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California Stories

California condoms in porn measure tests merits of covering up

Jeremy B. White, The Sacramento Bee | 3.18

Positive HIV tests of adult film stars have repeatedly rattled the pornography industry in recent years, amplifying calls to better protect performers.

But Eric Paul Leue doesn't see an industry in need of change. He sees a model for sexual health.

“If we could roll out our testing protocol to the general public and everyone got tested every two weeks, I can guarantee you we could slash the 50,000 new (HIV) infections a year below the mortality rate,” said Leue, who heads an industry association called the Free Speech Coalition and was 2014’s Mr. Los Angeles Leather. “We could create a population that would be so much healthier.”

Porn is popular and fighting HIV is important: on those points, at least, the adult film industry and proponents of a November ballot initiative mandating condoms in adult films produced in California can agree. But the concord ends there.

Public health experts and HIV activists are among those who disagree, splitting over the proposal’s likely effectiveness and on the scope of the risk performers currently face.

Six adult performers have been publicly identified as HIV-positive since 2004, temporarily shutting down filming and prompting questions about industry safeguards.

“The adult industry told me that I had to perform without condoms if I wanted to keep my job,” an HIV-positive performer named Cameron Adams testified before the Legislature in 2014. “They know they could take advantage of women like me.”

The industry counters that Adams and other performers contracted HIV off the film set and accuses critics of using a few isolated cases to condemn a system that is working. They tout a new recommended system of testing within two weeks of shoots.

Yet the case of a performer named Darren Edwards, who tested HIV positive after a 2004 shoot in Brazil, illustrates potential weaknesses of relying on testing. Edwards tested negative a week before he went on to have unprotected sex with two performers. In a 2014 case that the industry attributes to “an underground, unregulated Vegas shoot,” a performer tested negative and then had unprotected sex with 12 other performers before his next test, 22 days later, and caught the virus.

A Centers for Disease Control and Prevention analysis concluded he contracted HIV off-set but was still able to spread it because the virus can incubate before showing up on tests. For that reason, the report urges condom use.

“A lot of the studios that are filming do not comply with the protocol,” said Dr. Christopher Ried, who directs HIV and STD services for the Orange County Healthcare Agency and worked on the CDC study, “but even the ones that do strictly comply to the testing within two weeks of filming, there’s always going to be a chance that they just got exposed to the virus and haven’t accumulated enough in their blood to have a positive test. There’s always a risk.”

Or, as Paula Tavrow of the UCLA Fielding School of Public Health put it: “testing for disease to prevent disease is like testing for pregnancy to prevent pregnancy.”

Concerns go beyond HIV. Public health officials and researchers point to elevated rates of other sexually transmitted diseases.

“I never saw so much chlamydia and gonorrhea in a population,” said Peter Kerndt, who oversaw the Los Angeles County Department of Public Health’s HIV epidemiology and sexually transmitted disease programs for 25 years.

California regulators believe current rules already compel condom use. Since 2004 the state has slapped the industry with 145 violations, 35 of them for exposure to blood-borne pathogens. In early March, Cal/OSHA levied a \$77,875 fine on the production company of star performer James Deen for failing to use condoms, among other reasons.

But an effort to solidify the rule with a regulation explicitly requiring porn performers to wear protective barriers foundered. The proposal died before the Occupational Safety and Health Standards Board in February on a 3-2 vote, one short of what was needed for approval, with some members absent.

"I thought it was cut and dried," said board Chairman David Thomas, who voted for the rule. He attributed the failure to the fact that "the whole adult film industry showed up and tried to make their case," with several performers denouncing the idea. One warned that the restriction would eliminate unprotected climaxes that are "endemic to the industry" and can make a film a "prime seller."

In fining Deen's company, the state was acting on a complaint. The tip came from the same source as the proposed regulation, a 2012 Los Angeles County ballot measure requiring condom use, and the state ballot initiative: the AIDS Healthcare Foundation.

The organization and its divisive president, Michael Weinstein, stand at the center of the debate over safety in the adult film industry. The November ballot initiative continues Weinstein's multiyear quest to mandate condoms in porn.

The Free Speech Coalition dismisses Weinstein's effort as a cynical attempt to enrich himself by suing the industry for noncompliance. Weinstein's critics depict a paternalist crusade to shame sex workers.

Some who have devoted their lives to combating HIV believe his mission will have more insidious consequences. By emphasizing condoms, they argue, Weinstein is discounting more effective forms of prevention. Weinstein's opposition to a recently released preventive medicine called pre-exposure prophylaxis, hailed as a once-in-a-generation breakthrough, has angered many.

"Folks are really focused on increasing awareness and access to PrEP. AHF has not been on the same page as the rest of the community," said Craig Pulsipher, state affairs specialist for AIDS Project Los Angeles. "Something that exclusively focuses on condoms is missing the mark."

Given the relatively minuscule rate of publicly announced HIV-positive performers, skeptics say Weinstein's time and money would be put to better use on communities ravaged by regular new infections and inadequate health care.

"Is there an epidemic of HIV transmission in this industry? I don't think you can document that as true," said Sen. Mark Leno, D-San Francisco, whose local Democratic Party branch passed a resolution opposing the measure. "This proposal is not science-based," Leno added, "and I don't believe it if enacted would have the intended effect of lowering HIV transmission."

