



DELAWARE HEALTH AND SOCIAL SERVICES

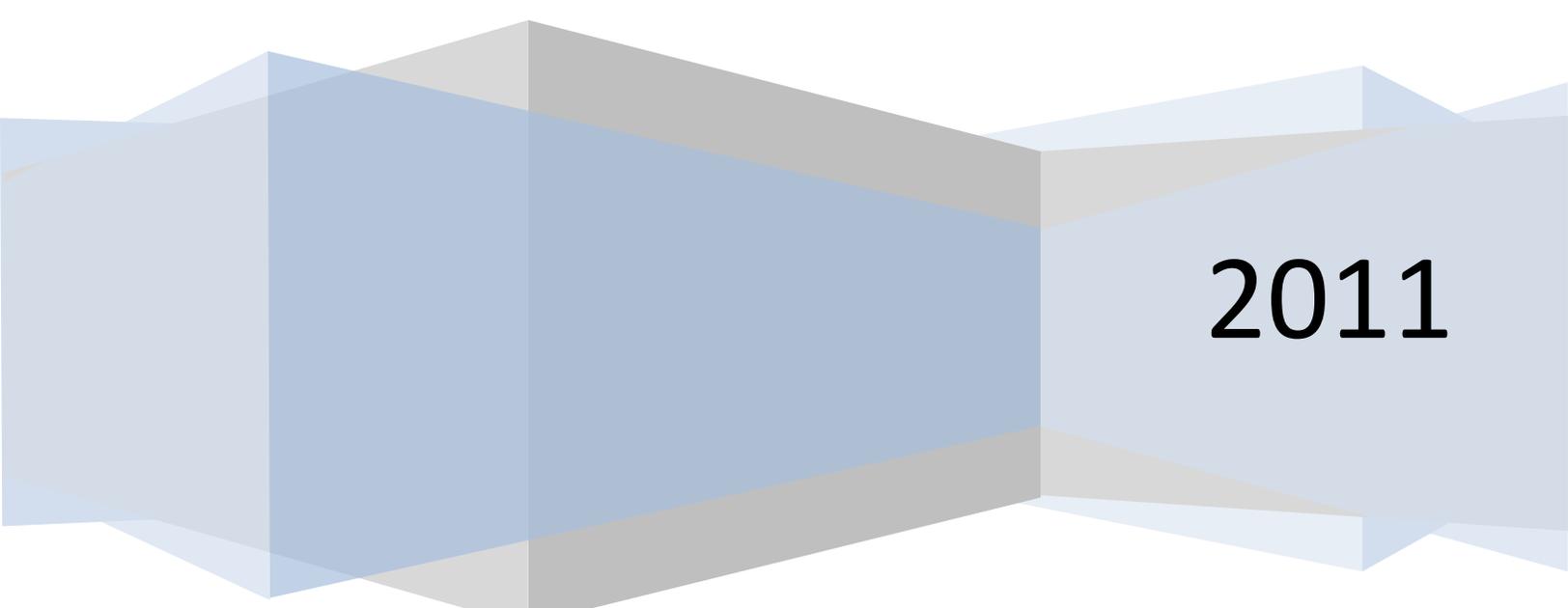
Division of Public Health

Delaware Adolescent Sexual Health State Plan

Addressing Adolescent Pregnancy and STI Prevention

Teenage Pregnancy Prevention Advisory Board

January 2011

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2011

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Delaware Youth Sexual Health State Plan: Outline of Content

Dear Delaware Partners,

We are pleased to provide the Delaware Adolescent Sexual Health State Plan from the Teen Pregnancy Prevention Advisory Board. We thank you for the opportunity to serve our state on this very important advisory board and acknowledge with deep gratitude the contributions of the many Delawareans who worked tirelessly to develop this state plan.

We are confident that the State plan goals and objectives provide a course of action to reduce the high teenage pregnancy rate in Delaware. If adequately funded, many barriers that result in reduced access to preconception and family planning care among minority populations will be removed. In addition, advocates will be empowered to provide guidance to policy makers, health care providers, health clinics and public school education systems that impact a teen's sexual health. We also anticipate collateral benefits that positively affect adolescents' sexual health.

There was wide agreement among board members that implementation of these objectives would improve teen pregnancy rates and STI/HIV rates. Many of the recommended objectives have been implemented in other states with considerable success in achieving their goals. The goals for the State of Delaware are based on Healthy People 2020 goals for adolescent reproductive health:

1. Adolescents, adults, families must understand and apply essential sexual and reproductive health information and develop communication skills in order to make positive choices concerning relationships and sexual health.

DE teens are more likely to have sex at early ages, have more frequent sexual activity, have more sexual partners, and are less likely to use protection than adolescents in other states. Receiving both current and accurate reproductive health information and increasing knowledge is the first step in preventing unplanned pregnancies and sexually transmitted disease infection. Adolescents and adults also need to learn communication skills to communicate this knowledge as well as share family values and expectations revolving around sexual behavior. Once adolescents and adults in their communities learn the information and communication skills they need, they can communicate more effectively with each other about responsible sexual behavior. By increasing sexual health education and communication skills, we hope to increase the proportion of adolescents who have never had sexual intercourse and increase consistent contraceptive use by sexually-active adolescents.

2. Rates of unintended teen pregnancy are reduced

Delaware has higher teen pregnancy/birth rate than the US average. Through implementing a multifaceted approach targeting state policy, reproductive education, health care services, access to services and community engagement and support, we seek to lower the rate of unintended teen pregnancies.

3. Rates of subsequent teen pregnancies are reduced

Each year, approximately 1 in 5 teen births in Delaware are repeat births. By encouraging consistent contraceptive use, increasing reproductive health education and services and developing credible life goals, thus reducing subsequent teen pregnancies, we will improve the social and economic outcomes for both the teen mothers and their children.

4. Rates of sexually transmitted infection are reduced

By increasing birth control knowledge, condom negotiation skills and encouraging abstinence and STI testing, the rates of sexually transmitted infection will be reduced.

5. Racial, ethnic and geographic-based sexual health disparities are reduced

Though the black teen birth rate has dropped in recent years, it remains two times higher than the white teen birth rate in Delaware. Black adolescents are disproportionately affected by HIV/AIDS, comprising 60 percent of the cases. By decreasing the racial, ethnic and geographic disparities, Delaware can reduce teen pregnancies and STI and HIV/AIDS infection in minority populations.

Finding the resources to implement these recommendations will not be without difficulty. The Division of Public Health is consistently applying for multiple federal grant opportunities to finance the implementation and expansion of adolescent sexual health programming through the State. In addition, we are exploring other sources of funding from private and public institutions. Through times of economic hardship access to funding sources is challenging. Concurrently we are aware that increased economic stressors are correlated with higher rates of engagement in risk behaviors, and increased pressure on youth and families. These factors affirm the need for Delaware to establish and follow a rigorous and effective Sexual Health Plan.

We thank you for the privilege of serving the people of Delaware in this role. We thank you, most of all, on behalf of the adolescents and families in Delaware whose lives will be bettered when these goals and objectives are achieved.

Sincerely,

*Teen Pregnancy Prevention Advisory Board
Chair, Dr. Judith Herrman*

Background Narrative and Statistics

The Developing Adolescent

Current research validates what is often thought by adults: teens often think and reason differently than adults. These differences are reflected in decision making, behaviors, and attitudes and are evident in teens' sexual activity. It is important for adults, as parents, program developers, policy makers, and others, to consider that adolescents are still developing and growing. Even though teens may look and, sometimes act, like adults, their brain, thinking, and decision making may not be the same as a rational and informed adult.

Much of the ongoing investigation indicates that the brain is a “work in progress” in which physiological development continues during the teen years. Changes in the structure, or “hardwiring” of the brain, may account for differences in abilities and result in changes in behavior related to maturation of the brain. An increase in the number of brain cells, a decrease in the “clutter” of the brain, and a maturing of these cells results in a brain that is faster, more focused, and more organized. In contrast, as our brains mature we are less able to heal from devastating injury and our learning is slowed from a previously rapid pace.

