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California Stories

Sonoma County reports rise in STDs

Martin Espinoza, The Press Democrat | 12.10

Skyrocketing rates of sexually transmitted infections such as chlamydia, gonorrhea and syphilis have local public health officials and medical professionals sounding the alarm in Sonoma County, even as new HIV and AIDS infections appear to be on the decline.

The rate of chlamydia rose from just under 1,000 to 1,645 new cases between 2008 and 2014; new gonorrhea cases have gone from 70 to 220 during that period. And new early-stage syphilis cases, which numbered about 5 in 2008, shot up to 40 in 2012 and remained high at 30 in 2014.

“We’re in the middle of an epidemic when it comes to cases of chlamydia,” said James Stafford, a physician assistant at Vista Family Health Center who specializes in STD case management.

Stafford, who for many years worked at the county’s STD clinic before it closed in 2008, said the increase in cases of syphilis — a serious bacterial infection that can lead to a number of health complications such as stroke, deafness, visual problems and dementia — is particularly troubling.

“Now we’re seeing more than ever,” Stafford said. “I don’t remember a time in my career when we saw so many cases of syphilis.”

Though the county recently said reports of new local HIV and AIDS cases declined over the past five years, the rise in other sexually transmitted infections is worrisome because STDs can increase the risk of HIV transmission.

The local trend mirrors similar increases observed across the Bay Area, California and the rest of the country, according to local, state and national health officials. They say reasons for the spike in rates are varied and complex. Possible causes include an increase in risky sexual behavior, the rise of anonymous online dating, the substitution of condoms for a new HIV prevention treatment called PrEP and less condom use in general.

“It’s happening here, but we’re not unique. This is a trend that’s occurring across the state and actually across the nation,” said Karen Holbrook, Sonoma County’s deputy public health officer.

Holbrook said another possible contributing factor for the increase in STD rates is the implementation of more aggressive testing. Increased screening recommendations from the federal Centers for Disease Control and Prevention, or CDC, may be catching more infections, she said.

‘No single answer’

Eloisa Llata, a CDC epidemiologist, echoed that theory.

“There is no single answer to explain why STDs are increasing this year. These are complex diseases that can be impacted by a number of factors,” Llata said in an email.

Llata said that among sexually active men who have sex with men, the CDC recommends annual screening and testing for syphilis, chlamydia and gonorrhea, or more frequently if the patient’s doctor advises. But testing and screening also is more frequently being performed in other body areas, such as the throat and anus.

“That may be increasing detection of chlamydia and gonorrhea infections, specifically among men,” Llata said.

Llata said that for primary and secondary stages of syphilis, cases have been increasing among gay men since at least the beginning of the millennium. She said that in 2014, 91 percent of all cases of primary and secondary syphilis cases were men. Of these cases where the gender of the partner was known, 83 percent were men having sex with men, Llata said.

Though cases of primary and secondary syphilis increased among this group in 2014, increases were observed among women and heterosexual men as well, she said.

One factor could be men who have sex with other men and then later transmit STDs to heterosexual women, a phenomenon researchers have observed in studies looking at HIV transmission, Llata said.

“That could be contributing to increases in syphilis” as well, she said.

That finding is reflected in Sonoma County.

County follows trend

According to county analysis of local syphilis cases, nearly all cases of syphilis before 2010 were diagnosed among men, with the majority found in men who had sex with men. But between 2010 and 2014, nine women were diagnosed with syphilis, “indicating a shift in epidemiology to include the heterosexual population.”

Of the 117 syphilis cases diagnosed between 2011 and 2014, 92 percent were among males. Of the men, 72 percent were white and 41 percent were HIV positive.

Though on the rise locally, the STD rates in general are lower than state and national rates, said Dr. Gary Green, chief of infectious disease at Kaiser Permanente Medical Center in Santa Rosa. County data shows that an exception occurred in 2012, when local rates for syphilis — eight cases for every 100,000 people — matched that of the state.

Kaiser cases up

Green said STD rates among Kaiser patients also recently have increased. He said that not all of the increases may be attributed to more thorough testing and screening, since Kaiser has for years run a full spectrum of STD tests for patients. If a patient comes in for a gonorrhea test, medical staff will order tests for other STDs as well, he said.

Among other possible reasons for the recent spike in STD rates is the advent of online dating and a relatively new HIV prevention treatment called PrEP, Green said.

Online dating makes “sexual behaviors much more accessible and also more anonymous,” he said.

PrEP, which consists of a single pill called Truvada and is taken daily, is a combination of two anti-retroviral drugs used to treat HIV infection. In a patient with HIV, the drugs suppress the “viral load” to keep the infection from progressing to AIDS.

But in patients who are not HIV positive, PrEP works to block the transmission of HIV. Green said that some men who have sex with men appear to be relying on the drug as a substitute for condoms. Green said that none of Kaiser's patients currently on a regimen of PrEP have become HIV positive and yet some are testing positive for STDs.

Stafford, the physician assistant at Vista Family Health Center, said that some people view PrEP as a "panacea," dismissing the need to "still wear a condom."

Dr. Heidi Bauer, chief of the STD control branch for the California Department of Public Health, said some populations are more affected than others. In a comparison of 2013 and 2014 rates, the state found that teenagers and young adults into their mid-20s are a particularly risky group, because they are less likely to be married or engaged in a steady relationship and usually have more than one partner.

Antibiotics used

Bauer said the three main STDs — chlamydia, gonorrhea and syphilis — can be treated with antibiotics. She said there's no "magic bullet" approach to reducing rates. Public health officials are working on a number of fronts including public health education, screening and testing, she said.

