

HIV Testing Rates Reached Record Level in 2009

BY JANUARY W. PAYNE
FROM A CDC TELECONFERENCE

There has been “reasonable progress” in the United States toward testing the majority of adults and adolescents for HIV, a goal set in 2006, said Dr. Thomas R. Frieden, director of the Centers for Disease Control and Prevention.

“The information released today is good news. It shows that progress is possible and is being made ... but it also shows how much more progress is needed, particularly in the health care setting,” Dr. Frieden said. The number of adults who reported having been tested for HIV reached a record high in 2009, he said.

About 1.1 million Americans have HIV; however, for every five Americans,

one does not know he or she is infected. In 2009, 82.9 million Americans aged 18-64 years reported being tested for HIV – 11.4 million more than reported in 2006, according to the just-released CDC Vital Signs report. About 45% of adults reported having been tested for HIV at least once in their lives in 2009; that number had held steady at about 40% from 2001 to 2006, according to the CDC. Women were more likely than men to have been tested (MMWR 2010 Nov. 30;59(Early Release):1-6).

The CDC recommended in 2006 that health care providers offer HIV testing as

a routine part of medical care for adult and adolescent patients, and suggested that those at high risk of HIV be tested at least annually.

Although the new data show that some progress has been made, the fact that 55% of adults – including 28% of adults who are at high risk for HIV – have not been tested means that health care providers need to continue ramping up efforts to encourage patients to get tested.

“Because more people were tested, fewer people were diagnosed late with HIV,” Dr. Frieden said. “People who know

they’re [HIV] positive can get treatment ... and also can prevent the development of AIDS.” Furthermore, “virtually all AIDS cases are preventable either by preventing HIV infection or by preventing progression of HIV to AIDS,” he said.

The CDC encourages HIV testing both inside and outside the health care system, and works with health departments and community organizations to offer testing. Widespread HIV testing is a worthwhile effort because for each infection that is prevented, more than \$300,000 in lifetime medical costs is thwarted, Dr. Jonathan Mermin, director of the CDC’s HIV/AIDS Prevention Program, said during the teleconference.

The ultimate goal is to see HIV testing become routine. “We would like to see HIV testing as commonplace as cholesterol testing,” Dr. Mermin said. ■



About 45% of adults reported having been tested for HIV at least once in their lives in 2009.

DR. FRIEDEN

Daily Antiretroviral Prophylaxis Cut Risk of HIV Infection

BY SHERRY BOSCHERT

FROM THE NEW ENGLAND JOURNAL OF MEDICINE

Taking a daily pill containing two antiretroviral drugs plus exposure to conventional HIV prevention strategies reduced the risk of acquiring HIV by an average of 44% in the people at highest risk of getting infected – men and transgender women who have sex with men, a study has shown.

The Preexposure Prophylaxis Initiative (iPrEx) study randomized 2,499 subjects in six countries to take a daily pill containing placebo or a combination of emtricitabine and tenofovir disoproxil fumarate (FTC-TDF).

All of the study subjects also received regular HIV testing, condoms, counseling on reducing risks for HIV, and management of sexually transmitted infections.

During a median follow-up of 1.2 years (and a maximum of 2.8 years), 36 of 1,251 subjects in the FTC-TDF group (3%) acquired HIV, compared with 64 of

1,248 subjects in the placebo group (5%). The preventive efficacy of FTC-TDF was significant but not as high as investigators had hoped, according to Dr. Robert M. Grant of the University of California, San Francisco, and his associates (N. Engl. J. Med. 2010 Nov. 23 [doi:10.1056/NEJMoa1011205]).

tracellular assays showed that subjects had been exposed to FTC-TDF, they were much less likely to acquire HIV. Evidence of FTC-TDF was seen in only 3 of 34 HIV-infected subjects (9%), compared with 22 of 43 HIV-negative subjects (51%) in the FTC-TDF group.

