

Morbidity and Mortality of Prime Age Adults in Rural Rwanda : Effects on household composition, cropping and food security strategies

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Objectives

- **To evaluate the characteristics of affected HHs**
- **To identify the effects and strategies of HH affected by mortality and morbidity**
 - Agricultural production
 - Land use
 - Labor
- **To analyze implications of HHs status and actions for interventions/programs**

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Prevalence of mortality and morbidity

- **Deaths: 222 households (15%)**
 - Prime age due to illness: 73 households (4%)
 - Prime age due to other causes: 26 households (2%)
- **Current chronic illness:**
 - PA adult: 124 households (8%)
- **Current chronic illness and a death: 6 hhs (0.4%)**
- **Two PA adults chronically ill: 9 hhs (0.5%)**

Retrospective questions about the last 4 years (for deaths)
and about the last 12 months (for chronic illness)
Prime age = 15-60 years

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Mortality rates

Per 1,000 person years

	Age group	Kisesa, Tanzania	Kenya rural	Rwanda rural
Men	15-24 years	5.3	2.6	4.6
	25-34 years	12.2	3.8	5.3
	35-44 years	17.1	14.6	13.2
Women	15-24 years	5.1	2.1	3.9
	25-34 years	11.4	6.7	6.2
	35-44 years	14.8	7.6	5.7

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**•Population mobility in Rwanda:
Feb 2001-March 2002**

Departures: 292 PA adults Arrivals: 174 PA adults

Reasons:

Marriage (primarily women): %
Deaths or illness related: %
Job (men but increasingly for women in 2002): %

Reasons:

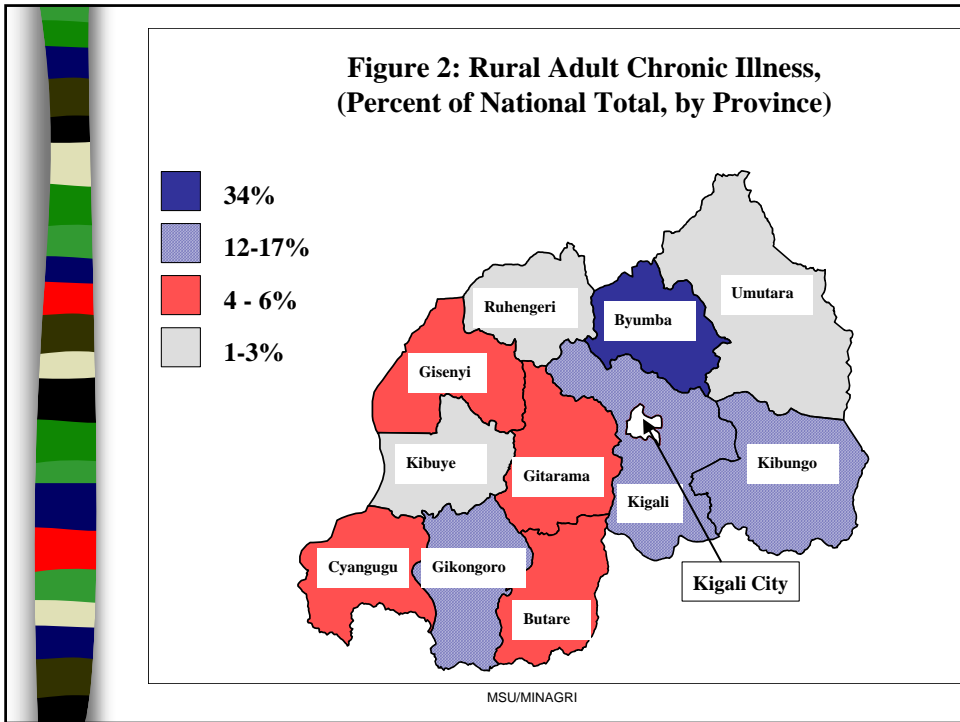
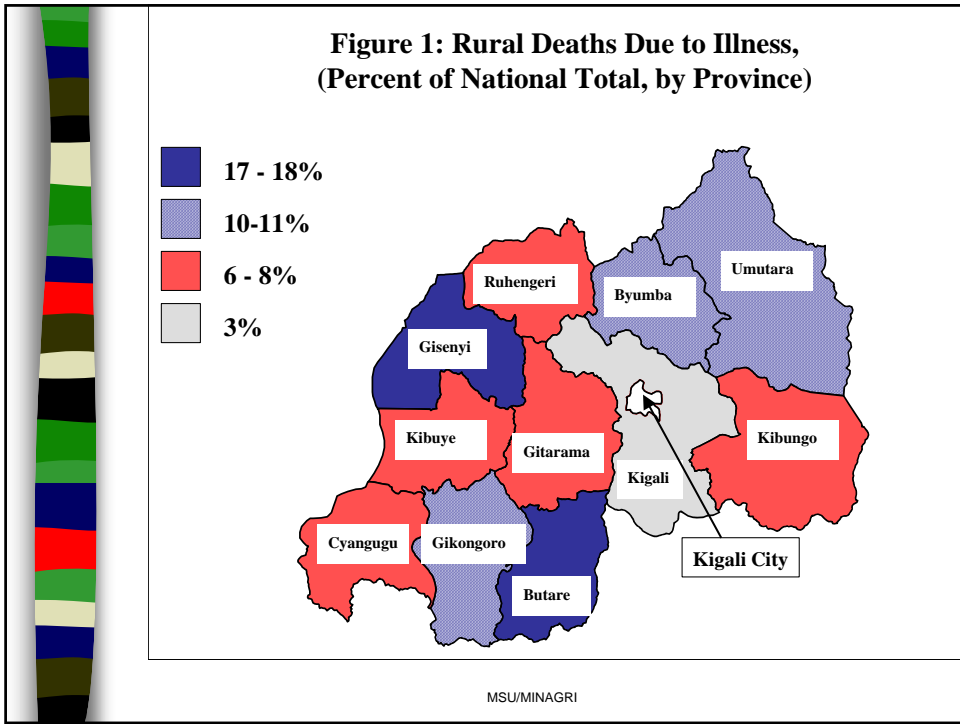
Marriage (primarily women): %
Deaths or illness related: %
Job (men but increasingly for women in 2002): %

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Are HH with death or chronic illness different from other HH in rural Rwanda?