Our brain matures in a back-to-front pattern in which such functions as primitive emotions and large motor control occur first. As the midbrain matures, creativity, organization, and fine motor function skills are mastered.

The focus of teen brain research has been on the maturing of the front of the brain known as the pre-frontal cortex, or the “area of sober second thought.” This “executive of the brain” provides individuals with the abilities to weigh consequences, assess risks, cognitive controls, establish priorities, organize actions, and problem solve. Decisions made regarding participation in sexual activity, use of safe sexual practices, selection of sexual partners, maintenance of pregnancy, and lifestyle choices are all impacted by the progress of adolescent brain development.

Another component of teen brain development is that nerve cells and chemicals work together to encourage teens to desire to seek new and novel stimulation or sensations. This may lead to reckless behavior and to succumbing to peer pressure. Research tells us that peer pressure is especially intense during the teen years and that social stimuli will continue to impact us throughout our lives. Teens, though, are especially vulnerable to the impact of friends, media, and social influences.

The developing adolescent benefits from concerned advocates, positive role models, a protective environment, a supportive family and community to guide choices, and gradual development of decision making skills to ensure healthy sexual behaviors.¹ This plan addresses these factors to promote sexual health for youth in Delaware.

US Teen Pregnancy Background

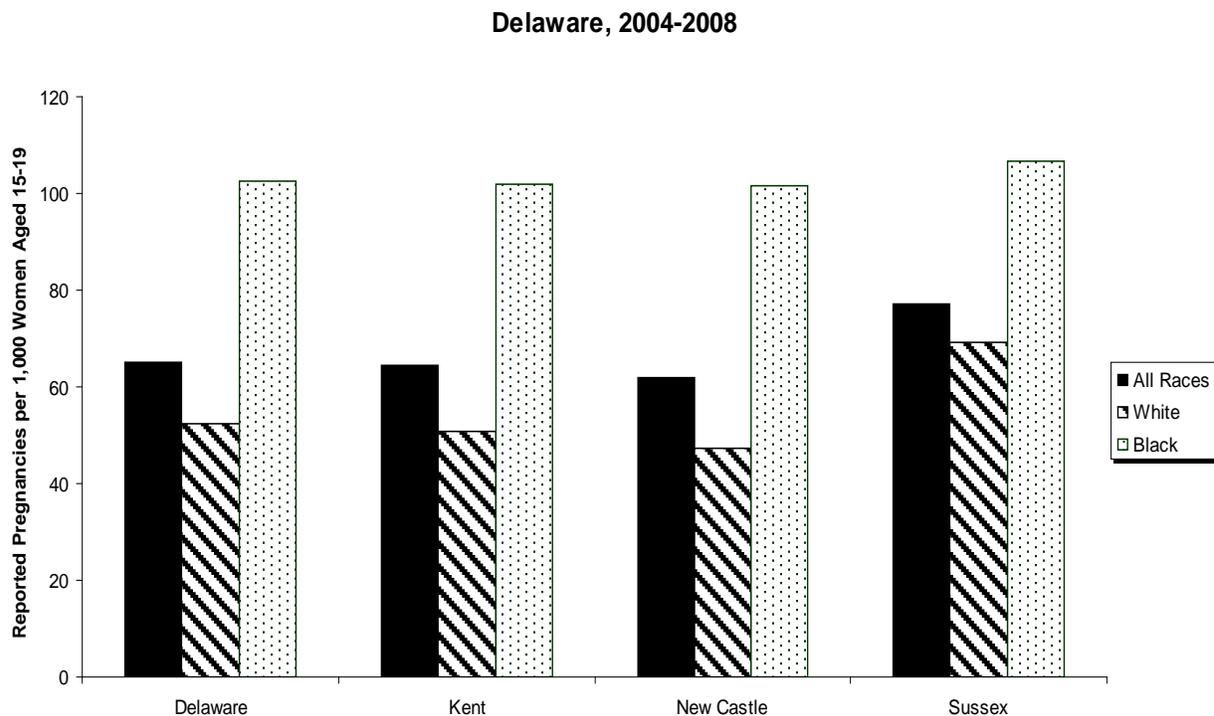
The United States continues to have the highest teen pregnancy rate in the industrialized world twice as high as in England or Canada. Based on preliminary 2009 data from the Centers for Disease Control and Prevention’s National Center for Health Statistics, teen birth rates are at historic lows. The birth rate for US teenagers 15-19 fell 6 percent to 39.1 per 1,000, a record low for the Nation.²

Delaware Teen Pregnancy Trends

- For 2004-2008, the overall Delaware 5-year average teen pregnancy rate for 15-19 year olds is 65.1 per 1,000 women. The overall rate has been decreasing for the past decade.
- White teen (15-19) pregnancy rates in Sussex County rose 7.4 percent from 2003-2007 to 2004-2008.
- Teen pregnancy rates for all other race and county groups declined or remained relatively stable. With the exception of Sussex County, where white teen pregnancy rates were the highest, black teen pregnancy rates were nearly twice that of white teens.
- The five-year average (2004-2008) pregnancy rate for 15-17 year olds was lowest in Kent County, with 31.9 pregnancies per 1,000 females, followed by New Castle County, with a rate of 36.6, and Sussex County, with a rate of 40.7. For New Castle County, the 2004-2008 rate was lower than the 2003-2007 rates; the rates for Kent and Sussex Counties remained stable.
- The five-year average (2004-2008) pregnancy rate for 18-19 year olds was lowest in New Castle County (101.4 pregnancies per 1,000 females), and highest in Sussex County (130.7).

Source: Delaware Health Statistics Center

Figure 1
Five-year Average Teenage (15-19) Pregnancy Rate by County and Race



Source:
 Delaware Health Statistics Center

STIs and HIV/AIDS

In 2009, the Laboratory Information System, from which the Delaware Public Health Clinics, SBHCs, detention centers and community based organizations submit their lab testing, reported 432 teens (190 males; 242 females) aged 11-14 and 7,936 teens (1,720 males; 6216 females) aged 15-19 were tested for STIs throughout Delaware. Of these teens, 29 teens (3 males; 26 females) aged 11-14 and 942 teens (236 males; 706 females) aged 15-19 tested positive for one or more STIs.

In 2009, five adolescents aged 11-14 and 128 adolescents aged 15-19 were diagnosed with HIV/AIDS. Of these cases, 65 percent live in New Castle County, 20 percent live in Kent County and 15 percent live in Sussex County. The figures below depict the 2009 Gonorrhea and Chlamydia rates among Delaware teens aged 11-19 yrs by CCD.

Figure 2. Diagnosed 2009 Gonorrhea cases in Delaware adolescents aged 11-19 years by Census County Division.