All say testing is an important tool in controlling STDs. Testing more frequently reduces the time between a positive test and antibiotic treatment. That means a shorter window where others are possibly being infected.

"A lot of these infections don't cause symptoms," Bauer said, adding that STDs sometimes go undetected until a patient goes to a clinic or their doctor and gets tested.

"We really recommend widespread screening and testing based on risk," she said.

View the story online: [Click here](#)

Santa Clara County seeks to halt HIV

Matthew S. Bajko, The Bay Area Reporter | 12.17

Santa Clara County supervisors have asked their county health department to devise a plan to halt the transmission of HIV within the 15 cities under their jurisdiction.

At its meeting Tuesday, December 15 the five-member Board of Supervisors unanimously adopted a request brought forward by gay Supervisor Ken Yeager for the county to create its own Getting to Zero plan, similar to the action health officials in San Francisco took last year.

Yeager would like to see the county emulate San Francisco's goal of reducing new HIV infections by at least 90 percent come 2030. According to the latest figures from the Santa Clara County Public Health Department, there were 155 new HIV cases in 2014, with infections among men increasing 20 percent from 2013.

"Other areas are doing great work in this area and I hope we can learn from their plans and incorporate best practices into ours," Yeager told the Bay Area Reporter.

County Health Officer Dr. Sara Cody is tasked with bringing the outlines of a plan, as well as a cost estimate for putting it into place, to the supervisors sometime in February.

"It is a very audacious goal," Cody told the B.A.R. in a phone interview following the board's vote.

She demurred when asked what the cost of the plan would be, saying that, "My guess is this will be rather resource intensive."

One of the first steps she intends to take toward crafting the county's plan will be to confer with her counterparts in San Francisco to learn more about the city's Getting to Zero plan.

It is based on a three-pronged strategy of expanded access to pre-exposure prophylaxis (better known as PrEP), rapid access to antiretroviral therapy, and retention of HIV-positive people in care. Santa Clara's plan is expected to mirror the city's approach.

Until now, Santa Clara County health officials had not set a timeframe for ending HIV transmission. Cody told the B.A.R. she is unsure if San Francisco's 2030 goal would be feasible for Santa Clara to replicate.

The two jurisdictions differ in how they operate and provide HIV prevention services and care for those living with HIV and AIDS. San Francisco is both a city and a county, and despite it overseeing a more compact area, its HIV cases are three times the size of those found in Silicon Valley. It recorded 302 new HIV infections in 2014.

Like with San Francisco's HIV cases, the majority of cases in Santa Clara County are among men who have sex with men. And men in both counties age 50 years and older account for large percentages of the people living with HIV or AIDS; in Santa Clara it is 48 percent of the 2,902 residents in the county who are HIV-positive.

Latino men who have sex with men aged 20 to 39 largely accounted for the uptick in HIV cases that Santa Clara saw last year. Cody said the county will not know if HIV cases continued an upward climb in 2015 until sometime next year due to the delay in its receiving data from state health officials.

One challenge the county health department faces is that 30 percent of the people living with HIV in Silicon Valley are not receiving treatment. Another is how accessible PrEP is for HIV-negative people, particularly those not receiving care from the county health system.

As Yeager's office noted in its proposal to the board, the county-run Santa Clara Valley Medical Center is in the process of adopting national clinical guidelines on the appropriate utilization of PrEP by primary-care clinicians and training for clinicians on how to implement the guidelines.

"There is a great deal of excellent work being done within Santa Clara County that can be built upon for the Getting to Zero initiative, work that could be coordinated, assessed and strengthened from a county-wide, whole system perspective to help us win the battle against HIV/AIDS," wrote Yeager in his proposal to the board.

View the story online: [Click here](#)

National Stories

New findings from CDC survey suggest too few schools teach prevention of HIV, STDs, pregnancy

Press Release, CDC NCHHSTP | 12.9

In most of the United States, fewer than half of high schools and only a fifth of middle schools teach all 16 topics recommended by the Centers for Disease Control and Prevention (CDC) as essential components of sexual health education.

The [findings](#), released today at the National HIV Prevention Conference in Atlanta, are based on CDC's 2014 School Health Profiles. Every other year, these surveys ask schools across the country whether they teach essential topics in HIV, STDs, pregnancy prevention, and other health subjects.

CDC selects these age-appropriate topics for middle and high schools based on the scientific evidence for what helps young people avoid risk. The topics range from basic information on how HIV and other STDs are transmitted -- and how to prevent infection -- to critical communication and decision-making skills.

"We need to do a better job of giving our young people the skills and knowledge they need to protect their own health," said Jonathan Mermin, M.D., M.P.H., director of CDC's National Center for HIV/AIDS, Viral Hepatitis, STD, and Tuberculosis Prevention. "It's important to teach students about healthy relationships and how to reduce sexual risk *before* they start to have sex."

The report indicates that the percentage of schools providing sexual health education that meets CDC's criteria for sex education is generally low and varies widely by state. Specifically, among 44 participating states:

- The proportion of **high schools** that teach all 16 topics as part of a required course in grade 9, 10, 11, or 12 ranges from 21 percent (in Arizona) to 90 percent (in New Jersey).
- In most states, fewer than half of **high schools** teach all 16 topics and only three states (New Jersey, New York, and New Hampshire) have more than 75 percent of high schools achieving this goal.
- The proportion of **middle schools** teaching all 16 topics in a required course in grade 6, 7, or 8 ranges from 4 percent (in Arizona) to 46 percent (in North Carolina).
- In no state did more than half of **middle schools** meet the goal, and in most states less than 20 percent did.

