Why You Should Care about STDs and HIV

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Historical Perspective

They used to be called “venereal” diseases. The Latin word veneris comes from Venus, the Goddess of Love. Also called “social diseases”, the meaning was clear: immoral. Diseases that were spread through sexual contact could give you skin rashes, cause brain damage and eventually insanity and blindness. If that wasn’t enough to deter you, you were doomed. The name was eventually changed to sexually transmitted diseases (STDs) and the first were identified as early as the Middle Ages;gonorrhea and syphilis. Physicians mistakenly believed that they were the same disease; that the “clap”, gonorrhea, eventually turned into the “pox”, syphilis. Through studies conducted in mental hospitals, doctors eventually identified them as separate diseases. Before the advent of penicillin, the diseases were incurable. The outward signs of sexual promiscuousness influenced public perception of sexuality and promoted monogamy, marriage, and chastity before marriage.

There are many theories about the spread and origin of syphilis, one is that it was endemic in Europe until the end of the 15th century at which point it became pandemic or widespread. Whatever the cause, it was well documented after the siege of Naples in 1495 and the passage of soldiers and travelers through Europe. Early descriptions of syphilis called it the Great Pox, MorbusGallicus, the French disease, or in France the Neapolitan disease or Spanish disease. Research conducted by many scientists over hundreds of years located the specific bacterium that causes syphilis and gonorrhea. The initial treatment with mercury, the “silver bullet” progressed to the use of penicillin in the 1940s to treat the disease. With the advent of penicillin, syphilis has almost been eliminated. The sexual revolution in the 1960s brought new sexually transmitted diseases, some that have no cure.

Current State of "Affairs": New STDs

Herpes, HIV, hepatitis B and hepatitis C, and genital and anal warts are the new incurable STDs of our age. The legacy of the sexual revolution lingers today. Others, like chlamydia, developed during this time and even before, but they are curable. There are still risks to promiscuity and they continue to plague the young and the old alike. Our ability to fight new diseases is still running behind the spread of those diseases. Most of these are treatable, if not curable; the trick isknowing that you have them. Hepatitis B and hepatitis C are not always contracted through sexual intercourse, but because they are spread via bodily fluids this sometimes occurs during sex. Do you know the detailed sexual history of all of your partners, or your single partner? Everyone that you expose yourself to increases your chances of contracting an STD. If you know that you have caught something, you can treat it and protect your partner(s). One of the major issues with STDs is that many of them have no symptoms, until it's too late.

The long term consequences of undiagnosed and untreated STDs can be disastrous: infertility, chronic pelvic pain, brain damage, liver damage, and blindness. Modern medicine is a powerful weapon against these diseases.

Specific Symptoms and Permanent Consequences

What if you don't know that you have contracted an STD? Not only do you risk the health of any future sexual partners, but you risk serious long term consequences of these infections. Even if the disease or infection isn't fatal, it can change your life.

One of the most common STDs that doctors treat is chlamydia. It is the most frequently reported bacterial, sexually transmitted disease in the United States. In 2009, a whopping 1,244,180 cases were reported to the Centers for Disease Control from the 50 states and the District of Columbia. This disease is often diagnosed along with gonorrhea so it is a good idea to be tested for both of them at

the same time if you suspect (or your doctor suspects) a chlamydia infection. Because chlamydia is usually symptom free the number of cases is very likely higher. Both chlamydia and gonorrhea are easy to treat but can cause serious long term problems. Chlamydia in women may cause some typical symptoms that are noticeable including abnormal vaginal discharge and a burning sensation when urinating. The infection can spread to the fallopian tubes (the tubes that carry eggs from the ovaries to the uterus). Although there still may be no obvious symptoms, some women experience lower abdominal pain, lower back pain, nausea, fever, pain during intercourse or bleeding between menstrual periods. An infection that begins in the vagina or cervixcan also spread to the rectum.

Chlamydia is spread through vaginal, oral or anal intercourse and can also be spread from a mother to her baby during a vaginal birth. Because it can be spread through anal intercourse, men who have intercourse with men are also at risk of a chlamydia infection. Men who have symptoms may experience a discharge from the penis and a burning sensation when urinating. They may have burning and itching around the opening of the penis, but pain and swelling in the testicles is uncommon. Through anal or oral sexual intercourse chlamydial infections may occur in the rectum or in the throat. Simple treatment with an antibiotic, usually a single dose of azithromycin or a one week treatment, twice per day, of doxycycline will cure the infection. Any sexual partners need to be informed and should be tested and treated as well.

