

[MUSIC PLAYING]

**ANNA MIA  
EKSTROM:**

HIV was discovered in the mid-1980s. And since then, 70 million people have been infected, and over 34 million people have died from AIDS. Today, 37 million people are living with HIV in the world, 2/3 of these in sub-Saharan Africa. Overall, however, HIV trends are positive. Many more survive thanks to the rapid increase in access to antiretroviral drugs, also called ARVs, over the past decade. Today, 15 million, or about 40% of those living with HIV, have access to these HIV drugs.

Also the number of new infections has dropped by 35% over the last 15 years. But 5,500 people still get newly infected with HIV every day. The largest number of new infections is still in southern Africa, where young women are at highest risk of HIV infection. We also see many new infections among marginalized groups, such as men who have sex with men, injecting drug users, and sex workers all over the world. In some countries in Eastern Europe and Central Asia, the rate of new infections is still increasing.

So despite the fact that 15 million out of 37 million people living with HIV have been initiated in ARV treatment, 22 million people still don't have access to these extremely effective drugs. For children, the situation is even worse. Less than one out of four children with HIV are in treatment. Overall, this lack of treatment leads to 4,000 AIDS deaths every day. To put this number in perspective, let's compare it to the Ebola epidemic, for example, where 11,000 people have died in total. That's the same number of people who die from AIDS in less than three days.

So why are people still dying from AIDS? Well, one important reason for this is that only half of those estimated to have HIV have been tested and know their HIV status, while the other half doesn't even know they have HIV, and therefore can't access any type of treatment or secondary prevention. And among those who do know their status, there are still problems in terms of accessing these drugs due to health system weaknesses for example. In addition to policy and financing problems, health system weaknesses include inadequate supply chains, lack of staff such as doctors, nurses, lab technicians, lack of testing equipment, and also lack of good electronic systems for data surveillance.

Stigma is however the main reason, both for not then getting tested for HIV, and for not

accessing treatment. In fact, both HIV and TB are mainly societal diseases, meaning that things like gender equity, poverty, political ideology, cultural norms, education, and legal structures play key roles in driving or stopping the epidemic.

Now let's go over some basic facts. What is HIV? HIV is a virus that attacks a type of white blood cells, so-called T cells or CD4 positive cells. These cells are important coordinators of our immune system. HIV destroys these C cells when making new copies of itself. In the absence of treatment, this leads to gradual destruction of T cells and a gradual weakening of our immune defense.

So what is the difference between HIV and AIDS? Well this is important. HIV is the virus, while AIDS, or Acquired Immune Deficiency Syndrome, is when a person gets sick as a consequence of weak immune defense caused by HIV. The good news is that even if someone has reached the stage of AIDS, he or she can often be saved through combination ARV treatment, and moved out of AIDS.

How does HIV spread? HIV can spread by our body fluids such as blood, genital fluids, sperm, and breast milk. The most common route of infection is through sexual intercourse. HIV can also spread by unsafe blood transfusions through used injection equipment like needles.

The risk of transmitting HIV varies greatly depending on the amount of virus in the person infected with HIV. This is also called the viral load. The highest risk of transmission is when the viral load is very high, and this is typically found in people who themselves have been recently infected and don't know yet that they are HIV positive, and therefore not in ARV treatment.

The risk of becoming affected also depends on the sex practiced-- anal, vaginal, or oral sex, and whether you're the recipient partner or not during sex. It also depends on the presence of other sexually transmitted infections.

A pregnant woman with HIV who doesn't receive any ARV prophylaxis treatment runs the risk of about one in three to infect her child, either during pregnancy, at delivery, or during breastfeeding. This is called mother to child transmission of HIV.

It's also important to know how HIV is not transmitted. It's not possible to get HIV by sharing same glass, plate, or cutlery. It's entirely safe to share towels, bath water, clothes, and to hug or kiss somebody with HIV. Neither can mosquitoes transmit HIV.

How can we prevent HIV infection? Well, using a condom is still the best way to protect against

sexual HIV transmission. Secondly, firm evidence shows that combination ARV treatment can lower the risk of transmission to close to zero by reducing the viral load to undetectable level in the body. This is called treatment as prevention. Third, a man who has been medically circumcised with this foreskin being entirely removed, reduces his risk of becoming HIV infected by 60%. But if this man is already HIV positive, circumcision doesn't prevent him from transmitting HIV to others.

Governments can prevent new infections by ensuring that all blood transfusions are safe, by making condoms easily accessible and affordable, by making harm reduction available to people who inject drugs, by ensuring universal sexual education in school to all children, boys and girls, by promoting gender equity, and by endorsing legal action against sexual abuse and rape, and stop the discrimination of marginalized groups.

Now what would it take to end the HIV epidemic? Well, simple mathematics tells us that since the number of newly infected of 2 million exceeds the 1.2 million dying from AIDS by about 800,000 people every year, the epidemic is still growing. We have very effective drugs. But even though the price of ARV drugs has been substantially reduced, they are still too expensive for most high burden countries that need to keep millions on treatment for decades to come. It's very resource demanding for weak health systems to follow up and treat the many millions who get infected at young age, and who need lifelong treatment.

To deal with this, health systems need to be strengthened and restructured to cope with chronic care. We also need to expand the production of generic drugs. But first and foremost, we need to cut the number of new infections dramatically.

If people knew that an HIV positive person on ARVs is at extremely low risk of infecting their partners and babies, and also expected to live until they die of something else at old age, many more would dare to get tested. Many more would also dare to inform their partners and families about their HIV status, and access treatment as prevention. And the issue of stigma would probably decline.

To invest in health is to invest in development. And health investments are often win-win scenarios. For example, investing in HIV also saves money on TB. And it helps keeping the next generation workforce alive, in turn, helping more people move out of poverty.

Promising research gives us great hope that we will be able to cure HIV one day. And much

research is also investing into finding a vaccine. UNAIDS has set very ambitious goals called 90-90-90. This means that 90% of those living with HIV should know their status. And 90% of those who know their status should be in treatment. And 90% of those treated should have undetectable viral load.

To reach these targets by 2020, we need to scale up HIV efforts. We need to be more innovative and creative, and reaching out with the knowledge we already know prevents HIV infection. If we do this right, within the next five years, we have a good chance of ending this epidemic within a few generations. If not, we might lose this window of opportunity, and HIV will continue to take lives for years to come.