# STD'S

#### **UPDATED 9/19/07**

### "HERPES INFECTIONS FREQUENT IN ADOLESCENT GIRLS"

"A national survey of the US population conducted between 1988 and 1994 found that more than one in five people over 12 had blood tests that showed evidence for infection with herpes simplex virus 2 (HSV 2), the virus typically responsible for genital herpes, Fife and his team note in their report in the July issue of Sexually Transmitted Diseases. This represents a 30 percent increase from 1976-198. There is also evidence that genital infections with HSV 1, which normally causes cold sores around the mouth, are on the rise, they add."

"To examine the incidence and prevalence of both strains of the virus among adolescent women, Fife and his team analyzed data from a study in which a group of young women were followed closely to determine if they contracted any sexually transmitted infections. Their analysis included result of blood and genital specimen tests obtained every three months from 100 women aged 14 to 18."

"At the study's outset, they found, 59.6 percent of the women tested positive for HSV 1, while 13.5 percent carried HSV 2. During the follow-up period, from 1999 to 2004, four of the study participants contracted new HSV 1 infections, while seven acquired HSV 2."

(Anne Harding "Herpes infections frequent in adolescent girls" Yahoo news, July 31, 2006, www.news.yahoo.com)

#### "FIGHTING HPV"

"According to the U.S. Centers for Disease Control and Prevention, 20 million people have the human papilloma virus. Half of all sexually active American men and women will get HPV at some time in their lives. Many will not even know they have it."

"There is no HPV test for men, in whom HPV infection produces no symptoms."

(Aja J. Junior, "Fighting HPV," STL Today, July 25, 2006, www.stltoday.com)

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# "1 IN 4 U.S. WOMEN HAVE HPV BUT ONLY TINY PERCENTAGE INFECTED WITH STRAINS TARGETED BY NEW VACCINE"

"One in four U.S. women ages 14 to 59 is infected with the sexually transmitted virus that in some forms can cause cervical cancer, according to the first broad national estimate."

"Researchers have estimated that 20 million Americans have some form of HPV. The study concluded that 26.8 percent of U.S. women are infected, a figure that is comparable to earlier estimates using smaller groups."

"Young women face highest risk

Just 3.4 percent of the women studied had infections with one of the four HPV strains that the new vaccine protects against. But that doesn't mean the vaccine should be written off, said Dr. Yvonne Collins, an assistant professor of gynecologic cancer at the University of Illinois at Chicago."

"For one thing, Collins said, that relatively small percentage corresponds with a lot of women – about 3 million, according to the reports. And it does not include those with past infections that have cleared up."

"Women aged 20 to 24 had the highest overall HPV prevalence in the study, 44.8 percent. Prevalence increased each year from ages 14 to 24, then dropped off gradually, confirming that young, sexually active women face the greatest risk of infection."

("1 in 4 U.S. women have HPV But only tiny percentage infected with strains targeted by new vaccine," The Associated Press, February 2007, www.msnbc.msn.com/id/17364887/print/1/displaymode/1098)

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"STD-PREVENTION COUNSELING PRACTICES AND HUMAN PAPILLOMAVIRUS OPIONIONS AMONG CLINICIANS WITH ADOLESCENT PATIENTS --- UNITED STATES, 2004"

"In 2000, an estimated 18.9 million new cases of sexually transmitted diseases (STDs) occurred in the U (1). Although young persons aged 15—24 years represented only 25% of the sexually active population, approximately 48% of STD cases in 2000 occurred in this age group (1)."

"In 2000, an estimated 4.6 million new HPV infections occurred among persons aged 15—24 years (1), expected direct medical lifetime costs of \$2.9 billion (2). In June 2006, the Food and Drug Administration the first HPV vaccine for females aged 9—26 years for the prevention of cervical cancer."

("STD-Prevention Counseling Practices and Human Papillomavirue Opinions Among Clinicians with Adolescent Patients --- United States, 2004," MMWF, October 2006, www.cdc.gov/mmwr/preview/mmwrhtml/mm5541a1.htm?s\_cid=mm5541a1\_e)

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#### "STUDY SAYS 25 MILLION WOMEN HAVE HPV"

"One in four U.S. women ages 14 to 59 are infected with human papillomavirus, or HPV, the sexually transmitted virus that in some forms can cause cervical cancer, a large federal study estimates. The finding that 26.8% of U.S. women (about 25 million) are infected is comparable to earlier estimates, researchers say. But the overall HPV prevalence among the youngest women studied, 14- to 24-year-olds, was much higher than in previous estimates, 7.5 million vs. 4.6 million. The highest prevalence – 44.8% - was found in young women age 20 to 24, says the report from the Centers for Disease Control and Prevention in today's Journal of the American Medical Association. Just 3.4% of the 1,921 women in the study had infections with one of the four HPV strains targeted by a new virus-fighting vaccine. But experts note that that small percentage corresponds with about 3 million women."

(Michelle Healy, "Study says 25 million women have HPV," usatoday.com)

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# "HUMAN PAPILLOMAVIRUS (HPV) AND CERVICAL CANCER: AN UPDATE ON PREVENTION STRATEGIES SCRIPT"

"there is no curative treatment for genital HPV infection."

"It's estimated that at least 50 percent of sexually active women are infected with genital HPV at some point in their lives, and it's likely that comparable rates would be found in men...if there were good HPV testing methods available for men."

"Genital HPV infection is sexually transmitted infection, but it's not transmitted like many other STDs, which are passed from partner to partner through semen or other bodily fluids. Instead, it's transmitted through skin-to-skin contact."

"It can also be passed through oral-genital, manual-genital, and external genital, genital contact, although we believe these routes of transmission are much less efficient and thus, much less common than sexual intercourse."

"An estimated 1.4 million people have genital warts at any one time in the United States. That's about 1% of the sexually active population, making genital warts one of our most common STDs."

"CDC estimates that 15% of the population"

"-or about 20 million people"

"-currently have a detectable genital HPV infection, and an estimated 9.2 million sexually active adolescents and young adults 15 to 24 years of age are infected with genital HPV."

"An estimated 6.2 million new genital HPV infections occur each year."

("Human Papillomavirus (HPV) and Cervical Cancer: An Update on Prevention Strategies Script," August 2005: 1-6)

# "NUMBER OF PEOPLE WITH HIV DOUBLED IN PAST DECADE, U.N. FINDS"

"Johannesburg, Nov. 21 – The number of people infected with the virus that causes AIDS has doubled in the past decade to 40 million, and there is no end in sight as the pandemic continues to outpace efforts to prevent new infections and treat those already sick, according to a new U.N. report released Monday."

(Craig Timberg, "Number of People With HIV Doubled in Past Decade, U.N. Finds," The Washington Post, November 2005)

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#### "SOCIAL ISSUES LINKED TO RISE IN STDS"

"The Centers for Disease Control and Prevention reports there are more than 65 million people living with incurable STDs in the United States, and at least one in four Americans will contract an STD at some point in their lives."

"Most Alarmingly, there are nearly 1 million Americans currently infected with HIV/AIDS, and nearly 20 percent of them are unaware of their diagnosis."

(Terry Wynn, :Social Issues Linked to Rise in STDs," MSNBC, April 2005, <a href="https://www.msnbc.msn.com/id/7268133">www.msnbc.msn.com/id/7268133</a>)

#### "STDS: NEW STD DIAGNOSES IN UK UP 62 PERCENT"

"New STD diagnoses in the United Kingdom are up 62 percent from just 10 years ago, according to a new report made by Britain's Health Protection Agency."

("STDS: New STD Diagnoses in UK up 62 Percent," Abstinence Clearinghouse December 2005, <a href="https://www.abstinceclearninghouse.org/library/index.php?entryid=2343">www.abstinceclearninghouse.org/library/index.php?entryid=2343</a>)

#### "HIV/AIDS RAPIDLY SPREADING IN NATION"

"MOSCOW – HIV/AIDS is spreading at a devastating pace in Russia, with a new study showing an estimated 1 million people infected – three times the number officially reported – U.S. and Russian experts said Wednesday."

("HIV/AIDS Rapidly spreading in nation," Madison Wisconsin Paper, January 13)

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#### "STDs IN AMERICA"

"The American Social Health Association estimates there are nearly 19 million new cases of sexually transmitted diseases in the United States each year."

"STD Incidence\*"

"Chlamydia 2.8 million"

"Gonorrhea 718,000"

"Syphilis 37,000"

"Herpes 1.6 million"

"Human 6.2 million"

"Papillmoavirus"

"Hepatitis B 81,000"

"Human papillomavirus, or HPV, is a common cause of sexually transmitted disease. In some cases, the virus can form warts on various parts of the body, including the feet, hands and genitals. There are more than 100 types of HPV, most of which are harmless. Of these 100, more than 30 types are sexually transmitted. Some types of HPV that cause genital and other gynecological cancers."

"HPV is transmitted through skin-to-skin contact. Genital HPV infection can occur in both male and female genital areas that are not covered or protected by a latex condom, as well as in other areas of the body that are not covered."

"At least 30 million Americans are already infected with HPV and approximately 5.5 million new cases of sexually transmitted HPV infections are reported each year, according to the American Social Health Association. At least 50 percent of sexually active men and women acquire genital HPV. An estimated 9.2 million sexually active teens and young adults have genital HPV."

"There is no cure for HPV infection, but it goes away on its own in most women and men. The treatments available are targeted at changes in the treatments available are targeted at changes in the skin or mucous membrane, such as warts and precancerous changes in the cervix or vagina."

<sup>&</sup>quot;\*Number of new cases in a given time period source: ASHA"

<sup>&</sup>quot;Human papillomavirus"

"Genital warts are the most common indicator of an HPV infection, through many types of the virus don't cause visible signs or symptoms. Genital warts are very contagious and can spread during oral, genital, or anal sex with an infected partner. About two-thirds of people who have sexual contact with a partner with genital warts will develop warts, usually within three months of contact. Genital warts caused by HPV can be treated and controlled if detected early."

"Women are diagnosed through Pap tests. No HPV tests are available for men."

"The only way to prevent an HPV infection is to avoid direct contact with the virus. If you or your sexual partner have visible genital warts, you should avoid sexual contact until the warts are treated. Some studies have shown that condom use can lower the rate of cervical cancer, an HPV-associated disease."

("STDs in America," MSNBC Interactive, October 2005, www.msnbc.msn.com/id/9402058/)

#### "STORIES"

"36% of teenagers are having oral sex; Here's what Q-C parents need to know"

"The May 2003 National Survey of Adolescents and Young Adults was conducted by the Henry J. Kaiser Family Foundation, an independent national health care philanthropy based in Menlo Park, Calif. The study also showed 75 percent of the teens who had sexual intercourse had oral sex, and 13 percent had oral sex but not sexual intercourse."

"While more young people are engaging in oral sex, the number of students in grades 9-12 who had sexual intercourse decreased from 54 percent in 1991 to 46 percent in 2001, according to a Kaiser Foundation report released in January 2003. The median age of first sexual intercourse is 16.5 years."

"Sex is the operative word in 'sexually transmitted diseases,' says Donna Mueller, education outreach nurse with Community Healthcare Center's Regional Virology Center, Davenport. 'Anything you can get vaginally or on a penis, you can get anally or orally."

"According to researchers from the Centers for Disease Control & Prevention in Atlanta, there were about 18.9 million new STD cases across the United States in

2000. Some 9.1 million, or 48 percent, were among persons ages 15-24, reported the not-for-profit Alan Guttmacher Institute in a health study released last week."

("Stories," Editorial Matters, December 2005, www.editoralmatters.lee.net/articles/2004/10/31/stories/top\_stories/9znews029.txt)

#### "WOMEN AND HIV/AIDS IN THE UNITED STATES"

"• Although men continue to represent the majority of new HIV and AIDS cases in the U.S., women account for a growing share. In 1985, women represented 8% of AIDS diagnoses; by 2005 they accounted for 27% (Figure 1)."

"Key Trends and Current Cases Race/Ethnicity: Women of color, particularly Black women, are disproportionately affected by HIV/AIDS (Figure 2)."

- "• Black women account for 67% of AIDS cases among women, aged 13 and older, diagnosed in 2005, but only 12% of the U.S. population of women. Latinas account for 16% of estimated AIDS cases, compared to 13% of the female population aged 13 and over."
- "•The AIDS case rate per 100,000 illustrates the severe impact on women of color. In 2005, the case rate for Black women was 49.9 per 100,000, or 24 times the rate for white women (2.1). The case rate for Latinas, 12.2, was 6 times the rate for white women. The case rate was 4.4 for American Indian/Alaska Native women and 1.8 for Asian/Pacific Islander women."
- "• Among women, the number of HIV-related deaths and HIV death rates are highest for Black women. In 2002, HIV was the leading cause of death among Black women aged 25-34, compared to the 6<sup>th</sup> leading cause for women overall in this age group in the U.S. In 2003, the HIV death rate per 100,000 women aged 25-44 was 23.6 for Black women; compared to 1.3 for white women."
- "Age: Most women with AIDS were diagnosed between the ages of 25 and 44 (71%), indicating that many were likely infected at a relatively young age. The impact on teen girls is particularly notable. In 2004, teen girls represented 43% of AIDS cases reported among those aged 13-19 and young women, aged 20-24, represented 33% of cases in their age group; comparatively, women aged 25 and older represented 26% of cases in their age group. This more pronounced impact of HIV/AIDS among teen girls and young women may be a harbinger for the epidemic's trajectory."

#### "Transmission:

- Most AIDS diagnoses among women are due to heterosexual transmission (71% in 2005) followed by injection drug use (27%). These patterns are fairly consistent across most racial and ethnic groups, although the proportion due to heterosexual transmission is highest among Asian/Pacific Islander women. Among younger women, aged 20-24, heterosexual transmission accounted for 79% of AIDS cases in 2004 and among teen girls, it accounted for 66%."
- "• Mother-to-child transmission of HIV in the U.S. has decreased dramatically since its peak in 1992 due to the use of antiretroviral therapy (ART), which significantly reduces the risk of transmission from a woman to her baby (to less than 2%). Still, perinatal infections continue to occur each year, the majority of which are among African Americans."
- "• A recent CDC study found that most pregnant women with HIV (81%) and most babies born to HIV-infected women (93%) have received ART."

("Women and HIV/AIDS in the United States," The Henry J. Kaiser Family Foundation, December 2006)

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#### "WANT TO PREVENT HIV? FOCUS ON YOUTH"

"the fact that 15–24-year-olds account for nearly half of the five million new cases of HIV infection worldwide each year is sure to be frequently cited. Less widely known is that 15–24-year-olds account for half of the 40,000 new infections in the United States. Young Americans also account for nearly half of new diagnoses of STIs other than HIV. Like adolescents everywhere, American teens need honest, complete information about sexual health to better protect themselves."

(Rebecca Wind, "Want to Prevent HIV? Focus on Youth," Guttmacher Institute, August 2006, http://www.guttmacher.org/media/nr/2006/08/10/index.html)

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# "TOO MUCH INFORMATION? BIRDS, BEES AND HPV NEW STD VACCINE PRESENTS CHALLENGE FOR PARENTS OF PRETEENS"

STD's

"6 million new infections

Researchers at the federal Centers for Disease Control estimate that more than 6 million Americans – many of them teens and young adults – get a new infection of HPV each year."

("Too much information? Birds, bees and HPV New STD vaccine presents challenge for parents of preteens," MSNBC, September 2006)

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#### "STALKING A SILENT KILLER"

"The CDC estimates that 80 percent women under 50 have had human papillomavirus (HPV), the virus that causes cervical cancer."

"More than half of sexually active men and women get HPV at some point in their lives; and, the CDC says, by age 50, 80 percent of women have had HPV."

(Lynde Langdon, "Stalking A Silent Killer," World, (October 2006): 36)

#### "STATEMENT OF THE PROBLEM"

"Infection with genital types of human papillomavirus, or genital HPV, is very common in sexually active populations. It is estimated that 20 million people in the U.S. have HPV infection, and 6.2 million new HPV infections are diagnosed annually, making this the most common sexually transmitted infection. An estimated 80% of sexually active women and men will acquire HPV infection at some point in their lives."

"Condoms may prevent transmission of HPV to or from sites covered by or protected by a condom, but condoms do not cover or protect all anatomic sites from which HPV may be shed or through which HPV may be acquired."

(Daniel E. Montano, Ph.D., Danuta Kasprzyk, Ph.D., Linda Carlin, Ph.D., Crystal Freeman, Ph.D., MPH, "Statement of the Problem," Battelle Centers for Public Health Research and Evaluation, June 2005)

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#### "LITTLE PROGRESS IN STEMMING STDS"

"Among the most shocking estimates are that one in five Americans has genital herpes and more than half of women will contract HPV, or human papillomavirus, which causes genital warts and can lead to cervical cancer. At least a million Americans are living with the deadly AIDS virus."

(Jacqueline Stenson, "Little progress in stemming STDs," MSNBC, October 2005, www.msnbc.msn.com/id/9504789/print/1/displaymode/1098/)

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#### "1 IN 4 U.S. WOMEN HAVE HPV"

"One in four U.S. women ages 14 to 59 is infected with the sexually transmitted virus that in some forms can cause cervical cancer, according to the first broad national estimate."

"Researchers have estimated that 20 million Americans have some form of HPV. The study concluded that 26.8 percent of U.S. women are infected, a figure that is comparable to earlier estimates using smaller groups."

"Young women face highest risk

Just 3.4 percent of the women studied had infections with one of the four HPV strains that the new vaccine protects against. But that doesn't mean the vaccine should be written off, said Dr. Yvonne Collins, an assistant professor of gynecologic cancer at the University of Illinois at Chicago."

"The number of women with HPV strains targeted by the vaccine was lower than in some previous, less comprehensive estimates. And the overall HPV prevalence among the youngest women studied, 14-to-24-year-olds, was substantially higher than in previous estimates, 7.5 million versus 4.6 million."

"Women aged 20 to 24 had the highest overall HPV prevalence in the study, 44.8 percent. Prevalence increased each year from ages 14 to 24, then dropped off gradually, confirming that young, sexually active women face the greatest risk of infection."

("1 in 4 U.S. women have HPV," MSNBC, February 2007, www.msnbc.msn.com/id/17364887/print/1/displaymode/1098/)

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#### "YOUNG WOMEN OFTEN REINFECTED WITH CHLAMYDIA"

"New York City Department of Health researchers Ellen Klingler and colleagues tested nearly 40,000 women in two studies, one in 2000 and another from 2003 to 2004. One in eight women diagnosed with Chlamydia citywide had a repeat infection within 1 year."

"The women younger than 19 were much more likely to have been infected repeatedly than women older than 23, they found. A study of 400,000 women making routine doctor visits in California found similar rates, with 1 in 10 infected with Chlamydia becoming reinfected within 6 months."

(Maggie Fox, "Young women often reinfected with Chlamydia." Yahoo News, June 2006, news.yahoo.com)

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#### "HIV/AIDS CASES ON RISE AMONG FEMALES"

"As of 2004, 27% of all new AIDS cases in the U.S. are women, according to the U.S. Centers for Disease and Prevention. Women of color, especially African American women, make up most of these new cases. To raise awarness of this growing problem, March 10<sup>th</sup> marked the first National Women and Girls HIV/AIDS Awarness Day. In the early days of the AIDS pandemic, few women were infected with HIV; but as of 2005, 46% of adults living with HIV/AIDS throughout the world were women – 17.5 million in all. And accourding to the World Health Organization's UNAIDS, the 'vast majority' became infected through heterosexual intercourse. African American and Hispanic women represented about 83% of new U.S. female cases between 2001-2004. In addition, younger women are 'particularly vulnerable.' During this period, 38% of new cases in individuals under 25 were female, compared with 27% among those 25 and older."

("HIV/AIDS Cases on Rise among Females," Journal Student Ministries:15)

# "THE MEDICAL INSTITUTE'S STATEMENT ON MANDATORY HPV VACCINATION"

- "• The Advisory Committee on Immunization Practices (ACIP) supports 'quadrivalent vaccine (ie, Gardasil)' as a routine vaccination for adolescent females [11]"
- "• Although some have suggested that immunizing young females with the HPV vaccine will encourage promiscuity, this is unlikely
  - o Minors do no read the vaccine statement or sign the consent form
  - In a study of hepatitis B vaccine recipients and nonrecipients, almost no minors were able to provide accurate information about the purpose of vaccines in general, or of hepatitis B vaccine, in particular. [12] Given that most minors know or recall almost nothing about their immunization history, it is unlikely that HPV vaccination would affect their behavior."
- "• The Medical Institute for Sexual Health does not support mandatory immunization.
  - For many vaccines, immunity tapers off over time; this is why 'booster' shots are needed
  - For any vaccine to effectively reduce risk, the immunity it provides must be strong when the person is exposed to the virus or bacteria."
  - The timing of the vaccination should be decided by each girl's parents in consultation with her doctor."

("The Medical Institute's Statement on Mandatory HPV Vaccination," The Medical Institute, February 2007, www.medinstitute.org/content.php?name=HPVVaccineStatement)

# "HERPES INFECTIONS FREQUENT IN ADOLESCENT GIRLS"

"A national survey of the U.S. population conducted between 1988 and 1994 found that more than one in five people over 12 had blood tests that showed evidence for infection with herpes simplex virus 2 (HSV 2), the virus typically responsible for genital herpes, Fife and his team note in their report in the July issues of Sexually Transmitted Diseases. This represents a 30 percent increase from 1976-1980. There is also evidence that genital infections with HSV 1, which normally causes cold sores around the mouth, are on the rise, they add."

"They found 59.6 percent of the women tested positive for HSV 1, while 13.5 percent carried HSV 2."

("Herpes Infections Frequent in Adolescent Girls," Reuters, August 1, 2006)

"CHURCH CONFRONTS MODERN-DAY 'GOLIATH'"

"According to statistics compiled by World Vision, the World Health Organization and UNAIDS:"

- "Every 10 seconds three people die from HIV-AIDS."
- "Every seven seconds someone in the world is infected with HIV."
- "More than 25 million people have died of the disease since the epidemic started."
- "In the United States, 40,000 are infected annually and roughly 15,000 died last year of the disease."
- "The disease has hit Africa hardest so far, with 25 million people who are infected, of which roughly 2 million are children."
- "Every day in Africa 6,600 people die of HIV-AIDS, 8,800 are infected with HIV and 1,400 newborns are infected during childbirth or by their mothers' milk."

"Other research shows the disease spreading to countries such as Russian and China."

("Church Confronts Modern-Day 'Goliath" Charisma (September, 2006): 22)

"HIV: ALL TEENAGERS MAY SOON NEED SCREENING FOR THE AIDS VIRUS"

"The Centers for Disease Control and Prevention has proposed that all teenagers beginning at age 13 be screened for HIV, the virus that causes AIDS."

"About 25 percent of the estimated 1 million Americans currently infected with HIV don't know it, says Kevin Fenton, director of the CDC's National Center for HIV, STD and TB Prevention."

"If you're thinking at 13 is too young to be worried about HIV, think again. A 2005 CDC survey found that 47 percent of high school students have had sexual intercourse, and another study found that nearly half of all sexually transmitted diseases were contracted by young people between the ages of 15 and 24."

("All Teenagers May Soon Need Screening for the AIDS Virus," *U.S. News & World Report* (September 4, 2006)

### "ON AIDS, ANNAN TELLS WORLD LEADERS: DO MORE"

"The epidemic continues to outpace us,' he told a jammed session of the General Assembly. 'There are more new infections than ever before, more deaths than ever before, more women and girls infected than ever before.""

(Elisabeth Rosenthal, "On AIDS, Annan Tells World Leaders: Do More," *International Herald Tribune*, 2 June 2006)

# "PERCEIVED RISK OF CHLAMYDIA AND GONOCOCCAL INFECTION AMONG SEXUALLY EXPERIENCED YOUNG ADULTS IN THE UNITED STATES"

"Chlamydia trachomatis causes the most common bacterial sexually transmitted disease (STD) in the United States. Five percent of U.S. women aged 18–26 and 4% of men that age have chlamydia; prevalences are elevated among black women (14%), black men (11%) and Hispanic men (7%) in this age group. In comparison, the overall prevalence of gonococcal infection is low (0.4%), but is elevated among blacks (2%).

These results, from Wave 3 of the National Longitudinal Study of Adolescent Health (Add Health), are consistent with findings from a growing literature that has documented wide racial disparities in rates of HIV and other STDs.<sup>3"</sup>

#### References:

- **"1.** Centers for Disease Control and Prevention (CDC) *Sexually Transmitted Disease Surveillance—2002*, Atlanta: CDC, 2003."
- **"2.** Miller W et al., Prevalence of chlamydial and gonococcal infection among young adults in the United States, *Journal of the American Medical Association*, 2004, 291(18):2229–2236."

**"3.** CDC, 2003, op. cit. (see reference 1); Hall H, Song R and McKenna M, Increases in HIV diagnoses—29 states, 1999–2002, *Morbidity and Mortality Weekly Report*, 2003, 52(47):1145–1148."

(By Carol A. Ford, James Jaccard, Susan G. Millstein, Philip E. Bardsley and William C. Miller, "Perceived Risk of Chlamydia and Gonococcal Infection Among Sexually Experienced Young Adults in the United States," Guttmacher Institute, Perspectives on Sexual and Reproductive Health, Volume 36, Number 6, November/December 2004)

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#### "SOCIAL ISSUES LINKED TO RISE IN STDS"

#### "STDs on the Rise"

"The Centers for Disease Control and Prevention reports there are more than 65 million people living with incurable STDs in the United States, and at least one in four Americans will contract an STD at some point in their lives."

"Most alarmingly, there are nearly 1 million Americans currently infected with HIV/AIDS, and nearly 20 percent of them are unaware of their diagnosis. Now, African-American women are the fastest growing group of people infected with the virus in the United States."

"Recent reports show that nearly one-fourth of all STD infections occur among teenagers, with female teens having the highest rates of Chlamydia and gonorrhea. And, while the diagnoses rates for gonorrhea and syphilis have remained steady, Chlamydia infections have nearly tripled since 1990."

"Treatment of STDs annually costs the United States \$17 billion, and experts predict STD rates will continue to rise as long as Americans underestimate their risk levels."

(Terry Wynn, "Social Issues Linked to Rise in STDs," *MSNBC*, April 20, 2005, <a href="http://www.msnbc.msn.com/id/7268133/">http://www.msnbc.msn.com/id/7268133/</a>)

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#### "THE HIV/AIDS EPIDEMIC IN THE UNITED STATES"

"Snapshot of the HIV/AIDS Epidemic"

- "Almost 930,000 cases of AIDS were diagnosed in the U.S. through 2003, including 43,171 cases diagnosed in 2003 alone.<sup>2</sup> This represents a 4.6% increase over AIDS cases diagnosed in 2002.<sup>2</sup>"
- "An estimated 524,060 deaths among people with AIDS occurred through 2003, including 18,017 in 2003.<sup>2</sup>"
- "The Centers for Disease Control and Prevention (CDC) estimates that 1,039,000—1,185,000 people were living with HIV or AIDS in the U.S. in 2003.<sup>6</sup>"
- "In 2003, 405,926 people were estimated to be living with AIDS, the most advanced stage of HIV disease.<sup>2</sup>"
- "All states now report HIV cases (in addition to AIDS cases), which will provide a fuller picture of the epidemic over time. Among the 33 areas with integrated HIV and AIDS surveillance since at least 1999, 32,048 HIV/AIDS cases were diagnosed in 2003 (these states represent 43% of reported AIDS cases).<sup>2</sup>"
- "HIV transmission patterns have shifted over time. Heterosexual transmission accounts for a growing proportion of newly diagnosed AIDS cases, rising from 3% in 1985 to 31% in 2003."

# "Impact on Racial and Ethnic Minority Americans"

- "Racial and ethnic minorities have been disproportionately affected by HIV/AIDS since the beginning of the epidemic, and minority Americans now represent the majority of new AIDS cases (71%) and of those estimated to be living with AIDS (64%) in 2003.<sup>2</sup>"
- "African Americans and Latinos account for a disproportionate share of new AIDS diagnoses (Figure 3)2,15 and of new HIV/AIDS diagnoses in the 33 integrated surveillance states.<sup>2</sup>"
- "Almost half (47%) of all those living with HIV/AIDS in the U.S. are African Americans.<sup>6</sup>"
- "African Americans have the highest AIDS case rates of any racial/ethnic group, followed by Latinos, American Indian/Alaska Natives, whites, and Asian/Pacific Islanders.2 The AIDS case rate per100,000 population for African Americans was 9.5 times that of whites in 2003.<sup>2</sup>"

- "African Americans accounted for 55% of deaths due to HIV in 2002; Latinos accounted for 13%.<sup>12</sup>"
- \* "HIV was the 3rd leading cause of death among African Americans between the ages of 25 and 34 in 2001, and the 6th leading cause of death for Latinos and whites in this age group. It ranks higher for some subpopulations for example, HIV was the #1 cause of death for African American women ages 24-34 in 2001. 17"
- "Survival after an AIDS diagnosis is lower among African-Americans than other racial/ethnic groups.<sup>2</sup>"

#### "Impact on Women and Young People"

- Women account for a growing proportion of new AIDS diagnoses, rising from 8% in 1985 to 27% in 2003.<sup>2,8</sup>
- \*Women of color are particularly affected. African American women account for 67% of estimated new AIDS diagnoses among women in 2003; Latinas account for 16%. 2,18"
- \* "Young adults and teens continue to be at risk. At least half of all new HIV infections are estimated to be among those under the age of 25.19 Most young people are infected through sex.<sup>20</sup>"
- "Among youth, teen girls and minorities have been particularly affected. In 2002, teen girls represented about half (51%) of HIV cases reported among 13-19 year olds.21 Young African Americans represented 65% of AIDS cases reported among 13-19 years olds in 2002; Latino teens represented 20%.<sup>20</sup>"
- "Perinatal HIV transmission has declined significantly in the U.S., largely due to antiretroviral treatment — AIDS diagnoses attributable to perinatal transmission declined by more than 90% between 1992 and 2003.2,22 The majority of cases that still occur are among African-Americans.<sup>2"</sup>

# "The U.S. Government Response"

"In FY 2005, U.S. federal funding for HIV/AIDS is estimated to total \$19.7 billion. Of this, 59% will go to care, 15% to research, 9% to cash and housing assistance, 4% to prevention, and 12% to combat the international epidemic.<sup>25</sup>"

- "Key programs that provide health insurance coverage, care, and support to people with HIV/AIDS in the U.S. include Medicaid, Medicare, and the Ryan White CARE Act.<sup>25</sup>"
- "A variety of federally and state-supported prevention services are provided by state and local health departments and community organizations. The CDC's new Advancing HIV Prevention Initiative is aimed at reducing barriers to early diagnosis of HIV infection and increasing access to quality medical care, treatment, and ongoing prevention services.

"References"

**"2** CDC, HIV/AIDS Surveillance Report, Vol. 15, 2004.

**4** CDC, "Advancing HIV Prevention: New Strategies for a Changing Epidemic", MMWR, Vol. 52, No. 15, 2003.

**6** Glynn, K. "Estimated HIV Prevalence in the United States at the End of 2003", 2005 National HIV Prevention conference, June 2005.

12 NCHS, National Vital Statistics Report, Vol. 53, No. 5, 2004.

17 NCHS, National Vital Statistics Report, Vol. 52, No. 9, 2003.

20 CDC, HIV/AIDS Surveillance in Adolescents, L265 Slide Series (through 2002).

**25** Kaiser Family Foundation, Fact Sheet: Federal Funding for HIV/AIDS: The FY 2006 Budget Request, 2005."

(Jennifer Kates and Alyssa Wilson, "HIV/AIDS Epidemic in the United States," Kaiser Family Foundation, September 2005, http://www.kff.org/hivaids/upload/Fact-Sheet-The-HIV-AIDS-Epidemic-in-the-United-States-2005-Update.pdf)

#### "HUMAN PAPILLOMAVIRUS: A MAJOR UNRECOGNIZED EPIDEMIC"

# "Morbidity and Mortality"

"It is estimated that 5.5 million people are infected by HPV every year in the United States. Every year, 3.5 million American women have abnormal PAP smears; 13,400 are diagnosed with cervical cancer, and 4,100 die of cervical cancer. Worldwide,

more than 500,000 cases of cervical cancer and 200,000 deaths are caused by HPV each year. <sup>2"</sup>

# "Course of Infection, Susceptibility, and Prevalence"

"Of the more than 100 HPV strains identified so far, around 35 can infect the human genital tract."

"Overall, more than 90% of HPV infections are asymptomatic."

"Recent estimates indicate that 50–75% of sexually active adults are HPV positive. In a study during the late 1990s, 43% of college coeds who were HPV negative at the beginning of the study developed HPV infection over the 3 years of the study<sup>3</sup> at sexual debut, multiple sexual partners, and sex with partners who engage in high-risk sexual behavior. Adolescent and young adult females are biologically more susceptible to HPV disease because the cervix has not reached its mature, adult state. The cells of the cervix that are susceptible to infection with bacteria and viruses are more vulnerable in young females than in mature women. This leaves them far more susceptible to infection with sexually transmitted pathogens such as chlamydia, gonorrhea, and HPV. In addition to being more susceptible to infection, the cells on the surface of the immature cervix can be transformed into precancerous cells (cervical dysplasia), and these precancerous cells may further develop into potentially lethal cervical cancer.

Dysplasia is an alteration in the size, shape, and organization of adult cells"

"References"

In *all women* the vagina is lined with epithelial (skin-like) cells, and the cervix is covered with two cell types---epithelial cells and columnar (like the cells lining the intestine) cells. In mature females, the outer part of the cervix (ie, the part from which cells are obtained for a PAP smear) is covered with hardy epithelial cells, and the upper (ie, inner) part is lined with fragile columnar cells. The location of the junction of the two cell types (squamocolumnar [SC] junction) varies considerably between adolescents/young women and mature women. Adolescents/young women have a condition referred to as ectopy. With ectopy, the junction between the two cell types is somewhere on the outer cervix rather than somewhere on the upper (inner) cervix. The more ectopy there is, the larger the diameter of fragile columnar cells on the outer exposed surface of the cervix. In addition to being highly susceptible to STIs, the exposed columnar and SC junction cells are easily transformed into precancerous cells or into cancer."

- "1. NIAID Fact Sheet, NIH, December 1998."
- "2. Porten J, Adam HO, Bergstrom R, et.al. Strategies for global control of cervical cancer. *Am J Cancer 1995;60:1-26.*"
- "3. Ho, GYF, Gierman R, Beardsley L., et.al. Natural history of cervicovaginal papillomavirus infection in young women. *N Engl J Med 1998;338:423-8*."
- "4. Joffe GP, Foxman B, Schmidt AJ, risk factors for sexually transmitted *Trans Dis* 1992;19:272-78."

(NO. DOC)			

# "CONDOMS DO NOT PROVIDE EFFECTIVE PROTECTION AGAINST HPV"

"HPV can be present for years with no symptoms, and HPV infection does not always produce warts or other symptoms; so you can be infected with HPV and pass it on without knowing it. Recent studies show that condoms ('rubbers') do not protect well against HPV infection. This is because HPV can be passed from person to person by skin-to-skin contact with any HPV-infected area of the body, such as skin of the genital or anal area not covered by the condom."

"['Detailed Guide: Cervical Cancer, What Are the Risk Factors for Cervical Cancer?' American Cancer Society website, October 20, 2003]"

"Condoms are ineffective against HPV because the virus is prevalent not only in the mucosal tissue (genitalia) but also on dry skin of the surrounding abdomen and groin, and it can migrate from those areas into the vagina and the cervix. Additional research efforts by NCI on the effectiveness of condoms in preventing HPV transmission are not warranted."

"[Dr. Richard Klausner, Director of the National Cancer Institute, correspondence to U.S. House Commerce Committee, February 19, 1999]"

"....the Panel concluded that there was no epidemiological evidence that condom use reduced the risk of HPV infection, but study results did suggest that condom use

might afford some protection in reducing the risk of HPV-associated diseases, including warts in men and cervical neoplasia in women."

"[Workshop Summary: Scientific Evidence on Condom Effectiveness for Sexually Transmitted Disease (STD) Prevention, June 12-13, 2000]"

#### "NEW STUDY: HALF OF YOUNG PEOPLE WILL CONTRACT STD'S"

"Released by the Alan Guttmacher Institute (AGI), the study revealed that, by age 25, half of all American youth will have contracted an STD. The report was published in Perspectives on Sexual and Reproductive Health."

"The data used in the study came from the U.S. Centers for Disease control and Prevention (CDC), and the numbers are staggering. Out of the approximately 18.9 million new STD infections reported to the CDC in 2000, 9.1 million were found in young people ages 15 to 24."

"Moreover, the study said, while that age group represents only 25% of the sexually experienced population who are age 15-44 'young people acquire nearly one-half of all new STDs."

"The lifetime medical costs for treating these STDs – just among the 15 to 24 age group – was \$6.5 billion."

(Ed Vitalgiano, "New Study: Half of Young People Will Contract STDs," Agape Press, May 13, 2004)

### "TEENS: PREGNANCY, STDS PROBLEMS AMONG PEERS"

"It appears that some teens are heeding the messages about the risks of unsafe sex and unwanted pregnancy. A 2002 Centers for Disease Control (CDC) report indicates that the number of teenage pregnancies has declined 30% in the last decade. And although still extremely high (a recent study published in *Perspectives on Sexual and Reproductive Health* estimates that 15- to 24-year-olds account for 48% of sexually transmitted diseases), cases of STDs have declined as well. But how do teens view the seriousness of sexually related problems among their peers?"

"A new Gallup Youth Survey asked teens (aged 13 to 17) how serious they feel the problems of pregnancy and STDs are among their teenaged friends. Overall, about two-thirds of teens surveyed feels that teenage pregnancy and STDs are either "somewhat serious" or "very serious" problems among their friends (69% feel this way about pregnancy; 66% about STDs)."

(Shannon Marullo, "Teens: Pregnancy, STDs Problems Among Peers," The Gallup Organization, April 27, 2004; <a href="https://www.gallup.com/content/print.aspx?ci=11494">www.gallup.com/content/print.aspx?ci=11494</a>)

#### "CHLAMYDIA CASES ON THE RISE IN WASHINGTON"

"The known incidence of Chlamydia rose 12 percent in Washington state last year, leading health officials to recommend that sexually active women under 25 be tested for the sexually transmitted disease at least once a year."

"Nearly three-fourths of the reported cases were found in people 15 to 24 years old, said Katherine Gudgel, coordinator of the Washington state Chlamydia screening project."

"This is a disease of young people,' Gudgel said."

"The number of cases went from 14,935 in 2002 to 16,796 last year, an all-time high, according to an annual report of sexually transmitted diseases that was issued Monday. The overall incidence rate increased from 247 per 100,000 residents to 275 per 100,000, still below the last reported national rate of 296 per 100,000."

"Among women 15 to 19 in the state, the Chlamydia infection rate was 2,273 per 100,000 residents compared with 391 per 100,000 for men the same age."

("Chlamydia Cases on the Rise in Washington," Yahoo! News, May 11, 2004; story.news.yahoo.com/news?tmpl=story&ncid=1413&e=4&u=/ap/20040511/ap\_on\_. ..)

### "MY BOYFRIEND HAS HERPES. WHAT SHOULD I DO?"

"A quarter of U.S. adults over 18 are infected with genitals herpes, also know as herpes 2. But 90 percent of them don't even know they are infected."

"Studies that tested for the silent presence of the virus on genitals have shown that a person with genital herpes sheds the virus about 15 percent of the time. Half the shedding occurs just before, during or after an outbreak, but half occurs completely at random."

"Even if the couple avoids intercourse during outbreaks, the approximate rate of transmission is 10 percent a year (if the man is affected) or 4 percent a year (if the woman is affected). In other words, in one year, 10 percent of women and 4 percent of men will get herpes if their mate has it."

"Regular condom use can reduce these transmission rates by about 50 percent."

(Dr. Judith Reichman, "My Boyfriend has Herpes. What Should I do?" The 'Today' show's medical contributor on women's health, has practiced obstetrics and gynecology for more than 20 years. You will find many answers to your questions in her latest book, "Slow Your Clock Down: The Complete Guide to a Healthy, Younger You," published by William Morrow, a division of <a href="HarperCollins">HarperCollins</a>. October 11, 2004, <a href="http://www.msnbc.msn.com/id/6227063">http://www.msnbc.msn.com/id/6227063</a>)

#### "DEATH"

"AIDS is the leading killer of Americans between the ages of 25 and 44."

"Cervical cancer kills about 5,000 women in America each year. A report by the National Institute of Health confirms that more than 90% of these cases are caused by an STD called human papilloma virus (HPV)."

