

Local demand for a global intervention: policy priorities in the time of AIDS*

Kim Yi Dionne[†]

March 23, 2012[‡]

Abstract

The success of global health and development interventions ultimately depends on local reception. This paper documents local demand for HIV/AIDS interventions in Africa and seeks to explain patterns of demand using data from a country hard-hit by AIDS. As international agencies and national governments scale up HIV/AIDS interventions in Africa, I find HIV-positive respondents more highly prioritize HIV/AIDS programs, however, cross-national opinion data paired with interviews of villagers and their headmen in rural Malawi show weak prioritization of HIV/AIDS. The data illustrate a misalignment of policy preferences in the global-to-local hierarchy, highlighting the import of studying preferences of intended beneficiaries.

Keywords: Africa, Malawi, HIV/AIDS, health, priorities, public opinion

*The research was supported by funding from the Globalization Research Center-Africa at UCLA, the California Center for Population Research at UCLA, the Fulbright Program, and NICHD R01 Grant #RHD053781 (Principal Investigator: Hans-Peter Kohler). Previous versions of this work were presented at the Princeton AIDS Initiative, a Working Group in African Political Economy Meeting, and the 2009 meeting of the American Political Science Association and I thank participants for useful feedback. I also acknowledge helpful discussions about the research with James Honaker, Marisa Kellam, Edmond Keller, Evan Lieberman, Zachariah Mampilly, Dan Posner, Tyson Roberts, Arthur Stein, Michelle Taylor-Robinson, Ann Swidler, Susan Watkins, Rick Wilson, and Dan Young. Two anonymous reviewers provided helpful, supportive feedback that improved the paper. Memory Mijere provided excellent research assistance. None of this work would have been possible, however, without the participation of rural Malawians who invited us into their homes, shared intimate details of their lives, and in most cases, gave us blood samples to test for HIV. I am especially indebted to them. All errors or omissions remain my own.

[†]Assistant Professor of Political Science, Texas A&M University, 2010 Allen Building, College Station, TX 77843-4348. Email: kdionne@tamu.edu. Phone: +1-979-845-6783.

[‡]NOTICE: this is the author's version of a work that was accepted for publication in *World Development*. Changes resulting from the publishing process, such as peer review, editing, corrections, structural formatting, and other quality control mechanisms may not be reflected in this document. Changes may have been made to this work since it was submitted for publication. A definitive version will be subsequently published in *World Development*, DOI #: 10.1016/j.worlddev.2012.05.016.

1 Introduction

HIV and AIDS¹ are pandemic in Africa. Though sub-Saharan Africa has only 10% of the world's population, it is home to 68% of all people living with HIV and AIDS. International organizations have responded to AIDS in Africa by advocating for increased access to HIV testing and AIDS treatment services (UNAIDS, 1998; World Health Organization, 2002, 2003). International donors have responded by generously supporting interventions to prevent the spread of HIV and to mitigate the effects of AIDS in severely resource-constrained countries suffering from a generalized epidemic. From the launch of UNAIDS in 1996 until 2005, available annual funding for the response to AIDS in low- and middle-income countries increased 28-fold (UNAIDS, 2006, 224). The most recent available data on official development assistance (ODA) showed commitments for HIV/AIDS totaled \$7.4 billion, nearly half of all ODA committed to health in low- and middle-income countries and four times more than the next highest funded health area (Kaiser Family Foundation, 2009). Yet HIV/AIDS interventions have failed to stem the tide of the pandemic. The failure of HIV/AIDS interventions in Africa is driven by the negative outcomes associated with the multiple, nested principal-agent relationships inherent in multi-tiered global interventions (Dionne, 2010). In this paper, I propose one particular mechanism through which the principal-agent problem negatively impacts HIV/AIDS interventions is the misalignment of preferences between actors across levels of governance. To substantiate this claim, I present analysis of public opinion data polling ordinary Africans, and in the case of Malawi, rural villagers and their headmen.

The success of international health and development interventions will ultimately depend on how those interventions are received by local populations. The negotiation of priorities occurs between two important constituencies: the international donors who largely decide global priorities and the local populations who are their intended beneficiaries. I analyze

prioritization of HIV/AIDS intervention in Africa in service of two goals. The first aim is to present a descriptive account of weak demand for HIV/AIDS services. My second task is to take advantage of an original dataset to highlight and explain patterns of demand. I use a cross-national public opinion poll and survey and in-depth interview data from Malawi to measure demand and, where it exists, probe its sources. Specifically, I test whether individual interests influence preferences for increased HIV/AIDS services.

Data from rural Malawi show villagers and their headmen give relatively low priority to HIV/AIDS services. Cross-national public opinion data present parallel paradoxical findings of demand for AIDS services: populations most affected by the AIDS pandemic are less likely to support increased resources be devoted to AIDS. Finding weak demand for HIV/AIDS services among the people experiencing the AIDS pandemic firsthand is puzzling: AIDS is fatal and has no cure or vaccine; and treatment for AIDS has shown to dramatically improve and lengthen the lives of AIDS patients.

This paper examines empirically what is often overlooked: the policy preferences of rural Africans with respect to development and health interventions for which they are the intended beneficiaries. In the West, people think about Africa first and foremost as a place suffering from AIDS. I argue that ordinary Africans are not naïve about HIV and AIDS, rather the data shows other pressing concerns take precedence over increasing the availability of HIV/AIDS programs. The study's findings have broader implications relevant to the literature on aid effectiveness. Development economists attribute the success (or more likely, failure) of interventions to whether intervention designs properly incentivize the agents tasked with implementing interventions (Björkman and Svensson, 2009; Duflo et al., ND; Muralidharan and Sundararaman, 2009). In this study I present evidence that suggests we go beyond the agents implementing interventions to also examine the policy preferences of the intended beneficiaries as potential impediments to implementing effective interventions. The paper is structured as follows: Section 2 proposes the testable hypotheses of the study.

In Section 3, I present the data analysis, demonstrating weak demand for the scale-up of HIV/AIDS services. In Section 4, I conclude with a discussion of the implications of the misalignment of preferences for HIV/AIDS services.

2 A Villager’s Perspective: Self- and Social Interests

Because AIDS is fatal, the typical assumption is that everyone has preferences that something be done about HIV and AIDS, with little appreciation that in extremely resource-constrained settings other problems may take precedence. Public opinion data from sub-Saharan Africa established that though concern about HIV has risen over time, AIDS has yet to register very high on the “people’s agenda” (Afrobarometer, 2004; Whiteside et al., 2004), and some scholars question the prioritization of HIV/AIDS intervention (Shiffman, 2008; Dionne et al., ND; World Bank Independent Evaluation Group, 2009), particularly when spending on HIV/AIDS has been at a cost to general health systems improvement (Grépin, 2009; Garrett, 2007; England, 2007). Like activists and policymakers, other scholars assert the provision of HIV/AIDS services is a public good (Lieberman, 2009, 2007; Kim and Farmer, 2006; Patterson, 2006; Walton et al., 2004; Ainsworth and Teokul, 2000), the provision of which would improve outcomes indiscriminately in a population. However, HIV/AIDS services cannot be characterized as public goods because their use is not non-rival nor non-excludable.² Treatment and care for those sick with AIDS inherently benefits HIV-positive individuals. For example, the lion’s share of funding for HIV/AIDS services focuses on AIDS treatment, a service rationed by clinicians because of limited availability. From an individual’s perspective, then, AIDS treatment is beneficial only to those who are successful in receiving treatment. Accordingly, this paper employs a theoretical framework that considers micro-level mechanisms underlying demand for HIV/AIDS services. Put another way, this study does not assume ordinary Africans perceive HIV/AIDS services as public goods, but instead considers

their preferences to be driven by a perception that such services are limited and exclusive to the population that is sick or worried about future infection.

