Ethnicity, Religious Affiliation, and AIDS-related Discrimination in Sub-Saharan Africa

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Abstract

Considerable stigma and discrimination is attached to HIV/AIDS in various parts of sub-Saharan Africa (and certainly throughout the world), in spite of high prevalence rates. Some of the blame for perpetuating such discrimination continues to fall upon organized religion (Christianity and Islam), which remains a central institution in many Africans' lives and tends to advocate sexual conservatism. However, little evidence exists to support the suggestion that religious ideologies breed discrimination and stigma about HIV/AIDS. Drawing upon Demographic and Health Survey data from six sub-Saharan countries with elevated seroprevalence rates, we evaluate the effect of religious affiliation on different forms of AIDS discrimination, paying close attention to possible confounding effects of ethnic group membership. In most analyses, religious affiliation is unrelated to discrimination *after* accounting for ethnicity – a key predictor of discrimination. Where affiliation does remain significant, Muslims and people who practice other non-Christian religious traditions tend to report more discriminatory attitudes.

Introduction

Considerable stigma and discrimination is attached to HIV/AIDS in various parts of sub-Saharan Africa (SSA), in spite of high prevalence rates (Parker and Aggleton 2003). In much of SSA, AIDS is experienced as incurable, degenerative, often disfiguring, and is associated with an "undesirable death" (Nzioka 2000). HIV infection becomes for many, then, an enduring characteristic that relegates them to a socially negatively evaluated category (Goffman 1963; Herek 2002). Persons who believe that HIV can be spread through casual social contact are more likely to fear and discourage contact with HIV-positive individuals. While most recognize that HIV is not communicated through normal social interaction, its presence is so widespread that the threat of infection may *appear* random and *seem* inevitable (Watkins 2004). AIDS-related stigma (and fear of discrimination) in turn diminishes the likelihood that infected persons will reduce high-risk sexual practices, seek voluntary counseling and testing (VCT), and—where available—the effective care and treatment of HIV and other STDs (Bos, Schaalma, and Mbwanbo 2004; Herek 2002; Kalichman and Simbayi 2003).

In the absence of available treatment, felt stigma undermines personal efforts at planning for one's own and one's family's future. Active discrimination further curbs already limited life chances in such areas as earnings, housing, health, and life (Link and Phelan 2001). Effective treatment, on the other hand, can—where accessible—transform a consumptive disease into a manageable condition that is invisible to others (Castro and Farmer 2005). In turn, HIV-positive persons can be re-integrated into society. In other words, the social experience of HIV/AIDS is profoundly affected by access to effective therapy. Much more is known about AIDS stigma in the West, where the affected populations tend to be very different than in SSA, and lower overall seroprevalence generally push AIDS out of public view.

Some of the blame for such stigma has been trained upon Christian churches and Muslim mosques are central institutions in most Africans' lives and tend to preach sexual conservatism. Organized religion is regularly accused of being silent, even complicit, in the mistreatment of persons with AIDS (PWA), of neglecting their imperative to love and care for the sick. Exactly whether organized religion is in fact blameworthy for promoting or failing to contest AIDS-based discrimination is unknown—evidence of any systematic stigmatizing or discrimination among religious traditions does not currently exist.

Drawing upon Demographic and Health Survey data from six sub-Saharan countries with acute HIV/AIDS crises, we evaluate the effect of religious affiliation on different forms of AIDS discrimination, paying close attention to possible confounding effects of tribe or ethnicity. Several research questions guide our analyses: How prevalent are AIDS-based discriminatory practices in different African countries? Are there differences in discriminatory practices among different religious traditions? Do these patterns vary by gender? By country? Is ethnicity a better predictor of discrimination than religion? Are apparent religious effects on AIDS-based discrimination *really* about religion, or are they explicable in terms of ethnicity, education, or urban/rural differences?

Distinguishing Stigma from Discrimination

No social scientific study of stigma and discrimination gets far without making reference to Erving Goffman's seminal work. Goffman (1963: 3) locates stigma as "an attribute that is deeply discrediting," one that diminishes the bearer "from a whole and usual person to a tainted, discounted one." As Herek (2002) notes, stigma is different from prejudice and discrimination. Prejudice is a negative attitude (an evaluation or a judgment) toward a member of a social group. It resides in the mind of the individual, whereas stigma resides in the structure of social relations within a society.