"5,000 people die each year form complications resulting from hepatitis B, a virus most commonly transmitted through sexual activity."

("Teens and Sex," statistics provided by the Medical Institute for Sexual Health, and the Centers for Disease Control and Prevention)

"Abstinence may be difficult to practice in our sex-saturated society today, but it is possible; and incredibly, in spite of societal pressure, surveys show that 54% of high

school age teens have never had sexual intercourse. Only 39% had had sexual intercourse in the last three months. (MMWR, 4/8/1994) They desperately need our persuasion to say 'no,' not our permission to say 'yes.'" (p. 29)

"An estimated 12 million new sexually transmitted infections occur every year; 2/3 are among women and men under age 25." (Guttmacher, 1993, p.33)

"At current rates, at least 1 person in 4 will contract a viral STD at some point in his or her life. As many as 50% will contract either a viral or bacterial STD." (Hunter, 1994, p. 33)

"As many as 56 million individuals—more than 1 American in 5—may be infected with an incurable viral STD other than human immunodeficiency virus (HIV), which causes AIDS." (Guttmacher, 1993, p. 33)

"At least 31 million people are infected with the genital herpes virus (herpes simplex virus)." (Guttmacher, 1993, p. 33)

"24-40 million people are infected with human papilloma virus (HPV)." (Eng, Butler, 1997, p. 33)

"1.5 million people are chronic carriers of the hepatitis B virus." (Guttmacher, 1993, p. 33)

"Contraceptive Failure: Percentage of women experiencing contraceptive failure during the first 12 months of use by age and method:"

Age of Woman Pill Condo		Condom	om Diaphragms/Spermicides		Other
Under age 20	11%	14%	16%	34%	38%
Age 20-24	6%	23%	25%	36%	19%
Age 25-30	3%	12%	13%	26%	11%
Age 35-44	2%	3%	12%	10%	17%

(Guttmacher 1987, p. 38)

"My health teacher told us that if we use a condom and Nonoxynol-9 we were 100% safe!" (p. 39)

"Woman who had been sexually active at age 15 are more likely to be unhappy with their current marriage and sex life."

(R.J. Levin, October, 1975, Redbook, p43)

"Dr. Jean Anderson, writing in the August 1990 issue of Contemporary OB/GYN, gave three reasons for teenage girls' higher susceptibility to STDs;"

- "The cervix of a teenage girl has a lining called an ectropian, a columnar epithelium, which produces mucus that nourishes STD germs; as women reach their 20's or have a baby, the ectropian is replaced by the tougher lining of the vagina called squamous epithelium."
- "During the first two years of menstrual periods, 50% of periods occur without ovulation; when there is no ovulation, the cervical mucus is more liquid, and therefore, a better culture medium for germs."
- "Many physicians believe that teenagers in general have lower levels of antibodies, not of specific antibodies to STDs, but general resistance that we all acquire from exposure to various germs as we go through life." (p. 21,22)

# "MORE THAN 4 PERCENT OF YOUNG AMERICANS INFECTED WITH CHLAMYDIA"

"More than one in 25 young women and men in the United States are infected with the bacterium that causes the sexually transmitted disease Chlamydia."

"Rates of infection are alarmingly high among young black women (almost 14 percent) and young black men (more than 11 percent), a new study found."

"The research also found a much lower overall prevalence of gonorrhea -0.43 percent. Among black men and women, however, the rate is 2.13 percent."

"The study appears in the May 12 issue of the *Journal of the American Medical Association.*"

"More striking were variations by race and ethnicity. Young white adults had the lowest prevalence (1.94 percent) while young black adults had almost six times that rate (12.54 percent). In young Latino adults, the prevalence was 5.89 percent. The highest prevalence was among black women (13.95 percent), followed by black men

(11.12 percent). Asian-American men had the lowest prevalence (1.14 percent), followed by white men (1.38 percent) and white women (2.52 percent)."

(Amanda Gardner, "More Than 4 Percent of Young Americans Infected With Chlamydia," Health Day News, May 11, 2004; story.news.yahoo.com/news?tmpl=story&ncid=1413&e=1&u=/hsn/20040511/hl\_hs ...)

#### "HEPATITS C: NEEDLES AND HAYSTACKS"

"According to the World Health Organization (WHO), Hepatitis C, kills around 500,000 people a year. It is less deadly than AIDS, which claims more than 3m lines annually. However, its higher prevalence (at the moment, some 42m people are infected with HIV, the virus that causes AIDS), longer incubation period, and the absence of effective drugs, mean that it is potentially a more lethal epidemic."

(Science and Technology, "Hepatitis C: Needles and Haystacks," *The Economist* (November 1, 2003): 75)

# "MEDIA LEADERS COMMIT TO FIGHT AIDS IN EASTERN EUROPE AND CENTRAL ASIA"

"According to UNAIDS and the World Health Organization, as many as two-thirds of the 45 million new HIV infections projected to occur worldwide over the next decade could be averted with more effective prevention and public education efforts."

"Countries of Eastern Europe and Central Asia have some of the highest rates of growth of new HIV infection in the world. The number of people living with HIV in the region rose from 890,000 in 2001 to 1.3 million in 2003 – almost a 50% increase in only two years. According to UNAIDS, HIV infections in the region continue to grow, primarily among young people under age 30. Misinformation leads to lack of understanding of the disease and methods of prevention as well to stigma and discrimination that block public discussion of the epidemic and the emergence of a national response to HIV/AIDS."

("Media Leaders Commit to Fight Aids in Eastern Europe and Central Asia," Kaiser Family Foundation, October 27, 2004, <a href="https://www.kff.org/hivaids/phip102704nr.cfm?RenderForPrint=1">www.kff.org/hivaids/phip102704nr.cfm?RenderForPrint=1</a>)

#### "SEXUALLY ACTIVE CAMEROON YOUTHS SHUN CONDOMS-STUDY"

"Two-thirds of teenagers in the central African country of Cameroon have sex by the age of 16."

"Adult infection rates [in Cameroon] have leapt more than 20-fold in just over a decade."

"An estimated 26.6 million people in sub-Saharan Africa, the world's hardest hit region, were living with HIV/AIDS at the end of 2003."

"The HIV/AIDS infection rate among people aged 15 to 45 in Cameroon was just 0.5 percent in 1989 but according to U.N. figures it had soared to 11.8 percent by the end of 2001."

(Tansa Musa, "Sexually Active Cameroon Youths Shun Condoms-Study," Tuesday, March 2, 2004 <a href="http://story.news.yahoo.com/news?tmpl=story&cid=571&e=16&u...">http://story.news.yahoo.com/news?tmpl=story&cid=571&e=16&u...</a>)

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# "A NATION'S WAKE-UP CALL: ONE OF TWO WILL HAVE STD BY AGE 25"

"Estimates released today show more than 9 million new sexually transmitted diseases (STDs) among youth aged 15–24 every year in the United States. The infections will cost more than \$6 billion in direct medical costs, according to research from the Centers for Disease Control and Prevention in *Perspectives on Sexual and Reproductive Health* (*article 1*, *article 2*), published by The Alan Guttmacher Institute."

("A Nation's Wake-Up Call: One of Two Will Have STD by Age 25," www.jomc.unc.edu/youthandSTDs/ourvoicesrelease.html)

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# "THE ESTIMATED DIRECT MEDICAL COST OF SEXUALLY TRANSMITTED DISEASES AMONG AMERICAN YOUTH, 2000"

"Results: The total estimated burden of the nine million new cases of these STDs that occurred among 15–24-year-olds in 2000 was \$6.5 billion (in year 2000 dollars). Viral STDs accounted for 94% of the total burden (\$6.2 billion), and nonviral STDs accounted for 6% of the total burden (\$0.4 billion). HIV and HPV were by far the most costly STDs in terms of total estimated direct medical costs, accounting for 90% of the total burden (\$5.9 billion)."

#### "HIV"

"Estimates of the discounted lifetime medical cost per new case of HIV were obtained from an existing study. (9) We applied the midpoint (\$199,800) of the two estimates (\$176,500 and \$223,300) from that study's intermediate cost scenario, which included the following assumptions: Persons with HIV live for 16 years after becoming infected; each infected person is unaware of his or her infection in the first two years and begins viral load monitoring (but not treatment) in the third year; and in years 4-16 after infection, the person receives antiretroviral therapy, prophylaxis and treatment for opportunistic infections, as well as other medical care associated with progression to AIDS."

"This estimated lifetime cost (\$199,800) is consistent with the findings of a study that indicated that the average annual cost of care was approximately \$20,900 for adults receiving care for HIV in 1998." (10)

#### "HPV"

"We projected 12,800 cases of invasive cervical cancer annually, distributed as 57.5% localized to the cervix, 34.0% with pelvic involvement and 8.5% with more distant spread. (16) When the costs of patient time were excluded, estimated invasive cervical cancer costs were \$20,255 for localized disease, \$21,678 for pelvic disease and \$36,912 for distant disease. (17) We discounted the cost estimated based on the assumption that diagnosis of invasive cancer occurs, depending on stage, 21–25 years after initial HPV infection." (18)

# "Genital Herpes"

"40% of HSV-2 infections occur between ages 15 and 24." (25)

#### **References:**

- (9) Holtgrave DR and Pinkerton SD, Updates of cost of illness and quality of life estimates for use in economic evaluations of HIV prevention programs, *Journal of Acquired Immune Deficiency Syndromes & Human Retrovirology*, 1997, 16(1):54-62. (10) Bozzette SA et al., Expenditures for the care of HIV-infected patients in the era of highly active antiretroviral therapy, *New England Journal of Medicine*, 2001, 344(11):817-823.
- (16) National Cancer Institute, Surveillance, Epidemiology and End Results (SEER) Program, *SEER Cancer Statistics Review*, 1973-1999, Table V-1, accessed June 28, 2002.
- (17) Kim JJ, Wright TC and Goldie SJ, 2002, op. cit. (see reference 13); and Goldie SJ, 2002, op. cit. (see reference 14).
- (18) Kulasingam SL and Myers ER, 2002, op. cit. (see reference 15); and Myers ER et al., 2000, op. cit. (see reference 15).
- (25) Tao G, Kassler WJ and Rein DB, Medical care expenditures for genital herpes in the United States, *Sexually Transmitted Diseases*, 2000, 27(1):32-38; Szucs TD et al., The estimated economic burden of genital herpes in the United States: an analysis using two costing approaches, *BMC Infectious Diseases*, 2001, Vol. 1, No. 5; and Armstrong GL et al., Incidence of herpes simplex virus type 2 infection in the United States, *American Journal of Epidemiology*, 2001, 153(9):912-920.

(Harrell W. Chesson, John M. Blandford, Thomas L. Gift, Guoyu Tao and Kathleen L. Irwin, "The Estimated Direct Medical Cost of Sexually Transmitted Diseases Among American Youth, 2000," The Alan Guttmacher Institute, Perspectives on Sexual and Reproductive Health, Volume 36, Number 1, January/February 2004, www.agi-usa.org/pubs/journals/3601104.html)

# "SEXUALLY TRANSMITTED DISEASES AMONG AMERICAN YOUTH: INCIDENCE AND PREVALENCE ESTIMATES, 2000"

**"Results:** Approximately 18.9 million new cases of STD occurred in 2000, of which 9.1 million (48%) were among persons aged 15-24. Three STDs (human papillomavirus, trichomoniasis and Chlamydia) accounted for 88% of all new cases of STD among 15-24-year-olds."

# "Genital Herpes"

"We estimate that 1.6 million new HSV-2 infections occurred in the United States in 2000."

"We estimate that youth acquire 640,000 new HSV-2 infections each year." (20)

#### "HPV"

"We estimate that in 2000, some 9.2 millions persons in this age-group [sexually active 15-24-year-olds in the population] were infected with HPV and hence were capable of spreading the virus."

#### "HIV"

"50% of HIV infections are contracted by persons younger than 25. (34) We expect that about 20,000 new HIV infections occur each year among youth. In 2000, an estimated 75% of HIV infections were acquired through sexual intercourse."

#### "References:"

- "(20) Armstrong G et al., 2001, op.cit. Johnson R et al., A seroepidemiologic survey of the prevalence of herpes simplex virus type 2 infection in the United States, *New England Journal of Medicine*, 1989, 321(1):7-12; Fleming DT et al., Herpes simplex virus type 2 in the United States, 1976-1994, *New England Journal of Medicine*, 1997, 337(16):1105-1111; Armstrong G et al., Incidence of herpes simplex virus type 2 infection in the United States, *American Journal of Epidemiology*, 2001, 153(9):912-920; and Fisman DN et al., Projection of the future dimensions and costs of the genital herpes simplex type 2 epidemic in the United States, *Sexually Transmitted Diseases*, 2002, 29(10):608-622.
- (34) Rosenberg PS and Biggar RJ, Trends in HIV incidence among young adults in the United States, *Journal of the American Medical Association*, 1998, 279(23):1894-1899."

(Hillard Weinstock, Stuart Berman and Willard Cates, Jr., "Sexually Transmitted Diseases Among American Youth: Incidence and Prevalence Estimates, 2000," The Alan Guttmacher Institute, Perspectives on Sexual and Reproductive Health, Volume 36, Number 1, January/February 2004, <a href="www.agi-usa.org/pubs/journals/3600604.html">www.agi-usa.org/pubs/journals/3600604.html</a>)

#### "CHLAMYDIA LINKED TO CERVICAL CANCER RISK"

"New research suggests that women with persistent Chlamydial infection are at increased risk for developing cervical cancer. The latest findings, along with other emerging evidence, indicate that 'cervical cancer should be listed as one of the potential long-term [consequences] of genital Chlamydia infection,' according to lead investigator Dr. Jorma Paavonen from the University of Helsinki-Finland."

(Megan Rauscher, "Chlamydia Linked to Cervical Cancer Risk," Reuters Health, December 18, 2003, <a href="https://www.ncsddc.org/stdnews.htm">www.ncsddc.org/stdnews.htm</a>)

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# "ADOLESCENTS TREATED FOR STDs ARE AT HIGH RISK OF REINFECTION"

"A new study from Indiana University School of Medicine examines rates of subsequent sexually transmitted disease (STD) infection among unmarried adolescents/young adults and their sexual contacts. Study patients were between 13 and 25 years old (average age approximately 17 years) and attended urban STD and adolescent medicine clinics. The 444 patients were followed at one, three, five and seven months to determine if and when they would develop another STD—specifically, gonorrhea, chlamydia or trichomonas. Sexual contacts identified during the follow-up period were also tested and, if positive, treated."

"In patients who were initially infected:"

- "Seventy-three percent of females and 60 percent of males were reinfected within 7 months."
- "Half of the study females had become reinfected within 140 days while half of males were reinfected within 161 days."

"Among the sexual contacts of initially-infected patients:"

- "Fifty-three percent of females and 40 percent of males subsequently became infected within 7 months."
- "Half of female contacts were infected within 209 days. Among males, half were infected within 217 days."

"The only significant predictors of subsequent infection during a given follow-up interval were: 1) being female; and, 2) having at least one new sexual partner during the interval."

Orr DP, Johnston K, Brizendine E, Katz B, Fortenberry JD. Subsequent sexually transmitted infection in urban adolescents and young adults. *Arch Pediatr Adol Med.* 2001;155:947-953.

("Adolescents Treated for STDs are at High Risk of Reinfection," <a href="https://www.medinstitute.org/AdolTreated.htm">www.medinstitute.org/AdolTreated.htm</a>)

# "YOUTH STD CASES SOAR, REPORT FINDS"

"Sexually transmitted diseases have become so pervasive among the nation's youth that one out of every two sexually active young people can expect to become infected by age 25, a new report says. Young women are more at risk than young men because the infections can 'silently' hide in the female reproductive tract, according to the study by the School of Journalism and Mass Communication at the University of North Carolina at Chapel Hill."

"Sexually active teens ages 15 to 19 have the highest STD rates of any age group, and nearly half of the 18.9 million new STD cases in 2000 were among youths ages 15 to 24, the study says."

("Youth STD Cases Soar, Report Finds," Washington Times, February 25, 2004, Abstinence Clearinghouse, <a href="www.abstinence.net/library/index.php?entryid=886">www.abstinence.net/library/index.php?entryid=886</a>)

# "QUICK FACTS"

- "1 out of 4 people in the United States will contract a sexually transmitted disease (STD) by the time they reach adulthood."
- "The Human PapillomaVirus (HPV), which causes genital warts and can lead to cervical cancer, infects nearly 20 million American men and women, and 5.5 million new cases are reported each year."

• "An estimated 900,000 Americans may be infected by the HIV/AIDS virus, which strikes an estimated 45,000 more every year, about half of them through sexual contact."

("Quick Facts," National Coalition of STD Directors, February 11, 2004, <a href="https://www.ncsddc.org/quickfacts.htm">www.ncsddc.org/quickfacts.htm</a>)

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### "QUICK FACTS"

# "Chlamydia"

"Chlamydia is the number one bacterial sexually transmitted disease in the United States, with an estimated 3 million new cases occurring each year. Chlamydia is often referred to as the 'silent epidemic' because 75% of women and 50% of men with this disease have no symptoms. Transmitted through vaginal and anal sex, Chlamydia can be cured with antibiotics."

"Quick Facts," National Coalition of STD Directors, www.ncsddc.org/chlamydia.htm)

# "QUICK FACTS"

# "Human Papillomavirus (HPV) - Genital Warts"

"It is estimated that 75-80% of all sexually active adults will be infected with HPV at some point in their lives."

# "Consequences & Effects:"

"In rare instances, certain strains of HPV can develop into cervical cancer. Of the 20 million Americans currently infected with HPV, only about 12,200 – or .06% -- will develop cervical cancer."

("Quick Facts," National Coalition of STD Directors, www.ncsddc.org/genital%20\_warts.htm)

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# "QUICK FACTS"

### "Hepatitis B (HBV)"

"Nearly 33% of people infected with HBV are asymptomatic."

("Quick Facts," National Coalition of STD Directors, <a href="https://www.ncsddc.org/hepatitis\_b.htm">www.ncsddc.org/hepatitis\_b.htm</a>)

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### "QUICK FACTS"

# "Herpes Simplex Virus (HSV - 2)"

"Herpes simplex virus – 2 also known as genital herpes is an incurable, highly contagious viral infection. Genital herpes affects approximately 45 million Americans, and is more common in women (1 in 4) than men (1 in 5). Transmitted through sexual contact, herpes is not effectively prevented with a condom due to skin-to-skin contact with infected lesions or secretions."

("Quick Facts," National Coalition of STD Directors, www.ncsddc.org/herpes\_simplex.htm)

#### "HEALTH EXPERTS: SYPHILIS RATES RISING"

"STDs (sexually transmitted diseases) can cause serious medical consequences, including infertility, transmission to newborns, neurologic damage and increased risk of HIV transmission,' said Dr. Ronald Valdiserri, deputy director of HIV, STD and Tuberculosis prevention programs at the Centers for Diseases Control and Prevention."

"The prevalence of herpes simplex virus 2, the most common cause of genital herpes, declined to 17.6 percent among those aged 14 to 19 in the 1999-2000 period from 21.3 percent in the 1988-1994 period, according to data from two CDC surveys."

# "Disease resurgence"

"Syphilis rates have risen each year since 2000."

"CDC researchers estimated that 60 percent of the cases in 2003 occurred among men who had sex with men, compared with 5 percent in 1999. The resurgence of the disease in that high-risk group is of particular concern because of its links to the virus that causes AIDS."

"Studies have shown that syphilis and other sexually transmitted diseases increase the likelihood of HIV infection. Up to 70 percent of gay and bisexual men infect in recent syphilis outbreaks in the United States were HIV positive."

"In addition to helping spread HIV, untreated syphilis can cause arthritis, heart disease, insanity and death as well as miscarriages, stillbirths and severe infections in newborn babies."

"On Monday, researchers from the Colorado Health Sciences Center also reported that more than 30 percent of women in a recent study were found to be infected with a strain of HPV, linked to cervical and anal cancer."

"In comparison, 18.7 percent of men carried HPV-16, one of 10 high-risk strains of the genital wart virus, the most common sexually transmitted disease in the nation. Researchers from Minnesota also presented a statewide study showing that nearly 10 percent of adolescent males had Chlamydia."

("Health experts: Syphilis rates rising,"	CNN.com,	March 8,	, 2004,)

### "REPORT: HALF OF STDS FOUND IN TEENS, YOUNG ADULTS"

"Teenagers and young adults account for nearly half the cases of sexually transmitted diseases in the United States though they make up just a quarter of the sexually active population, according to the first extensive national estimate of STDs among young Americans."

"Researchers at the federal Centers for Disease Control and Prevention estimate that 9.1 million cases of eight sexually transmitted diseases occurred in people aged 15 to 24 in the year 2000. There were 18.9 million new cases overall, said the report in Perspectives on Sexual and Reproductive Health, a journal published by the not-for-profit Alan Guttmacher Institute."

"Three diseases – human papillomavirus, trichomoniasis and chlamydia – accounted for 88 percent of new cases in 15-to-24-year-olds, the researchers said."

("Report: Half of STDs found in teens, young adults," CNN.com, February 24, 2004)

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# "HUMAN PAPILLOMA VIRUS (HPV) – GET YOUR FACTS STRAIGHT"

"Every year, almost 4 million American teenagers get an STD."

# "What about treatment for HPV?"

"There is no cure for HPV. Because most people don't know they have HPV, they don't seek medical treatment. Warts caused by HPV can be treated, but treatment doesn't guarantee the warts won't return. Abnormal Pap smears and cervical cancer can be treated, but successful treatment depends on finding those problems early."

("Human Papilloma Virus (HPV)," The Medical Institute for Sexual Health, www.medinstitute.org)

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## "HUMAN PAPILLOMA VIRUS"

## "What is HPV?"

"Human papilloma virus (HPV) is a virus that infects the skin and mucous membranes (tissues that line the mouth, cervix, vagina, urethra and anus) of humans. Of the 100 strains of HPV, approximately 30 cause genital infections." (1)

# "How many people have HPV?"

"Five to six million Americans become infected with genital HPV every year. (2) Twenty million Americans are currently infected with the virus, and another 80 million have been infected at some time in the past. This means that 75 percent of sexually active Americans are or have previously been infected." (3)

# "How does someone get HPV?"

"HPV is primarily spread by skin-to-skin contact with an infected person or by contact with body fluids contaminated with the virus. This means that most cases of genital HPV are acquired through sexual intercourse. Transmission of HPV via oral sex, (4) genital touching (5) and via inanimate objects (6) may also be possible, but the risk of infection form these activities has not been well documented."

## "References:"

- "(1) Division of STD Prevention. "Prevention of genital HPV infection and sequelae: Report of an external consultants' meeting." Department of Health and Human Services, Atlanta: Centers for Disease Control and Prevention (CDC), December 1999.
- (2) American Social Health Association. "Sexually Transmitted Disease in America: How Many Cases and at What Cost?" Menlo Park, CA: Kaiser Family Foundation; 1998.
- (3) Koutsky LA, Kiviat NB. Genital human papillomavirus. In: Holmes KK, Mardh PA, Sparling PF, et al., eds. "Sexually Transmitted Diseases." 3<sup>rd</sup> ed. New York, NY: McGraw Hill Co; 1999:347-359.
- (4) Edwards S, Carne C. Oral sex and the transmission of viral STDs. "Sex Trans Inf." 1998;74:6-10.
- (5) Sonnex C, Strauss S, Gray JJ. Detection of human papillomavirus DNA on the fingers of patients with genital warts. "Sex Transm Infect." 1999;75:317-319.
- (6) Koutsky LA, Kiviat NB. Genital human papillomavirus. In: Holmes KK, Mardh PA, Sparling PF, et al., eds. "Sexually Transmitted Diseases." 3<sup>rd</sup> ed. New York, NY: McGraw Hill Co; 1999:347-359."

("Human Papilloma Virus," The Medical Institute brochure, 2000 <a href="https://www.medinstitute.org">www.medinstitute.org</a>)

## "TRICHOMONAS – GET YOUR FACTS STRAIGHT"

#### "What is it?"

"Trichomonas is a parasite that causes genital infection. It causes more new infections each year than any other sexually transmitted disease (with the exception of human papilloma virus)."

("Trichomonas," The Medical Institute for Sexual Health, <a href="www.medinstitute.org">www.medinstitute.org</a>)

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## "TRICHOMONAS"

## "What is trichomonas?"

"Trichomonas vaginalis is a protozoan (a single-celled organism that is bigger and more complex than a bacterium) that infects the genital tracts of both women and men."

# "How many people have trichomonas?"

"As many as 5-10 percent of American women are infected. (1) Five million new trichomonas infections occur each year in the United States, (2) while approximately 200 million people every year are infected with trichomonas worldwide." (3)

# "What are the symptoms?"

"The majority (50-80 percent) of women and some men infected with trichomonas do not know that they are infected." (4)

#### **References:**

- (1) Krieger JN, Alderete JF. *Trichomonas vaginalis* and trichomoniasis. In: Holmes KK, Mardh PA, Sparling PF, et al., eds. *Sexually Transmitted Diseases*. 3<sup>rd</sup> ed. New York, NY: McGraw Hill, Co.; 1999:587-604.
- (2) American Social Health Association. *Sexually Transmitted Diseases in America: How Many Cases and at What Cost?* Menlo Park, CA: Kaiser Family Foundation; 1998.
- (3) Krieger JN, Alderete JF. *Trichomonas vaginalis* and trichomoniasis. In: Holmes KK, Mardh PA, Sparling PF, et al., eds. *Sexually Transmitted Diseases*. 3<sup>rd</sup> ed. New York, NY: McGraw Hill, Co.; 1999:587-604.

  (4) Ibid.

("Trichomonas," The Medical Institute brochure, 2000. www.medinstitute.org)

## "HEPATITIS B – GET YOUR FACTS STRAIGHT"

"What is it and how do you get it?"

"Hepatitis B is a common viral blood-borne disease; about half of all hepatitis B infections are transmitted through sexual activity. People who share needles when shooting drugs are at high risk for infection. You can also get it if a previously used (unsterile) needle is used on you for a tattoo or body piercing. Unvaccinated babies can get it from their infected mothers. You don't get it from the type of casual contact you have at school."

# "Am I safe if I always use a condom?"

"There aren't many studies on this, but considering the way hepatitis B is transmitted, condoms would not be expected to eliminate your risk of infections, though they might reduce it some."

("Hepatitis B," The Medical Institute for Sexual Health, www.medinstitute.org)

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## "HEPATITIS B"

# "How many people have hepatitis B?"

"The majority of unvaccinated infants born to mothers with hepatitis B develop chronic infections. About one of every 20 people exposed to hepatitis B as an adolescent or adult develops chronic infections. (1) It is estimated that 1.25 million Americans are chronically infected; 20-30 percent of these acquired the infection in childhood. (2) Following the advent of routine childhood hepatitis B vaccination, the number of new infections reported yearly has declined by 2/3, from an estimated 260,000 in the 1980s to about 80,000 in 2001." (2)

# "What are the symptoms?"

"Nearly 30 percent of infected people have no signs or symptoms of infection. Due to liver damage, an infected person may experience jaundice (yellowing of the skin and eyes), severe fatigue, loss of appetite, abdominal pain, nausea and vomiting. Rash, joint pain and fever may also occur."

## "References:"

"(1) Chin J, ed. *Control of Communicable Diseases Manual*. Washington, DC: American Public Health Association; 2000:243-251.

(2) Centers for Disease Control and Prevention. Viral Hepatitis B Fact Sheet. Available at http://www.cdc.gov/ncidod/diseases/hepatitis/b/fact.htm. Accessed July **22**, 2003." ("Hepatitis B," The Medical Institute brochure, 2003. www.medinstitute.org) "HEPATITIS C -- GET YOUR FACTS STRAIGHT" "What is it and how do you get it?" "Hepatitis C is the most common chronic blood-borne infection in the U.S.; it can also be transmitted during sexual activity." ("Hepatitis C," The Medical Institute for Sexual Health, www.medinstitute.org) "HEPATITIS C" "How does someone get hepatitis C?" "One of every 30 infants born to mothers with hepatitis C is infected during the birth process. (3) Hepatitis C can also be sexually transmitted. Multiple sex partners increase the risk for infection. Hepatitis C is not transmitted through the type of casual contact that occurs in a workplace." (3) Ferrero S, Lungaro P, Bruzzone BM, Gotta C, Bentivoglio G, Ragni N. Prospective study of mother-to-infant transmission of hepatitis C virus: A 10-year survey (1990-2000). Acta Obstet Bynecol Scand. 2003;82:229-234. ("Hepatitis C," The Medical Institute brochure, 2003. www.medinstitute.org) "GONORRHEA – GET YOUR FACTS STRAIGHT" "How you get it:"

Josh McDowell Research

"By having sex (vaginal, anal or oral sex) with an infected person."

("Gonorrhea," The Medical Institute for Sexual Health, <u>www.medinstitute.org</u>)

## "GONORREA"

# "How many people have gonorrhea?"

"About 650,000 American become infected with gonorrhea each year. (1) It is the second more common reportable bacterial sexually transmitted infection in America."

# "What are some of the long-term effects of gonorrhea infection?"

"Pelvic inflammatory disease (PID) is the most common complication of gonorrhea in women, occurring in 10-20 percent of infected females. (7) Among US women who seek medical assistance to become pregnant, one in four are infertile because of scarring caused by PID." (8)

# **References:**

- (1) American Social Health Association. *Sexually Transmitted Disease in America: How Many Cases and at What Cost?*" Menlo Park, CA: Kaiser Family Foundation; 1998.
- (7) Hook EW, Handsfield HH. Gonococcal infections in the adult. In: Holmes KK, Mardh PA, Sparling PF, et al., eds. *Sexually Transmitted Diseases*. 3<sup>rd</sup> ed. New York, NY: McGraw Hill, Co; 1999:811-831.
- (8) Centers for Disease Control and Prevention, American Society for Reproductive Medicine. 1997 Assited Reproductive Technology Success Rates: National Summary and Fertility Clinic Reports. U.S. Department of Health and Human Services. 1999:41.

("Gonorrhea," The Medical Institute brochure, 2000, www.medinstitute.org)

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# "CHLAMYDIA – GET YOUR FACTS STRAIGHT"

## "What is it?"

"Chlamydia is the most common bacterial sexually transmitted disease (STD)."

STD's

("Chlamydia," The Medical Institute for Sexual Health, <a href="www.medinstitute.org">www.medinstitute.org</a>)

## "CHLAMYDIA"

# "What are some of the long-term effects of chlamydia infection?"

"The most serious complication of Chlamydial infection is pelvic inflammatory disease (PID). PID can damage the fallopian tubes and result in tubal scarring and infertility. In fact, PID causes over 25 percent of the infertility in women pursuing in vitro fertilization in the United States. (10)

(10) Centers for Disease Control and Prevention, American Society for Reproductive Medicine. 1997 Assisted Reproductive Technology Success Rates, National Summary and Fertility Clinic Reports. U.S. Department of Health and Human Services. 1999:41.

("Chlamydia," The Medical Institute for Sexual Health brochure, 2000 www.medinstitute.org)

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## "HIV/AIDS"

# "How many people have HIV and AIDS?"

"The CDC estimates that there are currently 800,000 to 900,000 Americans living with HIV infection. (1) About a fourth of these people don't' know they are infected. (2) Approximately 320,000 Americans currently have AIDS, and almost half a million Americans have died from AIDS since the beginning of the epidemic."

# "Am I safe if I consistently use a condom or switch to oral sex?"

"Using condoms exactly as directed every time you have sex can reduce your risk of getting HIV by about 85%. (3,4) However, this still leaves a significant chance of getting a deadly disease. It is also possible for HIV to be passed during oral sex."

#### **References:**

(1) Centers for Disease Control and Prevention. HIV/AIDS Update. Available at <a href="http://www.cdc.gov/nchstp/od/news/At-a-Glance.pdf">http://www.cdc.gov/nchstp/od/news/At-a-Glance.pdf</a>. Accessed July 23, 2003.

- (2) Centers for Disease Control and Prevention. *New CDC Initiative Would Increase HIV Testing and Enhance Prevention for Persons Living with HIV* (Press Release). April 17, 2003.
- (3) David KR, Weller SC. The effectiveness of condoms in reducing heterosexual transmission of HIV. *Fam Plann Perspect*. 1999;31:272-279.
- (4) Workshop Summary: Scientific Evidence on Condom Effectiveness for Sexually Transmitted Disease (STD) Prevention. July 20, 2001. National Institute of Allergy and Infectious Diseases, National Institutes of Health, Department of Health and Human Services, Available at: http://www.niaid.nih.gov/dmid/stds/condomreport.pdf.

("HIV/AIDS," The Medical Insti	itute brochure, 2003	www.medinstitute.org)

# "GENITAL HERPES – GET YOUR FACTS STRAIGHT"

## "What is it?"

"Genital herpes is a common infection caused by the herpes simplex virus, usually, HSV-2. One in five Americans 12 and older has genital herpes."

("Genital Herpes," The Medical Institute for Sexual Health, <u>www.medinstitute.org</u>)

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# "GENITAL HERPES"

# "How many people have genital herpes?"

"Genital herpes is the most common sexually transmitted viral infection in the United States, with an estimated 45 million people infected. (1) This is over one in five Americans age 12 or over. (2) More than 45 percent of black Americans age 12 or over have been infected with HSV-2. (3) In addition, one million people acquire genital herpes infection each year in the United States." (4)

# "What are some of the long-term effects of genital herpes?"

"Once a person is infected with HSV-2 (s)he is probably infected for life and can transmit the infection to others even at times when (s)he is not experiencing symptoms. Approximately 90 percent of individuals with an initial symptomatic

HSV-2 infection will experience at least one recurrence of symptoms within the 12 months following the initial episode, and 38 percent have at least six recurrences in the first year. (9) Recurrence rates decrease over time, but recurrences can occur for the remainder of the person's life." (10)

"An additional consequence of genital herpes infection is that infected individuals are at increased risk of contracting HIV, the virus that leads to AIDS. (11) They may also be more likely to spread HIV to others." (12)

"Finally, mothers with genital herpes can transmit the infection to their newborn infants. This risk is greatest with primary (first-time) infections. With recurrent infections, the risk is less than 1 percent. (13) Infected newborns are quite sick and often die. Genital herpes infection of the mother also increases the risk of both spontaneous abortion and premature birth." (14)

## "References:"

- "(1) Fleming DT, McQuillan GM, Johnson RE, et al. Herpes simplex virus type 2 in the United States, 1976 to 1994. *N Eng J Med*. 1997;337:1105-1111.
- (2) Ibid.
- (3) Ibid.
- (4) American Social Health Association. Sexually Transmitted Disease in America: How Many Cases and at What Cost? Menlo Park, CA: Kaiser Family Foundation; 1998.
- (9) Benedetti J, Corey L, Ashley R. Recurrence rates in genital herpes after symptomatic first-episode infection. *Ann Intern Med.* 1994;121:847-854.
- (10) Benedetti JK, Zeh J, Corey L. Clinical reactivation of genital herpes simplex virus infection decreases in frequency over time. *Ann Intern Med.* 1999;131:14-20.
- (11) Eng TR, Butler WT, eds. *The Hidden Epidemic Confronting Sexually Transmitted Disease*. Institute of Medicine. Washington, DC: National Academy Press; 1997.
- (12) Schacker T, Ryncarz AJ, Goddard J, Diem K, Shaughnessy M, Corey I. Frequent recovery of HIV-1 from genital herpes simplex virus lesions in HIV-1-infected men. *JAMA*. 1998;280:61-66.
- (13) Corey L, Wald A. Genital Herpes. In: Holmes KK, mardh PA, Sparling PF, et al., eds. *Sexually Transmitted Diseases*. 3<sup>rd</sup> ed. New York, New York: McGraw Hill, Co.; 1999:285-312.
- (14) Ibid."

("Genital Herpes," The Medical Institute brochure, 2000. www.medinstitute.org)

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# "CONDOMS: WHAT'S STILL AT RISK?"

# "HPV (Human Papillomavirus)"

"HPV is the single most common STD in America. Several studies have shown that about half of all sexually active 18- to 22-year-old women studied are already infected with HPV. In addition to genital warts, HPV causes nearly all cervical cancer. In 1999, more women died of cervical cancer than AIDS."

# "Chlamydia and Gonorrhea"

"Most chlamydia infections cause no symptoms, so many people don't know they're infected. Gonorrhea cases are highest among 15- to 19-year-old females and 20- to 24-year-old males."

# "Condoms: What's still at risk?"

"About 3 out of every 20 couples using condoms to avoid pregnancy end up pregnant anyway within the first year of use."

("Condoms: What still at risk?" The Medical Institute for Sexual Health brochure, 2003 <a href="www.medinstitute.org">www.medinstitute.org</a>)

## "DO CONDOMS MAKE SEX SAFE ENOUGH?"

# "The STD Epidemic"

"America is in the midst of an STD epidemic. Each year, more than 15 million Americans become infected with an STD. A quarter of these infections occur in teens, and two-thirds occur in people under 25 years of age."

"The numbers have risen at alarming rates. Up through the 1960s, there were only two STDs of major concern – syphilis and gonorrhea – both which could easily be cured with penicillin. The times have changed, however, and today there are more than 25 STDs, many for which there is no cure." (1)

# "Genital Herpes"

"Based on the limited studies, it appears condoms only reduce the risk of herpes by half at best. Genital herpes infects nearly a quarter of Americans 12 and older and almost half of all African Americans. Because there is no cure, once you're infected with genital herpes, you have it for life."

## **References:**

(1) Eng TR, Btler WT, eds. *The Hidden Epidemic: Confronting Sexually Transmitted Disease*, Institute of Medicine. Washington, DC: National Academy Press;1997.

("Do Condoms Make Sex Safe Enough?" The Medical Institute brochure, 2003 <a href="https://www.medinstitute.org">www.medinstitute.org</a>)

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# "SYPHILIS"

# "How many people have syphilis?"

"The numbers of people reported with syphilis in the U.S. decreased dramatically between the mid-1940s and 2000 (falling from almost 100,000 yearly cases of primary and secondary syphilis to less than 6,000); numbers of reported cases have risen slightly since then. People in correctional institutions, people living in southern states, men and African Americans are disproportionately (most) affected. (1,2)

#### References

- (1) Centers for Disease Control and Prevention. *Sexually Transmitted Disease Surveillance 2001*. Atlanta, GA: U.S. Dept. of Health and Human Services; September 2002.
- (2) Centers for Disease Control and Prevention. *Sexually Transmitted Disease Surveillance 2001 Supplement. Syphilis Surveillance Report.* Atlanta, GA: U.S. Dept. of Health and Human Services; February 2003.

("Syphilis," The Medical Institute brochure, 2003 www.medinstitute.org)

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"STDs: THE FACTS"

"The Epidemic"

"The United States is experiencing a major epidemic of sexually transmitted disease (STD). Over 60 million Americans are currently infected with an STD and 15 million new cases of sexually transmitted infection occur each year. (1) One quarter of these new STD infections occur in people between 15 and 19, and two-thirds occur in those under the age of 25." (2)

## "The Cause"

"What is driving this epidemic? A combination of factors including the initiation of sexual activity occurring at younger ages; a delay in the age of first marriage; and high divorce rates. These changing social norms have increased the number of lifetime sexual partners for many Americans. An increase number of lifetime sexual partners if a very important risk factor for STDs. (3) The problem is compounded because many individuals infected with the most common STDs – chlamydia, genital herpes and human papillomavirus – do not experience noticeable symptoms and do not know that they are contagious."

# "The Impact"

"Unfortunately, STDs are not 'equal opportunity' diseases. Adolescents are at greater risk than adults. The CDC gives several explanations for this increased risk including: adolescents are more likely to have multiple sexual partners; they may select partners at higher risk; and, they may be more susceptible to certain STDs because of their immature anatomy."

# "The Fallacy"

"Research to produce vaccines that prevent viral STDs is ongoing, but to date hepatitis B is the only STD with an effective and widely available vaccine. New medical advances to prevent and/or treat viral STDs appear to be years away, and in fact, may never occur."

# "The Confusion"

"Condoms continue to be widely promoted as effective in preventing all STDs and unwanted pregnancy, but the scientific evidence suggests otherwise. Condoms can and do fail. For some STDs (those spread by contact with infected skin) condoms are likely to fail if they do not completely cover all infected areas. For STDs spread by contact with body fluids, as well as for pregnancy, the most significant reasons for condom failure are incorrect/inconsistent use and breakage/slippage. And while the risk of condom breakage or slippage for a single act of sexual intercourse may be

quite small (2-3% in most studies), the cumulative breakage/slippage risks when condoms are used as a long-term prevention strategy are significant."

