

Vulnerability Assessments and HIV/AIDS: Contributions of research with large sample surveys

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MSU Agricultural Economics



Outline

- PART I:
 - Findings from research
 - What do we know about vulnerability in the face of HIV/AIDS and other illness
 - what do we know about the impacts of prime-age death
- PART II:
 - What have we learned on the methods

HIV and Poverty

- HIV/AIDS and poverty are mutually reinforcing
 - AIDS exacerbates poverty
 - factors associated with poverty worsen the spread of AIDS
 - Vulnerability assessments already attempt to look at poverty, so that is not new
- What is new:
 - Characteristics of the most vulnerable
 - Actions taken by households to deal with stress
 - Addressing illness and illness death in surveys

MSU rural household surveys

Country	Sample size	Year(s) of surveys	Panel or cross-sectional
Kenya	n=1266	1997, 2000, 2002, 2004	Panel
Malawi	n=420 n=372	1990, 2002	Panel
Mozambique	n=4908 N=4104	2002, 2005	Panel
Rwanda	n=1395	2002	Cross-section w/recall
Zambia	n=6922	2001, 2004	Panel

Key findings from research

1. Directly affected households/individuals are not random:

- Early 1990s: positively correlated with
 - Income, wealth, education, mobility
 - Now spread across income and wealth strata

Income status in 2000 for households in Zambia with a death in 2000-2003

	Deceased prime-age males	Deceased prime-age females
Poorest 25%	17.0	22.7
2 nd quartile	20.9	20.4
3 rd quartile	32.2	29.6
Wealthiest 25%	29.9	27.3

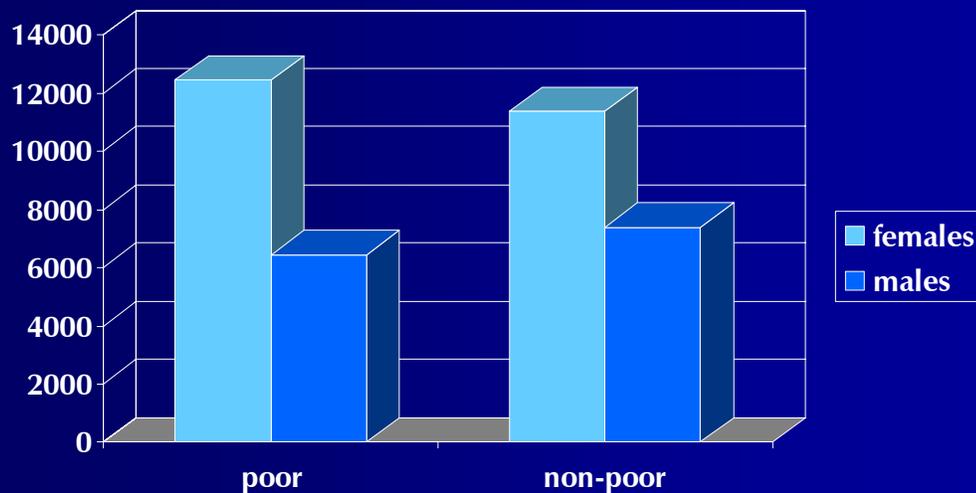
Key findings from research (cont.)

1. Directly affected households/individuals are not random:

- Early 1990s: positively correlated with
 - Income, wealth, education, mobility
 - Now spread across income and wealth strata
 - Women more likely to be ill and to die

More women than men

Prevalence of PA mortality, by sex and income, Zambia, 2001-2004



Key findings from research (cont.)

2. Magnitude of impacts depends on:

- Initial level of household vulnerability (assets, wealth)
- Sex of the deceased
- Position in household of deceased ▶
- Ability of household to attract new members
- Community characteristics:
 - Population density
 - Levels of wealth

Key findings from research (cont.)