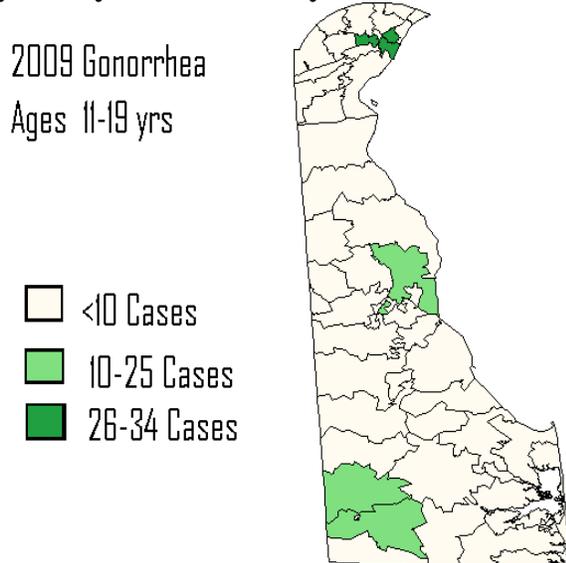
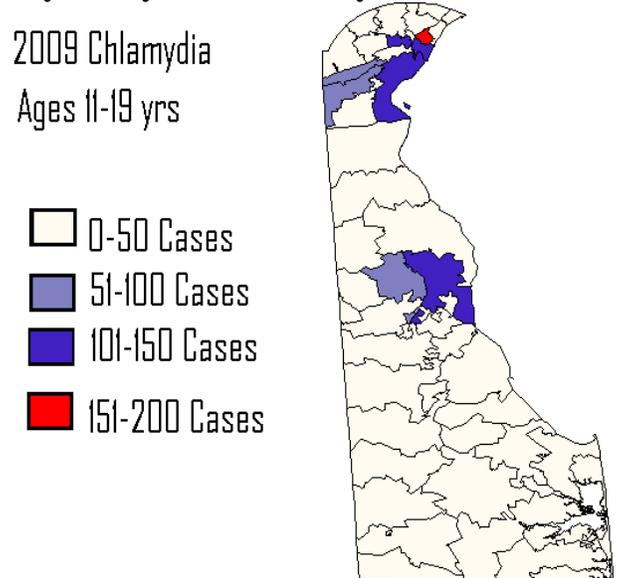


Figure 3. Diagnosed 2009 Chlamydia cases among Delaware adolescents aged 11-19 years by Census County Division.

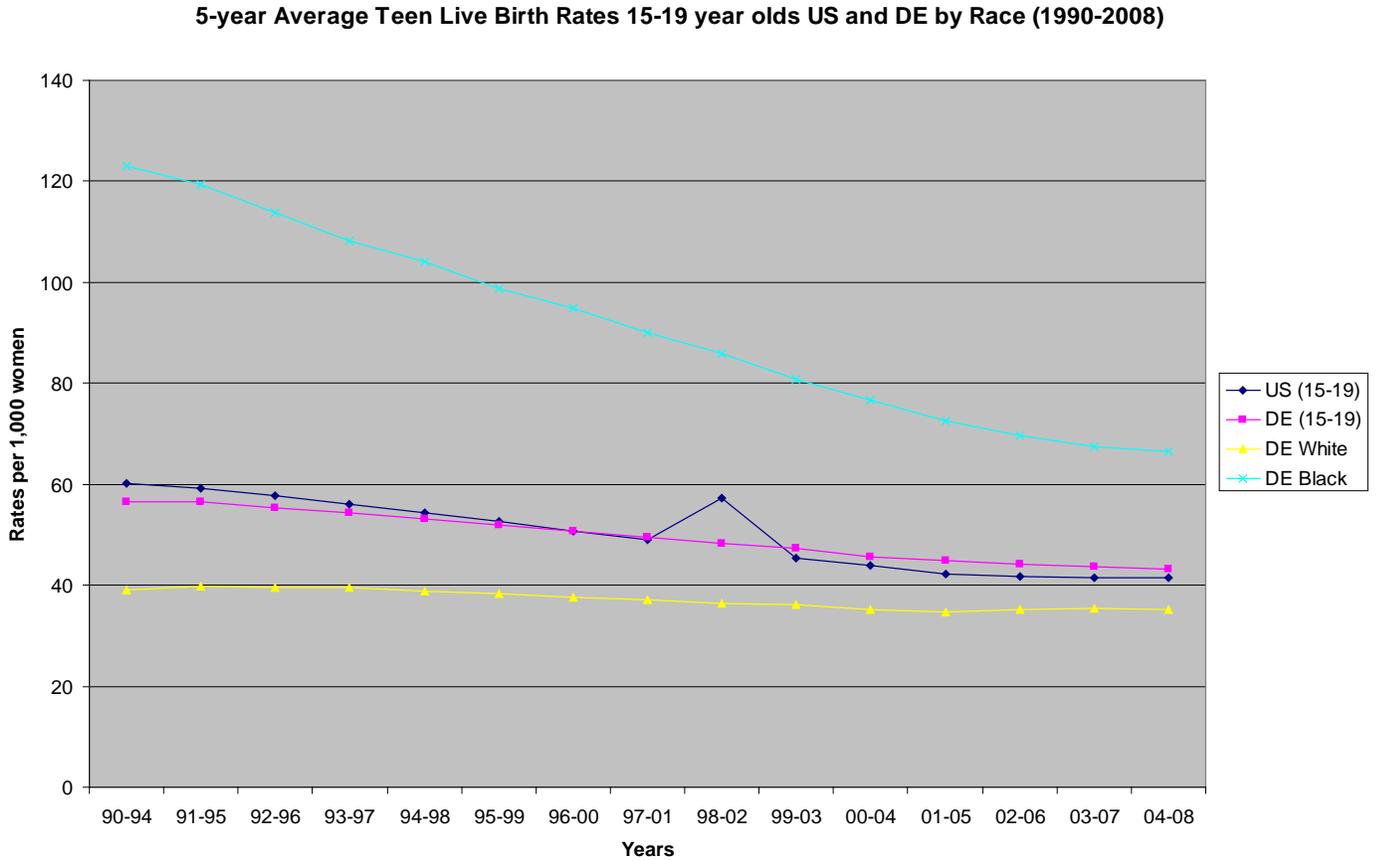


Health disparities

In terms of ethnic and racial disparities, Delaware has the 4th highest pregnancy rate among Hispanic adolescents aged 15-19 years. The Hispanic population in Delaware has increased by approximately 250 percent from 2.4 percent of Delawareans in 2002 to 6.5 percent of Delawareans in 2007.³

Although the teen pregnancy rate is declining, the disparity among Black teens continues. Teen pregnancies among Blacks are nearly twice that of Whites.

Figure 4. Five-year Average Teen Birth Rates (15-19 year olds) US and DE by Race (1990-2008)



In regards to HIV/AIDS, Black adolescents are disproportionately affected, comprising 60 percent of the cases, while White and Hispanic adolescents comprised 32 percent and 8 percent respectively.

Impact of adolescent sexual risk behavior: teen pregnancy, childbearing and sexually transmitted infections

Adolescent sexual health risk behaviors have a broader impact than simply on the adolescent. Often, both sexual health education and media messages focus on the impact of sexual risk behaviors on the individual and child. However, teen pregnancy, childbearing, and sexually transmitted infections have been found to have an impact on the education, health, welfare and social service systems.

Economic Impact

There is a strong correlation between poverty and teen pregnancy. The 2010 Alan Guttmacher Institute report's rankings of states by teen pregnancy rates reflect the U.S. Census rankings of states by poverty rates. In Delaware, 13.8 percent of children 18 and under are living at or below 100 percent of the Federal Poverty Level (FPL) and 33.9 percent of children 18 and under are living at or below 200 percent of the FPL. In Delaware, 26 percent of households are headed by females with children and of these families, 26 percent are living in poverty. Research has shown that adolescents residing in communities with high rates of poverty, receiving government assistance, and single-parent households are at higher risk for early pregnancy. Thus, a cycle of poverty continues as teen parents are therefore disproportionately concentrated in poor communities characterized by inferior housing, high crime, poor schools and limited health services^{4,5}. These educational and career limitations are closely linked to poverty as young mothers have limited career options, are relegated to lower paying employment, accrue shorter employment times, access lower paying jobs, are less self-sustainable, more likely to be supported on public assistance, have struggles with childcare, and confront significant difficulties with balancing parenting and work.