Young people face serious – but avoidable – sexual health risks

Nearly one-quarter of HIV diagnoses and half of all sexually transmitted infections in the United States occur among those under the age of 25. And while sexual risk behavior among young Americans declined from the 1990s through the early 2000s, progress has stalled. According to CDC's [Youth Risk Behavior Surveillance System](#), the proportion of teens who have ever had sex has remained unchanged (at about 47 percent) for a decade; 15 percent of teens in 2013 said they had had four or more sexual

partners, the same number as in 2003. Nearly a third (30 percent) of 9th grade students report having had sex.

Teens today are less likely than they were a decade ago to say they used a condom the last time they had sex (today about 59 percent say they did versus 63 percent in 2003). And nearly a quarter (22 percent) drank alcohol or used drugs the last time they had sex – reflecting no progress in more than two decades.

“Lack of effective sex education can have very real, very serious health consequences,” said Stephanie Zaza, M.D., M.P.H., director of CDC’s Division of Adolescent and School Health. “Young people who have multiple sex partners, don’t use condoms, and use drugs or alcohol before sex are at higher risk for HIV and other sexually transmitted infections. School-based sex education is a critical opportunity to provide the skills and information they need to protect themselves.”

Schools play a central role in protecting the sexual health of young people

CDC is working with multiple partners to improve school-based HIV, STD, and pregnancy prevention efforts. Ongoing CDC research and survey data helps schools better understand and continually tailor their prevention efforts to address young people’s risks – and to assess where schools are succeeding or falling short, to focus future efforts. CDC provides direct funding for state, local, and territorial agencies to develop and implement evidence-based sexual health education policies and programs.

View the story online: [Click here](#)

Liquor Taxes and Sexually Transmitted Infections

Nicholas Bakalar, The New York Times | 12.17

Maryland increased its liquor taxes in 2011 and a sharp decrease in the rate of new gonorrhea infections immediately followed. Researchers have determined that the two events are closely linked.

The [study, in The American Journal of Preventive Medicine](#), used three control groups to exclude other explanations for the decline. The first control group included all states that did not change alcohol taxes. The second group looked at states that did not share a border with Maryland, in order to avoid bias from people buying liquor in nearby states where the taxes were lower. And the third group eliminated states in which the government has a monopoly on hard liquor sales, since prices may rise in those states even without an increase in taxes.

In 2011, the Maryland liquor tax rose to 9 percent from 6 percent. After the increase, Maryland’s gonorrhea rate declined by 24 percent — the equivalent of 1,600 cases per year. There was no decrease in the control states.

The authors suggest that decreased alcohol consumption decreases sexual risk-taking, including unprotected sex, casual sex and sex with new partners.

“Policy makers should consider raising liquor taxes if they’re looking for ways to prevent sexually transmitted infections,” said the lead author, Stephanie A.S. Staras, an assistant professor at the

University of Florida College of Medicine. "In the year and a half following the alcohol tax rise in Maryland, this prevented 2,400 cases of gonorrhea and saved half a million dollars in health care costs."

View the story online: [Click here](#)

Pregnancy and Abortion Rates Continue to Fall, Says CDC

ACOG credits access to contraception for preventing unplanned pregnancies

Molly Walker, Medpage Today | 12.11

Pregnancy rates continued their long, steady decline in the first decade of the 21st century, with corresponding decreases in the rate of abortion, according to CDC data released Friday on pregnancy outcomes through 2010.

In 2010, the pregnancy rate stood at 98.7 pregnancies per 1,000 women ages 15-44, the lowest level in 35 years and 15% below 1990 levels. Abortion rates also declined by more than a third (35%) in the 1976-2010 period, reaching a record low 17.7 per 1,000 women of childbearing age in 2010, reported Sally C. Curtin, MA, of the CDC, and colleagues in a NCHS Health E-Stat addendum to a previous NCHS report on pregnancy rates.

While not involved with the study, Mark S. DeFrancesco, MD, president of the American College of Obstetricians and Gynecologists (ACOG) said that this data highlighted the importance of contraception to women's health in terms of lowering the risk of unplanned pregnancies and abortion.

"Ob-gyns see, first-hand, the tremendous impact that access to contraception has on a woman's overall health and well-being," he wrote in an email to MedPage Today. "It proves that contraception and access to it remains of utmost importance; it is an essential component to women's health care. The American Congress of Obstetricians and Gynecologists will continue to advocate for and improve widespread and consistent use of contraception to help reduce the number of unplanned pregnancies."

The report's authors also noted that [more recent data shows birth rates continuing to drop from 2011 to 2013](#), and the number of abortions continuing to decline from 2010 to 2011.

There were 6.155 million pregnancies in 2010 -- the lowest number since 1986. Of these, two-thirds (65.0%) were live births, 17.9% were induced abortions, and 17.1% were fetal losses. There was a slight decline (-3%) in fetal losses in 2010 compared to 1990, though the authors described the numbers as "fluctuating."

The rate of teen pregnancies dropped substantially, with a whopping 67% decrease for teens ages 14 and under, and the number of pregnancies for teens ages 15-19 cut in half (-50%) compared to 1990. The number of pregnancies declined even for demographics with the highest pregnancy rates: both women ages 25-29 (157.1 per 1,000 women) and women ages 20-24 (144.6) decreased 12% and 27%, respectively, from 1990.

Not surprisingly, pregnancy rates rose 70% for women over the age of 40, with increases for women ages 30 and over from 1990 to 2010. However, the authors note that rates for women in their 30s have declined since 2006-2007.

Non-Hispanic black women were the ethnic group with the highest pregnancy rates (135.1 per 1,000 women ages 15-44), with non-Hispanic white women on the low end (84.1). However, pregnancy rates declined by more than a quarter for non-Hispanic black women and Hispanic women (-26% and -28%, respectively), with smaller decreases for non-Hispanic white women (-14%).