- **Gender and role of those who die is important in how severe effects are**

In Kenya:

- Death of male head → - 0.9 acre to cash crops (e.g., sugarcane, horticulture)
- Death of female head → - 1.8 acre to cereals, tubers
- Kenya: death of head or spouse associated with ▶ 120 and \$260 per year reduction in off-farm income

Key findings from research (cont)

- Effects on agric. production and non-farm income most severe among the households that were poor in first period
 - Exacerbating poverty
 - Issue of poverty traps, falling below any recoverable level
- Initial work indicates impacts may be greatest during period of illness (Moz.)

Key findings from research (cont.)

- Effects that increase vulnerability
 - Widow-headed households and loss of land access (Zambia)
 - Lowered macronutrient production as well as lowered income in households with male death (Mozambique)
 - Lowered production of cash crops (both male and female death in Rwanda; male death in Kenya)
 - Reliance on labor sharing (Rwanda) and low-skilled, low paid labor income (Mozambique)

Community level research results

- What determines community “resilience”?
 - Currently very few local institutions to help
 - The load is almost fully borne by households themselves
- Local institutions/traditions influence resilience
 - Rules governing women’s rights and access to resources
 - e.g. can widows retain land and other productive assets after husband’s death?

Related Health sector findings from research

- Spread of AIDS is co-factored with:
 - STDs: elevates risk of contraction 5-10x
 - Nutritional status
 - Parasite load and other diseases that degrade human immune response
 - Quality of basic health services
 - Male violence, alcoholism
- All associated with poverty

Implications for Vulnerability Assessments

- Poverty focus should be retained
- Changes in labor should be identified, especially increased labor in low-return activities
- Assessments should identify both adult chronically ill as well as recent adult deaths
 - Information on sex, role, income activities of that person identified
 - Participation in ARV programs needed

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Methods used

- Add morbidity and mortality sections to rural household production and income surveys
- Demographic profiles with recall, 3 years for death, 12 months for chronic illness
- Simplified verbal autopsy, in some cases
- Enumerators: MinAg or CSO Ag section, not health specialized enumerators

Mozambique TIA 2005 instrument: Questions on deaths in the previous 3 years

FILL OUT THE NAMES AND CODES OF THE DECEASED MEMBER FROM SECTION B1 AND B3 (B03-3)

Q102	Q102A	Q109	Q110	Q111		Q112		Q113
ID	Name	What was the general cause of death? 1 Accident 2 Childbirthing 3 Disease 4 Other IF THE ANSWER IS 1, 2 OR 4, GO TO THE NEXT	FILL OUT WITH THE INFORMATION ABOUT THE DISEASE VOLUNTARILY GIVEN BY THE RESPONDENT	For how long was (s)he ill? Number Frequency 1 Daily 2 Weekly 3 Monthly 4 Years		For how long was (s)he unable to work? Number Frequency 1 Daily 2 Weekly 3 Monthly 4 Years		Has (s)he left kids? 1 In this household 2 In another household 3 Both 4 Didn't have children 5 N/A

Zambia 2004 instrument: Simplified Verbal Autopsy Questions on symptoms prior to death

What was main cause of death	If deceased were ill prior to death, ask for the symptoms.					
See codes	Chronic diarrhea	Fever for at least 1 week	Substantial weight loss	Skin rash	Thrush, frothy mouth infection	Persistent cough

Lessons learned

- Willingness of households to give a simple cause of death voluntarily (increasingly including AIDS)
- Adult illnesses (malaria, AIDS, TB, etc.) are not independent, so premature illness deaths in adults not a perfect proxy for HIV/AIDS illness and deaths, but still valuable
- Random sampling will give low sample numbers, unless stratified

Recommendations on methodology

- Simplified autopsy does not seem to get reliable results
- Household members volunteer information on illness that they believe caused a death: eg malaria, TB, wasting. Need to record these.
- General classifications of reasons of death will not identify HIV/AIDS, but given linkages between illnesses, maybe focus on chronic illness and premature death is best

HIV Prevalence Rates – 2001 estimates