However, poverty and teen pregnancy impacts more than the adolescent. Nationally, teen childbearing costs taxpayers at least \$9.1 billion each year. In Delaware, teen childbearing in teens 19 years and younger cost taxpayers (Federal, State and local) at least \$28 million in 2004 and the average annual cost associated with a child born to a mother 17 and younger is \$4,194.⁶

Furthermore, poverty will influence health insurance and utilization of available health care services. The longer a person is without health insurance, the higher the likelihood that they will have an unmet need for medical care. Nationally, Medicaid finances 72 percent of teen births. In Delaware, in 2004, annual taxpayer costs associated with children born to teen mothers included:

- \$5 million for public health care (Medicaid and SCHIP)
- \$5 million for child welfare
- \$12 million for incarceration
- \$7 million in lost tax revenue, due to decreased earnings and spending⁶

According to Center for Applied Demography and Survey Research (CADSR) at University of Delaware, Black/African American Delawareans (15.4 percent) and Hispanic Delawareans (32.2 percent) and are more likely to be uninsured than Caucasian, Non-Hispanic Delawareans (11.8 percent). Areas with high concentrations of minority populations are in need of accessible and affordable family planning services.

Educational Impact

As with other high risk behavior, poor academic performance is associated with sexual risk taking. Delaware youth who reported getting Ds and Fs on their report cards were more likely than youth who reported getting As and Bs to have had sexual intercourse, to have initiated sexual intercourse before age 16, to have had four or more sexual partners during their lifetime, and to have first sexual partners who were three or more years older than themselves (2009 Delaware YRBS).

Teen mothers are more likely than their counterparts to drop out of school. The National Association of State Boards of Education (NASBE) reports that 70 percent of teen mothers drop out of high school and only 30 percent of teen mothers complete high school by age 30. Furthermore, according to the National Campaign to Prevent Teen Pregnancy, children who are born to unmarried teen mothers who have not finished high school are nine times more likely to be living in poverty than children of mothers without these risk factors. Educational and economic limitations may result in fewer career opportunities; lower paying jobs, more tenuous employment situations, increased poverty, and less satisfying career options.⁷

Social and Public Health Impact

Teen pregnancy affects both the parents and their offspring. The children of teen mothers also face are more likely to be born prematurely and at a low birthrate, which raises the risk of health issues later in life such as of infant death, blindness, deafness, chronic respiratory problems, intellectual disability, mental illness, cerebral palsy, dyslexia, and hyperactivity.^{4,7}

The children of teen mothers are more likely to depend on publicly-provided healthcare than the children of older mothers. Moreover, daughters of teen mothers are more likely to become teen parents themselves while sons of teen mothers are more likely to become incarcerated.⁵

Factors that affect teen pregnancy, STIs

The 2009 Youth Risk Behavior Survey (YRBS) data indicate that DE teens are more likely to have sex at early ages, have more frequent sexual activity, have more sexual partners, and are less likely to use protection than adolescents in other states. Fifty-eight percent of 9th-12th graders reported ever having sex compared to 48.3 percent of youth nationally. Moreover, 9.7 percent of Delaware youth reported having sex before 13 years of age, compared to 5.7 percent of adolescents nationally. These statistics are some of the highest in the nation and reinforce Delaware's efforts and need to target adolescents well before high school.⁸

Drug and Alcohol Use

According to the 2009 YRBS, 71 percent of Delaware high school students reported having tried alcohol at least once and 44 percent currently consume alcohol on a regular basis. Adolescents who start drinking at a young age are more likely to take other risks. The same teens who drink early also tend to smoke, use other drugs, and have sex early. Adolescents who are drinking or using drugs are less likely to use contraception than when they are sober. According to the 2009 YRBS, twenty two percent of Delaware adolescents surveyed reporting using drugs or alcohol during last intercourse compared to 21.6 percent nationally.

Family Connectedness

A multitude of literature has found a strong correlation between familial relationships or *family connectedness* and adolescent behavior, including sexual risk behavior. Positive parenting practices, including parental monitoring, guidance and communication have been found to influence adolescent development in all racial and ethnic populations, including decreased risk of adolescent pregnancy.⁹ For example, the National Longitudinal Study of Adolescent Health (Add Health), which followed more than 12,000 adolescents in grades 7-12, found high levels of

parent/family connectedness to be protective against every adolescent health risk behavior that was measured, including early sexual activity.¹⁰

Community Involvement

Aside from parents and family members, adults in the community can influence young people's ability to make healthful decisions as well as determine access to sexual and reproductive health information and services. To build community involvement, the community must first view these behaviors as beneficial and then reach a consensus to support change. Building community capacity has proven to better enable and sustain positive behavior change longer than only supporting a specific adolescent health program during its duration as adolescent knowledge and behavior are more likely to be reinforced in the communities that underwent normative change. Community social norms and values can include stances on premarital sex and contraception, the appropriate ages for girls to marry and bear children; the importance of providing youth with opportunities to develop skills that empower both youth and adults; mechanisms to develop and attain realistic education and career goals and the need to strengthen community structures and institutions that serve youth.¹¹

Access to Reproductive Services and Contraception

Community health clinics, physician offices, pharmacies, grocery stores and convenience stores often vary in price and availability of contraception. Literature has shown that adolescents are more likely to consistently use contraception if they have easy access to obtaining the contraception, the contraception is free or affordable and the adolescent perceives they can obtain the contraception in a judgment-free environment.¹²

School-Based Health Centers (SBHCs)

SBHCs are located in every school district in Delaware. The goals of SBHCs in Delaware are to provide primary prevention and early intervention for health problems among the student population by: Providing preventive care; Detecting signs of emotional stress and psychosocial problems for counseling and/or referral; Facilitating students' use of health care systems by establishing links with primary health care providers; Promoting ongoing comprehensive health care for students of all ages; Encouraging parent involvement in the health care of their adolescents; Working toward the improvement of the students' knowledge of the importance of preventive health care; Improving responsible decision-making about health matters; Reducing risk-taking behaviors; Developing health promoting behaviors; and providing early detection of chronic conditions and early diagnosis and treatment of minor and acute illnesses and health problems.

The first Delaware SBHC was established in 1985. Funded by the State, SBHCs have been successful in Delaware because of the collaborative efforts and ongoing commitment of DHSS, DPH, Department of Education (DOE), hospitals, community family services agencies, school districts, local high schools, community leaders, legislators, school/center staff, students and parents. Placing health services in Delaware high schools assures students easy access to immediate care and guarantees that services fit their needs while complementing the school and community health care systems. Since students are more comfortable with this type of setting, they are more likely to use such medical, mental health and nutritional services that are offered at each of the centers. Seven medical vendors are responsible for administering SBHC services at twenty-eight sites throughout Delaware.

In Fiscal Year (FY) 2008, SBHCs enrolled 78.7 percent of the school population (34,939) where sited. Reproductive health services (i.e. family planning, gynecological care, contraceptives, etc.) are not provided at any SBHC in Delaware. Students would be referred to a local provider (including Title X providers) for these services. However, students are tested for pregnancy and STDs at 86 percent of the centers and all centers provide mental health counseling. This helps youth address issues that could contribute to risk behaviors such as unprotected sex, multiple partners and alcohol and drug use. DPH works collaboratively with each school district and DOE to provide space and services coordination for SBHCs as an in-kind contribution. The school nurse, guidance counselor, resource officer and principal at each high school also works very closely with SBHC staff in identifying risk, health services coordination, referral and health education.