Hispanic women had the highest birth rate in 2010 (80.2), while non-Hispanic black women had the highest abortion rate (47.7).

The authors examined data on births from the National Vital Statistics System, data on abortions from the Abortion Surveillance System and Guttmacher Institute, and data on fetal losses from several cycles of the National Survey of Family Growth.

Primary Source

NCHS Health E-Stat

[Source Reference: Curtin SC, et al "2010 pregnancy rates among U.S. women" NCHS Health E-Stat 2015.](#)

View the story online: [Click here](#)

Ipergay PrEP study results published

Researchers urge caution on over-interpretation

Gus Cairns, aidsmap.com | 12.2

The results from the Ipergay study of intermittent pre-exposure prophylaxis (PrEP) were published in the New England Journal of Medicine (NEJM) on 1 December, World AIDS Day. The journal-published results are little changed from those presented at the CROI conference last February by principal investigator Jean-Michel Molina but the researchers make a number of additional comments and are notably cautious about not over-interpreting a study that only had 400 participants – very small for a prevention study – and an average of nine months’ follow-up.

Despite this, Ipergay represents a major innovation in PrEP. It is the first, and so far only, randomised study to show that an intermittent regimen of PrEP, that users only take when anticipating sex, can be just as effective as daily PrEP.

To summarise the results: in Ipergay 400 gay men and transgender women were randomised to either take Truvada (tenofovir/emtricitabine) or a placebo.

The regimen that participants were told to take was a double dose (two pills) 24 to two hours in advance of anticipated sex, and then a pill on both of the two days following sex. If they continued to have sex, they were to keep taking one pill a day until two days after the last sex. If they restarted sex, they had to take a double dose if there had been more than a week since the previous sex.

The use of a placebo was somewhat controversial in Ipergay as some activists felt that the effectiveness of PrEP had already been sufficiently demonstrated by the iPrEx study of 2010. However effectiveness in iPrEx was only 42% overall, and the writers comment that “The use of a placebo was deemed to be justified because of the inconsistent efficacy of PrEP in previous trials and the moderate efficacy in the iPrEx trial.”

There were 19 HIV infections during the whole Ipergay trial period but three of those were determined to have happened shortly before participants started taking PrEP/placebo. There were 14 infections in men allocated to placebo and two in men allocated to PrEP.

In fact neither of these men had taken PrEP, or hardly any, in the two-month period before they tested positive (in Ipergay, clinic visits were every eight weeks). One new detail added in the NEJM piece is that participants were asked to return unused pills and on the visit they were diagnosed, these two participants returned respectively 60 and 58 out of the 60 pills given to them two months previously.

The 14/2 difference in infections represents an 86% (95% confidence interval: 40%-98%) reduction in the risk of HIV infection in the trial participants allocated to Truvada. HIV incidence in the trial was 6.6% a year in placebo recipients and 0.91% in Truvada recipients. The 6.6% is more than double the 3% incidence anticipated before the trial, though not as high as the 9% seen in the deferred-PrEP arm in PROUD.

Study participants and sexual behaviour

We learn a little more about the study participants from the report. Their average age was 34.5, with one in seven participants aged 18 to 24 and another one in seven 25 to 29. The majority (62%) were aged 30 to 49. Only a quarter said they were in a relationship but remarkably – and this is presumably one reason for volunteering for the study – 30% of those in a relationship said their partner was HIV-positive (slightly more in the Truvada arm).

Half the participants were from Paris and 11% from Montréal in Canada, with the others from Lyon, Nice, Tourcoing and Nantes in France. They had high levels of recreational drug use (44.5% in the last year had used ecstasy, methamphetamine, amphetamine, cocaine, GHB or GBL) and 25% had had more than five alcoholic drinks per day in the past month.

The men had had a median number of eight sexual partners in the past two months – similar to PROUD, where participants averaged ten in the previous three months. This was the one behavioural indicator that changed slightly during the study: it fell to 7.5 partners per two months in the placebo arm and not the Truvada arm and this was statistically significant but nonetheless likely to be a chance finding.

Apart from this slight drop in the number of partners in participants on placebo, sexual behaviour did not change during the study, with 70% throughout and in both arms having condomless anal sex in the previous two months, and two-thirds of those having it receptively.

Adherence

Adherence was as described before: while it is challenging to measure or even define ‘adherence’ to an intermittent regimen, 86% of participants on Truvada had levels of tenofovir in their body consistent with them taking at least one dose a week. Interestingly so did eight men in the placebo arm; three of these had taken post-exposure prophylaxis (PEP) but presumably the other five had taken “informal PrEP”.

Only 43% in self-report, however, said they had taken PrEP in accordance with the study regimen last time they had sex, while 28% had not taken it at all.

On average, participants took PrEP half the time, i.e. 15 days per month; 17% took PrEP more than 26 days a month, i.e. essentially daily, while 31% took it for eleven days or fewer, i.e. less than 2.5 days per week, a level that, according to data from the iPrEx study, would not be enough to protect them from HIV if it represented a steady level of PrEP taking.

There was, however, tremendous variability in individual participants' adherence 'careers' throughout the study; while some took it steadily and others scarcely at all, many participants stopped or restarted PrEP irregularly, many with gaps of several months off PrEP. Since irregular adherence (and the fact that 29% of sex was not covered by PrEP at all) was not associated with HIV infection, this presumably means that participants were correctly judging their levels of risk and only taking PrEP when they judged it as high.

Fourteen per cent of participants took PEP during Ipergay (16% on Truvada and 12% on placebo), compared with an average of 18% in PROUD.