Policy priorities shaped by self interest³ would predict demand to vary across populations differentially impacted by HIV and AIDS: we should expect those most likely to benefit from HIV/AIDS services to be more likely to prioritize these goods and services. The groups most likely to benefit from increased availability of HIV/AIDS services are people living with HIV and AIDS. The hypothesis below simply presents what a framing of HIV/AIDS services as excludable goods available to self-interested individuals would predict: those who expect to benefit will demand the good, and those who expect no benefit will demand resources be devoted to a different public policy problem.

H1 HIV-positive individuals will be more likely to prioritize HIV/AIDS services than individuals who are HIV-negative.

At the individual level, we should see HIV-positive individuals having stronger preferences for HIV/AIDS services than HIV-negative individuals. At the national level, *H1* would predict countries with higher HIV prevalence to have a higher aggregate demand for HIV/AIDS services.

The literature shows the limits of pure self-interest in predicting policy preferences (Sears and Funk, 1990; Mansfield and Mutz, 2009), and I propose an additional, alternative framework that considers social pressures as influences on policy preferences. Because attitudes are made, maintained, or modified through interpersonal processes (Erickson, 1988, 99), studies of policy preferences using only data about individuals would be incomplete. Imagine an HIV-negative villager who expresses a preference that resources be spent on HIV/AIDS programs. A simplified model focused only on self interest using individual demographic and biomarker data would fail to predict the villager's preference: what benefit would AIDS treatment bring to a villager who knows herself to not be infected? But what if that same vil-

larger was the primary caretaker of someone sick with AIDS? Her strong and close connection to someone who would greatly benefit from AIDS treatment could motivate her preference for increased AIDS resources.

Do Africans affected by AIDS have a stronger demand for provision of HIV/AIDS services than those Africans less affected by the disease? I expect relatives of HIV-positive respondents would give higher priority to HIV/AIDS services because relatives are the primary source of care for the sick. Spouses, in particular, will not just carry the burden of caring for a sick spouse, but could also have preferences for HIV/AIDS services because they expect they will also need such services in the future. I propose the following hypothesis to test whether social pressures influence policy preferences:

H2 Individuals affected by HIV will be more likely to prioritize HIV/AIDS services than individuals who are not affected by HIV.

I operationalize “affected by HIV” two ways in this paper: (1) whether a person knows or suspects someone close to him/her to be sick with or have died of AIDS; and (2) whether a person is a spouse, parent, or child of someone with HIV. Earlier scholarship used a broader measure, identifying AIDS-affected households “in asking not only about known AIDS cases, who are reluctant to be identified, but also about other chronic diseases that are associated with HIV/AIDS or parallel its affects” (Cross, 2002). I use more conservative definitions for the HIV-affected primarily because of the limitations of available data. At the individual level, we should see those respondents who know someone who died of AIDS prioritizing HIV/AIDS services more than those who have not reported someone close to them to have died of AIDS. In a related study, Youde (2012) finds that knowing someone who died of AIDS increases support for government AIDS policies. Whereas *H1* proposes those who are directly affected by HIV/AIDS would prioritize HIV/AIDS services, *H2* proposes to test whether those indirectly affected would also prioritize HIV/AIDS services.

As caretakers of the interests of villagers, village headmen represent the lowest level of governance in Malawi. Headmen typically live in villages and thus experience the everyday challenges of rural life alongside their villagers. In addition to testing the aforementioned hypotheses on individual-level priorities, I explore survey and interview data from village headman to examine the policy priorities of village headmen during the time of AIDS.

3 Local demand for HIV/AIDS services

3.1 Demand across Africa for devoting resources to AIDS

Data from the Afrobarometer in 2005 show that citizens were mixed on whether to demand more government resources be devoted to AIDS. The Afrobarometer is a comparative series of national public attitude surveys conducted in 18 African countries.⁴ Relevant to the analysis here, the 2005 survey asked respondents to choose which of the following two statements they agreed with:

Statement A: The government should devote many more resources to combating AIDS, even if this means that less money is spent on things like education.

Statement B: There are many other problems facing this country beside AIDS; even if people are dying in large numbers, the government needs to keep its focus on solving other problems.

Fewer than half of the 24,000 Afrobarometer respondents agreed with Statement A, that more resources should be devoted to AIDS. Excepting South Africa and Lesotho, the countries with the highest HIV prevalence rates demanded resources be devoted to problems other than AIDS. Figure 4 plots the proportion of Afrobarometer respondents supporting more resources be devoted to AIDS in each country against national HIV prevalence. Higher

HIV prevalence rates do not predict prioritization of AIDS resources. Data aggregated to the national level, then, fails to confirm *H1* that higher HIV prevalence rates should predict greater demand for HIV/AIDS services.

[Figure 4 about here]

Afrobarometer data also allow us to test *H2* if we operationalize whether an individual was “affected by AIDS” as having reported knowing a close friend or relative who died of AIDS.⁵ Figure 3 separates responses about AIDS resources by whether the respondent knew someone who died of AIDS. Those who reported not knowing someone who died of AIDS were split on whether to devote more or fewer resources for AIDS. However, contrary to what *H2* would have predicted, those who seemed to be more impacted by the disease – people who knew someone close to them who died of AIDS – were less likely to demand additional resources be devoted to combat AIDS, and were more likely to demand resources be devoted to other problems. This same result holds in each of the countries surveyed by the Afrobarometer (not shown).⁶

[Figure 3 about here]

Using nationally aggregated Afrobarometer survey data, I find that even in countries with high HIV prevalence, attitudes about increasing resources for AIDS are mixed. The data fail to confirm Hypothesis *H1*, which predicted countries with higher prevalence will have higher demand for HIV/AIDS programs. Additionally, the individual-level data contradict the expectations of *H2*; those who know someone to have died of AIDS are less likely to prefer more resources be devoted to AIDS.

3.2 The Malawi case

In 2007, the HIV prevalence in Malawi was estimated to be 12%, 15.6% in urban areas and 11.2% in rural areas (Ministry of Health HIV Unit [Malawi] et al., 2007). In the districts

covered by the data analyzed in this paper, the rural sentinel surveillance sites reported prevalence rates of 6.3% in Mchinji, 6.7% in Rumphu, and 15.5% in Balaka (Ministry of Health HIV Unit [Malawi] et al., 2007, 31). Malawi's population is largely rural, only 15% of Malawians live in urban areas (National Statistical Office [Malawi], 2008, 8). Though HIV rates are higher in urban areas, the great majority of people living with HIV and AIDS reside in rural Malawi, where services are the least developed.