In contrast to stigma, discrimination tends to be active, referring to differential treatment of individuals according to their membership in a particular group, and primarily concerns the producers of rejection and exclusion (Link and Phelan 2001). The distinction has led social scientists to understand stigma as a relatively static characteristic (Parker and Aggleton 2003). This is suboptimal for the study of AIDS-based stigma, since the epidemic itself is dynamic—varying widely in prevalence between communities and countries—and the nature of the disease exhibits a lengthy dormant course followed by gradual disfiguration (Alonzo and Reynolds 1995). Discriminating and overt prejudicial sentiment are nevertheless not necessary for stigma to exist. Felt stigma may motivate people to hide their condition, rather than pursue possible treatments. In the case of HIV/AIDS, felt stigma may prevent access to counseling and effective therapy, as well as undermine personal efforts at planning for one's own (and family) future. Most definitions of stigma do not include discrimination, yet stigmatized persons often experience it (Link and Phelan 2001).

In turn most social science research on AIDS-based stigma and discrimination comes from social psychologists, whose approach primarily concerns the perspective of persons who are stigmatized, as well as how augmenting knowledge may assist in eradicating stigma (Kalichman and Simbayi 2003; Parker and Aggleton 2003). As a result, studies tend to generate information about individuals' knowledge and attitudes about AIDS-related stigma in various settings, but this information is often de-contextualized from larger social phenomena (Castro and Farmer 2005). While the model that asks "what-makes-person-A-discriminate-against-person-B" is inadequate for fully understanding the consequences of stigmatizing, it is nevertheless more than social scientists tend to accomplish (Fiske 1998; Link and Phelan 2001). Indeed, much less attention has been paid to social and structural sources of HIV-related stigma and discrimination, such as patterns of dominance and oppression, and the larger historical context of cultural power relations (Castro and Farmer 2005; Herek 2002; Link and Phelan 2001; Marshall 1998).

Religious Sources of Stigma and Discrimination?

Religion and ethnicity are two sources of structured social relationships within African society. That is, they often shape local expression of power, privilege, and exclusion. Those in ethnic and religious minorities commonly experience less power and privilege, although the seeds of prolonged conflict are more likely to exist where such minorities enjoy power in excess of their numeric representation (e.g., pre-genocide Rwanda). Christian and Islamic religious organizations are believed by many to be key mechanisms for sustaining AIDS-related stigma or at least failing to contest discrimination, since they remain central institutions in many Africans' lives and tend to advocate sexual conservatism (Ahiante 2003; Atatah 2004; Moonze 2003; World Bank 1997). Cape Town Anglican Archbishop Njongonkulu Ndungane, suggests that more churches are contributing to AIDS stigma than fighting it (*The Houston Chronicle*, June 13, 2004).

The primary reason for the presumed link between religion and stigma is the presumption of nonmarital sexual behavior and its status as immoral conduct. As a result, the sexual risk behaviors that make people vulnerable to HIV/AIDS are generally interpreted as moral transgressions, which may function to further distance HIV-positive individuals from organized religion, in turn deepening their stigmatization. Alonzo and Reynolds (1995) go so far as to suggest that organized religion may not only reinforce stigma, but may offer little comfort to the infected. Social support to the sick and dying requires they "accept the perspective of the condemners" (1995: 311).

Ironically, organized religion is also thought to be a primary means by which AIDS-related stigma and discrimination are *combated*. The primary texts of Christianity and Islam—the Bible and the Koran—do not easily lend themselves to justifying poor treatment of the outcast. Indeed, examples of congregations and religious NGOs (e.g., World Vision's *Hope Initiative*) actively combating stigma abound (e.g., Gatheru 2002; Komakech 2003). Nevertheless, such anecdotal evidence still conveys the impression that the *average* congregation or religious individual is prone to discrimination.

However, little empirical evidence exists to support the suggestion that religious ideologies actually breed discrimination and stigma about HIV/AIDS. Moreover, ethnicity and tribal affiliation often—though certainly not always and everywhere—correlate with religious affiliation. As a result, ethnic or tribal norms may either mask real religious influence on HIV/AIDS discrimination or may itself be a driving force behind the apparent association. That is, the real story may be about ethnic or tribal inclinations (or social class tendencies) to stigmatize and discriminate—not religious ones.

Data

The data for this analysis comes from the Demographic and Health Surveys (DHS), which collect information for a range of countries that participate in the DHS program on different topics, including marriage, fertility, planning, reproductive health, child health and HIV/AIDS. The program was established in 1984 as a follow-up to the World Fertility Survey and Contraceptive Prevalence Survey projects. It has been implemented in several overlapping phases. The data used in this analysis corresponds to the DHS+ phase. The DHS project collects data for a sample of households. Within a household, women are eligible for an individual interview if they are of reproductive age (15-49). Men's questionnaires were applied only to a sub-sample of households. As a result, the women's sample size is larger than the men's.