Luckily for men, they rarely suffer any long term effects of a chlamydial infection. It is possible for the infection to spread to the epididymis which is the tube that carries the sperm from the testes. If this occurs, a man may have a fever and pain, and extremely rarely, sterility.

Women are not so lucky. If her partner isn't treated she can easily be re-infected causing even more damage. If the infection spreads to the fallopian tubes and there are no symptoms, permanent damage could occur to the fallopian tubes, the uterus and the surrounding tissue. This can cause PID

(Pelvic Inflammatory Disease) which occurs in 10 to 15 percent of women with undiagnosed and untreated chlamydia. PID can be very mild or quite severe and can lead to the development of internal abscesses or pus filled pockets and fever. These abscesses cause long term chronic pain and are very difficult to treat. Untreated infections and PID may lead to chronic pelvic pain, infertility and ectopic pregnancies. These pregnancies, which occur outside the uterus, can be fatal. Although the chance of long term health problems for men is rare, both men and women could ultimately suffer from arthritis that could be accompanied by skin lesions and eye infections, known as Reiter's Syndrome. Make no mistake, the disease is serious and needs to be treated as quickly as possible.

Syphilis, that old standby, can cause heart disease, bone disease, brain disease, and blindness. It was documented as early as the 1700s to cause enlargement of the heart, nerve damage leading to symptoms of paralysis, unsteadiness of gait and incoordination of movement, in addition to eye inflammation (infectious keratitis) which, if left untreated, can cause permanent damage to the eye. Syphilis, like chlamydia may not produce any symptoms that make it easy to know that you are infected. Painless sores, called "chancres" may appear in the genital areas, but because they are painless, may go unnoticed. The chancre occurs in the location where the syphilis entered the body. This, the first stage, occurs within a few weeks of exposure to the disease. The sore or sores will heal on their own and then the disease progresses to the secondary stage which produces a rash on the body. This may be a red, itchy rash on the palms of the hands and the soles of the feet, or may be barely noticeable on other parts of the body, making it hard to notice or distinguish from rashes that might have been caused by something else. During this early time period, syphilis is easy to cure with one penicillin injection. After the first year, when the disease has progressed to the tertiary or third stage, stronger antibiotic treatment is usually needed. This last and final stage of the disease can last for years and may not produce any symptoms or consequences for 10 to 20 years. Final state syphilis can include brain damage and blindness and the disease can be the ultimate cause of death if left untreated. Although it

is easy to treat and can halt the progression of the disease, the cure will not reverse any damage that has already occurred.

Gonorrhea, as with chlamydia and syphilis, usually produces no symptoms in those who contract the disease. Men may have a white, yellow or green discharge from the penis and a burning sensation when urinating. They may also have swollen testicles. In women, the symptoms, if they appear, are so similar to those for other health problems that they are difficult to distinguish: bleeding between menstrual periods, pain or burning during urination and increased vaginal discharge. An infection in the throat will usually have no symptoms other than a sore throat and any symptoms in the rectum are similar to vaginal or penis symptoms.

Unfortunately, the lack of symptoms can lead to long term, serious consequences for both men and women. In men, gonorrhea can lead to epididymitis which can cause sterility and can be very painful. In women, gonorrhea is a common cause of PID. PID can damage the fallopian tubes causing infertility and ectopic pregnancies. It can spread to the blood and joints and can, ultimately, be life threatening. Lifelong consequences for women also include heart and brain problems and liver infections. For men, the consequences, in addition to sterility and swollen testes, include urinary tract infections, heart and brain problems, arthritis and liver infections.

Any of these diseases also increase the risk of contracting HIV, not only because the infections provide a pathway for HIV to enter the body, but also because people who contract these STDs engage in risky sexual behavior that also puts them at risk of contracting HIV based on the behaviors. Hepatitis B and C and herpes simplex are additional vehicles for HIV infection and untreated, Hepatitis can cause liver disease, liver failure, and liver cancer, while herpes provides a lifetime of painful recurring outbreaks.

HIV and How It Changed the Focus on STDs

After the increase in new or other STDs in the 1960s and the promotion of “free love”, the 1980s brought us the HIV virus. This deadly virus can progress to AIDs leading quickly to debilitation and death and is incurable. Due to the inability of modern science to find a cure for the disease, it has changed the face of our approach to treating STDs.

The HIV virus is spread through sexual contact and specifically, the exchange of bodily fluids. It is also spread by sharing infected needles used by intravenous drug users. This expands dramatically the number of people who are at risk for the disease. Suddenly, after conquering syphilis and gonorrhea, a new deadly virus had surfaced. At almost the same time herpes simplex type 2, which causes incurable, genital sores, exploded into our mainstream consciousness. Again, morality came into play with sexuality marking those who were careless and/or promiscuous with permanent diseases and lifelong consequences.

