 0 – 24 Years.<sup>84,85</sup>

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Disease	2005	2006	2007
Diphtheria	0	0	0
Haemophilus Influenzae B	0	0	2
Hep A	1	3	4
Hepatitis B, Acute	1	3	5
Hepatitis B, Chronic	12	11	10
Influenza, New Cases	403	412	369
Measles	0	0	0
Meningococcal	2	2	1
Mumps	0	0	1
Pertussis	16	2	9
Pneumococcal, Drug Resistant	1	0	4
Pneumococcal, Non-Drug Resistant	1	2	0
Rubella	0	0	0
Tetanus	0	0	0
Varicella	28	67	36

Table 55: Number of Cases of Selected Diseases, Delaware 2005-2007, Ages 0 – 19 Years.<sup>86</sup>

	2003	2004	2005	2006	2007
Delaware	66.10%	79.90%	81.60%	80.30%	80.30%
U.S.	72.50%	76.00%	76.10%	76.90%	77.40%

Table 56: Percentage of Two-Year-Olds Immunized, 2007.<sup>87</sup>

	2004	2005	2006	2007	2008
Delaware	86.40%	86.70%	88.00%	80.30%	72.00%

Table 57: Percentage of Children Age 19-35 Months Who Are Fully Immunized, Delaware.<sup>87</sup>

	Ages 1-4		Ages 5-14		Ages 15-19	
	Number	Percent	Number	Percent	Number	Percent
Homicide	1	1.7%	5	7.2%	28	14.7%
Suicide	0	0.0%	3	4.3%	23	12.1%
Total Death (All Causes)	58		69		190	

Table 58: Homicide & Suicide by Age Group, Delaware 2003-2007.<sup>1</sup>

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Measure	1999	2001	2003	2005	2007	2009
Percentage of students who carried a weapon such as a gun, knife, or club on one or more of the past 30 days.	15.8%	14.5%	16.0%	16.6%	17.1%	18.5%
Percentage of students who carried a gun on one or more of the past 30 days.	5.0%	4.8%	5.8%	5.4%	6.2%	6.3%
Percentage of students who carried a weapon such as a gun, knife, or club on school property one or more of the past 30 days.	6.2%	5.5%	5.0%	5.7%	5.4%	5.1%
Percentage of students who did not go to school on one or more of the past 30 days because they felt they would be unsafe at school or on their way to or from school.	9.5%	7.2%	4.8%	4.6%	5.3%	6.3%
Percentage of students who had been threatened or injured with a weapon such as a gun, knife, or club on school property one or more times during the past 12 months.	8.2%	8.3%	7.7%	6.2%	5.6%	7.8%
Percentage of students who were in a physical fight one or more times during the past 12 months.	37.6%	34.1%	34.9%	30.3%	33.0%	30.4%
Percentage of students who were in a physical fight one or more times during the past 12 months in which they were injured and had to be treated by a doctor or nurse.	4.2%	4.5%	3.9%	3.3%	4.1%	4.2%
Percentage of students who were in a physical fight on school property one or more times during the past 12 months.	11.6%	11.9%	11.4%	9.8%	10.5%	8.6%

Table 59: Youth Violence Trend Analysis Report, Delaware 2009 YRBS.<sup>53</sup>

Question	% Very Satisfied	% Somewhat Satisfied	% Somewhat or Very Dissatisfied	% Not Needed
Overall, are you very satisfied, somewhat satisfied, somewhat satisfied or very dissatisfied with the communication among your child's doctors and other health care providers?	68.4	24.1	7.4	N/A
Overall, are you very satisfied, somewhat satisfied, somewhat satisfied or very dissatisfied with that communication?	12.4	8.6	4.9	74.2

Table 60A: 2005-2006 National Survey of Children with Special Health Care Needs.<sup>100</sup>

	% Yes	% No
During the past 12 months, have you felt that you could have used extra help arranging or coordinating your child's care among these different health care providers or services.	18.8	81.2

Table 60B: 2005-2006 National Survey of Children with Special Health Care Needs.<sup>100</sup>

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	<b>% Child's Doctor or Staff Help</b>	<b>% Someone Other than Doctor or Staff Help</b>	<b>% Nobody Helps</b>
Does a doctor or someone in a doctor's office provide help arranging or coordinating your child's care?	22.5	7.6	69.8

**Table 610C: 2005-2006 National Survey of Children with Special Health Care Needs.**<sup>100</sup>

	<b>% Not Need Help</b>	<b>% Never/Sometimes Got Help</b>	<b>% Usually Got Help</b>
During the past 12 months, how often did you get as much help as you wanted with arranging or coordinating your child's care?	81.2	16.7	2.2

**Table 60D: 2005-2006 National Survey of Children with Special Health Care Needs.**<sup>100</sup>

<b>Question</b>	<b>% Yes</b>	<b>% No</b>	<b>% No Need</b>	<b>% Discussed</b>
Do any of child's doctors or other health care providers treat only children?	62.7	37.3	n/a	n/a
Have the child's doctors or other health care providers talked to you about having the child eventually see doctors or other health care providers who treat adults? (CYSHCN ages 12-17 only)	12.9	49.4	37.7	n/a
Would a discussion about doctors who treat adults have been helpful to you? (CYSHCN ages 12-17 only)	14.4	34.3	38.2	13.1
Would a discussion about the child's health care needs as he/she becomes an adult have been helpful? (CYSHCN ages 12-17 only)	32.3	22.9	n/a	44.8
Has anyone discussed with you how to obtain or keep some type of health insurance coverage as the child becomes an adult? (CYSHCN age 0-17 years only)	22.4	77.6	n/a	n/a
Would a discussion about health insurance have been helpful to you? (CYSHCN ages 12-17 only)	41.7	35.8	n/a	22.5

**Table 61A: National Survey of Children with Special Health Care Needs, Delaware 2005-2006.**<sup>100</sup>

	<b>% Always</b>	<b>% Usually</b>	<b>% Sometimes</b>	<b>% Never</b>
How often do doctors encourage development of self-management skills and knowledge? (CHSHCN 5-17 years)	48.6	23.9	15.8	11.8

**Table 61B: National Survey of Children with Special Health Care Needs, Delaware 2005-2006.**<sup>100</sup>



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