Reducing Adolescent Sexual Activity and Preventing Sexually Transmitted Diseases and Teenage Pregnancies

As reviewed at length in Chapter 2, adolescence is a time of numerous changes in a young person’s life. This includes physical maturation and puberty which are often correlated with increased interest in romantic relationships. During childhood, young people spend most of their time with same-sex peer groups; however, during the mid- to late-adolescent years, young people increasingly spend time with mixed-gender peer groups and close relationships with romantic partners become increasingly important. Adolescent involvement in romantic relationships is a normal and expected part of development and is an important step toward the adult role of forming a family. Adolescent romantic relationships vary greatly—from short- to long-term, casual to serious—as do the behaviors that adolescents engage in with romantic partners. From a health perspective, this increase in romantic relationships is important, as the majority of youth initiate sexual behavior within the context of romantic relationships during the second decade of life, and thus are exposed to the risks of unwanted pregnancy and sexually transmitted diseases (STDs), including human immunodeficiency virus (HIV).

The vast majority of adults (85%) believe that adolescents should wait until they are at least 18 years old before having sex, with almost half saying youth should wait until they are married. Adults are primarily concerned with youth having sex before they are psychologically and emotionally ready, followed by concerns about pregnancy and HIV. Abstaining from sexual intercourse is the only proven method to avoid these outcomes. If adolescents are sexually active, the best ways to reduce the risks of unwanted pregnancy and STDs, including HIV, are to use protection and minimize the number of sexual partners. Although not 100% effective, condoms reduce the risk of STDs and HIV and, like other forms of contraceptives, reduce the risk of pregnancy.

The Centers for Disease Control and Prevention (CDC) recommends a multifaceted strategy to reduce unwanted pregnancies, STDs, and HIV among youth. The CDC recommends that communities implement programs to promote abstinence, help youth who have been sexually active return to abstinence, and educate youth who are sexually active in the correct and consistent use of condoms. The focus of most programs for the youngest adolescents promote delaying initiation of sexual intercourse because most adolescents in this age group have not yet had sex. Notably, some young teenagers do have sex, and

---

a Participating in romantic relationship and sexual behavior also exposes youth to dating violence and sexual assault which are discussed in Chapter 7.
they are at disproportionately high risks for unintended pregnancy and STDs.\(^b\)

Unintended pregnancy and STD prevention programs for young people in the mid- to late-adolescent years tend to focus on delaying initiation of sex and, among those who have had sex, reducing the frequency of sex and number of partners, and increasing condom and other contraceptive use. This approach recognizes the proportion of teenagers who initiate sex during middle and late adolescence, and the need to reduce the risk of pregnancy and STDs among this large group of young people.

Engagement in sexual activity among high school youth declined nationally and in North Carolina during the 1990s with increased attention to preventing teenage pregnancy and STDs. Unfortunately, this decline did not continue into this decade.\(^6,7\) In 2007, the percent of North Carolina high school students who reported having ever had sex was slightly higher than the national average (52.1% vs. 47.8% respectively).\(^8\) As expected, the prevalence of sexual experience among high school students increases by grade. (See Figure 9.1.) There are also differences in sexual experience by race and ethnicity; African American high school students are significantly more likely to report having ever had sex

---

\(^b\) Of the very young teenagers who have sexual intercourse, many have a history of sexual abuse as children. Furthermore, sex among the youngest teenagers is often non-consensual and with a partner who controls the decision-making power. Previous abuse experiences and unhealthy sexual relationships have complex influences on sexual development and decision-making, and efforts to prevent pregnancy and STDs should not overlook this very high-risk group (Boonstra, HD. The Case for a New Approach to Sex Education Mounts; Will Policymakers Heed the Message? Guttmacher Policy Review, 2007, Vol 10, No. 2. Spring).
Reducing Adolescent Sexual Activity and Preventing Sexually Transmitted Diseases and Teenage Pregnancies

than whites or Latinos. While a majority of high school students (52.1%) have engaged in sex in their lifetime, recent sexual activity is less common. Almost 40% of North Carolina high school students report engaging in sexual intercourse in the last three months; patterns by grade, sex, and race/ethnicity are similar to those observed for ever sexually active.9