"Condoms are not particularly effective when used to prevent pregnancy. In fact, condoms have failure rates of approximately 14 percent during the first year of typical use. (6) And these failure rates are even higher in younger users."

## "References:"

"(1) American Social Health Association. Sexually Transmitted Disease in America: How Many Cases and at What Cost? Menlo Park, CA: Kaiser Family Foundation; 1998.

Centers for Disease Control and Prevention. *Tracking the Hidden Epidemics – Trends* in STDs in the United States 2000. Available at:

http://www.cdc.gov/nchstp/dstd/dstdp.html. Accessed on September 20, 2001.

- (2) Eng TR, Butler WT, eds. The Hidden Epidemic Confronting Sexually Transmitted Disease. Institute of Medicine. Washington, DC: National Academy Press: 1997.
- (3) Ibid.
- (6) Fu H, Darroch JE, Haas T, Ranjit N. Contraceptive failure rates: New estimates from the 1995 National Survey of Family Growth. Fam Plan Persp. 1999;31:56-63."

("STDs: The Facts," The Medical Institute brochure 2001, www.medinstitute.org)

# "YOU'VE GOT...A SEXUALLY TRANSMITTED DISEASE"

#### STDs in America

"The American Social Health Association estimates there are more than 15 million new cases of sexually transmitted diseases in the United States each year."

("You've Got...A

Sexually Transmitted Disease," The Associated Press, February 20, 2004, www.msnbc.msn.com/id/4315789)

"SEX AND RICHMOND – THE NEWEST STD VILLAIN? HPV"

"This year Rita got a call from her doctor, who told her that her Pap smear was abnormal. She was diagnosed with HPV (human papillomavirus). Independent of lifestyle, race and gender, more than one million Americans test positive for HPV yearly, making the virus the fastest-spreading STD in the land. With no symptoms, Rita became one of the more than 50 percent of college students who have been exposed to the virus."

"'HPV is known as the 'silent disease' because condoms don't necessarily protect you from it,' said Connie Garman, clinical research coordinator for Virginia Women's Center at St. Mary's Hospital. 'If the body parts are touched, even if there is no actual intercourse, the virus can be spread. Men don't normally have symptoms."

"There are 100 subtypes of HPV, 'Garmen said. 'We are looking to protect women from strands 6, 11, 16, and 18. Those are the strands that have been proven to cause cervical cancer."

("Sex and Richmond – The Newest STD Villain? HPV?" <a href="https://www.richmond.com/health/output.cfm?ID=2578092&vertical=Health">www.richmond.com/health/output.cfm?ID=2578092&vertical=Health</a>, Thursday August 7, 2003)

## "HPV IS SILENT SERIAL KILLER OF YOUNG WOMEN"

"Although HPV is the number one killer of women between the ages of 15 and 35, most people are ignorant about the illness and its deadly potential."

"HPV stands for Human Papilloma Virus. The disease has been directly linked to over 99 percent of cervical cancer cases. 5,000 women will die of cervical cancer this year, more than will die of HIV/AIDS."

"Two thirds of the cases of HPV occur in people ages 15-24. At least one in three sexually active people are estimated to have contracted an STD. While bacterial STD's like syphilis and gonorrhea can be successfully treated, viral STD's, including HP, have no treatment."

"Another study indicated that oral sex spreads the disease as well. With the recent popularity of oral sex among young teens, doctors are finding cases of HPV where the warts show up in teenagers' throats."

("HPV is Silent Serial Killer of Young Women," www.edailynews.info/articles/2003/08/21/news/opinion/op01.txt)

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# "RISK OF INFECTION NOT REDUCED ENOUGH"

"More than 15 million new cases of sexually transmitted disease occur every year in the United States. One-fourth of these infections occur in teens, and two-thirds occur in individuals less than 25 years of age."

"Thirty years ago, there only two significant STD's – syphilis and gonorrhea – and both could be treated with penicillin. Today, there are more than 25 STDs, many of which are viral with no cure."

"Human papillomavirus, or HPV, for example, is most common viral STD. It causes nearly all abnormal Pap smears and more than 90 percent of cervical cancer, which, in 2001, killed an estimated 4,100 women in the country."

"Condoms, if used correctly and 100 percent of the time can provide significant risk reduction for HIV. For HPV, the answer appears to be no, condoms do not provide risk reduction."

("Risk of Infection Not Reduced Enough," <a href="https://www.ajc.com/opinion/content/opinion/0803/22equal.html">www.ajc.com/opinion/content/opinion/0803/22equal.html</a>)

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# "OFFICIALS QUESTION HPV PROGRAM"

"HPV is an incurable sexually transmitted disease that can be spread from skin-to-skin contact. It infects an estimated 20 million people and causes 5.5 million infections each year."

"But this is not what the Centers for Disease Control and Prevention and three other agencies concluded in their July 2001 report, 'Scientific Evidence on Condom Effectiveness for STD Prevention,' Dr. Coburn said in his letter to Miss Corrigan. A panel of experts 'concluded that there was no epidemiological evidence that condom use reduced the risk of HPV infection,' Dr. Coburn wrote. The HPV epidemic is growing 'because people continue to deny the fact that condoms aren't effective in

reducing it,' he said in a recent telephone interview. 'You can have 100 percent condom use in this country and you will still have HPV.'"

("Officials Question HPV Program," <a href="http://dynamic.washtimes.com/print\_story.cfm?StoryID=20030824-110947-9395r">http://dynamic.washtimes.com/print\_story.cfm?StoryID=20030824-110947-9395r</a>)

## "HERPES RATES ARE HIGH AMONG AFFLUENT POPULATIONS"

#### "STD's Hit Suburbia"

"Results: More than 5,000 patients were screened. Three-quarters were white. Nearly half had a household income of more than \$60,000 annually and a majority had education beyond the high school level. More than a quarter tested positive for the virus, although it was as low as 13% among those in their teens and 20s and as high as 31% among those in their 40s. Infection rates were higher among women in all age groups. Only 4% reported a history of the infection."

("Herpes Rates are High Among Affluent Populations," <a href="www.ama-assn.org/sci-pubs/amnews/pick\_03/hlsc0901.htm">www.ama-assn.org/sci-pubs/amnews/pick\_03/hlsc0901.htm</a>)

# "3 OF 4 IN STUDY HIDE HIV STATUS"

"In a local study that shocked a top state health official, researchers found that about three out of four people infected with the AIDS virus hide the fact from casual-sex partners."

"Based on interviews with 269 people at two New Orleans clinics for people with sexually transmitted diseases, researchers found that 18-to-22-year-olds were least likely to divulge their HIV status."

"Of 91 people in the study in that age group, 'three individuals estimated that they had more than 100 partners (each) since their diagnosis and the remaining 88 individuals reported a total of 184 partners, suggesting a significant potential for HIV transmission,' the scientists wrote."

"It doesn't surprise me,' Kissinger said. 'The amount of emotional importance that they put into a casual relationship is not much."

("3 of 4 in Study Hide HIV Status," <a href="www.nola.com/printer/printer.ssf?/base/living-0/106369184556750.xml?nola">www.nola.com/printer/printer.ssf?/base/living-0/106369184556750.xml?nola</a>)

## "HIV/AIDS BECOMING YOUNG PERSON'S DISEASE"

"The 'Making 1 Billion Count' report cautions that there is now the biggest generation of adolescents in history – 1.2 billion of the world's 6.3 billion population are between 10 and 19 – and many are facing deadly diseases, unwanted pregnancy and poverty."

"HIV/AIDS has emerged as one of the greatest threats. Aside from the high infection rate, the epidemic also has orphaned 13 million children under age 15, the report said."

(Jane Wardwell, "HIV/AIDS Becoming Young Person's Disease," Yahoo! News, October 8, 2003, http://news.yahoo.com/news)

# "THE CHANGING FACE OF AIDS IN THE US"

"African Americans accounted for 54 percent of the approximately 43,000 new US HIV infections last year, up from 35 percent of new cases in 1993, according to CDC. In 1998, the number of African Americans with AIDS surpassed that of whites for the first time. In 2001, AIDS became the leading cause of death for African-Americans ages 25-44."

("The Changing Face of Aids in the US," <a href="https://www.abstinence.net/library/index.php?entryid=487">www.abstinence.net/library/index.php?entryid=487</a>)

"NEW VANCOUVER EPIDEMIOLOGY REPORT: HIV AND HEPATITIS C HAVE REACHED 'NEAR SATURATION'"

"While needle exchange advocates claim that such programs effectively prevent the spread of blood borne diseases such as HIV and hepatitis, the latest report from Vancouver, which boasts that largest needle exchange program (NEP) in North

America, suggest otherwise. In fact, this report's 'smoking gun' is its finding that both HIV and Hepatitis C have reached 'saturation' among the injection drug using population, meaning few if any of who are not already infected are left to become newly infected."

"Here are some of the reports specific findings:"

"In 2002, nearly 3 million needles were distributed by NEPs in the City."

"Injection drug use was the main mode of HIV transmission in British Columbia from 1994 to 2000. Today injection drug use and men having sex with men tie as the top risk factors for new HIV cases."

"Vancouver began its NEP in 1988, and the number of new HIV infections among injection drug users (IDUs) increased every year thereafter until peaking in 1996. A 1997 study of more than 1,400 Vancouver IDUs revealed an annual HIV infection rate of 18 percent – the highest level anywhere in the developed world and one of the highest incidence rates reported anywhere worldwide. The number of new positive tests began to increase again in 2002 and estimates for 2002 anticipate a further increase. This report notes that many infected injection drug users have not been tested, so these rates are likely to be higher. The current HIV prevalence among Vancouver IDUs is 35 percent."

"The report attributes the HIV incidence peak in 1996 not to the success of needle exchange, but rather to 'the near saturation' of HIV infection among IDUs, meaning after 1996 there were few drug addicts left to become newly infected."

"Needle exchange not only failed to prevent HIV from reaching a saturation point among Vancouver IDUs, but also had the same lack of effectiveness in preventing the spread of hepatitis C is (HCV). This report notes that like HIV, HCV has also reached a saturation point among Vancouver IDUs with over 80 percent infected with the incurable and deadly blood borne disease. Nearly two-thirds of Vancouver HCV cases are attributable to injection drug use with Vancouver's HCV rate being nearly four-times higher than the rate for Canada as a whole."

("New Vancouver Epidemiology Report: Hiv And Hepatitis C Have Reached 'Near Saturation'" www.abstinence.net/library/index.php?entryid=522)

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"AIDS is the nation's second leading killer of adults aged 25 to 44...the most productive element of our society. An estimated two thirds of all cases of sexually transmitted disease occur in young people younger than 25. And couples who cohabit prior to marriage have a 33 percent higher incidence of divorce than those who do not. Why are we still following in our parent's footsteps?"

("How Kinsey Burned '60s Baby Boomers," <a href="https://www.abstinence.net/library/index.php?entryid=34">www.abstinence.net/library/index.php?entryid=34</a>)

# "HERPES CASES INCREASE OVER LAST THREE DECADES"

"Approximately one in five American adults have genital herpes, but an estimated two-thirds of those that are infected do not know they are, according to the American Social Health Association."

("Herpes Cases Increase Over Last Three Decades," <a href="https://www.abstinence.net/library/index.php?entryid=370">www.abstinence.net/library/index.php?entryid=370</a>)

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## "STD STATISTICS"

# "Chlamydia"

"Seventy percent of infections in women are without symptoms, and therefore would only be picked up on screening or notification from a male who was treated. Putting these numbers together, there are probably 2 million cases per year. The most frequently infected age group is 15-24 years old. Reported rates of infection have steadily climbed since 1984."

# "Genital herpes"

"Because herpes is not a 'reportable' disease, there is no organized data collection process. Blood tests have been done showing a positive antibody test of 21 percent for persons over 12 years old, last collected in 1994. This translates into approximately 50 million people infected. The yearly infection rate is unknown but is

estimated to be 3 million new infections each year for teenagers and adults to age 29. These numbers are 30 percent higher than data collected from 1977-80."

# "Human Papilloma Virus"

"Because human papilloma virus (HPV) is not a 'reportable' disease, there is no organized data collection process. The numbers are gross estimates, and therefore, totally unreliable. There may be 5 million new infections each year. There may be 20-50 million people living with this infection in the United States. Of those who are diagnosed, most are women because it is detected in Pap smears. Some people seek attention when they notice warts. While both sexes get warts, 98 percent of those with HPV do not have visible warts."

(Source: Centers for Disease Control (CDC) and National Center for Health Statistics)

("STD Statistics," <a href="www.abstinence.net/library/index.php?entryid=368">www.abstinence.net/library/index.php?entryid=368</a>)

## "SYPHILIS EPIDEMIC GETTING MUCH WORSE IN SAN FRANCISCO"

"The syphilis epidemic in San Francisco appears to be growing unabated, with the city on track to report 750 new cases by year's end, up 50 percent from 2002, the city's public health department announced Thursday."

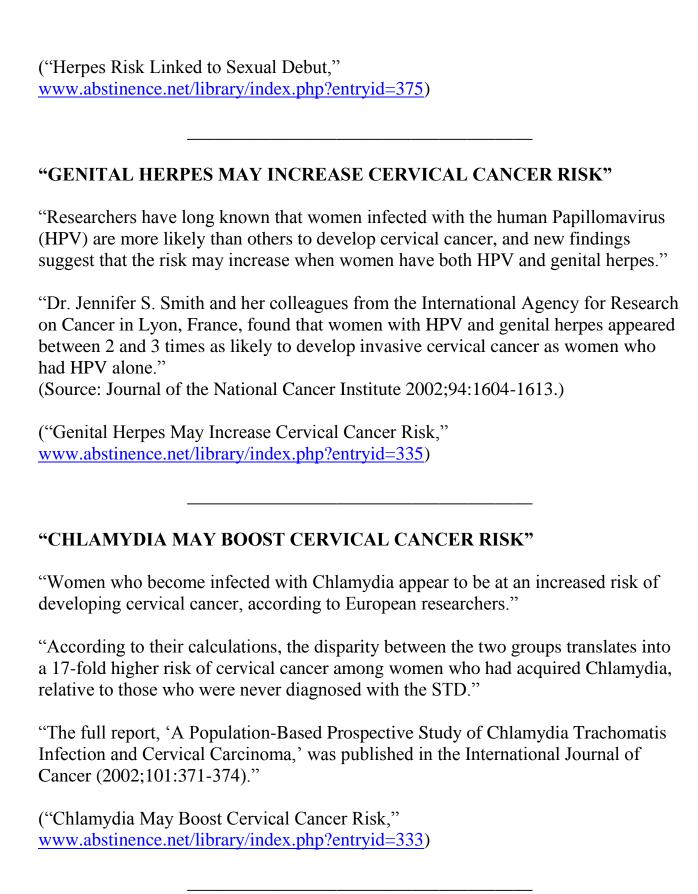
"(Associated Press, September 25, 2003)"

("Syphillis Epidemic Getting Much Worse in San Francisco?" <a href="https://www.abstinence.net/library/index.php?entryid=521">www.abstinence.net/library/index.php?entryid=521</a>)

#### "HERPES RISK LINKED TO SEXUAL DEBUT"

"Girls under 16 were three times more likely to contract sexually transmitted infections than other women, a British study has found."

"Researchers discovered the prevalence of the herpes virus HSV-1 was strongly related to the age at which the person first had sex. Someone who had sex for the first time at 20 was 60 percent less likely to have herpes than someone who did so at 15, according to the paper, published in the Journal Sexually Transmitted Infections."



# "STD, HIV ON RISE IN EUROPE"

"In a report in the British Medical Journal, researchers Angus Nicoll and Francoise Hamers found significant increases in sexually transmitted diseases and HIV diagnoses form 1995 to 2000 when national trends for Western Europe were examined. In Western Europe, HIV diagnoses rose 20 percent. Gonorrhea rates also increased in the countries where the disease is tracked – France, the Netherlands, Sweden, Switzerland, and the United Kingdom. Further, syphilis outbreaks have been reported in many of the countries."

"According to the report, sexual health has deteriorated in Western Europe. The researchers found that despite extensive sex education and condom distribution, people and governments have become complacent."

("STD, HIV on Rise in Europe," <a href="https://www.abstinence.net/library/index.php?entryid=374">www.abstinence.net/library/index.php?entryid=374</a>)

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# "DRUG-RESISTANT HIV STRAINS FOUND IN ONE OUT OF EVERY 10 NEWLY INFECTED EUROPEAN PATIENTS"

"Nearly one out of every 10 Europeans newly infected with HIV has a drug-resistant strain of the virus, according to a study released today at the International AIDS Society's 2<sup>nd</sup> Conference on HIV Pathogenesis and Treatment in Paris."

("Drug-Resistant HIV Strains Found in One out of Every 10 Newly Infected European Patients," <a href="www.abstinence.net/library/index.php?entryid=270">www.abstinence.net/library/index.php?entryid=270</a>)

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# "TEENS AND STDs: A NEW MESSAGE FOR A HEALTHY MILLENIUM"

"The prevalence of sexual experience, defined as ever having had sexual intercourse, decreased 16 percent form 1991 through 2001. In 2001, 65.6 percent of ninth graders and 39.5 percent of twelfth graders never have had sexual intercourse. (1) Furthermore, 79 percent of teens ages 12-19 surveyed in 2002 do not think it is embarrassing to admit they are virgins and 93 percent of teens want a strong message from society to abstain from sex until they are at least out of high school. Fifty-five percent of teens, ages 15-19, who had had sex wished they had waited longer." (2)

## "STDs and Teens"

"Of 15 million new STDs occurring annually, one in four occurs in teenagers. Once sexually active, teens are at risk for the same problems as any other sexually active person. Teen females are more susceptible since the adolescent cervix, prior to its conversion to squamous epithelium, is more susceptible to infection."

# "Abstinence: True Primary Prevention"

- "There remains a primary prevention strategy that is 100 percent effective, 100 percent of the time for all STDs and all unintended pregnancies: Abstinence from all sexual activity until marriage to a disease-free spouse. The 2002 STD Treatment Guidelines published by the CDC state the most reliable way to avoid STD transmission is to abstain from sexual intercourse (i.e., oral, vaginal or anal sex) or to be in a long-term, mutually monogamous relationship with an uninfected partner. (11) The 2001 CDC fact sheet (12) on HPV, gonorrhea, syphilis and herpes substantiate the need to correctly counsel on maintenance of sexual health via choice of a sexually abstinent lifestyle.:"
- "...Abstinence is the most effective strategy to prevent HPV infection. Two uninfected individuals who have no other sex partners besides each other cannot get genital HPV infection."
- "...Condoms do not provide complete protection from all STDs. Sores and lesions of other STDs on infected men and women may be present in areas not covered by the condom, resulting in transmission of infection to another person."
- "...Two people who know they are not infected and who have sex with no one but each other cannot contract syphilis."
- "...However, condoms do not provide complete protection, because a herpes lesion may not be covered by the condom and viral shedding may occur."

"Endnotes"

- (1) "Centers for Disease Control and Prevention. Trends in Sexual Risk Behaviors Among High School Students—United States 1991-2001. MMWR Morb Mortal Wkly Rep. 9/27/02; 51(38) 856.59.
- (2) National Campaign to Prevent Teen Pregnancy, With One Voice 2002, 12-02,
- (3) www.teenpregnancy.org.

- (11) Centers for Disease Control and Prevention. Sexually transmitted diseases treatment
  - guidelines 2002.
- (12) Centers for Disease Control and Prevention. DSTD Facts. Accessed 2-18-03 at www.cdc.gov/nchstp/dstd/Fact\_Sheets."

("Teens and STDs: A New Message for a Healthy Millenium")

## "HIV 'SUPERINFECTION' EVIDENCE GROWING"

"Evidence is growing that 'superinfection' with more than one strain of HIV may be more common than previously thought, which could complicate efforts to make a vaccine, experts said at an international AIDS conference."

"Scientist reported Monday three new cases of HIV-infected people who initially were doing well without drugs but became sick years later after contracting a second strain of the AIDS virus."

"Superinfection is sobering,' said Dr. Anthony Fauci, director of the National Institute of Allergy and Infectious Diseases, the chief U.S. AIDS research agency. He was not involved in the studies."

## "How common is it?"

"In another study, Dr. Harold Burger of Albany Medical College in Albany, New York, said genetic tests on a superinfected woman showed the two viruses mixed and produced a hybrid that took over from the original virus."

"Although the development of a hybrid was not surprising – scientists estimate there are 14 mixed strains circulating – the report is the first documented case of two HIV strains, or subtypes, combining in one person to form a third strain."

"The issue is can you get a vaccine that will cover all subtypes?' said Dr. Anton Pozniak, an AIDS specialist at Chelsea and Westminster Hospital in London, who was not connected with the research."

("HIV 'Superinfection' Evidence Growing," cnn.health.printthis.clickability.com/pt/cpt?action-cpt&expire=08%2F14%2F2003&... July 28, 2003)

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# "THE MEDICAL INSTITUTE ADVISORY -- A Quick Look at the Facts and Their Impact"

# "HPV, Oral Contraceptives & Cervical Cancer"

"Cervical cancer is the second most common cancer in the world among women. Rates vary widely by region and by ethnic group. Within the US, African Americans have higher rates than Caucasians (11 vs. 7.8 per 100,000 women). Human papillomavirus (HPV) Viral DNA is found in intimate associations with most cervical cancers. Although there are more than 30 HPV types that infect humans, one type alone – HPV-16 – is associated with about half of all cervical cancers."

"Of 1853 case women and 1916 control women included in the ten original studies, 1676 (90%) and 255 (13%) were identified as HPV (+) and retained in this study. After adjustment for confounders, women who had ever used OCs [oral contraceptives] had no increased risk of cervical cancer or carcinoma in situ compared to those who had never used OCs. However when the data were subdivided by years of OC use, women who had used OCs for >5 years were four times more likely to develop invasive cervical carcinoma than those who did not (OR 4.01, 95% CI 2.01-8.02). They were also about three times more likely to develop carcinoma in situ than those who had not used OCs (OR 2.87, 95% CI 1.15-7.13)."

"This study appears to support the hypotheses that long-term OC use is associated with increased risks for both cervical cancer and precancerous lesions of the cervix in women who are infected with HPV."

("HPV, Oral Contraceptives, and Cervical Cancer," The Medical Institute Advisory – A Quick Look at the Facts and Their Impact, <a href="https://www.medinstitue.org/medical/advisory/Feb%206,k%202003.htm">www.medinstitue.org/medical/advisory/Feb%206,k%202003.htm</a>, February 6, 2003)

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"THE MEDICAL INSTITUE ADVISORY – A Quick Look at the Facts and Their Impact"

"HPV and Cervical Cancer"

"Cervical cancer is the second most common cancer in the world among women. In the United States, more women die of cervical cancer than from AIDS (4,100 vs. 3,800 in 2001). More than 100 types of human papillomavirus (HPV) have been identified and approximately 40 of these can infect the genital tract. HPV DNA (the nucleic acids that comprise the genetic 'codes' for all living organisms) is associated with most cervical cancers, and is felt to cause almost all cervical cancer."

# "Make an Impact"

"Oral sex has become an epidemic among teens and carries the same high risks of STD contraction as intercourse."

("HPV and Cervical Cancer," The Medical Institute Advisory – A Quick Look at the Facts and Their Impact,

www.medinstitute.org/medical/advisory/April%2016,%202003.htm, April 16, 2003)

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# "THE MEDICAL INSTITUE ADVISORY – A Quick Look at the Facts and Their Impact"

# "HPV Incidence in University Women"

"About 40 of the more than 100 types of human papillomavirus (HPV) cause genital infections; 18 of these 40 were recently defined as being high risk for cervical cancer (*N Engl J Med.* 2003:348:518-527)."

"Almost one fifth (19.7%) of the women who volunteered were excluded from further follow up because they were infected with HPV at the time of their initial visit. More than 400 women (444) completed over 4,000 visits. Most women had about 10 visits, each about 4 months apart. One third of the women were virgins at the beginning of the study; of the two-thirds who had already initiated sexual activity, the average number of lifetime partners at study entry was 1.8."

"'Always use' of condoms did *not* protect against HPV infection." (Genital human papillomavirus infection: incidence and risk factors in a cohort of female university students. Winer RL, Lee SK, Hughes JP, Adam DE< Kiviat NB, Koutsky LA. Am J Epidemiol. 2003;157(3):218-226.)

("HPV Incidence in University Women," The Medical Institute Advisory – A Quick Look at the Facts and Their Impact,

www.medinstitue.org/medical/advisory/May%208,%202003.htm, May 8, 2003)

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## "THE TRUTH ABOUT STDs"

"There are more than 25 diseases spread primarily by sexual activity. Together these infections – called sexually transmitted diseases (STDs) – have created a significant public health challenge in the United States. While many STDs are curable, others are not. Even those that are curable often have no symptoms and go unrecognized for long periods of time. If left untreated, even curable STDs can result in long-term health problems for both men and women."

"In the United States, an estimated 15 million people become infected with one or more STDs each year. In addition, an estimated 65 million people live with an incurable STD. Still, less than half of adults 18 to 44 years of age have ever been tested for an STD other than HIV/AIDS." (1)

# "Human Papillomavirus (HPV)"

- "Approximately 5.5 million new cases of HPV infection are reported every year. At least 20 million Americans are already infected." (55)
- "Fifty to 75 percent of sexually active men and women will become infected with genital HPV at some point in their lives." (56)
- "Approximately 14,000 women are diagnosed with cervical cancer each year; over 5,000 die from this disease each year." (57)

## "References"

- (1) "http://www.ashastd.org/news/112102.htm
- (55) http://www.niaid.nih.gov/factsheets/stdhpv.htm
- (56) http://www.ashastd.org/hpvccrc/quickfaq.html
- (57) Ibid."

("The Truth About STDs")

## "AN Rx FOR TEEN SEX"

"What's different now? The '90s presented a mixed picture of teen sexual health. There was a solid 20% decline in the teen birth rate, and according to a CDC report released last week, sexual activity decreased 15%. But the incidence of certain sexually transmitted diseases rose among adolescents. A quarter of all new HIV cases today occur in those ages 21 and younger. And doctors are reporting more frequent diagnoses of herpes and the human papillomavirus, or HPV, which is linked to cervical cancer and is thought to infect more than 15% of sexually active teens. The last figure is the one gnawing at some doctors. Though the particulars of HPV remain something of a medical mystery, we have learned at least one frightening thing about the disease: HPV is spread through skin-to-skin contact of genitals and their surrounding areas, so condoms do not always protect against it. Which means, as Sulak is fond of saying, there is no such thing as safe sex.

("An Rx for Teen Sex," Time archive, October 7, 2002, www.time.com/time/magazine/article/artset?curlid=)

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# "HPV DNA TESTING"

"An international group of researchers has recently defined, in a fairly thorough manner, which of the more than 100 types of human papillomavirus (HPV) is high risk for cervical cancer (*N Engl J Med.* 2003;348:518-527). About 40 of the 100 types cause genital infections, and 18 of these 40 were defined as being high risk. Not all types were equally common. Eight types—types 16, 18, 45, 31, 33, 52, 58, and 35—accounted for approximately 95% of the cervical cancer."

"Fortunately, prevention of all types of HPV infection and consequent illness (warts or cancer) is possible through abstinence or sexual relations with a longterm mutually faithful monogamous uninfected partner."

("HPV DNA Testing," The Medical Institute Advisory – A Quick Look at the Facts and Their Impact, March 26, 2003,

www.medinstitute.org/medical/advisory/March%2026%202003.htm)

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## "HPV-16 PREVALENCE"

"Cervical cancer is the second most common cancer in the world among women. It is estimated that 4,100 women died as a result of cervical cancer in the United States in 2001, more than the number of women who died of AIDS that same year. Human papillomavirus (HPV) viral DNA is found in intimate association with most cervical cancers. Although there are more than 30 HPV types that infect humans, one type alone—HPV-16—infects 20% of American women and is associated with about half of all cervical cancers."

("HPV – 16 Prevalence," The Medical Institute Advisory – A Quick Look at the Facts and Their Impact, January 20, 2003, <a href="https://www.medinstitute.org/medical/advisory/Jan%2020,%202003.htm">www.medinstitute.org/medical/advisory/Jan%2020,%202003.htm</a>)

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# "CHLAMYDIA THE SILENT EPIDEMIC"

# "Lack of symptoms, social stigma force many into shadows"

"Chlamydia is the most frequently reported infectious disease in the United States, according to the Centers for Disease Control and Prevention, but many who have it never know. Three-fourths of infected women have no symptoms."

"Though in 2001, 783,242 cases of Chlamydia were reported in the United States, an estimated three million cases occur annually, according to the CDC. The gap between the reported cases and the expected cases is due to the lack of Chlamydia screenings."

(Overfelt, Nikki, "Chlamydia the silent epidemic," <a href="https://www.kansan.com/print.asp?ID=200304220011">www.kansan.com/print.asp?ID=200304220011</a>)

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# "GENITAL WART VIRUS COMMON IN MEN SEEKING STD CARE"

"To investigate how many American men might carry the virus, Baldwin and her colleagues performed penile skin swabs for the virus in more than 400men attending a Tucson STD clinic."

"The study included men of a wide range of ages, and ethnic and socioeconomic backgrounds."

"Baldwin and her colleagues detected HPV in samples taken from 28 percent of the men. However, only 12 percent of the men carried forms of the virus linked to cancer."

"While in many women, the rate of HPV drops with age. Baldwin and her team found no such age pattern in men. For example, a higher percentage of men between the ages of 40 and 70 were HPV-positive compared with men in their late 20s and 30s."

"Moreover, only six percent of men carried more than one type of HPV, while reports show that women commonly have multiple types of the virus, the authors write in the April issue of the Journal of Infectious Diseases."

"Just why the characteristics of HPV may differ between men and women remains unclear, Baldwin said in an interview. HPV may be more of a transient infection in men than in women, she noted, and the two sexes may have different immune responses to the virus."

(McCook, Alison, "Genital War Virus Common in Men Seeking STD Care," Reuters, Wednesday, April 16, 2003, Source: Journal of Infectious Diseases 2003;187:1064-1070. <a href="www.reuters.com/printerFriendlyPopup.jhtml?type-healthNews&storyID=2577864">www.reuters.com/printerFriendlyPopup.jhtml?type-healthNews&storyID=2577864</a>)

## "SCIENTISTS SAY SEX THE MAIN SOURCE OF HIV IN AFRICA"

"Despite recent theories that the AIDS epidemic in some African countries arose from unsafe medical injections and blood transfusions, scientists said Wednesday that the pattern of the disease matches more closely with one primarily spread by unprotected sex."

"The majority of Africans with HIV live in South Africa, the authors note. In the case of that country, the incidence of HIV among adults has increased from less than one percent in 1990 to almost 25 percent in 2000."

("Scientist Say Sex the Main Source of HIV in Africa," Reuters, April 16, 2003, Source: Nature 2003;422:679,

www.reuters.com/printerFriendlyPopup.jhtml?type=healthNews&storyID=2579688)

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## "UK REPORTS RISE IN ANTIGIOTIC-RESISTANT GONORRHEA"

"A 'dramatic increase' in antibiotic-resistant gonorrhea is being reported by public health specialists in England and Wales."

"The Health Protection Agency said preliminary results showed that 9.8 percent of strains of the bacteria that cause gonorrhea were resistant to the antibiotic ciprofloxacin in 2002 compared with 2.1 percent in 2000."

(Woodman, Richard, "UK Reports Rise in Antibiotic-Resistant Gonorrhea," Reuters, April 14, 2003, <a href="www.reuters.com/printerFriendlyPopup.jhtml?type-healthNews&storyID=2561935">www.reuters.com/printerFriendlyPopup.jhtml?type-healthNews&storyID=2561935</a>)

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#### "TEENS UNAWARE OF STD PREVALENCE"

"According to Long, [Michelle Long, R.N. at the Ross County Health District] if teenagers begin having sex at an early age, there's a 90 percent chance they'll have 12 or more partners by the time they're married, meaning they've been indirectly exposed to more than 4,000 people. Now that's scary."

(Bunch, Brooke, "Teens unaware of STD prevalence," Chillicothe Gazette, April 7, 2003, <a href="https://www.chillicothegazette.com/news/stories/20030407/localnews/75623/html">www.chillicothegazette.com/news/stories/20030407/localnews/75623/html</a>)

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## "FACE OF HIV GETS YOUNGER AS TREATMENT GETS BETTER"

STD's

"Dr. Randall Fisher, a pediatric infectious disease specialist at Children's Hospital of The King's Daughters, treats about 30 teens at CHKD, about 40 percent of whom acquired the disease as adolescents. He estimates the number of teens treated at CHKD is at least double the number a decade ago."

(Simpson, Elizabeth, "Face of HIV gets younger as treatment gets better," Hampton Roads News, April 6, 2003,

www.home.hamptonroads.com/stories/print.cfm?story=52409&ran=51475)

## "MEDICALLY SPEAKING – ORAL SEX AND STDs"

"Oral sex can be defined as contact of one person's mouth (active) with the genitals of another person (receptive). Although the practice of oral sex may not affect someone's virginal status in the traditional meaning of the term virgin (ie, someone who has not had penile-vaginal intercourse) oral sex is sex, and is not part of the repertoire of abstinent behavior. Oral sex is likewise neither 'safe' nor 'safer' sex. With the major exception of pregnancy, the panoply of risks associated with the practice of oral sex roughly mirror those associated with penile-vaginal sex, though the magnitude of most risks appears to be lessened."

"The practice of oral sex is fairly common among adult Americans. In a nationally representative survey of 18- to 59-year-olds conducted during the early 1990s, three fourths of respondents said that they had practiced oral sex at some point in their lifetime. One quarter (27%) of men and one fifth of women (19%) said that they participated in oral sex the last time that they had sex. Married men and women were somewhat less likely than their unmarried counterparts to engage in oral sex. African Americans were less likely than Hispanics and whites to practice oral sex." (3)

"The practice of oral sex is similarly not uncommon among adolescents and young adults. A survey of 335 12- to 15-year-olds being seen in health maintenance organizations in the Washington, DC area from 1994-1997 revealed that almost one in five had practiced oral sex, and one quarter of those who had practiced oral sex had never had vaginal intercourse. (4) In a separate study of 545 slightly older students – 10th-12th graders – 84% (198/237) of the nonvirgins and 20% (60/308) of the virgins had participated in oral sex. (5) High school students in Los Angeles County who consumed alcohol or used recreational drugs were three times more likely than nonusers to engage in oral sex. (6) The National Survey of Adolescent Males targets a representative sample of 15- to 19-year-old US males. Overall, half (49%) of the 1995 participants said that they had participated in oral sex -including three fourths of the nonvirgins and one fifth of the virgins. (7) College students are particularly likely to have engaged in oral sex. Though by no means a representative study, of more than 300 sexually active students who volunteered to fill out a questionnaire in class, 86-87% had practiced oral sex. (8) Despite the widespread practice of oral sex on college

campuses, confusion exists about whether oral sex is sex. In 1994-1995, 1/3 (37%) of 1,101 southern college freshman and sophomores described oral intercourse as abstinent behavior." (9)

# "Chlamydial Infection"

"With four to five million cases of chlamydial infections reported yearly in the US, chlamydial infections are the most commonly reported conditions in the US. Although authorities estimate that almost 90 million occur worldwide annually, it wasn't until the early 1970s that practitioners were able to distinguish the genital manifestations of chlamydia from those of gonorrhea. (19) Chlamydial infection, caused by Chlamydia trachomatis, can extend from the urethra to the epididymis and from the cervix to the uterine lining and fallopian tubes. Despite the extent of the tissue involvement, a significant proportion of infections in both males (20-30%) and females (70%) result in no symptoms."

"Chlamydial infections can be transmitted both sexually and from mother to infant during the birth process. Because the focus of infection in the female is the cervix and endocervix rather than the vagina, female to male transmission is less efficient than male to female transmission. Immunity following infection is minimal and reinfection is common. However some immunity may develop with repeated infections."

"Chlamydia appears to cause one third to one half of all urethritis in men, 50-80% of mucupurulent cervicitis (ie, cervix with pus), and 10-40% of pelvic inflammatory disease. Though better data are needed, approximately 20% of women with chlamydial infections develop PID; 4% develop chronic pelvic pain; 3%, infertility; and 2%, adverse pregnancy outcomes (such as ectopic/tubal pregnancies)." (20)

"In one of the few studies to address the issue of whether oral sex poses a risk for chlamydial infection, throat cultures were performed on 706 male and 626 female STD patients. 3.7% of the men and 3.2% of the women had throat cultures positive for Chlamydia; women who practiced oral sex were three times as likely as those who did not to be culture positive (p = 0.01)." (21)

# "Chancroid, Granuloma Inguinale, Lymphogranuloma Venereum, Bacterial Vaginosis, And Trichomoniasis"

"There are a handful of case reports to suggest that chancroid – an ulcerative sexually transmitted disease common in developing countries – can be transmitted through oral sex. In contrast, there is little to no evidence to suggest that bacterial vaginosis,

granuloma inguinale, lymphogranuloma venereum, or trichomoniasis can be transmitted through oral sex." (2)

## "Candidiasis"

"Vulvovaginal candidiasis (yeast) infections were described in Greek writings and were linked to a fungal cause in the late 1800s. (22) Most women (75%) have at least one yeast infection during their lifetime and about half of these have two or more. (22) However not every woman with yeast in her genital (or gastrointestinal) tract is symptomatic; many women, particularly during pregnancy, may have candida without any symptoms. Natural immunity is cellular; antibodies offer no protection. Not unexpectedly, women with conditions that interfere with cellular immunity – such as diabetes, chemotherapy, or HIV infection – are at increased risk for recurrent vulvovaginal yeast infections."

"Although the vast majority of candidal infections are not sexually transmitted, candida can be present in the male genital tract, and can contribute to recurrent infection in the female partner." (23,24)

"There is some evidence that receptive oral sex in females increases the risk of vulvovaginal candidal infections, including recurrent infections. Female university students with culture-proven yeast infections were three and a half times as likely as their counterparts to have recently had receptive oral sex. (25) In a cohort of women with repeated (ie, median 6) yeast infections,

regular oral sex and recent oral sex were significantly associated with infection (odds ratio (OR) 2.4, 95% confidence interval (CI) 1.5 -4.0 and OR 3.1, CI1.5 -6.8)." (26)

# "Herpes 1 & 2"

"Herpes (Greek for 'to creep') infections have been recognized for more than 2,500 years. Although the infectious nature of the lesions was shown in the 1920s in both human and animal experiments, it wasn't until the 1960s that German and American researchers parsed the virus into two types, herpes simplex 1(HSV-1) and herpes simplex 2 (HSV-2). (27) With the advent of laboratory tests, HSV-1 was shown to usually be associated with

oral lesions (ie, cold sores), while HSV-2 was generally associated with genital lesions. (28) However, HSV-2 can cause oral lesions and HSV-1 can cause genital lesions. Up to 50% of genital infections that are newly acquired late in pregnancy (ie, primary) cause herpes infection in the newborn; far fewer (ie, 4-5%) recurrent infections result in neonatal infection." (29)

"Following primary infection (which may be either symptomatic or asymptomatic), both herpes viruses travel up nearby peripheral nerves to nerve roots located in the spinal cord, where they reside in a dormant state until temporarily reactivated. Reactivation, like the initial infection,

can be either symptomatic or asymptomatic (ie, lacking symptoms), and is accompanied by mucosal shedding of infectious viral particles. Most persons with newly acquired genital herpes will experience a recurrence (reactivation) during the first year following initial infection; however, recurrences during the first year are more common with HSV-2 than with HSV-1 (90% vs. 60%). (30) Transmission to a susceptible partner most commonly occurs during asymptomatic shedding."