Safety

There were no serious drug-related adverse events in the study though one participant had to stop Truvada due to a suspected reaction with the anticoagulant drug dabigatran. However there were significantly more gastro-intestinal events such as nausea, vomiting, abdominal pain or diarrhoea in the Truvada group than the placebo group (14% versus 5%).

Creatinine levels, an indication of kidney performance, were raised in 18% of participants on Truvada versus 10% on placebo. Two participants on Truvada had drops in creatinine clearance to below 60mls/minute, definitive of mild kidney dysfunction, but these were transient and did not last.

Comments and conclusions

In their comments the Ipergay researchers are notably cautious about their findings. They comment that although the effectiveness of PrEP seen in Ipergay was nearly the highest to date, "the short follow-up for our study may have increased the likelihood of an exaggerated estimate of efficacy due in part to high initial adherence."

They add that "given that participants took a median of 15 pills a month, the results...cannot be extrapolated to [gay men] who have less frequent sexual intercourse and thus would be taking tenofovir/emtricitabine on a more intermittent regimen." By definition men who had sex less often would have lower HIV incidence and so a much bigger study would be needed to establish whether intermittent PrEP was effective in them.

View the story online: [Click here](#)

Imbalanced gender ratios could affect views about casual sex and hook-up culture

As reported by Medical Xpress | 12.9

The greater proportion of women than men on college campuses may contribute to a hook-up culture where women are more willing to engage in casual sex and are more aggressive toward other desirable

women who are perceived as rivals, according to new research published by the Society for Personality and Social Psychology.

In the first experimental study to examine this issue, researchers found an imbalanced gender ratio affects views about casual sex for both men and women in ways that people may not consciously realize.

"If your gender is in the majority, then you have to compete with a lot of rivals, and you can't be as selective or choosy," said lead researcher Justin Moss, an adjunct psychology professor at Florida State University. "You might also have to cater to the demands of the other sex more often."

The gender ratio at U.S. colleges has become more skewed over the past decade as more women attend college and graduate at higher rates than men, who are more likely to drop out. Last year, 57 percent of college students in the United States were women, according to the National Center for Education Statistics, with the gender ratio even more imbalanced at some schools. The study findings could have important practical implications about risky sexual behavior at colleges and in other areas, including efforts to reduce teen pregnancy rates and workplace sexual harassment, Moss said.

In one experiment, 129 heterosexual university students (82 women, 47 men) read one of two fake news articles stating that colleges in the local surrounding area were becoming either more female-prevalent or male-prevalent. The participants then completed a survey about their attitudes toward casual sex and their prior sexual history. The research was published online in the journal *Personality and Social Psychology Bulletin*.

When the gender ratio was favorable (one's own gender was in the minority), both men and women adopted more traditional sexual roles with women less interested in casual sex than men, according to the study findings. When the gender ratio was unfavorable (one's own gender was in the majority), those roles shifted as men and women tried to appear more desirable to the opposite sex. If there were more women than men, women stated they were more willing to engage in casual sex. If there were more men than women, men tended to place less importance on casual sex and be more open to long-term commitment.

In another experiment with 177 university students (73 women, 104 men), both men and women were more willing to deliver painful sound blasts to attractive same-sex competitors when the gender ratio was unfavorable. After participants read either the male-prevalent or female-prevalent article from the first experiment, they were told they would be competing on a time-reaction task against a same-sex partner in another room, although there was no real partner and the participants' responses were recorded by the researchers. One group was shown a picture of an attractive competitor who was described as an outgoing, sociable student, while the other group saw a photo of a less attractive competitor who didn't go out much and played a lot of video games.

In the time-reaction task, the participants were told to hit a computer key as soon as they heard a tone played through some headphones. When participants lost, they heard a painfully loud noise blast. When they won, they got to choose the length and volume of the noise blast that ostensibly would be inflicted on the competitor.

Participants who believed there was an unfavorable gender ratio were more likely to display unprovoked aggression with longer and louder noise blasts against attractive partners. The same effects

were't seen for unattractive partners, possibly because they weren't seen as a threat. When the gender ratio was favorable for participants, they were less aggressive toward attractive competitors.

The study participants were heterosexual so the findings don't necessarily apply to gay men or lesbian women. College campuses often have insular dating scenes so the research may not be as directly relevant to the general population where gender ratios are less skewed. However, Moss believes the same effects may be seen in other areas with imbalanced gender ratios, such as high schools or workplaces that are predominantly male or female, and even in smaller environments like bars.

"If a woman goes to a bar and notices a lot more women and thinks she has to compete, maybe she can consciously alter the course of her actions or leave and go to a different bar," Moss said. "Someone's personal views toward casual sex play an important role, but there also are environmental factors that people should consider."

View the story online: [Click here](#)

Task Force: Screen All Teens, Adults at Risk for Syphilis

Proposed recommendation dovetails with surge in U.S. cases of the sexually transmitted disease

Robert Preidt, HealthDay News | 12.14

All adults and teens at increased risk for syphilis should be screened for the sexually transmitted disease, a U.S. Preventive Services Task Force draft recommendation says.

The recommendation complements a 2009 task force recommendation that all pregnant women be screened for syphilis.

Rates of the disease in the United States are on the rise, with nearly 20,000 cases of the earliest stages of syphilis reported in 2014, the highest since 1994.

"Given the rising rates of syphilis infection, clinicians should focus on screening people at increased risk," task force member Dr. Francisco Garcia said in a task force news release. Garcia is director and chief medical officer of the Pima County Department of Health in Tucson, Ariz., and a professor of public health at the University of Arizona.

Those at the highest risk for syphilis are gay and bisexual men and people with HIV. Age, race and local rates of syphilis infection are other factors doctors may consider when deciding which patients to screen, according to the task force, an independent panel of experts in primary care and prevention.