Following receipt of donor support, Malawi expanded provision of HIV/AIDS services. For example, in 2002, there were only three clinics in the country where AIDS patients could access antiretroviral therapy, but by 2008, that number had increased to 221 (Ministry of Health [Malawi], 2010). Despite this incredible scale-up, access was still quite limited for respondents in the study presented here. The low prioritization of HIV/AIDS programs borne out in the forthcoming analysis is not a result of saturated service coverage following the scale-up of services. Rather, participant observation data collected in 2008 by a local research assistant working at the major AIDS clinic in Mchinji District describes services as still difficult to access. As of 2008, Mchinji District had eight sites providing free HIV testing and two government-supported clinics for AIDS patients to seek treatment and care. On average, it would take a villager in the Mchinji study area a half day to learn her HIV status: about one hour to travel to the nearest testing site, an hour to be seen by the clinician, 30 minutes to be counseled and tested, then 30 minutes to await the results, be post-test-counseled, and finally another hour to travel home. Accessing treatment from a village in the Mchinji study area would take considerably longer as the nearest AIDS treatment clinic is a further distance and the wait to see a clinician is longer, as is the time spent in the clinic being examined and treated. An AIDS clinic visit would take an average of two hours spent in transit, two hours spent waiting to be seen, and one hour spent being examined and dispensed treatment, essentially consuming a full day for a villager from the Mchinji study area. Time estimates to seek testing or treatment are similar in villages in the other

districts of study. These time estimates assume: 1) villagers have the resources to pay for transport; and 2) when villagers seek testing or treatment that the clinics are staffed and stocked to provide services. Traveling from these villages to the treatment clinics might normally require two forms of transport (bike taxi and minibus) because of the lack of paved roads and infrequent motor traffic. Additionally, during the study period AIDS treatment clinics in rural Malawi were only open three days per week and HIV testing sites had limited business hours.

The average Malawian's day-to-day situation more generally is poor. Malawi is one of the poorest nations in the world, with almost 63% of the population surviving on less than \$2/day at the time of the study (World Bank, 2008). Average life expectancy in Malawi in 2008 was 53 years (World Bank, 2011). Almost 90% of Malawi's population relies on subsistence farming. Most (85%) of Malawi's population live in rural areas, where there are significant development needs: 96% of rural households rely on firewood for cooking, only 2% of rural households have access to piped water (National Statistical Office [Malawi], 2008), and 48% of children are stunted, or measure at least two standard deviations below the international standard of height for age (National Statistical Office [Malawi], 2011).

3.3 Villagers' public policy preferences

As part of a larger project on the consequences of HIV/AIDS in Malawi,⁷ villagers were surveyed to understand how rural citizens would rank a variety of public policy priorities. The survey was conducted between June and August 2008 in Mchinji, Rumphu, and Balaka districts and the sample included 3384 women and 2631 men, of which 4183 (70%) were successfully visited by the field team. Though the original sampling strategy in 1998 was not designed to be representative of the rural population in Malawi, the sample's characteristics are very similar to those of the rural population interviewed by the Malawi Demographic and Health Surveys that covered nationally representative samples (Thornton, 2008, 1837).

A number of metrics in our study capture the “HIV-affected” population: HIV status of respondents; HIV status of spouses, parents, or adult children using linked data; reported household member deaths attributable to AIDS; and suspected HIV infection or AIDS deaths of people known to the respondent. I describe each of these “HIV-affected” metrics in turn.

In 2008, 4.3% of the MLSFH respondents who completed surveys tested positive for HIV. This is likely an underestimate of HIV prevalence in our sample as 6.8% of respondents completing surveys refused to be HIV-tested. Of the 211 respondents completing the survey but refusing to be HIV tested in 2008, 17 (8%) tested positive for HIV in a previous round of the longitudinal study.⁸ I impute HIV status of respondents who refused HIV tests in 2008 using both 2004 and 2006 HIV test outcomes, resulting in a sample in which 4.6% of the respondents who completed surveys in 2008 had in the past four years tested positive for HIV by the longitudinal study. In all analyses presented hereafter, HIV status is a binary measure equal to 1 if the respondent ever tested positive in MLSFH biomarker collection, 0 otherwise. Consistent with *H1*, I expect respondents who tested HIV-positive to prioritize HIV/AIDS programs more than those who have not tested HIV-positive.

In most cases, married respondents are linked in the MLSFH data; in fewer cases, respondents are also linked to parents or adult children.⁹ Because of marital and inter-generational linkages in the data, we can utilize the HIV biomarker data to identify a population of the HIV-affected by denoting all those who are linked by familial connection in the dataset to someone who has tested HIV-positive. Respondents with spouses, parents, or children who ever tested HIV-positive in MLSFH biomarker collection make up 3.1% of our sample.¹⁰

Moving beyond sero-status of respondents and their linked-family members, we asked respondents whether they knew of someone who died of AIDS or is sick with AIDS to estimate the “HIV-affected” population. Of the 784 respondents who reported a household death in the last two years, 85 (10.8%) of the deaths were reported to be likely or very likely attributable to AIDS, but overall, the population experiencing a household death

attributable to AIDS was only 2.0% of our sample. In our sample, 3781 respondents (94.2%) report having known someone to have died of AIDS. Nearly three-quarters of respondents (2936 or 72.5%) report knowing someone who is HIV-positive. HIV prevalence is lower than the national average in our study population and household AIDS deaths are reported to affect only a small group. However, considering the number of respondents who report knowing someone to be sick with or having died from AIDS, the HIV-affected population in rural Malawi is as significant as one could expect in the country whose HIV prevalence ranks ninth highest in the world. Consistent with *H2*, I anticipate respondents affected by AIDS are likely to give higher priority to HIV/AIDS programs. Table 1 provides summary statistics of the MLSFH study sample, including those that capture whether the respondent was “HIV-affected.”

[Table 1 about here]

The outcome variable of interest is respondents’ ranking of five public policy priorities. Respondents were read the following script:

Now, I would like to ask you your opinion on programs in this area. People have said they would like programs to improve life here in this area. Some programs that could improve life would be: more access to clean water, increased health services, more agricultural development, better education programs, and more HIV/AIDS programs. Unfortunately, the money available for these programs is very limited. If you had the chance to pick which programs were most important and which were not, how would you rank these five programs? There is no right or wrong answer; I just want to know what you think.

Respondents were then asked to rank each of the five policy preferences (clean water, health services, agricultural development, education, HIV/AIDS programs)¹¹ in order of importance, where a score of 1 was assigned to the most important policy, 2 to the second most important policy, and so on until a score of 5 was assigned to the least important policy. The left panel of Figure 1 presents the responses graphically. Most notably, nearly half of

the respondents ranked HIV/AIDS services as the least important public policy intervention among the five options. The priority ranking of HIV/AIDS programs has a mean of 3.8.

[Figure 1 about here]

To test for patterns of prioritization of HIV/AIDS programs, I use an ordered logit regression¹² where the outcome of interest is the priority ranking of HIV/AIDS programs. The independent variables are the HIV-affected variables presented in Table 1. I run a second ordered logit regression model that additionally includes controls for the respondent's level of education, gender, age, wealth, and region. Table 2 displays the results. HIV status operates in the anticipated direction and is statistically significant, confirming *H1*. Respondents that ever tested HIV-positive in MLSFH data collection are more likely to give higher prioritization of HIV/AIDS services. Attribution of a recent household death to AIDS, knowing someone who is HIV-positive, or having an HIV-positive familial link in the MLSFH dataset fail to predict higher prioritization of HIV/AIDS programs; all three variables operate counter to the prediction of *H2*, and yet also fail to achieve statistical significance. However, if a respondent reports knowing someone who died of AIDS, the respondent is more likely to prioritize HIV/AIDS programs.

[Table 2 about here]

Figure 2 presents the findings graphically; holding other variables at their means, I use the output of the ordered logit regression to generate predicted probabilities of the HIV/AIDS priority rankings delineating two populations: respondents who had ever tested HIV-positive vs. those that had not. Respondents that ever tested HIV-positive have a lower predicted probability of ranking HIV/AIDS Programs as the least important public policy and higher predicted probabilities of ranking HIV/AIDS Programs most important (as well as second most important, third most important, and fourth most important).

