Highlights
Chapter VII – Healthy Teen Sexuality

As youth enter puberty, defining their own sexual identity and learning to live responsibily with it is at the forefront of normal developmental challenges.

Colorado Trends

Over the decade, teen sexual activity and birthrates have declined, nationally as well as in Colorado.

- In 2001, 42.3 percent of high school students surveyed reported having had sexual intercourse at least once in their lives, compared to 46.6 percent in 1995.
- In 2001, 66.7 percent of currently sexually active high school students had used a condom during their last sexual intercourse, compared to 52.9 percent in 1995.
- Among teens 15-17 years old, the birth rate has declined from a high of 36.3 per 1,000 in 1992 to 25.4 in 2001. In 2000, rates for African American teens declined 40 percent.
- Birth rates for white non-Hispanic teens declined by 29 percent; and rates for Hispanic teens declined 15 percent.

2000 Objectives

Progress Report

Reduce Teen Births

- By 2000, reduce the birth rate for teen girls aged 15-17 to 29.5 per 1,000, from the 1990 baseline of 32.8 per 1,000
  Status: Objective met. In 2000, the birth rate declined to 29.4 per 1,000, and declined further in 2001 to 25.4 per 1,000
  Source: Vital Statistics, Colorado Department of Public Health and Environment

Increase Use of Birth Control Methods

- By 2000, increase to 25% the proportion of high school youth that report use of birth control pills during last intercourse, from the 1990 baseline of 10.4%
  Status: Objective not met. Use of birth control pills increased to 16.9%. However, use of other new hormonal contraceptives increased
- By 2000, increase to 60% the proportion of high school teens that report use of condoms during last intercourse, from the 1990 baseline of 53.1%
  Status: Objective exceeded. Condom use increased to 66.7%
  Source: 2001 Colorado Youth Risk Behavior Survey, Colorado Department of Public Health and Environment

Reduce Gonorrhea Infections

- By 2000, decrease the rate of gonorrhea in teens 15 to 19 year old to 400 per 100,000, from the 1990 baseline of 525 per 100,000
  Status: Objective exceeded. Gonorrhea rates declined to 230.8 per 100,000
  Source: Disease Control and Environmental Epidemiology Division, Colorado Department of Public Health and Environment

Best Practices

- ***Parents*** – Parents can have a large role in determining their children's sexual behavior by being clear about their own personal sexual values and attitudes, talking with children early and often about sex, supervising and monitoring children and teens and encouraging success in education.
- ***Schools*** – Certain well-researched comprehensive sexuality programs have been found to be effective in preventing teen pregnancy. Strong abstinence-centered education programs use approaches tested in successful comprehensive sexuality education and positive youth development programs.
- ***Communities*** – Pregnancy and sexually transmitted infection prevention programs can include health services, youth development and parent involvement. Health services and other services addressing teen sexual activity must be confidential, accessible and inviting.

2010 Objectives

Reduce Sexual Risk-Taking

- By 2010, increase the proportion of high school students who have never had sexual intercourse to 63.5%, from the 2000 baseline of 57.7 %
- By 2010, increase the proportion of high school students who used a condom during last sexual intercourse to 86.7%, from the 2000 baseline of 66.7%
  Source: 2001 Colorado Youth Risk Behavior Survey, Colorado Department of Public Health and Environment

Reduce Teen Births

- By 2010, reduce births among girls 15 to 17 years old to 22.0 per 1,000, from the 2000 baseline of 29.4 per 1,000
  Source: Vital Statistics, Colorado Department of Public Health and Environment

Reduce Racial/Ethnic Disparities in Teen Birth rates

- By 2010, reduce birth rates among White/Non-Hispanic 15-17 year old girls to 10.0 per 1,000, from the 2000 baseline of 15.2 per 1,000
- By 2010, reduce birth rates among White/Hispanic 15-17 year old girls to 60.0 per 1,000, from the 2000 baseline of 77.8 per 1,000
- By 2010, reduce birth rates among African American 15-17 year old girls to 27.0 per 1,000, from the 2000 baseline of 46.6 per 1,000
  Source: Vital Statistics, Colorado Department of Public Health and Environment

Reduce Chlamydia Infections

- By 2010, reduce Chlamydia trachomatis infections among girls 15 to 19 years old attending public family planning clinics to 3.0%, from the 2000 baseline of 5.5%
  Source: Women's Health, Colorado Department of Public Health and Environment

Websites

Academy for Educational Development
www.aed.org

Advocates for Youth
www.advocatesforyouth.org

Alan Guttmacher Institute
www.agi-usa.org

Annie E. Casey Foundation
www.aecf.org

Campaign for Our Children
www.cfoc.org

Center for Adolescent Health and Development
www.allaboutkids.umn.edu/cfahad

Child Trends
www.childtrends.org

Colorado Abstinence Education Program
www.cdphe.state.co.us/ps/pp/adolschool/abstinence/abstinencehom.asp

Colorado Children's Campaign
www.coloradokids.org

Heritage Foundation
www.heritage.org

Kaiser Family Foundation
www.kff.org

National Campaign to Prevent Teen Pregnancy
www.teenpregnancy.org

National Center for Chronic Disease Prevention and Health Promotion
www.cdc.gov/nccdphp

National Foundation for Infectious Diseases
www.nfid.org

National Institute of Allergy and Infectious Diseases
www.niaid.nih.gov

National Teen Pregnancy Prevention Research Center
www.allaboutkids.umn.edu/cfahad

RAND
www.rand.org

Sexuality Information and Education Council of the United States
www.siecus.org

SHARE (Sexuality, Health, and Relationship Education)
www.share-program.com

Urban Institute
www.urban.org

Chapter VII
Healthy Teen Sexuality

Moments for Colorado Children

Every three hours, a Colorado teenager under age 18 has a baby; every hour and a quarter a baby is born to a Colorado teen aged 18 or 19.
Source: State of Colorado's Children, Children's Defense Fund (published annually)