"Fortunately, in the case of syphilis, there are accurate tests available for screening and effective therapies that can cure syphilis, prevent further complications, and prevent the spread of infection," task force member Ann Kurth said in the news release. Kurth is associate dean for research in the College of Global Public Health at New York University.

The draft recommendation is open for public comment until Jan. 18, 2016.

Syphilis may initially appear as a sore on the skin. Without treatment, it can progress to more severe disease. Late-stage syphilis can cause inflammation of the heart, skin or other organs. The disease can also affect the nervous system at any stage, resulting in problems such as loss of coordination or dementia, the task force said.

The risk can be reduced through consistent use of latex condoms, having sex with only one partner in a monogamous relationship or by abstaining from sex, the task force said.

SOURCE: U.S. Preventive Services Task Force, news release, Dec. 14, 2015

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FDA expands Gardasil 9 HPV vaccine approval to boys, young men

As reported by Healio Infectious Disease News | 12.16

The FDA expanded the age indication for Gardasil 9 HPV vaccine to include boys and men aged 16 to 26 years, according to a press release from Merck, the vaccine's manufacturer.

"The approval of Gardasil 9 for males 16 through 26 years of age is a milestone in the planned transition from Gardasil to Gardasil 9, as both products are now approved for the same populations," the release said.

Gardasil 9 (9vHPV, Merck) protects against five additional HPV types compared with the original Gardasil. The 9-valent vaccine prevents anal cancer caused by HPV types 16, 18, 31, 33, 45, 52 and 58, as well as precancerous or dysplastic lesions caused by HPV types 6, 11, 16, 18, 31, 33, 45, 52 and 58; and genital warts caused by HPV types 6 and 11.

The 9-valent HPV vaccine previously was approved for boys aged 9 to 15 years as well as girls and women aged 9 to 26 years for cervical, vulvar, vaginal and anal cancer prevention. In April, the CDC's Advisory Committee on Immunization Practices recommended the vaccine be used as one of the three HPV vaccines for routine vaccination. The committee unanimously voted in October to approve the vaccine for the 2016 adult immunization schedule. A three-dose series of the 2-valent, 4-valent or 9-valent HPV vaccine is recommended for females aged 19 to 26 years, while a three-dose series of 4-valent and 9-valent HPV vaccine is recommended for males aged 19 to 21 years. In addition, men who have sex with men and immunocompromised men aged 26 years or younger are recommended to receive a three-dose series of the 4-valent or 9-valent HPV vaccine.

"While it is important to remember that the CDC's ACIP recommends routine HPV vaccination at age 11 or 12, before exposure to the HPV virus, this expanded indication for GARDASIL 9 is exciting because now 16- through 26-year-old young men can get this HPV vaccine," Anna Giuliano, PhD, clinical investigator for Gardasil 9 and director of the Center for Infection Research in Cancer at H. Lee Moffitt Cancer Center and Research Institute, said in the release. "It's important that we collectively work to increase HPV vaccination rates to help prevent HPV-related cancers and diseases."

Last year, the CDC reported that HPV vaccination rates were "unacceptably low" compared with other adolescent vaccines, especially in boys, according to the release. The vaccine was administered to 41.7% of boys aged 13 to 17 years, but only 21.6% of this population received the recommended three doses.

Before approval, the effectiveness of the 9-valent HPV vaccine was assessed in a noninferiority comparison of the vaccine in heterosexual boys and young men aged 16 to 26 (n = 1,106) vs. girls and young women (n = 1,101) in the same age group. Researchers found that antibody geometric mean titers (GMTs) against HPV after 7 months of vaccination in boys and young men were noninferior to anti HPV GMTs in girls and young women, according to the release. The most common adverse events in boys and young men were injection-site pain (63.4%), injection-site swelling (20.2%) and injection-site erythema (20.7%). Most managed health care plans have already decided to cover the cost of the vaccine for this population, the release said.

The CDC estimated that approximately 14 million new genital HPV infections occur annually in the U.S., and half of infections develop in people aged 15 to 24 years, according to the release. HPV causes approximately 85% to 90% of anal cancers, 90% of genital wart, 70% to 75% of vaginal cancers, 30% of vulvar cancers, and almost all cervical cancers.

View the story online: [Click here](#)

Bacterial vaginosis home screening does not influence gonorrhea, chlamydia

Dave Muoio, Healio Infectious Disease News | 12.8

Despite high levels of compliance, home screening for bacterial vaginosis and its subsequent treatment did not reduce the incidence of gonorrhea or chlamydia in adolescent and young women, according to a recently published study.

“Although [bacterial vaginosis (BV)] may cause symptoms of vaginal discharge and odor, a significant number of women are asymptomatic,” the researchers wrote. “BV is significantly associated with acquisition of STDs including chlamydia and gonorrhea, however, there have been few published clinical trials to determine whether screening and treatment of asymptomatic BV will reduce the risk.”

In the randomized study, the researchers enrolled women aged 15 to 25 years with asymptomatic BV from 10 clinical sites throughout the United States. Qualifying participants reported vaginal intercourse within the past 3 months, and they had multiple risk factors for STDs. The women were provided an oral, twice-daily regimen of 500 mg metronidazole for 7 days and regularly delivered home testing kits, which they were instructed to use and return through the mail for clinical testing. Participants randomly assigned to the treatment group were informed of their results and received another regimen of metronidazole; control group participants did not receive notification or treatment. Researchers gave participants questionnaires at baseline to assess demographics, risk behavior and health history, with additional surveys distributed along with testing kits. The primary endpoint was incidence of chlamydia and gonorrhea among each study group.