Weinstein called the idea that he's out to make money "absurd," saying he wants to aid a population that is otherwise ignored and to bring to account an industry that has "thumbed its nose at the regulations" on the books.

“They treat the performers as disposable,” Weinstein said. “Should we believe pornographers who are greedy and just looking to get an economic advantage?”

Economics drive some of the most pointed criticisms of Weinstein’s initiative. Industry insiders question whether Weinstein’s Measure B, a 2012 Los Angeles County ballot measure mandating condom use, has backfired by encouraging unregulated shoots or driving the film industry out of state.

FilmLA estimates it issued about 480 film permits to known adult production companies in 2012, before Measure B passed, and issued 40 adult film permits in 2013. An official state analysis pegged the damage of the initiative at tens to hundreds of millions of dollars and hundreds of jobs. The industry regularly trumpets warnings about California losing business and driving workers to dangerous underground shoots.

When the Legislature contemplated a bill to mandate condom use in 2014, Kink.com produced a video of its CEO traveling to Las Vegas to scout for new locations.

“We don’t want to move out of San Francisco,” said Kink.com spokesman Michael Stabile, “but should the ballot measure pass, we’re in a position to.”

When Lynn Comella, an associate professor of gender and sexuality at the University of Nevada, Las Vegas, went looking for a mass exodus after Measure B passed, she found scant evidence.

“Everybody I talked to both in Vegas and in L.A. – porn actresses, adult industry PR people – they all basically said this is completely overblown,” Comella said. “This is a well-crafted political strategy.”

Outside of the fiscal impact, opponents say legislating away lust cannot work. They say people will seek out condom-less porn and producers will provide it, either in California or elsewhere.

“The idea that we would moralize behaviors within the adult film industry is really anathema to us,” said James Loduca of the San Francisco AIDS Foundation, who called the condom mandate “one-dimensional” and Weinstein “out of step.”

David Holland, an infectious diseases expert at Emory University who submitted opposition to the Cal-OSHA proposal, drew a parallel to abstinence-only education he called a failure.

“We have never, ever in the history of mankind been able to control peoples’ sexuality,” Holland said. “You can tell people what you want – they’re going to do what they’re going to do anyway.”

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

AHF: Cal/OSHA to Consider New Petition to Amend Adult Film Worker Safety Regulations in California

Press Release, AIDS Healthcare Foundation | 3.17

California Department of Industrial Relations, Division of Occupational Safety and Health (Cal/OSHA) Standards Board has pledged to revisit the issue of safety for workers in the adult film industry within the next six months. In February, the Standards Board narrowly rejected a proposed amendment to its

Bloodborne Pathogens Standard (Title 8, Section 5193.1) to “clarify required protections for workers in the adult film industry.” The updated regulations were intended to protect adult film workers against HIV and other sexually transmitted diseases by clarifying and strengthening Cal/OSHA’s requirement that adult performers use condoms on set and producers pay for vaccines and medical visits. The Standards Board voted 3-2 in favor of the proposed amendment, but needed four “yes” votes from the seven-member board for the updated regulations to pass.

After the vote, Cal/OSHA issued a news release reminding the adult industry, the media and the public that “barrier protection including condoms is still required to protect adult film workers from exposure to blood or other potentially infectious materials,” a standard known as Title 8, Section 5193 that has been in effect since 1993. Many of those involved in the adult film industry do not adhere to these existing regulations, thereby creating potentially dangerous working conditions for performers.

Following the Board’s decision in February, AIDS Healthcare Foundation (AHF), the non-profit organization that originally proposed the amendment to the regulations in 2009, drafted and submitted another petition to the Cal/OSHA board to review the proposal once more. In a March 3, 2016 letter to AHF, Cal/OSHA stated that it had received the new petition and is required to “report its decision no later than six months following the receipt of such proposal.”

“After taking a number of years to consider our original petition, I appreciate the board’s commitment to revisiting this worker safety proposal in a more timely manner,” said Michael Weinstein, President of AIDS Healthcare Foundation. “We look forward to the opportunity to reopen the discussion with OSHA as well as the industry and anticipate that the board will ultimately vote in favor of protecting the health of adult film workers in California.”

The Board’s February decision was motivated largely by testimonies from members of the adult film industry who attended the February meeting in Oakland. Although they firmly opposed proposed regulations on the basis that the porn industry could be forced out of state or underground, many speakers expressed a willingness to work with Cal/OSHA to impose some sort of clear safety protections. AHF hopes to reach a positive resolution moving forward on this important issue.

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

National Stories

Temple scientists eliminate HIV-1 from genome of human T-Cells

Press Release, Temple University Health System | 3.21

A specialized gene editing system designed by scientists at the Lewis Katz School of Medicine at Temple University is paving the way to an eventual cure for patients infected with HIV, the virus that causes AIDS. In a study published online this month in the Nature journal, Scientific Reports, the researchers show that they can both effectively and safely eliminate the virus from the DNA of human cells grown in culture.