As youth enter puberty, defining their own sexual identity is at the forefront of normal developmental challenges. Part of normal development for a healthy adolescent is to explore his or her own sexuality and learn to live responsibly with it.[1] Sexual activity can be as innocent as holding hands or as dangerous as unprotected intercourse with multiple partners.[2] Health advocates are particularly concerned with early initiation of sexual intercourse, teen pregnancy, out-of-wedlock births and sexually transmitted infections.[3]

Risky sexual behavior can lead to serious health consequences. For the purposes of this chapter, risky sexual behavior includes sexual intercourse initiated at an early age, unprotected sexual intercourse, sex with multiple partners, inconsistent or absent contraceptive practices and combining sexual activity with other risk behaviors such as use of alcohol or other drugs.[4] Health-compromising results of risky sexual activity include unwanted pregnancy, too early childbearing, sexually transmitted infections[5] and negative effects on the adolescent's social and psychological development.[6] Research on adolescent sexual behavior has typically concentrated on vaginal intercourse. However, adolescents who are virgins, defined as never having had vaginal intercourse, may still be sexually active and may behave in ways that put them at risk for sexually transmitted infection. Other risk behaviors may include oral and anal intercourse.

Teen Sexual Activity

National Trends

- Adolescents themselves reveal important information about their sexual behavior through the national Youth Risk Behavior Survey[7] of high school youth (9th-12th grade). The 1991 and 2001 surveys provide the perspective of changes over a decade.
- In 2001, one in fifteen teens (6.6 percent) reported having engaged in sexual intercourse before age 13. This is a decline from 10.2 percent in the 1991 Youth Risk Behavior Survey.
- Slightly less than half (45.6 percent) of all students reported in the 2001 survey that they had had sexual intercourse at least once, ranging from 34.4 percent for 9th grade to 60.5 percent for 12th graders. This appears to be a decline from 54.1 percent reported in 1991.
- Among students who reported having had sexual intercourse, 26.7 percent reported that they had not had sexual intercourse in the last three months. This question was not asked the same way in 1991.
- About 14.2 percent reported having four or more sexual partners. This appears to represent a decline from 18.7 percent in 1991.
- Of those who reported having had sex in the last three months, 57.9 percent reported that they had used a condom at last sexual intercourse. This is an increase of 25.3 percent from the 46.2 percent reported by sexually active teens in 1991.
- Of those teens who reported having had sexual intercourse, 25.6 percent reported having used

This chapter will explore the following areas:

- What factors contribute to risky teen sexual behavior, and what personal, social or environmental factors help teens avoid high-risk behaviors?
- Data highlights include national and state trends in teen sexual activity, sexually transmitted infections, childbearing and out-of-wedlock births
- Strategies and best practices for prevention efforts, including roles for parents, schools and communities

drugs or alcohol before their last intercourse. This appears to be an increase from the 21.6 percent reported in 1991.

Over the decade, the proportion of youth who reported having had sex before the age of 13 declined by 35.3 percent, and the percent of teens that reported they had never had sex rose by 15.7 percent. In 2001, virgins outnumbered those who say they have had intercourse 54 percent to 46 percent. In 1991, the ratio was just the opposite. Fewer sexually active teens reported having had four or more partners, and contraceptive use had increased. However, those who reported using drugs or alcohol before last intercourse increased.

Prevention Pays

Nationally, teen childbearing costs taxpayers at least $7 billion each year in direct costs associated with health care, foster care, criminal justice, public assistance and lost tax revenues.

Source: Not Just Another Single Issue, The National Campaign to Prevent Teen Pregnancy (2002)

Colorado Trends

Results from the 2001 Colorado Youth Risk Behavior Survey indicate some improvements as well. The Colorado survey, which included a random sample of about 1,000 Colorado teens in public high schools, generally mirrors the latest national survey with some slight differences.[8] Comparisons with the 1995 survey are provided where applicable.[9]

- Two-fifths (42.3 percent) of the students responding to the survey reported having had sexual intercourse at least once in their lives. While this appears to be a decline from the 46.6 percent found in the 1995 survey, the two figures are not strictly comparable because of differences in the two surveys.
- Of those currently sexually active students, 66.7 percent had used a condom during last sexual intercourse and 16.9 percent had used oral contraceptives. This appears to represent an increase in the use of condoms compared to the 1995 Colorado survey (52.9 percent). Use of oral contraceptives is about the same as the 1995 survey (18.2 percent).

KidSpeak

"The fear of disease, fear of getting pregnant, better things to do, and fear of going and asking for birth control makes some teens completely avoid sex altogether." Girl, age 17, Garfield County

- Almost one-third of students surveyed (31.3 percent) who reported that they had ever had sexual intercourse reported that they were currently abstinent. "Currently abstinent" is defined in the survey as not having had sexual intercourse in the three months preceding the survey. This question was not asked the same way in 1995.
- One in eight (12.7 percent) of the sexually active students reported having had sexual intercourse with four or more partners. This appears to represent a decrease from student responses (16.0 percent) in the 1995 Colorado Youth Risk Behavior Survey.
- One in three (31.7 percent) of the sexually active students reported having drunk alcohol or used drugs prior to having sexual intercourse. This appears to represent an increase from student responses (27.3 percent) in the 1995 Colorado survey.[10]

Ask the Experts

What Is the Difference between the Birth Rate and the Pregnancy Rate?

The birth rate is measured by the number of *live births* per 1,000 women. This report focuses on the age-specific teen birth rate since it represents the most accurate and comparable data available. The pregnancy rate is the number of *conceptions* per 1,000 women, calculated from live births, still births, induced abortions and spontaneous abortions (miscarriages), and is considered to be unreliable due to variations in reporting.

