HIV Risk Reduction

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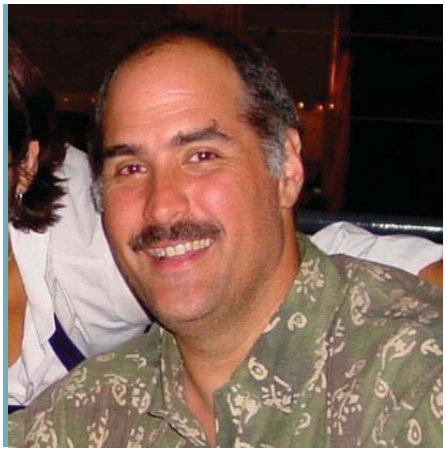
HIV Prevention & Substance Use

Networks, Syndemics, the True Value of Testing, and Supporting Medication Adherence



When he began his career, HIV prevention and treatment researcher Seth Kalichman wasn't really interested in substance abuse.

"But it was impossible to ignore," says Dr. Kalichman. "Across the board, it was common for the populations we were working with to have substance abuse histories."

Mentored by Jeffrey A. Kelly, PhD, a pioneer in the field of HIV prevention through behavioral intervention, Dr. Kalichman now heads an independent research group funded by the National Institutes of Health that has been conducting studies in Atlanta since 1996. His work, which focuses on people who are living with HIV, is essentially a quest for ever more effective interventions to reduce transmission through unprotected sex and to enhance medication adherence. So what does the research suggest for front line workers?

There's a good reason for the correlation between HIV and substance abuse, says Dr. Kalichman. "Substance abuse is probably the most robust factor associated with risk for HIV transmission" because it triggers behaviors that increase risk: sharing injection equipment and having unprotected sex - particularly sex involving multiple partners. "That's the real reason we see such high prevalence of substance abuse histories in people with HIV."

Seth Kalichman, PhD

Professor Kalichman dedicates his research to preventing the spread of HIV/AIDS and caring for those affected by the HIV epidemic. His research is focused in the southern United States and South Africa.

Dr. Kalichman was previously on the faculties of Loyola University of Chicago, Georgia State University, and the Medical College of Wisconsin where he worked under the direction of Jeffrey A. Kelly to help establish the Center for AIDS Intervention Research.

Networks & the Spread of HIV

"More important even than the substance abuse itself may be the networks that people belong to," says Dr. Kalichman. Substance users tend to interact socially and sexually in conjunction with their drug use. Dr. Kalichman's research indicates that members often take fewer precautions within their network under the assumption that those they are closest to are not infected.

But networks are rarely islands of safety because they are seldom closed. Relationships often form between members of different networks. And once HIV is introduced, "it can spread rapidly throughout the entire group." Again, because the group is not closed, the virus is then transmitted through a link to yet another network. "That's the history of the HIV epidemic and it's still what's going on. It hasn't changed," says Dr. Kalichman.

More important than the substance abuse itself may be the social/sexual networks that people belong to. The danger is a false sense of safety within the group. Once HIV is introduced, it can spread rapidly to the entire network.

Poverty & Co-Occurring Epidemics

But as HIV Early Intervention Services (EIS) workers know, substance abuse is not the only factor in the spread of HIV. Another that "goes hand in hand" with substance abuse is mental illness because so many people use substances to self-medicate.

And that leads to a concept called syndemics. Dr. Kalichman explains: "syndemics are co-occurring epidemics. It's a way to think about the way challenges cluster around the same populations."

The groups most affected by HIV tend to have multiple problems like addiction, mental illness, and poverty. "HIV is associated with poverty; substance abuse is associated with poverty; and untreated mental health problems are associated with poverty. So there's a confluence of co-morbidities."

But what does this mean for front line staff? HIV EIS workers are in the business of making a difference. The better EIS counselors and nurses understand the interlocking challenges that clients face, and the more clearly they see the motivation behind risky behaviors, the more effective their intervention is likely to be.