Sexually Transmitted Diseases (STDs) and Human Immunodeficiency Virus (HIV)
Youth engagement in sexual activity is of particular concern if youth fail to use condoms to protect against STDs and contraceptives to protect against unintended pregnancies. STDs, including HIV, are illnesses and infections that are transmitted by direct sexual contact. STDs include both bacterial and viral infections, both of which can cause serious health problems, including damage to the reproductive or other internal organs, infertility, psychological distress, and cancer.10 A person may or may not exhibit symptoms depending upon the disease and the case; in fact, the vast majority of those with infection do not report symptoms. Regardless of whether symptoms are present, individuals with STDs or HIV can develop significant health problems and infect their sexual partners. The most prevalent reportable STDs in North Carolina include chlamydia, gonorrhea, and syphilis. North Carolina’s youth are at particularly high risk—nearly half of all new STD infections in North Carolina occur in youth between the ages of 15-24.11 Nationally, one in four new HIV infections occur among youth age 22 or younger.12

Unintended Pregnancy
In addition to being at risk for STDs and HIV, young people who are sexually active are also at risk for unintended pregnancy. Unintended pregnancies are those that are not planned or not wanted at the time of conception. Teenagers who become mothers are more likely to suffer adverse social and health consequences than women who become mothers after age 19. Teenage mothers are more likely to drop out of high school and remain single parents than older mothers. In addition to the social and health consequences for mothers, children of teenage mothers are more likely to have poor health, academic, and behavioral outcomes.13 Additionally, teen childbearing is estimated to cost North Carolina more than $300 million dollars each year. In 2008, North Carolina’s teenage pregnancy rate was 58.6 per 1,000, or 19,398 pregnancies to females aged 15-19.414 There are large disparities in teenage pregnancy rates. From 2000-2004, the teenage pregnancy rate for females ages 15-17 was 30.4 per 1,000 for white youth compared to 47.5 for Asian/Pacific Islander, 48.2 for American Indian, 57.0 for African-American, and 104.0 for Hispanic youth (the overall teenage pregnancy rate for females ages 15-17 during this time period was 38.6).15 In 2007 North Carolina ranked 37th (with 1 being the lowest) in

Nearly half of all new STD infections in North Carolina occur in youth between the ages of 15-24.
the nation on teen birth rate with 50 births per 1,000 teenagers ages 15-19 compared to the national rate of 42 births per 1,000.\textsuperscript{16}

**Contraceptive Use**

In 2007, 61.5\% of sexually active high school students reported using a condom at last sexual intercourse. This is comparable to the national prevalence of condom use among high school students.\textsuperscript{8} More male high school students report condom use at last sex (67\%) than females (57\%). Youth in 12th grade are less likely to report condom use at last sex (both male and female) as compared to youth in ninth grade.\textsuperscript{9} While condom use can be an effective means of protection against STDs, HIV, and unintended pregnancy, they are often used inconsistently and ineffectively, especially among youth.\textsuperscript{17,18} Among sexually active female youth, 20\% report birth control pill use at last sex. As expected, among female youth, birth control pill use is highest among the 12th graders, the same group that reported lower condom use at last sex.\textsuperscript{9}

**Protective Factors**

There are a number of factors that have been found to protect against youth engagement in sexual activity. A recent study found that having the support of non-parental adult role models, positive peer role models, spending time in religious activities, and having future aspirations were associated with youth never having sex as compared to their peers who did not have such assets.\textsuperscript{19} Other factors that have been found to be associated with youth never having sex include positive peer influences, adolescent-parent communication, talking to mothers about sex, and satisfaction with the maternal relationship.\textsuperscript{20-24}

**Policies, Programs, and Practices to Reduce Youth Engagement in Sexual Behaviors and Prevent Teen Pregnancy, STDs, and HIV**

There are many programs, policies, and practices that have been shown to be effective in helping youth delay initiation and/or engage in responsible sexual activity. Implementation of these programs or policies can help prevent STDs, HIV, or unintended pregnancy. These initiatives can be offered through health care settings, schools, and in communities.