Source: Colorado Vital Statistics 1999, Colorado Department of Public Health and Environment

Teen Births

Trends

There is very encouraging news on teen birth rates. Over the last decade birth rates for teenage girls ages 15 to 19 declined in the United States, with declines occurring across all population groups. Historically, Colorado's teen birth rates have been lower than national rates, but have generally mirrored national trends:

- Teen birth rates in Colorado and the United States have declined to around 1980 levels. (See Figure 1.)
- Birth rates for Colorado girls ages 15 to 19 also declined, but they declined more slowly than national teen birth rates. (See Figure 1.)

It is important to note that teen birth rates, both nationally and in Colorado, still are substantially higher in the United States than in other developed countries.[11] (See Figure 2.)

Colorado's goal for 2005 for Colorado's Maternal and Child Health programs is to reduce birth rates for teens ages 15 to 17 to 28.0 births per 1,000 girls. As shown in Figure 1, the birth rate has declined from 33.2 in 1995 to 29.4 in 2000 and to 25.4 in 2001. About half (33 of 64) of Colorado counties are currently at or below the FY 2005 goal.[12]

Here are three ways to locate the teen birth rates for your county:

Colorado Maternal and Child Health Data Sets: www.cdphe.state.co.us/ps/mch/mchadmin/mchdatasets2002/teenfertility.pdf

Colorado Vital Statistics 2000: www.cdphe.state.co.us/hs/county2000/county2000.asp

Colorado Health Information Dataset (CoHID): www.cdphe.state.co.us/cohid/

Race/Ethnicity Matter

As pointed out throughout this report, race/ethnicity often impacts health trends. Planners of successful prevention efforts pay attention to these differences. Figure 3 focuses on teen birth rates for girls aged 15 to 17, who are more likely than teens ages 18 and 19 to still be at home and in school. Birth rates for teen girls under age 15 are much lower.

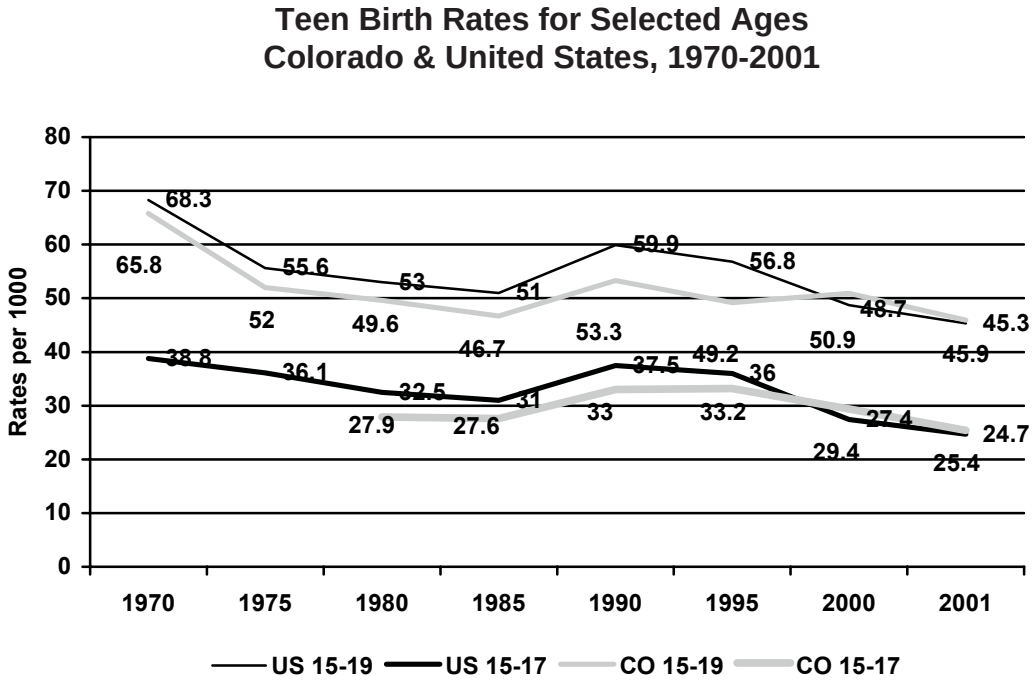

Figure 1. *Source*: Maternal and Child Health grant proposal, Colorado Department of Public Health and Environment (2001); Colorado Department of Public Health and Environment Health Statistics Table 87 (2001 data) National Vital Stats Report, Vol. 51, No. 4, 2/6/2003 U S Rates

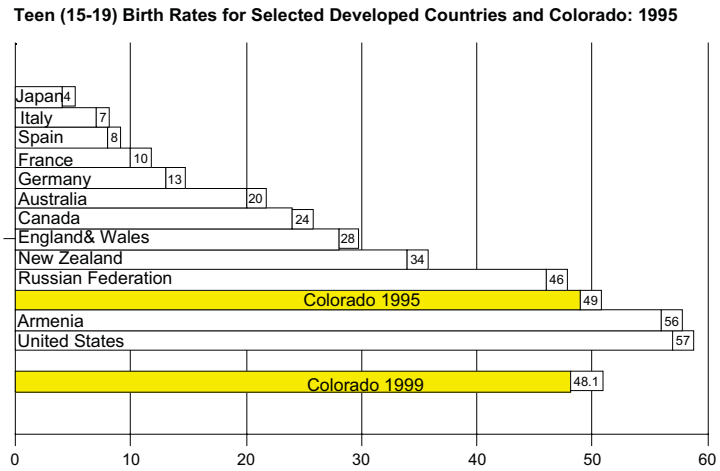

Figure 2. *Source*: *Facts at a Glance*, Child Trends (2001)**;** *Colorado Vital Statistics 1999***,** Colorado Department of Public Health and Environment

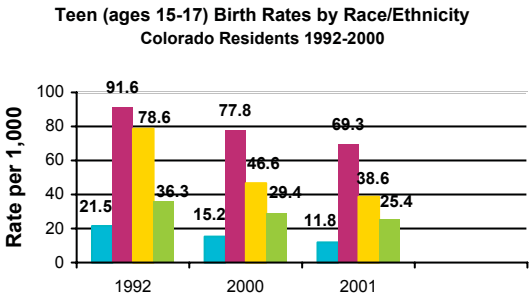

Figure 3. *Source*: S Ricketts, *The Health Status of Colorado's Maternal and Child Health Population*, p. 26, Colorado Department of Public Health and Environment (2000); *Colorado Vital Statistics 2000*, Table B7, Colorado Department of Public Health and Environment