"Serosurveys (blood tests for evidence of past or current infection) suggest that HSV-1 is extremely common and varies by socioeconomic standing: 30-50% of middle-aged adults of high socioeconomic standing have evidence of infection with HSV-1 and 80-100% of persons with less wealth have evidence of infection. (31) The proportion of adults infected with HSV-2 has changed dramatically over the last three decades: US visits for new genital infection increased 10-fold from 1970 to 1995 – from approximately 17,000 to 160,000 per 100,000 population. (32) Evidence of infection also varies by sex and ethnicity, with females being more likely than males, and African Americans more likely than whites, to have evidence of infection. National serosurveys suggest that over 20% of the adult population in the US has evidence of HSV-2 infection." (33)

"The practice of oral sex appears to be changing who has what type of herpes. Persons performing oral sex can transmit either HSV-1 or HSV-2 to susceptible (ie, nonimmune) partners if they are shedding virus. Conversely, persons performing oral sex may be exposed to either HSV-1 or HSV-2 if their partner is shedding and they are susceptible. New infections acquired in this manner may be either genital or oral/pharyngeal. Of STD clinic attendees in Seattle with positive HSV cultures, those who had experienced receptive oral sex during the preceding two months were 3 times more likely (OR 2.8, 95% Cl 1.9-4.3) to have HSV-1 than HSV-2 infections. (34) Similar findings were observed in persons presenting with first episodes of genital herpes in Sweden. Of HSV culture-positive persons who provided a history of sex practices, a history of oral sex was provided by 25/26 (96%) with HSV-1 and 8/14 (57%) with HSV-2. (35) In some places, new HSV-1 genital infections now outnumber new HSV-2 infections. On one midwestern campus HSV-1 accounted for 29% of new genital herpes infections in 1993, but 78% in 2001. (36) Of almost 500 persons belonging to a family practice who answered a questionnaire about sexual practices, the only significant predictor of HSV-2 infection in female minority patients was a history of oral sex. (37) Throat infections with newly acquired herpes are common, (38) are usually symptomatic, and can cause serious morbidity. A more

than fourfold increase in the antibody titer (1:128 to 1:4096) to HSV-2 was observed in a patient hospitalized for pharyngitis of sufficient severity to threaten his airway; the patient gave a history of oral sex with a receptive female partner." (39)

# "Human Papillomavirus"

"Of the more than 100 human papillomaviruses, approximately 35 cause human genital infections. However the clinical manifestations tend to vary by type. HPV 6 and 11 are usually associated with genital warts, and HPV 16, 18, 31, and 45 are typically associated with cancers of the genital tract (eg, cervix, anus). Genital warts were described in the first century AD and attributed to a viral etiology in the early 1900s, but it wasn't until the last few decades of the 20<sup>th</sup> century that the relationships between papillomaviruses and the gential tract and anal cancers were confirmed." (40)

"Microtrauma (tiny tears) during sex allows the virus to enter the skin or mucosa of the genital tract." (41)

"Papillomavirus infections are exceedingly common and often (70%) go unrecognized. Current evidence suggests that more than half of sexually active adults are infected with one or more papillomaviruses. (42) And a significant proportion of these are infected with HPV 16. In one nationally representative study (ie, NHANES) from the early 19902, 13% of all persons in the US had antibodies (ie, evidence of past infection) against HPV 16 in their blood – 12.5% of whites, 19.!% of African Americans, and 8.9% of Hispanics. (43) As the authors point out, since less than 60% of infected persons actually develop antibodies, this is an underestimate of the true proportion of infected persons. More recently, 21% (510/2,392) of 16- to 23-year-old females in university towns were excluded from an HPV vaccine trial because they had serologic evidence of prior HPV 16 infection." (44)

"There is some suggestion that oral sex may be linked to adult onset respiratory papillomatosis (a condition most commonly associated with HPV 6 or 11 that manifests as hoarseness and is typically treated with a laser), asymptomatic oral papillomavirus, and oncogenic HPV strains of the cervix. Adults with recurrent respiratory papillomatosis (secondary to HPV) were significantly more likely than controls to practice oral sex. (45) Almost all (99/101) patients with genital condyloma gave a history of practicing oral sex but none complained of oral symptoms. Oral papillomavirus was suspected by visual inspection in 8 and by culposcopy in 46; HPV DNA was identified in all 8 of the visually identified lesions and in 38 of the culposcopically identified lesions. (46) Among Canadian university students presenting for routine Pap smears, women with 4 to 9 and 10 or more lifetime oral

sex partners were significantly more likely than those with 0-3 lifetime oral sex partners to be infected with HPV types associated with cancer (multivariate OR 2A, CI1.1- 5.3 and OR 4.6, C11.3 -16.9, respectively)." (47)

# "Nonchlamydialnongonococcalurethritis"

"Urethritis (urethral inflammation) is usually divided into gonococcal. chlamydial, and Chfamydia-negative nongonococcal urethritis (nonchlamydial NGU). Although white cells are usually present in the urine with urethritis, symptoms may be absent. Oral sex appears to be a risk factor for nonchlamydial NGU. In one study of men who have sex with men attending an STD clinic, 15.6% had nonchlamydial NGU. Men who practiced receptive (insertive) oral sex were twice as likely as other men to have nonchlamydial NGU (multivariate OR 2.2. C11.3 -3.7). (48) Similar findings were observed for urethritis patients attending an STD clinic in Seville. Even after adjusting for homosexuality. men who practiced receptive (insertive) oral sex were almost 9 times (OR 8.8, CI 2.2-35.4) as likely as those who did not to have nonchlamydial (and Ureapfasma-negative) NGU." (49)

"In the early 19805 human immunodeficiency virus (HIV) was identified as the necessary but not causal agent underlying mysterious increases in Pneumocystis carinii pneumonia and Kaposi's sarcoma in homosexual males. Two decades later, approximately 900,000 Americans have been infected with HIV and more than a half a million have died from acquired immunodeficiency syndrome (AIDS), the illness resulting from HIV

infection. (50) Authorities estimate that 20 million have died worldwide since the beginning of the epidemic and that 5 million are infected annually, 800,000 of them children.51 Three modes of transmission have been elucidated: bloodborne, sexual, and mother-to-child."

"From the late 1980s to the mid 1990s numerous case reports, published primarily as letters to the editor, suggested that HIV could be transmitted through oral sex. Rozenbaum and colleagues reported 5 homosexual men with new HIV infections whose only sexual activity was oral sex. (52) Spitzer and Weiner reported a 60 year-old diabetic male with erectile dysfunction and new onset HIV infection. His only sexual contact besides his HIV (-) wife was a single prostitute whom he visited over a two-year period; only receptive and active oral sex was performed during these liaisons. (53) Chin and Samarasinghe reported two homosexual men with new HIV cases. Both reported receptive oral intercourse with multiple partners but no anal intercourse without condoms. Both had histories of allergic sore throats. (54) Additionally one study of hemophiliac couples was somewhat suggestive that oral

sex was a possible route of transmission for HIV. In a study of 21 couples in which the hemophiliac male partner was HIVinfected, 4 female partners were found to be HIV (+). Compared

to couples in which the female partner remained HIV (-), couples in which both partners were HIV (+) were more likely to have engaged in oral sex (2/4 vs.1/16 p 0.08)." (55)

"In 1996 an animal study showed that oral transmission of simian immunodeficiency virus (SIV), a virus closely related to HIV, was possible. In this study, a majority of monkeys were infected at a lower oral than rectal (nontraumatic) dose." (56)

"Since then a number of studies have addressed HIV risk from oral sex; and a few have attempted to determine the proportion of new cases attributable to oral sex. Of 12 patients with newly acquired HIV infections who could specify sex practices in the month before illness, 4 recalled only oral sex. 3 of 4 practiced both active and receptive oral sex, and 1 only receptive oral sex. (57) In a letter to the editor, Wallace and colleagues describe crack use and oral sex as risk factors for HIV acquisition in non-IV drug-using female sex workers in New York. 21.5% of the workers who performed mostly oral sex were HIV (+) compared to 15% of those who performed mostly vaginal sex. Sex workers whose clients always used condoms when the worker performed oral sex were somewhat less likely than those whose clients used condoms inconsistently to be HIV (+) (14.7% vs. 25.4%). (58) More than 2,000 high-risk, HIV (-) homosexual and bisexual men were followed over time during the early 1990s. The per-contact risk of receptive oral sex with an HIV (+) or HIV (unknown) partner was estimated to be 0.04% (4 per 10,000). (59) Recent estimates of the proportion of

attributable to oral sex range from less than 1% (60) to 7%." (61)

# "Syphilis"

new HIV cases

"First termed syphilis in a 1530 poem about afflicted shepherds, the rampant and severe nature of syphilis in the late 15<sup>th</sup> century had earlier earned it the moniker the 'Great Pox.' Syphilis remained a scourge for centuries to follow, and was exceedingly common across all social strata until the discovery of penicillin. During the preantibiotic era of the early 20<sup>th</sup> century, 5-10% of autopsies revealed evidence of syphilis, and up to one fourth of persons of low socioeconomic standing were infectd." (10)

"Unlike many STDs that cause primarily genital tract infections, syphilis is a systemic (widespread) infection that progresses (if untreated) through typical stages –

primary, secondary, latent, and tertiary. Usual symptoms of primary syphilis are a painless ulcer accompanied by lymph node enlargement; the ulcer heals without treatment. About 30% of persons exposed to a partner with a syphilitic lesion will become infected and go on to manifest symptoms of primary syphilis an average of three weeks (range 10-90 days) after exposure. Secondary syphilis causes a flu-like illness accompanied by enlarged lymph nodes and a rash that may go unnoticed. Symptoms are absent during latent syphilis. Tertiary syphilis can affect the nervous system (causing dementia), the cardiovascular system, and soft tissue or bone. Transmission from an infected mother to her infant can also occur during pregnancy and result in congenital syphilis." (10)

"The number of reported syphilis cases decreased 100-fold from 1946 to 2000, from approximately 600,000 cases to just under 6,000. Although an almost 90% reduction was observed from 1990 to 2000, rates began going up in 2001. Women aged 20-24 and men aged 35-39 are most likely to be affected, and rates are highest in African Americans and in persons living in the southeast." (11)

"Oral sex appears to have been an important mode of syphilis transmission in numerous recent outbreaks. Twenty-three of 27 men infected with syphilis in a recent outbreak gave a history of sex with men. Taken together, the 23 estimated that they had had more than 1,400 partners during the previous year, 90% of whom were anonymous. Though not recognized as a risky sexual practice by the infected men, oral sex was the most common sexual practice mentioned. (12) In another outbreak, 28 of 30 syphilis cases in an English town over a roughly two-year period were men who had sex with men. The men in this outbreak reported far fewer sexual partners than those in the previously mentioned outbreak – a median of 3 in 6 months. One third (11/30) of infected persons listed oral sex as their only route of acquisition. (13) In a third recent outbreak, 39 of 41 reported syphilis cases were men who had sex with men; 19 of the 41 gave a history of only oral sex." (14)

# "Gonorrhea"

"Although the ancient Chinese, Egyptians, Hebrews, Romans, and Greeks recognized the symptoms of gonorrhea (Greek, 'flow of see') in men, it was a few thousand years before the male and female symptoms were linked. The bacterium *Neisseria gonorrhea* usually infects 'noncornified' skin such as occurs in the urethra, vagina, rectum, mouth, and eye, although not all infections result in symptoms. The overwhelming majority of gonorrhea is sexually transmitted, and mother-to-child transmission can occur during the birth process." (15)

"More than 360,000 cases of gonorrhea were reported to health authorities in the US in 2001, or approximately 130 per 100,000 population. Nationwide, gonorrhea rates generally declined from the mid-1970s through 1997, and have increased slightly since then. Risk, however, varies considerably by age; 15- to 19-year-old women and 20- to 24-year-old men have extremely high rates (703 and 563 per 100,000 respectively for 2001)." (16)

"Like its cousin *Neisseria meningitides, Neisseria gonorrhea* survives well in the oropharynx (ie, mouth and throat). Although most (90%) pharyngeal (throat) infections cause no symptoms, a sore throat with or without fever and enlarged lymph nodes can accompany infection. Pharyngeal infections resulting from oral sex are quite common, and appear to be more efficiently transmitted from infected male (receptive) to susceptible female (active) than from infected female (receptive) to susceptible male (active). Data also exist to suggest that infected active partners can transmit gonorrhea to susceptible receptive male partners. From 3-7% of heterosexual men, 10-20% of heterosexual women, and 10-25% of homosexual men infected with gonorrhea have pharyngeal infections. (17) Of 1,453 STD patients who had throat cultures for gonorrhea, 42 (2.9%) were positive; all 42 gave a history of oral sex. Eleven of the 42 were heterosexual males lacking a recent history of penilevaginal sex, but who had performed oral sex on their female partners. Thirty-five of the 42 were asymptomatic, and 7 had symptoms. All 7 of the patients with sore throat had performed oral sex on a (receptive) male partner." (18)

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("Medically Speaking –	Oral Sex and STDs,	"Sexual Health	Update, Spring 2003,
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#### "HPV AND CERVICAL CANCER"

"Cervical cancer is the second most common cancer in the world among women. In the United States, more women die of cervical cancer than from AIDS (4,100 vs. 3,800 in 2001). More than 100 types of human papillomavirus (HPV) have been identified and approximately 40 of these can infect the genital tract. HPV DNA (the nucleic acids that comprise the genetic 'codes' for all living organisms) is associated with most cervical cancers, and is felt to cause almost all cervical cancer."

"To determine which HPV types were high risk, researchers from the International Agency for Research on Cancer (IARC) pooled data from 11 different case-control studies (*N Engl J Med.* 2003:348:518-527). Taken together, the studies included almost 2000 case women (ie, women with invasive cervical cancer) and 2000 control women (ie, women without any cervical pathology) from nine different countries. The researchers looked for HPV DNA in cervical scrapings and biopsies of both case and control women; they also expended considerable effort to specifically type all HPV infections that were identified. To determine which HPV types were highest risk, the percent of case women with each type was compared to the percent of control women with that type."

"91% (1739/1918) of case women and 13% (259/1928) of control women has detectable HPV DNA in their cervical scrapings or biopsies. It was not uncommon for women to be infected with more than one type; almost 14% of control women had concurrent infections with two or more types. One type, type 16, was observed less often among older women than among younger women. Significant geographic variation was observed for some types."

("HPV and Cervical Cancer," The Medical Institute Advisory – A Quick Look at the Facts and Their Impact, April 16, 2003, <a href="https://www.medinstitute.org/medical/Ap[r16,2003.htm">www.medinstitute.org/medical/Ap[r16,2003.htm</a>)

#### "CDC HIV/AIDS PREVENTION GUIDELINES PRESS RELEASE"

"The Medical Institute for Sexual Health Applauds New CDC Guidelines on HIV/AIDS Prevention"

"The Medical Institute for Sexual Health today enthusiastically applauded the Centers for Disease Control and Prevention new guidelines on HIV/AIDS prevention. The organization released this statement by Joe S. McIlhaney, M.D., president and founder:"

"Over the last 20 years, 800,000 Americans have been infected with HIV and almost half a million Americans have died of AIDS. A quarter or more of infected persons are unaware of their infections. Given the benefits of early diagnosis and treatment, and the risks of unintentionally infecting their partners or newborns, it is important for all infected persons to know their status."

"During this same 20-year period, 9,000 children less than 13 years of age have been infected and 5,000 of these have died. Many of these acquired their infections shortly before, during, or shortly after birth (i.e., from breastfeeding). As recently as 2001, 175 infants acquired HIV infection form their mothers. Almost none of these would have been infected had their mothers been adequately screened and treated."

("The Medical Institute for Sexual Health Applauds New CDC Guidelines on HIV/AIDS Prevention," CDC HIV/AIDS Prevention Guidelines Press Release, April 23, 2003)

# "DOCTOR: TEEN SEX IS KILLING OUR CHILDREN"

- "According to the New England Journal of Medicine, one in five Americans 12 years and older test positive for genital herpes."
- "Forty-six percent of young teen-age girls after just one episode of intercourse contracts human papilloma virus (HPV), and 14 percent of them will go on to develop signs of cervical cancer, and more women's lives are given over to cervical cancer every year than to HIV and AIDS."

"In 1960, there were just two sexually transmitted diseases, syphilis and gonorrhea. After 20 years of teaching our kids how to use condoms, we now boast 30 or more sexually transmitted diseases among 12- to 18-year-old children. Condoms have failed as an answer."

"Sex among girls is leading to an epidemic of cancer, she revealed. [Dr. Meg Meeker] 'The 14-, 15-year-old girl's cervix cannot handle bacteria and viruses. They flourish and turn into cancer much more quickly than in a 25-year-old."

"We are living in an epidemic of depression, where one out of three American teenagers have thought of killing themselves, much of this related to sexual activity."

("Doctor: Teen Sex is Killing Our Children," <a href="www.newsmax.com/cgibin/printer\_friendly.pl?page="www.newsmax.com/cgibin/printer\_friendly.pl?" www.newsmax.com/cgibin/printer\_friendly.pl?page="www.newsmax.com/cgibin/printer\_friendly.pl?" www.newsmax.com/cgibin/printer\_friendly.pl?

# "EXPLOSION OF SEX INFECTIONS OVERWHELMS HEALTH SERVICE"

"Soaring rates of sexually transmitted infections are overwhelming the NHS and threatening the health of a generation of young people, according to a committee of MPs."

"Pressure on the sexual health services has intensified in the last decade, fueled by changing sexual behavior. Cases of gonorrhea have risen 86 per cent in five years, and those of chlamydia have doubled. Syphilis is making a return and the rate of HIV infection rose to its highest level last year."

"One specialist said, 'The 10 per cent prevalence rate for Chlamydia is absolutely horrendous. Some of us feel on that basis the Government should be rolling out a national screening programme."

"One of the biggest threats is the growing incidence of HIV, with 70 per cent of heterosexual cases contracted abroad. Modern drug treatments mean patients are surviving longer at an annual cost of about £15,000. Taking account of the risk of passing on the infection, the saving to the country of avoiding a single case of HIV is put at between £500,000 and £1m."

("Explosion of Sex Infections Overwhelms Health Service," <a href="https://www.news.independent.co.uk/uk/health/story.jsp?story=385553">www.news.independent.co.uk/uk/health/story.jsp?story=385553</a>)

# "LESS COMMON HPV TYPES ASSOCIATED WITH CERVICAL CANCER RISK, STUDY SAYS"

"In addition to human papillomavirus types 16 and 18, 13 other HPV types should also be considered carcinogenic and three other HPV types should be considered 'probably carcinogenic,' according to a study published in today's issue of the *New England Journal of Medicine*. Although previous studies have concluded that HPV types 16 and 18 can cause cervical cancer, the risk of cervical cancer associated with other types of HPV had not been determined. The *International Agency for Research on Cancer* Multicenter Cervical Cancer Study Group conducted 11 studies from 1985 to 1997 in nine countries, each of which had wide-ranging cervical cancer incidence rates. Participants complete risk factor surveys and underwent a pelvic exam that

included two cervical scrapings for cytologic study and detection of HPV DNA. Researchers found HPV DNA in 1,739 of the 1,918 patients with cervical cancer, compared to 259 of the 1,928 in the control group. the researchers found that almost 92% of those with HPV were infected with just one type of HPV, while 8% had more than one type; HPV type 16 was the most common. In addition, researchers found that cervical cancer is linked to 30 types of HPV, and the link with the less common types is just as strong as the link with HPV types 16 and 18."

# "Reaction"

"In an accompany NEJM perspective piece, Dr. Thomas Wright of Columbia University and Dr. Mark Schiffman of the *National Cancer Institute* write that the risk of cervical cancer linked with high-risk HPV is 'even higher than the risk of lung cancer with smoking."

("Less Common HPV Types Associated with Cervical Cancer Risk, Study Says," <a href="https://www.kaisernetwork.org/daily\_reports/print\_report.cfm?DR\_ID=15905&dr\_cat=2">www.kaisernetwork.org/daily\_reports/print\_report.cfm?DR\_ID=15905&dr\_cat=2</a>)

# "STUDY FINDS RISKIEST VIRUSES FOR CERVICAL CANCER"

"It's long been known that some types of human papilloma virus (HPV) are more dangerous than others when it comes to triggering cervical cancer. Now a large new study has found a total of 18 strains of the sexually transmitted virus that seem to be high risk—including a handful that can boost one's cancer risk more than 200-fold...researchers report in the February 6<sup>th</sup> issue of The New England Journal of Medicine."

"There are around 100 HPVs, some of which cause genital warts. Some types—usually the ones that do not cause warts—have been linked to an increased risk of cancer of the cervix, vulva, vagina, anus and penis. Up to 50% of sexually active men and women between the ages of 15 and 49 are believed to be infected with HPV at some point in their lives, although most people clear the infection on their own and never develop cancer."

"HPV was detected in 91% of the women diagnosed with cervical cancer and in 13% of the women who were cancer free. Ultimately, the researchers determined that 15 types of HPV carried a high risk of leading to cancer, while three were classified as likely to be high risk. Compared with women who are HPV-free, those with one of four types—HPV 16,59,33 and 18—had more than 200-fold increased cancer risk."

("Study Finds Riskiest Viruses for Cervical Cancer," reuters.com/printerFriendlyPopup.jhtml?type-healthNews&storyID=2201959)

"HOW TO KILL A CANCER – Inside the hopeful search for a vaccine to beat a virus that causes cervical tumors"

"More than half of U.S. women will develop sex-related HPV infections at some point in their life, and in most cases the immune system knocks the virus out before it can do any damage."

"About 20 of the 100 or so strains of HPV have been linked to cervical cancer, but 70% of cervical tumors are caused by just two strains—HPV-16 and HPV-18. Koutsky and her colleagues focused on HPV-16."

(Christine Gorman, "How to Kill a Cancer," Time, December 2, 2002, p80)

"TESTIMONY OF DR. JOE S. MCLHANEY, JR., MD"

"Thank you, Chairman Bilirakis and Distinguished members of the Subcommittee. I am a gynecologist who practiced medicine for twenty-eight years. I had a rewarding practice of in vitro fertilization and surgery, but I left my practice to commit the remainder of my medical career to helping prevent two of the most profound medical problems of our day, out-of-wedlock pregnancy and sexually transmitted disease. I have been doing this through an organization called The Medical Institute for Sexual Health, which I founded in 1992. The mission of the Medical Institute for Sexual Health is to identify, evaluate and communicate credible scientific data in practical, understandable and dynamic formats to promote healthy sexual decisions and behavior in order to dramatically improve the welfare of individuals and society."

#### "The Good News:"

"In 1996, I testified before the House Ways and Means Subcommittee on Human Resources on the proposed Welfare Reform Act. My message then was that sexually transmitted disease and non-marital pregnancy are hurting far more people in society than most members of Congress and other Americans realize. To its credit, in an effort to constructively and meaningfully deal with these pregnancy and disease

problems, Congress funded abstinence education with \$50 million a year for five years through the Title V provision of the Welfare Reform Act. This funding has helped more than 700 abstinence education programs around the country to devote serious and much needed attention to these problems."

"I come today with good news and bad news. The good news is that there is credible evidence showing that abstinence education is having an impact. More young people are living an abstinent lifestyle, and fewer teens are becoming pregnant. Today, more than half of all high school students are virgins. (1) Also, beginning in 1990, the number of teens becoming pregnant began declining. Today we have the lowest teen birth rate that we have had since the 1950s, and teen pregnancy rates are lower than they have been any time since 1976." (2,3)

"A ray of light and hope is emerging. Trend data showing declining sexual activity among adolescents are declining teen pregnancy rates reveal a societal shift in a positive direction-it is reasonable to conclude that one contributing factor is the concomitant rise in abstinence education programs, though how large of a contributing factor is the concomitant rise in abstinence education programs, though how large of a contributing factor we do not know. Some specific programs, such as the one in Monroe County, New York, and the Best Friends program that began in inner city Washington, DC, show a very marked decline in pregnancy rates." (4,5)

#### "The Bad News:"

"But the bad news is that we still have an enormous problem. Sexually transmitted infection is highly prevalent among adolescents. Three to four million STDs are contracted yearly by 15 to 19 year-olds, and another five to six million STDs are contracted annually by 20 to 24 year-olds." (6)

"Approximately six percent of adolescent females tested at family planning clinics and nine percent of female U.S. Army recruits (12.2% of 17 year-olds) are infected with Chlamydia trachomatis. (7,8) 5.6% of 12 to 19 year-olds and 17% of 20 to 29 year-olds are infected with herpes simplex virus type 2 (the virus that causes genital herpes). (9) And whereas in the 1960s, only two STDs were of real concern, we are now aware of more than 25 (Appendix A). It is clear that, if and when young people begin sexual activity prior to marriage, they are at very high risk of acquiring an STD."

"One reason STDs have become so prevalent among young people is that, in spite of the recent trend toward later sexual initiation, we had for years been experiencing a trend toward earlier sexual initiation, and **the trend toward** later marriage continues. (10,11) The combination of these two factors means that people are likely to be single and sexually active for a significant period of time-5 to 10 years or longer-during which they will normally accumulate a number of sexual partners. In fact, age of sexual onset is a very strong predictor of lifetime number of sexual partners. (12) And an individual's risk of ever having contracted a sexually transmitted disease is strongly linked to his or her lifetime number of sexual partners." (13,14,15)

"In addition, a major shift has occurred over the past three decades. The diseases primarily infecting young people are no longer syphilis and gonorrhea, which are frequently symptomatic and treatable with penicillin, but viral diseases such as human papillomavirus (HPV), herpes, and the unusual bacterium, chlamydia. The viral diseases cannot be cured-only managed. And chlamydia, a major cause of infertility in young women, is asymptomatic in up to 85% of infected women (16) but can still cause significant problems even without the presence of noticeable symptoms."

"The sexually transmitted diseases that has become the most common is a virus called human papillomavirus (HPV). The most recent major study about young women and HPV shows that 50% of sexually active women between the ages of 18 and 22 are infected with HPV. (17,18) The National Institute of Health Workshop On The Scientific Evidence On Condom Effectiveness For STD Prevention reported that there is no evidence that condoms reduce the sexual transmission of this infection. (19) The NIH report also found no evidence for risk reduction for the transmission of herpes. A recent study has shown that condom use can produce a significant reduction (but not elimination) in the risk of herpes acquisition by women; however, the study did not find any impact for men. (20) In addition, researchers at John Hopkins University, upon completing a study of STD prevalence at an adolescent clinic, found re-infection rates of chlamydia in adolescent girls to be so high that they recommended testing every sexually active adolescent girl in the United States every six months for chlamydia infection (regardless of reported condom use)." (21)

"Even though the pregnancy rate among teens has declined, today, 78% of teen births are out-of-wedlock, compared to 15% in 1960. (22) These out-of-wedlock births contribute to poverty, crime, and negative outcomes for children including physical and emotional health problems, and educational failure. For example:"

**1. "Poverty:** In 1995, 66% of families with children headed by a never-married single parent were living in poverty." (23)

- **2.** "Child health: White infants born to unmarried mothers are 70% more likely to die in infancy. Black infants born to unmarried mothers are 40% more likely to die." (24)
- **3.** "Education: Living in a single-parent family approximately doubles the likelihood that a child will become a high-school dropout." (25)
- **4.** "Crime: Boys raised in single-parent homes are twice as likely to commit a crime that leads to incarceration by their early thirties." (26)

# "Abstinence Plus' Education Is Not The Answer:"

"Many have suggested that so-called 'Abstinence plus'-dual message programs discussing abstinence while also teaching all about contraception-is the appropriate answer to the twin epidemics of sexually transmitted diseases and out-of-wedlock pregnancies. Yet, for many years, it is just such programs that have been the predominant approach of sexuality education. And what did we see during these years? A genuine epidemic of sexually transmitted diseases is devastating our young people."

"There have been many studies of dual message educational programs. Only a handful of these studies have found any significant impact of ANY behavioral or health outcome. (27) And most of these have only made 'statistically significant' impacts on behavioral outcomes (many times of questionable practical significancesuch as 'condom use at last intercourse' and 'frequency of unprotected sex' in the past few months). Only two of the CDC's 'Programs That Work' have reported statistically significant delays in the initiation of sexual activity, and only one of these has reported a truly substantial impact on this outcome. (28,29) Recently and to the acclaim of the media, a study reported a reduction in pregnancy rates among participants in a teen pregnancy prevention program. The intervention made no impact on rates of sexual activity and did not even measure STD rates. And the impact on teen pregnancy was almost entirely attributable to injectable contraception use, which provides NO risk reduction for HIV and any other STD. (30) Additionally, this intervention was so expensive, per student, that it cannot be considered a reasonable option in most settings. Finally, not a single one of the CDC's so-called 'Programs That Work" has even investigated its impact on STD or pregnancy rates!" (31)

"Despite what you may sometimes hear, there is no abundance of evidence that 'dual message' or 'comprehensive' programs are effective at preventing teen pregnancies and STDs. In fact, there is precious little evidence that these programs are really

successful at all. Proponents of dual message programs face the same problems today as they have for many years—an inability to document tangible success in protecting adolescent health. And to whatever extent these programs give young people the impression that 'sex is really not a big concern, as long as you 'protect yourself,' such programs may even contribute to the problem."

"Additionally, 'safer sex' programs do not even address the problem of out-of-wedlock pregnancy. At best, these programs may encourage young people to wait before having sex; but there is rarely if ever any mention of the importance of actually being abstinent UNTIL MARRIAGE. As I have already stated, in spite of the recent decline in teen pregnancy rates, there has been a steady increase in the proportion of teen births occurring to unmarried women (compared to just 18% in 1980). (32) Could this increase be related to the lack of an emphasis placed on abstinence until marriage, not just until some unspecified later date-an emphasis that is clearly required by the Section 510 definition of abstinence education."

"Much has been made of the fact that many parents and sexuality education teachers believe it is necessary, as an element of public sexuality education, to teach kids very directly how to use condoms and contraceptives. Clearly, parents care about their adolescent children and desperately what to protect then from harm. Unfortunately, far too many parents are inadequately informed about the problems of contraceptive and condom use. How many parents know, for example, that condoms do not appear to reduce the risk of infection with human papillomavirus, which is the cause of almost all cervical cancer and most abnormal pap smears? Do most parents understand that even with 100% consistent condom use, their sexually active adolescents are at risk of contracting one of the other prevalent STDs (gonorrhea, chlamydia, trichomoniasis, etc...)? Do parents understand that, for many sexually transmitted diseases, if condoms are not used 100% of the time it is little or no better than not using a condom at all, ever? (33) If American's parents knew the facts-and these are scientifically supported facts, not conjecture nor ideology-we know they would agree with us: Their children need to hear that the only reliable way to protect themselves from a sexually transmitted disease that can have lifelong, physically and emotionally painful ramifications, is to abstain from sexual activity."

# "Marriage Is A Health Issue:"

"Title V clearly articulates an abstinence-until-marriage message. Marriage involves both personal and public health issues. An individual's number of sexual partners is directly linked to his or her risk of contracting a sexually transmitted disease. The one environment where people are most likely to have one sexual partner for a long period of time is marriage. The largest study ever done examining sex is America

was conducted by researchers at the University of Chicago and published in the aptly named book, 'Sex in America.' (34) These researchers reported that, in contrast to what most Americans believe, when a marriage is intact, married couples almost never have sex outside of that marital relationship. Young people should be encouraged to maximize their own personal health by reserving sexual activity for marriage."

#### "Conclusion:"

"With STD prevalence among young people continuing at high levels, condoms clearly not <u>eliminating</u> the risk of any STD, and a continued increase in the proportion of births occurring to unmarried mothers, there is abundant evidence that the 'safer sex' paradigm, despite more than 20 years and a variety of education programs designed to promote condom use, has not solved the problem. Since new research is beginning to suggest that abstinence education can effectively address these problems, it is important that we continue the effort begun in 1996 and allow these programs sufficient time to continue to prove their effectiveness. Title V, including the definitions A through H, must be maintained as is. Doing so will ensure that research and evaluation can continue so that we can learn how this option is best delivered, and how abstinence education can best protect young people."

"We recognize that we do not yet have sufficient data to positively determine the degree of effectiveness of abstinence education. But results are promising. The national evaluation of abstinence programs by Mathematica will be completed in 2005. If we do not continue with the current level of funding, or if we change the focus of the program funded under Title V, we will lose an invaluable opportunity to learn how we can effectively help young people avoid sexual activity—a risk behavior at least as detrimental to their health as the use of alcohol, drugs, and tobacco. And there will be no going back. If we damage the integrity of Title V the opportunity to fully explore this public health option will be lost. This is not about politics or ideology. This is about medicine, science, and data. All of which tell us the old approaches aren't working, not when millions of adolescents are contracting sexually transmitted diseases. We owe it to our young people to fully explore and evaluate the abstinence education approach, and that means continuing the Title V program as it is currently designed and being implemented."

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- "APPENDIX A "List of Sexually Transmitted Diseases:"
- 1. "Gonorrhea"
- 2. "Chlamydia"
- 3. "Lymphogranuloma venereum (caused by certain strains of Chlamydia trachomatis)"
- 4. "Syphilis"
- 5. "Chancroid"
- 6. "Donovanosis (Granuloma inguinale)"
- 7. "Ureaplasma urealyticum"
- 8. "Human Immunodeficiency Virus (HIV) Types I and II"
- 9. "Shigellosis\*"
- 10. "Salmonellosis\*"
- 11. "Herpes Simplex Virus Types I and II"
- 12. "Cytomegalovirus\*"
- 13. "Human Papillomavirus (approximately 30 sexually transmitted strains)"
- 14. "Molluscum contagiosum"
- 15. "Hepatitis A"

16. "Hepatitis B"			
17."Hepatitis C*"			
18. "Hepatitis D*"			
19. "Body or pubic lice"			
20. "Trichomoniasis"			
21."Scabies*"			
22. "Giardiasis*"			
23. "Amoebiasis*"			
24. "Bacterial vaginosis*"			
25."Human Herpes Virus type III"			
"*Sexual transmission occurs but is not the primary mode of transmission."			
(Testimony of Dr. Joe S. McIlhaney, Jr., MD, President of The Medical Institute for Sexual Health. Before the Subcommittee on Health Of the Committee on Energy and Commerce, U.S. House of Representatives. April 23, 2002)			
"AN OLD ENEMY IS BACK"			
"Syphilis is on the rise among urban men nationwide"			
"Last week New York City health officials announced a 50 percent increase in syphilis diagnoses between 2001 and 2002. San Francisco's numbers more than doubled in the same period."			
(Claudia Kalb, "An Old Enemy is Back," Newsweek, February 10, 2003, p60)			

#### "CONDOM USE"

# "Importance"

"Nearly 4 million adolescents are diagnosed with an STD. (3)

("Condom Use," www.childtrendsdatabank.org)

\_\_\_\_\_

# "5 NATIONS COULD BEAR BRUNT OF AIDS CASES BY 2010"

"Could swell the global case toll to more than 80 million cases by 2010."

"The Next Wave of HIV/AIDS: Nigeria, Ethiopia, Russia, India and China"

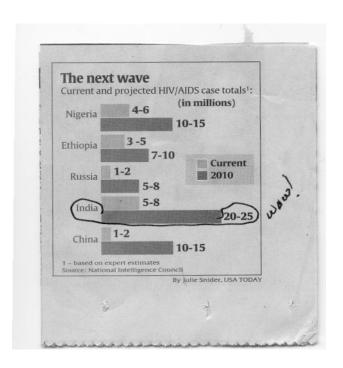
"By 2010, the report ways these five countries will reach a total of 50 million to 75 million HIV/AIDS cases."

"In 2001, 40 million people worldwide had HIV/AIDS."

"The five countries account for 40% of the world's population."

"CIA projections are 15 to 20 million higher than those by the U.N."

"Russia, which is rapidly losing population, will suffer an even faster decline. Public health, which is at its lowest point since World War II, will get far worse."



("5 Nations Could Bear Brunt of Aids Cases by 2010")

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#### "AN RX FOR TEEN SEX"

"And doctors are reporting more frequent diagnoses of herpes and the human papillomavirus, or HPV, which is linked to cervical cancer and is thought to infect more than 15% of sexually active teens. The last figure is the one gnawing at some doctors. Though the particulars of HPV remain something of a medical mystery, we have learned at least one frightening thing about the disease: HPV is spread through skin-to-skin contact of genitals and their surrounding areas, so condoms do not always protect against it. Which means, as Sulak is fond of saying, there is no such thing as safe sex."

"Here are the responses from a TIME/MTV survey conducted online on Sept. 10-12 of 1,061 people ages 13 to 18:"

"69% Say worry about diseases had some influence on their decision to abstain."

(Jodie Morse, "An Rx for Teen Sex," Time, October 7, 2002, p65)

# "IT'S YOUR (SEX) LIFE - Your Guide to Safe and Responsible Sex"

#### "What Works"

"Condom – With typical use, 14 women in 100 become pregnant in one year. With perfect use, three women in 100 will become pregnant in one year."

# "Sexually Transmitted Diseases"

"Every year there are more than 15 million new cases of STDs in the United States, including approximately 10 million new cases among people aged 15-24. Put another way – by age 24, at least one in three sexually active people will have contracted an STD. And many of those who are infected don't know it."

#### "The Most Common STDs"

# "How many get it"

•	"Chlamydia:"	"About 3 million new cases each
		year. The highest rates are among
		adolescent women "

- "Trichomoniasis ('Trich'):" "As many as 5 million new cases each year."
- "Gonorrhea:" "Approximately 650,000 new cases a year. The highest rates are among women aged 15 to 19 and males between the ages of 20 to 24."
- "Human papillomavirus (HPV or genital warts):"

  "An estimated 5.5 million new cases each year. At least 20 million people already have it."
- "Genital herpes:" "About 1 million new cases each year.

  An estimated 45 million cases already exist."
- "Syphilis:" "About 70,000 new cases a year."
- "Hepatitis B Virus (HBV):" "About 77,000 new cases a year

acquired through sexual transmission. About 750,000 people are already infected with Hepatitis B as a result of unprotected sexual activity."

• "HIV:"

"An estimated 20,000 Americans are infected through sexual transmission each year, and an estimated 650,000 to 900,000 people in the U.S. are living with HIV."

("It's Your (Sex) Life – Your Guide to Safe and Responsible Sex", The Henry J. Kaiser Foundation, MTV Fight for Your Rights: Protect Yourself (FFYR) – MTV's campaign to inform and empower young people on the issues surrounding their sexual health, including HIV and AIDS, other sexually transmitted diseases (STDs) and teen pregnancy. See <a href="https://www.FightForYourRights.mtv.com">www.FightForYourRights.mtv.com</a>)

"TEST YOUR SEX SAVVY"

• "Planned Parenthood's fact sheet on HPV has all the basics about this widespread infections, which affects 5 and a half million new people each year. Studies have found that among women under the age of 25, 28 to 46 percent are typically infected with HPV."

• "You can get HIV from oral sex. (True or False)" "Answer: True."

"HIV—the human immunodeficiency virus, which causes AIDS—is contained in bodily fluids like semen, vaginal secretions and blood. Activities like unprotected oral sex, where these fluids are exchanged, can spread the virus, though the risk is lower than with unprotected vaginal or anal sex."

("MTV's First National Sex Quiz," <a href="www.mtv.com/onair/sexquiz/sexquiz.jhtml">www.mtv.com/onair/sexquiz/sexquiz.jhtml</a>.)

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"BISEXUALLY ACTIVE ADOLESCENT BOYS MORE LIKELY TO ENGAGE IN RISKY BEHAVIORS"

"February issue of the 'American Journal of Public Health, Reuters Health' reports (Reuters Health, 2/1). Nearly 50% of the estimated 112,000 to 250,000 HIV-positive U.S. adolescents are young men who have sex with men."

("Bisexually Active Adolescent Boys More Likely to Engage in Risky Behaviors," <a href="https://www.kaisernetwork.org/daily\_reports/print\_report.cfm?DR\_ID=9360&dr\_cat=1">www.kaisernetwork.org/daily\_reports/print\_report.cfm?DR\_ID=9360&dr\_cat=1</a>, 10/30/2002)

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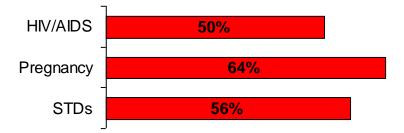
# "SEXSMARTS – SEXUALLY TRANSMITTED DISEASE"

"STDs are more prevalent among teens than among adults, with about one fourth of all new cases occurring among 15-19 year olds.(1) And these statistics are hitting close to home. One out of five teens know someone with an STD. Even so, many underestimate their own risk for becoming infected with an STD (including HIV/AIDS), thinking it can't happen to them."

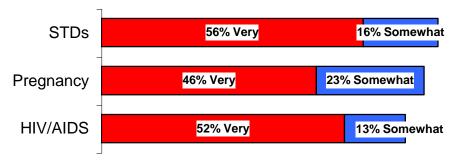
# "Perceptions of Risk"

"Half of teens aged 12-17 say that STDs (including HIV/AIDS) are a big problem facing their generation today. Among sexually active 15-17 year olds, more than two thirds are personally worried about becoming infected with HIV/AIDS, and other STDs, like herpes or gonorrhea (Figure 1). Twenty percent of all teens surveyed know someone who has had an STD, and one in ten knows someone who is HIV positive. Among those teens who are sexually active, the numbers are even higher, with half saying they know someone with an STD."