Family Planning and Clinic Resources/Services through Title X

The DPH Reproductive and Sexual Health Clinics provide full family planning services through 25 locations across the State of Delaware. The services are provided through eight DPH clinics and 17 contracted provider service sites (delegates). Three DPH clinic sites are located in New Castle County and five clinic sites are located in Kent and Sussex Counties. These DPH clinics provide services to 43 percent of the Delaware family planning client population reported on the 2009 Family Planning Annual Report. DPH Clinics serve a greater proportion of poor and minority patients than contracted delegates. DPH Clinics also provide program-wide resources beyond Title X support including staff, laboratory testing and pharmacy services. All DPH clinics are conveniently co-located with other health and social services to facilitate client access and referrals. Each site has the resources to provide basic family planning services. With regards to the current policy on minors' access to contraceptives and STI/HIV testing, Delaware allows a minor to consent to contraceptive services if they are at least 12 years old, however the provider may but is not required to inform the minor's parents.¹³

Comprehensive Sexual Education

Multiple evaluation studies on adolescent comprehensive sexual education programs have found significant positive effects on adolescent knowledge, behaviors and health outcomes. Behavioral outcomes in adolescents who have participated in sexual education programs have included delaying the initiation of sexual intercourse as well as reducing the frequency of sex, the number of sexual partners, and increasing the incidence and consistency of contraception use among sexually active adolescents. Long-term impacts of sexual education programs have included the reduction in adolescent pregnancy and STI rates.^{14, 15, 16, 17}

According to a survey conducted by Sexuality Information and Education Council of the United States (SIECUS) in 1999, 93 percent of parents and adults surveyed support sexuality education in high school and 84 percent supported it in junior high school. In Delaware, the Division of Public Health's Alliance for Adolescent Pregnancy Prevention found that 95 percent of parents reported wanting comprehensive sexuality education in schools.

Current state policy on comprehensive sexuality education in Delaware

The Delaware Department of Education requires that all public schools comply with Regulation 851: K-12 Comprehensive Health Education Program, which states that each school shall have a sequential, skill-based health education program (K-12), based on Health Education Standards inclusive of comprehensive sexuality education and an HIV prevention program that stresses the benefits of abstinence from high risk behaviors. While Delaware law requires that this education stress abstinence, it does not specifically require that students receive information about condoms and contraception.¹⁸

Strategies for Reducing Adolescent Pregnancy and STIs

- 1) **Infrastructure:** Develop state and local infrastructure that sustains the delivery of sexuality education programs in middle and high schools as well as reproductive health services such as applying for funds to fortify clinics and organizational structures. Promote collaborations between the state, clinics, schools and community organizations.
- 2) **Policy:** Support and expand the implementation of evidence-based sexuality education and access programs throughout the state. Provide direction, guide resources, encourage consistency, provide due diligence and help coordinate efforts.
- 3) **Access to Health Care Services:** Increase adolescent access to high-quality, age-appropriate and readily available reproductive health care, including contraception by increasing and improving family planning services and available contraception to all youth and community members. Having equal opportunity to access reproductive health care will encourage contraceptive use and testing for sexually transmitted infection, thus reducing health disparities in terms of the pregnancy and STI rates.
- 4) **Community Engagement:** Create and promote opportunities and connections for youth and adults by engaging them as partners in decision-making. A collaborative approach helps community members gain self-worth and see the value in efforts to increase sexuality education and access to reproductive health care.
- 5) **Education for Youth and Families:** Employ multiple methods of sexuality education to reach both youth AND adults. The topic of sexual health is generally taught for one semester or less in health class, which is only available in one grade throughout school. Employ multiple approaches to increase access to education for both youth and adults through the use of trained peer educators to spread consistent and accurate information throughout both rural and urban areas.
- 6) **Services for Youth and Families:** High quality reproductive health services for youth and adults need to be implemented, improved and accessible, in terms of both transportation and cost in communities. Reproductive health care services must offer a nonjudgmental, culturally competent, age-appropriate and friendly environment to encourage youth and adults to seek services and more importantly RETURN for follow-up care.

7) **Research, Data Collection and Evaluation:** Utilize available state and local data to target vulnerable populations and communities that would benefit from increased efforts to increase and access to sexuality education and reproductive services. Coordinate efforts to collect both process and evaluation data from efforts to ascertain progress.

8) **Commitment and Sustainability of Actions:** Assure residents and target populations of commitment to achieve results through sustained efforts to promote youth well-being.

Delaware State Plan

The state plan was developed collaboratively by the Delaware Division of Public Health and the Teen Pregnancy Prevention Advisory Board. Public input from stakeholders and youths was obtained during a public Teen Pregnancy Roundtable meeting held on December 10, 2010. Input from the community was used to strengthen the plan and demonstrates partner buy-in.

The Delaware Division of Public Health plans to implement and replicate two evidence-based health education programs targeting both the school-based and community-based adolescent populations in reducing teenage pregnancy statewide. Targeted sites will include census county divisions (CCDs) with correspondingly high rates of social and economic risks, teen birth rates and STD and HIV/AIDS infection rates such as in community centers in the City of Wilmington, Bridgeville/Greenwood, Seaford, Selbyville/Frankford, Milford North/South, lower Christiana, New Castle and Millsboro. Teachers representing all 19 school districts in the state will participate in training provided by the Sexuality Training Institute, which will be established. The first health education program, *Making Proud Choices!* will target adolescents ages 11 – 13 while the program *Be Proud! Be Responsible!* will target adolescents ages 14 – 19.

The goal of *Making Proud Choices!* is to empower young adolescents to change their behavior in ways that will reduce their risk of becoming pregnant and infected with sexually transmitted diseases including HIV. *Making Proud Choices!* is one of the health education programs currently available through the Alliance for Adolescent Pregnancy Prevention (AAPP) and administered by Christiana Care Health Services (CCHS) and Planned Parenthood of Delaware (PPDE), who provides train-the-trainer courses on the curriculum. AAPP has implemented the *Making Proud Choices!* curriculum for three years and in a recent evaluation, found the curricula to significantly increase participants' knowledge and improve attitudes about risky sexual behavior. It has been suggested, in other reports, that in order to sustain the effects of *Making Proud Choices!* over time, supplementation with other programs such as *Be Proud! Be Responsible!* is beneficial.

Originally targeted for HIV at-risk African American adolescents, the *Be Proud! Be Responsible!* curriculum is adapted to target high risk teenage populations, ages 11 to 14. There are three overriding themes that provide the *Be Proud! Be Responsible!* curriculum with a unique approach that has proven to be successful in urban environments: 1) The Sense of Community Approach; 2) The Role of Sexual Responsibility and Accountability and; 3) The Role of Pride in Making Safer Sexual Choices.

There are several reasons why the two evidence-based curricula were chosen for replication. Both programs use skill building strategies and teach negotiation skills that empower adolescents to reduce risky behaviors associated with teenage pregnancies. While both programs support abstinence as being the most effective way to eliminate risks, multiple evaluations of both programs have found the curriculums also give medically accurate, factual information on contraceptive methods and protective factors to reduce the risk of pregnancy and STDs.^{19, 20} The program materials are culturally sensitive to reach a representative sample of the targeted schools, which are comprised of approximately 30 to 50 percent African American and approximately six to 22 percent Hispanic students. In addition, the activities included in the curricula increase adolescent negotiation skills, improve condom use skills and help teens develop a sense of pride and confidence in their choice to practice safer sex. Both program evaluations demonstrated that students reported engaging in less risky behaviors and having less sexual partners after participating in the programs as compared to teens in control groups. Participants also reported using condoms more consistently and a smaller percentage reported engaging in anal intercourse as compared to teens not participating in the programs.

Due to the diversity of settings where the curricula will be implemented, adaptations of the curricula may be considered. While maintaining fidelity to the curricula, both programs allow for flexibility in participants, frequency and length of modules and can be taught in both school and community settings. The curriculums are designed for use by school educators, family life educators, HIV/STD and pregnancy prevention educators and staff working with youth in community-based programs. Each setting and group will be assessed for needed curricula adaptations to serve each group of youth with the highest quality of education possible.

Materials such as program adaptation kits will be provided and reassessed to assure that only approved adaptations are implemented to assure fidelity and medical accuracy of the curricula.

Target Population

DPH intends to target adolescents aged 11 to 19 years of age. The 2009 YRBS data indicate that DE teens are more likely to have sex at early ages, have more frequent sexual activity, have more sexual partners, and are less likely to use protection than adolescents in other states. Fifty-eight percent of 9th-12th graders reported ever having sex compared to 48.3 percent of youth nationally. Moreover, 9.7 percent of Delaware youth reported having sex before 13 years of age, compared to 5.7 percent of adolescents nationally. Twenty two percent of Delaware adolescents surveyed reporting using drugs or alcohol during last intercourse compared to 21.6 percent nationally. These statistics are some of the highest in the nation and reinforce Delaware's efforts and need to target adolescents before high school, thus middle school aged adolescents will also be reached through programming.