- The birth rate for African American teens aged 15 to 17 dropped a dramatic 40 percent between 1992 and 2000 (from 78.6 to 46.6 per 1,000). From 2000 to 2001, the rate declined further, by another 17 percent.
- The rates for white non-Hispanic teens declined by 29 percent (from 21.5 to 15.2 per 1,000). Another drop occurred from 2000 to 2001, by a surprising 22 percent.
- However, birth rates for Hispanic teens declined only 15 percent over the same period (from 91.6 to 77.8 per 1,000). (See Figure 3.) Nearly half of all teen births in this age group are among Hispanics, who comprise only 20 percent of girls in this age group.[13] Birth rates declined an additional 11 percent among Hispanic teens between 2000 and 2001.

Generally, birth outcomes for babies born to teenage mothers are poorer than those to older mothers. Teen mothers are less likely to receive prenatal care early in pregnancy. Babies of teen mothers are more likely to be born at low birth weight (less than 5.5 pounds) and are more likely than babies of older women to be born prematurely (less than 37 weeks of pregnancy). These indicators are linked to adverse health consequences for both mother and baby.

Most teen pregnancies are unintended, so teen moms (and dads) are not prepared for the emotional, financial and psychological realities; responsibilities and challenges of parenting. The child of an unintended pregnancy is at greater risk of being abused or neglected or dying in the first year of life.[14]

Unmarried Mothers

The majority of teen mothers in Colorado are unmarried (71.3 percent in 2000), and their babies more often grow up in poor economic circumstances.[15] Over the last decade, the proportion of births to unmarried younger teens remained relatively stable; increases for older teens and adults were more dramatic.

- Ninety-seven percent of teen mothers younger than 15 were unmarried. This figure increased about 4 percent over the decade.
- Most (about 85 percent) teen mothers between the ages of 15 and 17 were unmarried, increasing about 5 percent over the decade.
- Almost two-thirds (63 percent) of older teen mothers (ages 18 and 19) were unmarried, increasing about 10 percent over the decade.

Sexually Transmitted Infections

Sexually transmitted infections (STIs) are one of the risks of intimate contact.

- There are more than 25 kinds of STIs.[16]
- Unprotected sexual intercourse is a high-risk activity for transmitting all types of STIs, but some infections, such as herpes and hepatitis, can also be passed through kissing.[17]
- Experts estimate that, annually, one-fourth of all teens (about three million) will contract a sexually transmitted infection. These infections include (not in order of frequency): HIV, human papillomavirus (HPV),[18] hepatitis B virus, chlamydia and gonorrhea.

- Diagnosed STI cases fail to represent the entire picture. For example, AIDS is the ninth leading cause of death for youth aged 15-25, and given the lag time between infection and onset of symptoms, most infections in this age group were probably the result of unprotected teenage sexual activity.

National Trends

Adolescents of both sexes may be more vulnerable than adults for many sexually transmitted infections (STIs).

- Adolescents 10 to 19 years of age and young adults 20 to 24 years of age are at higher risk for acquiring STIs; they may be more likely to engage in unprotected sex, to have multiple partners rather than a long-term relationship and to select partners at higher risk.[19]
- Babies of adolescents are at risk because STIs can be passed from a mother to her baby before or during birth. While some of these infections of the newborn can be cured, others may cause permanent disability or even death for the baby.[20]
- Adolescents may engage in drinking alcohol or using drugs before sex. This adds to the challenges in using refusal skills, negotiating with their sexual partner, properly using contraception and taking measures to protect from STIs.[21]
- Young women's physical immaturity make them more susceptible to some sexually transmitted diseases such as chlamydia, gonorrhea and HIV, adding to the risk of other conditions such as pelvic inflammatory disease and precancerous and cancerous changes to the cervix.[22]
- Adolescents are more likely to lack health insurance and a regular source of primary health care. Delaying or foregoing screening, diagnosis and treatment can lead to otherwise avoidable medical complications.
- In the United States, rates of HIV and other sexually transmitted infections are disproportionately high among youth of color, particularly young African American and Latina women, when compared to white, non-Hispanic youth.[23]

Colorado Trends

In Colorado, teens ages 15-19 continue to have some of the highest age-specific rates of gonorrhea and chlamydia.

- In 2000, the Colorado rate for gonorrhea was 71 per 100,000 persons. For teens ages 15-19 the rate was 230.8 per 100,000, an increase of 11 percent from 1999. The rate for younger teens, though much lower, increased by 16 percent over the same time period.
- In 2000, female teens ages 15-19 had the second highest actual number of reported chlamydia cases (rate 62.5 per 100,000 persons). The rate for these girls increased by more than 10 percent from 1999, and the rate for younger females ages 10-14 increased by 30 percent during this same time period.[24]

KidSpeak

"Many teens face these issues each day yet the answers do not get any easier." Boy, age 16, Adams County.

These factors play a part in teen decision-making – singly or in combination – and successful prevention strategies take them into account. The plethora of factors means there is no "one size fits all" program or strategy that will successfully prevent teenage pregnancy.

Likewise, according to health experts, multiple factors may be at work in declining teen fertility rates over the last decade:

- The variety and number of sexuality education programs (e.g., comprehensive sexuality education, HIV education, abstinence-based and abstinence-only education) has increased.[26]
- Decreased rates of pregnancy, abortion and births among the entire adolescent cohort seem to correlate with a corresponding decrease in teenage sexual activity.[27]
- The number and diversity of assets-strengthening and youth development programs for adolescents have increased as communities have sought ways to decrease adolescent risk behaviors.