We include six Sub-Saharan countries: Ethiopia (year 2000), Kenya (2003), Malawi (2000), Namibia (2000), Zambia (2001/02) and Zimbabwe (1999). The two criteria used to select these countries was their location in Southern or Central Africa where the HIV/AIDS crisis is most dire (i.e., the AIDS Belt), and their collection of *both* religious affiliation and AIDS discrimination or stigmatization data.

Measures

Dependent Variables

We evaluate three AIDS-related discrimination outcomes in this study, although not all of them were asked in all six countries. The most widely representative outcome is the respondent's willingness to take care of a relative with AIDS, for which data is available in all six countries. The question was posed in each country as follows: "If a relative of yours became sick with AIDS, would you be willing to care for her or him in your own household?" Possible answers included yes, no, and "I don't know." From these we constructed a dichotomous dependent variable, coding "yes" answers as 0 and "no" or undecided answers as 1, to indicate a discriminatory response. While we could have dropped cases that replied to the question with "I don't know," we reason that even these answers suggest a likely discriminatory response, given that extended family ties are strong across much of the continent.

The second outcome variable concerns teaching, created from the original question "If a teacher has the AIDS virus but is not sick, should he or she be allowed to continue teaching in school?" This item was asked in Kenya and Namibia. In this case, as with the first outcome, positive answers were coded as 0 and negative or undecided answers as 1.

Finally, a dichotomous variable about labor-force discrimination was created form the original question "Should persons with the AIDS virus who work with other persons such as in a shop, office, or farm be allowed to continue their work or not?" This question was only asked in Malawi. Here, as before, we coded positive answers as 0 and negative or undecided answers as 1. A summary description of all the variables can be found in Table 1.

Independent Variables

The key independent variable of interest is religious affiliation. Respondents were offered a list of affiliation categories which varies both in number and in clarification across countries, ranging from a list of seven choices in Malawi to a list of three in Namibia. The original information was then recoded into a series of dichotomous measures (e.g., Roman Catholic). In general, the original categories were maintained, except for residual responses, which were pulled into the category "No religion/Traditional/Other." The reference category is Protestant in four countries. In Malawi and Zimbabwe, however, there was no such response choice. In these cases, CCAP (Church of Central African Presbyterians) and Christian, respectively, are the reference category.

A second important variable is ethnicity, since it is often related to religious affiliation. It is incorporated into the analysis as a series of dichotomous variables, the number of which varies by country. The reference category is always the largest ethnic group in the country; small ethnic groups comprising less than five percent of the country's total were grouped together and labeled as the category "other."

Four control variables were also included: age, urban/rural residence, working status and educational attainment. Age was included as an ordinal variable, with nine values, corresponding

to five-year intervals, ranging from 15 to 60. Residence is a dichotomous indicator of whether the respondent lives in an urban or rural area (the reference category). Working status is a dichotomous indicator of whether the respondent is currently working. Level of education is an ordinal measure of education, with six categories ranging from no education to post-secondary. We considered several other control measures, including literacy, relationship to the head of the household, and marital status, but chose not to include them in the final models presented here, because their effects were consistently insignificant.

Analytic Approach

We use logistic regression modeling to distinguish religious from ethnic effects on AIDS-related discrimination. Three models are displayed for each outcome (and in each country), split by gender. The samples were not joined in order to avoid a possible strong dependence effect, since men and women in the DHS come from the same household. The first model only includes the set of religious affiliation variables, evaluating significant differences between them. The second model adds the set of ethnicity controls, and the third incorporates the other control variables. The ethnic and control variable coefficients are not shown in the tables, since we are much less concerned about any given variable's effect than we are in how their inclusion in the models shapes the associations between religious affiliations and the outcomes of interest (as well as model fit).[1] The samples were weighed using the DHS cluster number as the primary sampling unit and the sample weight, in keeping with DHS data analysis instructions (Rutstein and Rojas 2003).