Services must be strengthened to better serve sexual minority youth (i.e., students who either identified as gay, lesbian, bisexual, transgender or reported any same-sex sexual contact). According to the Delaware YRBS (2009) sexual minority youth were significantly more likely than other students to report a range of sexual health risk behaviors that put them at risk of HIV infection or other STDs.

The 2010 School Health Profiles Report conducted by the Department of Education, revealed that 62% of high schools and 29% of middle schools facilitated access to providers not on school property who have experience in providing health services, including HIV/STD testing and counseling, to sexual minority youth.

Key Populations of Focus

- Specific interventions will be geared toward Hispanic and African American adolescents as they are disproportionately affected by teen pregnancy and STD infection. This includes programs that are specifically geared to speak to their concerns, cultural backgrounds and community influences. Both the “message” and the “messenger” must resonate with racial/ethnic minority youth.
- Inclusive policies will strengthen the capacity of youth-serving organizations to prevent risk behaviors and improve health outcomes among Lesbian, Gay, Bisexual, Transgender and Questioning (LGBTQ) youth. The state plans to increase the number of programs and activities to increase awareness of the victimization experiences of LGBTQ youth, specifically sexual health risks, and the effects of such experiences on such a vulnerable population. These activities may include developing community forums, resource materials, staff development presentations, and the dissemination of information and materials to schools, families, and communities.

State Collaborations

Using a systems perspective approach, the project seeks to emphasize coordination and collaboration between Delaware State agencies and community organizations serving adolescents during the process of developing a state plan. To avoid duplication of efforts, DPH plans to build upon the existing work and program structure implemented by AAPP. The project team, under the direction of the DPH Bureau of Adolescent and Reproductive Health, will work collaboratively with stakeholders and other community organizations to create an infrastructure to build upon the capacity for the effective implementation of adolescent pregnancy prevention education and services managed by AAPP. The process will begin with the development of a state plan involving stakeholders from public and private agencies, schools, communities and parents. An infrastructure assessment will be completed to determine the current status of leadership, policy, funding prevention programs, opportunities for continuous improvement, qualified providers of professional development, technical support and data management capacity. A Sexuality Training Institute will be established to provide technical assistance, materials and a train-the-trainers model, in which school teachers and community volunteers will be trained to facilitate one or both programs to adolescents with fidelity to the model.

Inclusive in this process will be the stakeholders—those that the project serves or affects, such as youth, parents and guardians, teachers, service providers, program coordinators, health agency administrators and community members. The partners will influence the implementation strategies identified in the work plan. As the plan evolves it will become necessary to expand membership in the stakeholder’s group. Currently the stakeholders include the Delaware Department of Education, the DPH Teen Pregnancy Prevention Advisory Board, PPDE, Children and Families First: A Resource Center for Youth (ARC), the Federally Qualified Health Centers and the Delaware Department of Services for Children, Youth and Families. Through

memorandums of understanding with stakeholders and in conjunction with contractors secured through the request for proposal process, DPH plans to provide the replication of the two-evidence-based health education programs, as well as establish the Sexuality Training Institute. Subcontractors for program services will be determined through the State's RFP process.

State of Delaware's Goals and Objectives

5 Goals:

- 1) Adolescents, adults, families must understand and apply essential sexual and reproductive health information and develop communication skills in order to make positive choices concerning relationships and sexual health.**
- 2) Rates of unintended teen pregnancy are reduced**
- 3) Rates of subsequent teen pregnancies are reduced**
- 4) Rates of sexually transmitted infection are reduced**
- 5) Racial, ethnic and geographic-based sexual health disparities are reduced**

Objectives:

The Year 1 objectives outlined in the State plan were created using the SMART Approach:
Specific,
Measureable,
Attainable/Achievable,
Relevant and
Time bound.

By May 2011, the Division of Public Health and partners will collaborate to establish a Sexuality Training Institute, that will be responsible for training instructors on evidence-based program curriculums, providing program materials and technical assistance, data collection and program monitoring.

By September 2011, the Sexuality Institute will train 27 instructors on facilitating the evidence-based curricula *Making Proud Choices!* with fidelity to the model.

By September 2011, the Sexuality Institute will train 27 instructors on facilitating the evidence-based curricula *Be Proud! Be Responsible!* with fidelity to the model.

By June 2012, *Making Proud Choices!* will be implemented in 25 high schools throughout the State of Delaware.

By June 2012, *Be Proud! Be Responsible!* will be implemented in 25 middle schools throughout the State of Delaware.

By June 2012, 1,875 adolescents will have completed the *Making Proud Choices!* curriculum.

By June 2012, 1,875 adolescents will have completed the *Be Proud! Be Responsible!* curriculum.

Logic Model

The Delaware Division of Public Health has employed the Behavior-Determinant-Intervention (BDI) Logic Model (developed by Doug Kirby, PhD, 2004) for the State Plan. The BDI Logic Model format was developed specifically for programs which are focused on teen pregnancy and/or STIs and HIV.

INPUTS	INTERVENTIONS	DETERMINANTS	BEHAVIORS	HEALTH GOAL
Family Support- Network of parents, relatives and adult friends	Improving parent-child sexual health communication and familial relationships	Increased knowledge of parental values, attitudes, expectations	Delay the onset of sexual activity	Adolescents, adults, families and communities receive accurate information and communication skills to assist adolescents with making positive choices concerning relationships and sexual health
Public Education System-teachers, counselors, coaches, afterschool programming	Improve comprehensive sexual health education courses in Delaware Public Schools system.	Increase knowledge about contraception, availability, costs	Increase correct and consistent use of contraception among sexually active adolescents	
	Media campaigns to promotes abstinence, contraception, STI/pregnancy testing, talking with parents; access to care such as hotlines, clinics, health care providers	Increase knowledge about possible consequences of unprotected sex	Foster attitudes that sexual activity and pregnancy should be delayed	Rates of unintended teen pregnancy are reduced
Community Support- Services and programs, recreation centers, Faith-Based Programs	Increase affordability of contraception and services	Increase self efficacy to use contraception		
Health Care Provider Support- Clinics, Private Practices and physicians	Increase access to health care services	Improve and increase positive attitudes toward contraception use among sexually active adolescents	Adolescents feel comfortable seeking reproductive health services	Rates of subsequent teen pregnancies are reduced
	Increase cultural and linguistic capabilities of health care	Increase in number of evidence-based programs to prevent teen pregnancy	Receiving increased health care that includes family planning contraception care, pregnancy testing, STI testing/treatment, counseling	Rates of sexually transmitted infection are reduced
Policy Support- Local legislators	Secure funding to implement evidence-based programs to prevent teen pregnancy, STIs/HIV	Increase knowledge of health care provider services and accessibility		Racial, ethnic and geographic-based sexual health disparities are reduced

Recommendations

STRATEGY: Infrastructure

Develop state and local infrastructure that sustains the delivery of sexuality education programs and reproductive health services such as applying for funds to fortify clinics and organizational structures. Promote collaborations between the state, clinics, schools and community organizations.