“It’s very exciting news,” Dr. Moupali Das said in an interview. “These are extremely promising results,” said Dr. Das of the University of California, San Francisco, and director of research in the HIV prevention section of the San Francisco Department of Public Health.

Dr. Das was not involved in the iPrEx study.

The findings are consistent with results from a separate preexposure prophylaxis trial reported earlier in 2010, which showed an overall 39% reduction in HIV infections in women who agreed to apply a 1% tenofovir gel vaginally before and after sex, Dr. Das noted.

The randomized, double-blind placebo-controlled Centre for the AIDS Programme of Research in South Africa (CAPRISA) 004 trial studied 889 sexually active African women (Science 2010;329:1168-74).

The iPrEx study enrolled subjects at multiple centers in the United States, South Africa, Brazil, Ecuador, Peru, and Thailand.

Patients in the FTC-TDF group were significantly more likely to develop nausea (2%) in the first 4 weeks of treatment, compared with the placebo group (less than 1%).

“It’s a groundbreaking study,” but several factors will temper excitement among clinicians, said Dr. Grant Colfax, director of HIV prevention for the San Francisco Department of Public Health.

Dr. Colfax was not involved in the iPrEx study.

The FTC-TDF pill is expensive, costing \$750 per month or more in the United States, he noted in an interview. Subjects in the study got comprehensive care with monthly HIV testing, state-of-the-art prevention counseling, free condoms, and more, which might not be representative of the real world.

“This was not just giving someone a pill and walking out of the office,” Dr. Colfax said.

Two subjects in the FTC-TDF group who later were found to have had HIV at enrollment both developed

resistance to FTC, compared with one of eight subjects on placebo with HIV at enrollment.

People at risk for HIV should not start taking FTC-TDF without reviewing the risks and benefits with their physician, Dr. Colfax said.

The study does not answer questions about the advisability of implementing this prevention strategy in all or even most HIV-negative people at risk for acquiring the infection, Dr. Das agreed.

“It will be important to see the results of the upcoming trials on different ways to provide preexposure prophylaxis,” results of which should be available in the near future,

Dr. Das said.

The Web site of the nonprofit group AVAC: Global Advocacy for HIV Prevention (www.avac.org) provides a timeline of expected efficacy trial results.

In the meantime, there might be some specific populations in whom preexposure prophylaxis with FTC-TDF makes sense while research continues, she added.

Some clinicians already offer preexposure prophylaxis to HIV-negative people whose sexual partners have HIV or to serodiscordant couples who can’t use other modes of preventing infection.

Further research might identify ways to reduce the frequency and expense of preexposure prophylaxis, Dr. Das suggested, such as perhaps taking FTC-TDF only during high-risk periods of life, similar to the way women use contraceptives mainly during the sexually active years.

The main obstacle for most people will be cost, especially for the low-income or indigent patients Dr. Das sees in her practice.

“I could write a prescription, but I don’t know how they would be able to pay for it,” she said. Still, FTC-TDF is “another potential tool in our prevention toolkit.”

The rate of HIV infection has been climbing since the early 1990s in U.S. men and transgender women who have sex with men, especially in black and Hispanic populations, the investigators in the iPrEx study indicated.

In almost all countries, the prevalence of HIV is higher among men and transgender women who have sex with men, compared with other groups. ■

VITALS

Major Finding: Taking a daily pill containing the antiretroviral drugs emtricitabine and tenofovir along with using conventional HIV prevention strategies reduced the risk of acquiring HIV by 44% on average in men or transgender women who have sex with men.

Data Source: Randomized, blinded, placebo-controlled trial in 2,499 subjects in six countries.

Disclosures: The National Institutes of Health and the Bill and Melinda Gates Foundation funded the study. Gilead Sciences donated the FTC-TDF and placebo tablets, and provided some travel funding for investigators. Two of the investigators worked for Gilead. Disclosures for individual investigators are posted with the article at www.nejm.org. Dr. Das and Dr. Colfax said they have no relevant conflicts of interest.