Although medical technology had advanced enough to nearly eliminate syphilis, the HIV virus and herpes have stumped researchers. Because earlier STDs were treatable, the focus for eliminating them was on finding and treating those who were infected. Focusing on identification and treatment of bacterial diseases to prevent the further spread of STDs, considered secondary prevention, was the primary intervention until HIV. STD prevention was merely an add-on. Previous educational messages suggesting that intuitively “An ounce of prevention is better than a pound of cure,” and others with similar themes were typical. Reducing partners and using condoms were promoted in the form of posters and advertisements in public health clinics.

With the advent of new, incurable diseases the focus and community messaging has shifted. Preventing people from contracting the diseases in the first place is more important than ever. Since then the focus has added information on changing behaviors and behavioral interventions to preventthe

acquisition of incurable diseases or what is considered primary prevention. Scientific evidence supports behavioral interventions. There has been a major shift from provider-delivered messages to involvement of the client and/or community in developing a tailored prevention plan.

Community service messages, posters and training preach abstinence for young people, and it appears that this may be working. Studies show that fewer high school students are engaging in sexual intercourse than previously. According to the Centers for Disease Control (CDC), the number of unmarried teenage girls, aged 15-19 who have ever had sex continues to drop. In 1995 it was 49.3%, down to 45.5% in 2002, and then dropped again in 2006-2008 to 41.6%. For boys, the numbers are higher, but are also dropping. Starting at 55.2% in 1995, down to 45.7% and then again down in 2006-2008 to 42.6%. In addition, of teenagers who have had sex, the majority of them are using condoms when they first have sex: 68.2% of females and 81.5% of males report using a condom the first time they had intercourse.

Many, many young people have been very receptive to the message of delaying sexual activity. There has been nearly a 40 percent reduction in teen pregnancy since the 1990s – which experts attribute to both increased condom use and increased abstinence – representing extraordinary progress on a social issue that many once considered intractable.

A New Trend: Seniors with STDs

A surprising trend has been identified among senior citizens. The flower children of the 60s have grown up, had their families and retired and they are ready to play again. Some of them may have lost a spouse and are lonely, but the easy availability of hormone therapy and drugs like Viagra and Cialis have extended the years when people over 55 are able and interested in having sex. Retirement communities are all about social activities and they've got a large group of like-minded people with the free time and energy to "hook-up." A study conducted in 2007 at the University of Chicago by Dr. Stacy

Lindau[1] showed that 67% of men and 37% of women between the ages of 65 and 74 reported having sex in the last year. The study also reported that 38% of men aged 75-85 had engaged in sex during the previous year. The main indicator of sexual activity for older Americans was not their age, but their overall health. Longevity and better health as we age as allowed sexual activity to continue well into our 70s. Researchers found that the number of seniors engaging in sexual activity did not change very much between the ages of 50 and 70.

Unlike the teenagers and young adults of today, these seniors didn't get the safe sex talk from school and their parents that now occur in schools and homes every day. Because most people over 50 aren't worried about unwanted pregnancy any more, many of them may believe that they don't need condoms. Unfortunately, this has led to a dramatic increase in the number of STDs contracted by senior citizens.According to the Centers for Disease Control the number of reported cases of syphilis and chlamydia among adults 55 and older increased by 43% between 2005 and 2009. Central Florida saw an even larger increase, 71%, in the same time period. Overall the number of syphilis cases has increased across all ages groups, but for all age groups it increased by 60% but for Americans over 55 the number increased 70%. Although the number of cases among seniors is still very small (a total of 363 cases of syphilis in adults over 55 went up to a total of 597), the trend is worrisome.

Because of this trend, Medicare is considering adding STD coverage for health screenings for seniors. Medicare already covers HIV screenings, but they are also considering adding behavioral counseling for sexually active seniors. Due to other health issues and a gradual weakening of the immune system as people age, senior citizens may be more susceptible to STDs than younger people. Medications for hypertension, heart disease and diabetes can contribute to an increased susceptibility to all infections. Many STDs go unnoticed among seniors as well, and therefore are untreated. Having an STD can increase the chances of other infections, heart disease, diabetes, or even worse. The

increased risk to their health through STDs is encouraging many communities and clinics to provide education and services to senior citizens. People over 50 are less likely to raise the subject with their doctors due to embarrassment so it is left to doctors and clinicians to broach the topic and recommend testing for their older patients who are sexually active. They may not be comfortable discussing sexual behavior or condom use with physicians or with their partners causing serious issues for preventing the spread of STDs among older people. A study conducted at Indiana University[2] found that men aged 18-39 use a condom 50% of the time, while men aged 50 and older used a condom only 28% of the time with casual partners. Clearly, older Americans need some education about safe sex since it doesn't look like they are slowing down the way our parents and grandparents did.