Action Steps	Start Date	Intended Impact	Partners
Secure funding from Federal, state and local sources for: <ul style="list-style-type: none"> • School and community-based comprehensive sexuality education programs for adolescents • School-Based Wellness Centers and Community clinics for adolescent reproductive health services • State-level coordination of school and community-based adolescent reproductive health programs • Training service providers and coordinating awareness campaigns to reach adolescents and community • Resources and technical assistance for program development and implementation • Research, monitoring and evaluation of adolescent health programs 	2011	To build and sustain State and local infrastructure to increase and improve adolescent sexual health education programming and delivery of services To increase the awareness of teen pregnancy and STI infection among adolescents, parents, educators and policy makers to create community consensus to increase support and contribution to comprehensive sexuality education and access to reproductive health services.	Delaware Division of Public Health Delaware Department of Education Delaware Division of Services for Children, Youth and Their Families Local Policymakers
Hold consistent community forums to build community	2011	To build collaborative relationships and buy-in among	Delaware Division of Public Health

<p>participation and consensus of action steps to take in reducing teen pregnancy and STI infection rates</p>		<p>adolescents, families, faith and community organizations, service providers and policy makers in order to:</p> <p>Increase awareness, community contribution and promotion of state and local strategic plans to reduce teen pregnancy and STI rates</p> <p>Increase awareness and promotion of state and local resources for adolescents Build support for service providers</p>	<p>Delaware Department of Education</p> <p>Local Policymakers</p>
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<p>STRATEGY: Policy <i>Support and expand the implementation of evidence-based sexuality education and access programs throughout the state. Provide direction, guide resources, encourage consistency, provide due diligence and help coordinate efforts.</i></p>			
Action Steps	Start Date	Intended Impact	Partners
<p>Include youth and community participation for the development and implementation of policies that affect adolescent sexual health</p>	<p>2011</p>	<p>To develop policies that will consider the local community values and needs to address the needs of Delaware’s adolescents and families that are inclusive of all populations</p>	<p>Teen Councils</p> <p>State and local policymakers</p> <p>Community leaders</p>
<p>Fund evidence-based strategies that utilize a comprehensive approach to adolescent sexual health</p>	<p>2011</p>	<p>To implement, expand and sustain adolescent sexual health education and resources</p>	<p>Delaware Division of Public Health</p> <p>Delaware Department of Education</p>

			State and local policymakers
Guarantee access to reproductive health care to adolescents regardless of transportation, documentation status or income	2011	To increase reproductive health care and contraceptive utilization by adolescents	Delaware Division of Public Health
			State and local policymakers
Educate communities about existing state and local laws that provide adolescents confidential access to reproductive health care services	2011	To increase reproductive health care and contraceptive utilization by adolescents	Delaware Division of Public Health
			Delaware Department of Education
			Health Services Providers
Work with Public Schools and School-Based Wellness Center to provide adolescent reproductive health care services	2011	To make adolescent reproductive services available at School-Based Wellness Centers	Delaware Division of Public Health
			Delaware Department of Education
			State and local policymakers
Promote media literacy to encourage critical thinking about sexual images and stereotypes in popular media	2011	To address popular media culture, images and advertisements that can promote risky sexual behavior among adolescents	Delaware Division of Public Health
			Delaware Department of Education
			State and local policymakers

STRATEGY: Access to Health Care Services

Increase adolescent access to high-quality, age-appropriate and readily available reproductive health care, including contraception by increasing and improving family planning services and available contraception to all youth and community members. Having equal opportunity to access reproductive health care will encourage contraceptive use and testing for sexually transmitted infection, thus reducing health disparities in terms of pregnancy and STI rate.

Action Steps	Start Date	Intended Impact	Partners
Work with Public Schools and School-Based Wellness Center to provide adolescent reproductive health care services	2011	To make adolescent reproductive services available at School-Based Wellness Centers	Delaware Division of Public Health Delaware Department of Education State and local policymakers
Work with local clinics to provide free or low cost contraception to adolescents	2011	To increase access, affordability and thus, utilization of contraception by adolescents	Delaware Division of Public Health Health Services Providers
Survey local drug stores and pharmacies to ascertain availability of contraception, affordability of contraception and store environment	2011	To identify gaps in availability of contraception, affordability of contraception and possible perceived social barriers to obtaining contraception by adolescents	Delaware Division of Public Health
Identify transportation methods in Kent and Sussex county	2011	To identify gaps in transportation to local clinics, pharmacies and hospitals and brainstorm how to provide transportation	Delaware Division of Public Health Delaware Department of Transportation
Provide shuttle services to health care services	2012	To offer transportation to adolescents who cannot reach health care services otherwise	Delaware Division of Public Health Delaware Department of Transportation
Review referral systems among health care providers and	2011	Identify gaps in referral process in order to create seamless	Delaware Division of Public Health

clinics		continuity of care among local providers	
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STRATEGY: Community Engagement			
<i>Create and promote opportunities and connections for youth and adults by engaging them as partners in decision-making. A collaborative approach helps community members gain self-worth and see the value in efforts to increase sexuality education and access to reproductive health care.</i>			
Action Steps	Start Date	Intended Impact	Partners
Hold monthly community forums throughout high-risk areas of Delaware for residents to share ideas on how to address teen pregnancy and STIs and updates on progress	2011	To involve community members in strategic planning and decision making and build consensus that teen pregnancy and STIs are issues that need to be addressed	Delaware Division of Public Health Community residents Teen Councils
Encourage hiring of community residents at local clinics, pharmacies and adolescent sexual health programs	2012	To use peers as a strategy to engage community members	Delaware Division of Public Health Local organizations Community residents
Engage media to promote adolescent sexual health	2011	Increase marketing and advertising of adolescent sexual health to increase community awareness	Delaware Division of Public Health Local media
Solicit and respond to adolescent feedback to improve education and health care services	2011	Involve adolescents in quality improvement process for education and health care services	Delaware Division of Public Health
Involve adolescents and parents and other community residents in promoting reproductive health services	2011	Use social networking to spread awareness of local reproductive health care services	Delaware Division of Public Health Teen Councils
Use various strategies such as the internet, cable, radio, fliers,	2011	Increase awareness of local reproductive health care	Delaware Division of Public Health

etc. to increase awareness of available local reproductive health care services		services	
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STRATEGY: Education for Youth and Families			
<i>Employ multiple methods of sexuality education to reach both youth AND adults. The topic of sexual health is generally taught for one semester or less in health class, which is only available in one grade throughout school. Employ a grass roots approach to increase access to education for both youth and adults through the use of trained peer educators to spread consistent and accurate information throughout the community.</i>			
Action Steps	Start Date	Intended Impact	Partners
Engage adolescents, parents and other adults as partners in promoting youth sexual health	2011		Delaware Division of Public Health Delaware Division of Services for Children, Youth and Their Families
Continue to promote and expand evidence-based comprehensive sexual health curricula and programs	2011	Increase community support for comprehensive sexual health education and programs	Delaware Division of Public Health Delaware Department of Education
Fund age-appropriate comprehensive sexuality education beginning in elementary school	2011	Increase quantity and quality of comprehensive sexuality education in schools	Delaware Division of Public Health
Expand comprehensive sexuality education classes and services beyond school to faith communities, employment programs, juvenile justice, foster care, families and community centers	2011	Communities show increased capacity to provide comprehensive and age-appropriate sexual health education	Delaware Division of Public Health Delaware Division of Services for Children, Youth and Their Families Community Partners

Ensure information is inclusive of all people and communities and is available in multiple languages, formats and locations	2011	Reduce language barriers among non-English speaking populations and	Delaware Division of Public Health
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STRATEGY: Services for Youth and Families			
<i>High quality reproductive health services for youth and adults need to be implemented, improved and accessible, in terms of both transportation and cost in communities. Reproductive health care services must offer a nonjudgmental, age-appropriate and friendly environment to encourage youth and adults to seek services and more importantly RETURN for follow-up care.</i>			
Action Steps	Start Date	Intended Impact	Partners
Offer continuing education and training to health care providers to encourage the delivery of services that are informed, nonjudgmental, adolescent-friendly and culturally sensitive	2011	Eliminate the barrier of perceived judgment and culturally insensitive health care to increase utilization of sexual health care services by adolescents	Delaware Division of Public Health Health Care providers
Conduct an assessment of available adolescent reproductive health care providers	2011	To identify gaps in adolescent reproductive health care services	Delaware Division of Public Health
Conduct an assessment of vendors that provide contraception	2011	To identify locations and gaps in available contraception for adolescents	Delaware Division of Public Health
Expand school-based health center services to include reproductive health services and contraception	2012	To offer contraception and increased services to adolescents in public middle and high schools	Delaware Division of Public Health Delaware Department of Education
Collaborate with local pharmacies and other vendors to expand availability of contraception	2011	To decrease the barrier of unavailable contraceptive services to adolescents	Delaware Division of Public Health

STRATEGY: Research, Data Collection and Evaluation

Utilize available state and local data to target vulnerable populations and communities that would benefit from increased efforts to increase and access to sexuality education and reproductive services. Coordinate efforts to collect both process and evaluation data from efforts to ascertain progress.