According to senior investigator on the new study, Kamel Khalili, PhD, Laura H. Carnell Professor and Chair of the Department of Neuroscience, Director of the Center for Neurovirology, and Director of the Comprehensive NeuroAIDS Center at the Lewis Katz School of Medicine at Temple University (LKSOM), "Antiretroviral drugs are very good at controlling HIV infection. But patients on antiretroviral therapy who stop taking the drugs suffer a rapid rebound in HIV replication." The presence of numerous copies of HIV weakens the immune system and eventually causes acquired immune deficiency syndrome, or AIDS.

Curing HIV/AIDS -- which has claimed the lives of more than 25 million people since it was first discovered in the 1980s - is the ultimate goal in HIV research. But eliminating the virus after it has become integrated into CD4+ T-cells, the cells primarily infected with HIV, has proven difficult. Recent attempts have focused on intentionally reactivating HIV, aiming to stimulate a robust immune response capable of eradicating the virus from infected cells. However, to date, none of these "shock and kill" approaches has been successful.

Dr. Khalili and colleagues decided to try a different approach, specifically targeting HIV-1 proviral DNA (the integrated viral genome) using uniquely tailored gene editing technology. Their system includes a guide RNA that specifically locates HIV-1 DNA in the T-cell genome, and a nuclease enzyme, which cuts the strands of T-cell DNA. Once the nuclease has edited out the HIV-1 DNA sequence, the loose ends of the genome are reunited by the cell's own DNA repair machinery.

In previous work, Dr. Khalili's team had demonstrated the ability of their technology to snip out HIV-1 DNA from human cell lines. In their latest study, however, they concentrated on latently and productively infected CD4+ T cells to show not only that the technology eliminates the virus from cells but also that its persistent presence in HIV-1-eradicated cells actually protects them against reinfection. More importantly, they carried their work over to ex vivo experiments, in which T-cells from patients infected with HIV were grown in cell culture, showing that treatment with the gene editing system can suppress viral replication and dramatically reduce viral load in patient cells.

In another major component of the study, Dr. Khalili's team addressed questions about off-target effects and toxicity. Using an approach known as ultra-deep whole-genome sequencing, which is considered the gold standard for genomic assessment, the researchers analyzed the genomes of HIV-1-eradicated cells for mutations in genes outside the region targeted by the guide RNA. Their analyses ruled out off-target effects on genes, including potential collateral effects on cellular gene expression. Studies of cell viability and proliferation showed that HIV-1-eradicated cells were growing and functioning normally.

"The findings are important on multiple levels," Dr. Khalili said. "They demonstrate the effectiveness of our gene editing system in eliminating HIV from the DNA of CD4 T-cells and, by introducing mutations into the viral genome, permanently inactivating its replication. Further, they show that the system can protect cells from reinfection and that the technology is safe for the cells, with no toxic effects."

"These experiments had not been performed previously to this extent," he added. "But the questions they address are critical, and the results allow us to move ahead with this technology."

Journal Reference:

[Elimination of HIV-1 Genomes from Human T-lymphoid Cells by CRISPR/Cas9 Gene Editing](#)

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

Giving antibodies to infant macaques exposed to an HIV-like virus could clear infection

As reported by Medical Xpress | 3.21

Scientists at the Oregon National Primate Research Center today revealed that infant rhesus macaques treated with antibodies within 24 hours of being exposed to SHIV, a chimeric simian virus that bears the HIV envelope protein, were completely cleared of the virus. The study, published today in *Nature Medicine* shows that antibodies given after a baby macaque has already been exposed to SHIV can clear the virus, a significant development in the HIV scientific community.

SHIV-infected nonhuman primates can transmit SHIV to their offspring through milk feeding, just as humans can transmit HIV from mother to child through breastfeeding and during childbirth (and only rarely during pregnancy). In humans, a combination of measures for mothers and infants, including antiretroviral therapy (ART), Cesarean section delivery and formula feeding (rather than breastfeeding), have decreased the rate of mother-to-child HIV transmission from 25 percent to less than 2 percent since 1994. Despite this decrease, approximately 200,000 children are infected with HIV each year worldwide, primarily in developing countries where ART is not readily available.

"We knew going into this study that HIV infection spreads very quickly in human infants during mother-to-child transmission," said Nancy L. Haigwood, Ph.D., senior author of the paper, and director and senior scientist, Oregon National Primate Research Center at Oregon Health & Science University. "So we knew that we had to treat the infant rhesus macaques quickly but we were not convinced an antibody treatment could completely clear the virus after exposure. We were delighted to see this result."

Haigwood and colleagues administered the anti-HIV-1 human neutralizing monoclonal antibodies (NmAb) subcutaneously on days 1, 4, 7 and 10 after the macaques were exposed to SHIV orally. The SHIV virus was found in multiple body tissues on day 1 in macaques without antibody treatment. Conversely, they observed an immediate impact of a single dose of antibodies at the start of the infection, with a significant difference in treated versus non-treated macaques. Early short-term administration of powerful antibodies effectively cleared the virus by day 14, with no virus detected at this time. Using highly sensitive methods, they did not detect the virus in any part of the body in 100 percent of the antibody-treated infant macaques for at least six months.