Results

Table 2 displays the percentage distribution of religious affiliation and AIDS-related discrimination in the six study countries. As noted above, DHS respondents in each country clearly differed in the number of religious categories they were offered—from as few as Catholic and Protestant (or none at all) in Namibia to seven possible categories in Malawi. Of particular interest, however, are the distributions in the discrimination variables. Half of all men and women in Ethiopia appear unwilling to take care of a relative who is sick with AIDS. This would seem outrageous to most Malawians: well over 94 percent of both men and women indicated they would take care of such a sick relative. In fact, Ethiopia is a remarkable outlier in this—in no other country did even 15 percent of respondents indicate an unwillingness to do this. There are only modest gender effects evident in Table 2: women in all countries except Namibia and Zambia appear slightly more likely to want to avoid caring for a relative sick with AIDS (perhaps because they would inordinately bear the brunt of such responsibility).

Willingness to care for a relative with AIDS, however, taps into strong cultural expectations about familial responsibility, some of which may affect responses to this measure. The second and third discriminatory outcomes are much more common: in Kenya around 38 percent of respondents indicated a teacher with AIDS (who was not visibly sick) should *not*

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[1] As will become evident from the results, however, the series of ethnicity measures and the set of control variables are often very statistically significant, suggesting a close connection between them and AIDS-based discrimination. Displaying so many coefficients—including numerous different ethnic group names—seemed unnecessary for our purpose here, which is to assess the contribution of organized religion to such discrimination.

continue teaching; the same was true of 28 percent of women and 43 percent of men in Namibia. Additionally, in Malawi 50 percent of women and 46 percent of men indicated that someone with AIDS who also works in proximity to other people should *not* continue working. These figures give indication that while the "caring for a sick relative" is indeed a measure of discrimination, it is a far less salient one than the other pair, which concern people who are not family members (who would experience a different set of social obligations than family members).

With this in mind, Table 3 displays odds ratios from logistic regression estimates predicting being unwilling to take care of a relative who is sick with AIDS. Three sets of religious affiliation coefficients and model fit statistics are presented for each of three models (in vertical order), split by gender: the first with only affiliation, the second adding ethnicity, and the third adding controls for age, urban/rural residence, educational attainment, and working status.

Unwillingness to Care for a Relative with AIDS

In Ethiopia—by far the site of the most intense opposition to caring for a sick relative— men and women that identified as orthodox Christian (akin to Eastern Orthodox or Coptic Christians) were significantly less likely than Protestants to indicate an unwillingness to care for a sick relative. However, the addition of the set of ethnicity variables in Model 2 reduced the apparent effect to insignificance. A modest aggravating effect of professing another or a traditional religion (in Model 2) diminished with the four control additions in Model 3. Among Kenyans, Muslim men and women exhibited significantly greater likelihood of discriminating against a sick relative than Protestants, but this too failed to hold up with a control for ethnicity. In the Malawi DHS, which measured religious affiliation more carefully, both Muslim women and those who said they were some "other Christian" continued to stand out (from Presbyterians) as more unwilling to care for a relative sick with AIDS. For women, the association of Muslims with greater discrimination remains significant even after all control variables are included. No association was apparent among men in Malawi. In Namibia, Roman Catholic women are less willing to care for a sick relative than Protestant women, even after all controls. The same association among Namibian men diminishes with the addition of ethnicity. Catholic men in Zambia—but not women—are likewise less willing to care for a sick relative than are Protestant men there, even after all control measures are included. No association is evident among Zambian women. Finally, a strong effect remains stable in Zimbabwe: respondents professing African Traditional Religion (ATR) are less willing than Christians (Protestants and Catholics were not distinguished in their DHS) to take care of a relative who is sick with AIDS.

While distinguishing between groups—both with and without control variables—can be a challenge, it pays to step back and evaluate how religious affiliation fares at distinguishing AIDS-based discrimination against family members, itself an uncommon occurrence in all countries except Ethiopia. Out of a possible 44 religious affiliation coefficients (22 for each gender) that *could have been statistically significant*, only 12 were significant in the simplest models, seven after controlling for ethnicity, and five were significant after adding controls for age, urban residence, working status, and educational attainment.

Another way of evaluating the contribution of religion to AIDS-based discrimination in these models is by assessing the influence of adding ethnicity and the other four control variables to the model fit statistics. In no model does religious affiliation account for *more than two percent* of the explained variance in this form of AIDS-based discrimination. By contrast, adding ethnicity alone accounts for an additional *two to five times as much* variance in the outcome as

religion did. The same is true for adding the four control variables, which boost the total explained variance (in discriminating against family members) to anywhere from two to 15 percent. Suffice it to say, then, that religion does not add a great deal of value to the effort to predict this form of discrimination against family members with AIDS. There are much more statistically significant associations (not shown) between ethnic groups and with the four control measures.