**Clinical Settings**

Counseling to prevent unintended pregnancy, STD, and HIV among youth can take place in clinical settings. Clinical settings may include traditional “medical homes,” primary care clinics, regular doctor’s offices, or health departments. Clinical sites may also include school-based or school-linked health centers (SBHC/SLHCs), or other clinics designed to serve the special needs of adolescents, prevent pregnancy, or provide STD-related care. Counseling and testing can also be offered in less traditional health care locations, such as churches, malls or other community settings. It is crucial that sexually active youth have access to health professionals and other trained health educators to ensure that they receive appropriate and effective methods of contraception, STD/HIV testing, and STD/HIV treatment.
There are several clinical evidence-based strategies to reduce pregnancy and STDs/HIV. As described in detail in Chapter 4, most major health care professional organizations recommend that adolescents and young adults ages 11-21 see a health care professional for annual routine visits. These visits provide the opportunity for a health care professional to regularly assess and discuss, in a tailored, developmentally-appropriate manner, issues related to puberty, sexual development, romantic relationships, and sexual behaviors. As part of these visits, adolescents can be encouraged to delay sex, and adolescents who have had sex can be identified and receive appropriate counseling and services.

**Preventing Teen Pregnancy**
There are many effective methods of birth control which, when used effectively, dramatically reduce the risk of pregnancy (e.g. hormonal methods, intrauterine devices (IUD), Depo-Provera (injections), and condoms). The most effective strategies to reduce risk of pregnancy among adolescents who are having sexual intercourse are to encourage the use of hormonal contraception and provide access to emergency contraception for those who do not use continuous hormonal contraception. Health care professionals can prescribe hormonal contraception. They can also prescribe emergency contraception for adolescents under the age of 17 who cannot access emergency contraception without a prescription.

**Preventing STDs and HIV**
The US Preventive Service Task Force (USPSTF) recently recommended high-intensity behavioral counseling to prevent STDs for all sexually active adolescents and adults at increased risk for STDs. This counseling should be delivered to adolescents who have been identified at increased risk for STDs during routine adolescent health care or during health care that is problem-focused, such as visits prompted by STD- or pregnancy-related concerns. The USPSTF and the CDC recommend that all female adolescents who have had sex receive routine annual testing for Chlamydia trachomatis and Neisseria gonorrhoeae until age 25. The CDC also recommends routine universal voluntary HIV screening for all sexually active youth beginning at age 13. HIV testing of youth at high risk for HIV should be repeated at least once a year. Furthermore, adolescents at high risk warrant more complete STD testing. Health care professionals should test sexually active adolescents for STD/HIV during routine adolescent health care visits, and such screening should be available in other community settings targeted to reach high risk youth. For example, as part of the Get Real. Get Tested. campaign, testing is available at nontraditional settings such as churches, chain stores, and college campuses.

---

e High risk youth include those who engage in sex at an early age, young women and minorities that are sexually active, youth men who have sex with men (MSM), presence of STD, youth who engage in substance use, runaways and other homeless young people. [http://www.cdc.gov/hiv/resources/factsheets/PDF/youth.pdf](http://www.cdc.gov/hiv/resources/factsheets/PDF/youth.pdf)
The HPV vaccine prevents infection from the strains of HPV that are responsible for the vast majority of cervical cancer cases in the United States.

Vaccines are also available to prevent the transmission of certain STDs. The hepatitis B vaccine was the first available vaccine to prevent STDs. It is now available in clinic-based programs, and high rates of population-coverage have resulted in dramatic reductions in rates of hepatitis B infection in the US. More recently, a vaccine to prevent infection with some strains of genital human papillomaviruses (HPV) has been developed. HPV is the principal cause of genital warts and cervical cancer. There are 30 known strains of HPV. The HPV vaccine prevents infection from the strains of HPV that are responsible for the vast majority of cervical cancer cases in the United States. The HPV vaccine is now recommended for all females ages 9 to 26 by the Advisory Committee on Immunization Practices of the CDC. To prevent HPV, young women must be vaccinated before they are exposed to the virus, which is why current prevention efforts include vaccination of adolescent girls before they have initiated sex. The HPV vaccine was recently FDA approved for male adolescents, and CDC recommendations for use of this vaccine among males is expected in the very near future.

High rates of population-coverage are projected to lead to fewer cases of genital warts, lower health care costs associated with evaluation of abnormal Pap-test caused by HPV infection, and fewer cases of cervical cancer. The prevalence of cervical cancer is higher in North Carolina than the national average, indicating the importance of efforts to prevent HPV in this state (in 1997 HPV rates were 9.3 per 100,000 for the entire North Carolina population vs. 7.7 per 100,000 for the United States).