Figure 1. Teen Concerns About Sexual Health Percent of 12-17 year olds who say the following are big problems facing people their age:



# Percent of sexually active 15-17 year olds who say they are personally concerned about getting an STD, HIV/AIDS or becoming pregnant:

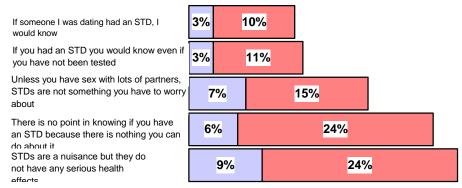


# "Myths and Facts"

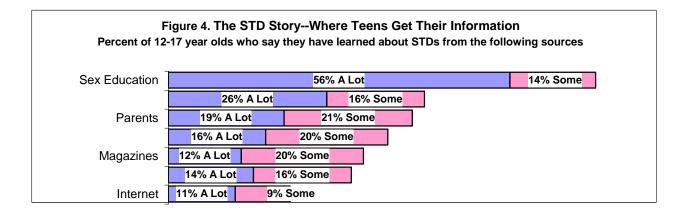
"Most people with an STD don't know they have one because they don't experience symptoms, and because so few people are screened. (3) Nonetheless, almost a third of teens think that they would 'know' if they had an STD – even if they weren't tested. And many feel the same way about their partners—a third said they would know if someone they were dating had an STD (Figure 2). One out of five agrees that you don't need to worry about STDs unless you have sex with 'a lot of partners,' and one out of four either doesn't know or doesn't believe you are at risk when you have oral sex (26%). Almost 1 in 5 doesn't know or doesn't believe that most people who have an STD don't know it themselves. (28%)."

Figure 2. STD Myths

Percent of 12-17 year olds who agree with the following statements



"Even among those who have had sex, many don't have the facts. More than one in ten thinks they are only vulnerable to STDs if they have had several partners (13%), one in five believes that they would know if they had an STD—even if they had never been tested (22%). Nearly the same number doesn't know that a person can spread an STD even if they aren't experiencing any symptoms (18%)."



- "(1) Donovan, P., "Testing Positive: Sexually Transmitted Disease and the Public Health Response." 1993, New York, NY. The Alan Guttmacher Institute"
- "(3) American Social Health Association"

("Sexually Transmitted Diseases," SexSmarts – A Public Information Partnership, The Henry J. Kaiser Family Foundation & Seventeen, August 2001)

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#### "AIDS WILL AFFECT 110M BY 2010"

"The National Intelligence Council report..."

- "According to the report, the epidemic will be largely driven by the spread of the disease in five countries Nigeria, Ethiopia, Russia, India, and China."
- "The number of infected people will grow there from about 14 million to 23 million currently to an estimated 50 million to 75 million by the end of the decade."
- "This estimate eclipses the projected 30 to 35 million cases by the end of the decade in central and southern Africa, the current focal point of the pandemic,' researchers pointed out."
- "The council projected that Nigeria and China would have by 2010 up to 15 million Aids cases each, India up to 25 million, Ethiopia up to 10 million, and Russia up to 8 million."

• "It said the main culprit for all five countries was risky sexual behaviour, which is 'driving infection rates upward at a precipitous rate." - AFP

("Aids Will Affect 110M by 2010," February 10, 2002, www.news24.com/contentDisplay/level4Article/0,1113,2-9\_1265879,00.html)

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# "TEENS UNAWARE OF STD PREVALENCE"

"One in four sexually active teens will contract a sexually transmitted disease this year. But only 28% of teens ages 12 to 17 correctly identified the risks. The choices presented to the group and what percentage selected each:"

- "1 in 4:" 28%
- "1 in 40:" 28%
- "1 in 400:" 22%
- "1 in 4,000:"19%

(USA Today, October 2)

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# "IT'S NOT REALLY SEX, RIGHT?"

• "Percentage of 15 to 19-year-old boys who have received oral sex:"

50%

• "Percentage of females who gave oral sex before they had sexual intercourse:"

57%

 "New genital-herpes cases that may be related to oral sex:"

15-20%

• "Women with gonorrhea who contracted the disease through a throat infection:"

10%

(Teen People, November)

("It's Not Really Sex, Right?" Youthworker, January/February 2002, p11)

# "TEENS AT HIGHER RISK THAN ADULTS FOR STDS"

"Sitting at my microscope today, I diagnosed yet another Human Papilloma Viruscaused dysplasia of the cervix (pre-cancer of the lower part of the uterus). This time the girl is 17 and the dysplasia is high grade—almost cancer. Since it can take several years to reach this point, she's had it for a while, and will require surgery. You might think this scenario is unusual in teens. It's not. My fellow pathologists and I diagnose patients this young every day. What breaks my heart is that dysplasia and cancer of the cervix are almost always caused by Human Papilloma Virus (HPV), an avoidable sexually transmitted disease (STD)."

"HPV is the most common of about 25 different STDs epidemic today. Teens think it won't happen to them, but the truth is one in four sexually active teens gets an STD. Many have more than one at the same time. A study at Rutgers University showed that 60 percent of sexually active coeds had HPV."

"Did you know that a teenage girl is FAR more likely to contract an STD than a woman in her 20s? It's true. The reason is anatomical. There's a transition zone between two different types of epithelium (skin-like coverings) on the cervix. As a girl passes through her teen years and early 20s, the epithelium changes, leaving the cervix covered with a tougher and more resistant epithelium. Prior to this change, women are particularly susceptible to STDs and their consequences, including cervical cancer."

(Pathologist Dr. Bob Kinney is laboratory director at NorthEast Medical Center in Concord, North Carolina. For more on this issue from a Christian perspective, visit the Medical Institute for Sexual Health online at <a href="https://www.medinstitute.org">www.medinstitute.org</a>.)

(Kinney, Robert B., M.D., "Teens at Higher Risk Than Adults for STDs", Plugged In, September 2002)

"EDITORIAL: SCARIER THAN WE THOUGHT FOR TEENS"

"The study, published in the Journal of the American Medical Association, tested a sample of Baltimore residents ages 18 to 35 for gonorrhea and chlamydia. The researchers found that, based on the number of positive tests for sexually transmitted diseases (STD) in the people tested, that the true rate of STD infection in Baltimore almost surely substantially exceeds the number of individuals found to be infected by testing."

"What we know about infection rates among our young people is scary enough. There are 25 significant STDs today, as opposed to two in 1960. In the 1970s, one adolescent in 47 contracted a STD. Today, that figure is one in four. About 15 million new STD infections occur each year in America – 25 percent are in people younger than 20. A recent study of 18 to 22-year-old sexually active women showed 50 percent were infected with human papillomavirus (HPV) at some time during the three-year study period. Therefore, a sexually transmitted disease (HPV) is responsible for more than 99 percent of cervical cancers and nearly all abnormal Pap smears."

"Along with the Baltimore study, the Journal of the American Medical Association published an editorial by J. Dennis Fortenberry of the University of Indiana Medical School. He says it's time for routine school-based urine testing for STDs. Well, that's an appropriate response if our only concern is to find out how many young lives have already been damaged."

"But the clear and compelling lesson of the Baltimore study is prevention – how do we protect our young people? The answer is to tell them the truth, to tell them that 'safe sex' as an unmarried teen or young adult simply doesn't exist. Our current public health approach to STDs is based on the belief that condoms will keep kids safe enough. But that's not what the National Institutes of Health found when it convened a panel to explore the scientific evidence determining whether male latex condoms are effective in preventing STDs."

(Joe S. McIlhaney, Jr., M.D., "Scarier Than We Thought for Teens," <a href="https://www.medinstitute.org/media/Scarier.htm">www.medinstitute.org/media/Scarier.htm</a>)

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# "STUDY SHOWS GIRLS AT GREATER RISK OF STDS"

"David Paton, an economist at Nottingham University who has studied the effect of government policy on teen pregnancy rates, said the study released Thursday is consistent with his own conclusion that family planning methods don't result in less

teenagers having sex or a decrease in the teen pregnancy rate."

"Two things that do lead to lower rates of teen pregnancy, Paton said, are decreased poverty rates and stronger family structures."

(Mike Wendling, London Bureau Chief, "Study Shows Girls at Greater Risk of STDs," <a href="https://www.crosswalk.com/news/1165159.html">www.crosswalk.com/news/1165159.html</a>)

### "HPV PRESS RELEASE"

"House to decide whether Americans should be told the truth about the most common STD, Human Papilloma Virus (HPV)"

"Current estimates suggest that 75 percent of all sexually active adults currently have, or previously had, an HPV infection—that's over 80 million Americans between the ages of 15 and 49."

- "HPV is the virus present in over 93 percent of all cervical cancers (according to a 1995 study in the Journal of the National Cancer Institute)."
- "More women die from cervical cancer than die from AIDS each year in the U.S."
- "According to the National Cancer Institute, the evidence that condoms do not protect against HPV is so definitive that 'additional research efforts by NCI on the effectiveness of condoms in preventing HPV transmission is not warranted."
- "Dr. Richard Klausner of the National Cancer Institute has stated, 'Condoms are ineffective against HPV because the virus is prevalent not only in mucosal tissue, but also on dry skin of the surrounding abdomen and groin, and can migrate from those areas into the vagina and cervix.""

("HPV Press Release," www.medinstitute.org/media/hpv\_pr.htm)

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#### "EDITORIAL: IGNORING AN EPIDEMIC"

"Every day, a silent epidemic strikes 8,000 American teenagers. That's more than 3 million teenagers per year."

"Sexually transmitted infections (STIs) are attacking our young people with shocking ferocity. Approximately 15.3 million new cases of STIs occur annually in the United States; one in four of the victims are under twenty. Five of the 11 most common reportable infectious diseases in this country in 1998, the last year for which data are available, were STIs: Chlamydia (#1), Gonorrhea (#2), AIDS (#3), Syphilis (#4), and Hepatitis B (#10). The Centers for Disease Control and Prevention (CDC) does not collect data on other common diseases, such as herpes and human papillomavirus (HPV). However, a study published in the <a href="New England Journal of Medicine">New England Journal of Medicine</a> estimated that 20 percent of all Americans age 12 and over are infected with genital herpes. And HPV is the most prevalent viral STI — it causes over 90 percent of cancer and precancer of the cervix."

(Joe S. McIlhaney, Jr., M.D., "Ignoring an Epidemic," <a href="https://www.medinstitue.org/media/editorial-1.htm">www.medinstitue.org/media/editorial-1.htm</a>)

# "EDITORIAL: TEENS NEED SOME MYTH BUSTERS"

"We know that the younger a person is when he or she starts having sex the more sexual partners he or she will have over a lifetime. Indeed, 58% of women who first have intercourse at an age younger than 16 will have more than 5 lifetime partners, compared to just 15% for women who waited until age 20 or beyond. The biggest risk of contracting a sexually transmitted disease (STD) is an increasing number of sexual partners."

"The epidemic of STDs among teenagers – between 3 and 4 million STDs occur in teens each year – is creating lifelong costs. Approximately 27 percent of the women who require in vitro fertilization require it because of scarring in their pelvic structures from Chlamydia infection that results in pelvic inflammatory disease. And Human Papillomavirus (HPV) causes over 90 percent of cancer and precancer of the cervix which, in turn, is causing the deaths of approximately 5,000 American women

yearly. Condoms offer almost no protection against these two diseases, HPV and Chlamydia."

(Joe S. McIlhaney, Jr., M.D., "Teens Need Some Myth Busters," <a href="https://www.medinstitute.org/media/Myth%20Busters.htm">www.medinstitute.org/media/Myth%20Busters.htm</a>)

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#### "EDITORIAL: THE SWEDEN SYNDROME"

"Researchers at the World Congress of Gynecology and Obstetrics report that sex education in school, contraceptive use, and legal abortions helped reduce the teen pregnancy rates in Sweden and Scandinavia," the Daily News Update of the National Center for HIV, STD and TB Prevention reported last year. 'For every 1000 Swedish teens aged 15 to 19 years in 1965, 50 became pregnant. However, that rate had fallen to 10 pregnancies per 1000 women by 1995.""

"For starters, according to two major studies of sexual behavior among adolescents and adults in Sweden published within the past year, teens in Sweden are having sex at younger and younger ages. Among 18-24 year-old women in Sweden, the median age of first intercourse is 16.5 years. Such a young age is nothing to get excited about and certainly no better than what happens here in the United States. Age of sexual debut is important for a number of reasons, not the least of which being that the younger an individual is when he or she first has sex, the more sex partners he or she will have over the course of a lifetime. The problem with this is that an increase in the number of lifetime sexual partners is the biggest risk for becoming infected with a Sexually Transmitted Disease (STD)."

(Joe S. McIlhaney, Jr., M.D., "The Sweden Syndrome," www.medinstitute.org/media/Sweden.htm)

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# "STATEMENT ON SURGEON GENERAL'S REPORT"

"Member of the Executive Committee and an External Reviewer Issue Statement Dissenting to The Surgeon General's Call to Action to Promote Sexual Health" "Sexually transmitted diseases (STDs) have reached epidemic proportions. Approximately 15 million Americans acquire STDs each year. 25 percent are younger than 20."

("Statement on Surgeon General's Report," <a href="https://www.medinstitute.org/media/SG%20Statement.htm">www.medinstitute.org/media/SG%20Statement.htm</a>)

"EPIDEMIC: HOW TEEN SEX IS KILLING OUR KIDS"

# Chapter 2 – "The Epidemic is Real"

"Nearly one out of four sexually active teens is living with a sexually transmitted disease at this moment." (p.13)

"Nearly 50% of African-American teenagers have genital herpes." (5) (p.13)

"Although teenagers make up just 10% of the population, they acquire 25% of all STDs." (6) (p.13)

"An editorial in the esteemed <u>Journal of the American Medical Association</u> reported that the number of people with asymptomatic STDs (those that have no outward signs, like lesions or warts) probably exceeds those whose diseases have been diagnosed." (11) (p. 13)

"Picture a football stadium filled with teenagers. Start counting. One out of five of those cheering kids has herpes (at least that we know of). Every third girl in the stands has HPV, and one out of ten has chlamydia. If we pulled all the healthy kids out of there, leaving just those teens infected with an STD, the stadium would still be nearly full." (p. 13-14)

# "The Epidemic Defined"

"The STD epidemic is not a single epidemic. (CDC) consider it a *multiple* epidemic of at least 25 diseases – nearly 50 if you count the various strains of virus groups." (p. 14)

# "Lifelong, Life-threatening"

"More than 45 million Americans are infected with the herpes simplex type 2 virus. A 1997 study published in <u>The New England Journal of Medicine</u> sent shock waves through the medical community when its authors reported that 20% of those 12 and older tested positive for this strain of herpes." (12) (p.15)

"Herpes spreads only through sexual contact." (p. 15)

"It has the dubious distinction of being one of the few causes of cancer we know about, and is directly responsible for 99.7% of cervical cancer cases and the deaths of nearly 5000 women each year." (14) (p. 16)

"Most victims have no symptoms (just 1% develop genital warts)."(p. 16)

"In 2000, nearly half (45%) of all AIDS cases among 13- to 24-year-old women were acquired through heterosexual sex. (16) Here's an even more frightening number: More than half (61%) of young people between 13 and 19 who were infected with HIV that year were women. (17) More young women than young men are getting HIV. Half of all new infections are in our youth!" (18) (p. 16-17)

"Almost a quarter of a million teenagers are diagnosed with PID every year." (p. 17)

#### "STDs Don't Discriminate"

"The next time you're at the mall, take a moment to observe that pack of teens you're likely to see roaming the storefronts. Chances are good you'll spot a bright young girl sporting a stomach-baring tank top. Even as she window-shops at American Eagle Outfitters, there's a one in four likelihood that a virus is working its way up through her reproductive tract, changing the cells in her cervix so that in a few months, maybe in a few years, she'll find she has a precancerous condition requiring surgery. You may spot a boy in low-rider jeans and a backwards-turned baseball cap. Chances are one in five that he's got a sore on his penis he's too embarrassed to ask anyone about." (p. 17-18)

"An astonishing 15 to 20% of all young men will be infected with the herpes virus by the time they hit 18." (20) (p. 18)

#### "Like a Match to Gasoline"

"Birth Control and Condoms. But I realize now that what we've been doing has been akin to rearranging the deck chairs on the Titanic. We now face a gargantuan consequence of that sexual freedom." (p. 19)

"Condom...the best they can do is reduce the risk of infection. And the risk reduction, as you'll see later, is minimal—and in some cases nonexistent." (p. 19)

"What they don't know can hurt them. "Four out of five, for example, didn't know that most people who get an STD never develop symptoms." (22) (p. 19)

"They're Confused About What 'Sex' Means. So today, they're having oral sex in the back of school buses and in dark movie theaters. (Ask any middle school teacher)." (p. 20)

"And oral sex is becoming a fad with kids. Very recent studies show that even oral herpes has shifted form causing 25% of genital herpes infections to 75% of them. (24) How? Through oral sex. An online sex survey done by <u>Twist</u> magazine found that out of 10,000 girls who responded, eight out of ten said they were virgins, even though one-fourth of the 'virgins' had had oral sex. Over half (5,700) were under 14. (8) (p. 147)

"Teenage Anatomy and Health. "The cells covering a teenage girl's cervix are physiologically different from the cells lining a 25-or 30-year-old woman's cervix, and are therefore far more susceptible to infections." (p. 21)

# "Breaking the Silence"

"Mayhem in the Media. "Consider Friends...Here we see half a dozen young people sleeping with each other or with other people while rarely making a peep about...sexually transmitted diseases. Statistically speaking, at least one character in the show—Monica? Joey?—must have an STD...the only repercussions to sleeping around are pregnancy and the occasional heartbreak." (p. 24-25)

"In one song from a current CD, 'Livin' It Up,' this singer calls women 'bitches,' sings about 's\*cking d\*ck,' 'f\*\*\*ing,' having phone sex, and in general treating women in abusive ways. In another song, 'Always on Time,' he raps about sex being a game, 'smacking your \*ss,' and 'f\*\*\*ing you all wild.' These are just a very few illustrations in any one track." (p. 25)

"Lil' Kim...Her song titles alone, such as 'S\*ck My D\*ck' and 'F\*\*k You,'..." (p. 25)

"Kid Rock." (p. 25)

## Chapter 3 – "The Explosion from Two to Fifty"

"There are 80 to 100 different strains of human papilloma virus; HPV causes 99.7% of all cervical cancers." (p. 31)

"In 1982, genital herpes was so commonplace that <u>Time</u> magazine made it the subject of one of its covers, under the headline: 'VD of the Ivy League.' Today, more than 40 million Americans are infected with this virus. (1) Soon after herpes pushed its way into our consciousness, HIV and AIDS came along. When I began medical school in 1980, we'd never heard of those diseases. By the time I graduation in 1984, it was being called an epidemic. Nine years later, between 1 million and 2 million Americans were infected with HIV or AIDS, over 12 million worldwide, and more than 160,000 had died in the United States alone. By 1994, AIDS had become the leading cause of death for people between the ages of 25 and 40. Currently, the virus has killed more Americans (450,000) than died throughout all of World War II." (2) (p. 32)

"Studies show that 20 million people that we know of are [HPV] infected now, but 80 million Americans are believe to have been infected with genital HPV at some point in their lives." (3) (p. 32)

"With the exception of the influenza pandemic in 1918-19, I can't think of another time in recent history when such a devastating plague has spread so rapidly throughout the world's population." (p. 33)

"My own generation [sexual revolution] demanded previously unheard-of sexual freedom and promiscuity." (p. 33)

"If a girl starts having sex before she's 16, there's a 58% chance that she'll having more than five partners. If she starts before she's 18, she'll have a 30% chance of having more than five partners." (9) (p. 33)

"Sick for Life"

"Sexually transmitted viral diseases are the most frustrating for physicians because we don't have medicines to kill the bugs...Once you catch one of these nasty diseases, it's yours for life." (p. 34)

#### "HPV: Ground Zero"

"You can't get cancer from sex!" Most of the students laughed. If only that were true." (p. 36)

"When I began practicing 18 years ago, cervical cancer was a disease of older [55- to 70-year old] women,' my colleague, Michael Aja, M.D.,head of the Radiation Oncology Department at Munson Hospital in Traverse City, Michigan, told me. 'Today, we commonly treat young women in their 20s with cervical cancer because they got HPV infections during their younger years." (p. 36)

"15,700 new cases of cervical cancer appear each year, with women between the ages of 22 and 25 most likely to develop it. And every year, nearly 5,000 women die from this disease." (12) (p. 36)

"Although there are between 80 and 100 types of HPV, about 30 are linked to cervical cancer." (p. 36)

"The virus works by infecting mucous membranes in the body (vagina, cervix, mouth), and it shows a special predilection for young girls. Their young bodies have receptive vaginal mucus that easily holds the virus, and their cervical cells are more receptive to viral infections, allowing the viruses to reproduce easily." (p. 36-37)

"HPV infection in teens can be as high as 40%, compared with less than 15% in the adult population." (13) (p. 37)

"Teenagers are also more likely to develop precancerous growths as a result of HPV. These growths are more likely to develop into full-blown cancer. Why, we don't know. Researchers suspect it simply has to do with the immaturity of the teen's immune system compared with that of an adult woman. In the past ten years, HPV has spread like wildfire through our country. In 1994, there were an estimated 2.5 million infections a year. Today, that figure has doubled. (14) One study found that HPV was five times more common than all other STDs combined!" (15) (p. 37)

"In the public at large, HPV has been found in about 75% of sexually active people. (16) A British study found the virus infects at least 46% of teenage girls after their *first sexual intercourse.*" (p. 37)

"...The researchers on that study to conclude, 'Perhaps cervical (HPV) infection should now be considered an inevitable consequence of sexual activity." (17) (p. 37)

"But cervical cancer is just one danger from HPV. The virus is also linked to vulvar, vaginal, uterine, and anal cancers. Infants born to infected mothers can develop wartlike tumors on their vocal cords." (p. 37)

"Men can get penile and anal cancers from HPV." (18) (p. 37)

"A study in the <u>New England Journal of Medicine</u> found that patients with certain head and neck cancers were twice as likely to have been infected with HPV in the past. Researchers speculate that the rising incidence of oral sex—and the transmission of oral HPV—contributes to these cancers." (19) (p. 37) "But only about 1% of sexually active teens and adults who have HPV have these warts...*but removing the wart does not cure the disease.*" (p. 38)

"It's also difficult for sexually active teens to protect themselves from HPV infections because the virus spreads from skin to skin. It can be found anywhere on the genital area, and can even be spread from hand and finger contact. So condoms aren't much help." (p. 38)

# "Easy to Share"

"We used to believe that the virus [HSV—Herpes] shed for only a few days after an infection or an outbreak, but studies show that herpes may shed *off and on for 8 to 10 years*. This means that a person with herpes can infect his or her sexual partner for a very long time. What complicates herpes infections is that while a person is shedding, he or she probably won't know it. In fact, 85% of all people who test positive for herpes shed the virus despite having no signs of clinical infection." (24) (p. 43)

"Sadly, the rising popularity of oral sex is an enormous contributing factor to the spread of herpes. Herpes can be as easily transmitted through oral sex as it can through vaginal sex." (p. 43)

#### "HIV and AIDS"

"For African-American males between the ages of 15 and 44, AIDS is the leading cause of death." (28) (p. 45)

"And today, of the 900,000 people living with HIV in this country, 20% are women. Eighty percent of all transmission occurs sexually, not through injected drug use or contaminated blood." (29) (p. 45)

## "Hepatitis B"

"Hepatitis B virus is a serious virus that can cause chronic infection, liver scarring, liver cancer, liver failure, and death. An estimated 4,000 to 5,000 people die each year in the United States due to the complications of cirrhosis and liver cancer as a result of hepatitis B. And an estimated 200,000 new hepatitis B infections occur each year." (32) (p. 47)

"Besides the liver, the virus may damage the kidneys, blood vessels, skin, and joints. What many fail to realize is that hepatitis B is a sexually transmitted virus, present in blood, semen, saliva, and vaginal secretions. While infants and young children began receiving vaccinations against the virus in 1991, most of today's teenagers remain unimmunized. (In 1995, the National Advisory Committee on Immunization Practices recommended that immunization be extended to adolescents.)" (p. 47)

"Hepatitis B commonly occurs in adolescents and young adults. It can appear as an acute episode, in which the infection comes on quickly, causes serious illness, and then goes away. Or it can become a chronic illness, its victims living for many years with the residual effects of the disease, primarily liver damage." (p. 47)

"The younger you are when the infection starts, the greater the likelihood that the infection will become chronic. Ninety percent of infants with hepatitis B develop the chronic disease, 60<sup>^</sup> of children under 5 develop it, and just 2 to 6% of adults with the acute infection will get chronic hepatitis B." (33) (p. 47)

"Teens are considered a high-risk group for hepatitis B because 50 to 60% of transmission occurs through sexual activity." (p. 47)

# **Chapter 5 – "The Emotional STD"**

"Suicide is the third leading cause of death among young people ages 15 to 24." (p. 63)

## "Skyrocketing Rates'

"The numbers we do have on depression in teens are terrifying. According to Dr. John Graydon, professor of Psychiatry and Neurosciences at the University of Michigan, one in eight teenagers is clinically depressed and most teens' depression goes undetected. (1) Because the rates of complete suicides among adolescents have skyrocketed 200% in the past decade, (2) suicide now ranks as the third leading cause of death in teenagers, behind accidents and homicides (3) (both of which may involve depressed adolescents, who often drink and engage in violent behavior to anesthetize their depressed feelings)." (p. 64)

"Also frightening is the fact that teens today are more likely to succeed in killing themselves when they try. One study found that completed suicides among 10- to 14-year-olds increased 80% from 1976 to 1980 and 100% for 15- to 19-year-olds. (4) From 1980 to 1997, the rate of suicide increased 11% in all 15- to 19-year-olds, 105% in African-American teen boys, and a startling 109% in 10- to 14-year-old children." (5) (p. 64-65)

"Even more sobering is the fact that for every adolescent who succeeds in committing suicide, 50 to 100 attempt it. (6) In fact, a 1995 study found that a staggering 33 out of every 100 high school and middle school students said they'd thought of killing themselves." (7) (p. 65)

# "One-third of our adolescent population has thought of killing themselves!" (p. 65)

"One study of 8200 adolescents, ages 12 to 17, found that those involved in romantic relationships had significantly higher levels of depression than those not involved in romantic relationships. (10) 'Something about dating and dating relationships can be toxic to girls' health,' says Susan Nolen-Hoeksema, Ph.D., a psychology professor at the University of Michigan in Ann Arbor, and an expert in adolescent depression." (11) (p. 65-66)

# "Searching for Proof"

"Why doesn't research yet exist linking depression to teenage sexual activity? Three reasons." (p. 68)

1. "First, these twin epidemics have come upon us so quickly there simply hasn't been time to conduct the studies. But I don't need to wait for formal studies to affirm what I already see—and my observations are not isolated ones. At pediatric

conferences many of my colleagues report the same thing: increased post-traumatic stress disorder in sexually active teens." (p. 68)

- "Armand Nicholi, M.D., a professor of psychiatry at Harvard Medical School, and an expert on adolescent psychiatric problems" "When future historians study American culture,...they may find it perplexing and paradoxical that during an era of unprecedented leisure time and prosperity, millions of adolescents used psychoactive drugs to alter their feelings and to escape their environment. That each year, during an era of unprecedented openness and frank discussion of sexuality, hundreds of thousands of unmarried teenagers became pregnant and experienced an abortion; and that during an era of unprecedented scientific discovery and opportunity, thousands of adolescents both attempted suicide and succeed in killing themselves." (12) (p. 68-69)
- 2. "Second, in order to conduct studies on the link between teen sex and depression, we would have to start with the hypothesis that, perhaps, indeed there is a link—something that many funding institutions are not willing to do because it opposes more liberal views about teen sex. It's difficult, if not downright unpopular, today to take a stand that questions whether sexual freedom is good or bad for teenagers." (p. 69)
- 3. "Third, there's a great deal of money at stake. If solid research finds that sexual activity in teens leads to depression, it would force many businesses to take a hard look at advertising and the media in general. Businesses would need to look at how sex is used to sell products to the teen demographic group, which today has perhaps the largest buying influence in the history of our economy. To put it simply, the business of selling to teens relies on sexual messages." (p. 69)

# "Sex and Depression"

"Loss of Virginity. "Proof of the unique and valuable nature of one's virginity can be seen in kids who are sexually abused. Every young child, adolescent, and teen I have cared for who has been sexually abused hates talking about it. Psychologists and psychiatrists universally accept the fact that most kids who have been sexually abused won't readily admit that sexual violation occurred. Teens will admit when their feelings have been hurt or if they have been physically hit, but they don't want to admit to sexual violation. Why? Because their virginity and their sexuality are separate from their feelings or their bodies. Virginity is more special." (p. 74)

"Think about this for a moment. If a girl didn't value her virginity highly or feel that it was unique, why wouldn't she openly discuss it? The very fact that something

extremely precious has been taken away or violated is one of the reasons kids of all ages keep sexual abuse a deep, dark secret. And the fact that lifelong pain ensues when sexual boundaries are crossed, or when virginity is wrenched from a child in a manner that makes her feel helpless, gives testimony to the incredible value of virginity." (p. 74)

"Some might argue that losing one's virginity voluntarily, as with teen sex, falls in a different category. Certainly it does. But the inherent value of virginity remains the same. If a teen surrenders it voluntarily, she knows that she has given a part of herself that occupies a place of extraordinary prominence in her being. So even when a teen surrenders virginity voluntarily, the loss is still great. And it is still deep." (p. 74)

## Chapter 7 – "Condoms and the Myth of Safe Sex"

"There is not enough evidence to determine that [condoms] are effective in reducing the risk of most...sexually transmitted diseases." (p. 99)

# "Talking Terms"

"The term 'safe' means that a person won't get harmed or sick. And so does the word 'protected.' So when we tell teens that the way to have 'safe sex' is to use condoms, which are perceived as 'protection,' we're implying that they'll be protected from harm and disease. So that's what they hear: If they use condoms, nothing bad like STDs or pregnancy will happen to them." (p. 104)

"Medically, however, this just isn't true. The best that condoms can do is *reduce* a person's risk for contracting disease. Even if condoms are used perfectly, 100% of the time, risk still exists. That risk is that the condom will slip or break about 2 to 4% of the time. (4) And that's just the beginning." (p. 104)

## "The Real Deal on Condoms"

"How much do condoms really reduce the risk of our kids becoming infected with disease? Our best information comes from a panel of 28 medical experts in a recent report sponsored by the National Institutes of Health. The group comprised men and women, practicing physicians and researchers, liberals and conservatives, all trained to have their fingers on the pulse of the spread and prevention of STDs in the United States. They gathered for a two-day workshop in Herndon, Virginia, in June 2000, to

evaluate the effectiveness of condoms. Thirteen months later they released their findings." (p. 104-105)

"They concluded that, while male latex condoms could reduce the transmission of HIV/AIDS, there was *not enough evidence to determine that they were effective in reducing the risk of most other sexually transmitted diseases.*" (5) (p. 105)

#### "Sex, Lies, and the Freedom of Information Act"

"It should come as no surprise that when the NIH report was completed, some health officials considered keeping it private. The shocking findings in the report contradicted nearly a decade of official government reproductive health policy. As the Washington Post reported in July 2001, it was only after pressure from some conservative organizations and the threat of a Freedom of Information Act request that the report was released to the public." (7) (p. 105)

"Condoms May Help Somewhat. When used 100% of the time, condoms can reduce the risk of sexually transmitted HIV infection in both sexes and the risk of gonorrhea in men by about 87%. (8) Now, an 87% protection rate may sound good, but it's not good enough for my patients, their parents, or me. My job is to keep my patients disease-free. I didn't take the Hippocratic Oath to make sure they remained disease-free 8% of the time. I took it to keep them healthy 100% of the time." (p. 106)

"And remember, 87% risk reduction represents the *very best possible scenario*. That means that if a condom is used every time a person has intercourse, and is used correctly all of the time, then there is an 87% chance that he or she won't get HIV or gonorrhea. Now, if this were your teen putting on a condom, would 87% be good enough? He still has a 13% chance that he will get HIV or gonorrhea, odds a little worse than one in ten. That doesn't sound like 'protection' or 'safe sex' to me." (p. 106)

"Sometimes condoms don't help at all. The best medical literature available to us on condoms also shows that only 'insufficient evidence' exists with regard to their effectiveness in preventing other STDs." (9) (p. 106)

"Gonorrhea. Recently, however, newer data has come from studies in Uganda, where HIV and gonorrhea are at a crisis level. That country has implemented aggressive campaigns to reduce the spread of both diseases. In their research, they

are finding that any person who *always* wears a condom during sex reduces his or her risk of getting gonorrhea by about 50%." (11) (p. 108)

"HPV. The latest studies report that 'condoms have *no impact* on the risk of sexual transmission of human papilloma virus in women. (12) And there is no clear evidence that condoms reduced HPV transmission in men." (13) (p. 108)

"Herpes. Using condoms didn't help the men reduce their risk of getting the disease [HSV] at all." (14) (p. 109)

## Chapter 8 – "Media and the World Our Kids See"

"The American Psychological Association estimates that teenagers are exposed to 14,000 sexual references and innuendoes a year on television alone—all subtly (or not so subtly) influencing my patients into having sex, an act that can physically and mentally harm, if not kill them." (p. 120)

#### "The Sounds of Sex: Music and MTV"

"According to a Kaiser Family Foundation study, young people spend an average of almost an hour and a half a day listening to CDs, tapes, or radio. 'After TV, music is the medium of choice for most kids, especially older teens,' said Donald F. Roberts, Jr., Ph.D., professor of communication at Stanford University and an author of the Kaiser study, 'Kids & Media @ The New Millennium,' which examined media use among a nationally representative sample of more than 3000 children ages 2 to 18." (5) (p. 124)

#### "Television: The 800-Pound Gorilla"

"Consider that two-thirds (68%) of all programs on television contained sexual content during the 1999/2000 season, a 12% increase in just two years. (8) Just 1% of people shown having sex are married to each other. That means that 99% of sex that teens see on television occurs between unmarried people."

"There are clear connections between what kids see on television and how they behave in real life. An April 2002 survey on teens, sex, and TV from the Kaiser Family Foundation found that nearly three out of four teenagers (72%) thought sex on TV influenced the sexual behavior of kids their age 'somewhat' or 'a lot." (9) (p. 126)

#### "Dotcom Sex"

"Almost one-third of kids age 10 to 17 with computers at home have seen a pornographic Web site, and not necessarily on purpose." (p. 128) "A study by the Safe American Foundation reported that 91% of teenagers said they unintentionally accessed Web sites featuring pornographic, hate-based, or violent material while conducting research for school or just surfing the Web." (12) (p. 128)

## "Teens: Soaking It Up Like a Sponge"

"You and I filter messages we receive through a gauntlet of memories and lessons learned, which helps determine whether they're acted upon or rejected. Teenagers have no such filter. Most 10- to 13-year-olds don't have a long history of sexual experiences. So when they're exposed to sexual images, sexual talk, or sexual lyrics, the messages are fresh and exciting. Young adolescents have no frame of reference with which to assess these messages. They may feel sexually aroused by what they ear and see, but they don't know what to do with this feeling or how to understand it." (p. 131)

# Chapter 9 – "High-Risk Sex"

"In a national survey, 26% of sexually active 15- to 17-year-olds surveyed said one cannot become infected with HIV by having unprotected oral sex." (p. 143)

- "Of 1067 teens aged 13 to 18 surveyed in the early 1980s, roughly one-fifth (20%) said they had ever had oral sex. But ten years later, that figure had jumped to 70% of males and 57% of females who'd had oral sex even *before* they had actual intercourse." (3) (p. 144)
- "In 1992, a study of a group of ninth- through twelfth-graders revealed that nearly a third of those who were still virgins had engaged in masturbation with a partner." (4) (p. 144)
- "In a 2000 survey by the Kaiser Family Foundation, one in five teens reported that oral sex is 'safe sex." (5) (p. 144)
- "A 2000 Special Report in 'Family Planning Perspectives' revealed that in a volunteer sample of 311 nonvirgin college undergraduates, 70% of boys and 57% of girls reported having performed oral sex at least once before their first

intercourse. And 57 to 58% of both boys and girls reported receiving oral sex before intercourse. The same report also revealed that in a 1992 HIV prevention program in Los Angeles, 29 to 31% of 2026 ninth- through twelfth-grade virgins reported having engaged in masturbation with a partner. What's more, many of these teens said they do not consider mutual masturbation or oral sex to be sex—some even call oral sex and mutual masturbation 'abstinence!'" (6) (p. 144-145)

## "Oral Sex: A Craze With Consequences"

"The 'Family Planning Perspectives' report cites one study of 600 Midwestern college students, which found that nearly six out of ten (59%) did not believe oral sex qualified as sex, and 19% thought anal sex was not really sex." (7) (p. 147)

## "Oral Sex is No Protection"

"In a national survey of teens conducted for the Kaiser Family Foundation, 26% of sexually active 15- to 17-year-olds surveyed said one 'cannot become infected with HIV by having unprotected oral sex,' and an additional 15% didn't know whether or not they could become infected. The sad truth is that HIV *is* spread through oral sex, as are herpes, syphilis, gonorrhea, HPV, chancroid, intestinal parasites, and hepatitis A." (9,10) (p. 147)

# "Homosexual Sexual Activity"

"Although there are no solid studies on the numbers of teenage homosexuals nationally, statewide surveys report that between 2 and 5% of teenagers report having experienced some form of homosexual activity." (12) (p. 151-152)

Chapter 10 - "Adolescent in Body and Mind"

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## "STDs and the Adolescent Girl's Body"

"One of the strongest reasons to encourage your daughters to wait as long as they can before becoming sexually active is that their bodies are not ready for it, even though they may think otherwise. A young girl's cervix (opening to the uterus) develops slowly, and has several physiological differences from that of an older woman. These differences put a young girl at higher risk for STDs." (p. 175)

"To the naked eye, a cervix looks like a plump doughnut with a tiny hole in the center. In young girls, tall narrow, reddish-pink cells cover the cervix. These cells, called columnar cells, form a layer of skin called the ectropion. The pinkness comes from the rich blood supply in the columnar cells, which provides a wonderful medium for bacteria and viruses." (p. 175)

"On out outer edge of the cervix are flatter, tougher cells, called squamous cells, which have a more 'smushed' appearance than the columnar cells, After childbirth, or by the time a woman reaches here mid-20s, these tougher squamous cells move into the center of the cervix, replacing the reddish ectropion layer and columnar cells and, in the process, better protecting the cervix. Because they don't have the same rich blood supply as the columnar cells, squamous cells are less attractive to the viruses and bacteria that cause sexually transmitted diseases." (p. 175)

"There is the difference in the cervical tissue of a 15-year-old versus an older woman. Just as a teenager's skin and the skin of a 30-year-old woman are different, so too is cervical tissue. In a young girl, this tissue is softer, more easily permeated by viruses and bacteria. In an older woman, it's tougher, harder, and thus able to better ward off bacteria, viruses, and other pathogens." (p. 176)

"In addition, the cervical mucus, which serves a protective role, differs in teenagers and older women. Many girls will menstruate without ovulating for the first year or two. When this happens, the mucus in their cervix is thinner, and has a more liquid consistency that, for some unknown reason, is more attractive for viruses and bacteria, providing a richer environment for growth than an older woman's cervical mucus." (p. 176)

"The attractiveness of a young girl's cervix to bacteria and virus infections seems to lead, for some unknown reason, to a much greater risk for pelvic inflammatory disease than that experienced by adult women. Overall, an adolescent with chlamydia or gonorrhea has a one in eight chance of developing PID, compared with a 30-year-old with the same infection, who has a one in eighty chance." (p. 176)

# Chapter 11 – "Connectedness"

"Relationships with other people are what make our lives worth living." (p. 193)

# "Our Teenagers Want Connectedness With Us"

"In 1997, one of the most complete studies ever conducted on teenagers and high-risk behaviors was published in the Journal of the American Medical Association. The National Longitudinal Study of Adolescent Health (the 'Add Health Study,' funded by the National Institute of Child Health and Human Development and seventeen other federal agencies) set out to determine two things: What role family, friends, school, and community have in influencing teens to make healthy choices for themselves, and what role they have in encouraging unhealthy, self-destructive choices." (p. 194)

"The fieldworkers interviewed 90,000 kids in grades seven through twelve from 145 different schools. They asked hundreds of questions and recorded thousands of answers. Then they went further, looking into the children's lives, studying their environment, their parents, and where they lived." (p. 194)

"They found that the two most important factors in keeping teens out of trouble were a sense of connectedness with parents and likewise with an adult figure at school, such as a teacher or counselor, who expresses care and concern for them. During a time when parents were repeatedly taught that peers were 'everything to teens,' the results of this study blew the lid off of that notion." (p. 194)

"Parents and teachers who build solid relationships with teens have a far greater impact on them than do sex education programs and media messages." (p. 195)

# Chapter 12 – "Holding Off"

"If you have sex with six people by the time you're 20 years old, and they have had the same number of partners as you, you've been exposed to the diseases of 63 people. If you have sex with seven people, you've been exposed to the diseases of 127 people." (p. 211)

# "Teaching Kids to Postpone Sex"

"Nowhere is this power [of parents] more influential than when it comes to making sexual decisions. A national survey taken by The National Campaign to Prevent Teen Pregnancy (1) asked teens the following question: 'When it comes to your

sexual decision making, which is most influential: the media, friends, teachers and sex educators, brothers and sisters, religious organizations or parents?' Surprise! *Thirty-eight percent* said that their parents influenced them most. Friends influenced 31%, religious organizations influenced 9%, siblings 7%, teachers 6%, and the media 3%." (p. 215)

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- (8) "More TV Shows Include Sexual Content; Safer Sex Message Most Common When Teen Characters or Sexual Intercourse Are Involved." Press Release, February 6, 2002. Menlo Park, Calif.: The Henry J. Kaiser Family Foundation.
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- (12) "Children and the Internet." Mediascope.org. Internet on-line. www.mediascope.org/pubs/ibriefs/ci.htm.