Table 1: Teen Sexual Activity: Risk And Protective Factors

The research indicates that multiple factors affect how teens approach sexual activity and what factors influence whether a teen becomes or gets someone pregnant. Below is a list of potentially important risk (negative) and protective (positive) factors that may affect adolescent sexual behavior, use of contraception, pregnancy and childbearing ("+" denotes a protective factor; "-" denotes a risk factor): [25]

Community

+	High level of education
-	High unemployment rate
+	High income level
-	High crime rate

Family

+	Two parents (vs. one)
-	Changes in parental marital status
+	High level of parents' education
+	High parental income level
+	Parental support and family connectedness
+	Sufficient parental supervision and monitoring
-	Mother's early age at first sex and first birth
-	Single mother's dating and cohabitation behaviors
+	Conservative parental attitudes about premarital sex or teen sex
+	Older sibling's early sexual behavior and age of first birth

Peer

+	High grades among friends
-	Peers' substance use and delinquent and non-normative behavior
-	Sexually active peers (or perception thereof)
+	Positive peer norms or support for condom or contraceptive use

Partner

+	Partner support for contraception

Teen

-	Older age and greater physical maturity
-	Higher hormone levels
+	Good school performance
+	Educational aspirations and plans for the future
+	Frequent religious attendance
-	Alcohol or drug use
-	Problem behaviors or delinquency
-	Other risk behaviors
-	Higher level of stress
-	Depression
-	Suicide ideation
-	Early and frequent dating
-	Going steady, having a close relationship
-	Greater number of romantic partners
-	Having a partner three or more years older
-	History of prior sexual coercion or abuse
+	Conservative attitudes toward premarital sex
+	Greater perceived susceptibility to pregnancy, childbearing and STIs
+	Understanding importance of avoiding pregnancy, childbearing and STIs
+	Greater knowledge about contraception
+	More positive attitudes about contraception
+	Greater perceived self-efficacy in using condoms or contraception

- Venues for adolescent health services (school-based and school-linked centers, community health centers specializing in adolescents and adolescent mental health services in schools) have increased both in number and capacity.
- Longer-acting hormonal contraceptives such as Depo-Provera are now readily available, making consistent use of contraceptives easier for sexually active teens.[28]
- HIV/AIDS education and fear of HIV/AIDS may be contributing to lower sexual activity rates.
- Sexually active teens are reporting higher rates of condom use and other contraceptive methods, and may be using them more correctly and consistently.[29]
- Increased awareness and utilization of emergency contraception to decrease the risk of pregnancy when unplanned intercourse or contraceptive failure has occurred.

Best Practices For Prevention

What do youth need to protect themselves from health-compromising consequences of sexual activity? Youth need opportunities that encourage delay of sexual activity. They need good information, (see Table 1.) health services and parental involvement.[30] While there is no silver bullet to cure the problem, nationally accepted research describes best practices for various strategies.

The Involvement of Parents is Key

Researchers overwhelmingly conclude that parent involvement is associated with reduced teen pregnancy risk; a greater likelihood of sexual abstinence for a longer period of time; fewer sexual partners; and more consistent use of contraception. This includes parental involvement at home[42] and in the community.[43]

Myths & Facts

Myth: If I talk to my child about sex, he or she will be more likely to "do it."

Fact: Children whose parents talk with them about sexual matters or provide sexuality education or contraceptive information at home are more likely than others to postpone sexual activity. And when these adolescents become sexually active, they have fewer sexual partners and are more likely to use contraceptives and condoms than young people who do not discuss sexual matters with their parents.

Source: Talking with Kids about Sex, Talking with Kids about Tough Issues, www.talkingwithkids.org

The National Campaign to Prevent Teen Pregnancy talked with experts in the field and reviewed recent research about parental influences on children's sexual behavior and identified ten important ways that parents can reduce the risk of their teens becoming pregnant.[44]

- *Be clear about your own personal sexual values and attitudes.* Communicating with young people about sex, love and relationships is more successful when adults are certain about their own attitudes.
- *Talk with children early and often about sex, and be specific.* Young people have a lot of questions about sex, and they often say they would most like to go to parents for answers.
- *Supervise and monitor children and teens.* Establish rules, curfews and standards for expected behavior, preferably through an open process of respectful communication.
- *Know a teen's friends and their families.* Friends have a strong influence, and parents can help children become friends with young people whose families share their values.
- *Discourage early, frequent and steady dating.* Allowing teens to begin steady, one-on-one dating before age 16 can lead to trouble.
- *Take a strong stand against a daughter dating a boy significantly older than she is.* Do not allow a son to develop an intense relationship with a girl much younger than he is. The power differences between younger girls and older boys or men can lead girls into risky situations.
- *Help teens to have options for the future that are more attractive than early pregnancy and parenthood.* Teens are more likely to delay sex, pregnancy and parenthood if they feel hopeful about their futures.
- *Let teens know that education is highly valued.* School failure is often the first sign of trouble that can end in teenage parenthood.
- *Know what teens are watching, reading and listening to.* The media are full of material sending the wrong messages about sex, love and relationships.
- *The first nine tips work best when they occur as part of strong, close relationships between children and parents, built from an early age.* Strive for a relationship that is warm in tone, firm in discipline and rich in communication, emphasizing mutual trust and respect.

Schools

High school students report that, after their friends, school is their primary source of information on sexual health issues. During the last decade, the debate about what information to teach teens regarding sexuality has diverged into two lines of thought. Some believe that the only information that should be provided is a strong message that supports abstinence from sexual activity, along with relationship skill building to help teens remain abstinent. The concern among some has been that providing comprehensive information on human sexuality along with a message that teens should remain abstinent may give a double message that is confusing to adolescents. Others believe that a comprehensive approach to sex education should include all information along with a strong abstinence message, arguing that some teens will experiment with sex and withholding information only increases the likelihood that they will lack the needed information to protect themselves from pregnancy and sexually transmitted infections.