Currently, North Carolina provides certain vaccines to health care professionals, free of charge, to administer to children regardless of insurance status. This allows the child to receive their recommended vaccines through their regular primary care provider. The provider is only allowed to charge patients a set fee for administering the vaccine. The state currently pays for the DTaP, HepA, Heb B, Hib, IPV, MMR, Tdap, and varicella vaccines for all children under the state’s Universal Child Vaccine Distribution Program (UCVDP) program. The HPV vaccine is not one of the vaccines that is covered through the state’s UCVDP. However, the federal government will pay for the HPV vaccines through the Vaccines for Children Program (VFC) for some children. This program is available to children who are eligible for Medicaid, uninsured, or underinsured (defined as having health insurance but one that does not cover the full cost of vaccinations), and American Indian or Alaskan Natives. The vaccines available in the VFC program are available through health departments, federally qualified health centers (FQHCs), rural health clinics, as well as most other private physician offices.

Privately insured patients may have more difficulty obtaining the HPV vaccine. Unlike the universal vaccine or the VFC program, providers must purchase vaccines for insured patients and then seek reimbursement after the vaccine is administered. Because the cost of the HPV vaccine is so great, some physicians have chosen not to purchase the vaccine and keep it on hand in the practice. Additionally, some insured families have to pay the full cost of the vaccine because they have not
yet met their deductible. Providers are not limited in what they charge for their administration fee if the vaccine is not covered through the universal or VFC programs. The current retail cost of the vaccine is approximately $350, not including the administration fee. These costs may be prohibitive to families that do not have first-dollar coverage to pay for the cost of the vaccine.\footnote{First dollar coverage is health insurance coverage that covers the cost of treatment as soon as medical expenses are incurred, in this case a vaccine, effectively making the deductible zero. Without first dollar coverage, the insured must first pay out-of-pocket a specified deductible amount, and only when they meet their deductible will their health insurance policy begin to pay benefits.}

The Division of Public Health (DPH) should conduct an outreach campaign to ensure that children and adolescents receive age-appropriate vaccinations, including the HPV vaccine. In addition, DPH should monitor immunization rates to determine whether the lack of coverage for the HPV vaccine under the state’s UCVDP is adversely affecting the immunization rates. If so, DPH should seek additional funding to cover the HPV vaccine through the UCVDP or pursue other strategies to ensure that the vaccination is affordable and readily available in primary care offices.

**Recommendation 9.1: Increase Immunization Rates for Vaccine-Preventable Diseases**

a) The North Carolina Division of Public Health (DPH) should aggressively seek to increase immunization rates for all vaccines recommended by the Centers for Disease Control and Prevention (CDC) Advisory Committee on Immunization Practices (ACIP), including but not limited to the human papillomavirus (HPV) vaccine which is not currently covered through the state’s universal childhood vaccine distribution program (UCVDP).

b) All public and private insurers should provide first dollar coverage (no co-pay or deductible) for all CDC recommended vaccines that the state does not provide through the UCVDP, and should provide adequate reimbursement to providers to cover the cost and administration of the vaccines.

c) Health care providers should offer and actively promote the recommended vaccines, including educating parents about the importance of vaccinations. The HPV vaccine should be made available to females ages 9 to 26; however, vaccine delivery should be targeted toward adolescents ages 11-12, as recommended by the CDC’s Advisory Committee on Immunization Practices (ACIP).

d) Parents should ensure that their children receive age appropriate vaccinations.

e) DPH should monitor the vaccination rate for the HPV vaccine not currently covered through the UCVDP to determine whether the lack of coverage through the UCVDP leads to lower immunization rates. If so, the DPH should
seek recurring funds from the North Carolina General Assembly to cover the HPV vaccines through the UCVDP, work with insurers to ensure first dollar coverage and adequate reimbursement for recommended vaccines, or seek new financial models to cover vaccines for children not adequately covered through the UCVDP.

f) DPH should conduct an outreach campaign to promote all the recommended childhood vaccines among all North Carolinians. The North Carolina General Assembly should appropriate $1.5 million in recurring funds beginning in SFY 2011 to support this effort.

