

# Data Sources for Investigating the Relationship Between WPIR and HIV Transmission Behaviors

Efforts to reduce transmission of HIV have traditionally focused on interventions designed to change the behavior of individuals. Many believe, however, that changing the social, political, and economic environment in which people live is an essential component of individual behavior change. One example of this approach to HIV prevention can be found in the numerous groups working to secure the right of women to own and control property. In many developing countries, a lack of property and inheritance rights places women in a position of economic dependence on male relatives and may increase susceptibility of women to HIV.

To date, the effectiveness of securing women's property and inheritance rights (WPIR) as a means of reducing vulnerability to HIV has not been well documented, primarily due to a lack of appropriate data. Those groups working to secure WPIR often do not have a mandate or the time and resources to conduct rigorous evaluations; where data on property ownership does exist, it is rarely disaggregated by gender. This paper reports on an effort to identify existing databases that could provide some insight into the connection between WPIR and HIV transmission behaviors. Our objective is to highlight existing data resources (at this particular date—July 2013) as well as critical gaps in the data needed to establish a rigorous evidence base linking insecure property rights and HIV susceptibility among women.

## METHODS

To identify data sources that could link WPIR and HIV transmission behaviors, we first conducted an extensive literature review on WPIR. The review was conducted in 2010 with a search for additional articles in 2012. Noting any analyses of quantitative data, we contacted the article authors to ask if their data source was publically available. We obtained a copy of the data collection instru-



Photo courtesy of Scott Adams, Media Relations Fellow, IJM Uganda

ment for any publically available dataset and examined it for relevant variables. For those datasets containing relevant variables, we contacted the investigator by telephone to learn more about the dataset and determine whether the data may provide insights into the connection between WPIR and HIV transmission behaviors.

## RESULTS

We identified 12 datasets of potential utility for the question at hand (Table 1). They varied greatly in terms of their inclusion of indicators that might help to assess the relationship between WPIR and HIV incidence. Three of the 12 databases—INDEPTH, the Zambia Food Security Survey, and the Ethiopian Rural Household Survey—collected data on aspects of land use or land ownership, but they did not capture data on women's ability to own land or other assets and also did not include data on HIV incidence or prevalence.

Three additional datasets included information on land as well as women's property rights: the Kagera Health and Development Survey, Early Impacts of Land Registration and Certification on Women in Southern Ethio-



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pia, and the FAO's Gender and Land Rights Database. These three datasets offered valuable information on customs and policies influencing the ability of women to own and/or inherit land or other property; however they did not include any information on HIV status. The Manicaland HIV/STD Prevention Project included indicators on transactional sex and obtained blood samples for measuring HIV status, but did not include information on land ownership by women. Similarly, the FAO reported on the impact of HIV on food security/land productivity, but their survey did not appear to look at WPIR; the World Bank reported on two indicators related to registering property, but without emphasis on gender.

Of the 12 data sources, three had potential to provide some information on the association between women's property rights and their vulnerability to HIV.

1. The Malawi Longitudinal Study of Families and Health includes a women's questionnaire with questions about her ownership of land, her ability to negotiate condom use, her practice of transactional sex, and her self-reported HIV status.
2. In many countries the Demographic and Health Survey's Women's Questionnaire includes the women's marital status, ownership of a house or land, and self-reported sexually transmitted infection.
3. In April 2013, the World Bank made available a database that includes gender statistics. These data include indicators of women's land ownership and HIV prevalence. However, the data are currently available only at the population level, by country.

## DISCUSSION

Our review of datasets revealed a scarcity of the type of information needed to address compelling questions related to WPIR and HIV prevention in developing countries. Of the 12, only three provided a combination of variables that might have allowed for an investigation into the relationship between WPIR and HIV. In each case, however, the datasets were not designed to answer questions about this relationship; thus the questions that could be addressed were relatively superficial. In each of the three, the HIV status of the respondents was determined by self-report and thus is subject to misclassification. Moreover, two of the studies were cross-sectional, providing little insight into the causal direction of any associations. To answer questions about the complex rela-

tionship between WPIR and HIV transmission behaviors, a study expressly focused on those questions is needed. To address both aggregate-level (e.g., property laws and local traditions) and individual-level factors (e.g., instances of transactional sex), the study will likely need to be multi-level. And to provide insights into causal relationships, a longitudinal study would be best. To address relevant questions, we suggest questionnaire items that pertain to the following aspects of property rights:

At the individual level

- Type of land tenure (private, common, collective)
- Type of property right (right to use, control, transfer)
- Having a legally recognized will (for widows)
- Being asked to leave land after spouse's death

At the aggregate level (e.g., district)

- Proportion of land holders who are women
- Proportion of holdings under co-ownership between the husband and wife
- Number of rural households headed by women
- Tenure security (ability to defend and enforce land rights)

We suggest that questions addressing the following behaviors related to HIV-transmission be asked about the year before and the year after the loss of property:

- Instances of involuntary sex
- Instances of transactional sex
- Condom use during sex
- Ability to negotiate condom use
- Knowledge of the partner's HIV status before engaging in sex

Studies in multiple countries or ethnic areas would provide insights into how practices vary by culture and legal setting, perhaps bringing to light variations in the link between WPIR and HIV transmission behaviors.