As discussed in the best practices section below,

recent evidence indicates that the best approach may be both a strong message regarding abstinence as well as age-appropriate information on human sexuality, in context with approaches to build refusal and relationship skills that help teens avoid risky behavior.

Sexuality Education in Colorado

The Colorado Comprehensive Health Education Act of 1990 does not require but rather encourages Colorado's 176 school districts to provide a pre-K-12th grade planned, sequential, health education program.[31] One component of this continuum of health education is a recommendation that schools provide age-appropriate sexuality and human reproduction education. The law requires that "all such training includes values and responsibility and gives primary emphasis to abstinence by school-aged children."[32] There are no specific requirements for HIV/STI education.

In 1997, Colorado was awarded five years of Title V Abstinence Education funding under the 1996 federal welfare reform act[33] to establish the Colorado Abstinence Education Program. The federal allocation for the program nationally was set at $50 million per year, and Colorado has received over $500,000 per year. The project is a collaborative effort between the Office of the Governor and the Colorado Department of Public Health and Environment to reduce teen pregnancy and sexually transmitted infections in teens by encouraging sexual abstinence, using the following broad strategies:

- Creating and implementing strategic, statewide communication efforts to increase awareness and acceptance of abstinence as a healthy choice and a positive lifestyle
  - Involving parents and the community[34]
- Supporting community-based, abstinence-centered education programs for school-age children, males and females, grades 5 through 12

KidSpeak

"There are a lot of good reasons to say 'no, not yet.' Protecting your feelings is one of them." Girl, age 16, Aurora

Facts Regarding Sexuality Education

A number of strategies have evolved to address the full range of adolescent sexual health concerns. These proven strategies can be adapted to reflect local needs and values.

- Comprehensive approaches to sexuality education have been tested and evaluated for the last two to three decades. Well-researched comprehensive sexuality programs that have been found to be effective, when implemented as designed, can be successful in preventing teen pregnancy.
- Existing research on mixed programs indicates that encouraging abstinence and teaching about contraception are not incompatible.[35] Programs that urge teens to postpone having intercourse but also discuss contraception do not accelerate the onset of sex, increase the frequency of sex or increase the number of partners. They do increase the use of contraception among teens that become sexually active.[36]

KidSpeak

"You can always say 'no' - even if you have said 'yes' before." Girl, age 15, Denver, *Source:* www.Saynoway.net

- There is some evidence of effectiveness for formal abstinence-centered programs, though they are relatively new and effectiveness research is ongoing.[37] A national evaluation of federally funded abstinence-only programs is currently underway.[38]

Characteristics of Successful Comprehensive Sexuality Education Programs

Effective education and HIV prevention programs have the following common characteristics:

- Focus on reducing one or more sexual behaviors that lead to unintended pregnancy or HIV or sexually transmitted infection
- Base on theoretical approaches that have been demonstrated to influence other health-related behavior and identify specific important sexual antecedents to be targeted
- Deliver and consistently reinforce a clear messages about responsible sexual behavior
- Provide basic, accurate information about the risks of teen sexual activity and about ways to avoid intercourse or to use methods of protection against pregnancy and sexually transmitted infections

- Include activities that address the social pressures that influence sexual behavior
- Provide examples of, and practice with, communication, negotiation and refusal skills
- Employ teaching methods that involve participants in personalizing the information
- Incorporate behavioral goals, teaching methods and materials that are appropriate to the age, sexual experience and culture of the students

KidSpeak

"I trust my doctor; she knows what is best for me when it comes to taking care of my body." Girl, age 17, Larimer County

- Last a sufficient length of time to impact teen knowledge, attitudes and choices
- Select teachers or peer leaders who believe in the program and provide them with adequate training[39]

Strategies for Abstinence-Centered Education

Strong abstinence-centered education programs use tested best practices employed in successful comprehensive sexuality education programs as outlined above (with the exception of contraceptive information) and positive youth development strategies. Using a curricula-based approach, these programs address sexual health from the perspective of the physical, mental, emotional, social and spiritual impact of early sexual activity, and the benefits of abstinence from sexual activity. Some additional elements are present in abstinence-centered education programs:• Provide a clear message that abstinence from sexual activity is the community standard of behavior for teens

- Present medically accurate information about the risks associated with early sexual behavior
- Address social and media influences
- Educate youth about healthy relationships and provide them with opportunities to participate in skill-building activities to strengthen relationship skills
- Incorporate family, peers and community into the teaching strategies

Communities

Accessible Health Services to Promote and Maintain Sexual Health

Pregnancy and sexually transmitted infection prevention programs can include health services, youth development and parent involvement.[40] Colorado statute permits youth of any age to seek confidential reproductive health services; however, effective health care providers encourage teens to talk with their parents about all health issues, including reproductive health. "Teen-friendly" health services programs share the best practice "profile" discussed in Chapter X, Accessible Health Care to Ensure Healthy Adolescents, including being available when teens are available and on terms that are convenient for teens, such as allowing walk-in appointments, providing sliding fee scales and assuring confidentiality.

KidSpeak

"I don't think teens have enough information about contraceptives. If they did, then the birth rate among teens might not be so high." Boy, age 17, Denver

Prevention Pays

- A cost benefit analysis suggests that expenditures could increase up to eight times more than is currently being spent on teen pregnancy prevention and still break even.
- • A study estimating the cost-effectiveness and cost-benefit of one particular curriculum found that for every dollar invested in the program, $2.65 in total medical and social costs were saved. The savings were produced by preventing pregnancy and sexually transmitted infections.

Source: Teen Pregnancy: Not Just Another Single Issue, The National Campaign to Prevent Teen Pregnancy (2002)

The risk of teen pregnancy for couples engaging in sexual intercourse without contraception is estimated at 85 percent. Today, there are many different contraceptive methods that, when used correctly, offer safe and reliable protection.