Discriminating against Teachers with AIDS

A question about whether teachers who are infected with HIV/AIDS (but who are not visibly sick) should be allowed to continue teaching in school was asked in two countries only—Kenya and Namibia. Table 4 displays odds ratios from logistic regression models predicting disapproval of such an arrangement.[2] In Kenya, Muslim men and women each were significantly more likely than Protestants to display this form of discrimination, although both associations do not stand up with ethnic controls (in Table 2). Men and women who said they either practiced African Traditional Religion or no religion at all were likewise more apt than Protestants to disapprove of such teachers, even after accounting for ethnicity, but not with the addition of the other four controls (in Model 3). In Namibia, Catholic women (but not men) were consistently more likely than Protestant women to discriminate against such teachers, regardless of control variable effects. A strong aggravating effect of practicing African Traditional Religion or no religion (among women in Namibia) weakens considerably with the ethnicity addition and disappears altogether with the other controls.

Thus out of 16 possible religious affiliation coefficients, 7 are significant in initial models, 3 after ethnic controls, and *only one* after all controls. A look at the explained variance reinforces this: in all four samples, religious affiliation accounts for *less than one percent* of variance in discriminating against teachers with HIV/AIDS. Adding ethnicity dwarfs religious the effects of religious affiliation, and the four control variables boost explained variance considerably further, to between five and 14 percent of total variance in the outcome.

Discriminating against Working with AIDS

Only in Malawi (among southern African countries) did the DHS ask questions both about religious affiliation and about people with AIDS in the labor force. As noted above, nearly half of all interviewees indicated that "persons with the AIDS virus who work with other persons such as in a shop, office, or farm" should not be allowed to continue their work. Given the better precision of religious measurement in the Malawi DHS, it is not surprising that more associations are evident. Most associations involve women. Compared with Presbyterian women in Malawi, Muslim and "other Christian" women are more likely to disapprove of people with AIDS continuing to work around other people. On the other hand, Seventh-day Adventist women were significantly less likely to discriminate in this manner than Presbyterian women. Both the

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[2] Some caution should be employed when evaluating this measure. The sexually predatory nature of not a few male schoolteachers in Africa is widely understood and may affect how DHS respondents understand this survey question. Other surveys, including the Malawi Diffusion and Ideational Change Project, have further specified "female schoolteacher" in order to distinguish true AIDS-based discriminatory practices from the fear of some male schoolteachers' sexual practices.

Muslim and Seventh-day Adventist associations persist through the addition of all control variables. Among Malawian men, several associations (with Catholics, "other Christians" and Muslims) appear but do not persist through all models. As in the other two sets of analyses, religious affiliation explains little variance in AIDS-based work-related discrimination. Adding the series of ethnicity measures doubles the explained variance, while the four control variables boosts it even further, and clearly constitute much more effective predictors of discrimination than religion. Nevertheless, out of 12 possible associations, four are significant in the first model, five in the second, and three in the final set of coefficients.

Conclusions

AIDS-based discriminatory attitudes remain fairly common in different African countries. Although conceiving of turning out a family member sick with AIDS is uncommon in all countries we examined except Ethiopia, misgivings about HIV-positive teachers and workers are common—held by one-third to one-half of the DHS interviewees.

Organized religion, however, should not be blamed for this. In most of the countries we evaluate, religious affiliation is only sporadically (not systematically) associated with three forms of AIDS-based discrimination *after* accounting for ethnicity, which is a far more effective predictor of such discrimination than organized religion. Where religious affiliation remains significant, Muslims and those who practice other non-Christian religious traditions tend to report more discriminatory habits than Protestants, which tend to display the least AIDS-related discrimination, followed by Roman Catholics. Nevertheless, few of these associations are strong ones. When split by gender, religious distinctions in discriminatory attitudes tend to be slightly more pronounced (as distinct from prevalent) among women than men. In most countries and in most models (not shown) ethnic or tribal distinctions remained significant predictors of discrimination, suggesting that ethnicity far outweighs religious sources of AIDS-related discrimination in sub-Saharan Africa.

In other words, AIDS-based discrimination in sub-Saharan Africa is largely *not about religion*. Anecdotal evidence can always be produced to document cases of religious leaders railing against people suffering from AIDS, and shunning may seem associated with the practice of organized religion. Yet discriminatory actions are far more often the result of complex ethnic and tribal cultural patterns and practices, suggesting that more localized, village-based group norms are a far more common and primary source of discriminatory attitudes than those that might emanate from an occasional church or mosque. The product of age effects, education, work status, and rural/urban distinctions are also much more common than effects of a religious origin. The glass may also be half empty for organized religion, however. While religion does not seem to contribute to discrimination, neither does any religious tradition stand out as uniquely aggressive in undermining stigma and reducing discrimination.

