



INDEPTH Network
Better Health Information for Better Health Policy

Policy Brief

Ending the HIV/AIDS Pandemic

The uniquely robust data generated by INDEPTH member centres have helped make the Millennium Development Goal of reversing the spread of HIV/AIDS by 2015 achievable. By identifying how the virus has spread, which population groups are hardest hit, and how the disease can be most successfully tackled, the research conducted by health and demographic surveillance sites across the developing world has had a crucial influence on the policies which have helped slow the spread of AIDS.

Policy messages

By tracking health and demographic trends over the long-term and working in communities that governments often struggle to reach, INDEPTH member centres offer a vital resource for policy-makers attempting to tailor interventions to local realities. INDEPTH investigations, which are often developed in response to the concerns of policy-makers, pre-test technological interventions, measure the acceptability and impacts of new or existing policies and programmes, conduct cost-effectiveness studies, and generate and assess ideas for future policies.

Introduction

Research has played a central role in the global battle to stop HIV/AIDS. The 49 health and demographic surveillance system (HDSS) field sites that comprise the INDEPTH Network - the International Network for the Demographic Evaluation of Populations and their Health – have conducted hundreds of studies on the virus, with major impacts on health policy. Their research covers themes including the epidemiology of HIV; its impacts on families, communities and economies; the effectiveness of prevention and treatment programmes; and the costs and benefits of technological solutions including antiretroviral drug therapy, male circumcision and condom use.

INDEPTH has member centres in Africa, Asia and the Pacific region. They use robust longitudinal data, collected through regular visits to all households in a geographically-defined area, to address the critical gaps in information on population health in low- and middle-income countries. By monitoring new health threats and rigorously testing the effect of policy interventions on communities, HDSS sites provide information that enables policy-makers to make informed decisions that adapt to changing conditions. There are no other sustainable sources of longitudinal data that can provide the knowledge and policy-relevant evidence needed to serve health and development in the Global South.

Case studies

Among HDSS centres' most arresting findings in the field of HIV/AIDS research are the following:

- Studies by Rakai HDSS in Uganda found that male circumcision reduced HIV incidence in men by 60 per cent, at a cost of \$1269-\$3911 per averted infection. Male circumcision is now being rolled out widely in Africa as a key HIV prevention technology.
- Researchers at the Africa Centre in Kwazulu-Natal, South Africa, examined the impacts of adult mortality – which has been sharply increased in the HDSS area by HIV/AIDS - on household dissolution. 21 per cent of households resident in the surveillance area between January 2000 and October 2002 experienced at least one adult death. These households were four times more likely to dissolve than other households.
- A study by INDEPTH member centres in South Africa, Tanzania and Malawi showed that the widespread fears that large numbers of adult deaths would force millions of children to fend for themselves (potentially leading to societal collapse) have not materialised. Although orphanhood has increased at all three sites, the proportion of child-headed households has remained stable.
- HDSSs have been instrumental in demonstrating the enormous benefits of antiretroviral drug therapy (ART) for HIV/AIDS. A Rakai study found that the introduction of ART led to a sharp decline in HIV incidence in couples where one partner was HIV-positive. Incidence in these discordant couples in the period prior to ART was 9.2/100 person years. After ART was initiated and viral load greatly reduced, there were no new transmissions during a period of 53.6 person-years.
- Investigations by Karonga HDSS in Malawi found that adult mortality declined by 10 per cent within eight months of the opening of an ART clinic in the area. Within four years the death rate due to HIV/AIDS had fallen from 505 to 160 per 100,000 person-years, and the proportion of deaths caused by the virus had dropped from 42 per cent to 17 per cent.
- A study by the Africa Centre demonstrated the potential economic benefits of ART. Researchers tracked the employment rate among 2,000 individuals in whom the virus had advanced sufficiently for them to require treatment. In the year before beginning the therapy, when the study subjects were likely to have been sick as a result of the disease, the employment rate among them fell by 38 per cent. Within four years, it had recovered to 90 per cent of the pre-illness level.
- HDSS centres have been at the forefront of the crucial debate on the impact of breastfeeding on mother-to-child transmission of HIV. An Africa Centre investigation found higher morbidity among HIV-infected infants who were never breastfed during the first fifteen months of life than among those who breastfed. A further study found that formula feeding in the first six months of life increased the risk of MTCT, with infants who received mixed formula feeding and breast milk eleven times more likely to contract the virus than those who received only breast milk. Research by INDEPTH member centres helped prompt the World Health Organisation to recommend exclusive breastfeeding for HIV-infected mothers for at least the first year of life unless safe and sustainable formula feeds are available.
- Not all INDEPTH studies on HIV/AIDS reveal positive findings. Vaginal microbicides, which many had seen as a promising HIV prevention technology, were found by the

Africa Centre to have no protective effect against the virus. Another Africa Centre study, which found that HIV incidence in the demographic surveillance area did not decline between 2003 and 2007, highlighted the need for a continued focus on HIV prevention.

HIV/AIDS research

INDEPTH members work at the cutting edge of HIV/AIDS research. Current investigations are preparing the ground for development of an HIV vaccine. Others are studying the impact of microfinance and conditional cash transfers on sexual behaviour change. Still others are addressing the challenges surrounding rollout of male circumcision; examining resistance to antiretroviral drugs; assessing the impacts of gender imbalances, folk beliefs and economic empowerment on HIV transmission; and developing tests that identify recent HIV infection. Many of these studies have implications not just for HIV/AIDS but for global responses to future disease threats. They are too important for policy-makers to ignore.

Further reading

Good 3-4 references from INDEPTH

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