There were 1,370 women enrolled, 993 of whom completed the study and were included in the final analysis; however, data from all evaluable visits were included in the intention to treat analysis. The early discontinuation or loss to follow-up rate was 25% for the treatment group and 29% for the observation arm, with discontinuation associated with younger age (P = .044) and positive STD status at baseline (P = .004).

The researchers reported the incidence rate of gonorrhea or chlamydia at 1 year to be 18.3 per 100 person-years (95% CI, 15.1-22.1) for women receiving test results and treatment, and 19.2 per 100 person-years (95% CI, 15.9-23.2) for those who did not. Similar results were seen when analyzing the cumulative proportion of participants with gonorrhea or chlamydia at the same bench mark, but the researchers did observe fewer follow-up BV diagnoses in the treatment group than in the control group (OR = 0.53; 95% CI, 0.46-0.61). Although a greater number of serious adverse events occurred in the treatment arm (9 vs. 3), none was associated with the use of metronidazole.

“This is the largest study to ever evaluate the impact of treatment of BV on STD outcomes and demonstrated that women were very compliant with the submission of self-collected vaginal specimens mailed on an every 2-month schedule,” the researchers wrote. “However, based on this study, treatment of asymptomatic BV with oral metronidazole does not impact the incidence of gonorrhea or chlamydia. If more effective therapies for BV become available consideration should be given to revisiting this approach.”

Journal Reference:

[Schwebke JR, et al. *Clin Infect Dis.* 2015;doi:10.1093/cid/civ975.](https://doi.org/10.1093/cid/civ975)

View the story online: [Click here](#)

Scientific Papers/Conference Abstracts

A State-Level Analysis of Social and Structural Factors and HIV Outcomes Among Men Who Have Sex With Men in the United States

Fortsyth AD, Valdiserri RO. *AIDS Education and Prevention* 2015;27(6):493-504

Abstract:

We apply a social determinants of health model to examine the association of select social and structural influences on AIDS diagnosis rates among men who have sex with men (MSM) in the U.S. states. Secondary data for key social and structural variables were acquired and analyzed. Standard descriptive and inferential statistics were used to examine bivariate and multivariate associations of selected social and structural variables with estimated rate of Stage 3 HIV infection (AIDS) per 100,000 MSM in 2010. We found that living in states with a higher demographic density of lesbian, gay, bisexual, and transgender persons is independently associated with lower AIDS diagnosis rates among MSM. In addition, we found that greater income inequality and higher syphilis rates among men were associated with greater AIDS diagnosis rates among MSM, which may be attributable to state policy environments that underinvest in social goods that benefit population health, and to the fact that ulcerative sexually-transmitted infections increase biological risk of HIV transmission and acquisition. To end the epidemic in the U.S., it will be critical to identify and address state-level social and structural factors that may be associated with adverse HIV outcomes for MSM.

View the paper online: [Abstract](#)

Using the Information-Motivation-Behavioral Skills Model to Guide the Development of an HIV Prevention Smartphone Application for High-Risk MSM

Aliabadi N, Carballo-Diequez A, Bakken S, et al. *AIDS Education and Prevention* 2015;27(6):522-537

Abstract:

HIV remains a significant public health problem among men who have sex with men (MSM). MSM comprise 2% of the U.S. population, but constitute 56% of persons living with HIV. Mobile health technology is a promising tool for HIV prevention. The purpose of this study was to identify the desired content, features and functions of a mobile application (app) for HIV prevention in high-risk MSM. We conducted five focus group sessions with 33 MSM. Focus group recordings were transcribed and coded using themes informed by the information-motivation-behavioral (IMB) skills model. Participants identified information needs related to HIV prevention: HIV testing and prophylaxis distribution centers, support groups/peers, and HIV/STI disease/treatment information. Areas of motivation to target for the app included: attitudes and intentions. Participants identified behavioral skills to address with an app: using condoms correctly, negotiating safer sex, recognizing signs of HIV/STI. Findings from this work provide insight into the desired content of a mobile app for HIV prevention in high-risk MSM.

View the paper online: [Abstract](#)

'It's all in the message': the utility of personalised short message service (SMS) texts to remind patients at higher risk of STIs and HIV to reattend for testing—a repeat before and after study

Nyatsanza F, McSorley J, Murphy S, et al. *Sex Transm Infect* 2015;[Epub ahead of print]

Background

Patients at increased risk of sexually transmitted infections (STIs)/HIV acquisition are advised to reattend for retesting. A previous study showed that 'generic' text reminders did not improve reattendance.

Aim

To assess if a personalised text message with increased contact information would increase reattendance rates of at-risk patients.

Methods

Patients who are at risk of future STIs, defined by having a current acute STI, attending for emergency contraception, commercial sex workers (CSWs) or men who have sex with men (MSM), were sent a text reminder to reattend for retesting 6 weeks after initial visit. Reattendance rates were measured for September to December 2012 (control group who received a generic text message) and February to May 2014 (intervention 'personalised message' group who received a text message containing their first name and ways to contact the clinic). Reattendance was counted within 4 months of the end of the initial episode of care.

Results

The reattendance rate was significantly higher for the intervention group: 149/266 (56%) than the control group: 90/273 (33%) ($p=0.0001$) and was also significantly higher in the intervention group than the control group in patients with the following risks: recent chlamydia (64/123 (52%) vs 43/121 (36%))

($p=0.03$), recent gonorrhoea (41/64 (64%) vs 4/21 (19%)) ($p=0.0003$) and MSM (26/45 (58%) vs 3/18 (16%)) ($p=0.006$). New STI rates in the reattending intervention group and controls were 26/149 (17%) and 13/90 (14%) (n.s), respectively.