## CONCLUSION

There are few datasets available for studying the relationship between women's land tenure and property rights and HIV transmission behaviors. To address non-superficial questions, a study focused on the relationship is needed. Although they offer scant insights, secondary analysis of the three existing datasets identified may further underscore the types of additional data needed.

**TABLE 1—SURVEY TOOLS USED TO INVESTIGATE ASPECTS OF WPIR**

**1. The Malawi Longitudinal Study of Families and Health** (formerly known as the Malawi Diffusion and Ideational Change Project)

**Item #:** E5, E7, S15, S17, S19, A8

**Relevant questions/indicators/variables:** The following questions in the women's questionnaire, wave 3 (2004), were identified:

- Do you yourself own any land?
- Where did you get the land from?
- Did you use a condom with your most recent partner?
- In general, with what frequency did you use a condom with your most recent partner?
- The last time you had sex with your most recent partner, did he give you money or gifts for sex?
- In your opinion, what is the likelihood that you are infected with HIV/AIDS now?

Older waves of data are freely available from <http://malawi.pop.upenn.edu/malawi-data-mlsfh>. More recent waves (post 2001) are being processed for public use.

**URL:** [http://malawi.pop.upenn.edu/sites/www.pop.upenn.edu/files/M3questionnaire\\_women\\_finalSB.pdf](http://malawi.pop.upenn.edu/sites/www.pop.upenn.edu/files/M3questionnaire_women_finalSB.pdf)

**2. The International Network for the Demographic Evaluation of Populations and Their Health (INDEPTH)**

**Relevant questions/indicators/variables:** INDEPTH has a site audit questionnaire that collects basic information on topics related to the environment, including land use, but does not disaggregate by gender. INDEPTH also conducts a verbal autopsy questionnaire that collects demographic data on deceased infants, children, and adults but the verbal autopsy instrument does not include variables on land ownership. Lastly, there is a tool for measuring socio-economic status, which includes questions on land ownership, but does not disaggregate by gender.

**URL:** [http://www.indepth-network.org/index.php?option=com\\_content&task=view&id=98&Itemid=186](http://www.indepth-network.org/index.php?option=com_content&task=view&id=98&Itemid=186)

**3. Kagera Health & Development Survey (KHDS)** conducted by Economic Development Initiatives (EDI)

**Item #:** Q8, Q9, Q10, Q11

**Relevant questions/indicators/variables:** The KHDS 2004 Community Questionnaire contains relevant items on inheritance (Section 6: Culture):

- If husband dies, is it customary for the wife to inherit their land, house, or other property?
- When a man dies, who settles the inheritance?
- Have there been any inheritance disputes in the past 12 months?
- How many such disputes have there been?

The full 13-year panel data set, the questionnaires, and a basic information document for data users are now publicly available on the EDI website.

**URL:** <http://www.edi-africa.com/docs/khds/KHDS2%20Community.pdf>

**TABLE 1—SURVEY TOOLS USED TO INVESTIGATE ASPECTS OF WPIR *con't***

#### **4. Zambia Food Security Survey**

**Item #:** Q8

**Relevant questions/indicators/variables:** In Section 9 of this individual survey there is a question on land dispute:

- Have you ever approached any political public official about a land dispute and whom did you last approach for this problem?

**URL:** [http://www.aec.msu.edu/fs2/zambia/LCMS96\\_Individual.pdf](http://www.aec.msu.edu/fs2/zambia/LCMS96_Individual.pdf)

#### **5. Manicaland HIV/STD Prevention Project**

**Item #:** Q537, Q539, Q552

**Relevant questions/indicators/variables:** This project collected five rounds of household and individual-level (adult and children) data from 1998 to 2008. The survey instrument included variables on demographic characteristics, sexual behavior, and lab-confirmed HIV status.

- Have you ever been involved in a non-marital relationship of any kind where you received anything in exchange for sex?
- What caused you to sell sex for the first time?
- Blood sample obtained.

The data can be downloaded directly from the Manicaland website: <http://www.manicalandhivproject.org/data.html>

**URL:** [http://www.manicalandhivproject.org/uploads/4/7/1/9/4719905/e-individual\\_r5.pdf](http://www.manicalandhivproject.org/uploads/4/7/1/9/4719905/e-individual_r5.pdf)

#### **6. Demographic and Health Survey Women's Individual Questionnaire**

**Item #:** Q603, Q823, Q824, Q940

**Relevant questions/indicators/variables:** The following questions in the women's questionnaire were identified:

- What is your marital status now: are you widowed, divorced, or separated?
- Do you own this or any other house either alone or jointly with someone else?
- Do you own any land either alone or jointly with someone else?
- During the last 12 months, have you had a disease which you got through sexual contact?

