

HPTN 071 (PopART) FAQ

What is HPTN 071 (PopART?)

HPTN 071 (PopART--Population Effects of Antiretroviral Therapy to Reduce HIV Transmission), is a study that will determine the impact of a package of HIV prevention interventions on community-level HIV incidence. These prevention interventions include universal household voluntary HIV counseling and testing, linkage of HIV infected individuals to care and early initiation of antiretroviral therapy (ART) for all those testing HIV-positive.

What is ART?

HIV is treated with antiretroviral drugs (ARVs), also known as antiretroviral therapy (ART). ART keeps the immune system healthy in people living with HIV which helps them live longer, healthier and more productive lives.

ART has also been shown to reduce the risk of HIV transmission from HIV positive people to others, a strategy sometimes called treatment-as-prevention or TasP. An example of treatment as prevention is the Prevention of Mother to Child Transmission (PMTCT) which drastically reduces the chance of transmission of HIV from a mother to her child.

What are the possible benefits of the PopART intervention in offering ART early?

Early or immediate treatment reduces the risk of HIV transmission. The HPTN 052 study showed that early initiation of ART is an effective tool for HIV prevention. Conducted among couples in which one partner was positive and the other was not, the study showed that the risk of passing on HIV to the negative partner was reduced by as much as 96% when the HIV positive partner started ART early while their immune system was still relatively healthy.

While HPTN 052 was able to demonstrate 96% effectiveness at the individual level, it did not address whether treatment as prevention could be effective in preventing HIV transmission at the population level. HPTN 071 (PopART) will address this question and examine the wider public health benefit of treatment as prevention and determine whether it is an affordable and sustainable option.

What is the concern about early ART and possible drug resistance?

There is an ongoing debate about when to start ART treatment and whether the benefits of early treatment might be offset, in part, by higher levels of drug resistance. Comprehensive information about the importance of ART adherence to prevent drug resistance will be included in the consenting process for all participants in HPTN 071 (PopART) who choose to start early ART. PopART intervention participants will be taught adherence strategies.

If ART is being offered immediately to PopART intervention participants who test HIV positive, how will this impact overall ARV drug availability in study communities?

ARVs for the HPTN 071 (PopART) study will be made available through a dedicated funding stream throughout the study period. These funds are separate from those already committed to non-study communities, so their ARV supplies will not be affected.

Departments of health in both Zambia and South Africa have put provisions in place to ensure continued long-term funding to support ART for all study participants after the HPTN 071 (PopART) study ends.

Where is the study taking place?

HPTN 071 (PopART) will be conducted in 21 communities in the Western Cape of South Africa, and in Zambia.

How will the study work?

Study communities were randomly assigned to one of three study arms; Arm **A**: Full PopART HIV combination prevention program, Arm **B**: PopART program but with HIV treatment only offered to those eligible according to national guidelines, Arm **C**: Current national guidelines.

In every study community, ART will be available for those who are infected with HIV. In Arms A & B, Community HIV-care Providers (CHiPs) will offer HIV testing and counseling in the home, with active referral for treatment for those with positive test results. In Arm A, the option to start ART will be offered to all HIV positive individuals irrespective of CD4 count. Individuals found to have positive results in Arm B communities will be offered ART if and when their CD4 count reaches the threshold for starting treatment according to the national HIV treatment guidelines in their country.

HPTN 071 (PopART) will allow researchers to see if universal voluntary HIV counseling and testing, combined with the offer of immediate ART for those who test HIV-positive, has the potential to significantly reduce HIV incidence at the population level. Additionally, researchers will be able to compare the impact on HIV incidence at population level of providing ART regardless of immune status (Arm A) with providing ART at the threshold currently recommended by national guidelines in the study communities (a CD4 count of $<350\text{cells}/\text{mm}^3$, Arm B). In both arms ART will be provided in combination with:

- Referral for voluntary medical male circumcision for men who test HIV-negative
- Promotion of services for the prevention of mother-to-child transmission (PMTCT)
- Referral of individuals with symptoms suggestive of TB or sexually transmitted infections for diagnosis and care at a local health facility
- Provision of condoms in the community

HPTN 071 (PopART) is expected to begin in September 2013 with up to three years of follow-up.

Why is this study important?

HIV incidence rates remain at very high levels in many parts of southern Africa. There is an urgent need for more effective HIV prevention strategies. Currently there are 2.5 new HIV infections for every HIV-infected person starting HIV treatment. Without drastic changes in the way HIV is managed, the financial commitment to providing care to people living with HIV will continue to grow. Successful strategies must be identified that will help reduce the number of new infections. Findings from HPTN 071 (PopART) will help inform scale up of future HIV programs and help identify cost effective interventions. This study will be critical for policy makers in determining whether the package of prevention interventions used in HPTN 071 (PopART) will work at population level and whether it is cost-effective.

What secondary research goals are part of the HPTN 071 (PopART) study?

Social science research will document how HIV is impacting communities as well as attitudes toward different prevention approaches. Social science research will also examine the acceptability of the PopART intervention, identify catalysts and barriers to the PopART intervention, and document the effects of the interventions on sexual behavior, social networks, HIV stigma, treatment seeking and community participation.

Nested within HPTN 071 (PopART) will be case-control studies which will explore uptake of two of the key PopART interventions - namely the home-based testing and immediate treatment interventions. Differences between community members who have taken up those interventions with those who have not will be examined. A random sample of acceptors and non-acceptors will be asked questions to explore factors which will help determine why PopART interventions were not taken up by some individuals and how those approaches might be improved in the future.

Economic evaluations will measure the incremental cost of the intervention packages and will assess the burden on local health centers for implementation. Mathematical models fitted to the trial data will be used to estimate the effectiveness and cost effectiveness of the intervention packages and alternative packages both in the study populations and other populations.

Who is sponsoring, funding and conducting the study?

The study is being conducted by the National Institutes of Health (NIH) funded HIV Prevention Trials Network (HPTN). Partners of the U.S. President's Emergency Plan for AIDS Relief (PEPFAR) are providing HIV care and treatment to the study communities under the direction of the U.S. Agency for International Development and the U.S. Centers for Disease Control and Prevention.

The study is being led by investigators at the London School of Hygiene and Tropical Medicine, in collaboration with Imperial College London, the Zambia AIDS Related Tuberculosis (ZAMBART) Project and the Desmond Tutu TB Centre at Stellenbosch University, South Africa.

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