Typically, HIV infection rapidly expands and spreads in humans to local draining lymph nodes before disseminating throughout the entire body one week after a person is infected. This study showed that, at least in this model system of oral SHIV exposure in newborn macaques, virus replication is detected in lymphatic tissues 24 hours after exposure and is not locally restricted, as has been suggested previously for humans, due to delays of 5 to 7 days before detection in the blood.

The study showed that: 1) antibodies delivered subcutaneously are swiftly distributed to blood and tissues and maintain neutralizing activity at various sites, and, 2) that antibodies are effective at clearing the virus, a different mechanism than that of ART, which is a combination of several antiretroviral medicines used to slow the rate at which HIV makes copies of itself in the body.

"Other nonhuman primate studies with antiretroviral therapy suggest that treatment as early as three days after infection is too late to prevent establishment of the HIV reservoir," said Jonah B. Sacha, Ph.D., study co-author and assistant scientist, Oregon National Primate Research Center at OHSU. "So using antibodies to clear the virus after infants have already been exposed could save thousands of lives" if the approach works in human infants.

The researchers noted that treating human babies with ART during the last month of gestation, the few days after delivery, and during breastfeeding timeframes, is recommended. However, risks remain, including toxicities associated with long-term ART use, the development of drug-resistant viral variants, and lack of access to prenatal care prior to delivery.

This discovery indicates that using new methods, such as antibodies, to limit infection after exposure in newborns could be advantageous.

The study authors acknowledge that several relevant questions remain unanswered for treatment of HIV-infected newborns and children born to HIV-positive mothers. These include practical and cultural issues of treating breastfeeding mothers and babies, if the antibodies will work in human infants exposed to HIV, as well as what the optimal antibody formulations will be.

Clinical trials in which HIV-exposed newborns are treated with antibodies have begun in the U.S. and South Africa, following a phase I clinical trial in HIV-negative adults that showed the antibodies to be safe and well-tolerated in these individuals.

The authors' findings help define the window of opportunity for effective treatment after exposure to HIV during birth. If these primate model results can be applied to human beings in a clinical setting, researchers are hopeful that treating infants who have already been exposed to HIV within 24 hours may provide protection from viral infection, even in the absence of ART.

Journal Reference:

Early short-term treatment with neutralizing human monoclonal antibodies halts SHIV infection in infant macaques, *Nature Medicine*, DOI: [10.1038/nm.4063](https://doi.org/10.1038/nm.4063)

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

Transgender people are at high risk for HIV, but too little is known about prevention and treatment for this population

Liz Highleyman, *aidsmap* | 3.11

Transgender women have among the highest rates of HIV infection but little is known about HIV prevalence among trans men, Tonia Poteat of Johns Hopkins Bloomberg School of Public Health said in a plenary lecture on transgender health and HIV at the recent Conference on Retroviruses and Opportunistic Infections (CROI 2016) in Boston – the first ever on this population at CROI. A growing number of studies and prevention and treatment programmes are addressing transgender populations, but more research is needed.

Dr Poteat noted that while mainstream knowledge about transgender men and women is relatively new in the US and Europe, largely thanks to celebrities such as Chaz Bono and Caitlyn Jenner, people outside the male-female gender binary have long existed in many cultures, such as the hijra in India.

The size of the transgender population is uncertain, in part due to varying definitions. One estimate put the number of transgender people in the US at approximately 700,000, or 0.3% of the population. Estimates range from 0.1% to 0.5% in Europe, and from 0.7% to 2.9% in South Asia, where some countries legally recognise a 'third gender'.

Traditional 'one-step' data collection approaches can make it difficult to accurately identify trans people in HIV research. Many investigators have categorised study participants according to either their current gender identity or their assigned sex at birth, both of which can result in misclassification. A 'two-step' method that asks about both initial sex assignment and current identity is more accurate and inclusive.

"The way you ask the question makes a big difference," Dr Poteat stressed.

For example, the international iPrEx trial of tenofovir/emtricitabine (Truvada) for pre-exposure prophylaxis (PrEP) included transgender women in its population of 2499 men who have sex with men. The initial published iPrEx report said the study included just 29 trans women, but a later analysis used a broader definition – including people assigned male at birth who identified as women, trans or 'travesti', and those who identified as men but used feminising hormones – bringing the total up to 339.

HIV rates in trans populations

As Susan Buchbinder of the San Francisco Department of Public Health said in her introduction to the lecture, "There is probably no population that is both more heavily impacted [by HIV] and less discussed around the world than transgender people."

Dr Poteat said that very little is known about HIV rates among transgender men. A recent systematic review found six US studies, including a self-report study with a prevalence of 0.4% and five studies based on laboratory testing with rates ranging from 0.5 to 4.3%, but actual numbers were small. Among non-US studies, three based on self-report found prevalence rates of 0.6 to 0.8%, while two based on lab tests had rates of 0 and 2.2%.

A bit more is known about trans women, who were the main focus of the talk. Trans women who have sex with men have one of the highest burdens of HIV infection among key affected populations, which also include gay and bisexual men and people who inject drugs.

One worldwide meta-analysis of 39 studies from 15 countries found that transgender women had an HIV prevalence rate of 19% – 49 times higher than that of the general population. In high-income countries the prevalence was 22%, with the highest rate among trans women of colour.