- Birth control pills are taken daily, and are 95 percent effective. Forty percent of teens attending Colorado's public family planning clinics use this method of birth control.
- Depo-Provera, a contraceptive that is injected intramuscularly every three months, is 99.7 percent effective. Twenty-one percent of teens attending public family planning clinics in Colorado use this method of contraception.
- Condoms alone are 86 percent effective in protecting against pregnancy. Eight percent of teens visiting public family planning clinics use condoms as their primary method of birth control. Condoms also offer protection against certain types of sexually transmitted infections, such as gonorrhea and chlamydia, but are not as effective in preventing viruses, such as human papillomavirus (HPV) and herpes.

The percentages above do not add up to 100 because not all birthcontrol methods are included. About 5 to 6 percent of teens visiting public family planning clinics reported they were not using any birth control method at the time of the visit.

KidSpeak

"I think most teens get their information about contraceptives from their parents, which is very important because a lot of the time it may be information you haven't learned in the real world."
Boy, age 16, Adams County

Characteristics of Successful Multi-Component Approaches

Multi-component approaches to preventing risky sexual behaviors may include media campaigns, classroom instruction, community-wide activities, positive youth development approaches and providing access to health services. Several large-scale studies and evaluations reveal that the simple fact of being multi-faceted is not a guarantee that programs will result in reductions in risky behaviors by youth. Successful outcomes are more closely related to the intensity and duration of the program and the characteristics of the target population.[41]

End Notes

1. C Dailard, "Recent findings from the 'Add Health' survey: Teens and sexual activity," *The Guttmacher Report on Public Policy* 4(4):1-3 (2001).
2. W Gallagher, "Young love: The good, the bad and the educational," *The New York Times* November 13, 2001.
3. K Moore et al., *Beginning Too Soon: Adolescent Sexual Behavior, Pregnancy and Parenthood: A Review of Research and Interventions*, U.S. Department of Health and Human Services (1998).
4. RAND, *Understanding the Sexual Behavior of Adolescents* (Pub. No. 4543) (2002); The Henry J. Kaiser Family Foundation, *Substance Use and Risky Sexual Activity* (2002).
5. This report uses the term "sexually transmitted infection" (STI) interchangeably with "sexually transmitted disease" (STD).
6. See, generally, The National Campaign to Prevent Teen Pregnancy*, Not Just Another Single Issue* (2002); Annie E. Casey Foundation, *When Teens Have Sex* (1998); R Maynard, ed., *Kids Having Kids: Economic Costs and Social Consequences of Teen Pregnancy*, Urban Institute Press (1997); R Wertheimer and K Moore, *Childbearing by Teens: Links to Welfare Reform*, The Urban Institute and Child Trends (1998).
7. National Center for Chronic Disease Prevention and Health Promotion, *Youth Risk Behavior Surveillance [YRBS] – United States, 1999* (2000). The figures reported in the YRBS may be conservative with respect to adolescent behavior in general. Data in the YRBS are self-reported by students, and are a sample of youth in public high schools, not including alternative schools or out-of school youth (whether dropouts or incarcerated youth).
8. Colorado Department of Public Health and Environment. Colorado Youth Risk Behavior Survey (CoYRBS) 2001; Colorado Department of Education, Colorado Youth Risk Behavior Survey, 1995. The Colorado Youth Risk Behavior Survey is part of a bi-annual (every two years) national survey monitoring six categories of priority health-risk behaviors among adolescents in public high school, including sexual activity. The Centers for Disease Control, US Department of Health and Human Services developed the survey and administers it to a nationally drawn random selection of public high schools. In Colorado, the Department of Public Health and Environment conducts the survey in a random sample of public high schools in the state. While the national survey has a large enough sample to be weighted and generalizations and comparisons can be made, the Colorado Youth Risk Behavior Survey for 1997 and 2001 did not have weighted data, due to the sample size, so the results of the survey cannot be generalized to all public high school students in grades 9 through 12. Also, comparisons of the surveys across time should be made very cautiously. However, as a snapshot of 1,000 randomly selected public high school students, the 2001 Colorado Youth Risk Behavior Survey does provide a glimpse of selected adolescent behaviors in Colorado.
9. 1995 is used as a comparison year because it was a year for which Colorado had weighted data. See the discussion of surveys at the end of the Introduction.
10. The students who took the 2001 Colorado Youth Risk Behavior Survey were relatively young. Almost three-quarters (71.4 percent) of them were in 9th and 10th grade. In the 1995 survey, the respondents were distributed more evenly among the grades surveyed. Age distributions in the national YRBS are even. Because of the number of younger students, a direct comparison between *total student responses* on the 2001 survey and earlier Colorado surveys can be misleading. Younger

students might report different answers from older students, as indicated by the different answers given by students in different grades.