[Figure 2 about here]

Overall, the Malawi villager data demonstrate weak local demand for HIV/AIDS programs. However, we see that proximate experience with AIDS – either being HIV-positive or knowing someone who died of AIDS – makes one more likely to prioritize HIV/AIDS programs. The analysis of villagers’ policy preferences confirms *H1* but has mixed results for *H2*.

3.4 Village headmen’s public policy preferences

More than 80% of Malawi’s population lives in rural areas, where the highest authority in a village is a headman, also sometimes referred to as chief. Because in many of Malawi’s rural villages there are few public or government-supported services or infrastructure, the local headman plays an important role in shaping organization and mobilization to meet the village’s needs. In addition to traditional and informal responsibilities village headmen have accumulated over time, a considerable number of formal responsibilities have been delegated to village headmen with the implementation of Malawi’s Decentralization Policy.¹³ In short, no local development happens without the assent and participation of village headmen. Village headmen data thus provide insight on the priorities of critical local agents.

To study the priorities of village headmen, I analyze surveys administered in all villages in the study area of the MLSFH, the study from which I analyzed individual-level demand for HIV/AIDS services in the previous subsection (N=122). Open-ended semi-structured interviews were conducted with a subset of these respondents (N=50). The advantage of studying village headmen allowed me to ask not what they want for themselves but what they want for their village. Essentially, I queried what goods and services are in highest demand at the lowest level of a “public.” We asked background information about the headmen, their villages, and the duties assigned to them by the government and their traditional authorities. We also asked headmen’s opinions about politics and development and about

their interactions with others.

We asked headmen to name the three most important issues facing their village. Responses were open-ended and coded into 20 possible categories. In summary, what we take away from the coding of the open-ended responses to this question is that access to clean water is the highest priority. Other issues that were consistently reported as important were relevant to food security and agricultural development, diseases besides AIDS, and poverty. The data supports the other findings that HIV and AIDS are low priorities and are not typically considered among the three “most” important issues at the village level. However, it could be that the open-ended nature of the survey question failed to elicit a response relevant to HIV or AIDS services or programs. Because of this potential problem, we also asked the headmen to rank public policy priorities using the same question posed to the villagers under their care. Headmen were asked to rank preferences for clean water, health services, agricultural development, education and HIV/AIDS programs. Their responses are captured in the right panel of Figure 1.

Like the villagers surveyed by the MLSFH, access to clean water was the primary concern of headmen in our study, and HIV/AIDS ranked last among the five possible policy priorities. On average, health services ranked fourth most important (though there was a plurality of headmen who ranked it third most important). In the subsequent open-ended interviews we asked why. Headmen said that if there were clean water, they would not need health services. We asked, “but what about the people in your village sick with AIDS?” Responses ranged. Some headmen agreed with us that those people needed services but reminded us that even their HIV-positive villagers need clean water to stay healthy. Similarly, headmen would say that those who are HIV-affected need nourishment and thus need more inputs for their garden so that they can harvest more without having to work as hard.

Some headmen in the open-ended interviews did say that HIV/AIDS programs were important and that the people who are sick with AIDS in their villages need more. But

when pressed to choose between assisting the HIV-affected and others, they ask why not provide something that will benefit everyone?

Summary of Malawi results

In the aggregate, the Malawi data demonstrate weak local prioritization of HIV/AIDS programs. However, we see that proximate experience with AIDS – either being HIV-positive or knowing someone who died of AIDS – makes one more likely to prioritize HIV/AIDS programs. Analysis of survey and in-depth interviews of village headmen also demonstrate relatively weak prioritization of HIV/AIDS programs.

4 Discussion and Conclusion

This paper shows demand for HIV/AIDS services is weak in Malawi and other sub-Saharan African countries with high HIV prevalence. The data was collected during the same period when international actors advocated for and began implementing a massive scale-up of HIV/AIDS services. In the rush to stem the tide of the AIDS pandemic, international actors have overlooked the many other day-to-day concerns of Africans. The data demonstrate a misalignment of priorities in the global AIDS intervention. Though the supply of AIDS services is being scaled up, the analysis here suggests additional supply would continue to outstrip local demand. AIDS services have low relative priority among rural Malawians, and cross-national data demonstrate mixed demand for resource devotion to AIDS unpredicted by experience with AIDS.

The treatment of HIV/AIDS services as excludable goods more accurately assesses demand for HIV/AIDS services by singling out the populations that would stand to benefit the most: those who have been personally affected by HIV. Though the results suggest a higher prioritization of HIV/AIDS services among those personally affected by HIV, prioritization

of HIV/AIDS services remains relatively weak.

Why do the majority of rural Malawians fail to prioritize HIV/AIDS services despite the high HIV prevalence in the country? The reader should not confuse low prioritization of HIV/AIDS services as indicative of hushed discussion about AIDS because of stigma or denial. Rural Malawians talk about AIDS in open spaces and with strangers (Watkins, 2004). Additionally, data presented here show that individuals are willing to share with strangers — in this case, interviewers — that someone close to them has died of AIDS, and in a related pilot study with open-ended interviews, respondents frequently reported their HIV status without prompting from the enumerator. Of the 2,522 MLSFH respondents reporting in 2008 to having ever been tested for HIV, 90% shared their results with their partner and 54% shared results with friends, relatives, and others.

Could respondents' low ranking of HIV/AIDS programs merely be an indication that respondents are unenlightened (Bartels, 2005) and not aware that AIDS is fatal or of their risk in contracting HIV? No, Malawians are very knowledgeable about HIV and AIDS. The 2004 Malawi Demographic and Health Survey reported 82% of women and 92% of men knew that a healthy looking person can have the AIDS virus; similarly, 76% of women and 85% of men know that HIV cannot be transmitted by supernatural means (National Statistical Office [Malawi], 2005).¹⁴

The paper's findings ought to change the way of thinking about AIDS as it is experienced by rural Africans. If a villager is HIV-positive, she may want antiretroviral therapy to prolong and improve the quality of her life; however, the HIV-positive villager is especially vulnerable to tuberculosis or diarrheal diseases prevalent in sub-Saharan Africa. The HIV-positive villager may prefer spending on general health services and generally improved public health via water and sanitation projects because these alternative diseases and opportunistic infections are a major threat to her quality and length of life. Perhaps the West should not think of AIDS as a special kind of illness, but a heightened sense of the other deprivations

of poverty.

The data also point out an important quality of village headmen: their general alignment with villagers in policy preference rankings. Data analysis in related work more closely studies the congruence of headmen and villager prioritization, providing convincing evidence that headmen would be reliable representatives of their villagers' interests (Dionne, 2011). Whatever Western normative judgments about the role of chieftaincy in the democratic era, the current role and influence of traditional leaders is "widely accepted as a given" (Logan, 2009), even accepting that roles and levels of influence are variant across African contexts. Headmen live in close proximity to the intended beneficiaries of rural health and development interventions, and thus have a close-up view of what is most important or desired by their communities. The headmen in our study ranked HIV/AIDS services last, giving priority to clean water and agricultural development. I suspect headmen fail to prioritize AIDS because the disease affects so few in comparison to issues of clean water and food security, thus water and food security will continue to take precedence. However, as health and development projects supported by states and international actors employ headmen as agents of intervention, the findings here demonstrate potential for misaligned preferences between principals and agents, casting doubt on the success of such interventions.