A more recent meta-analysis by Dr Poteat's group looked at 49 new studies, which showed both an exponential increase in research and an ongoing high burden of HIV infection. Among the included studies based on lab testing, prevalence rates ranged from 2% among trans youth to 45% among trans sex workers. The three studies that estimated incidence, or new infections, reported rates of 1.2 to 3.6 per 100 person-years.

Even in countries where HIV prevalence in the general population is high, trans women still face a disproportionate burden. In Lesotho, for example, overall prevalence is estimated at 18% for all cisgender (non-transgender) men, 27% for all transgender women and 28% for men who have sex with men, but rises to 60% for trans women.

Vulnerabilities affecting trans people

A number of factors may make transgender people more susceptible to HIV infection or less likely to use prevention methods or access treatment if they become infected.

Biological factors include hormone therapy, which has the potential to interact with PrEP or antiretroviral treatment (ART). While no clinically significant interactions have been confirmed between feminising hormones and tenofovir/emtricitabine PrEP or most antiretrovirals, many trans women worry about them and prioritise hormone use.

To date, no randomised clinical trials have looked specifically at PrEP for transgender women, but an iPrEx substudy led by Madeline Deutsch from the University of California at San Francisco's Center of Excellence for Transgender Health found that Truvada appeared to protect trans women who took it consistently. No seroconversions occurred among trans women with tenofovir drug levels indicating they took at least four pills per week. However, their level of adherence was lower than that of gay men in the study, which Deutsch suggested could be due to concerns about PrEP and hormone interactions.

Prior studies have shown that tenofovir reaches higher levels in rectal tissue in men than in cervical or vaginal tissue in women. This could in part be related to hormonal differences between cisgender men and women, although some have found that tenofovir levels are lower in cervical-vaginal tissue samples than in matched rectal tissue samples obtained from the same women.

Some researchers hypothesise that exogenous or administered oestrogen may affect tenofovir pharmacokinetics, for example by interfering with creatine kinase phosphorylation of tenofovir disoproxil fumarate to its active form of tenofovir diphosphate. This could mean that trans women taking oestrogen and PrEP will have lower tenofovir levels in rectal tissue than cisgender men, and therefore may need higher doses – a prospect that requires further study.

Hormones could also potentially cause changes in rectal or vaginal mucosa that increase susceptibility to HIV. Further, sharing needles to inject hormones or fillers such as silicone can transmit HIV and hepatitis B or C. It is not known whether trans women who have genital sex reassignment or affirmation surgery are more vulnerable to HIV infection.

Social and structural factors

Social and structural factors that increase trans people's vulnerability to HIV include stigma, fear of disclosure, sexual networks that include more people with HIV, poverty, lack of employment opportunities which leads many trans women to engage in sex work, homelessness or unstable housing, violence, lack of access to health care or insurance, substance use and mental health issues such as depression.

Although many transgender women are eligible for PrEP according to US Centers for Disease Control and Prevention (CDC) or World Health Organisation (WHO) guidelines, most are not yet using it and may not

be aware of it. One study found that only about 14% of trans women in San Francisco – a city where PrEP awareness and use among gay and bisexual men are high – had heard of PrEP at the end of 2013.

Dr Poteat reported that among people with HIV using Ryan White HIV/AIDS services, transgender people were less likely than patients overall to remain in care (78 vs 80%) and to achieve viral suppression (74 vs 81%).

A survey of trans women with HIV conducted by the Transgender Law Center found that gender-affirming care and hormone therapy were their top priority, considered more urgent than HIV treatment. But trans women who had the same provider for both hormone therapy and HIV treatment were more likely to stay in care and have an undetectable viral load, demonstrating the benefit of integrated care.

“Transgender women have disproportionate HIV prevalence and incidence due to the interplay of biological and intersectional social factors,” Dr Poteat concluded. “Gender-affirming approaches are necessary to achieve optimal outcomes.”

To address barriers to care for trans women it is important to “reduce stigma and prevent secondary trauma including racism, transphobia, economic disadvantage and other structural factors,” she said. “HIV services we have available, mostly geared towards gay men, do not meet the needs of trans women.”

Resources for trans women and men

New resources for trans people have recently begun to appear, including the National Center for Innovation in HIV Care brief *Transgender Women and Pre-Exposure Prophylaxis: What We Know and What We Still Need to Know* and the booklet *Transcending Barriers for Safer Pleasure* from Project Inform and Outshine NW. Project Inform's booklet for men who have sex with men, *Is Taking PrEP the Right Choice for You?*, has also been updated with inclusive language and information for gay and bi transgender men.

In the United Kingdom ClinQ at 56 Dean Street, London, provides holistic sexual health and well-being services for trans people.

Reference

Poteat T *HIV in transgender populations: charted and uncharted waters*. Conference on Retroviruses and Opportunistic Infections (CROI), Boston, abstract 79, 2016.

[View the abstract on the conference website.](#)

[View a webcast of this session on the conference website.](#)

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

Mismatched expectations are the most common reason for patients not completing the HPV vaccine series, study finds

As reported by Medical News Today | 3.15

Conflicting expectations between parents and medical providers about who is responsible for scheduling follow-up appointments is resulting in a failure of young girls completing the Human Papilloma Virus

(HPV) vaccination series, according to a new study led by Boston Medical Center researchers. The study, which is published online ahead of print in the journal *Human Vaccines and Immunotherapeutics*, involved interviews with both parents and providers in order to determine why, despite the known benefits of the vaccine, patients are not receiving all three doses.