## **Chapter Nine**

- (3) Sexuality Information and Education Council of the United States (SIECUS) "Non-Coital Behaviors That Put Teens at Risk for HIV and Other STDs." SHOP Talk: School Health Opportunities and Progress Bulletin 5, no. 22 (2001). Internet on-line. <a href="www.thebody.com/siecus/behaviors.html">www.thebody.com/siecus/behaviors.html</a>. (4) ibid.
- (5) "Safer Sex, Condoms, and 'the Pill." Sexsmarts (a public information publication), November 2000. Menlo Park, Calif.: The Henry J. Kaiser Family Foundation. Internet online.
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- (7) ibid.
- (9)Oral Sex and STDs, Fact Sheet, Centers for Disease Control, Dec. 2000.
- (10) See note 6 above.
- (12) "Lesbian, Gay, Bisexual and Transgendered, and Questioning Youth." SIECUS Report 29, no. 4, April/May (2001).

## **Chapter Twelve**

(1) With One Voice: America's Adults and Teens Sound Off About Teen Pregnancy, A National Survey, Washington, D.C.: The National Campaign to Prevent Teen Pregnancy, April 2001."

(Meg Meeker, M.D., "Epidemic: How Teen Sex Is Killing Our Kids,")

"SEX, CONDOMS AND STDS: WHAT WE NOW KNOW"

# "Safer sex' isn't nearly safe enough"

"It is noteworthy that condoms have consistently been demonstrated to have a high failure rate for preventing pregnancy. For example, an authoritative resource, Contraceptive Technology, reports that the typical first year failure rate for couples using condoms is 14 percent. [24] Major scientific reports show remarkably similar statistics. Lower failure rates are seen primarily in studies of couples that have from 24 to 48 months of experience using condoms for pregnancy prevention (the lowest rates were in women over 40 years of age)." [67,68]

## "These Key Findings Are:"

- "Consistent (always) condom use is defined as 100 percent condom use during all sex acts indefinitely."
- "Condoms must be used 100 percent of the time during all the years an unmarried individual is engaged in sexual activity to provide any reasonable hope of avoiding STD infection and potential disease from infected partners (except for herpes and HIV where less than 100 percent condom used can provide some risk reduction."
- "Even 100 percent condom use does not eliminate the risk of any STD including HIV."
- "Condoms slip or break on average 1.6 percent to 3.6 percent of the time even when used 100 percent of the time, potentially exposing sexual partners to STD infection." [34, 35, 46,72]

- "Protection' is the term often applied to condom use. This can be misleading because condoms only reduce the risk of infection. They do not 'protect' 100 percent of the time from any STD."
- "Condoms do not prevent the transmission of STDs from lesions outside the areas covered by, or 'protected' by, condoms." [72]
- "All studies of condom use are done for a limited period of time—from a few of sex to two or three years of activity. Single individuals who are sexually active usually continue sexual activity year after year. With an increasing number of sexual partners and sex acts comes an increasing risk of STD infection, even with 100 percent condom use." (See discussion in the section 'The Impact of Cumulative Effectiveness.')
- "One hundred percent use of condoms for many years is so uncommon that it is almost a purely theoretical concept except for very few, very meticulous individuals. Even among adults who knew that their partner had HIV, only 56 percent used condoms every time (and the median follow up was only 24 months)." [61]
- "There is no evidence of any risk reduction for sexual transmission of human papillomavirus infection (HPV) even with 100 percent condom use. There is some evidence that condom use 'might afford some reduction in risk of HPV associated disease including genital warts in men and cervical neoplasia in women.' Neoplasia means cervical precancer or cervical cancer." [72] (The scientific explanation for this phenomenon is beyond the scope of this paper.)
- "Current evidence does not show that Trichomonas vaginalis sexual transmission is reduced even with 100 percent condom use."
- "Syphilis transmission is reduced by 29 percent to 50 percent with 100 percent condom use. Although the data about syphilis transmission is limited, current data show that even with 100 percent condom use, there remains a 50 percent to 71 percent relative risk of syphilis infection." [1,9] (See the definition of relative risk in the section 'Scientific Language and the Discussion of Condom Effectiveness.')
- "Gonorrhea transmission is reduced by approximately 50 percent with 100 percent condom use. Although the data about chlamydia transmission is limited, current evidence shows that even with 100 percent condom use, there remains a 50 percent relative risk of gonorrhea infection." [1, 9, 72]

- "Chlamydia transmission is reduced by approximately 50 percent with 100 percent condom use. Although the data about chlamydia transmission is limited, current evidence shows that even with 100 percent condom use, there remains a 50 percent relative risk of chlamydia infection." [1, 9]
- "Genital herpes sexual transmission: A recent study showed that with 25 percent or more condom use, there was risk reduction for females but not for males. [70] Expanded data by the same author, as yet unpublished but presented at a national conference, show risk reduction of approximately 40 percent for both males and females when condoms were used for 65 percent or more of sex acts. Although the data about herpes transmission is limited, current evidence shows that even with condom use there remains a 60 percent relative risk of herpes infection. [69]
- "HIV sexual transmission is reduced by approximately 85 percent with 100 percent condom use, leaving approximately 15 percent relative risk—even with 100 percent condom use. [26,72] Inconsistent condom use affords significantly less risk reduction. As discussed later in this monograph, 85 percent risk reduction rates were found in an ideal situation for condoms reducing the risk of HIV transmission."
- "For the approximately twenty other STDs, not enough data exist to say whether or not condoms offer any risk reduction from sexual transmission."
- "Approximately 25 percent of adolescents report alcohol or drug use during their most recent sexual behavior, compromising their ability to use condoms correctly or at all." [23]
- "There are certain groups that are more susceptible to some STDs. These groups include those already infected with an STD. For example, the presence of another STD, particularly an ulcerative disease can significantly increase the risk of acquiring (or transmitting) HIV if an individual is exposed to a sexual partner who is HIV positive." [30, 38]
- "Females are more susceptible to many STDs than are males because they have a larger surface susceptible to infection (the lining of the vagina) than males (the lining of the urethra). Mucous membranes provide an easier route of entry for most STDs than intact skin. In addition, adolescent females are at higher risk of certain STDs than are adult women, due to anatomical differences of the uterine cervix associated with age. [30] These factors decrease condom effectiveness due

to the increased susceptibility of the individual. In addition, women suffer more of the severe complications of STDs than men do (e.g., cervical cancer, infertility)."

• "Most people infected with an STD do not know it. For example, a study of adolescent females who had one or more of six STDs studied (genital herpes, chlamydia, gonorrhea, syphilis, hepatitis B, trichomoniasis) showed that 87 percent had no symptoms. [13] Individuals and their partners who do not think they have an STD may not be highly motivated to use condoms consistently."

## "Scientific Language and the Discussion of Condom Effectiveness"

"Perhaps the most practical example of this language confusion comes directly from the information printed on condom packaging materials. For example, on the back of a <u>Durex</u> condom box purchased in 2002 [29] are three successive statements which read:"

- 1) "1<sup>st</sup> paragraph: '<u>Durex</u> High Sensation Condoms set you free to enjoy the pleasure of sex while being confident that *you're protected*."" (emphasis added)
- 2) "2<sup>nd</sup> paragraph: 'If used properly, <u>Durex</u> latex condoms *will help reduce the risk* of unwanted pregnancies and catching or spreading HIV infection (AIDS) and many other sexually transmitted diseases."' (emphasis added)
- 3) "3<sup>rd</sup> paragraph: 'No method of contraception can provide 100% protection against pregnancy or HIV (AIDS) and STDs." (emphasis added)

"Anyone who purchases these condoms—who is interested in complete and accurate information about condoms—would be faced with the following questions:"

- "Do these statements mean condoms, although not 100 percent effective, are almost 100 percent effective in 'preventing' disease?"
- "Do these statements mean all STDs are the same and condom 'protection' is the same for all diseases?"
- "Do these statements mean that 'protection' is provided even if condoms are not used every time?"
- "Does 'protected' mean I will not get a disease?"

"The answer to each of these questions is 'No."

#### "Risk and Relative Risk"

"What does risk mean? Scientifically speaking, risk is the likelihood that an event will happen. When talking about STDs, the event is an infection with an STD."

Studies of condom effectiveness often attempt to calculate not just 'risk' but 'relative risk.' For example, simply calculating risk would say that if 6 out of 100 people having an operation become infected then there is an infection rate of 6/100 or /06. 'Relative risk' (and we use this term multiple times in this report) is more complicated. The best way to explain it is with actual statistics:"

- "If a person not infected with HIV has intercourse for a year with a person with HIV without using condoms at all, they have approximately a 7 percent 'risk' in one year of becoming infected with HIV."
- "If that infected person or their partner uses condoms 100 percent of the time for that year, they only haven an approximate 1 percent 'risk' of becoming infected. Therefore, condoms reduce the risk of HIV infection approximately 85 percent for that year. (1 divided by 7 = .14)"
- "Even with 100 percent condom use the uninfected individual still has a 14 percent chance of infection relative to no use of condoms (1 percent relative to 7 percent) or a 'relative risk' of infection of 14 percent."

"This does not mean that a person using condoms 100 percent of the time has a 14 percent risk of infection. They have a 14 percent risk relative to what the risk would have been with no condoms (1 percent vs. 7 percent or 14 percent 'relative risk' of infection). In other words, condoms provide a 'relative risk' reduction of approximately 85 percent for HIV."

"(The 85 percent risk reduction with 100 percent consistent condom use represent the ideal situation where the uninfected partner know his or her partner is infected. This scenario excludes sexual intercourse with a partner who has just become infected, when the viral load and infectivity is higher and where condoms would be expected to be less forgiving if they were not used consistently or correctly, or if slippage or breakage were to occur. In such cases, one might expect to find higher condom failure rates.)"

## "The Sexually Transmitted Disease Epidemic"

"There is one fact driving the creation of this monograph—one fact that makes the question of condom effectiveness an urgent one. We are facing an epidemic of sexually transmitted diseases."

"An epidemic is defined as a problem 'occurring suddenly in numbers clearly in excess of normal expectancy, said especially of infectious diseases but applied to any disease, injury, or other health related event occurring in such outbreaks.' [28] The United States is experiencing an epidemic of sexually transmitted diseases. The number of people in this country infected with diseases is far in excess of normal expectations and much higher than just a few decades ago." [30]

"In the 1960's there were two STDs of major concern—syphilis and gonorrhea—both curable with penicillin. There has been a change in the nature of the STD problem."

"Today, according to the Institute of Medicine, there are more than 25 STDs, many of which are viral with no cure. [30] It is estimated that over 15 million new sexually transmitted infections occur every year in the United States. [72] One-fourth of these new infections occur in teens, and two-thirds occur in individuals less than 25 years of age." [30]

"There are approximately 70 million current STD infections in the United States. [15] The most common of these is genital herpes, which alone infects over 20 percent of Americans age 12 or older. [32] A recent study reported that an estimated 7.9 percent of 18 to 35 year-old residents of Baltimore, MD, have untreated gonorrhea or chlamydia infections, or both. [66] Another large study showed that 50 percent of sexually active women ages 18-22 were infected with human papillomavirus, the virus that causes over 93 percent of cervical cancer. [55]

# "Chlamydia/Gonorrhea:"

"Chlamydia infects up to 5 to 10 percent of sexually active adolescents. It is the most common non-viral STD. Up to 85 percent of infected women have no symptoms. In approximately 20 to 40 percent of women who are untreated, the infection will progress into their upper genital tract and can damage their fallopian tubes, causing infertility and ectopic pregnancies. [30] Up to one-third of in vitro fertilization (IVF) treatment cycles where the woman is infertile, are necessary because of past STD infection (usually chlamydia and occasionally gonorrhea). [18] Chlamydia and

gonorrhea both can cause pelvic inflammatory disease which can damage a woman's fallopian tubes."

## "Human papillomavirus:"

"Human papillomavirus (HPV) is the most common viral STD. A recent major study that included sexually active 18-to-22 year old women found that 50 percent were infected with HPV. [55] Approximately 1 percent of these women will experience genital warts and 14 percent will experience cervical abnormalities. [42] Genital warts can be very difficult to eradicate."

"HPV is the cause of almost all cervical dysplasia (precancerous change of the cervix) and of 93 percent of all cervical cancer. [52] An estimated 4800 deaths were caused by cervical cancer in the United States in 1999, as compared to an estimated 4,063 female deaths due to AIDS that same year." [5, 19]

## "Genital herpes:"

"Genital herpes infects 20 percent of Americans age 12 and older, and specifically for African Americans, that figure jumps to 45.9 percent. Additionally, from 1976 to 1994, there was an increase of over 450 percent in genital herpes among white adolescents. [32] Once an individual is infected with herpes, he or she is infected for life. There is no cure. Herpes outbreaks can occur at very inconvenient and upsetting times—under stress, at the time of anticipated intercourse, and during the delivery of a baby (which occasionally causes the newborn to be infected if delivery is vaginal). Also, an individual with genital herpes faces an increased risk of becoming infected with human immunodeficiency virus (HIV) from a sexual partner who is infected with HIV." [30, 72]

#### "HIV/AIDS:"

"HIV/AIDS has caused the deaths of almost 500,000 Americans since the epidemic began. [72] AIDS has no cure and while many HIV-infected people are living longer with modern drug therapy, it is still considered a fatal disease. Most people who are HIV-infected will die of AIDS unless they die of some other cause first. There is no cure or vaccine on the immediate horizon. The possibility of transmitting a fatal disease to a sexual partner should make any HIV-infected individual seriously consider whether or not he or she should be involved in any sexual activity that would put a partner to risk."

# "Hepatitis B:"

"It is estimated that approximately 78,000 individuals are newly infected with Hepatitis B in the United States each year. [20] It is also estimated that there are between one million and 1.25 million carriers of Hepatitis B. [20] This occurs because from 2 to 10 percent of individuals with a new Hepatitis B infection are not able to rid themselves of the acute infection. These persons with what is then called 'chronic Hepatitis B' usually have no symptoms until they develop liver problems, problems that are very common in this group. Fifteen to 25 percent may die prematurely from either cirrhosis or liver cancer. [20] Approximately 5,000 Americans die annually from these conditions."

"Individuals who are chronic carriers of Hepatitis B can transmit the disease through sexual contact or bodily fluids. Approximately 50 percent of new Hepatitis B infection result from sexual contact." [20]

## "Hepatitis C:"

"An estimated four million individuals in the United States are currently infected with Hepatitis C. [21] Approximately 20 percent of Hepatitis C is sexually transmitted. [4] (Oddly, in long-term monogamous couples in which one partner is infected with Hepatitis C this does not usually happen. It most often occurs when an individual has had multiple partners."

"Hepatitis C infection is the most common cause of liver cancer in the United States. It also causes chronic hepatitis. Hepatitis C causes the deaths of 8,000 to 10,000 Americans per year." [21]

# (See Table 1-pg. 42)

# "Asymptomatic Disease"

"Individuals with sexually transmitted diseases are often unaware that they are infected. For example, one large study found that approximately 90 percent of individuals with herpes simplex virus type 2 infections were not aware they were infected. [32] Up to 85 percent of women infected with Chlamydia trachomatis have no recognizable symptoms. [30] A study of adolescent females who had one or more of six STDs (genital herpes, chlamydia, gonorrhea, syphilis, hepatitis B, trichomoniasis) showed that 87 percent had no symptoms." [13]

#### "The Current Public Health Model And Condoms"

"An unmarried individual who is sexually active has no defense against most STDs other than the condom. There is no other means of risk reduction except for the Hepatitis A and B vaccines. It was once thought that spermicides (nonoxynol-9) might reduce the risk of STD infections. A recent article showed that there was no risk reduction for gonorrhea or chlamydia with the used of nonoxynol-9. [58] It has now been shown that contrary to previous reports, nonoxynol-9 may actually increase the risk of HIV infection by causing vaginal irritation."

"Marriage, on the other hand, is the environmentally generally safe from STD infection. Let us explain. An increasing number of sexual partners is one of the greatest risks, if not the greatest, for acquiring STD infection for most individuals. Individuals who are not married and are sexually active generally have an increasing number of sexual partners. This was shown in

a study by the University of Chicago, the largest study ever conducted regarding sexual practices in America. It is commonly referred to as the 'Sex in America' study. The study also showed that, contrary to popular assumption, very few individuals in intact marriages have intercourse with anyone other than their marriage partner. Therefore, marriage is the environment where sexually active individuals are least likely to be exposed to STDs." [50]

#### "Correct Condom Use"

"A study of condom use in sexually active male college students revealed that 33 percent of consistent condom used had, within the previous month, potentially been exposed to the risk of contracting an STD or impregnating their partners due to condom breakage or slippage, or incorrect use." [71]

# "New Studies On Condom Effectiveness Since The Nih Report"

"Condoms and STDs in Rakai, Uganda: A longitudinal study was conducted to assess the effectiveness of condom use for reducing the risk of a number of STDs among sexually active 15 to 59 year-olds in the city of Rakia, Uganda. [1] The sexual behavior patterns (including condom use) of over 17,000 individuals were assessed, and the participants were tested for a number of STDs every 10 months for 30 months. Findings of the study include:"

• "Only 4.4 percent of study participants always used condoms (consistent use); 16.5 percent used condoms irregularly and the remainder did not use condoms at

- all. Therefore, the findings in this study concerning consistent condom use apply only to this 4.4 percent of individuals."
- "After taking into account demographic information and sexual behavior patterns, always using condoms significantly reduced the risk of acquiring HIV infection by 63 percent (relative risk = .37). Inconsistent condom use did not reduce the risk of HIV infection (relative risk = .96)."
- "Consistent ('always') condom use reduced the risk of acquiring syphilis by 29 percent. Inconsistent condom use did not reduce the risk of acquiring syphilis."
- "Consistent condom used reduced the risk of acquiring gonorrhea of chlamydia by 50 percent. Inconsistent condom use did not reduce the risk of gonorrhea or chlamydia infection."
- "Consistent condom use did not significantly reduce the risk of acquiring trichomonas vaginalis infection; neither did inconsistent use."

"Condoms and STDs among Kenyan Prostitutes:" A prospective study published in August 2001 examined the impact of hormonal contraception on STD risk in 948 Kenyan prostitutes who underwent monthly STD screening for an average of approximately 14 months. [9] The impact of condom use was also assessed. After taking into account other factors that could potentially influence STD risk, the study found."

- "63 percent of study participants used condoms consistently."
- "Consistent condom used reduced the risk of acquiring gonorrhea and chlamydia, each by 40 percent."
- "Consistent condom used reduced the risk of genital ulcer disease (presumably due primarily to syphilis and chancroid) by 50 percent."
- "Consistent condom use also reduced the risk of pelvic inflammatory disease by 40 percent."

#### "Conclusion: What The Data Tell Us About Condom Effectiveness"

"It is clear that condom use does not 'protect' or ensure optimal sexual health for individuals."

"Condoms, even when used 100 percent of the time (for genital herpes and HIV, less than 100 percent used can provide some risk reduction) still allow a relative risk of infection of approximately 50 percent or more for most STDs. An unmarried individual choosing to have sex must understand this about condoms."

## "NOTES:"

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Table 1: "The Eight Diseases Considered by the NIH panel are summarized below

<u>Infection</u>	<b>Causative agent</b>	<b>Mode of transmission</b>	<b>Infectivity</b>	<b>Duration</b>	<b>Symptoms</b>	Complications	<b>Treatment</b>
Chlamydial infection	Chlamydia trachmatis (a bacterium)	Contact with infected genital fluids	High	Months	Discharge from genitals; burning on urination	Pelvic Inflammatory Disease (PID)	Antibiotics
Gonorrheal infection	Neisseria gonorrhoeae (a bacterium)	Contact with infected genital fluids	High	Months	Discharge from genitals; burning on urination	Pelvic Inflammatory Disease (PID)	Antibiotics
Syphilis	Treponema pallidum (a bacterium)	Contact with infected skin lesions	Moderate	Months to years	Genital ulcer (1°); rash, fever, lymph nodes (2°)		Antibiotics
Chancroid	Haemophilus ducreyi (a bacterium)	Contact with infected skin lesions	Very high	Weeks	Genital ulcer and swollen lymph nodes	Scarring with healing	Antibiotics
Trichomoniasis	Trichomonas vaginalis (a protozoa)	Contact with infected genital fluids	Moderate	Years	Discharge from vagina; burning on urination	Preterm labor if pregnant and infected	Antibiotics
Genital Herpes	Herpes simplex virus HSV- 1/HSV-2 (a virus)	Contact with infected skin or skin lesions	Low	Life of host Periodic recurrences	Genital ulcers	Neonatal transmission	Antivirals decrease # or duration of outbreaks

							Rx for
				Months for		Cervical cancer	warts;
		Contact with infected		some strains;	Genital warts;	from infection	surgery for
Genital HPV	Human papilloma	skin, skin lesions or		longer for other	abnormal PAP	by certain	PAP
infection	virus (a virus)	genital fluids	High	strains	smears	strains	abnormal
	Human			Life of host;			Antivirals
	immunodeficiency			Progressive	Signs of	AIDS results	slow
	virus HIV (a	Contact with infected		destruction of	immune system	from chronic	progression
HIV/AIDS	virus)	genital or body fluids	Low	immune system	failure	HIV infection	to AIDS

# "NATIONAL PHYSICIANS CENTER for FAMILY RESOURCES"

# "Human Papillomavirus (HPV)--National Physicians Center"

"We commend Dr. David C. Sopher for his willingness to state some very important facts regarding Human Papillomavirus infection. He accurately articulated that HPV is common, highly contagious, and spread through skin-to-skin contact as well as through sexual contact. He also acknowledges that 'an estimated 20 million people, including about one-third of all sexually active teenagers, have HPV.' More specifically, we commend him for stating that 'if you have more than three or four sexual partners, it's virtually impossible to avoid getting infected.' Dr. Sopher also states that individuals can still be contagious even when warts are not visible. All this information is important and accurate."

"However, we were disappointed that Dr. Sopher chose to make light of the potential clinical risks associated with HPV infection, especially for adolescents. He states the warts are 'generally nothing more than a nuisance', and that the 'biggest toll HPV takes is probably psychological.' He does acknowledge that, 'in rare cases, these strains can cause cancer of the cervix, vulva, or vagina.""

"Unfortunately for our adolescents today, that is not the entire truth. We do know that over 90% of all cervical cancers are associated with HPV infections, and the rates of cervical cancers in women younger than 50 years of age are increasing dramatically. We also know that cancerous lesions of the cervix take at least 10 to 15 years to develop. Since there are over 80 to 100 strains of HPV, each with a different virulence and cancer causing capability, the natural history of the virus is difficult to study. One longitudinal study of adolescents did demonstrate that 90% of low risk type HPV infections were spontaneously eradicated over a 30 month period of time, while only 70% of high-risk type HPV infections were eradicated. However, for those teens who have persistent infection, there is a 14 fold increased risk for development of precancerous cervical lesions."

"At this point in time, it is not known which factors contribute to persistence of HPV infection—BUT we do know that adolescents are at increased risk because of the cellular changes which are taking place on the cervix during puberty."

1. "La Vecchia, et al, showed that young age at first intercourse was 'strongly associated with a risk for invasive cancer.' Women who reported having had their first intercourse before age 18 were at a <u>five-fold</u> increased risk as compared with women who waited until after age 22 years. (Cancer 1986; 58: 935-941)."

- 2. "Wright and Roipelle demonstrated that for girls who had their first intercourse between 10 and 14 years of age, the mean age for developing HSIL (high grade squamous intra-epithelial lesions) was 25 years. In comparison, women who began sexual involvement after age 20 years did not develop HSIL until a mean age of 37 years. (Am J Obtet Gynecology 1984; 149: 8240830)."
- 3. "In the study by Andersson-Ellstrom, et al, NONE of the sexually inexperienced girls was found to be seropositive for HPV infection. (Sexually Transmitted Diseases 1996;23: 234-238)."

"To summarize, HPV infection is a serious public health concern because the virus is:"

- 1. "highly contagious, being transmitted through close skin-to-skin contact as well as sexual intercourse."
- 2. "prevalent in our society, and present in most individuals who have had 3-4 sexual partners."
- 3. "caused by numerous strains, the most serious of which do not carry symptoms (Only 1-2% of strains cause genital warts, the remainder of infected individuals have no symptoms)."
- 4. "difficult to diagnose in the asymptomatic female as there is not one easy and accurate test to check for HPV infection."
- 5. "difficult to diagnose in the asymptomatic male who is most likely to transmit the infection but for whom there is no treatment."
- 6. the cause of over 90% of cervical cancers the rates of which are increasing, especially in women less than 50 years of age."
- 7. "implicated in the development of cancers of the vagina, vulva, anus, and male urethra and penis."
- 8. "most often diagnosed in women by cellular changes in the Pap smear which is usually done just once a year (Adolescents again are at an increased risk, since sexually active female teens do not always have annual Pap smears.)"
- 9. "often undiagnosed on Pap smear with some studies demonstrating a 20-40% false negative rate."

- 10. "variable in its infectivity, with some studies demonstrating 70-90% becoming infection free after 1-2 years."
- 11. "persistent in some women, causing cellular changed on the cervix which represent precancerous lesions."
- 12."a more serious infection in adolescent females who are more likely to have a persistent infection, with a subsequently higher rate of precancerous and cancerous lesions."
- 13. "often a cause of latent disease with clinical disease not being evident for 10-15 years after initial infection."
- 14. "rarely able to infect a newborn infant."
- 15."not currently monitored by the Centers for Disease Control and Prevention."
- 16. "preventable through sexual abstinence."

"In addition, the treatment of genital warts is often not as simple and easy as Dr. Sopher makes it sound. Topical medications such as Podofilox and Imiquimod must be applied repeatedly. Podophyllin must be used weekly for up to six weeks, while Podofilox is used twice daily for three consecutive days, and then repeated weekly for up to 4 weeks. Both topical treatments have a cure rate of approximately 40% with a recurrence rate of 20-30%. In addition, patients often experience adverse reactions of burning and itching. Other treatments, such as Trichloroacetic acid (TCA) and cryotherapy can cause ulcerations and erosions, as well as burning and pain. Many of the more expensive treatments, such as laser therapy, may not be available to the patient or may not be covered by the patient's insurance."
"Sincerely,"

"R. Bob Mullins, MD Family Medicine, Valley, Alabama The National Physicians Center for Family Resources

Jane E. Anderson, MD Pediatrics, San Francisco, California California Physicians Resource Council Hal Wallis, MD
Obstetrics-Gynecology, Dallas, TX
Consortium of State Physicians
Resource Councils

Glen C. Griffin, MD Pediatrics, Mapleton, Utah President, American Family League"

("National Physicians Center for Family Resources," www.physicianscenter.org/positions\_hpv.asp)

# "AIDS FIGHT CALLED KEY IN STOPPING POVERTY"

"An estimated 40 million people are infected with the virus that causes the deadly disease, 70 percent of them in sub-Saharan Africa."

(Nessman, Ravi, "AIDS Fight Called Key in Stopping Poverty," Philadelphia Inquirer, August 30, 2002)

# "SCIENTIFIC REVIEW PANEL CONFIRMS CONDOMS ARE EFFECTIVE AGAINST HIV/AIDS, BUT EPIDEMIOLOGICAL STUDIES ARE INSUFFICIENT FOR OTHER STD'S"

"For HPV, the panel found there was no evidence that condom use reduced the risk of HPV infection."

"STDs, including HIV infection, affect more than 65 million people in the United States."

"Most STDs increase the likelihood of transmitting HIV infection at least 2 to 5-fold."

("Scientific Review Panel Confirms Condoms Are Effective Against HIV/AIDS, But Epidemiological Studies Are Insufficient for Other STDs," HHS News, www.hhs.gov/news/press/2001pres/20010720.html)

# "SYMPTOMLESS STD'S GO UNTREATED"

"Nearly two-thirds of all people with chlamydia or gonorrhea—the top two reported sexually transmitted diseases—go untreated because they have no symptoms, suggests a study out today."

"Left untreated, chlamydia and gonorrhea can facilitate the spread of HIV and cause pelvic inflammatory disease in women and infertility in both sexes. But they are easily cured with antibiotics."

"Researchers surveyed and obtained urine specimens from 579 Baltimore adults ages 18-35. Their households were selected to represent all Baltimore city residents."

"Using a relatively new DNA-based test that can detect minute quantities of bacteria in urine, the scientists found that about 5.3% of their subjects had an untreated gonorrhea infection and 3% had an untreated chlamydia infection."

"Fewer than 5% of those testing positive reported having symptoms of infection-namely, painful urination or a discharge-within the previous six months."

"The scientists, in the Journal of the American Medical Association, estimate the number of untreated cases of gonorrhea or chlamydia infection in Baltimore substantially exceeds the number of infections diagnosed and reported to the city health department."

"'Many of us doubt that Baltimore is entirely unique.' says lead author Charles Turner, a professor of applied social research at the City University of New York."

"In fact, in a study reported last November, scientists using the same sensitive test as Turner's team found that 5.3% of male U.S. Army recruits had chlamydia infections, but only 14% of them reported symptoms. Only 0.6% of the recruits tested positive for gonorrhea, but 40% of them reported symptoms. (Infected men are far more likely to have gonorrhea symptoms than infected women.)"

"Perhaps the test detected dead bacteria from old untreated infections that were no longer contagious or capable of causing symptoms or complications,' Turner says. A larger study is underway to answer that question."

"Johns Hopkins University infectious-disease specialist Jonathan Zenilman, senior author of the JAMA report, says he suspects that the test picked up active infections because dead bacteria quickly clear out of the genital tract."

"The authors recommend routinely screening young adults and sexually active teens for chlamydia and gonorrhea, including those formerly thought to be at low risk."

(Rita Rubin, "Symptomless STDs Go Untreated" USA Today, February 13, 2002, p. 16B)

#### "A GENERATION OF THE PILL"

"Every year, 12 million to 15 million Americans are infected with a sexually transmitted disease. To date, 65 million of us live with an STD that cannot be cured."

(Ann Wilson, "A Generation of the Pill". The Orange County Register, October 21, 2001, p1)

#### "ANTI-FAMILY AGENDA BECOMES LAW IN CALIFORNIA"

#### "AB 916: Sex Education (Vetoed)"

"Apparently believing that infections sound less harmful, this bill redefines the term 'sexually transmitted diseases' to 'sexually transmitted infections.' It also expressly forbids teachers to support a 'particular sexual practice,' which sends the clear message to teachers that they must refrain from suggesting to students that sexual abstinence and monogamy are not just health issues, but moral issues as well."

("Anti-Family Agenda	Becomes Law in Californi	a'')
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#### "SINS OF THE FATHER"

"The scope of AIDS in sub-Saharan Africa boggles the mind. In 1998, 2.2 million people in the region died from AIDS. It's estimated that between 12 and 25 percent of all people between the ages of 15 and 49 are HIV-positive."

"Even sadder is the impact of the epidemic on what are known as 'AIDS orphans.' An estimated 13 million African children have lost both parents to AIDS. That's nearly the population of metropolitan Los Angeles! And that number is expected to double or triple by 2010."

("Sins of the Father".	, Breakpoint staff, D	December 10, 20	001, <u>ww</u>	w.breakpoint.com)

#### "CHLAMYDIA: THE UNSEEN EPIDEMIC"

"Untreated, the sexually transmitted disease (STD) known as chlamydia can leave a woman unable to ever have children. Now, a British study is reporting that 70 percent of a test group of sexually active young women had suffered reproductive damage from chlamydia and didn't even know they had the disease."

"The evidence is increasing that for some STDs, such as chlamydia and HPV (human papilloma virus), the use of a condom is virtually insignificant as far as even reducing the risk, let alone eliminating it,' Cullen said."

(Terr	y Phillips,	"Chlamydia:	The Unseen	Epidemic",	Family N	lews in Focu	ıs, October 26	5,
2001,	http://ww	w.family.org/	cforum/fnif/	news/A0018	8279.html)	)		

#### "STD AWARENESS"

"Currently about one in every four sexually active teenagers will contract a sexually transmitted disease—but in a recent survey only 28 percent of teenagers knew of this risk. Another 28 percent thought the risk was 1 in 40, 22 percent thought the risk was 1 in 400, and 19 percent thought the risk was 1 in 4,000."

Source: The Kaiser Family Foundation, quoted in USA Today ("STD Awareness", The Home Page: Helpful Tips and Faith Development Ideas for Parents of Teenagers-Supplement to Group Magazine, March/April 2002)

#### "WHAT ABOUT HIV?"

"An estimated 25% of new HIV infections are found in people under age 22. An estimated 50% of all new HIV infections are occurring among people under 25, with the majority being infected sexually. HIV has already taken the lives of more than 375,000 Americans. By the way of comparison, America lost approximately 400,000 people in World War II."

("What about HIV?" Centers for Disease Control and Prevention. HIV Prevention Strategic Plan Through 2005, September 2000)

#### "HOW MANY PEOPLE ARE INFECTED WITH AN STD?"

"It is estimated that there are more than 68 million current STD infections among Americans. Each year, 15.3 million new STD infections occur, including over 3 million infections in teens. The two most common STDs, herpes and human papilloma virus (HPV), account for 65 of the 68 million current infections."

("How Many People are infected with an STD?" American Social Health Association. *Sexually Transmitted Disease in America: How Many Cases and at What Cost?* Menlo Park, Calif.: Kaiser Family Foundation; 1998)

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# "WHAT ARE SOME RESULTS OF TEENS' INCREASED SUSCEPTIBILITY TO STD'S?"

"Compared to older women, teen girls have a higher rate of chlamydia, a disease that is a common cause of pelvic inflammatory disease (PID), which can lead to infertility. At least 10 percent of all sexually active teens are infected with this disease. Among women, gonorrhea rates are highest among teen girls ages 15-19."

("What Are Some Results of Teens' Increased Susceptibility to STDs?" Division of STD Prevention. *Sexually Transmitted Disease Surveillance 1999*. Department of Health and Human Services, Atlanta: Center for Disease Control and Prevention (CDC), September 2000.)

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#### "GONORRHEA CONTINUES RISE IN MAJOR CITIES"

"In five of the top 20 1999 cities - Kansas City, MO.; Buffalo; Jacksonville; Detroit and Birmingham, Ala. - the gonorrhea rate rose by more than 20% in 2000, according to the CDC. Nashville, with a 34.6% increase over 1999, jumped into the top 20 list in 2000."

"In women, HPV-16 is associated with about half of all cervical cancer cases, and it's been linked to penile and anal cancer in men."

"Based on a representative ample of 83 men who have sex with men, the CDC concluded that 38% of gay or bisexual men in the USA are infected with HPV-16. That's nearly five times higher than the prevalence in heterosexual men and twice that in women."

(Rita Rubin, "Gonorrhea Continues Rise in Major Cities", USA Today, March 6, 2002, p6D)

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#### "GENITAL HERPES EPIDEMIC GROWS"

"Today, roughly one in five Americans over age 12—or about 45 million people—is thought to have genital herpes, although most are unaware they have it. Since the '70s, diagnoses of genital herpes have increased 30%."

(Kathleen Doheny, "Genital Herpes Epidemic Grows", Special to the Times, Section S, Monday, January 19, 1998)

#### "GENITAL HERPES INFECTIONS UP 30% SINCE LATE '70'S"

"Herpes is more prevalent among women (25.6%) than men (17.8%). It is most common in black (45.9%), followed by Mexican Americans (22.3%) and whites (17.6%)"

"The incidence among white teens has nearly quintupled since the previous survey in 1976-80, for .96% to 4.5%."

"The survey found herpes rates were highest among those who have used cocaine and those with multiple sexual partners throughout life."

"Herpes in not curable, although there are treatments available to ease symptoms and minimize the likelihood of transmission."

(Anita Manning, "Genital Herpes Infections Up 30% Since Late '70s", USA Today, p.1A, October 16, 1997)

### "MORE HOPE?"

"The number of new cases of HIV infection is declining in the population with the greatest numbers of infections: men who have sex with other men. However, this is the only group with declining numbers. All others continue to grow, some at the fastest rates in the history of the epidemic."

("More Hope?" Staying Current: Straight Talk About AIDS/STDs, Spring 1997, The Newsletter of AIDS Information Ministries, A program of Teen Choices, Inc.)

#### "VIRGINS DO GET STD'S!"

"A new study published in the November 1996 issue of American Journal of Public Health found that 47% of high school age teens (grades 9 to 12) had never experienced sexual intercourse (were virgins). However, 29% of those had 'masturbated a partner' and 31% had 'been masturbated by a partner' in the prior year!"

"In other words, almost a third of those who had not experienced actual sexual intercourse had been involved in very intimate sexual activity that involved contact with the sexual organs of another person. Obviously, these activities carry with them the risk of exposure to sexual fluids and contact with lesions, warts, etc. that can transmit STDs."

"Teens (and adults) must understand that virgins (if defined as never having experienced sexual intercourse) are at real risk of infection with any of a number of STDs. To prevent infection requires saving ALL sexual contact for marriage. Thus, marrying a 'virgin' does not eliminate the need for pre-marital testing for infection with sexually transmitted diseases!"

("Virgins Do Get STDs," Staying Current: Straight Talk About AIDS/STDs, Spring 1997, The Newsletter of AIDS Information Ministries, A program of Teen Choices, Inc., p3)

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#### "AIDS STATISTICAL UPDATE"

#### A"IDS Statistical Update thru December 31, 1996"

"Reported AIDS cases 581,429 (67,943 in 1996)"

"13 to 19 year olds 2,754"

"20 to 29 year olds 102,904"

"Reported AIDS Deaths 362,004 (42,155 in 1996)"

"The Concern is based on the fact that HIV is spreading fastest among blacks in America. In fact, in 1996 (for the first time) the number of new AIDS cases in blacks (41% of the total) exceeded those diagnosed in whites (38%) in spite of the fact that blacks account for a far smaller portion of the national population."

("Shameful Chapter," Staying Current: Straight Talk About AIDS/STDs, Spring 1997, The Newsletter of AIDS Information Ministries, A program of Teen Choices, Inc., p3)

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#### "CHLAMYDIA SCREENING"

"In 1996, 382,388 cases were reported in the US, far out pacing gonorrhea, the next most commonly reported at 298,462. However, as with so many other STDs, reported chlamydia cases are only a small portion of the total number estimated by the CDC to exceed 4 million!"

"Untreated infections in the US are estimated to cost us more than \$2 billion each year."

("Chlamydia Screening," Staying Current: Straight Talk About AIDS/STDs, Spring 1997, The Newsletter of AIDS Information Ministries, A program of Teen Choices, Inc., p4)

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#### "WART MEDICINE"

"Highly contagious genital warts infect about four million Americans with some 750,000 new cases each year. There is no cure."

"Since warts can appear anywhere in the genital area, not just those areas covered by condoms, this is one of the STDs from which condoms provide very little, if any protection."

("Wart Medicine," Staying Current: Straight Talk About AIDS/STDs, Spring 1997, The Newsletter of AIDS Information Ministries, A program of Teen Choices, Inc., p4)

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#### "HIDDEN EPIDEMIC"

"The report ('the Hidden Epidemic: Confronting Sexually Transmitted Diseases') asserts that not only the public, but health professionals underestimate the scope, impact, and consequences of these diseases that account for 87% of all cases of the top ten reportable infectious diseases in this country."