**URL:** <http://www.measuredhs.com/What-We-Do/Survey-Types/DHS.cfm>

## TABLE 1—SURVEY TOOLS USED TO INVESTIGATE ASPECTS OF WPIR *con't*

### 7. Early impacts of land registration and certification on women in Southern Ethiopia

**Item #:** See Appendix 2: #9, #2, #14, #21, #11, #18, #8

**Relevant questions/indicators/variables:** The survey instruments for this study are in appendix #2 at back of report; multiple questions/variables may be useful, although there is no information on HIV, other STIs, or sexual behavior:

- In case of divorce today, how much of the land registered on this household would you get?
- Do you agree with joint titling of husband and wife?
- Does the wife's name on the certificate, affect her power over the land?
- Do you think that female-headed households, orphan households and other poor households should be allowed to sharecrop out all their land when they lack resources to cultivate it themselves?
- In case of divorce today, do you expect to keep any of the land of this household?
- In case of death of husband, how much land would you keep?
- Do you have any money or physical asset (e.g., livestock, enset stock, other trees) of your own that you alone can decide how to use?

**URL:** See Appendix 2: [http://www.unhabitat.org/downloads/docs/10768\\_1\\_594333.pdf](http://www.unhabitat.org/downloads/docs/10768_1_594333.pdf)

### 8. The Food and Agriculture Organization of the United Nations (FAO) Gender and Land Rights database

**Relevant questions/indicators/variables:** Land related statistics are missing for most African countries in this database. The full country reports are useful for garnering general info on gendered land rights but don't allow for further analysis.

**URL:** <http://www.fao.org/gender/landrights/en/>

### 9. The Food and Agriculture Organization of the United Nations (FAO) Integrated Support to Sustainable Development and Food Security Programme (IP)

**Relevant questions/indicators/variables:** A 36-page report presents case studies and key findings from HIV/AIDS impacts surveys in rural areas in Namibia, Uganda and Zambia.

We could not locate the questionnaire used in the HIV/AIDS impact survey which looks primarily at the impact of HIV/AIDS on food security/land productivity rather than the reverse.

**URL:** [ftp://ftp.fao.org/sd/SDW/SDWW/ip\\_summary\\_2003-webversion.pdf](ftp://ftp.fao.org/sd/SDW/SDWW/ip_summary_2003-webversion.pdf)

**TABLE 1—SURVEY TOOLS USED TO INVESTIGATE ASPECTS OF WPIR *con't***

**10. Ethiopian Rural Household Survey by the Center for the Study of African Economies (CSAE)**

**Relevant questions/indicators/variables:** This questionnaire, conducted in rural Ethiopia in 1995, collected data on household and agricultural assets, health, nutrition, and fertility, but unfortunately does not contain any indicators to capture women's ownership of land or other assets. Additionally, no information is included on HIV, STIs, or sexual behavior/negotiation of condom use.

**URL:** <http://www.csae.ox.ac.uk/datasets/Ethiopia-ERHS/erhs/questions-erhs.html>

**11. The World Bank, World Development Indicators**

**Relevant questions/indicators/variables:** The World Bank database contains 341 indicators from 214 countries. The following indicators are related to ownership of property, gender equity, and HIV prevalence.

- Time required to register property (days)
- Procedures to register property (number)
- CPIA property rights and rule-based governance rating (1=low to 6=high)
- CPIA gender equity rating (1=low to 6=high)
- Prevalence of HIV, by gender

**URL:** <http://data.worldbank.org/data-catalog/world-development-indicators>

**12. The World Bank**

**Relevant questions/indicators/variables:** Only available as of April 2013, this is the section of World Bank data that is disaggregated by gender. The following indicators on property ownership are available, by country:

**Gender Statistics**

- Female adults with HIV (% of population ages 15+ with HIV)
- Land owners, female (% of adult population)

**URL:** <http://data.worldbank.org/data-catalog/gender-statistics>

**Women, Business, and the Law**

- Do unmarried men and unmarried women have equal ownership rights to moveable property?
- Do unmarried men and unmarried women have equal ownership rights to immovable property?
- Do married men and married women have equal ownership rights to moveable property?
- Do married men and married women have equal ownership rights to immovable property?
- Do sons and daughters have equal inheritance rights to moveable property from their parents?
- Do sons and daughters have equal inheritance rights to immovable property from their parents?
- Do female and male surviving spouses have equal inheritance rights to moveable property?
- Do female and male surviving spouses have equal inheritance rights to immovable property?
- In the case of the death of one of the spouses, does the surviving spouse, regardless of gender, have equal inheritance rights to the marital home?

**URL:** [wbl.worldbank.org/data/exploretopics/using-property](http://wbl.worldbank.org/data/exploretopics/using-property)