The National Strategy on HIV Prevention

The Centers for Disease Control and Prevention (CDC) have identified twenty-five STDs and estimate that each year in the United States more than 15 million people become infected with at least one; 65 million people in the United States are infected with an incurable STD, such as human immunodeficiency virus (HIV) or genital herpes. Most of the children who acquire HIV, which can lead to AIDS, acquire it from their mothers. As of December 2000, more than 9,000 children and 45 adolescents in the United States had died of AIDS.

HIV prevention affects prevention of other STDs as well. If people are more careful, using condoms, reducing the number of partners and being aware of the risk factors, they will be protecting themselves from many STDs, not only avoiding those diseases, but by not contracting an STD, helping to prevent contracting the HIV virus in the first place. Ultimately, reducing risky behavior such as sexual activity, use of alcohol and drugs, and specifically intravenous drug use, will reduce the chances of getting HIV.

Many people are not aware that HIV is still a huge problem in the United States and in fact, is still an epidemic. Most of us assume that HIV is only a problem for men having sex with men, intravenous drug

users and millions of people living in Africa, so there's nothing for us to worry about. Because this isn't the case, President Obama has worked with multiple organizations to develop a National Strategy on HIV. The main message to use condoms and not share needles hasn't been enough to control the disease. In the United States, 1.1 million people are estimated to be living with HIV in 2006 with as many as 21% of them undiagnosed. Over 56,000 people contract HIV each year with only 40 thousand of them aware of their disease and receiving a positive diagnosis. Since the first diagnosis in the United States, over 575,000 Americans with AIDs have died.[3]

Recognizing that HIV is still an epidemic the Obama Administration reached out to experts and stakeholders across the country and held a national listening tour in communities across America. The resulting National Strategy on HIV and AIDs, released on July 13, 2010, is the first document and first national policy on HIV and AIDs since it was first diagnosed in the US 30 years ago. The primary areas of focus of the strategy cover three specific objectives: reducing new HIV infections, increasing access to care and improving health outcomes for people living with HIV, and reducing HIV-related disparities and health inequities.

The vision for the National HIV/AIDs Strategy is that "The United States will become a place where new HIV infections are rare and when they do occur, every person, regardless of age, gender, race/ethnicity, sexual orientation, gender identity or socioeconomic circumstance, will have unfettered access to high quality, life-extending care, free from stigma and discrimination". The responsibility for achieving the vision has not been placed solely on the federal government but placed squarely in the laps of all parts of society, including state, local, and tribal governments, businesses, faith communities, philanthropy, the scientific and medical communities, education institutions, people living with HIV and others. The goals and objectives of the strategy are intended to be met by the year 2015 and will require a coordinated effort between all of these parts of society. There are some very specific steps

that have been laid out to achieve the goals and based on the knowledge that has already been collected and researched about HIV the efforts of all of these groups can reach the goals. Specifically:

1. To reduce the number of new HIV infections which includes reducing the number of new infections annually by 25%, reducing the transmission rate by 30%, and increasing from 79% to 90% the percentage of people who know their HIV status, critical steps are to:
    a. "Intensify HIV prevention efforts in the communities where HIV is most heavily concentrated,
    b. Expand targeted efforts to prevent HIV infection using a combination of effective, evidence based approaches, and
    c. Educate all Americans about the threat of HIV and how to prevent it.[4]"
2. To increase access to care and improve health outcomes for people living with HIV including increasing the number of newly diagnosed patients linked to critical care within 3 months by 20%, increasing the number of Ryan White HIV/AIDS Program clients in continuous care from 73% to 80% and increasing the number of Ryan White clients with permanent housing from 82% to 86% recommended actions are to:
    a. "Establish a seamless system to immediately link people to continuous and coordinated quality care when they learn they are infected with HIV,
    b. Take deliberate steps to increase the number and diversity of available providers of clinical care and related services for people living with HIV, and
    c. Support people living with HIV with co-occurring health conditions and those who have challenges meeting their basic needs, such as housing.[4]"
3. To reduce HIV-related disparities and health inequities including improving access to prevention and care services for all Americans, and by 2015 increasing the number of diagnosed gay and

bisexual men, Blacks, and Latinos with undetectable viral load by 20%, steps that are needed are to:

a. "Reduce HIV-related mortality in communities at high risk for HIV infection,
b. Adopt community-level approaches to reduce HIV infection in high-risk communities, and
c. Reduce stigma and discrimination against people living with HIV.[4]"

4. The steps above will require increased coordination between the federal government and state, local and tribal governments, the scientific and medical communities and those living with HIV among many others to be successful. Improved mechanisms for tracking and reporting the progress toward these goals will also need to be designed and implemented.