Action Steps	Start Date	Intended Impact	Partners
Comprise data collection and evaluation committee to develop, recommend and supervise data collection activities of programs, clinics and adolescent health care providers	2011	To advise and ensure evaluation and data collection efforts are streamlined and developed and implemented in a culturally competent manner, while adhering to state Protection of Human Subjects guidelines.	Delaware Division of Public Health Local researchers and other stakeholders
Develop and implement data collection plan for school and community sexual health education classes	2011	Have a secure plan in place to efficiently enter and collect data to monitor progress of education classes	Delaware Division of Public Health Delaware Department of Education
Devise plan to collect both qualitative and quantitative data, using multiple collection techniques (Surveys, observation, focus groups, etc.)	2011	To gain a comprehensive viewpoint of the adolescent sexual health education and services provided	Delaware Division of Public Health
Provide incentives to program participants, clinics, schools and others to complete data collection activities	2011	To promote increased participation in data collection and increase completeness of data	Delaware Division of Public Health
Evaluate the effectiveness, accessibility and quality of adolescent sexual health program	2012	To improve service delivery and outcomes of adolescent sexual health education and services	Delaware Division of Public Health
Develop a plan to continually	2011	To maintain public awareness	Delaware Division of Public

disseminate data to public		and engagement in adolescent sexual health education and services	Health
Support research on innovative strategies to promote adolescent sexual health	2011	To promote awareness of current programming and health care strategies	Delaware Division of Public Health

STRATEGY: Commitment and Sustainability of Actions			
<i>Assure residents and target populations of commitment to achieve results through sustained efforts to promote youth well-being.</i>			
Action Steps	Start Date	Intended Impact	Partners
Seek funding to maintain adolescent sexual health programs, initiatives and services	2011	To increase financial sustainability of adolescent sexual health education and services	Delaware Division of Public Health Health Service Providers Delaware Division of Services for Children, Youth and Their Families Delaware Department of Education
Develop sustainability plan for local clinics and health care providers	2011	To ensure programmatic and health care services sustainability if funding decreases or ceases.	Delaware Division of Public Health Health care providers
Maintain community engagement strategies	2011	To maintain the infrastructure so communities maintain capacity to provide comprehensive services for adolescents	Delaware Division of Public Health Community residents and local stakeholders

The Delaware Teen Pregnancy Prevention Advisory Board

The Delaware Division of Public Health utilizes an advisory board; the Delaware Teen Pregnancy Prevention Advisory Board (TPPAB) to involve stakeholders from local universities, community organizations and other state agencies. The TPPAB was established in 2001 and its mission is the reduction of unintended teenage pregnancies and teenage births. The Board's major responsibility is to report to the Director of DPH on pregnancy prevention issues, programs, and resources. Appointed by the DPH Director, the 17 member public/private Board represents academia, business and industry, faith-based organizations, community, legislators, hospitals, parents and State agencies. The goals of the Board include: increasing accessibility to family planning services; advocating expansion of the school-based health centers into middle schools; ensuring consistency in sexual health education throughout the state; and educating officials, directors, and legislators about the issues of teen pregnancy.

Citations

- ¹ Herrman, J.W. (2005). The teen brain as a work in progress: Implications for pediatric nurses. *Pediatric Nursing*, 31 (2), 144-148.
- ²Hamilton B, Martin J, Ventura S. (2010). Births: Preliminary Data for 2009, Retrieved from http://www.cdc.gov/nchs/data/nvsr/nvsr59/nvsr59_03.pdf.
- ³Kost, K., Henshaw, S. & Carlin, L. (2010). U.S. Teenage Pregnancies, Births and Abortions: National and State Trends and Trends by Race and Ethnicity, Retrieved from www.guttmacher.org/pubs/USTPTrends.pdf.
- ⁴Maynard, R. (ed). (1996). *Kids Having Kids: A Robin Hood Foundation Special Report on the Costs of Adolescent Childbearing*. New York: The Robin Hood Foundation.
- ⁵Wilson, W.J. (1996). *When work disappears: The world of the new urban poor*. New York: Knopf.
- ⁶Hoffman, S.D. (2006). *By the Numbers: The Public Costs of Teen Childbearing*. Washington, DC: The National Campaign to Prevent Teen Pregnancy.
- ⁷National Campaign analysis of, *National Survey of Family Growth, 2002*. 2005, National Campaign to Prevent Teen Pregnancy: Washington, DC.
- ⁸Centers for Disease Control and Prevention. (2009). Youth risk behavior surveillance – United States, 2009, *Surveillance Summaries*. MMWR 2010:59(No.SS-5)
- ⁹Miller B. (1998). *Families Matter: A Research Synthesis of Family Influences on Adolescent Pregnancy*, Washington, DC: National Campaign to Prevent Teen Pregnancy.
- ¹⁰Neumark-Sztainer D et al. (1997). Psychosocial correlates of health compromising behaviors among adolescents, *Health Education Research*, 1997, 12(1):37-52.
- ¹¹Inter-Agency Working Group (2007). Community Pathways to improved adolescent sexual and reproductive health: A conceptual framework and suggested outcome indicators. Retrieved from http://www.unfpa.org/upload/lib_pub_file/781_filename_iawg_ci.pdf
- ¹²Tew, S., & Wind, R. (2001). *Five-country study points to ways the United States could further decrease teenage pregnancy and STD rates* [News release]. Retrieved November 24, 2002, from The Alan Guttmacher Institute website: http://www.guttmacher.org/pubs/archives/nr_euroteens.html
- ¹³Guttmacher Institute (2010). State Policies in Brief: Minors' Access to Contraceptive Services. Available online: http://www.guttmacher.org/statecenter/spibs/spib_MACS.pdf)
- ¹⁴Kirby D. (2001). *Emerging Answers: Research Findings on Programs to Reduce Teen Pregnancy*. Washington, DC: National Campaign to Prevent Teen Pregnancy.
- ¹⁵Kirby D et al. (2005). *Impact of Sex and HIV Education Programs on Sexual Behaviors of Youth in Developing and Developed Countries*. [Youth Research Working Paper, No. 2] Research Triangle Park, NC: Family Health International.
- ¹⁶Alford S. (2003). *Science and Success: Sex Education and Other Programs that Work to Prevent Teen Pregnancy, HIV & Sexually Transmitted Infections*. Washington, DC: Advocates for Youth.
- ¹⁷Alford S. (2008). *Science and Success, Second Edition: Programs that Work to Prevent Teen Pregnancy, HIV & Sexually Transmitted Infections*. Washington, DC: Advocates for Youth.
- ¹⁸Guttmacher Institute (2010). State Policies in Brief: Sex and STI/HIV Education. Available online: http://www.guttmacher.org/statecenter/spibs/spib_SE.pdf
- ¹⁹Shelley, K., (2007). "Evaluation of the Making Proud Choices! HIV/STD Program in Washington, DC Schools". Metro TeenAIDS Issue Brief: (Oct 2007).
- ²⁰Borawski, E., Trapl, E., Adams-Tufts, K., Hayman, L., Goodwin, M., & Lovegreen, L., (2009). "Taking Be Proud! Be Responsible! to the Suburbs: A Replication Study," *Perspectives on Sexual and Reproductive Health* 41.1 (March 2009): 12-22.