11. JE Darroch, JJ Frost and S Singh, *Teenage Sexual and Reproductive Behavior in Developed Countries: Can More Progress Be Made?* (Occasional Report No. 3), The Alan Guttmacher Institute (2001).
12. Colorado Maternal and Child Health County Data Sets, County Comparisons: Teen Fertility Rate, Division of Prevention and Intervention Services for Children and Youth, Colorado Department of Public Health and Environment (2002).
13. Maternal and Child Health grant proposal, Colorado Department of Public Health and Environment (2001).
14. *Unintended Pregnancy: Colorado Pregnancy Risk Assessment Monitoring System (PRAMS), 1997-1999* (Brief No. 43), Health Statistics Section, Colorado Department of Public Health and Environment (November 2001).
15. See, e.g., Colorado Children's Campaign, *2002 KidsCount in Colorado!* (2002).
16. Centers for Disease Control and Prevention, *Tracking the Hidden Epidemics: Trends in STDs in the United States 2000* (2001).
17. Common modes of disease transmission include sexual contact; maternal-fetal transmission at birth, sharing toothbrushes and razors; using unsterilized needles for injection drug use, body piercing, tattooing or acupuncture; and living with someone infected with hepatitis B. The National Foundation for Infectious Diseases, *Vaccine Protection: Adolescents Falling through the Cracks* (news release, August 15, 1996); Sexuality Information and Education Council of the United States (SIECUS), *Sexually Transmitted Diseases in the United States* (no date).
18. HPV is associated with the vast majority of cases of cervical dysplasia, a pre-cancerous condition of the cervix that affects over 2.5 million American women. National Teen Pregnancy Prevention Research Center, *Timely Matters: Human Papillomavirus/HPV/Genital Warts*, Center for Adolescent Health and Development, University of Minnesota (2002).
19. SIECUS, *Sexually Transmitted Diseases*, see note 17.
20. See, e.g., National Institute of Allergy and Infectious Diseases, *An Introduction to Sexually Transmitted Diseases* (1999).
21. LD Lindberg et al., *Teen Risk-Taking: A Statistical Portrait*, Urban Institute (2000).
22. An infection of the uterine lining and the fallopian tubes precipitated by sexual activity and related to the presence of sexually transmitted disease in the genital tract. K Soren, "The adolescent years," in *Complete Home Medical Guide*, 3rd rev. ed., Columbia University College of Physicians and Surgeons (1995); The Alan Guttmacher Institute, *Facts in Brief: Teen Sex and Pregnancy* (1999).
23. S Pagliaro and LM Gipson, *Effective HIV/STD and Teen Pregnancy Prevention Programs for Young Women of Color*, rev. ed., Advocates for Youth (2001).
24. Colordo Department of Public Health and Environment, Division of Disease Control and Environmental Epidemiology, *Sexually Transmitted Diseases in Colorado: Surveillance Report: 2000* (2002).
25. D Kirby, *Emerging Answers: Research Findings on Programs to Reduce Teen Pregnancy*, National Campaign to Prevent Teen Pregnancy (2001)
26. To what extent has abstinence accounted for the drop in the U.S. teen pregnancy rate? Based on calculations by The Alan Guttmacher Institute, it appears that increased abstinence among women accounted for approximately one-quarter of the drop in the U.S. teen pregnancy rate between 1995 and 1998. JE Darroch and S Singh, *Why is Teenage Pregnancy Declining? The Roles of Abstinence, Sexual Activity and Contraceptive Use* (Occasional Report No. 1), The Alan Guttmacher Institute (1999).
27. J Jones et al., *The Declines in Adolescent Pregnancy, Birth and Abortion Rates in the 1990s: What Factors Are Responsible?: Commentary from the Consortium of State Physicians Resource Councils*, SHARE (Sexuality, Health, and Relationship Education) (no date).
28. MCH grant proposal, see note 13.
29. Darroch and Singh, *Why is Teen Pregnancy Declining?* see note 26; H Boonstra, "Teen pregnancy: Trends and lessons learned," *The Guttmacher Report on Public Policy* 5(1) (2002).
30. See discussion in Chapter X, Accessible Care to Ensure Healthy Adolescents; see also US Surgeon General, *The Surgeon General's Call to Action to Promote Sexual Health and Responsible Sexual Behavior* (June 2001); Sexuality Information and Education Council of the United States (SIECUS), "Sexuality and underserved youth in communities of color," *SIECUS Report* 29(5) (2001).; RW Blum, T Beuhring and PM Rinehart, *Protecting Teens: Beyond Race, Income and Family Structure*, Center For Adolescent Health and Development, University of Minnesota (2000).
31. Colorado Revised Statutes, CRS 22-25-101, The Colorado Comprehensive Health Education Act of 1990. Parental and community involvement in the program is stressed. Parents/guardians have the right to exempt a student from any or all of the health education program. Local health advisory councils are encouraged and should be representative of the norms and values of the community. For more information on the act, visit the Colorado Department of Education website: http://www.cde.state.co.us/cdeprevention/comphealthed.htm; see also Henry J. Kaiser Family Foundation, *Sex Education in the U.S.: Policy and Politics* (2002).
32. Colorado Revised Statutes, 22-25-104(6).
33. Sec. 510 [42 U.S.C. 710]. Title V of the Social Security Act, §§701-709, subchapter V, chapter 7, Title 42. The law established eight criteria for funding abstinence education, to promote abstinence from sexual activity until marriage as the community standard for behavior. States are not allowed to use federal abstinence funds for programs that conflict with these criteria. Note that the federal TANF (Temporary Assistance for Needy Families) bill is up for reauthorization in 2002, and this language is subject to change.
34. Colorado Department of Public Health and Environment, Colorado Abstinence Education Program.
35. Kirby, *Emerging Answers*, see note 25.
36. Ibid; see also J Hutchins, *Fact Sheet: The Next Best Thing: Encouraging Contraceptive Use Among Sexually Active Teens*, National Campaign to Prevent Teen Pregnancy (2000).
37. Kirby, *Emerging Answers*, see note 25; R Rector, "The effectiveness of abstinence education programs in reducing sexual activity among youth," *Backgrounder* No.1533, The Heritage Foundation (2002).
38. B Devaney et al., *The Evaluation of Abstinence Education Programs Funded under Title V Section 510: Interim Report*, Office of Human Services Policy, US Department of Health and Human Services (2002).
39. Kirby, *Emerging Answers*, see note 25; J Manlove et al., *What Works: Adolescent Reproductive Health,* Child Trends (2002).
40. National Center for Chronic Disease Prevention and Health Promotion, *Programs that Work* (no date).
41. Kirby, *Emerging Answers*, see note 25.
42. Sexuality Information and Education Council of the United States (SIECUS), "The impact of parent-teen communication on adolescent sexual behavior," *SHOP Talk* 5(6); see also B Miller, *Families Matter: A Research Synthesis of Family Influences on Adolescent Pregnancy*, National Campaign to Prevent Teen Pregnancy (1998); Child Trends, American Teens Research Brief Series and What Works Tables, on youth development (2002).

43. See e.g., Campaign for Our Children, *How to Talk to Your School Board About Sex* (no date).
44. The National Campaign to Prevent Teen Pregnancy, *Ten Tips for Parents to Help Their Children Avoid Teen Pregnancy* (no date).