HPV, the most common sexually transmitted infection, is diagnosed in approximately 14 million people each year in the United States and can lead to various cancers including cervical, mouth and throat cancer. The HPV vaccine is administered in a three-part series over six months and is currently recommended for boys and girls ages 11 and 12 and up to age 26. Recently, the Centers for Disease Control and Prevention (CDC) encouraged expanding the vaccine's availability to 9- and 10-year-olds if they have a history of sexual abuse and officially endorsed using the HPV-9 vaccine, which protects against nine strains of the virus.

"There has been a heightened awareness within the medical community in recent years about the need to address HPV and get more children vaccinated in order to prevent long-term health issues," said Rebecca Perkins, MD, MSc, an obstetrician at BMC and lead author of the study. "Yet, we're finding that many pre-teens aren't getting all three doses, which is imperative to preventing HPV."

Over a one-year period, researchers interviewed 65 parents whose daughters received at least one dose of the HPV vaccine and divided them into groups whose daughters had completed the series (28) and those who had not (37). Of the group whose daughters did not finish the series, 65 percent said they expected the clinic to contact them regarding scheduling additional doses. Twenty-four percent cited inconvenience, such as long commutes to the clinic, for failing to complete the series, only 4 parents made a conscious decision to halt the series.

Next, 27 providers were interviewed about their specific plans to ensure patients completed the series. Fifty-two percent said they informed parents about when the next doses were due, but relied on the parents to schedule the follow-up visits. Forty-one percent planned on scheduling the second dose when the first dose was given and 7 percent hoped to immunize patients when they returned for a different appointment. Providers stated that most failures to complete the series were due to a lack of reminder systems.

Interestingly, no provider identified the need for three doses as a barrier to completion, and more than two-thirds of the parents in both groups stated that they felt that the benefits of HPV vaccination outweighed the risks.

"What we've learned is that there is a great opportunity to close the non-completion gap by improving education and dialogue between providers and parents about scheduling future visits to finish the three-dose vaccination series," Perkins said.

Researchers had several suggestions for increasing vaccination completion rates, including scheduling follow-up appointments as the child receives the first dose; implementing reminder and recall systems in clinics, such as phone calls, educational brochures, and text messages; having patients receive reminders directly from state immunization registries, which are independent from individual medical practices; and offering vaccines at alternative sites that are more convenient for parents such as schools and pharmacies.

"By implementing a reminder system, we hope that more children will complete the vaccination series, which can help improve the overall health of our next generation," Perkins said.

Journal Reference:

[Why don't adolescents finish the HPV vaccine series? A qualitative study of parents and providers](#), Rebecca B. Perkins, Nagasudha L. Chigurupati, Gauri Apte, Jessica Vercruyse, Constance Wall-Haas, Anna Rosenquist, Laura Lee, Jack A. Clark & Natalie Pierre-Joseph, *Human Vaccines and Immunotherapeutics*, doi: 10.1080/21645515.2015.1118594, published online 25 January 2016

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

HIV-infected young males have higher rates of bone loss than females

As reported by Medical News Today | 3.11

Accumulating evidence suggests that rates of low bone mass are greater in HIV-infected males than in females. Researchers led by Grace Aldrovandi, MD, chief of the Division of Infectious Diseases at Children's Hospital Los Angeles, studied 11 biomarkers associated with inflammation, bone loss and/or bone formation in about 450 individuals - assessed by sex and HIV status - to try to determine causes of this differential bone loss.

Bone loss in HIV infection is due to immune dysregulation, chronic inflammation and antiretroviral therapy, as well as increased bone turnover from the HIV-infection itself. In HIV-infected adults, the combined rates of osteopenia and osteoporosis are as high as 90 percent in men and 60 percent in women, with related fractures 60 percent higher than in the general population.

As reported in the *Journal of Acquired Immune Deficiency Syndromes*, the researchers discovered that HIV-infected adolescent males had increased levels of sCD14 - a marker of macrophage activation. Macrophages are a type of white blood cell critical to the innate immune system. In the bone, macrophages take the form of osteoclasts - the cells responsible for the resorptive processes associated with continuous bone remodeling. Soluble CD14 levels were inversely correlated with measures of bone mineral content and density, suggesting macrophage activation as a possible mechanism for such bone loss.

"Despite higher levels of general inflammation in HIV-infected females, HIV-positive males in our study showed both lower bone mass and higher sCD14 levels. This is perhaps because estrogen is protective against some of the inflammation seen in chronic HIV, as estrogen represses macrophage function," said Aldrovandi, who is also a professor of pediatrics at the Keck School of Medicine of the University of Southern California.

"We hope that interventions to decrease macrophage activation early in HIV infection will decrease associated bone loss, which has become a major adverse side effect of HIV infection and its treatment," Aldrovandi said.