"Fifty-six million Americans have been infected with an STD and 12 million are infected each year (3 million of them are teenagers). One in four sexually active teens is infected with an STD by age 20."

"Annually, STDs cost some \$10 billion (\$17 billion if we include HIV)."

("Hidden Epidemic," Staying Current: Straight Talk About AIDS/STDs, Spring 1997, The Newsletter of AIDS Information Ministries, A program of Teen Choices, Inc., p4)

#### "ARE YOU AT RISK?"

"Health experts estimate that 55 million Americans carry some type of sexually transmitted disease, many without even knowing it."

"Genital Herpes—About 31 million people are thought to be infected with genital herpes and some 500,000 new cases were reported last year."

#### "Know the Facts"

"MYTH: All persons with STDs have obvious symptoms."

<u>FACT:</u> Eighty percent don't even know they are infected."

"MYTH: Only people with visible or open sores are contagious."

<u>"FACT:</u> More than two-thirds of infections are spread by people with no identifiable symptoms."

"MYTH: No vaccine exists for any STD."

<u>"FACT:</u> There is one for Hepatitis B."

"MYTH: Vaginal infections are inconvenient but not dangerous."

<u>"FACT:</u> Infection can lead to infertility. In pregnant women infection can cause premature or low birth-weight babies."

"MYTH: My child is not at risk."

<u>"FACT:</u> By the time they are 19, 85 percent of teenagers have had sex and 25 percent of those have had an STD."

"MYTH: Washing for men and douching for women prevent STDs."

<u>"FACT:</u> Neither is effective. Douching may drive the bacteria deeper into the genital tract."

"MYTH: STDs are no worse than a bad cold."

Josh McDowell's personal notes on STD's

<u>"FACT:</u> One STD- AIDS- kills. Two cause cancer. Four can cause infertility in women. Why take the risk?"

(Earl Ubel, "Are you at risk?" From: Parade Magazine, September 15, 1996, pp 10,30)

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# "GENITAL HERPES RATES UP 5-FOLD IN WHITE TEENS SINCE 1970s"

"Despite the emphasis on safe sex to prevent AIDS, genital herpes has increased five-fold since the late 1970s among white teen-agers and doubled among whites in their 20s."

(Malcolm Ritter, "Genital Herpes Rates Up 5-fold in White Teens Since 1970s, The Grand Rapids Press, October 17,1997, pA5)

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#### "BOLDNESS IN AIDS MEASURES PURSUED"

"Saying the world is facing a 'runaway epidemic,' Dr. Peter Piot, head of the U.N. AIDS program, told the conference that 'it is time to embrace a new realism and a new urgency in our efforts' to overcome complacency about HIV, the virus that causes AIDS."

"'This epidemic is out of control at the very time when we know what to do, and what to do now,' Piot said in regard to Africa, where one in four adults is HIV infected."

"'Why is it, despite our efforts, that 16,000 people a day are still getting HIV when the infection is preventable?' he asked. 'It's a collective failure of the world.'"

(Lawrence K. Altman, "Boldness in AIDS Measures Pursued," The Denver Post, 1998)

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# "A RESPONSE TO MORBIDITY AND MORTALITY WEEKLY REPORT: 'UPDTAE: BARRIER PROTECTION AGAINST HIV AND OTHER SEXUALLY TRANSMITTED DISEASES" (AUGUST 6, 1993)

"A more complete review of the scientific data shows condom failure to range between 0% and 31%."

"A review of the meta-analysis, however, showed that condoms only reduced HIV transmission by 69%. The CDC may consider 69% 'substantial', but the resultant 31% failure in prevention means many HIV infections, all resulting in premature death."(1)

"Furthermore, the CDC Report states 'intact latex condoms provide a continuous mechanical barrier to HIV, HSV (herpes), hepatitis B virus (HBV), Chlamydia Trachomatis and Neiserria gonorrhea.' This statement is partially true, but misleading. Bacterial STDs cannot penetrate an intact condom, but these diseases as well as many viral diseases are often regional—the infectious agent is not just located at one place on the body—and may infect the entire genital area."

"Moreover, medial studies confirm that condoms do not offer much, if any, protection in the transmission of chlamydia (2) and human papillomavirus (3), two serious STDs with prevalence as high as 40% among sexually active teenagers. The epidemic rise in the rate of these two as well as many other STDs may well be a side effect of the encouragement of condom use."

"Further evidence of the failure of the condom to act as a mechanical barrier is found in a study by Dr. Carey at the FDA. (4) The CDC's reference to the Carey study, 'A recent laboratory study indicated that latex condoms are an effective mechanical barrier to fluid containing HIV-sized particles,' contrasts with the finding of the study. Actually 32% of normal intact condoms leaked enough HIV-sized particles to cause concern. The other 68% of the condoms only leaked a few viral sized particles. A 32% leakage rate of HIV cannot be considered an 'effective mechanical barrier.' Dr. Carey has responded that even though the condoms do leak HIV-sized particles, the concentration of the virus is so low that it is unlikely to cause infection. Exposure to any HIV particles puts an individual at risk, as it has not been determined how few particles are necessary to cause infection."

"The CDC, using 'one study' by Dr. Trussel reports an 0.8% slippage/breakage rate of condoms when used during vaginal intercourse. This extremely low rate conflicts with another study published at the same time by the same author. The second Trussel study (5) states '7.9% (of condoms) either broke during intercourse or withdrawal or slipped off during intercourse; none of these events were related to condom brand, past condom use or use of additional lubricant. Of the remaining condoms, 7.2% slipped off during withdrawal; slippage was not related to condom brand or past use of condoms, but was significantly higher when additional lubricant (such as spermicide) was used.' Contrast 0.8% to 15.1% slippage/breakage rate, and it is easy to understand the importance of using more than one study when making policies to protect people's lives. It would be more complete to consider the findings of both studies in making this important point."

"The female condom has a pregnancy failure rate between 11% and 26%, indicating it is possibly an even less effective contraceptive than the male condom."

#### "Footnotes"

- (1) "Weller, Susan, "A Meta-Analysis of Condom Effectiveness in Reducing Sexually Transmitted HIV," Social Science and Medicine, Vol. 36, No. 12, pp. 1635-1644,1992.
- (2) Samuels, Sandra, "Chlamydia: Epidemic Among America's Young", Medical Aspects of Human Sexuality, December, 1989)
- (3) Dervin, John, "Condoms Won't Prevent Transmission of Human Papillomavirus," Family Practice News, V22 (12), June 15, 1992
- (4) Carey, Ronald, et al. "Effectiveness of Latex Condoms As a Barrier to Human Immunodeficiency Virus-sized Particles Under Conditions of Simulated Use," Sexually Transmitted Diseases, Vol. 19, No. 4, July-August, 1992
- (5) Trussel, James, et al, "Condom Slippage and Breakage Rates," Family Planning Perspectives, Vol. 24, No 1, January/February, 1992"

(Medical	Institute	for Sexual	Health,	Sexual	Health	Update,	December	1993,	Volume	2,
Number 1	l)									

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#### "STDS"

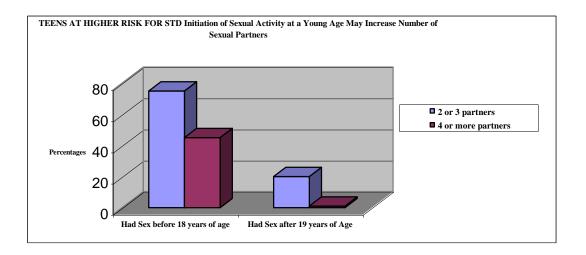
"A review of the most recent research on non-marital pregnancy and sexually transmitted diseases (STDs) reveals the following:"

- "About 1 million teens become pregnant each year. Of these pregnancies, about one-third end in abortion and about 72% of the babies born are out of wedlock."
- "More than 80% of single mothers under 18 years of age end up in poverty and reliant on welfare assistance."
- "STDs accounted for 87% of all cases among the top ten most frequently reported diseases in the US during 1995."
- "5 of the top 10 reportable infectious diseases in 1996 were STDs, including the top 4 (Chlamydia, gonorrhea, AIDS, and syphilis)."
- "At least 8 new STD pathogens have been identified since 1980, including HIV."
- "More than 20% of all Americans under age 65 are infected with an incurable viral STD."
- "Adolescents (10-19) and young adults (20-24) are the age groups at greatest risk for acquiring an STD."

- "12 million Americans are newly infected with an STD each year, including 3 million teens."
- "Approximately 2/3 of all persons who acquire STDs are under age 25."
- "Though teens make up only about 10% of the U.S. population, they contract 25% of the STDs annually."
- "About 1 in 4 sexually experienced teens acquire an STD each year."
- "More than 375,000 Americans have died from AIDS."
- "25% of all new HIV infections are found in people under age 22."
- "More teens have chlamydia, a disease that is a common cause of infertility in women, than any other age group. At least 10% of all sexually active teens are infected with this disease. Chlamydia is a common cause of pelvic inflammatory disease (PID)."
- "The risk of pelvic inflammatory disease (PID) is as much as 10 times greater for 15 year old females than for 24 year old females. PID can cause sterility."
- "Human papilloma virus (HPV) is an STD that causes genital warts. It also causes more than 90% of all cervical cancer and is associated with other genital/anal cancers (both male and female). Each year, more women in America die of cervical cancer (nearly 5,000) than die of AIDS-related diseases. Because HPV is transmitted by direct intimate (skin-to-skin) contact, condoms provide virtually no protection against HPV."
- "Since the late 1970s, the prevalence of genital herpes has increased by 30% and is now detectable in about 20% of all Americans over the age of 11. Rates have increased by 500% among white teens in the past decade. The prevalence of genital herpes is especially acute among blacks (45.9%). Every year, about \$10 billion is spent on major STDs (besides AIDS) and their preventable complications. STDs can cause serious, life-threatening complications including cancers, infertility, ectopic pregnancy, spontaneous abortions, stillbirth, low birth weight, neurological damage, and death."

("STDs", Medical Institute for Sexual Health, April 1998, www.medinstitute.org)

# "TEENS AT HIGHER RISK FOR STD DUE TO INCREASE NUMBER OF SEXUAL PARTNERS"



"This graph represents the results of a study conducted by the Centers for Disease Control published in January, 1991. In the study, when people were interviewed after their teenage years about their sexual activity while they were teens, it was found:"

- "If a teenager initiated intercourse before age 18, 75 percent had had 2 or more partners and 45 percent had had 4 or more."
- "If an individual postponed sexual activity until the age of 19 only 20 percent had had 2 or more partners, and 1 percent had 4 or more."

"(2 - Centers for Disease Control and Prevention, "Premarital Sexual Experience Among Adolescent Women--United States, 1970-1988," Morbidity and Mortality Weekly Report, January 1991; 39 (51&51): 929-932)"

(Medical Institute for Sexual Health, p86-Slide 56)

#### "CONDOMS: INEFFECTIVENESS"

#### "HPV"

• "The data on the use of barrier methods of contraception to prevent the spread of HPV is controversial, but does not support this as an effective method of prevention."\*

#### "INFERTILITY"

• "Spermicide use alone had no significant effect on risk for tubal infertility, whereas condom use alone decreased risk, but not to a significant extent."\*\*

\*NIH, 1996 \*\*JAMA, 1987

"Human papilloma virus infection is the most common viral sexually transmitted disease in the United States. We have also discussed the fact that HPV causes at least 93% of all cervical cancer and is also the cause of more than 93% of the truly precancerous growths on women's cervixes. It is important, therefore, to know if condoms give adequate protection against this most common and dangerous sexually transmitted disease. The answer is, 'No.' The National Institutes of Health Consensus Panel on HPV stated, 'The data on the use of barrier methods of contraception to prevent the spread of HPV is controversial but does not support this as an effective method of prevention."

"Dr. McIntyre-Seltman was one of the experts on a panel at a 1995 American Society of Colposcopy and Cervical Pathology course called, 'New Vulvar Diseases.' She made the statement, 'As far as condoms go, there's plenty of evidence to suggest that they don't do any good. Dr. Campion always reminds people that the penis rests most of the time on the scrotum, and so whatever is on one is on the other. During intercourse, the scrotum rests against the vulva. So condoms don't cover everything that needs to be covered.""

"Other studies do show that condoms give some protection against gonorrhea, but most of them indicate that it still leaves the risk of becoming infected by gonorrhea in the range of 40 - 60%."

(Medical Institute for Sexual Health, P. 134)

"CONDOMS & HIV/AIDS"				
Study	Condoms Used?	Reduced HIV Risk		
deVincenzi, 1994 & Saracco, 1993 (2-Year longitudinal Studies)	Yes (100% consistent use for two years)	90%		
Weller, 1993 (Meta-analysis of 11 studies)	Yes (But, study data included some inconsistent condom users.)	69%		
Guimaraes, 1995 (Lookback questionnaire study)	Yes (But, study data included some unprotected anal sex.)	57%		
"In these studies, at most 50% of couples were able to use condoms consistently				

'In these studies, at most 50% of couples were able to use condoms consistently (always) even though they knew their partner was HIV-infected."

#### "Footnotes for Chart:"

- "deVincenzi, I., "A Longitudinal Study of Human Immunodeficiency Virus Transmission by Heterosexual Partners," The New England Journal of Medicine, 1994; 331 (6): 341-346. Saracco, Alberto, et al., "Man-To-Woman Sexual Transmission of HIV: Longitudinal Study of 343 Steady Partners of Infected Men," Journal of Acquired Immune Deficiency Syndromes, 1993; 6(5): 497-502.
- 2. Weller, S.C., "A Meta-analysis of Condom Effectiveness in Reducing Sexually Transmitted HIV," Social Science Medicine, 1993; 36 (12): 1635-1644.
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"The only way to avoid acquiring HIV through sexual contact is to abstain from sexual involvement or to restrict sexual activity to a mutually faithful, monogamous, life-long relationship with a similarly uninfected partner. In America and around the world, in most cultures for all of recorded history, this relationship is marriage.

(Medical Institute f	for Sexual Health, p	pp133-137)	

#### "BACTERIAL VABINOSIS AND PREMATURITY"

"There are reasonably reliable estimates that at least 50% of Americans will acquire a sexually transmitted disease by the time they are 30 years old,' said H. Hunter Hansfield, M.D., Professor of Medicine at the University of Washington School of Medicine."(1)

"In this Update we will discuss one of those problems. Simply stated, certain sexually transmitted diseases are strongly associated with prematurity and preterm labor, and these are bad problems. The 'leading cause of neonatal morbidity and mortality, premature delivery is associated with 60% to 80% of neonatal deaths.' (2) You may ask, 'How does sexually transmitted disease cause prematurity?' I think the answer will surprise you because most people reading this probably are not aware of the strong association between one of these diseases and prematurity. This disease is called bacterial vaginosis (BV for short). In the past it was called Gardnerella vaginalis vaginitis, or hemophilus vaginalis baginitis, or nonspecific vaginitis."

"The prevalence of the condition is high: at least 10% in the general population and 30% or more in selected populations (such as obstetrical clinics)...the condition is common but not trivial and is associated with serious complications.' (3) One of these serious complications is the increased number of premature deliveries of women with this infection. James McGregor, M.D., Vice Chairman of OB/GYN at the University of Colorado Health Science Center in Denver, reported a study of 260 women. Eighteen percent (18%) of those who tested positive for bacterial vaginosis but who were not treated gave birth prematurely, compared with only nine percent (9%) of those in whom the infection was diagnosed and treated. (4) For women in the third trimester, the risk of premature birth was 9.8% in the treated group compared with 25.8% in the untreated group. "(5)

"In another study, Dr. Philip Hay reported that 'Fifteen percent of pregnant women were found to have bacterial vaginosis in early pregnancy. These women had a fivefold increased risk of late miscarriage or preterm delivery." (6)

"A major problem with BV is that 'more than 50% of women with bacterial vaginosis are asymptomatic.' (8) Because of this, many pregnant patients are not aware that they have this disease. Their doctors, unaware of the past sexual contacts a woman or the father of her child may have had, may not think to check her for this problem."

"Dr. David Eschenbach from the University of Washington states, 'Some of the risk factors associated with sexually transmitted infections were significantly associated with bacterial vaginosis, including young age at first intercourse and a high median number of current and lifetime sexual partners." (12)

"Footnotes:"

- (1) "Clinical Focus," Medical Tribune, May 5, 1994, p.6
- (2) "The Riddle of Prematurity," The Female Patient, Vol. 19, April, 1994, pp.67-77
- (3) "Highlights from the Third international Symposium on Vaginitis/Vaginosis", Madeira, Portugal, February 1994, p.1
- (4) Medical Tribune, June 16, 1994, p.8

("Posterial Volinagia and Promoturity")

- (5) Ibid.
- (6) Hay, P.E., Lamont, P.F., Taylor-Robinson, D., et al, "Abnormal Bacterial Colonization of the Genital Tract and Subsequent Preterm Delivery and Late Miscarriage," British Medical Journal, 308:295-298, January 29, 1986.
- (8) "Highlights"..., opt cit. p. 4
- (12) "Highlights"..., op cit."

(	Dacteriai	v aumosis	and Fielila	iurity )		

#### "RESISTING ARREST"

"America's most prevalent social disease has a nasty new trick. Gonorrhea, which infects an estimated 3 million Americans a year, is becoming resistant to a potent new class of antibiotics that health authorities had been counting on to help control it."

"While gonorrhea, caused by bacteria that multiply quickly in moist, warm area of the body such as the cervix, urethra, mouth or rectum, is not the most deadly of infections, it is one of the most prevalent."

"Worldwide, an estimated 250 million people are infected every year. In the United States, 750,000 cases, mostly among teenagers and young adults, are recorded annually. Officials say the real number is closer to 3 million."

(Mike Toner, "Resisting Arrest", The Atlanta Journal and Constitution, January 20, 1996 pG01)

#### "SEXUAL HEALTH UPDATE - SPRING 2000"

# "Human Papilloma Virus (HPV)- What Is It?"

"Human papilloma virus, or HPV, is a common virus that infects the skin and mucous membranes (lining of the vagina, mouth, etc.) of humans. There are approximately 100

stereotypes (or strains) of HPV—30 of which cause genital infections. (1) HPV is spread by direct contact with an infected person. Genital HPV infections are spread most often by intimate sexual activity, and potentially, by hand-to-genital contact. (2) When an individual becomes infected with HPV, the body's immune system can often eliminate the infection within 6-12 months, but not in all cases. In one study of U.S. college women, 30 percent of HPV infections were still present after 12 months, and 9 percent of infections were still present after 24 months. (3) The longer an infection persists, the more likely the infection will cause pre-cancerous and even cancerous cell changes." (4)

#### "Why Is HPV Important?

"Since most HPV infections never cause symptoms and resolve spontaneously, some will ask, 'Why should we care about HPV?' The answer is simple: HPV infects more people each year than any other STD, resulting in 5.5 million new infections each year. (5) Even though only a small percentage of infected individuals will develop genital warts, abnormal Pap smears or cervical cancer, hundreds of thousands of Americans suffer from these problems each year."

"The link between HPV infection and cervical cancer is now well established. A 1995 study reported that HPV infection was present in 93 percent of cervical cancers. This finding supports the premise that the virus is the causative agent in cervical cancer rather than simply an associated condition. (7) In 1999, a re-examination of earlier data led to the conclusion that HPV infection was actually present in over 99 percent of cervical cancers. (8) HPV infection also causes cervical intraepithelial neoplasia (dysplasia or 'precancer')."

"HPV infection can also lead to vaginal cancer. One study of 71 biopsy specimens from women with vaginal intraepithelial neoplasia ('pre-cancer') revealed that all 71 specimens showed evidence of infection with HPV. (10) While fewer women are diagnosed with vaginal cancer each year (2,300) than with cervical cancer, about 600 women die annually from vaginal cancer." (11)

"Vulvar cancer is another condition linked to HPV. (12) This form of cancer, which affects the external genitalia of women, is again less common than cervical cancer and affects 3,300 women each year in the U.S. (13) If small, some vulvar cancers can be removed during biopsy, but if larger, surgery (and even, post-operative radiation) may be required. (14) Treatment can result in substantial disfigurement of the external genitalia, particularly when radical vulvectomy (surgical removal of the vulva) is required. Approximately 900 American women die from vulvar cancer each year." (15)

"HPV infection also precedes cancers that develop in men. Men with HPV infection on the penis are at higher risk to develop penile cancer. About 1,400 American men develop

cancer of the penis each year. (16) Early penile cancer is usually treated with local excision of the affected skin, however; removal of all or part of the penis is rarely necessary." (17)

"HPV infection of the anus can lead to anal cancer in both men and women. The incidence of this cancer has more than doubled in men and increased by 46 percent in women since 1973. (18) Currently, over 3,000 individuals develop anal cancer each year. At-risk individuals include men who have sex with men, and women who have anal sex. Anal carcinoma in women may also be due to 'migration' of the infection from the genital area to the anus." (19)

"Cancer of the oral cavity is another cancer that may be caused by HPV infection. Studies have shown an association between the presence of the HPV virus and the presence of cancers in the mouth. (22) These infections may be transmitted by oral sex."

"HPV is the most prevalent viral STD in the United States. In fact, current estimates suggest that 5.5 million Americans acquire the infection each year. Nearly 20 million Americans are currently infected with the virus. (23) Perhaps the most astounding statistic is that 80 million Americans between 15 and 49 years of age have been infected by genital HPV at some point in their lives! This means that approximately 75 percent of sexually active individuals are now, or have previously been, infected with HPV." (24)

"These estimates are supported by numerous scientific reports. In 1998, an article in the New England Journal of Medicine reported the number of sexually active females who tested positive for HPV infection during a 3-year study at Rutgers University. Twenty-six percent of the women tested were HPV-positive at the beginning of the study, and another 43 percent of participants tested positive for HPV at some point during the 36-month follow-up period. (25) When the researchers included those participants with pre-existing infections with those who became infected (or re-infected) during the course of the study, they concluded that 60 percent of the young women tested showed evidence of HPV infection at some point during the study. Other studies confirm that HPV is the most common sexually transmitted infection among adolescent girls." (26)

"Available evidence clearly demonstrates that the burden of disease caused by HPV infection is huge. Last year in the United States, 14,000 women developed cervical cancer, and each year, approximately 5,000 die from this disease. (27) To put these numbers in perspective, cervical cancer caused by HPV infection kills more American women each year than does AIDS/HIV. (28) Additionally, another 2.5 million women who receive Pap smears are diagnosed with CIN (pre-cancer) and require additional diagnostic and treatment procedures. (29) Internationally, 400,000 to 500,000 cases of cervical cancer occur annually, and about 300,000 individuals die. (30) These problems are especially severe in developing countries where access to Pap smears and medical care is limited."

"In practice, most clinicians suggest that, since HPV is so common and cancer often develops in less than three years, every woman who has ever had sexual intercourse should have a yearly Pap smear. Screening should be performed more frequently if Pap smear abnormalities are detected."

"There is no cure for HPV."

"Individuals diagnosed with localized cervical cancer (early stage) have a 90 percent probability of surviving for at least five years. (33) Those with more advanced cancerous lesions at the time of detection have only a 14 percent probability of being alive in five years." (34)

"We don't know to what extent, if any, condoms prevent the spread of HPV. Few studies looking specifically at this question have been completed, and the results of these studies are not consistent. The scientific community is currently debating how to accurately state what we know about condoms and HPV transmission."

"Most experts do agree that existing data on condoms and HPV transmissions do not support the notion that condoms prevent the transmission of HPV infection from an infected man to an uninfected woman. After a review of available data, the National Institutes of Health stated, 'The data on the use of barrier methods of contraception to prevent the spread of HPV are controversial but do not support this as an effective method of prevention." (35)

"While absolute conclusions cannot be made from the results of existing research, one can confidently say that there is no substantive evidence that condoms significantly reduce the risk of HPV transmission from infected men to their female sexual partners."

"Proponents of condom use for HPV prevention argue that laboratory tests have shown condoms to be impervious to HPV particles. (40) The knowledge accumulated in this type of laboratory study may not have any meaning in the non-laboratory situation, i.e. "the real world." First, most individuals do not use condoms consistently and correctly. (41) Inconsistent condom users are unlikely to receive benefit from condom use because HPV is both very common and very infectious. Second, even if condoms are used consistently and correctly, there is a legitimate scientific reason for them to be less than effective in the case of HPV infection. As the CDC statement points out, HPV is a regional infection rather than a local one. (42) An individual with a regional genital HPV infection likely has viral particles throughout the urogenital region and also on their fingers. Since a condom only covers the penis, it cannot prevent spread of infection from these adjacent areas. This 'regional infection' concept is why condoms lack effectiveness."

"Finally, given the limited risk reduction of condoms and the large proportion of the population infected with HPV, sexually active individuals cannot rely on condoms for protection from HPV. If they remain sexually active, their likelihood of being infected with HPV is very high, even with consistent and correct condom use. And given that few people use condoms consistently and correctly, especially with established partners, the risk is probably even higher than anticipated."

"The only way for non-married individuals to achieve adequate protection from HPV is to be sexually abstinent."

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#### "SEXUAL HEALTH UPDATE – SPRING 2001"

"Forty-five million Americans age 12 and older have herpes simplex virus type 2. The problem is that millions don't even know they are infected. And for those who are infected, their lives are often impacted significantly by this silent infection."

# "Herpes: A Clarification"

"Two types of herpes simplex virus have been identified, herpes simplex type 1 (HSV-1) and herpes simplex type 2 (HSV-2). Type 1 is a common cause of oral herpes infections, but can also be sexually transmitted. Despite its preference for the mouth, HSV-1 accounts for 20 percent of new genital herpes infections in the United States. HSV-2 is primarily transmitted through sexual activity and causes the majority (80%) of genital herpes Josh McDowell's personal notes on STD's

infections in the U.S. (1) The relative percentages of genital infections caused by HSV-1 and HSV-2, however, appear to be changing. In fact, some Scandinavian studies show that more than 50 percent of new genital herpes infections in Norway and Sweden are caused by HSV-1. (2,3) Though the reason for this change has not been determined, an increase in oral sex practices among young people probably plays a role."

"But the majority of infected individuals have no recognized symptoms."

"Like most other infections, herpes simplex infections stimulate the body's immune system, but unlike most infections, the body is unable to eliminate the herpes virus. (8) This happens because during the primary episode, the virus migrates from the nerve endings in the infected area along the course of the nerve to the dorsal root ganglia located near the spinal cord. (9) Upon reaching the dorsal root ganglia, the herpes simplex virus becomes temporarily inactive (latent). In this latent stage, the virus persists for the remainder of the infected individual's life." (10)

"A previously sexually active individual could have an outbreak of symptomatic herpes lesions even though they have been celibate for months or even years."

"Eighty-five percent of previously infected individuals experience periodic recurrences without symptoms. (20) These asymptomatic recurrences result when herpes viruses that have been latent become active and replicate (reproduce). The replicating viruses migrate along the path of the nerve. When the migrating viruses reach the nerve endings of the involved nerve, they are released. The viruses are then 'shed' from the skin of the infected, but asymptomatic person. (21) The viruses released during this asymptomatic shedding are infectious, therefore disease transmission can occur during these asymptomatic recurrences. Asymptomatic viral shedding usually recurs periodically for 10 years or longer, with frequency of shedding decreasing over time. (22) In fact, asymptomatic shedding is probably responsible for the majority of new genital herpes cases." (23)

"Genital herpes is both incurable and lifelong, it may be passed to any sexual partner at any time."

"Genital herpes is transmitted by sexual contact. This transmission by sexual contact including skin-to-skin and skin-to-mucous membrane contact explains why herpes infection can be transmitted by sexual behaviors other than sexual intercourse, including oral sex, anal sex and mutual masturbation."

"The most recent data available show that 22 percent of Americans 12 years of age or older are infected with HSV-2. The 22 percent prevalence means that approximately 45 million Americans are infected with HSV-2." (26)

"Research suggests that the presence of certain sexually transmitted diseases increases one's susceptibility to HIV infection, if the infected individual engages in sexual activity with an HIV-infected partner." (27)

"Similarly, an HIV-positive individual with genital herpes may be more likely to transmit HIV to a sexual partner."

"Pregnant women with genital herpes can transmit the infection to their infant during the birth process. In women who deliver vaginally and are not previously infected with HSV-1, an episode of primary genital herpes near delivery results in a 50 percent risk of transmission to the infant."

### "Do Condoms Prevent the Spread of Genital Herpes?"

"Since genital herpes infections are transmitted via skin-to-skin and skin-to-mucous membrane contact, a condom must cover all the infected genital areas to reliably prevent transmission. For the male, this can include the entire head and shaft of the penis, the base of the penis, the pubic area, the scrotum, the inner thigh and the perianal area. For the female, the potentially infected areas can include: the cervix and vagina, the labia and vaginal introitus, the pubic area, the inner thighs and the perianal area. Since no currently manufactured condom—male or female—covers all these areas of potential infection, condoms may not be highly effective in preventing transmission of genital herpes. (37) To date, very little research has been done to evaluate the effectiveness of condoms for prevention of genital herpes." (38,39,40,41)

"Research suggests that those who first experience sexual intercourse at a young age are likely to have more lifetime sexual partners than those who wait. (44) And the number of lifetime sexual partners is a strong risk factor for contracting herpes and other STDs."

"An individual with only two sexual partners over the course of his or her lifetime faces a 39 percent probability that at least one of them has genital herpes."

"The only way to be completely safe from genital herpes, and the most effective way to limit spread of the infection on a public health level, is to avoid all sexual contact before marriage, marry an individual who has done the same and remain monogamous within marriage."

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("Sexual Health Updat	e" The Medical	l Institute for	Sexual Health	, Spring 2001,	Volume 9
Number 1, p1-4)					

#### "SEXUAL HEALTH UPDATE – SUMMER 1999"

"Chlamydia is a sexually transmitted disease. It is passed from person to person through intimate sexual contact. It has a special affinity for teenage girls and infects them more than any other group in our society." (1)

"Chlamydia is dangerous. It can cause adolescent girls, as well as adult women, to become infertile. If any fertile female acquires this disease from having sex with her infected partner, she runs the risk of never being able to get pregnant in the future." "The problems associated with chlamydia were a major factor in the decision I (Dr. Joe McIlhaney, Jr.) made four years ago to leave my busy gynecology/infertility practice (of 28 years) at the peak of my career. Chlamydia is the most common cause of pelvic inflammatory disease (PID), and PID is the infection that causes one-third of women who are infertile to be so. I began to realize that most of my patients had never been told about the enormous threat this disease can be to their future fertility. Unfortunately, this sexually transmitted disease (STD) often affects women in their teenage years when they least suspect a problem that could affect the future course of their lives. Many of these women may never have their own biological child."

"The pain I saw in the lives of so many couples motivated me to dedicate the rest of my professional career to educating people about this and other health problems associated with risky sexual behavior. As a physician, it's my desire to help people have the best chance for a future full of health, hope and happiness. Chlamydia trachomatis is one of the biggest threats to a healthy future for many women."

"Sexually transmitted chlamydia refers to infections caused by Chlamydia trachomatis. It is categorized as a bacteria; however, this organism has some characteristics that are similar to viruses."

"Chlamydia has a strong affinity for young women. The cervix of the adolescent female is covered with ectropion (a normal but immature type of tissue that is vulnerable to infection). Chlamydia flourishes well in this tissue. As females mature, the ectropion is replaced by a tissue that is more resistant to infection from sexually transmitted disease."

(4)

"Studies to discern the rate of infection from chlamydia in certain populations of sexually active adolescents and young women have found rates varying from 10 to nearly 30 percent. (7) These studies and the CDC data are just the tip of the iceberg. The best estimates suggest that between 3-5 million Americans become infected with chlamydia each year." (8)

"Up to 40 percent of women infected with chlamydia will develop pelvic inflammatory disease (PID). (11) Approximately two-thirds of all PID does not get treated, because patients have no symptoms and therefore do not know they are infected. (12) Chlamydia, therefore, may infect a woman's reproductive organs and cause infertility without her knowing she has a problem until years later when she attempts to become pregnant." "Chlamydia infection can travel up the female reproductive tract and can infect, scar and damage the ovaries, fallopian tubes, other organs and the lining of the abdominal cavity. This is known as PID. At least one million women experience PID annually, and approximately 180,000 are hospitalized each year. (13) An estimated 100,000 women become infertile each year, because of damage to their fallopian tubes from this infection." (14)

"The incidence of ectopic pregnancies has increased 400 percent in the past two decades. (16) About 18-23 percent of women who develop PID will continue to have pelvic pain after treatment for their infection. (17) The pain can last for years. It can cause intercourse to be painful and can interfere with normal activities to the extent that a hysterectomy may be necessary for a normal, pain-free life."

"In addition to the problem chlamydia causes for women, chlamydial eye infections (trachoma) are a special concern for a child born to a woman with chlamydia, because it can be passed to the newborn during delivery. If the baby is not treated soon, the infection can result in blindness."

"Though this problem is not commonly seen in the United States, it is quite prevalent in developing countries. In fact, chlamydia is the second leading cause of blindness worldwide." (19)

"There is growing concern about a connection between chlamydia and heart disease. (20) When infected with a disease, an individual's immune system will mount a defense that includes developing anti-bodies to that specific disease. These antibodies attack and attempt to destroy the invading organism. Apparently, the antibodies designed to attack chlamydia also react to the protein that makes up the heart muscle. Over time the antibodies can cause inflammatory heart disease."

"Whether chlamydia actually is a common cause of heart disease is still being investigated. However, there is enough evidence linking heart disease and chlamydia to cause concern. One additional potential complication from chlamydia is that it increases the risk of an individual acquiring HIV and other STDs. An individual who is infected with chlamydia is more likely to become HIV-infected if they have sex with an HIV-infected partner." (21)

"Because chlamydia is so common among adolescents, physicians at Johns Hopkins University recommended the following: 'A high prevalence and incidence of C trachomatis infection were found among adolescent females. We, therefore, recommend screening all sexually active adolescent females for chlamydia infection every six months, regardless of symptoms, prior infections, condom use or multiple partner risks." (22)

"When it comes to the question of preventing STDs, our society is inundated with messages suggesting that contraception is the answer. However, birth control pills provide no protection against any STD, including chlamydia. As a matter of fact, there is some evidence that the hormones in birth control pills may cause changes in the cervix that make chlamydial infection more likely to occur." (25)

"Dr. Penny Hitchcock, chief of the sexually transmitted diseases branch at the National Institute of Allergy and Infectious Diseases, recently reported that condoms may not be the solution for the prevention of chlamydia infection. According to Dr. Hitchcock, scientists do not understand why, but condoms do not work as well against chlamydia as they do for some other STDs. (26) In addition, condom use has little impact on reducing the risk of future infertility problems associated with chlamydial infection." (27)

"This is why we must encourage adolescents, both men and women, to maintain or return to sexually abstinent lifestyles. Remaining sexually abstinent until entering a committed, mutually faithful, monogamous, lifelong marriage relationship is the most reliable way for a young woman to protect her present health and her future fertility."

"Refraining from sexual activity until an individual is in a committed, mutually faithful, monogamous, lifelong relationship-otherwise known as marriage-is the only 100 percent effective way that an adolescent can avoid the consequences associated with STDs, such as chlamydia."

#### "Footnotes:"

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- (7) Grady, D. "High Chlamydia Rates Found in Teenagers." New York Times (1998,Oct.13--Science section). Gaydos, CA, et al.(1998). "Chlamydia Trachomatis Infections in Female Military Recruits." New England Journal of Medicine, 339(11), 739-744. Stamm, WE. (1999). "Biology of Chlamydia Trachomatis." In KK Holmes, PA Mårdh, PF Sparling, SM Lemon, WE Stamm, P Piot, & JN Wasserheit (Eds.), Sexually

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- (16) Centers for Disease Control.(1992). "Ectopic Pregnancies"—United States, 1988-1989. Morbidity and Mortality Weekly Report. 41, 591-594.
- (17) Porpora, MG, & Gomel, V. (1997). "The Role of Laparoscopy in the Management of Pelvic Pain in Women of Reproductive Age." Fertility and Sterility, 68(5), 765-779.
- (19) Muñoz,B, & West, S. (1997). "Trachoma: The Forgotten Cause of Blindness." Epidemiologic Reviews, (19) (2), 205-217.
- (20) Bachmaier, K. et al.(1999, Feb.26). "Chlamydia Infections and Heart Disease Linked Through Antigenic Mimicry." Science, 283(5406), 1335-1339.
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- (22) Burstein, GR et al.(1998).Incident Chlamydia Trachomatis Infections Among Innercity Adolescent Females." Journal of the American Medical Association, 280(6), 521-5
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("Sexual Health Update" The Medical Institute for Sexual Health, Summer 1999, Volume 7, Number 2, pp1-4)

#### "HIV STUDY"

"A report in today's *Archives of Internal Medicine* found that four out of every ten HIV-infected people surveyed at two New England hospitals failed to tell sex partners about their disease."

(Robin DeRosa, "HIV Study" USA Today, February 9, 1998, [vol. 16, No. 103] 8B)

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#### "THE MEDICAL INSTITUTE OF SEXUAL HEALTH"

### "Immunity & STD"

"The CDC, for example, says: 'For some STDs, e.g., Chlamydia trachomatis, adolescent women have a physiologically increased susceptibility to infection due to increased cervical ectopy and lack of immunity." (p. 82)

"Another review has shown that adolescent women are biologically more susceptible to sexually transmitted disease because they have lower antibody levels and therefore are more likely to become infected with STD." (p. 82)

# "Teenage Females Are At Higher Risk For STDs"

"According to the Institute of Medicine report:"

- "The cervix of female adolescents and young women is especially susceptible to infection by certain sexually transmitted organisms." (p. 83)
- "Cervical ectropion (columnar epithelium of the cervix) is a normal condition for the cervix of a teenage girl. This delicate tissue surrounds the opening of the uterus which is the cervix." (p. 83)

- "When teenagers become pregnant and have a baby, or as they progress into their mid-20s, most of the ectropion is covered over by a tougher lining called squamous epithelium. This is the same type of tissue that lines the entire vagina." (p.83)
- "The delicate columnar tissue of cervical ectropion is more easily infected than the tougher squamous epithelium of an older woman. In addition, the tissue of the immature female cervix are growing rapidly, and this rapid growth may contribute to susceptibility to some of the problems from STD." (p. 83)
- "This also clearly means that a man who has sexual intercourse with a teenager s more likely to become infected with a sexually transmitted disease if that teenager girl has had sexual intercourse in the past because of the increased chance of her being infected with STD." (p. 84)

### "History of STDs"

Pre 1960	"Syphilis and gonorrhea the only major STDs."
1976	"Chlamydia first known to cause genital infection."
1981	"AIDS identified."
1982	"Genital herpes becoming much more common." (p. 10)

"Eight new sexually transmitted pathogens [germs] have been identified since 1980." (p. 10)

Prior to 1960: "2 common STDs: syphilis and gonorrhea. Both were easily treated

with penicillin."

1976: "First report of chlamydial infection of women's cervix, uterus, and

fallopian tubes; now the most common non-viral STD in the U.S."

1981: "AIDS was first identified (later found to be caused by HIV). Studies

would suggest that only a few dozen people had developed AIDS in the U.S. at that time. The general estimate today is that approximately

one million Americans are now infected with HIV."

1982: "Herpes infection were becoming so common that a popular American magazine (Time Magazine) took note of it with a cover story." (p. 10)

"Footnotes:"

"Michael, Gagnon, Laumann, & Kolata, *Sex in America*. Little, Brown, & Company, New York, NY, 1994. This book contains a report of the most reliable stuffy of America's practices and beliefs done in 1992. The statement is made, 'our data, in fact, show that the proportion of women who were either virgins when they turned 20 or had had a sexual intercourse with only one person, declined from 84 percent, among women born in 1988-1942, to about 50 percent for those born after 1953.' Another significant statistic indicative of the chance of a person being infected with a sexually transmitted disease was that for women born between 1933 and 1942, their first sexual relationship was in marriage for 93.8

percent of these women. For women born between 1963 and 1974, only 35.3 percent of these women's first sexual partnerships were in marriage.' They also found that 'the oldest people in our study, those aged 55-59, were most likely to have had just one sexual partner in

a lifetime—40 percent said they had had only one.""

