

AIDS treatment benefits health, economics of people without HIV, new study shows

December 11 2015, by Michele Berger

In rural Malawi, roughly 10 percent of the adult population has HIV. At the peak of the epidemic, in the 1990s and early 2000s, nearly everyone knew someone infected with or affected by the virus, what demographer Hans-Peter Kohler of the University of Pennsylvania describes as a generalized epidemic.

The problem snowballed to the extent that life expectancy dropped dramatically. In just a short period, the epidemic undid nearly two decades of life-expectancy improvements.

"The probability of surviving from 15 to 50 declined substantially," Kohler said.

Then, around 2008, a cocktail of drugs today known as ART, or antiretroviral therapy, became more widely available in rural Malawi and other parts of sub-Saharan Africa, one of the most significant public-health interventions in the past decade and a move that profoundly benefited those in the region who were HIV-positive. Though there is still no cure for HIV, [people](#) on treatment can now live with the virus without developing full-blown AIDS. ART also reduces the likelihood of HIV transmission.

What the research team, including Kohler, Victoria Baranov of Melbourne University and Daniel Bennett of the University of Chicago, discovered is that ART also improves the well-being of HIV-negative people who don't receive the medicine and who aren't directly affected

by the epidemic. This is potentially powerful enough to help the local economy because, even in settings with HIV prevalence, most people are HIV-negative.

The researchers published their findings in the December issue of the *Journal of Health Economics*.

Part of the problem is the looming threat of and fear over contracting HIV, Bennett said. "Before ART came along, the people in our sample attended around two funerals per month. By ameliorating HIV risk, ART has allowed people to be more optimistic."

They began thinking less about the probability of dying, Kohler, Penn's Frederick J. Warren Professor of Demography, said. "Their mental health significantly improved. They became less depressed," he said. "They ended up working more and being more productive. And that's not because they could benefit from treatment in some direct way."

In other words, people without the disease but who lived in communities where it prevailed changed how they perceived their future, for the better. "Individuals actually became less worried about HIV and AIDS," Baranov said. "This might be spilling over into economic activities like labor supply, how much people are working, their productivity."

The cohort the researchers looked at, part of the Malawi Longitudinal Study of Families and Health, comprised about 4,000 men and women ages 25 and older in 120 rural villages. It's a unique dataset because scientists have been returning to this community since research began there in 1998. Not only that, but it is broadly representative of rural Malawi and other similar sub-Saharan African regions, Kohler said.

Using these longitudinal data, the researchers studied several factors, including distance to clinics offering ART. In settings such as these,

most people travel by foot or bicycle, so clinic location is crucial to treatment adherence. They also asked about perceived mortality (whether participants believed they would die within one, five or 10 years), as well as physical and mental health. For productivity, they measured time spent working on the farm, tending to the household and other such activities; through a 12-item questionnaire, they measured [mental health](#) areas like depression and anxiety.

The conclusion of the study in Malawi: The expansion of ART availability substantially reduces perceived mortality risk among HIV-negative people, even among those without HIV-positive relatives, friends or neighbors. It also leads HIV-negative people to work more, particularly in terms of corn production, an area for which daily cultivation time rose 11 percent and daily production time rose 16 percent.

There are broader implications, too. HIV/AIDS distorts behavior in important, yet unexpected, ways that economic studies of HIV should acknowledge, Baranov said.

"We could see effects on African economic growth that we haven't really factored into the equation before," she said. "These medications are already out there, and there's been a big push in making them available. This further reinforces how much more they should be available to areas that don't have access."

And, according to the authors, in sub-Saharan Africa, where populations experience widespread concern about HIV, these indirect ART effects are large enough to noticeably benefit the path of economic development.

Provided by University of Pennsylvania

Citation: AIDS treatment benefits health, economics of people without HIV, new study shows (2015, December 11) retrieved 23 April 2024 from <https://medicalxpress.com/news/2015-12-aids-treatment-benefits-health-economics.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.