One interpretation of the study's findings is that HIV/AIDS programming could benefit from integration with interventions focused on those other issues that ordinary Africans give higher priority. In fact, when presenting preliminary analysis of the data presented here to a meeting of stakeholders in Malawi in 2008, I was queried as to how aid agencies could "bundle" HIV/AIDS programming with rural water projects, since water seemed to be the primary concern for the rural Malawians in my study. To my knowledge, there exists no research that explicitly compares singularly focused HIV/AIDS interventions and integrated HIV/AIDS interventions that would allow us to distinguish whether HIV/AIDS interventions are more effective when they are intertwined with those issues of great importance to

ordinary Africans. Despite this lack of evidence, there have been a number of interventions that “bundle” HIV/AIDS and livelihoods programming. For example, CARE Malawi designed and implemented a series of livelihood security programs that recognize HIV/AIDS as a major feature of the risk and vulnerability environment. One such program was the Consortium for Southern Africa Food Security Emergency, which targeted food aid to at-risk women and girls to help avoid survival sex (Drimie and Mullins, 2006). Future research could test explicitly the comparative impact of integrated vs. focused HIV/AIDS interventions.

This study makes a contribution to the literature that has documented the divide in preferences across actors in the global-to-local supply chain of interventions to improve the human condition. Like Ferguson (1990) and Li (2007), I find that local attitudes and preferences are often under-appreciated or ignored when implementing interventions designed and/or supported from the outside. The context of my study – fighting AIDS in Africa – is somewhat unique in that it may pose a challenge for ordinary citizens to engage their governments and relevant international agencies to reconsider their priorities because AIDS is exceptional (Dionne et al., ND; Whiteside, 2009). AIDS is deadly and has no cure. In the 2001 Declaration of Commitment on HIV/AIDS, 189 nations agreed that AIDS was an international development issue of the highest priority (UNAIDS, 2007). Former United Nations Secretary General Kofi Annan called AIDS “an unprecedented threat to human development” (UNAIDS, 2004, 7). AIDS exceptionalism presents a particularly salient obstacle for ordinary Africans who prioritize other policies.

The study raises both practical and normative questions. A practical question relevant to misaligned policy preferences asks whether we will see diversion of resources earmarked for HIV/AIDS at the local level because villagers and their headmen fail to prioritize the same issues as international and national actors. A study of HIV/AIDS community-based organizations (CBOs) in Malawi highlighted the weak accountability of these organizations, particularly how the local community had little influence on CBO decisions or day-to-day

work (Schou, 2009). In one of the districts of Schou's study, four of the 25 CBOs funded by the National AIDS Commission to provide HIV/AIDS programming in the community were financially mismanaged, and one of those organizations was suspected to be a fake (2009, 163). Even if misaligned priorities may not ease the opportunity for corruption of HIV/AIDS resources, misalignment can potentially impact intervention effectiveness. Donahue et al. (2011) propose that the disconnect they find between citizens and public officials in the domain of disaster preparedness could be an explanation for the ineffectiveness of policy programs to improve preparedness; the authors conclude with a call for public policies aiming to change behavior to consider people's perceptions.

A more important question is whether the HIV/AIDS intervention in Africa simply demonstrates the power of donors and the weakness of citizens. The findings here that other development issues have higher priority among ordinary Malawians taken together with the findings from Morfit (2011) that AIDS efforts may have hindered attempts to address other, non-AIDS development issues, we should ask: when there is a misalignment of priorities, whose preferences should take precedence: those of international donors, or ordinary citizens? Relatedly, how can ordinary citizens be empowered to engage with government and donors to have their priorities reflected in policies and interventions?

References

- Afrobarometer (2004). *Public Opinion and HIV/AIDS: Facing Up to the Future?* Afrobarometer Briefing Paper No. 12.
- Afrobarometer (2005). Afrobarometer Round III Survey Data. [electronic data file].
- Ainsworth, M. and Teokul, W. (2000). Breaking the silence: setting realistic priorities for AIDS control in less-developed countries. *The Lancet*, 356(9223):55–60.
- Bartels, L. M. (2005). Homer gets a tax cut: Inequality and public policy in the American mind. *Perspectives on Politics*, 3(01):15–31.
- Berelson, B., Lazarsfeld, P., and McPhee, W. (1954). *Voting: A Study of Opinion Formation in a Presidential Campaign*. Chicago: University of Chicago Press.
- Björkman, M. and Svensson, J. (2009). Power to the people: Evidence from a randomized field experiment on community-based monitoring in uganda. *Quarterly Journal of Economics*, 124(2):735–769.
- Campbell, A., Converse, P., Miller, W., and Stokes, D. (1960). *The American Voter*. New York: Wiley.
- Cross, C. (2002). The impact of HIV/AIDS on land issues in Kwazulu-Natal Province South Africa. Report on the Kwanysa Case Studies, Human Sciences Research Council, Pretoria, South Africa.
- Dionne, K.Y. (2010). The Political Economy of HIV/AIDS Intervention in Africa. Ph.D. Thesis, UCLA.
- Dionne, K.Y. (2011). Seeing Like a Village: Local Agents and Policy Priorities. Unpublished working paper, Texas A&M University.

- Dionne, K. Y., Gerland, P., and Watkins, S. C. (N.D.). AIDS Exceptionalism: Another constituency heard from. *AIDS and Behavior*, forthcoming.
- Donahue, A., Eckel, C., and Wilson, R. (2011). Ready or not: Do public officials understand why citizens don't prepare for disasters? Unpublished manuscript, University of Connecticut.
- Drimie, S. and Mullins, D. (2006). Mainstreaming HIV and AIDS into livelihoods and food security programs: The experience of CARE Malawi. *Aids, Poverty and Hunger: Challenges and responses*. Washington: IFPRI.
- Duflo, E., Hanna, R., and Ryan, S. (N.D.). Incentives work: Getting teachers to come to school. Forthcoming in *American Economic Review*.
- England, R. (2007). Are we spending too much on HIV? *British Medical Journal*, 334(7589):344.
- Erickson, B. H. (1988). The relational basis of attitudes. In Wellman, B. and Berkowitz, S., editors, *Social structures: A network approach*, pages 99–122. Cambridge University Press.
- Ferguson, J. (1990). *The anti-politics machine: "development," depoliticization, and bureaucratic power in Lesotho*. Cambridge University Press.
- Garrett, L. (2007). The challenge of global health. *Foreign Affairs*, 86(1):14–38.
- Grépin, K. (2009). Too much of a good thing: Is HIV/AIDS funding strengthening African Health Systems? Unpublished manuscript, New York University Wagner Graduate School of Public Service.
- Kaiser Family Foundation (2009). *2009 Survey of Americans on HIV/AIDS: Summary of Findings on the Domestic Epidemic*. Menlo Park, CA: Kaiser Family Foundation.

