Let's End HIV Together.

How to Eliminate New Infections by 2030

Preventive therapies — along with education, testing, and access to antiretroviral treatments (ART) — can play a significant role in helping **end new HIV infections by 2030**, a recently announced goal by the U.S. Department of Health and Human Services.

As we look forward to ending this deadly epidemic that has claimed millions of lives worldwide, here are some of the key milestones so far in that journey.

In the beginning of the HIV/AIDS epidemic — before the drug discoveries, antiretroviral, and other treatments — **the mortality rate for patients was 95.5 percent.** During those years, many patients would not live more than a year. As treatment options evolved and expanded the mortality rate fell, and most can now live to nearly their full life span.[1] A key milestone in the fight against the epidemic arrived a decade ago with the first preventive treatment — a pre-exposure prophylactic (PrEP) — was approved in 2010. Several pre- and post-exposure preventive (PEP) treatments are now available and have been shown to reduce the risk of transmission by as much as 99 percent.[2]

1981

In June, the U.S. Centers for Disease Control and Prevention (CDC) report five patients have what was later named **acquired immunodeficiency syndrome (AIDS)**.[3]

270
U.S. reported cases[4]

121
reported deaths[4]

0 drugs received approval to treat HIV/AIDS[5]

1984

Discovery published about the retrovirus that causes AIDS, **human immunodeficiency virus (HIV)**.[6]

1987

The U.S. Food and Drug Administration (FDA) approved the first antiretroviral drug to treat AIDS — AZT (zidovudine), a nucleoside reverse transcriptase inhibitor (NRTI).[5,7]

NRTIs showed that treating HIV is possible and sets the stage for developing other therapies.[1]

95.5%
mortality rate[8]

1993

While single NRTI therapies showed lower effectiveness against the mutation of HIV, when NRTIs were paired, disease progression slowed.

This ushered in a dual-therapy approach to prolonging viral suppression.[9]

500,000
HIV cases had been reported in the U.S. as of October 31, 1995[4]

1996

Although dual treatment was a significant change from a single treatment, using a **triple drug therapy or ART** — drugs such as two NRTIs and a protease inhibitor — started helping to reduce AIDS-related deaths.[1]

These drug combinations became a pillar of HIV regimens and later grew to combine two NRTIs with one non-nucleoside reverse transcriptase inhibitor (NNRTI) or with one integrase strand transfer inhibitor (INSTI).

22.6%
mortality rate by the end of the 1990s[8]

929,000
living with HIV in the U.S. by 2001[10]

2007

Importance of CCR5 receptor in HIV infecting cells led to the development of maraviroc, which **effectively prohibits HIV from entering cells.**[11]

2010

FDA approved the first preventive and once-daily drug for the treatment of HIV.[12]

Reduction in risk of contracting HIV with PrEP:

↓99% from sexual contact[2]

↓74% from injected drugs[2]

2011

The HPTN 052 clinical trial indicated that people with HIV taking ART were

96% less likely to transmit the virus to partners without HIV.[13]

>1.2M
Americans estimated as living with HIV[14]

2019

59 **drugs received FDA approval to treat HIV/AIDS by 2019**[15]

2020

Cabotegravir, the first long-acting preventive treatment is shown to be highly effective in preventing HIV transmission in clinical trials.[16]

2021

FDA approves first long-acting HIV combination injectable treatment. Patients receive monthly shots of cabotegravir and rilpivirine.[17]

Looking Ahead to 2030

Much remains to be done and ending new HIV infections by 2030 — and therefore the epidemic — will take a concerted effort by a range of stakeholders. Along with helping create awareness and ensuring easy, affordable access to treatment, preventing transmission through use of PrEP and PEP treatments will be an important component of meeting that goal.

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