School-Based Settings

In 1995 the North Carolina General Assembly passed GS §115C-81 requiring public schools to deliver an abstinence only curriculum for sexuality education. Although there were provisions for school districts that wished to provide more comprehensive reproductive health and safety education, most districts chose not to do so. During the 2009 legislative session, the North Carolina General Assembly enacted HB 88 (SL 2009-213), which amends GS §115C-81. Under the revised law, each school is required to offer a reproductive health and safety education program starting in the seventh grade that includes, but is not limited to, information about abstinence; skills to resist engaging in sexual activity; factually accurate biological and pathological information related to the human reproductive system; information on the effectiveness and safety of all FDA-approved methods of birth control and methods to reduce the risk of contracting STDs; information on local resources for testing and treatment of STDs; and awareness of sexual assault, sexual abuse, and risk reduction. In addition, the law states that materials used for sexuality education must be age-appropriate and that the information presented in class must be objective and based upon scientific evidence. Schools must provide health education that meets the requirements of the statute but can expand on the subject areas that are taught.

The new legislation is an important improvement over the prior law in that it expands the health topics to be covered and includes a requirement that the content be objective, based upon peer-reviewed scientific evidence, and accepted by professionals in the field of sexual health education. Examination of the effectiveness of abstinence-only based programs as well as comparisons of abstinence-only versus comprehensive reproductive health and safety education curricula have consistently demonstrated that youth who participate in comprehensive programs are at a lower risk of STDs, HIV, and unintended pregnancy than their peers who are in abstinence-only programs.

It is important to note that the evidence is very strong that comprehensive programs do not increase sexual behavior, even when they encourage condom or other contraceptive use. The American Psychological Association, American Medical Association, National Association of School Psychologists, Society for Adolescent Medicine, American Academy
of Pediatrics, and American Public Health Association maintain that sexuality education must be comprehensive to be effective. Effective curriculum-based programs have been found to have a set of key features including using needs assessment data to choose the program; using theory-based approaches based on risk and protective factors; having clear health goals; lasting a sufficient amount of time; selecting leaders who believe in the program and are adequately trained; actively engaging participants and having them personalize the information; addressing peer pressure; teaching communication skills; reflecting the age, sexual experience, and culture of young people in the program; and being implemented with fidelity.

While the new law requires each public school to offer comprehensive reproductive health and safety education, it does not mandate that all students receive this education. Specifically, the new law does not change the part of the existing statute that requires each local board of education to adopt a policy to allow parents or legal guardians to consent or withhold consent for their student’s participation in any of this education. School boards can choose to enact opt-out provisions, so that students will automatically receive the more comprehensive reproductive health and safety education unless the parents specifically signs a form to request that that their child not receive this education. Currently this is the process used to opt-out of sexuality education; 33% of middle schools and 42% of high schools report that a few parents opt-out of having their child attend sexuality education classes each semester. Alternatively, the school board can implement opt-in provisions, so that students only receive comprehensive reproductive health and safety education if the parent signs a consent form. An opt-out consent process would ensure that more young people in North Carolina receive evidence-based, effective sexuality education.

Comprehensive reproductive health and safety education that provides youth with information and life skills needed to modify their sexual behavior and protect themselves is integral to a comprehensive statewide approach to prevent pregnancy, STDs, and HIV among North Carolinians. To ensure that more students receive comprehensive reproductive health and safety education, the Task Force recommends:

**Recommendation 9.2: Ensure Comprehensive Reproductive Health and Safety Education for More Young People in North Carolina**

a) Local school boards should adopt an opt-out consent process to automatically enroll students in the comprehensive reproductive health and safety education

---

\( ^g \) Langer S. Project Coordinator, Physical Activity and Nutrition Branch, Division of Public Health, North Carolina Department of Health and Human Services. Written (email) communication. September 28, 2009.
program unless a parent or legal guardian specifically requests that their child not receive any or all of this education.

b) The State Board of Education should require Local Education Authorities to report their consent procedures, as well as the number of students who receive comprehensive reproductive health and safety education, and those who receive more limited sexuality education. Information should be reported by grade level and by school.

Community-Based Settings
Research has shown that community-based programs can positively impact age of sexual initiation, condom use, contraceptive use, and pregnancy and birth rates. These types of community-wide outreach activities have promise because of their ability to change social norms around sexual behaviors, prevention of an unintended pregnancy and STDs, and the need to be tested for STDs and HIV.