As Parker and Aggleton (2003: 21) lament, students of AIDS stigma and discrimination (and those who would seek to diminish the same) often fail to consider "…the deeper social, political and economic causes of stigma and stigmatization." The resilience of such stigma and discrimination in spite of high seroprevalence rates testifies to "both their complex nature and their high degree of diversity in different cultural settings" (Parker and Aggleton 2003: 14). While we have documented how organized religion tends not to be a key source of AIDS-based discrimination, we have not addressed how or why those who suffer from AIDS have come to be stigmatized, and have only noted that organized religion is not a widespread, active reinforcer of such social exclusion. That is a far greater challenge.

Among the limitations of this analysis are the DHS' mediocre religious affiliation measures. Improvements in them could clarify associations that may in fact exist. However, Malawi's DHS religion categories are quite adequate, and while the story of religious distinctions in discriminatory practices are more evident there, the conclusion remains (in Malawi as in other countries) that organized religion is *not* a key source of discrimination.[3] A second limitation is the time ordering problem, which is unavoidable: the discrimination outcomes are measured at the same time as religious affiliation. However, ethnicity is an exogenous variable, and for that reason poses little threat to assumptions about the direction of effects. Additionally, religious affiliation (and unmeasured religiosity) *may* change in response to the experience of stigma and discrimination. We thus make no claims concerning the causal effects of religion, only about distinguishing religious associations from ethnic ones. Finally, while responses to the AIDS-based discrimination measures may be subject to social desirability bias, the direction of such bias is unknown, and would not likely vary by religious affiliation.

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[3] Follow-up analyses from the much more comprehensive treatment of religion in Malawi—available in the Malawi Diffusion and Ideational Change Project further support the Muslim conclusions noted above, and suggest that with better measurement, clearer distinctions may appear but the substantive story that AIDS-based discrimination is largely *not* about religion will likely remain.

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Table 1. Description of Variables.

Variable	Code
Willing to take care for a relative who becomes sick with AIDS in her/his own household *(Relative)*	0=Yes 1=No or Don't Know
Believes a teacher who has the AIDS virus but is not sick should be allowed to continue teaching in school *(Teaching)*	0=Yes 1=No or Don't Know
Believes persons with AIDS virus who work with other persons such as in a shop, office, or farm should be allowed to continue their work *(Working)*	0=Yes 1=No or Don't Know

Variable	Type/Code
Religious Affiliation	Nominal, it varies by country (see Table 3)
Ethnicity	Nominal, it varies by country (see Table 3)
Control Variables	
Age	Ordinal (nine 5-years intervals, from 15 to 60)
Residence	Dichotomous (urban=1, rural=0)
Working Status	Dichotomous (1=currently working, not=0)
Educational Attainment	Ordinal (0=no education, 1=incomplete primary, 2=complete primary, 3=incomplete secondary, 4=complete secondary, 5=higher)

Table 2. Percentage Distribution of Religious Affiliation and AIDS-related Discrimination in the Study Countries.

Description	Ethiopia Women	Ethiopia Men	Kenya Women	Kenya Men	Malawi Women	Malawi Men	Namibia Women	Namibia Men	Zambia Women	Zambia Men	Zimbabwe Women	Zimbabwe Men
Religious Affiliation												
Catholic	1.15	0.42	25.15	26.64	23.57	24.27	18.88	23.05	23.89	24.84	-	-
Protestant	16.14	15.93	67.77	61.75			79.07	74.52	74.71	71.77	-	-
Muslim	27.51	31.14	5.54	5.28	12.44	12.72	-	-	0.28	0.44	0.5	1.2
Traditional	2.83	2.94	-	-	-	-	-	-	-	-	3.44	14.07
Orthodox	52.38	49.58	-	-	-	-	-	-	-	-	-	-
CCAP					18.82	19.64	-	-	-	-	-	-
Anglican					2.8	3.34	-	-	-	-	-	-
Seventh					6.54	4.69	-	-	-	-	-	-
Christian					-	-	-	-	-	-	84.55	65.81
Other					34.28	31.09	-	-	-	-	-	-
No religion	-	-	1.53	6.33	1.56	4.24	2.06	2.42	1.12	2.96	11.51	18.92
Discriminatory Outcomes												
Don't want to take care of relative	54.65	49.85	13.06	10.83	5.61	3.71	6.03	6.63	8.08	9.2	12.38	11.59
Shouldn't continue teaching	-	-	39.29	37.44	-	-	27.99	43.19	-	-	-	-
Shouldn't continue working	-	-	-	-	50.23	46.47	-	-	-	-	-	-
N	12,646	2,426	6,879	3,248	12,249	3,010	5,901	2,623	6,460	1,987	5,679	2,583

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Table 3: Odds Ratios from Logistic Regression Estimates Predicting Being Unwilling to Take Care of Relative who has AIDS of Religious Affiliation.