Journal Reference:

["Macrophage Activation in HIV-infected Adolescent Males Contributes to Differential Bone Loss by Sex: Adolescent Trials Network Study 021."](#) Ruan, Alexandra; Tobin, Nicole H.; Mulligan, Kathleen; Rollie,

Adrienne; Li, Fan; Sleasman, John; Aldrovandi, Grace M. *JAIDS Journal of Acquired Immune Deficiency Syndromes*, doi: 10.1097/QAI.0000000000000953. Post Acceptance: February 13, 2016

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

Scientific Papers/Conference Abstracts

A cost-effective, clinically actionable strategy for targeting HIV preexposure prophylaxis to high-risk men who have sex with men.

Ross EL, Cinti SK, Hutton DW. *JAIDS* 2016; [Epub ahead of print]

Background:

Preexposure prophylaxis (PrEP) is effective at preventing HIV infection among men who have sex with men (MSM), but there is uncertainty about how to identify high-risk MSM who should receive PrEP.

Methods:

We used a mathematical model to assess the cost-effectiveness of using the HIV Incidence Risk Index for MSM (HIRI-MSM) questionnaire to target PrEP to high-risk MSM. We simulated strategies of no PrEP, PrEP available to all MSM, and eligibility thresholds set to HIRI-MSM scores between 5 and 45, in increments of 5 (where a higher score predicts greater HIV risk). Based on the iPrEx, IPERGAY, and PROUD trials, we evaluated PrEP efficacies from 44-86% and annual costs from \$5,900-8,700. We designate strategies with incremental cost-effectiveness ratio (ICER) \leq \$100,000/quality-adjusted life-year (QALY) as "cost-effective".

Results:

Over 20 years, making PrEP available to all MSM is projected to prevent 33.5% of new HIV infections, with an ICER of \$1,474,000/QALY. Increasing the HIRI-MSM score threshold reduces the prevented infections, but improves cost-effectiveness. A threshold score of 25 is projected to be optimal (most QALYs gained while still being cost-effective) over a wide range of realistic PrEP efficacies and costs. At low cost and high efficacy (IPERGAY), thresholds of 15 or 20 are optimal across a range of other input assumptions; at high cost and low efficacy (iPrEx), 25 or 30 are generally optimal.

Conclusions:

The HIRI-MSM provides a clinically actionable means of guiding PrEP use. Using a score of 25 to determine PrEP eligibility could facilitate cost-effective use of PrEP among high-risk MSM who will benefit from it most.

View the paper online: [Abstract](#)

Expenditures for Persons Living with HIV Enrolled in Medicaid, 2006-2010.

Fleishman JA, Monroe AK, Voss CC, et al. *JAIDS* 2016; [Epub ahead of print]

Background.

Costs of care for persons living with HIV (PLWH) have been high historically. Cost estimates based on data from one health care site may underestimate total expenditures; using insurance claims avoids this limitation. We used Medicaid claims data to comprehensively assess payments for care for PLWH between 2006 and 2010.

Methods.

Five sites from the HIV Research Network (HIVRN) provided information on patients with Medicaid coverage. Medicaid data were obtained from the sites' states (MD, NY, and MA) and 3 surrounding states and matched to HIVRN medical record-based data. Individuals less than 18, those with Medicare, and those in Medicaid managed care plans were excluded. Medicaid and HIVRN data were compared to ascertain concordance in capturing any inpatient event and any antiretroviral medication (ART) use.

Results.

Of 6,892 unique HIVRN identifiers, 6,196 (90%) were linked to Medicaid data. The analytic sample included 11,341 person-years of Medicaid claims data from 3,697 individuals in fee for service (FFS) programs. The mean annual FFS payment for all services was \$47,434; mean annual FFS payment for only medical services was \$38,311. Concordance between Medicaid and HIVRN data was excellent for ART use, but HIVRN data did not record a substantial proportion of years in which Medicaid recorded inpatient use.

Conclusions.

Estimated Medicaid payment amounts in this study are higher than some prior estimates. More complete capture of expensive inpatient hospitalizations in Medicaid data may partially explain this finding. While inpatient care and ART medications contribute the most, expenditures for non-medical services are substantial.

View the paper online: [Abstract](#)

Privacy and Confidentiality Practices In Adolescent Family Planning Care At Federally Qualified Health Centers

Beeson T, Mead KH, Wood S, et al. *Perspectives on Sexual and Reproductive Health* 2016;48(1): DOI:10.1363/48e7216

CONTEXT:

The confidentiality of family planning services remains a high priority to adolescents, but barriers to implementing confidentiality and privacy practices exist in settings designed for teenagers who are medically underserved, including federally qualified health centers (FQHCs).

METHODS:

A sample of 423 FQHCs surveyed in 2011 provided information on their use of five selected privacy and confidentiality practices, which were examined separately and combined into an index. Regression modeling was used to assess whether various state policies and organizational characteristics were associated with FQHCs' scores on the index. In-depth case studies of six FQHCs were conducted to provide additional contextual information.

RESULTS:

Among FQHCs reporting on confidentiality, most reported providing written or verbal information regarding adolescents' rights to confidential care (81%) and limiting access to family planning and medical records to protect adolescents' confidentiality (84%). Far fewer reported maintaining separate medical records for family planning (10%), using a security block on electronic medical records to prevent disclosures (43%) or using separate contact information for communications regarding family planning services (50%). Index scores were higher among FQHCs that received Title X funding than among those that did not (coefficient, 0.70) and among FQHCs with the largest patient volumes than among those with the smallest caseloads (0.43). Case studies highlighted how a lack of guidelines and providers' confusion over relevant laws present a challenge in offering confidential care to adolescents.