North Carolina supports community-based programs for pregnancy prevention through Teen Pregnancy Prevention Initiative (TPPI) grants. TPPI grants are administered by the Division of Public Health (DPH), and are used to support adolescent pregnancy prevention programs (APPP) and adolescent parenting programs (APP) in local communities across the state. APPP are aimed at preventing pregnancy among all at-risk adolescents and typically provide education, support academic achievement, encourage parent/teen communication, promote responsible citizenship, and build self-confidence. DPH requires grantees to implement APPP programs that have been shown through evaluation to be effective at delaying sexual debut, increasing contraceptive use, and/or reducing teenage pregnancy. APPs target first-time pregnant or parenting teenagers. The goals of the programs are to support school work to help the teenager graduate from high school, ensure appropriate health care use for the young woman and her child, enhance parenting skills, prepare the mother for employment, prevent a second pregnancy, and reduce the potential for abuse and neglect. Nationally, 33% of pregnant teens drop out; APP participants have a 4% dropout rate. In SFY 2008-2009, there were 27 local APPP programs and 29 local APP programs in North Carolina. Current grantees include health departments, departments of social services, local nonprofit organizations, schools, organizations providing health care, and others. In addition to state support for community-based programs, the Adolescent Pregnancy Prevention Campaign of North Carolina (APPCNC) helps local organizations identify evidence-based pregnancy prevention programs and supports APP and APPP sites in program design, development, and implementation.

---

Community-based STD and HIV prevention programs have often taken the form of mass media and social marketing campaigns. Mass media campaigns aim to increase community knowledge such as how STDs/HIV are transmitted or attitudes about being tested for STDs/HIV, while social marketing campaigns aim to change behaviors, such as increasing condom use. To date, much of the evaluation research on social marketing of condoms for STD and HIV prevention has taken place in developing countries but the evidence suggests that these programs can lead to increased condom use and a reduced number of partners among youth.\textsuperscript{50-53} Less evaluation evidence exists from the United States. However, in 2006-2007, North Carolina’s Department of Public Health launched a social marketing campaign called \textit{Get Real. Get Tested.}, that increased HIV testing by 18\% among those in high risk communities. The campaign included outreach in nontraditional sites, as well as radio and television commercials that promoted the testing messages.\textsuperscript{31} The success of \textit{Get Real. Get Tested.} illustrates the potential of social marketing campaigns to change social norms around youth sexual behaviors.

Community-based pregnancy, STD, and HIV prevention programs are critical to ensuring that adolescents both in and out of school receive prevention messages and support. Therefore the Task Force recommends:

\textbf{Recommendation 9.3: Expand Teen Pregnancy and STD Prevention Programs and Social Marketing Campaigns (PRIORITY RECOMMENDATION)}

\begin{itemize}
  \item[a)] The North Carolina Division of Public Health (DPH) should develop and disseminate an unintended pregnancy prevention campaign and expand the Teen Pregnancy Prevention Initiative to reach more adolescents. The North Carolina General Assembly should appropriate $3.5\text{ million}\textsuperscript{i} in recurring funds to DPH to support this effort.
  \item[b)] DPH should expand the \textit{Get Real. Get Tested.} campaign for HIV prevention; create sexually transmitted disease prevention messages; and collaborate with local health departments to offer non-traditional testing sites to increase community screenings for STDs and HIV among adolescents, young adults, and high-risk populations. The North Carolina General Assembly should appropriate $2.4\text{ million}\textsuperscript{j} in recurring funding to DPH to support this effort.
\end{itemize}

\textsuperscript{i} The North Carolina Division of Public Health estimates it would cost $3.5 million to develop and disseminate an unintended pregnancy prevention campaign and expand the Teen Pregnancy Prevention Initiative to reach more adolescents (Holliday J., Head, Women’s Health Branch, Division of Public Health, North Carolina Department of Health and Human Services. Oral communication. May 14, 2009).

\textsuperscript{j} The North Carolina Division of Public Health estimates it would cost $2.4 million to expand the \textit{Get Real. Get Tested.} campaign for HIV prevention; create sexually transmitted disease prevention messages; and collaborate with local health departments to offer nontraditional testing sites to increase community screenings for STDs and HIV among adolescents, young adults, and high-risk populations (Foust, EM. Head, HIV/STD Prevention and Care, Division of Public Health, North Carolina Department of Health and Human Services. Oral communication. May 14, 2009).
References


Reducing Adolescent Sexual Activity and Preventing Sexually Transmitted Diseases and Teenage Pregnancies


31 Leone P. HIV, STDs and unintended pregnancy: What are we doing in NC to address these? Presented to: the North Carolina Institute of Medicine Task Force on Prevention; October 3, 2008; Cary, NC.


Reducing Adolescent Sexual Activity and Preventing Sexually Transmitted Diseases and Teenage Pregnancies