Odd Ratio	Women						Men					
	Ethiopia	Kenya	Malawi	Namibia	Zambia	Zimbabwe	Ethiopia	Kenya	Malawi	Namibia	Zambia	Zimbabwe
Model 1												
Orthodox	0.476*** (0.055)						0.553** (0.103)					
Catholic	1.234 (0.515)	0.921 (0.091)	1.221 (0.21)	2.163*** (0.375)	0.926 (0.105)		0.511 (0.288)	1.056 (0.174)	1.235 (0.473)	1.769* (0.394)	1.347 (0.26)	
Muslim	0.785† (0.11)	2.7*** (0.451)	2.05*** (0.37)			1.035 (0.714)	0.908 (0.204)	2.463** (0.708)	1.548 (0.59)			0.579 (0.61)
Traditional/Other/None	1.485 (0.371)	1.463 (0.509)	1.962† (0.69)	2.441** (0.824)	1.4 (0.48)	1.518*** (0.178)	1.577 (0.555)	1.452 (0.396)	1.583 (1.031)	1.408 (0.751)	0.527 (0.266)	1.515** (0.206)
Anglican			1.016 (0.307)						1.767 (1.042)			
Seventh			0.559* (0.161)						2.389 (1.274)			
Other Christian			1.394* (0.227)						1.259 (0.453)			
Pseudo R-Square	0.0198	0.0119	0.0099	0.0158	0.0004	0.0037	0.0153	0.0087	0.0053	0.0085	0.004	0.0063
Model 2												
Orthodox	0.938 (0.121)						1.115 (0.252)					
Catholic	1.347 (0.49)	0.918 (0.091)	1.293 (0.223)	1.582** (0.233)	0.905 (0.106)		0.538 (0.325)	1.031 (0.172)	1.25 (0.482)	1.414† (0.293)	1.563** (0.316)	
Muslim	1.166 (0.176)	1.121 (0.232)	2.497*** (0.462)			1.05 (0.706)	1.342 (0.361)	0.871 (0.298)	1.903 (1.237)			0.564 (0.598)
Traditional/Other	1.691* (0.434)	1.402 (0.481)	1.873 (0.669)	1.242 (0.45)	1.416 (0.489)	1.509*** (0.177)	1.917† (0.707)	1.492 (0.425)	1.389 (0.929)	0.866 (0.48)	0.576 (0.296)	1.622*** (0.235)
Anglican			1.003 (0.299)						1.661 (1.011)			
Seventh			0.73 (0.221)						2.621† (1.444)			
Other Christian			1.566** (0.263)						1.257 (0.461)			
Pseudo R-Square	0.0528	0.0425	0.0257	0.0731	0.0116	0.0168	0.0692	0.0293	0.0128	0.0751	0.0254	0.0129

(Continues…)

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Table 3: Odds Ratios from Logistic Regression Estimates Predicting Being Unwilling to Take Care of Relative who has AIDS of Religious Affiliation. (*Continuation*)

Effect	Women						Men					
Model 3	Ethiopia	Kenya	Malawi	Namibia	Zambia	Zimbabwe	Ethiopia	Kenya	Malawi	Namibia	Zambia	Zimbabwe
Orthodox	0.843						0.954					
	(0.096)						(0.24)					
Catholic	1.668	0.849	1.079	1.476**	0.857		0.504	1.001	1.183	1.296	1.696**	
	(0.572)	(0.085)	(0.191)	(0.217)	(0.105)		(0.29)	(0.166)	(0.487)	(0.293)	(0.335)	
Muslim	0.903	1.072	1.853**			1.01	1.057	0.776	1.648			0.536
	(0.126)	(0.242)	(0.362)			(0.68)	(0.305)	(0.295)	(1.025)			(0.575)
Traditional/Other	1.185	1.108	1.237	1.031	1.212	1.39**	1.341	1.259	1.197	0.732	0.409	1.553**
	(0.299)	(0.366)	(0.443)	(0.387)	(0.429)	(0.158)	(0.499)	(0.344)	(0.87)	(0.385)	(0.214)	(0.233)
Anglican			0.953						1.584			
			(0.291)						(0.992)			
Seventh			0.687						2.738†			
			(0.216)						(1.499)			
Other Christian			1.158						1.116			
			(0.202)						(0.409)			
Pseudo R-Square	0.1028	0.0765	0.0655	0.0923	0.0478	0.021	0.1233	0.0779	0.036	0.1491	0.0691	0.021
N	12,646	6,879	12,249	5,901	6,461	5,679	2,426	3,248	3,010	2,623	1,980	2,583