CONCLUSIONS:

The organizational practices used to ensure adolescent family planning confidentiality in FQHCs are varied across organizations.

View the paper online: [Abstract](#)

Which New Health Technologies Do We Need to Achieve an End to HIV/AIDS?

Gray GE, Laher F, Doherty T, et al. *PLOS Biology* 2016; DOI: 10.1371/journal.pbio.1002372

Abstract:

In the last 15 years, antiretroviral therapy (ART) has been the most globally impactful life-saving development of medical research. Antiretrovirals (ARVs) are used with great success for both the treatment and prevention of HIV infection. Despite these remarkable advances, this epidemic grows relentlessly worldwide. Over 2.1 million new infections occur each year, two-thirds in women and 240,000 in children. The widespread elimination of HIV will require the development of new, more potent prevention tools. Such efforts are imperative on a global scale. However, it must also be recognised that true containment of the epidemic requires the development and widespread implementation of a scientific advancement that has eluded us to date—a highly effective vaccine. Striving for such medical advances is what is required to achieve the end of AIDS.

View the paper online: [Full paper](#)

Resources, Webinars, & Announcements

PEPFAR Annual Report to Congress

The 12th Annual Report to Congress is now available at <http://1.usa.gov/1SvUgKN>.

The bold and visionary leadership by President George W. Bush and the United States Congress that created the U.S. President's Emergency Plan for AIDS Relief (PEPFAR) – a legacy that President Barack Obama has embraced and on which he has significantly expanded – has fundamentally transformed the global HIV/AIDS response.

Since 2003, with the extraordinary investment of Congress, PEPFAR has helped halt the relentless escalation of new HIV infections and mortality rates across the globe. PEPFAR has saved millions of lives

and prevented millions more HIV infections by providing core HIV prevention and treatment services, changing the very course of the HIV pandemic.

At its core, PEPFAR is a reflection of the compassion of the American people. It has become an iconic brand of U.S. government engagement in health, development, and diplomacy. By setting and being held accountable to clear metrics, PEPFAR has proven that it is possible to demonstrate clear outcomes and impact. And this work is far from done.

-[Twelfth Annual Report to Congress \(2016\)](#) [8023 Kb]

-[Supporting Tables Referenced in Appendix W](#) [281 Kb]

For more information: [Click here](#)

Act Against AIDS Campaigns: Web Updates

CDC Act Against AIDS Campaign | 3.21

[Prevention Status Reports](#)—The Prevention Status Reports (PSRs) highlight—for all 50 states and the District of Columbia—the status of public health policies and practices designed to address 10 important public health problems and concerns.

[Doing It Testimonial Videos](#)—Listen to why people just like you are testing for HIV and why you should be Doing It, too.

Updated fact sheet: [HIV Among Women](#)—Black/African American and Hispanic/Latina women continue to be disproportionately affected by HIV, compared with women of other races/ethnicities. Of the total estimated number of women living with diagnosed HIV at the end of 2013, 61% (137,504) were African American, 17% (39,177) were white, and 17% (38,664) were Hispanics/Latinas.

Updated guidance: [Implementing HIV Testing in Nonclinical Settings: A Guide for HIV Testing Providers](#)—This CDC guide supports the implementation of HIV testing services in nonclinical settings in the United States.

VIDEO: CROI 2016 Plenary Session on HIV in Transgender Populations

Blog.aids.gov | 3.17

The 2016 Conference on Retroviruses and Opportunistic Infections (CROI) in Boston last month featured a first-ever plenary session on HIV in transgender populations by Dr. Tonia C. Poteat. [[READ MORE AND WATCH HIGHLIGHTS](#)]

WEBINAR: Long-Acting Injectables Antiretrovirals for Treatment and Prevention

DATE: Thursday, March 24

TIME: 10:00 AM ET

[PrEP](#)

David Margolis (ViiV Healthcare) and Marty Markowitz (Aaron Diamond AIDS Research Center) will talk about long-acting injectable antiretrovirals for treatment and prevention. There will be ample time for discussion with webinar participants.

At CROI, [Margolis presented findings](#) from the LATTE 2 trial, which tested a pair of long-acting injectables—cabotegravir (from ViiV Healthcare) and rilpivavirine (from Janssen)—for HIV maintenance therapy, and [Markowitz presented findings](#) from the ÉCLAIR paste 2A study of cabotegravir in HIV-uninfected men.

Link

[Register here](#)

Speakers

David Margolis - ViiV Healthcare

Marty Markowitz - Aaron Diamond AIDS Research Center

For more information: [Click here](#)

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Archives of previous STD Updates can be found [here](#). To unsubscribe or add colleagues' names, email aaron.kavanaugh@cdphc.a.gov. If you have an item related to STD/HIV prevention which you would like included, please send. No bibliographic questions please; all materials are compiled from outside sources and links are provided. No endorsement should be implied! Note: Some words may have been palced in [brackets] or replaced with blanks (___) or asterisks (*) in order to avoid filtering by email inboxes.

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