- Kim, J. Y. and Farmer, P. (2006). AIDS in 2006—moving toward one world, one hope? *The New England Journal of Medicine*, 355(7):645–647.
- Li, T. M. (2007). *The will to improve: governmentality, development, and the practice of politics*. Duke University Press.
- Lieberman, E. (2007). Ethnic Politics, Risk, and Policy-Making: A Cross-National Statistical Analysis of Government Responses to HIV/AIDS. *Comparative Political Studies*, 40(12):1407.
- Lieberman, E. (2009). *Boundaries of Contagion: How Ethnic Politics Have Shaped Government Responses to AIDS*. Princeton, NJ: Princeton University Press.
- Logan, C. (2009). Selected chiefs, elected councillors and hybrid democrats: popular perspectives on the co-existence of democracy and traditional authority. *The Journal of Modern African Studies*, 47(01):101–128.
- Mansfield, E. D. and Mutz, D. C. (2009). Support for free trade: Self-interest, sociotropic politics, and out-group anxiety. *International Organization*, 63:425–457.
- Ministry of Health HIV Unit [Malawi], National TB Control Program [Malawi], Lighthouse Trust, and Centers for Disease Control and Prevention [Malawi] (2007). *Report of a Country-Wide Survey of HIV/AIDS services in Malawi For the Year 2006*. Lilongwe, Malawi: Ministry of Health.
- Ministry of Health [Malawi] (2010). Quarterly HIV Programme Report, April – June 2010. Lilongwe, Malawi: Ministry of Health.
- Morfit, S. (2011). “AIDS is Money”: How Donor Preferences Reconfigure Local Realities. *World Development*, 39(1):64–76.

- Muralidharan, K. and Sundararaman, V. (2009). Teacher performance pay: Experimental evidence from India. NBER Working Paper 15323.
- National Statistical Office [Malawi] (2005). *Malawi Demographic and Health Survey 2004*. Zomba, Malawi: National Statistical Office; Calverton, Maryland: MEASURE DHS.
- National Statistical Office [Malawi] (2008). 2008 Population and Housing Census Main Report. Zomba, Malawi: NSO.
- National Statistical Office [Malawi] (2011). *Malawi Demographic and Health Survey 2010 Preliminary Report*. Zomba, Malawi: National Statistical Office; Calverton, Maryland: MEASURE DHS.
- Patterson, A. S. (2006). *The politics of AIDS in Africa*. Boulder, CO: Lynne Rienner Publishers.
- Reniers, G. and Eaton, J. (2009). Refusal bias in HIV prevalence estimates from nationally representative seroprevalence surveys. *AIDS*, 23(5):621–629.
- Schou, A. (2009). Who benefits from demand-driven distribution of HIV/AIDS services? An analysis of the emerging CBO sector in Malawi. *Public Administration and Development*, 29(2):155–166.
- Sears, D. O. and Funk, C. L. (1990). Self-Interest in Americans' Political Opinions. In Mansbridge, J. J., editor, *Beyond Self-Interest*, chapter 9, pages 147–170. Chicago: The University of Chicago Press.
- Shiffman, J. (2008). Has donor prioritization of HIV/AIDS displaced aid for other health issues? *Health Policy and Planning*, 23(2):95–100.
- Thornton, R. L. (2008). The Demand for, and Impact of, Learning HIV Status. *American Economic Review*, 98(5):1829–1863.

- UNAIDS (1998). *Access to Drugs: UNAIDS Technical Update*. Geneva, Switzerland: UNAIDS.
- UNAIDS (2004). *2004 Report on the Global AIDS Epidemic*. Geneva, Switzerland: UNAIDS.
- UNAIDS (2006). *2006 Report on the global AIDS epidemic*. Geneva, Switzerland.
- UNAIDS (2007). *2006 UNAIDS Annual Report: Making the Money Work*. Geneva, Switzerland: UNAIDS.
- UNAIDS (2008). *2008 Report on the global AIDS epidemic*. Geneva, Switzerland: UNAIDS.
- Walton, D., Farmer, P., Lambert, W., Léandre, F., Koenig, S., and Mukherjee, J. (2004). Integrated HIV prevention and care strengthens primary health care: lessons from rural Haiti. *Journal of Public Health Policy*, 25(2):137–158.
- Watkins, S. C. (2004). Navigating the AIDS Epidemic in Rural Malawi. *Population and Development Review*, 30(4):673–705.
- Whiteside, A. (2009). Is AIDS Exceptional? AIDS 2031 Working Paper No. 25.
- Whiteside, A., Mattes, R., Willan, S., and Manning, R. (2004). What People Really Believe About HIV/AIDS in Southern Africa. In Poku, N. and Whiteside, A., editors, *The Political Economy of AIDS in Africa*, pages 127–150. Surrey, UK: Ashgate Publishing, Ltd.
- World Bank (2008). *World Development Report 2008: Agriculture for Development*. Washington, DC.
- World Bank (2011). World Development Indicators. [electronic data file].
- World Bank Independent Evaluation Group (2009). *Improving Effectiveness and Outcomes for the Poor in Health, Nutrition, and Population Effectiveness and Outcomes for the Poor in Health, Nutrition, and Population*. Washington, DC: World Bank.

World Health Organization (2002). *Scaling Up Antiretroviral Therapy in Resource-Limited Settings*. Geneva, Switzerland: WHO.

World Health Organization (2003). *Treating 3 Million by 2005: Making It Happen: The WHO Strategy*. Geneva, Switzerland: WHO.

Youde, J. (2012). Public opinion and support for government AIDS policies in sub-Saharan Africa. *Social Science & Medicine*, 74(1):52–57.

Notes

¹HIV is an acronym for human immunodeficiency virus, a virus that causes acquired immunodeficiency syndrome, or AIDS. AIDS weakens the immune system, ultimately leading to death from opportunistic infections.

²To be clear, a good or service is a public good if one's use of the good does not compete with another's use of the same good, and use of the good cannot be restricted to a certain population. A common example of a public good is clean air.

³Early studies of the behavior of mass publics in America proposed self-interest as a predictive motivation of opinions on political issues (Berelson et al., 1954; Campbell et al., 1960). Empirical tests show, however, that self-interest generally has not been of major importance in explaining the American public's political preferences (Sears and Funk, 1990), and survey data show that individuals rarely form preferences for economic policy on the basis of economic self interests (Mansfield and Mutz, 2009, 433). Even scholars skeptical of the role of self-interest concede, however, that there are exceptions. Sears and Funk (1990, 159-161) highlight cases in which virtually every indicator of self-interest had an effect: in situations with clear, substantial costs and benefits; in cases with both severe and ambiguous threats; and during the course of events politicizing self-interest. I find it difficult to characterize demand for HIV/AIDS services in Africa as meeting the latter criterion, but argue the former two criteria are applicable: AIDS is a severe and ambiguous threat and increasing the availability of AIDS treatment would provide a clear, substantial benefit to anyone sick with AIDS.

⁴The countries included in the 2005 round of data analyzed in this study were: Benin, Botswana, Cape Verde, Ghana, Kenya, Lesotho, Madagascar, Malawi, Mali, Mozambique, Namibia, Nigeria, Senegal, South Africa, Tanzania, Uganda, Zambia and Zimbabwe. More about the Afrobarometer can be found at <http://www.afrobarometer.org>.

⁵The Afrobarometer survey question read "Do you know a close friend or relative who has died of AIDS?" Refusals and "don't know" responses are dropped from analysis.

⁶In some cases, country-level analysis shows a breakdown similar to the aggregated data for respondents who report not having someone close to them to have died of AIDS; in others the disparities are even wider; in Tanzania, for example, respondents not knowing someone close to them to have died of AIDS were even more likely to prefer resources devoted to AIDS (70% preferred resources devoted to AIDS, 30% to other problems).