The Strategy is aggressive but hopefully, achievable. The goal of reducing new HIV infections by 25% can get a tremendous jump start by asking people to be tested so that they are aware of their status. If people know that they are infected, they are less likely to spread it to other people. Overall, the National HIV/AIDS Strategy is meant to revive interest and awareness of the epidemic so that more Americans become involved in the prevention effort, either within their community or through their own behavior.

The Future

In February 2011, the Office of National AIDS Policy in the White House issued a document designed to spell out specifics on the implementation of the National Strategy, entitled "Implementing the National HIV/AIDS Strategy: Overview of Agency Operational Plans". The document lists designated lead agency officials, key FY2011 agency activities to implement the National HIV/AIDS Strategy, a timeline and key agency contacts.[5]

In combination with ongoing research and potential cures and treatments for HIV, there is hope for a solution to the HIV epidemic. The National Institute of Allergy and Infectious Disease (NIAID) continues to lead the charge in studies on possible vaccines and treatments for the disease, but it will take everyone's awareness and involvement to truly make a difference.

How Can You Protect Yourself?

STDs are an ongoing problem, not only for those who engage in sexual activity promiscuously but for everyone around them. Unborn children and unsuspecting monogamous husbands and wives can be exposed without their consent or their knowledge. Besides the embarrassment of discussing an STD with your doctor or your child's pediatrician, these infections and diseases frequently leave behind symptoms, conditions and disabilities that last a lifetime.

It is important to remember that being symptom free doesn't mean being disease free. If you engage in sexual activity you may be at risk. Over half of all Americans will have a sexually transmitted disease or infection at some time in their lives and there are 19 million new STD infections every year. There are some clear risk factors to keep in mind:

- Intravenous (intake via needles) drug users
- Men who have sex with other men
- Having multiple sexual partners who having sexual intercourse with someone who has or had multiple sexual partners
- People who have spent time in detention centers

To help prevent the serious consequences of many undetectable or unnoticeable STDs like chlamydia an annual screening is recommended for all sexually active women aged 25 years or younger. An annual screening test is also recommended for older women with risk factors for chlamydia such as a

new sex partner or multiple sexual partners. All pregnant women should be screened for chlamydia and for HIV. In addition, if for women who have herpes simplex the prescription medication valcyclovir can be taken as the delivery date draws close to prevent an outbreak during delivery. This can prevent herpes infections in newborns, specifically in the eyes.

It is in everyone's best interest to be aware of the risk factors and symptoms of sexually transmitted diseases, even if you are not in a high risk category. You never know when your situation could change or the information you have could prevent the spread of a disease by just the right words to a friend, or daughter, or son.

ANY LAB TEST NOW® is available to answer any questions you have regarding STD and HIV testing and its benefits. Our experienced Medical Assistants are thoroughly trained in these tests and the confidentiality issues surrounding them. We are here when you are ready to get the information you need to make safe choices for yourself and your family and partners.

Footnotes

[1]A Study of Sexuality and Health Among Older Adults in the United States, Lindau ST, Schumm LP, Laumann EO, Levinson W, O'Muircheartaigh, CA, Waite, LJ, *New England Journal of Medicine*, 2007, Aug 23;357(8):762-74.

[2]Sexual Behaviors, Condom Use, and Sexual Health of Americans Over 50: Implications for Sexual Health Promotion for Aging Adults, Schick, V., Verbenick, D., Reece, M., Sanders, S.A., Dodge, B., Middlestadt, S. &Fortenberry, J.D., (2010), *Journal of Sexual Medicine*, 7 (suppl 5), 315-329.

[3]HIV *Surveillance Report: Diagnoses of HIV Infection and AIDS in the United States and Dependent Areas*, 2009, Centers for Disease Control

[4]The National HIV/AIDS Strategy Fact Sheet, The White House

[5]Implementing the National HIV/AIDS Strategy: Overview of Agency Operational Plans, The Office of National AIDS Policy, The White House