Widows’ land security in the era of HIV/AIDS: Panel survey evidence from Zambia

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HIV prevalence rates, 2009 (ages 15 to 49)

- The HIV/AIDS pandemic has substantially increased the number of widow-headed HHs in Africa
  - Zambia: 9% of rural HHs widow-headed in 2001, 12% in 2004

Source: UNAIDS
HIV/AIDS & widows’ access to land

- Many narratives & qualitative studies suggest that widows have difficulty retaining access to land after the HIV/AIDS-related death of their husbands

Knowledge gaps:
- How widespread is this problem of women losing access to land after the death of their husbands?
- If it is widespread, what are the implications for rural poverty reduction and livelihood strategies?
- Sub-issues:
  - % of widows that lose access to land after the HIV/AIDS-related death of their husbands?
  - Lose all or part of their access to land?
  - Characteristics that influence loss of access to land?

Conference themes

1. Examination of the flows of information, money, and resources that shape the diversified livelihood approaches of Africans
2. Discussion of the dual narratives of increased connectivity and/or eroded social relations that spring from diversified livelihoods
3. Methodological approaches and challenges for understanding livelihoods in Africa
4. Unique understandings on how historical social-ecological conditions guide current livelihoods strategies
Data

- Nationally-representative panel survey data of smallholder farm HHs in Zambia
  - 6,922 HHs in May 2001; 5,342 (77%) re-interviewed in May 2004
  - 1999/2000 & 2002/03 crop years
  - Demographics, farm & non-farm activities, assets, deaths, kinship ties
- Disease-related prime-age death used as proxy for HIV/AIDS-related death
  - Prime-age (PA) = ages 15-59

Methods: Econometrics/Regression Analysis

Step 1: Propensity score matching to identify appropriate set of comparison households

- “Treated” HHs = widow-headed HHs (incurred disease-related PA male head death between 2001 and 2004)
- Comparison HHs = HHs not experiencing a PA death between 2001 and 2004 with similar characteristics to treated HHs in 2001 (have similar propensity score)

<table>
<thead>
<tr>
<th>Sample size</th>
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<tbody>
<tr>
<td></td>
<td>5,432 (unmatched)</td>
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<tr>
<td></td>
<td>5,046 (matched)</td>
</tr>
<tr>
<td>% of HHs with PA male head death (widow-headed)</td>
<td>1.8%</td>
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<tr>
<td>% of HHs with other PA death (not widow-headed)</td>
<td>8.0%</td>
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</tbody>
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Methods (cont.)

Step 2: Difference-in-difference estimator on matched sample (identified in Step 1)

- Regress change in access to land between 2001 and 2004 on:
  a) Dummy var. =1 for widow-headed HHs; =0 otherwise
  b) Characteristics of the widow, the HH head, the HH, and the district in 2001
  c) Interaction of (a) and (b)

→ Gives effect of being widow-headed on the change in access to land between 2001 and 2004, and how this effect varies across widow-headed HHs with different characteristics

“Land access”: cultivated + fallow

Factors hypothesized to influence widow’s ability to retain access to land

- Widow characteristics:
  □ Age
  □ Level of education
  □ Related to village chief/headman?

- Initial HH characteristics:
  □ Wealth status (value of assets)
  □ HH composition (# of children, adult males and females in various age groups)
  □ Deceased husband related to village chief/headman?
  □ # of years since household settled in the community

- Main ethnic group in district matrilineal or patrilineal?
Descriptive results
Average landholding size declined between 2001 & 2004 but declined most among households becoming widow-headed

![Bar chart showing average landholding size for different household types and time periods.]

Descriptive results (cont.)
Widow-headed households were:

- Least likely to increase their landholding size
- Most likely to reduce their landholding size
- Most likely to suffer a greater than 50% decline in landholding size

<table>
<thead>
<tr>
<th>Household type</th>
<th>% HHs increased landholding size</th>
<th>% HHs decreased landholding size</th>
<th>% HHs with &gt;50% decline in landholding size</th>
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<tbody>
<tr>
<td>No PA death</td>
<td>46%</td>
<td>50%</td>
<td>24%</td>
</tr>
<tr>
<td>Other PA death (not widow-headed)</td>
<td>41%</td>
<td>53%</td>
<td>24%</td>
</tr>
<tr>
<td>Male head PA death (widow-headed)</td>
<td>26%</td>
<td>67%</td>
<td>30%</td>
</tr>
</tbody>
</table>

- No change or increase in landholding size for 1/3 of widow-headed HHs → loss of land far from universal
Econometric results

- **Widow characteristics:**
  - **Age of widow:** To some extent, older widows are protected against loss of land compared to younger widows
    - 50-year old widow: -37%
    - 36-year old widow: -45%
  - **Widows related to village chief/headman** experience less severe decline in landholding size
    - Related: -14%
    - Not related: -60%
    - Deceased husband’s being related to headman has no stat. sig. impact.
  - **Level of education of widow:** Not stat. sig.

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Econometric results (cont.)

- **Initial HH & district characteristics:**
  - **Wealth status of HH:** Initially relatively wealthy HHs lose proportionately more land than initially poorer HHs
    - 90th percentile of assets (relatively wealthy): -71%
    - 25th percentile of assets (relatively poor): -37%
  - **# of children ages 6-14 in HH:** Widowed HHs with more children in this age group lose proportionately more land
    - 5 children: -55%
    - 2.3 children: -37%
  - **# of PA males, females in HH:** Not stat. sig.
  - **# of years since HH settled in community & district matrilineal** not stat. sig.
Conclusion

- The view that widows and their dependents face greater livelihood risks in the era of HIV/AIDS is supported by these findings based on nationally-representative panel survey data from Zambia.
- Efforts to safeguard widows’ rights to land through land tenure innovations involving community authorities may be an important component of social protection, poverty alleviation, and HIV/AIDS mitigation strategies.

Thank you! Questions?

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