⁷The larger study in which this research was embedded was the Malawi Longitudinal Study of Fam-

ilies and Health (MLSFH), led by demographers at the University of Pennsylvania in collaboration with the Malawi College of Medicine. The MLSFH is a six-phase longitudinal study in three regions of rural Malawi. The project's overarching goal is to investigate the role of social processes in modern family planning and HIV/AIDS and the consequences of high morbidity and mortality. The MLSFH gathered six waves of individual-level data on HIV/AIDS, sexual behavior, religion, health, and economics, including the collection of biomarkers for HIV and other sexually-transmitted infections, village-level data, data on faith-based organizations and on sexual networks. More about the MLSFH can be found online at: <http://www.malawi.pop.upenn.edu>.

⁸It is probable that additional respondents refusing to be tested in 2008 also know themselves to be HIV-positive, but were made aware of their status not by the longitudinal study; among individuals who know their status, HIV-positive individuals are four times as likely to refuse HIV testing than HIV-negative individuals (Reniers and Eaton, 2009).

⁹In 2008, the MLSFH introduced parents of respondents into the sample. Not all parents were interviewed: dead parents and parents residing outside the village of their adult child respondent are excluded.

¹⁰This is an underestimate of respondents with an HIV-positive nuclear family member: it is likely that additional respondents also have HIV-positive parents and/or children but these relatives were simply not included in the study's sample.

¹¹The selection of these policy choices was largely informed by a pilot study conducted in Mchinji, Malawi in 2007. The purpose of the pilot was to investigate local supply of and demand for HIV/AIDS services. The in-depth interview study included two groups of respondents: 30 HIV-tested Malawians and 19 of their "near neighbors," who were selected to act akin to a control group. The study's findings brought attention to the other pressing concerns faced by rural Malawians living in the time of AIDS. Even HIV-positive respondents in the study expressed preferences for clean water projects over additional HIV/AIDS services in the district. Because of the small sample size and the non-representative nature of the sample population, however, the interview study was not meant to draw inferences. Still, the findings from the pilot study are in line with findings of the later studies presented here.

¹²I use ordered logit because the outcome measure is an ordinal variable.

¹³For example, as of 2008, all village headmen are required to keep records of births and deaths of all the people in their village using a government-provided register.

¹⁴For the sake of comparison, the Malawi Demographic and Health Survey in 2004 reported 82% of women and 90% of men know HIV infection is not transmitted by food, whereas 51% of Americans surveyed by the

Kaiser Family Foundation in 2009 stated they would be uncomfortable having their food prepared by an HIV-positive person (National Statistical Office [Malawi], 2005; Kaiser Family Foundation, 2009).

Table 1: Summary statistics of study sample

<i>Demographics</i>	
Female	58.1%
Age Group: 15 to 24	18.3%
Age Group: 25 to 49	52.3%
Age Group: 50+	29.4%
Education: No School	25.1%
Education: Primary Level	62.1%
Education: Secondary Level	12.5%
Education: Higher Education	0.3%
Subjective Wealth: One of Poorest	5.8%
Subjective Wealth: Quite Poor	24.7%
Subjective Wealth: Average	54.7%
Subjective Wealth: Quite Wealthy	12.5%
Subjective Wealth: One of Wealthiest	2.1%
<i>Region</i>	
North	30.7%
Center	33.4%
South	35.9%
<i>HIV-Affected Variables</i>	
Ever Tested HIV-Positive	4.6%
Recent Household Death Likely AIDS	2.0%
Knew Someone Who Died of AIDS	94.2%
Knew Someone Who Is HIV-Positive	72.7%
HIV-Positive Family Member in MLSFH	3.13%

Source: MLSFH 2008; N=4052. The variable “Subjective Wealth” is assigned by the interviewer upon completion of the interview, comparing the respondent’s economic situation to the rest of the village.

Table 2: Ordered Logit Regression of Villager Prioritization of HIV/AIDS

	(1)	(2)
Ever Tested HIV-Positive	0.277*	0.277*
	(0.140)	(0.142)
Recent Household Death Likely AIDS	-0.323	-0.355
	(0.209)	(0.209)
Knew Someone Who Died of AIDS	0.278*	0.311*
	(0.132)	(0.134)
Knew Someone Who Is HIV-Positive	-0.119	-0.120
	(0.070)	(0.072)
HIV-Positive Family Member in MLSFH	-0.181	-0.075
	(0.170)	(0.171)
Female		-0.091
		(0.062)
Age Group		-0.306***
		(0.046)
Education		0.000
		(0.056)
Subjective Wealth		-0.019
		(0.037)
Region		-0.138***
		(0.038)
Observations	4014	3989

Standard errors in parentheses; Source: MLSFH 2008.

* p < .05; ** p < .01; *** p < .001

Figure 1: Policy Preference Rankings by MLSFH Respondents and Headmen

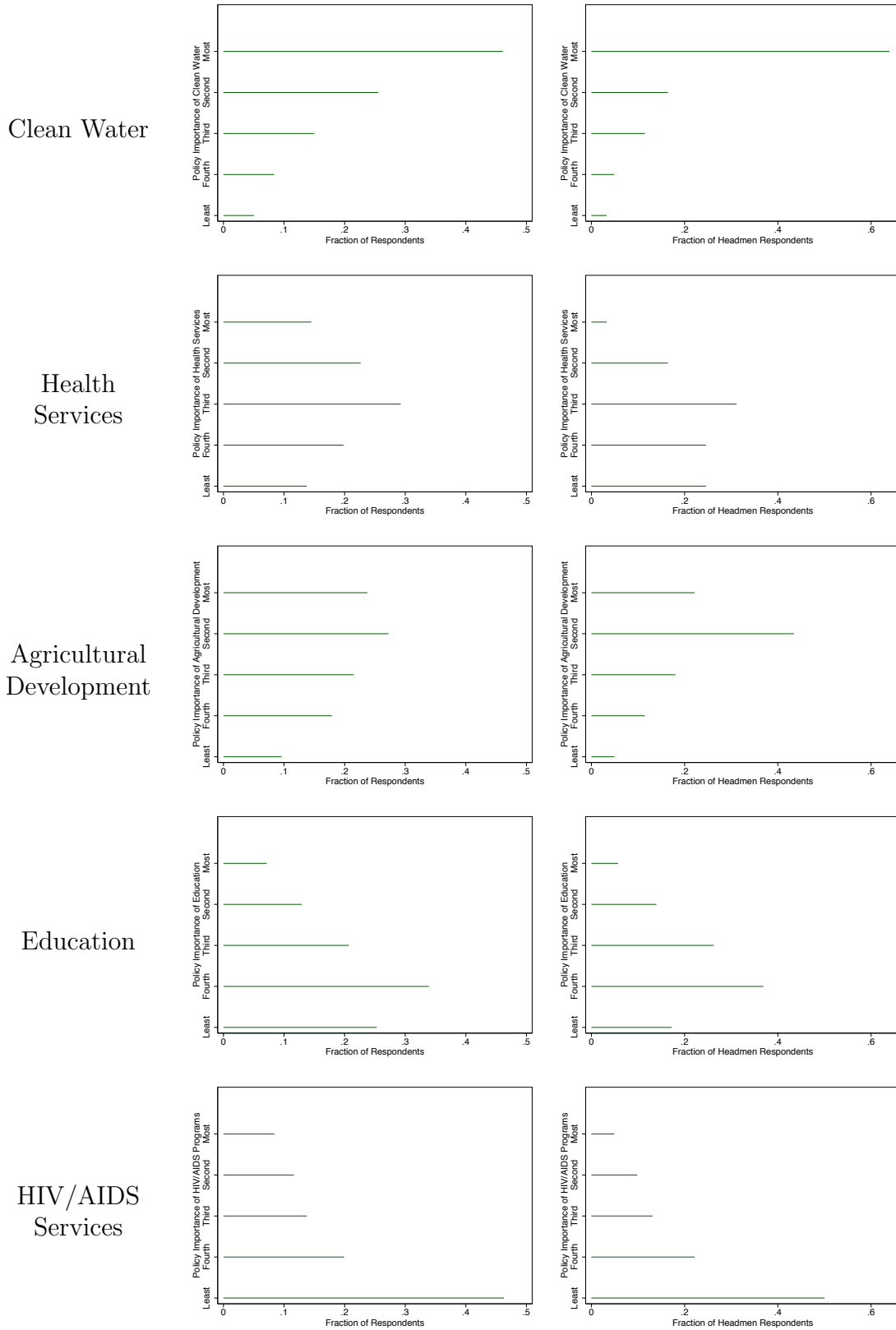


Figure 2: Predicted Probabilities of Villager's Prioritization of HIV/AIDS Programs

