Study first ever to show US AIDS Relief program saved a million lives

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The President's Emergency Plan for AIDS Relief, the ambitious U.S. government program begun in 2003, has cut the death toll from HIV/AIDS through 2007 by more than 10 percent in targeted countries in Africa, though it has had no appreciable effect on prevalence of the disease in those nations, according to a study from the Stanford University School of Medicine that is the first to evaluate these outcomes.

PEPFAR, which the Bush administration initially established as a five-year, $15 billion plan, has kept people alive by effectively providing funds for AIDS treatment and care, said Eran Bendavid, MD, first author of the study. Its role in preventing new infections is more difficult to measure, he added. PEPFAR is the largest U.S. foreign aid program devoted to a single disease.

"It has averted deaths - a lot of deaths - with about a 10 percent reduction compared with neighboring African countries," said Bendavid, a fellow in infectious disease and in health policy and research at Stanford. "However, we could not see a change in prevalence rates that was associated with PEPFAR."

The study will be published in the April 7 online issue of the *Annals of Internal Medicine*. It will also be published in the May 19 print version of the journal.

Peter Piot, MD, PhD, former executive director of the Joint United

Nations Programme on HIV/AIDS (UNAIDS), called the research an important step in assessing the response to AIDS. "Studies such as this one are critical as they demonstrate what can be achieved with development aid," he said. "PEPFAR is changing the course of the AIDS epidemic."

While PEPFAR has been widely praised as one of the major accomplishments of the Bush administration, it has not been without controversy. Some critics questioned its emphasis on treatment: Roughly 50 to 60 percent of the funding was devoted to providing patients with life-prolonging antiretroviral drugs. Only about one-fifth of the funds were dedicated to prevention and, of that figure, one-third was required to be used for abstinence-only programs, a widely criticized aspect of the program. This abstinence-only stipulation was removed when Congress reauthorized the program last year, increasing funding to $48 billion.

Bendavid said he decided to take a close look at PEPFAR to see whether a foreign-aid health program of this magnitude could truly work. As PEPFAR was completing the first five years of operation without an outcomes evaluation, he said it was important to ensure that the funds were being effectively used.

"This is a lot of money, with a lot of people's lives at stake," he said, "so this type of evaluation is crucial."

He and his Stanford colleague, Jay Bhattacharya, MD, PhD, associate professor of medicine, gathered data on HIV mortality and prevalence as well as figures on the number of adults living with HIV in PEPFAR's 12 African "focus" countries. They compared these with similar statistics for all 29 other African nations with a widespread HIV epidemic and without PEPFAR "focus" funding. They looked at data for the five years (1997 to 2002) leading up to the start of the program as well as the three years (2004 to 2007) following its launch. The primary source of data

for the HIV prevalence, HIV mortality and people alive with the disease was UNAIDS.

The researchers found that in the years leading up the program, death rates rose in all of the countries studied. As PEPFAR funding became available, the death toll declined by more than 10 percent in the focus countries, compared to the control countries, with more than 1 million lives saved, the researchers estimated. The difference in death rates was most pronounced between 2005 and 2006, during PEPFAR's third year of operation.

The researchers calculated that for every life saved, PEPFAR spent roughly $2,450 on treatment. "This is not a trivial cost, and PEPFAR will need to make the available resources go a long way to continue changing the course of the epidemic," Bendavid said.

As more people survived with antiretroviral treatment, the number of those living with HIV rose more rapidly in the PEPFAR countries, compared with the control countries. But there was no significant difference in adult prevalence of HIV between the focus countries and the control countries, either before or after the program was launched. "For prevalence, the trends remain perfectly parallel, regardless of when PEPFAR came in," Bendavid said.

It is difficult to know exactly why those trends remained parallel, but understanding the epidemiology of new infections would help solve that question, he said. Even today, for every two people who start antiretroviral treatment, there are five others who become newly infected with the virus.

"Reducing the number of infections has to be a crucial part of any major program," Bendavid said.

As the program enters a new phase under the Obama administration, Bendavid said it's important that it continually be monitored and evaluated to ensure these vast taxpayer funds are efficiently spent.

"It is working," he said of the program. "It's reducing the death toll from HIV. People who are not dying may be able to work and support their families and their local economy." But he noted, "evaluating how the money is being spent, and which aspects of the program work best, could help it improve."

Source: Stanford University Medical Center (news : web)