Research by DECRG on the HIV/AIDS epidemic can be classified into three groups:

A) HIV/AIDS Treatment
B) HIV/AIDS Transmission and Prevention
C) Socioeconomic Impact of HIV/AIDS

A) HIV/AIDS Treatment

The World Bank’s Africa region has launched several initiatives to accelerate the access to antiretroviral treatment (ART) for HIV/AIDS patients. In Burkina Faso, Ghana and Mozambique, the TAP (Treatment Acceleration Project) is supporting different models of public-private partnerships: ARV delivery through associations of persons living with HIV/AIDS, faith based organizations, local and international NGO’s, partnerships between government hospitals and private health facilities. The Bank is also supporting ART delivery in other countries.

A DECRG team has set up a series of prospective impact evaluations of programs delivering ART in the TAP countries, as well as in Rwanda, Kenya, South Africa and India. This work is done in close collaboration with other World Bank colleagues, and also the WHO and UNECA.

The questions addressed by these impact evaluations are (see further details in Table A):

1) Measuring the impact of treatment on the welfare of patients and family members
   Over and above lives saved and health outcomes, we will measure the impact on the labor supply of the patient and other family members, the schooling and nutrition of children and other welfare indicators.

2) What are the effects of ART on HIV transmission and prevention?

<table>
<thead>
<tr>
<th>Type of effect</th>
<th>Direction of effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biological</td>
<td>Beneficial (Slow transmission)</td>
</tr>
<tr>
<td></td>
<td>Adverse (Speed transmission)</td>
</tr>
<tr>
<td>Behavioral</td>
<td>Reduce infectiousness</td>
</tr>
<tr>
<td></td>
<td>Select for resistance.</td>
</tr>
<tr>
<td></td>
<td>Longer duration of infectivity</td>
</tr>
<tr>
<td></td>
<td>Encourage VCT.</td>
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<tr>
<td></td>
<td>Off-setting risk behavior, “disinhibition”</td>
</tr>
</tbody>
</table>
3) What are the determinants of treatment success? (i.e. of patient care-seeking behavior and treatment adherence; quantity and quality and of ART services)

4) How to encourage cost-effectiveness and capacity building to reinforce the sustainability of ART delivery and adherence?

In order to answer these questions we are collecting data over time from biomedical records, household surveys (HIV patients and general population) as well as health facility and surveys. In some countries, we will, in addition, evaluate some experimental interventions:
- Rwanda: performance-based contracting for HIV/AIDS services in health facilities
- South Africa: food supplement and community health workers for supporting adherence to treatment.
- Kenya: reminders by text messages for improving adherence.

B) HIV/AIDS Transmission and Prevention

This research addresses three areas: (i) understanding the patterns of HIV/AIDS transmission, (ii) the impact of programs designed to affect the incidence of HIV, and (iii) understanding the determinants of testing.

The first research area relies on household data sources such as the Demographic Health Surveys which includes HIV status of sub-samples of respondents or entails new data collection efforts.

The second research area entails new projects to rigorously evaluate the impact of three prevention interventions: 1) Conditional Cash Transfers (CCT) which would provide monetary incentives for remaining STI/HIV negative in Tanzania 2) short-term financial incentives to remain STI negative in Lesotho and 3) Evaluating the impact of Conditional/Unconditional cash transfer program for schooling on the sexual behavior and HIV risk of young women and school-aged girls in Malawi. These three projects all include a prospective randomized evaluation.

The third research area uses household datasets and a randomized prospective evaluation from Kenya to look at who tests and who does not (both in the VCT clinic and in home-based testing) and how this affects economic and sexual behavior. We are also using already collected data to look at the impacts of ART on risky sexual behavior. Details of the individual projects in all three areas of research can be found in Table B below.

C) Socioeconomic Impact of HIV/AIDS

Research in this theme investigates the impact of HIV/AIDS on populations, economies and institutions. It also evaluates social protection mechanisms designed to mitigate the impact of the HIV/AIDS epidemic. Table C gives an overview of existing and planned research.
## A) HIV/AIDS Treatment

**DECRG team:** Damien de Walque, Harounan Kazianga, Mead Over, Markus Goldstein, in collaboration with other researchers (international and country based)

**Funded and supported by:** BNPP, Research Support Budget, Hewlett Foundation, TAP project, Global HIV/AIDS Program, HD Vice Presidency and Act Africa