The True Value of Testing

A fundamental of HIV intervention is testing, so we were interested in Kalichman's thoughts on the topic. "The idea of testing is to detect people who are positive. Testing is a diagnostic strategy to identify people who have HIV and get them into treatment. That's where the value is."

But what about people who test negative? "We know that testing alone as a diagnostic strategy doesn't have a preventive value," says Dr. Kalichman. "For example, people being screened for hypertension who have normal blood pressure don't change their behavior. But the CDC has demonstrated that testing in conjunction with client-centered counseling (like the prevention counseling that HIV EIS workers provide) can be very effective."

Supporting Adherence to Treatment

Once a client is identified HIV-positive, whether newly diagnosed or self-disclosed, HIV EIS workers have another opportunity to intervene by linking them to care and supporting their efforts to adhere to treatment.

"Maintaining adherence to antiretroviral therapy is critical. There is no question about that. Clients who go without medication for extended periods of time or those who frequently miss doses run the risk of developing viral resistance," says Dr. Kalichman.

So what prevents adherence? For a client who is HIV-positive, the same factors that predicted risk of HIV infection now become barriers to taking medication on schedule. "We know that substance abuse and mental health problems like depression, anxiety and the more serious mental health disorders are significant barriers to long term adherence to treatment," says Dr. Kalichman. Fortunately, HIV EIS workers are ideally positioned to engage clients in substance abuse treatment and/or mental health therapy.

Another common barrier to adherence is poverty. This is an obstacle for anyone who is HIV-positive, but HIV-positive substance users who are living in poverty face an even greater challenge. In studies in Atlanta, Dr. Kalichman found that on any given day, between 30 and 50 percent of participants did not have sufficient food to eat – a major deterrent to adherence. And for people who are actively using drugs or alcohol, antiretrovirals take a back seat to getting both food and the addictive substance.

Poverty is a common barrier to adherence. In Kalichman's Atlanta studies 30% - 50% of participants did not have enough food.
(Oscar C. Williams / Shutterstock.com)

Most EIS workers familiar with local resources can help HIV-positive clients overcome the barrier of insufficient food.

Another challenge, particularly in rural areas, is transportation. Even in Atlanta Dr. Kalichman saw "a lot of people who have such a difficult time getting to the pharmacy that they may go for days or a week without medication."

HIV EIS workers can address this problem by setting up transportation or contacting local pharmacies to find those that deliver medications.

People who drink often think it is toxic to mix their antiretroviral medications with alcohol.

Many unnecessarily risk drug resistance because they stop taking their medication whenever they drink.

One barrier to medication adherence that researchers discovered is an erroneous belief. "People who drink commonly think it is toxic to mix their antiretroviral medications with alcohol," says Dr. Kalichman. But in fact, while excessive drinking is bad for the liver, unless someone has liver disease, mixing alcohol with antiretrovirals does no more harm than alcohol alone according to Dr. Kalichman.

"Some people whose drug of choice is alcohol will stop drinking when they begin to take antiretrovirals and others will continue to drink without interrupting their medication."

But unfortunately, a sizable portion not only believe that alcohol and antiretrovirals don't mix - they choose to stop their medication rather than stop drinking. "In our Atlanta studies, as many as half of the people who drink stop taking their antiretroviral medication whenever they drink. It's a bad idea because they run the risk of becoming resistant to the medication."

Conclusion

Our interview with Dr. Kalichman confirmed the value of client-centered prevention counseling in combination with HIV testing. His findings also underscored how well-positioned EIS workers are to make a difference in the lives of clients who are HIV-positive. By providing access to resources like medical care, substance abuse treatment, mental health therapy, food, and transportation, EIS nurses and counselors can help HIV-positive clients overcome barriers to long-term treatment adherence. And any increase in adherence has the potential for significant impact on the epidemic.

The capacity to empower is rare. It's a tightrope walk between the pitfalls of feeling unappreciated by clients and feeling somehow superior to them. Respecting the choices of others is not easy. And for those who are motivated to serve, self-care can be an afterthought. But at the heart of effective prevention work is power – the power of true service. The graceful power of a tightrope walker.