Detail	All other HHs	Type of hhs with difference	Indicator
Land Area	0.16 ha	HHs w/female Chronic. Ill	0.13
Dependency ratios	1.22	HHs w/female Chronic. Ill	0.86 but 2.12 when ill dep.
Sex of Head of HH	30%	HHs w/male who died from ill	20%
Number of cattle	1.65	HH with ill or deceased female or with ill male	0.52 or less
Avg. Expenditures	66,500	HHs w/female who died from ill	45,290
Poverty Quintiles: % on lower two	38%	HHs w/female who died from ill	62%

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Characteristics of people affected

- **Those who died due to illness**
 - Equally men and women
 - Older esp. men
 - Head or spouse
 - No new to HH
 - Primary income from nonfarm activity: mainly men
 - Ill long before death
- **Those who are chronically ill**
 - Majority are women
 - Older
 - Most are HH heads or spouses
 - Few new to HH (1%)
 - Primary income from nonfarm: men, no women
 - Unable to work: 5 months avg.

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Consequences of effects and strategies

- **Stress on farm labor**
 - Reliance on social networks (shared labor)
 - Hiring/bringing in labor when possible
 - Cultivate less land
 - Possible reduction in labor intensive soil fertility, anti-erosion, productivity measures
- **Assets**
 - Land rental/loaning increase, but constrained by tenure issues
 - Asset sales (land, livestock, particularly during illness)
 - Rely on social networks (loans, gifts) to survive
- **Loss of skills/knowledge**
 - Deaths
 - Children
 - Schooling decline
 - Less time with adults
 - Low transfer of skills

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Consequences of effects and strategies (cont.)

- **Change in crop mix?**

- Not clear in stated strategies
- Crop production changes are positive, but not as good as most unaffected hhs
 - + sweet potatoes (DDI)
 - + cassava (DDI/Male)
 - + beans (DDI & ILL)
 - + bananas (DDI & ILL)

- **Cash cropping?**

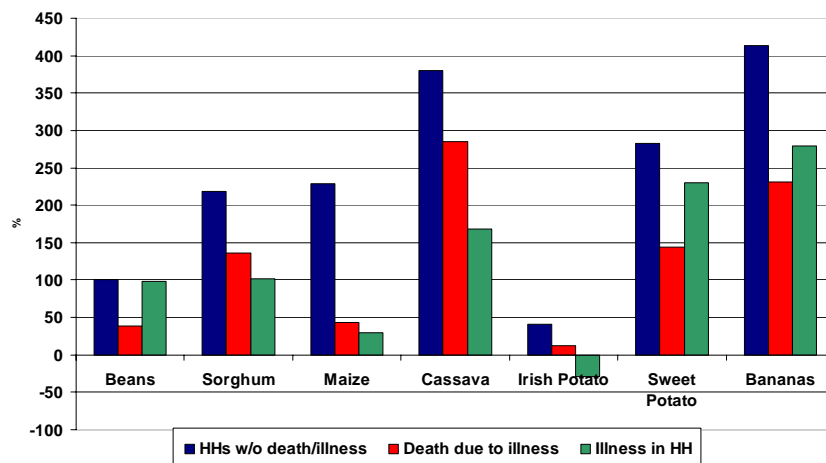
- Coffee prod (DDI&ILL)
- Although + coffee area (DDI)
- Irish potato (DDI&ILL)

Overall:

Increased production of basic consumption crops with 2002, with better climate, but not the increases of other hhs

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Changes in crop production by type of household, 2000-2002



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Preliminary Conclusions

- Hhs with illness and death are more likely to be very poor than other rural Rwandan hhs, but otherwise similar
- Sale of assets is strategy during illness (not as much after death), so interventions needed early (identification problem)
- High numbers of chronically ill women - a potential future disaster, reflecting waves of HIV/AIDS or poor maternal health care?
- Ensuring land and inheritance rights for survivors - household options to avoid greater poverty and dissolution
- Household strategies will vary, so results from one country, one setting may not be applicable (eg. labor issues)

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Preliminary Conclusions (cont.)

- Rural households under stress in Rwanda try to maintain labor in agriculture (new labor, hiring, sharing)
- Productivity enhancing inputs & technology fit the needs & strategies, but may be beyond capacity to obtain
- Households depend on the social networks - what happens as HIV/AIDS illness/deaths increase? Role for assistance programs to strengthen social networks?
- HHs may not be able to afford health care if system based solely on cost recovery

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Assistance/prevention

- Agricultural training and extension specifically for women and children
- Encourage labor sharing among households in a community
- Develop/train on labor saving agricultural crops/technologies that are also revenue creating, not just based on subsistence crops
- Develop labor saving for household activities (water, fuel, etc.)
- Productivity: Increase use of inputs and reduce their costs
- Protect extension agents through health training and assist them to inform farmers
- Encourage coordination between extension agents and health workers
- Work to de-stigmatize living with HIV/AIDS, so that interventions can reach hhs before deaths occur

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