

HIV prevention enters a new era

Doug Campos-Outcalt, MD, MPA

Maricopa County Department of Public Health;
University of Arizona Department of Family and Community Medicine, Phoenix

The Centers for Disease Control and Prevention (CDC) estimates 40,000 new HIV infections occur annually in the US, and this may be increasing. Close to 1 million people in this country are living with HIV, and an estimated one quarter of them do not know they are infected.¹ Thus, the infection often is detected late; 40% of those infected find out about it <1 year before AIDS develops. The result of delayed detection, or failed detection, is a large group of infected persons who unknowingly expose others to the disease for a prolonged period.²

■ ALARMING TRENDS

Recent epidemiologic trends indicate our preventive efforts are inadequate. Risky behavior is increasing among certain subpopulations of men who have sex with men.^{3,4} In the US, 300 babies a year are born with HIV infection, despite effective interventions to prevent mother-to-baby transmission, largely because infection in the mother is not detected during pregnancy.¹ Needle exchange for IV drug users, a proven effective intervention, remains underused because of political objections.⁵

While the HIV epidemic in the US remains driven by infections in men who have sex with men and those who use illicit intravenous drugs, the

number of heterosexually transmitted infections has increased each year and was estimated at 9183 new infections in 2002; 3234 among men and 5949 among women. In addition, the disease has become a major cause of health disparity in this country. Comparative AIDS rates per 100,000 in 2002 were 5.9 for whites, 8.5 for American Indians/Native Americans, 19.2 for Hispanics and 58.7 for African Americans.⁶

■ EFFECTIVE TREATMENTS WARRANT MORE EFFECTIVE DETECTION

On the other hand, the use of highly active anti-retroviral therapy has been very successful in altering the course of the disease in those infected, lowering death rates dramatically. The result has been an increasing number of people living with HIV/AIDS. While treatment lowers viral loads and presumably makes one less infectious, the overall community effect of an increasing number of infected persons still able to transmit the virus to others could be negative unless education is effective in reducing behavior that places others at risk.

Change is needed

All of these trends have created a need to reexamine HIV prevention efforts. The main HIV prevention interventions used in the US for 2 decades have included screening donated blood; screening

Correspondence: 1825 E. Roosevelt, Phoenix, AZ 85006.
E-mail: dougcampos@mail.maricopa.gov.

TABLE

Practice-based initiatives that could contribute to HIV reduction in the community

Make HIV testing a routine part of general medical care.

Make HIV testing a routine part of pregnancy care. Test as early as possible in pregnancy and retest those at high risk in the third trimester.

Refer those who are HIV-positive to the local public health department for case management.

Work collaboratively with the public health department to insure that people with HIV infection receive medical care and social services.

Reinforce the message to those infected about how to avoid transmitting the infection to others.

Counsel uninfected patients who practice high-risk behaviors about how to reduce their risks of infection, using patient-centered methods.

Promptly diagnose and treat other sexually transmitted infections.

pregnant women and administering antiretroviral agents to HIV-positive mothers during pregnancy and to their newborns; needle exchange programs (in a few locations); community-wide and risk-group-specific education; and confidential or anonymous HIV counseling and testing programs.

Counseling and testing programs have used extensive pretest and posttest counseling sessions in an attempt to keep those who are HIV negative from contracting the disease. However, studies have shown that counseling and testing do not significantly alter sexual behavior among those who are HIV negative; they are effective for those who are HIV positive.⁷⁻¹¹ Counseling of those who are HIV negative can be more effective if patient-centered methods are used.¹²

■ CDC'S NEW INITIATIVE

The CDC has recently reviewed its HIV prevention efforts and initiated a new campaign called

Advancing HIV Prevention (AHP). This initiative has 4 components:

- Make HIV testing a routine part of medical care whenever and wherever patients go for care.
- Use new models for diagnosing HIV infections outside traditional medical settings.
- Prevent new infections by working with people diagnosed with HIV and their partners.
- Decrease mother-to-child HIV transmission.

Potential benefits of increased testing include earlier detection and entry of infected persons into treatment, earlier notification and testing of contacts, shorter periods during which infected persons unknowingly transmit the infection to others, and reduced stigma of testing as it becomes routine. However, this strategy will be effective only if those who are HIV positive can receive medical care and social support and be convinced to avoid exposing others. Fortunately, the evidence is good that intensive counseling and case management can achieve these goals.⁸⁻¹¹ Another potential benefit is earlier notification of contacts, either by the patient or the public health department, depending on local public health practice.

Testing during pregnancy is well accepted and widely used but is still not universally implemented. Voluntary testing is more acceptable if implemented as a routine test with a choice to opt out—ie, informing women that the HIV test is being offered as part of routine testing and that they have the option of refusing it. Selective testing based on perceived risk misses cases and contributes to stigmatization of those tested.¹³ The CDC recommends that women who refuse testing should be counseled on the potential benefits of HIV testing to them and to their babies; and that providers should recommend the test while, preserving the mother's right to refuse should she decide the test is not in her best interest.¹⁴

■ FAMILY PHYSICIAN INVOLVEMENT

Family physicians can contribute to the country's HIV prevention efforts by implementing the steps listed in the **Table**. This new approach places more emphasis on finding those infected with HIV

and initiating actions beneficial to them and their partners while reducing risk of transmission.

Explore acceptability of needle-exchange programs. Another intervention proven effective, but more controversial, is needle-exchange programs for illicit drug users. The evidence to date is that needle-exchange programs prevent transmission of HIV and other blood-borne pathogens and do not encourage use of illicit drugs.⁵ Because these programs have proven as controversial as they are effective, they have not been widely adopted. If the community political climate is receptive, family physicians could also advocate for these programs.

Implement routine testing. As family physicians move to make HIV testing routine, several issues must be considered. Though HIV testing methods are quite accurate, an initial positive test in a person with a very low pretest probability is more likely to be a false positive than a true positive. Risks, however, are not always apparent or admitted to by patients. Positive tests should be repeated and confirmed. Newly approved rapid HIV tests allow for results within a half-hour, but positive test results must be confirmed by western blot or immunofluorescence assay.¹⁵

Report cases promptly. In 31 states, HIV infection is a reportable disease. This may cause concern among patients and lead physicians to under report. This practice is discouraged for several reasons. Accurate tracking of the HIV epidemic is critical to measure the effectiveness of preventive interventions and to enable quick implementation of needed changes in public health practice. Federal funds to support treatment for those with HIV/AIDS depend on the number of persons with documented HIV infection; under-reporting causes the community to lose treatment funds. Finally, public health departments have a long established record of maintaining confidentiality of infectious disease reports and, in most jurisdictions, have more confidentiality legal protections than do physician offices.

HIV remains a significant public health problem in the US. As the epidemic evolves, new pub-

lic health efforts will be needed. Full control of the epidemic might not be achieved until a more effective intervention, such as a vaccine, is available. However, interventions have proven effective and more widespread use would reduce the community burden of the disease.

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