Notes: Standard errors appear below the coefficient, in parentheses. The first model includes just the reported religious affiliation as independent variable. The second model adds the reported ethnicity, and the third include controls for age, residence, working status and educational attainment.

† p < .10   * p < .05   ** p < .01   *** p < .001   (two-tailed tests)

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Table 4: Odds Ratios from Logistic Regression Estimates Predicting Disapproval of a Person with AIDS Continuing to Teach.

Effect	Women		Men	
	Kenya	Namibia	Kenya	Namibia
Model 1				
Catholic	1.129	1.414***	1.114	1.072
	(0.096)	(0.139)	(0.109)	(0.163)
Muslim	1.662***		1.549*	
	(0.237)		(0.314)	
Traditional/Other/None	1.747*	2.126*	1.418*	0.903
	(0.424)	(0.631)	(0.241)	(0.291)
Pseudo R-Square	0.0033	0.0051	0.0028	0.0002
Model 2				
Catholic	1.087	1.397***	1.093	1.107
	(0.088)	(0.129)	(0.104)	(0.176)
Muslim	0.882		1.179	
	(0.161)		(0.31)	
Traditional/Other	1.792*	1.751†	1.538**	1.043
	(0.446)	(0.518)	(0.245)	(0.349)
Pseudo R-Square	0.0283	0.0404	0.0272	0.0057
Model 3				
Catholic	0.971	1.309**	1.051	0.986
	(0.077)	(0.125)	(0.104)	(0.157)
Muslim	0.863		1.142	
	(0.181)		(0.316)	
Traditional/Other	1.254	1.492	1.074	0.954
	(0.333)	(0.419)	(0.176)	(0.326)
Pseudo R-Square	0.1253	0.0786	0.1416	0.0519
N	6,879	5,901	3,248	2,623

Notes: Standard errors appear below the coefficient, in parentheses. The first model includes just the reported religious affiliation as independent variable. The second model adds the reported ethnicity, and the third include controls for age, residence, working status and educational attainment.

† p < .10   * p < .05   ** p < .01   *** p < .001   (two-tailed tests)

Table 5: Odds Ratios from Logistic Regression Estimates Predicting Disapproval of a Person with AIDS Continuing to Work.

Effect	Malawi	
	Women	Men
Model 1		
Catholic	1.089 (0.081)	0.848 (0.118)
Muslim	1.265** (0.113)	1.133 (0.172)
Traditional/Other/None	1.382 (0.322)	1.092 (0.28)
Anglican	0.881 (0.136)	0.767 (0.229)
Seventh	0.604*** (0.061)	0.735 (0.158)
Other Christian	1.26*** (0.087)	1.407* (0.198)
Pseudo R-Square	0.0063	0.0086
Model 2		
Catholic	1.146† (0.084)	0.873 (0.12)
Muslim	1.561*** (0.17)	1.567* (0.355)
Traditional/Other	1.43 (0.32)	1.022 (0.257)
Anglican	0.921 (0.14)	0.735 (0.22)
Seventh	0.709*** (0.071)	0.856 (0.184)
Other Christian	1.373*** (0.094)	1.491** (0.206)
Pseudo R-Square	0.0148	0.016
Model 3		
Catholic	0.988 (0.069)	0.729* (0.101)
Muslim	1.225* (0.124)	1.205 (0.279)
Traditional/Other	1.01 (0.223)	0.703 (0.181)
Anglican	0.88 (0.14)	0.727 (0.258)
Seventh	0.662*** (0.064)	0.835 (0.171)
Other Christian	1.082 (0.07)	1.181 (0.172)
Pseudo R-Square	0.0405	0.0576
N	12,249	3,010

Notes: Standard errors appear below the coefficient, in parentheses. The first model includes just the reported religious affiliation as independent variable. The second model adds ethnicity, and the third include controls. † p < .10 * p < .05 ** p < .01 *** p < .001 (two-tailed tests)