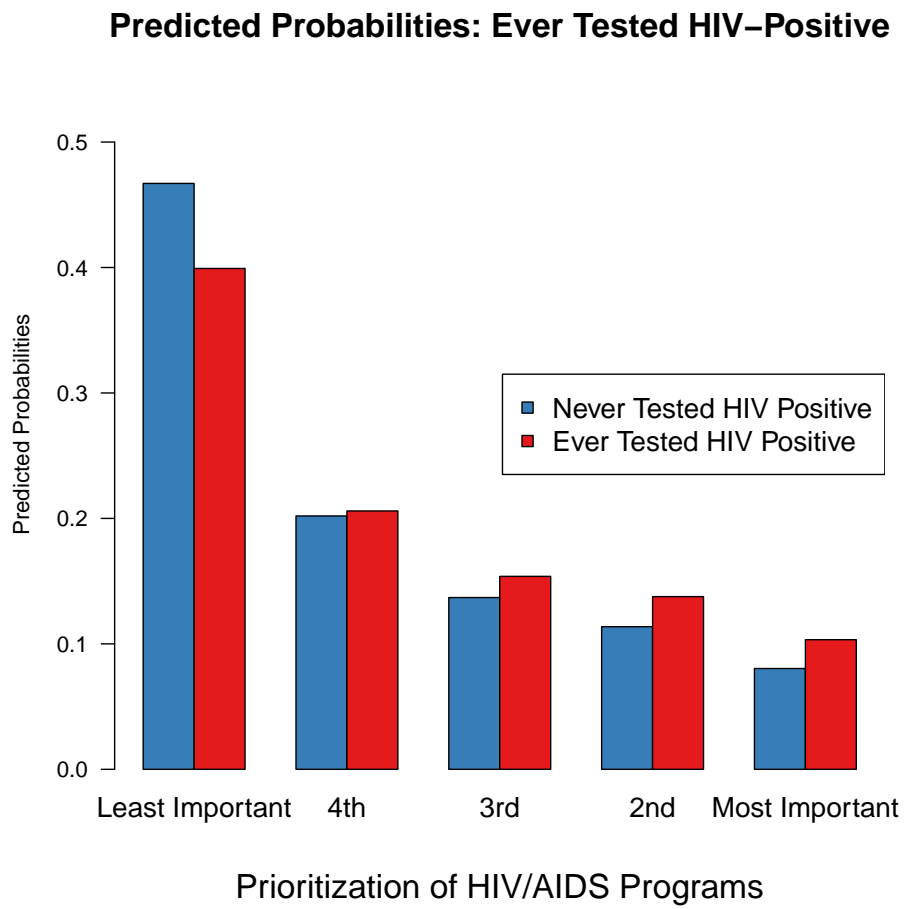
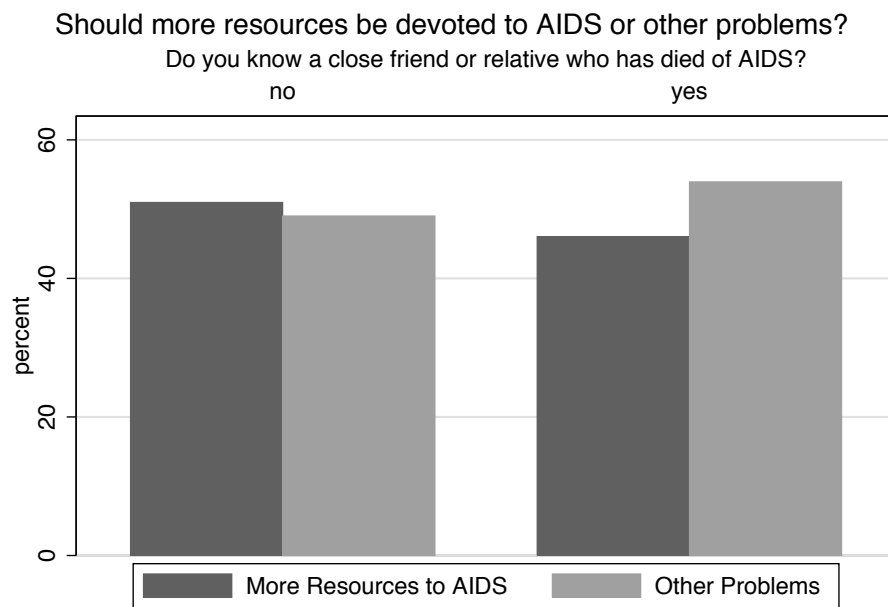


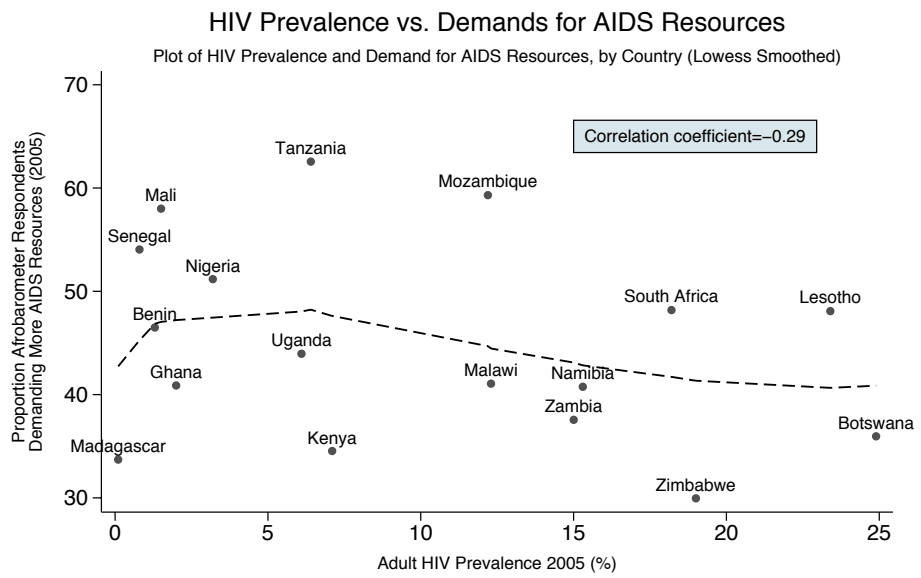
Figure 3: Should Government Devote More Resources to AIDS?



Source: Afrobarometer (2005)

N=22614. Differences between groups of respondents are statistically significant.

Figure 4: HIV Prevalence and Demand for AIDS Resources



Source: Afrobarometer (2005) and UNAIDS (2008)