("Immunity and STD," The Medical Institute for Sexual Health)

"COST AND PAYMENT SOURCE FOR PELVIC IMMFLAMATORY DISEASE"

1992: "Pelvic inflammatory disease (PID): 1 million U.S. women, including over

200,000 teenagers, are diagnosed with PID each year." (JAMA, 1991)

1996: "Human papillomavirus (HPV) recognized as causing 90% or more of

cervical cancer." (NIH Report 1996)

1997: "Eight new sexually transmitted pathogens have been identified since

1980, including HIV." (p. 12)

"In 1991, Drs. Washington and Katz reported:"

• "Each year, more than 1 million US women experience an episode of PID, with at least one quarter of them suffering one or more serious, long-term sequelae. A woman with acute PID faces increased risk for recurrent PID, chronic pelvic pain, ectopic pregnancy, and infertility. Other troublesome medical consequences, such as dyspareunia, pelvic adhesions, pyosalpinx, inflammatory residua, and tubo-ovarian abscess may also follow. Often surgical intervention is necessary to treat PID complications." (p. 12)

(Washington, A.E., Katz, P., "Cost of and Payment Source for Pelvic Inflammatory Disease," *Journal of the American Medical Association*, 1991; 226(18):2565-2569.)

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### "SEXUAL WORLD OF UNMARRIED"

"Unmarried individuals who had sexual intercourse with a friend in the 1960s had a relatively small risk of becoming infected with a sexually transmitted disease. The expectation was that most people were married when they had first sexual intercourse. Those who were not usually did not have multiple sexual partners. Because of this, fewer people were STD infected." (p. 16)

"Visits per year to a physician's office"

	<u>1966</u>	1980	1995	
Herpes	20,000	50,000	130,000	
HPV	60,000	180,000	250,000	

"In 1995, scientists confirmed and identified human herpes virus type 8 as a likely sexually transmitted virus and a possible cause of Kaposi's sarcoma and body cavity Lymphomas." (Chang et al., 1994) (p. 17)

# "STDs Today"

"We all know the danger of HIV. Another example of a potentially dangerous STD is human herpes virus type 8. It is associated with Kaposi Sarcoma, one of the most aggressive human cancers, and may eventually be found to cause it. Some studies are finding this virus in the semen of many men." (p. 14)

### "Footnotes:"

Kedes, D.H., et al., 'The Prevalence of Serum Antibody to Human Herpesvirus 8 (Kaposi Sarcoma—Associated Herpesvirus) Among HIV-Seropositive and High-Risk HIV-Seronegative Women," *Journal of the American Medical Society*, 1997; 277 (6): 478-481.

# "Human Papillomavirus"

• "The most common viral STD causing more than 2.5 million new infections each year."
• "Causes genital warts."
• "Causes more than 90% of all cervical cancer" (p. 42)
"In one study of female college students who received care at a university health center, genital HPV infections were five time more common than all other STDs combined." (p. 42)
"This study alone showed that 2.5 million women are infected with HPV." (p. 43)
"Herpes"
• "21.7% of Americans aged 15-74 test positive for Herpes, type II."
• "Herpes outbreaks can occur over a lifetime."
• "Many people are infected with genital herpes, and yet have never had any symptoms They can, however, pass their infection during sexual activity." (p. 52)
"The 1997 Institute Of Medicine Report States:"

"Sexually transmitted herpes simplex virus infection is widespread in the United States and results in painful recurrent genital ulcers. The ulcers can be treated but infection persists and ulcers may recur (Quinn and Cates, 1992). Herpes simplex virus can be transmitted to sex partners even when no genital ulcer is present (Mertz et al., 1992) and can also be transmitted from mother to infant during delivery. Approximately 200,000-50,000 new cases of genital herpes occur each year in the United States, and 31 million individuals already are infected (CDC, DSTD/HIPV, 1995). In 1990, the prevalence of antibodies to herpes simplex type 2 virus among persons 15-74 years of age was estimated at 21.7 percent (Johnson et al., 1993)." (p. 52)

# "Herpes and Pregnancy"

- "If a woman delivers vaginally during her first (primary) outbreak of genital herpes the baby has a 40-50% chance of being infected."
- "If the newborn becomes infected: the baby has about a 50% chance of dying. And about a 50% chance of severe brain damage if it survives." (p. 57)

(Slide: Sweet, R.L., Gibbs, R.S., *Infectious Diseases of the Female Genital Tract*, 2<sup>nd</sup> edition, Williams & Wilkins, 1990:145.)

### "Gonorrhea"

- "For females gonorrhea may cause PID which can result in arthritis, infertility, pelvic pain and other problems for women." (p. 38)
- "Teens have a higher percentage of 15-19 year old infected with gonorrhea than any other age group." (p. 38)

•	"Gonorrhea rates are very high for African-American adolescents and young adults." (p. 38)
•	"If a man has pus from a gonococcal infection of his urethra and has intercourse with a woman, she has up to a 40 percent chance of becoming infected with just one act." (p. 40)
•	"About 5 percent of men with gonorrhea and up to 40 percent of men with chlamydia have no symptoms and, therefore, usually won't know they are infected. They can pass this infection to a woman during sexual intercourse." (p. 40)
"(	Chlamydia"
•	"Most common non-viral STD in U.S. with an estimated 4 million new infections annually."
•	"A major cause of pelvic inflammatory disease (PID), pelvic pain, ectopic pregnancy and infertility among women."
•	"No symptoms in up to 85% of infected women and up to 40% of infected men." (p. 23)
Γ"	eenagers are more susceptible to chlamydia infection than older people are:"
•	"Compared to older adult women, female adolescents and young female adults are more susceptible to cervical infections, such as gonorrhea and chlamydial infection, because cells lining the cervix of female adolescents and young women is less resistant to infection by certain sexually transmitted organisms."

•	"Chlamydial infection rates have been consistently high among adolescents; in some
	studies, up to 30 to 40 percent of sexually active adolescent females studied have been
	infected." (p. 23,24)

# "Syphilis"

• "8<sup>th</sup> most commonly reported infectious disease in the U.S."

"The excellent book, *Benign Diseases of the Vulva and Vagina*, (1981) gives us an excellent overview of syphilis infection. They write:"

- "Syphilis is a continuous infectious process that is initiated at the time of contact. It passes through well-known clinical stages: incubation, primary, secondary, latent and late (tertiary). Transmission of syphilis involves intimacy, and in the vast majority of cases, it is attributable to sexual contact."
- "Many recorded examples have occurred from kissing. Spirochetes (the syphilis organism) readily invade intact, moist mucus membranes. Invasion through dry, unbroken skin is unlikely."
- "According to estimates, approximately half of the patients with syphilis are either unaware of its presence, or consider the lesions inconsequential until the disease is past its early stages."

(Kaufman, Raymond H., Gardner, Herman, L., *Benign Diseases of the Vulva and Vagina*, 1981, Year Book Medical Publishers, Inc., Chicago.)

# "Chlamydia Trachomatis"

"The Most Common Bacterial Sexually Transmitted Disease in the United States:"

- "Sex can and should be a wonderful experience, and it is most likely to be such in the stable, committed life-long relationship of marriage. Outside of such a relationship sexually transmitted disease can occur."
- "Chlamydia is incredibly common among sexually active singles-more than 4 million new cases each year."
- "Teenagers are in terrible danger from chlamydia because it has a special affinity for them, infecting a far higher percentage of adolescents than adults. In some groups of sexually active teenagers 40% are infected."
- "Chlamydia ambushes unsuspecting men and women because more than 50% of infected persons do not know they are infected and can pass the disease to their unsuspecting sexual partner."
- "Chalmydia is the most common cause of pelvic inflammatory disease (PID), and PID is the most common reason for hospitalization of reproductive age women in the U.S. except for pregnancy."
- "PID is the worst enemy a woman's reproductive organs have—damage to women's fallopian tubes is the most rapidly increasing cause of infertility in the county today."
- "Strange as it may seem, studies clearly show that condoms almost certainly will not protect a woman's delicate fallopian tubes, ovaries, and uterus from the sterility produced by chlamydial PID. Sexually activity produces secretions, which can easily

moisten a sex partner's genital outside the area covered by condoms. If one person is infected with chlamydia, it can easily spread to a partner because of this."

- "If a woman wants to protect her ability to have children in the future, she cannot rely on condoms. Medical data show clearly that she must avoid sexual intercourse until she enters into a lifetime sexual relationship with one man who is uninfected and who has intercourse only with her."
- "Research has shown that the greatest physical and emotional satisfaction from sex is found in stable, long-term relationships such as marriage, and that satisfaction seems to decreases as the number of sexual partners increase."
- "Chlamydia is an infectious organism which is classified as a bacterium, but it actually possesses properties similar to both viruses and bacteria. It grows inside a person's cells because it cannot make 'energy' for itself. For this reason, chlamydia is called an 'energy parasite.' The infected cells provide nutrition and protection for the organism as it grows."
- "Males—chlamydia is usually not a dangerous infection for men. Thirty to fifty percent of men who have a chlamydial infection have no symptoms at all, but they still can transmit the bacterium to a woman with whom they might have sexual intercourse."
- "Females—when a woman becomes infected with chlamydia, it is very likely that she will have no symptoms at all. In most studies, more than 50 percent of women with chlamydial infection will have no symptoms and absolutely so signs of infection even to their physicians on physical examination."
- "Chlamydial is a major problem for women. Med primarily serve to spread the infection, but women suffer the consequences."

(Medical Institute for Sexual Health, Sexual Health Update: "Chlamydia Trachomatis." Fall 1995, Volume 3, Number 3)
"NATURAL HISTORY OF CERVICOVAGINAL PAPILLOMAVIRUS INFECTION IN YOUNG WOMEN."
"Background: Genital human papillomavirus (HPV) infection is highly prevalent in sexually active young women."
"Method: We followed 608 college women at six-month intervals for three years."
"Results: The cumulative 36-month incidence of HPV infection was 43 percent (95 percent confidence interval, 36 to 49 percent). An increase risk of HPV infection was significantly associated with younger age, Hispanic ethnicity, black race, an increased number of vaginal-sex partners, high frequencies of vaginal sex and alcohol consumption, anal sex and certain characteristics of partners (regular partners having an increased number of lifetime partners and not being in school.)"
"Conclusions: The incidence of HPV infection in sexually active young college women is high. The short duration of most HPV infections in these women suggests that the associated cervical dysplasia should be managed conservatively." (N Engl J Med 1998; 338:423-8.)"
(Gloria Y.F. Ho, "Natural History of Cervicovaginal Papillmavirus Infection in Young Women" The New England Journal of Medicine, February 12, 1998, Volume 338, Number 7)

"HIV PREVENTION ACT OF 1997"

"As of June 1996, more than 343,000 Americans have died from AIDS and 548,102 are now living with the disease. Seven new HIV infections occur each hour (or 150 to 220 new cases each day), most of these being minority (57 percent black and 20 percent Hispanic) heterosexual women."

"Despite new drug therapies which prolong the lives of people with AIDS, there is still no vaccine against HIV. The virus is spread through an exchange of body fluids, most often via sexual contact."

"Babies are the most vulnerable victims, and about 6,000 babies are born to HIV-infected women every year."

(RLM, "HIV Prevention Act of 1997" Washington Watch, March 14, 1997, Volume 8, Number 5, page 3)

# "HERPES SIMPLEX VIRUS TYPE 2 IN THE UNITED STATES,

### 1976 TO 1994"

"Genital herpes infections rose in all groups studied, but it quintupled among white teenager and doubled among whites in their 20s. Today, genital herpes infects 25.6% of all American women and 45.9% of all African Americans more than 11 years of age."

"An accompanying editorial in the same journal states, 'Since at least one in five people now has HSV-2 [genital herpes] infection, those who have unprotected contact with multiple sexual partners should know that unsuspected exposure to HSV is virtually guaranteed.' That's a strong statement. Further, although this editorial mentioned unprotected sex, the authors of the genital herpes study also commented that condom effectiveness against this STD is probably limited because genital herpes lesions 'can occur on areas of the body not covered by condoms' Further, they point out that the virus can be transmitted even when no lesions are present."

"Herpes Simplex Virus Type 2 in the United States, 1976 – 1994." This report, conducted by the Centers for Disease Control and Prevention (CDC) and published by *The New England Journal of Medicine* (October 16, 1997) powerfully shows via the statistics on genital herpes the dramatic increase in the number of Americans dealing with STDs over the past 10-20 years."

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### "TEENS SEXUALLY ACTIVE"

"The Centers for Disease Control and Prevention (CDC) suggests that approximately 10,000,000 teens are sexually active in the U.S."

"Almost 1-in-3 of sexually active teens get a new sexually transmitted disease each year."

(The Medical Institute for Sexual Health, letter from June 1997)

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### "HIV IN ADOLESCENTS"

"For this and other reasons the adolescent population—persons 13 to 21 years old—has been catastrophically hit with human immunodeficiency virus (HIV)"

"Twenty-one percent of those with AIDS are now in their 20s."

"Currently, the number of adolescents with AIDS doubles every 14 months. (7) An HIV seroprevalence study done in Washington, D.C. form October 1987 through September 1988, found one in 250 adolescents to be HIV infected. During the period between October 1991 through March 1992, the investigations found the rate to be one in 45, a 500 percent increase since 1987 (8)."

"It is estimated that 86 percent of males and 75 percent of females have sexual intercourse by the age of 20 (11,12)"

"Some young people have greater risk of HIV infection than others. Sexually active heterosexual female adolescents and gay male adolescents tend to have older male partners, in their late teens or 20s. This links younger people to groups with a high seroprevalence of HIV (13,14)."

"In 1990, one in 500 college students evaluated by university health services in the United States was found to be HIV positive. (23)."

- "(7) Hern, K. "Lessons from New York City on HIV/AIDS in adolescents." NY State J. Med 90:143-145. March, 1990.
- (8) Goldstein, A. "C.C. Unveils Anti-AIDS Campaign—1 in 45 City Teens Infected With Virus."
- (11) Sonenstein, F.L. et al. "Sexual Activity, Condom Use and AIDS Awareness Among Adolescent Males." Fam. Plann. Perspect. 21:152-158. July-August, 1989.
- (12)U.S. Centers for Disease Control and Prevention. "Premarital Sexual Experiences Among Adolescent Women." United States, 1970-1988. MMWR Morb. Mort. Wkly. Report, 39:929-932, January 4, 1991.

- (13)Zenilman, J. "Sexually Transmitted Diseases in Homosexual Adolescents." J. Adolescent Health Care 9:129-138, March, 1988.
- (14) Sorenson, R.C. "Adolescent Sexuality in Contemporary America." Cleveland. World Publishing Co., 1973,pp.180-280.
- (23) Gayle, H., et al. "Prevalence of the Human Immunodeficiency Virus Among University Students. N.Engl. J. Med 323:1538-1541. November 29, 1990."

("HIV in Adolescents")		

"Physicians warn that giving condoms and pills to kids will not decrease pregnancies or other sexually transmitted diseases."

"One in three of our teens who has sex will graduate from high school with a sexually transmitted disease. As many as 40% of school populations are infected with serious infectious sexual diseases including chlamydia and Human Papilloma Virus. Only the common cold virus is more common. When infected with one of these diseases the risk of HIV transmission increases by as much as 100 times."

"Remember, the condom failure rate is one-in-five in preventing pregnancy when a girl can get pregnant only a few days a month. Think of the failure rate in preventing AIDS, a 100% killer, and other sexually transmitted diseases, when boys and girls are vulnerable to them every day of every month—even if condoms are used."

(Sexual Health Update, Medical Institute for Sexual Health, September 1993, Volume1, Number 4)

### "GROWING PAINS: ADOLESCENTS AND STDS"

"One of the fastest-growing AIDS populations in the United States is teenagers: in the first six months of 1995, AIDS cases in 13-to 19-year-olds increased 524 percent compared with all of 1994, according to the Centers for Disease Control and Prevention."

"Most of this increase occurred among gay teenagers, reflecting the coming of age of these boys within a population that has always been at high risk."

"The overall picture of AIDS in adolescents, however, differs in some striking ways when compared with the pattern in adults: a greater percentage of teenagers with AIDS are female (35 percent vs. 14 percent of adults with AIDS), are African American or Hispanic

(63 percent vs. 51 percent), and were infected with HIV through heterosexual contact (20 percent vs. 8 percent)."

"The accumulation of incurable sexually transmitted infections in a population over time is analogous to a faucet dripping water into a beaker. Each infection is like a single water drop. Not only do the incurable infections—herpes simplex virus (HSV), human papillomavirus infection (HPV), and human immunodeficiency virus (HIV)—accumulate, so do untreated infections such as chlamydial infection. As the beaker fills up, the individual's chances of encountering an infected partner increase. [Adapted from PJ Hitchcock: AIDS Patient Care 10: 79-85 (1996).]"

"About one-fourth of the nearly 12 million new cases of STDs in the United States each year occur in teenagers."

"More than half of women and nearly three-fourths of men have had sexual intercourse by their eighteenth birthday."

"One-third of 20-year-olds already have had three to five sexual partners."

"Several biological factors, Dr. Hitchcock notes, influence the infectivity rate for STDs/HIV among adolescents. The hormonal changes of puberty and hormonal contraceptives increase the area on the cervix where gonorrhea and chlamydia infections become established. In addition, fluctuating hormone levels may increase the risk of STD infection because of changes in the character or amount of mucus, or changes in acidity and alkalinity."

"Aside from these behavioral and biological factors, the duration of infection is an important variable in the spread of STDs/HIV among adolescents. 'Of the seven infections that are solely or primary sexually transmitted, four are treatable/curable bacterial infections (Chlamydial infection, gonorrhea, syphilis, and chancroid), one is a treatable/curable parasitic disease (trichomoniasis), and three are incurable viral infections (human papillomavirus infection, genital herpes, and HIV infection)."

"People who acquire STDs as adolescents can be a continued source of infection for their sexual partners for decades."

(	Growing I	Pains:	Adolescents	s and STL	os, Dateline	: NIAID,	September	1996)
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# "SLOW PROGRESS ON VACCINES FOR SEXUAL DISEASES"

"Herpes has continued to spread, increasing 32% in the USA in the past decade."

(Anita Manning," Slow Progress on vaccines for sexual diseases", USA Today, Vol. 16, No. 16, Monday October 6, 1997, p4D)

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HIV Hepatitis B Chlamydia

Gonorrhea

Herpes HPV Syphilis Chancroid Etc.

### SLIDE 15

SEXUALLY	<u>TRANSMITTED</u>	DISEASES

Viral Bacterial/Other

BodilyCondomsFluidMoreContactEffective

MODE OF TRANSMISSION

Condoms
Direct Less
Contact Effective

No Medical Medical Cures Exist Cures Exist

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### "SEXUALLY TRANSMITTED DISEASES"

"This chart helps demonstrate the different types of sexually transmitted diseases and the different ways in which they can be passed from one person to another."

- "Some STDs are primarily transmitted by infected body fluid (semen, vaginal secretions, blood, etc.) coming in contact with a partner.

  (HIV, hepatitis B, chlamydia, trichomoniasis, bacterial vaginosis, gonorrhea, etc.)"
- "Other STDs are transmitted by direct, skin-to-skin contact. (herpes, HPV, syphilis, pubic lice, scabies, chancroid, etc.)"
- "Some STDs are viruses. (HIV, Hepatitis B, herpes, HPV, etc)"
- "Other STDs are bacteria or other organisms.
   (chlamydia, gonorrhea, bacterial vaginosis, trichomoniasis,
   lymphogranuloma venereum, granuloma inguinalae, syphilis,
   pubic lice, chancroid, etc.)"

"While almost all STDs can be treated to relieve pain or minimize symptoms, there is no cure for any virus, including viral STDs."

(The Medical Institute for Sexual Health, Slide 15, p. 21)

### "SEXUALLY TRANSMITTED DISEASES"

• "More than 12 million new cases of sexually transmitted diseases (STDs) occur in the U.S. each year. 65% of those cases occur among people 25 years of age and younger."

- "Approximately 10 million U.S. teens are sexually active. Almost 1 in 3 get a new STD each year."
- "25% of all new HIV infections are found in people under the age of 22."
- "This year, approximately 3 million teens will contract an STD."
- "In the 1960's there were only two or three common STDs; today there are more than 20."

("Teens and Sex, statistics provided by the Medical Institute for Sexual Health, and the Centers for Disease Control and Prevention)

# "THE HIDDEN EPIDEMIC: CONFRONTING SEXUALLY TRANSMITTED DISEASES"

"In 1995, 5 of the 10 most frequently reported diseases in the United States were sexually transmitted, accounting for 87 percent of the diseases reportable to the Centers for Disease Control and Prevention."

"In a recent survey of women, two thirds of those surveyed knew nothing or very little about sexually transmitted diseases other than AIDS. Only 11 percent of teenagers surveyed reported receiving information about such diseases from their parents, and yet 70 percent of 12th-grade students were sexually active and 27 percent had had sexual relations with four or more partners each."

(NEJM book review, "The Hidden Epidemic: Confronting Sexually Transmitted Diseases," Edited by Thomas R. Eng, William T. Butler, October 16, 1997, Vol. 337, No. 16)

### 1976 TO 1994"

"From 1988 to 1994, the seroprevalence of HSV-2 in persons 12 years of age or older in the United States was 21.9 percent (95 percent confidence interval, 20.2 to 23.6 percent), corresponding to 45 million infected people in the non-institutionalized civilian population. The seroprevalence was higher among women (25.6 percent) than men (17.8 percent) and higher among blacks (45.9 percent) than whites (17.6 percent). Less than 10 percent of all those who were seropositive reported a history of genital herpes infection."

"Since the late 1970s, the prevalence of HSV-2 infection has increased by 30 percent, and HSV-2 is now detectable in roughly one of five persons 12 years of age or older nationwide."

(Douglas T. Fleming, Geraldine M. McQuillan, Robert E. Johnson, Andre J. Nahmias, Sevgi O. Aral, Francis K. Lee, Michael E. St.Louis, "Herpes Simplex Virus Type 2 in the United States," 1976 to 1994", Original Article, NEJM, October 16, 1997, Vol. 337, No. 16)

### "HERPES SIMPLEX VIRUS TYPE 2 – A PERSISTENT PROBLEM"

"Seroprevalence rose in all the groups studied, but it quintupled among white teenagers and doubled among whites in their 20s. The increases in HSV-2 infection in the younger cohorts means that a substantial number of women entering their childbearing years are infected with HSV-2 or are at risk of contracting infection because their partners are more likely to be infected. We found in 1992 that 9.5 percent of pregnant women were at risk of acquiring HSV-2 from an infected partner." (7)

"Since at least one in five people now has HSV-2 infection, those who have unprotected contact with multiple sexual partners should know that unsuspected exposure to HSV is virtually guaranteed."

"Silent spread is the rule for HSV-2, not the exception."

References:

(7) Kulhanjian JA, Soroush V, Au DS, et al. "Identification of Women at Unsuspected Risk of Primary Infection with Herpes Simples Virus Type 2 During Pregnancy." N England Journal Med 1992; 326: 916-20.

(Ann M. Arvin, M.D., Charles G. Prober, M.D., "Herpes Simplex Virus Type 2--A Persistent Problem," Editorial, New England Journal of Medicine, October 16, 1997, Vol. 337, No. 16.)

"SUPPORTING EVIDENCE FROM RECENT STUDIES REVEAL THE NECESSITY OF HEALTHIER, MORE RESPONSIBLE SEXUAL BEHAVIOR AND EDUCATION."

"Morbidity and Mortality Weekly Report" (1996) (1)

"Five of the 10 most common reportable infectious diseases in the United States are sexually transmitted diseases."

"The Centers for Disease Control and Prevention (CDC) indicated that chlamydia is the most common reportable infectious disease in the United States. Gonorrhea ranked second and AIDS place third."

"These five STDs accounted for 87% of all cases of infections caused by the top 10 infectious diseases found in this country."

"50% of the cases of chlamydia reported by the CDC were in teenagers."

"Gonorrhea was the most commonly reported infections disease among people 15-24-year-olds."

"The more common diseases of herpes and HPV are not included in the list because they are not designated as reportable by the CDC."

(1) "Morbidity and Mortality Weekly Report, 1996," CDC Infectious Disease List of 1995, 45:883-884.

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# "The Hidden Epidemic - Confronting Sexually Transmitted Diseases" (1997) (2)

"Women and infants bear a disproportionate burden of STD-associated complications."

"Chlamydial infection has been consistently high among adolescents; in some studies, up to 30-40% of sexually active adolescent females studied have been infected."

"From 1973 through 1992, more than 150,000 U.S. women died of causes associated with STDs."

"Women are particularly vulnerable to STDs because they are more biologically susceptible to certain sexually transmitted infections than men and are more likely to have asymptomatic infections that commonly result in delayed diagnosis and treatment."

"Compared to older women, female adolescents and young women are also more susceptible to cervical infections, such as gonorrhea and chlamydial infection, because the cervix of female adolescents and young women is especially sensitive to infection by certain sexually transmitted organisms."

"Of all women infertile because of tubal damage, no more than half have previously been diagnosed and treated for acute pelvic inflammatory disease. The remaining half have also had pelvic inflammatory disease but had symptoms that were presumably so mild or atypical that they were never treated for the disease."

"Cervical cancer rates and cohort mortality from cervical cancer are increasing among young women, undoubtedly a reflection of increased exposure to STDs such as human papillomavirus." (HPV)

"In one study, nearly half of female college students tested had evidence of genital human papillomavirus infection.' (Study of sexually active coeds seen in a major university student health center.)"

"STDs are not a stationary group of infections and syndromes. Eight new sexually transmitted pathogens have been identified since 1980, bringing with them new challenges to prevention and treatment. The most well known of the recently described STDs is HIV infection."

(2) Eng, Thomas R. and William T. Butler, Editors, "The Hidden Epidemic-Confronting Sexually Transmitted Disease," 1997; National Academy Press, Washington, D.C.: 39

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# "Herpes Simplex Virus Type 2 in the United States, 1976 – 1994" (3)

"Published by the New England Journal of Medicine" (October 16, 1997)

- "Genital herpes infections have increased by 30% in Americans since the late 1970s."
- "Genital herpes infects one out of every five Americans older than 11 years of age."
- "Genital ulceration caused by genital herpes may facilitate the transmission of HIV infection."
- "Genital herpes infections rose in all groups studied, but it quintupled among white teenagers and doubled among whites in their 20s. Today, genital herpes infects 25.6% of all American women and 45.9% of all African Americans more than 11 years of age."

"Since at least one in five people now has HSV-2 [genital herpes] infection, those who have unprotected contact with multiple sexual partners should know that unsuspected exposure to HSV is virtually guaranteed."

"Condom effectiveness against this STD is probably limited because genital herpes lesions 'can occur on areas of the body not covered by condoms.' Further they point out that the virus can be transmitted even when no lesions are present."

(3)"Herpes Simplex Virus Type 2 in the United States," The New England Journal of Medicine, October 16, 1997: 1105-1111.

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### "HIV/AIDS FABLES, FACTS AND THE FUTURE"

"Will Condoms Prevent STDs?"

"Chlamydia Infections at Rutgers University: Infection Rates were equivalent regardless of contraception method. Diaphragm and condom users had infection rates of 44% and 35% respectively, whereas those using no contraception or oral contraception had infection rates of 44% and 37% respectively."

("HIV/AIDS Fables Facts and the Future," Videotape, 1995)

### "HPV-16 AMONG GAY AND BISEXUAL MEN"

"Genital human papillomavirus (HPV), of which there are multiple types, can lead to cervical, penile and anal cancer. HPV type 16 (HPV-16) is associated with 50 percent of all cervical cancer cases."

"CDC released new research at the conference providing the first national data indicating the prevalence of HPV-16 among men who have sex with men (MSM). CDC researchers found that 38 percent of MSM in the United States are infected with HPV-16, nearly five times the prevalence in heterosexual men and twice that in women-eight percent and 19 percent, respectively."

("HPV-16 Among Gay and Bisexual Men," 2002 National STD Conference Media Release, March 5, 2002, <a href="http://www.cdc.gov/std/media/2002ConfTrends.htm">http://www.cdc.gov/std/media/2002ConfTrends.htm</a>)

# "THE MEDICAL INSTITUTE FOR SEXUAL HEALTH – MARCH 2002 NEWSLETTER"

"It's easy to forget the urgency of our cause. Recent world events have certainly shifted our nation's focus to national security. Nevertheless, our nation's health is still at risk. In fact, a recent article in a British medical journal looked at the spread of HPV (human papilloma virus, which causes cervical cancer) among women during their first sexual relationship. The study found that after three years, 46 percent of the women who had only one sexual partner were infected with HPV. Nearly half! This report underscores the fact that HPV is a serious threat, even among women who only have had one sexual partner. This reaffirms what we've been saying for years: The most effective prevention strategy is to refrain from sexual activity until marriage to an uninfected partner (abstinence) and then remain sexually faithful to that partner throughout the marriage (monogamy)."

# "High Incidence Of Cervical Human Papillomavirus Infection In Women During Their First Sexual Relationship"

"The prevalence of cervical human papillomavirus increases with increasing numbers of sexual partners, leaving the impression that this infection is acquired only as a result of high risk sexual behavior. Using longitudinal data from 242 women who had only had one sexual partner, we found that the risk of acquiring cervical human papillomavirus infection was 46% (95% CI 28-64) at three years after first intercourse and that the median time from first intercourse to first detection of human papillomavirus was only three months."

"The study population for this analysis comprises a subset of 242 women who were recruited within six months of first having sexual intercourse and who had had only one sexual partner."

"There is compelling evidence to suggest that a cervical human papillomavirus infection, as distinct from human papillomavirus infections at more superficial sites which may follow vertical or horizontal transmission, is only acquired as a result of penetrative vaginal intercourse." (5)

"Given that 180 of these women (74%) reported using barrier contraception, albeit intermittently, during this, their first relationship, it is difficult to see what further advice could be given to reduce the incidence of human papillomavirus infection. Perhaps

cervical human papillomavirus infection should now be considered an inevitable consequence of sexual activity."

(5) Koch A, Hansen SV, Nielson NM, Palefsky J, Melbye M. "HPV Detection in Children Prior to Sexual Debut." Int J Cancer 1997; 73:621-624. (Stuart Collins, Saeideh Mazloozadeh, Heather Winter, Penny Blomfield, Andrew Bailey, Lawrence S. Young, Ciaran B.J. Woodman, "High Incidence of Cervical Human Papillomavirus Infection in Women During Their First Sexual Relationship," BJOG: an International Journal of Obstetrics and Gynecology, January 2002, Vol. 109, pp.96-98)

"It is completely safe to say that cervical cancer is almost always a result of infection with human papillomavirus (HPV), and that the cumulative risk that a person will have ever been infected with HPV is highly related to their number of lifetime sexual partners, which is in turn related to the age at which that person began having sex."

(Dr. Joshua	Mann,	Director	of Researc	h, The	Medical	Institute	of Sexual	Health)

"More teens have chlamydia, a disease that is a common cause of infertility in women, than any other age group. At least 10 percent of all sexually active teens are infected with this disease. Chlamydia is a common cause of pelvic inflammatory disease (PID)."

(Source: Centers for Disease Control and Prevention. (1996, September). Sexually
Transmitted Disease Surveillance 1995. Morbidity and Mortality Weekly Report, 45 (53)

"The risk of pelvic inflammatory disease (PID) is as much as 10 times greater for 15-year-old females than for 24-year-old females. PID can cause sterility."

(Westrom, L. (1980). "Incidence, Prevalence, and Trends of Acute Pelvic Inflammatory Disease and Its Consequences in Industrialized Countries." American Journal of Obstetrics and Gynecology, 138, 880-92)

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### "MEDICAL INSTITUTE"

"One infection does not confer immunity. A woman, therefore, can have an infection cured and become infected again. Each time she has a new infection, she has even more

risk of infertility and of tubal pregnancy. (one infection-8.1% chance of sterility, two infections-21% chance of infertility, more than two infections-40% risk of infertility)."

"Some studies have shown that if a couple uses condoms for sexual intercourse, the transmission of the chlamydia organism is less than if they were not using condoms. An equal or greater number of studies show just the opposite—that among unmarried people having sexual intercourse, the same rate of clamydial infection occurs in those who use condoms and those who do not."

"Excellent studies suggest that condoms do not protect a woman's fertility. A study by Cramer, et al, stated, 'Table V examines risks by the specific type of barrier method used for the longest period. Spermicide use alone had no significant effect on risk for tubal infertility, whereas condom use along decreased the risk, but not to a significant extent. 'Significant' is a scientific term which essentially means that in this study the researchers could not say that condoms definitely protected these women's fertility. Another study with similar results was done by Westrom, et al, which evaluated women who had pelvic inflammatory disease. Patients were asked if they used contraceptives techniques. It was found that if a woman used no contraceptive techniques, she had a 35.2 percent risk of having mild PID and a 25.9 percent risk of having severe PID. The woman who used barrier methods of contraception, which would include condoms, had a 21.1 percent risk of having mild PID (which was lower than the risk associated with using no contraceptive), but a 22.4 percent chance of having severe PID (Which was almost the same as using no contraceptive technique)."

"The only hope of avoiding the risk of chlamydia is for single people to avoid sexual contact until they are involved with a life-long mutually monogamous uninfected partner. If a person has been sexually active, but has avoided chlamydial infection so far, he/she still has the opportunity of avoiding future infection by limiting sexual activity to one lifetime partner. This may be a hard choice today, but the benefits for future health including better fertility, less chance of pain, and fewer medical problems will be well worth the effort."

(Joe S. McIhaney, Jr., MD, Medial Institute for Sexual Health)

# "QUIZ – SERIOUSLY STUDYING STDS"

"Want to learn more about STDs? Take our quiz for a healthier future."

- 1. "Very few teens get STDs." (True or False)
- 2. "You can't get an STD if you're on the pill." (True or False)

- 3. "Even though my partner and I don't have any symptoms, we could still have an STD." (True or False)
- 4. "I have a medical checkup every year, so I'm OK." (True or False)
- 5. "Most types of sexual behavior put you at risk for catching an STD." (True or False)
- 6. "Condoms are not 100% effective against preventing pregnancy and disease." (True or False)
- 7. "If I get an STD, I can get a shot to get rid of it." (True or False)
- 8. "Some STDs are linked to serious illness, like cancer." (True or False)

### "Quiz Answers"

- 1. "False. Of sexually active teens, about 1 in 4 will get an STD before age 20. About 3 million teens get an STD each year."
- 2. "False. Sorry, no double duty here. Birth control pills, implants or injections do prevent pregnancy, but they do not protect you against STDs."
- 3. "True. It's way common for STDs to have no noticeable symptoms. Take chlamydia. It has no symptoms in 85% of women and 40% of men."
- 4. "False. Some STDs have no symptoms and are not usually discovered during a routine exam."
- 5. "False. STDs are most likely to be transmitted through vaginal, oral or anal intercourse. And you can have lots of sexual pleasure without engaging in these three behaviors."
- 6. "True. But condoms do reduce your risks. So, if you decide to have sex, ALWAYS use one."
- 7. "False. Sorry, but some STDs have no cure and others have long, painful treatments."
- 8. "True. That's why it's important for girls and women to have a pap smear test once a year. It can detect the early stages of cancer in women."

# "How you rate"

<sup>&</sup>quot;8 correct - You're safe—if you put your smarts to good use."

<sup>&</sup>quot;7 to 5 correct - Brush up on the basics."

<sup>&</sup>quot;Less than 5 correct - Hit the books. You could be in trouble."

(The American Social Health Association, Research Triangle Park, NC)

# "AIDS IN AFRICA; THE EVE OF DESTRUCTION"

### "The Effects of AIDS in Africa:"

- "South Africa has the largest number of people living with HIV/AIDS in the world—4.2 million (or 20 percent of the population, up from 13 percent just two years ago)."
- "In Botswana, nearly 36 percent of adults are infected with HIV (tripled since 1992)."
- "In Zimbabwe, life expectancy has fallen from 65 to 43 years because of HIV/AIDS."
- "In one hospital in Zambia, deaths among health care workers increased 13-fold between 1980 and 1990, largely because of HIV."
- "HIV-positive patients have occupied 70 percent of the beds in the Prince Regent Hospital in Bujumbura, Burundi."

"Take Africa, for example:"

- "25 million Africans have HIV/AIDS (70 percent of the world's cases)."
- "12 million Africans have already died of AIDS. (one of every five deaths)"
- "10 million African children are now orphans because both parents have died of AIDS."
- "In some African countries, up to 35 percent of the population is infected with HIV/AIDS."
- "In eight African countries, AIDS will claim the lives of a third of today's 15-year olds."

"The United Nations believes there are signs that devastating AIDS numbers are stabilizing—at least in some parts of the world."

• "New infections in Africa in 2000 totaled an estimated 3.8 million, compared with 4 million in 1999."

• "In Zambia, the percent of pregnant girls age 15-19 infected with HIV in the capital city of Lusaka dropped by almost half in the last six years. The percentage of unmarried women who were sexually active fell from 52 percent to 35 percent between 1990 and 1996."

(Elizabeth Farrell, "AIDS in Africa: The Eve of Destruction." The Plain Truth; March/April 2002; pp 10,14)

"EDUCATE YOURSELF"

"In actuality, only 49.9 percent of high school students (grades 9-12) have had sex. (5) That means that 50.1 percent have not. As a parent, that should be realistic cause for hope! There is no reason to assume your teens will be sexually active—especially if you are opposed to nominal sexual activity and you communicate your perspective clearly to your children."

"For teens who are sexually active, the medical risks (not to mention the emotional risks) are troubling. According to the Centers for Disease Control and Prevention:"

- "There are 15 million new STD cases in the United States each year." (6)
- "Approximately one-fourth of these new infections are in teenagers. (7)
- "Teenagers and young adults are more likely than other age groups to have multiple sex partners, to engage in unprotected sex, and for young women, to choose sexual partners older than themselves." (8)
- "Infection rates of genital herpes continue to rise in all social, economic, racial and ethnic boundaries, but most dramatically in teen and young adults." (9)

• "Young women are biologically more susceptible to chlamydia, gonorrhea and HIV." (10)
Footnotes:
"(6) Centers for Disease Control and Prevention. "Tracking the Hidden Epidemics: Trends in STDs in the United States." Atlanta, GA Centers for Disease Control and Prevention; 2000."
"(7) Ibid"
"(8) Ibid"
"(9) Ibid"
"(10) Ibid"
("Connected Parents" The Medical Institute, P.O. Box 162306, Austin, TX 78716.  www.medinstitute.org)

### "I DON'T WANT TO LOSE THIS ONE, TOO"

"Recently Todd, an anxious 15-year-old male patient, presented to clinic with vague reproductive tract complaints. He was accompanied by his mother, who returned to the waiting room after the initial interview. His history gradually revealed a series of sexual encounters with a woman several years his senior. The sexual liaisons included other risks as well, including alcohol and substance use."

"The teen's anxiety resulted from an awareness that his behavior placed him at risk for HIV. He requested HIV testing. While discussing the testing and evaluation for other sexually transmitted infections, the boy began to cry."

"'I don't think that my Mom loves me,' he sobbed. 'Why do you say that?' I responded?" "She doesn't care where I go or who I'm with or if I come home at night. I don't have a curfew and she never asks what I'm doing."

(R. William Noble, III, MD, "I Don't Want to Lose This One, Too", Adolescent and Family Health Magazine, p98) "AIDS RIFE IN EX-SOVIET STATES" "About 1 million people are infected so far, but newly registered cases increased more than five-fold between 1998 and 2001. Most cases--90%--are in Russia and Ukraine, but infections are increasing fastest in Estonia, where one in every 1,000 people was infected in 2001." "In Belarus, 8% of new infections in 1996 were attributed to sexual transmission. By the first half of 2001, that figure had risen to 32%." (Sarah Boseley, "Aids rife in ex-Soviet States," Guardian Unlimited, Thursday September 19, 2002, http://www.guardian.co.uk/aids/story/0,7369,794611,00.html) "RUSSIA'S AIDS CATASTROPHE GROWING" "UN AIDS figures for 2000" "5.3 million people newly infected with HIV." "34.7 million adults living with HIV/AIDS." "1.4 million children living with HIV/AIDS."

"3 million deaths from AIDS."

• "21.8 million deaths from AIDS so far."
• "47% of HIV adults are women."
(Taken from "Russia's Aids catastrophe growing, http://news.bbc.co.uk/1/hi/health/1043675.stm)

• "2.4 million deaths from AIDS in sub-Saharan Africa."

### "THE FACT OF AIDS IS YOUNG"

"Weight evidence bears him out. Scores of studies presented at the conference echo the same frightening facts: AIDS is an epidemic of the young, particularly woman. Almost one-third of the estimated 40 million people worldwide who are infected with HIV are under 25, and half of new infections occur within this age group. In the USA, that amounts to about 20,000 a year."

(USA Today, July 18, 2002)