CDC’S GLOBAL HIV PREVENTION EFFORTS: KEY STRATEGIES, INNOVATIONS AND ACHIEVEMENTS TO DATE

OVERVIEW

Despite tremendous progress in scale-up of HIV prevention, care and treatment services over the last decade, the UNAIDS 2016 Prevention Gap Report\(^1\) indicates that declines in new HIV infections among adults have slowed. In resource-limited countries, 47 percent of people living with HIV remain unaware of their infection.\(^2\) In 2015, young women aged 15-24 years accounted for 20 percent of new HIV infections globally and 25 percent of new infections in sub-Saharan Africa.\(^1\) Key populations, such as people who inject drugs and men who have sex with men, are 24 times more likely to acquire HIV than adults in the general population, and sex workers are ten times more likely to acquire HIV.\(^1\) Gender inequalities and gender-based violence contribute to women’s and girls’ vulnerabilities, and stigma and discrimination negatively impact key populations’ access to HIV services.

The U.S. Centers for Disease Control and Prevention (CDC) is supporting HIV prevention efforts in 34 country and four regional programs through five prevention pillars:

- Preventing primary HIV infection through Voluntary Medical Male Circumcision (VMMC) and medical transmission prevention with a focus on blood safety

- Supporting people living with HIV to know their status and receive sustained antiretroviral treatment (ART) through HIV case-finding, testing and linkage of people living with HIV to care and treatment services

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• Providing HIV prevention, care and treatment services for:
  o Key populations, including people who inject drugs, men who have sex with men, sex workers, transgender persons, prisoners and people in closed settings
  o Other vulnerable or hard to reach groups, such as youth aged 15-24 years including adolescent girls, young women and their male partners in sub-Saharan Africa

• Strengthening data availability and use to inform prevention program improvements, including routine monitoring and evaluations, and prevention research and evaluations

• Introducing and accelerating new HIV prevention interventions, such as pre-exposure prophylaxis and HIV self-testing

ACCOMPLISHMENTS / RESULTS

• Through the U.S. President’s Emergency Plan for AIDS Relief (PEPFAR), CDC has supported over 4.5 million VMMCs in 12 African countries with uptake increased by nearly 400 percent since 2010. Mathematical modeling suggests that VMMCs done to date will aver an estimated 240,000 HIV infections through 2025.

• From 2004 to 2015, CDC has supported nearly 245 million HIV tests under PEPFAR. The efficiency or yield – defined as number of new HIV cases identified – of those tests has steadily increased. At the same time, the cost per test has decreased as data have been used to improve program performance.

• From 2011 to 2014, blood collection among 14 countries supported by PEPFAR through CDC increased by 19 percent. In the same period, 12 of 14 countries reported an overall decrease in donated blood units that tested positive for HIV. All PEPFAR-supported blood services screen 100 percent of donated blood for HIV, an average of 2.4 million blood donations per year.

• To reduce stigma and discrimination, CDC developed a key population sensitization training curriculum for health care workers to deliver competent and non-stigmatizing HIV services. This training is being rolled-out in approximately ten countries across Africa, Asia and Central America.

• Nine CDC-supported key population implementation science projects launched in 2014 have begun to generate findings informing program improvements, such as web-based promotion and delivery of HIV self-test kits for men who have sex with men in Brazil, and evaluation of different needle-syringe program modalities for people who inject drugs in Kyrgyzstan.

• In 2016, PEPFAR launched the Determined, Resilient, Empowered, AIDS-free, Mentored, and Safe women (DREAMS) Initiative. As part of this effort, CDC is supporting programs in nine African countries. DREAMS empowers adolescent girls and young women by supporting community-based HIV testing, post-violence care, access to condoms, other contraception and pre-exposure prophylaxis (PrEP) as well as building social assets and safe spaces. VMMC and linkage to antiretroviral treatment services are also incorporated to reduce risk of HIV infection in sex partners.

• For over a decade, the Families Matter! Program has supported effective parent-child sexual health communications. The program has been delivered in ten sub-Saharan African countries, reaching over 500,000 families.

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To inform innovations in HIV testing, linkage, and antiretroviral treatment delivery, CDC is supporting research and evaluations of combination-prevention interventions in Botswana, Mozambique, Swaziland, and Tanzania. Preliminary findings identified interventions to increase HIV testing up-take in young women and men, as well as improved linkage of people living with HIV into care. These projects also generate lessons learned from first sites implementing Treat All.

In addition to ongoing technical assistance to scale-up the programs described above, highlights for future CDC global HIV prevention efforts include:

- Supporting HIV testing programs in adapting and replicating best practices, such as:
  - Community-based index partner testing in Swaziland that increased positivity yield from 3 percent to 21 percent,
  - Simple and inexpensive partner notification interventions that led to over 60 percent of partners accessing HIV testing with positivity rates over 50 percent from projects in Cameroon and Tanzania; and
  - Optimized case finding through key population social network recruitment that increased positivity yield from 2-3 percent to 21 percent in a CDC-supported project in the Ukraine.

- Evaluating the Shang Ring in Kenya and Zambia. Device-based VMMC may play an important role as countries move towards saturation of VMMC and plan for sustainability to maintain coverage of male circumcision.

- Supporting the introduction and accelerated roll-out of pre-exposure prophylaxis in five countries as part of DREAMS and in up to nine additional countries through existing key population programs.

- Providing ongoing support to national blood transfusion services in 11 countries to pursue and achieve blood bank accreditation with the African Society for Blood Transfusion.

Sharing lessons learned between global and domestic HIV prevention programs has been instrumental to progress in both settings. Examples include:

- Effective case finding strategies from the U.S. were adapted to reach greater numbers of previously undiagnosed people living with HIV in global settings.

- Strategies to reach men from VMMC programs in Africa informed similar programs for men in other regions of the world.

- U.S.-based youth programs such as the Families Matter! Program were adapted for implementation in Africa. The scale-up of these programs in resource-limited African settings, in turn, informs domestic programs for adolescents living in poverty.

- Combination prevention evaluations will help identify optimal HIV intervention models that could be adapted in the United States to increase testing up-take and early enrolment in HIV treatment.