Conclusions

Sending a personalised text message with increased contact information as a reminder for retesting increased reattendance rates by 23% in patients who are at higher risk of STIs.

View the paper online: [Abstract](#)

From START to finish: implications of the START study

DeCock KM, El-Sadr. *Lancet* 2016;16(1):13-14

Summary:

How best to use antiretroviral therapy (ART) has been a topic of debate for almost three decades. The landmark START trial¹ settled one question that should have been resolved long ago—when to initiate ART in people with HIV. Findings of START showed a 57% reduction in AIDS, severe non-AIDS events, or deaths in people with a CD4 count higher than 500 cells/ μL who were randomly assigned to immediate versus deferred treatment.² This finding supports conclusions from observational studies and the recently completed west African TEMPRANO trial³ (which also favoured early treatment), and has profound implications for public health.

View the paper online: [Abstract](#)

Resources, Webinars, & Announcements

NIH unveils FY2016-2020 Strategic Plan

AVAC | 12.16

Developed after hearing from hundreds of stakeholders and scientific advisers, and in collaboration with leadership and staff of NIH's Institutes, Centers, and Offices (ICOs), the plan is designed to complement the ICOs' individual strategic plans that are aligned with their congressionally mandated missions [and] will ensure the agency remains well positioned to capitalize on new opportunities for scientific exploration and address new challenges for human health. You can find the NIH strategic wide plan [here](#).

For more information: [Click here](#)

CDC Viral Hepatitis Updates

CDC

Viral Hepatitis Serology Training Videos

DVH has updated the serology online training videos for Hepatitis A virus (HAV) infection, Hepatitis B virus (HBV) infection, Hepatitis C virus (HCV) infection, Hepatitis D virus (HDV) infection, and Hepatitis E

virus (HEV) infection. Comprised of five animated videos with voiceovers, the purpose of the training is to explain the serological diagnosis of HAV, acute and chronic HBV, acute and chronic HCV, and Hepatitis B and Hepatitis D (HBV/HDV) coinfection, understand the meanings of serologic markers, and understand and interpret serologic test results.

<http://www.cdc.gov/hepatitis/resources/professionals/training/serology/training.htm>

Coinfection with HIV and Viral Hepatitis

An estimated 1.2 million persons are living with HIV in the United States. Of people living with HIV in the United States, about 25 percent are coinfecting with hepatitis C virus (HCV), and about 10 percent are coinfecting with hepatitis B virus (HBV). People living with HIV infection are disproportionately affected by viral hepatitis, and those who are coinfecting are at increased risk for serious, life-threatening complications. HIV coinfection more than triples the risk for liver disease, liver failure, and liver-related death from HCV. Because viral hepatitis infection is often serious in people living with HIV and may lead to liver damage more quickly, CDC recommends all persons at risk for HIV be vaccinated against hepatitis B and be tested for HBV and HCV infection.

<http://www.cdc.gov/hepatitis/hiv-hepatitis-coinfection.htm>

Going Above and Beyond to Eliminate Hepatitis C in the Country of Georgia

Georgia is the first country to take on the challenge of completely eliminating [Hepatitis C \(HCV\)](#) – a serious viral infection – and they’re using a team of international disease detectives to find out how it’s spreading.

http://www.cdc.gov/globalhealth/healthprotection/gdd/stories/georgia_eliminate_hepatitis.html

VIDEO: Raphael J. Landovitz, MD, reviews barriers, solutions to use of PrEP in women

Healio

The use of pre-exposure prophylaxis in women is “a little bit more complicated” compared with men, according to Raphael J. Landovitz, MD. He reviews the efficacy of PrEP for preventing HIV in women, which is slightly less effective than it is for men and transgendered women, as well as ongoing studies investigating how to successfully use this prevention tool in women.

[WATCH VIDEO](#)

For more information: [Click here](#)

Job/Internship Postings

Medical Officer/Medical Epidemiologist (Team Lead) – DHHS CDC

Organization: CDC DSTD Epidemiology and Statistics Branch

App. Deadline: January 30, 2016

The Epidemiology and Statistics Branch is seeking a medical epidemiologist to act as the Team Lead for the Epidemiology Research Team. The Team Lead would directly supervise medical, PhD, and masters level epidemiologists as well as EIS officers and other fellows. The Team Lead will be responsible for providing epidemiologic and scientific oversight to projects and identify and nurture collaborations with other Branches in the Division, across the Center, and with external partners. The Epidemiology Research Team has a broad portfolio of projects including investigations into the etiology and risk factors for a number of STDs and their sequela including chlamydia, tubal factor infertility, gonorrhea, herpes, syphilis, trichomoniasis and mycoplasma genitalium. The Epidemiology Research Team collaborates closely with the laboratory, surveillance, and health services research branches and will have opportunities to work on a range of projects related to STD prevention in the United States and globally. Experience supervising and managing a scientific team is critical. Demonstrated ability to collaborate with partners, and scientific communication skills are important for this position. Candidates for this position will be identified through CDC's open/continuous announcement for Medical Officers at the GS-14 grade level. The following links can be used to find the open/continuous announcement:

For US Citizens: <https://www.usajobs.gov/GetJob/ViewDetails/420979600>

Status candidates: <https://www.usajobs.gov/GetJob/ViewDetails/420654000>

Or search for the following vacancy numbers on CDC's job announcement webpage:

HHS-CDC-M3-16-1548111 (Merit Promotion)

HHS-CDC-DH-16-1551410 (Direct Hire)

For more information, please contact Kyle Bernstein. Interested candidates should submit their application through USA Jobs by January 30, 2016.

For more information: [Click here](#)

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