<table>
<thead>
<tr>
<th>Research theme</th>
<th>Longitudinal household survey of HIV patients</th>
<th>Longitudinal health facility survey</th>
<th>Household survey in general population</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Measuring the impact of treatment on the welfare of patients and family members</td>
<td>Rwanda (baseline and follow-up done, analysis ongoing and presented) Burkina Faso (baseline done, analysis ongoing and presented, follow-up ongoing)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2) What are the effects of ART on HIV transmission and prevention?</td>
<td>Ghana (baseline done, 1st follow-up done, second follow-up ongoing, analysis ongoing and presented) Mozambique (baseline done, follow-up done, analysis ongoing and presented) South Africa (baseline done, 1st follow-up done, analysis ongoing and presented)</td>
<td></td>
<td>Ghana (analysis ongoing and presented) Burkina Faso (analysis ongoing and presented)</td>
</tr>
<tr>
<td>3) What are the determinants of treatment success including adherence?</td>
<td>Kenya (analysis ongoing, 2 papers published, 2 working papers in progress)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4) How to encourage cost-effectiveness and capacity building to reinforce the sustainability of ART delivery?</td>
<td></td>
<td>Mozambique (baseline done, follow-up done, follow-up analysis ongoing and presented) South Africa (baseline done, 1st follow-up done, analysis ongoing and presented) India (baseline, including interviews of HIV patients, analysis ongoing and presented)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Research project</th>
<th>Country</th>
<th>Design</th>
<th>Team</th>
<th>Progress</th>
</tr>
</thead>
<tbody>
<tr>
<td>Can Conditional Cash Transfers (CCT) be used as a prevention tool for STI/HIV infection?</td>
<td>Tanzania</td>
<td>Prospective randomized evaluation with baseline survey and control group</td>
<td>Damien de Walque, UC Berkeley, Ifakara Health Institute</td>
<td>Research launched, Baseline completed, Follow-up ongoing</td>
</tr>
<tr>
<td>The impact of short-term financial incentives on sexual behavior and HIV incidence among youth in Lesotho</td>
<td>Lesotho</td>
<td>Prospective randomized evaluation with baseline survey and control group</td>
<td>Damien de Walque, Martina Bjorkman, Jakob Svensson</td>
<td>Research launched, Funding from BNPP + SIEF</td>
</tr>
<tr>
<td>Marriage transitions and the risk of HIV infection for adolescents and young adults (MTM).</td>
<td>Malawi</td>
<td>A 3-year longitudinal observational study with HIV testing</td>
<td>Kathleen Beegle, Berk Özlö, Brown University Chancellor College (U Malawi)</td>
<td>Five rounds of data collection completed, Funding received from RSB, Hewlett Foundation.</td>
</tr>
<tr>
<td>Schooling, Income, and HIV/AIDS Risk (SIHR).</td>
<td>Malawi</td>
<td>Prospective randomized evaluation with baseline survey and control group</td>
<td>Berk Özlö, UCSD, University of Malawi</td>
<td>Round 2 data collection completed in March, 2009, Second and final year of CCT intervention ongoing until November 2009. Two working papers (and one forthcoming journal publication)* exist and data analysis to draft other papers is ongoing. BB, KCP, SIEF, GAP, NBER, and GDN funding received. Round 3 data collection to start in January 2010. The fourth and final round of data collection is scheduled for January 2012 to assess longer-term impacts.</td>
</tr>
<tr>
<td>The socio-economic determinants of the HIV/AIDS epidemic</td>
<td>Various</td>
<td>Analysis of DHSs and other existing data</td>
<td>Kathleen Beegle, Damien de Walque, Harounan Kazianga</td>
<td>Eight papers*, Others in progress</td>
</tr>
<tr>
<td>The socio-economic determinants of the HIV/AIDS epidemic</td>
<td>Various</td>
<td>Developing HIV/AIDS modules for the CWIQ surveys and analyzing them</td>
<td>Ghislaine Delaine (AFTRL), Global HIV/AIDS Unit, Damien de Walque, Harounan Kazianga</td>
<td>HIV/AIDS module developed for Burkina Faso</td>
</tr>
<tr>
<td>The role of gender inequality in the spread of HIV</td>
<td>Kenya</td>
<td>Analysis of Kenya DHS, census and poverty map</td>
<td>Kathleen Beegle, Berk Özlö</td>
<td>One paper*</td>
</tr>
<tr>
<td>The determinants of HIV/AIDS testing and the effects of testing on economic and sexual behavior</td>
<td>Kenya</td>
<td>Analysis of panel household survey data, prospective randomized evaluation</td>
<td>Markus Goldstein, UNC, Columbia Univ, Moi University</td>
<td>Data analysis ongoing on existing data, baseline for evaluation collected</td>
</tr>
<tr>
<td>Research project</td>
<td>Country</td>
<td>Design</td>
<td>Team</td>
<td>Progress</td>
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</tr>
<tr>
<td>Adult mortality and the HIV/AIDS epidemic</td>
<td>Various</td>
<td>Analysis of DHS</td>
<td>Damien de Walque Deon Filmer</td>
<td>Data analysis ongoing</td>
</tr>
<tr>
<td>The impact of the HIV/AIDS epidemic on poverty and living standards</td>
<td>Tanzania Others</td>
<td>Analysis of KHDS and review of existing studies</td>
<td>Kathleen Beegle</td>
<td>Five papers*</td>
</tr>
<tr>
<td>The impact of the HIV/AIDS epidemic on orphans</td>
<td>Tanzania Others</td>
<td>Analysis of KHDS and DHS</td>
<td>Kathleen Beegle Deon Filmer</td>
<td>Four papers*</td>
</tr>
<tr>
<td>Institutions and HIV/AIDS policy</td>
<td>South Africa Brazil</td>
<td>Comparative case studies</td>
<td>Varun Gauri</td>
<td>Two papers*</td>
</tr>
<tr>
<td>Litigation for HIV/AIDS treatment</td>
<td>Various</td>
<td>Comparative Case studies</td>
<td>Varun Gauri</td>
<td>Book</td>
</tr>
<tr>
<td>Mitigating the socio-economic impact of AIDS through conditional cash transfers for vulnerable households</td>
<td>Burkina Faso</td>
<td>Prospective randomized evaluation with baseline survey and control group</td>
<td>Damien de Walque Harounan Kazianga</td>
<td>Research launched Program started in 9/2008. Baseline done, 1st follow-up survey completed.</td>
</tr>
</tbody>
</table>

* See Annex for reference.
References


Dandona, Lalit, Pratap Sisodia, TLN Prasad, Elliot Marseille, M Chalapathi Rao, A Anod Kumar, SG Prem Kumar, YK Ramesh, Mead Over, M Someshwar and James G Kahn. 2005. Cost and efficiency of public sector sexually transmitted infection clinics in Andhra Pradesh, India, BMC Health Services Research 5:69


