A Radio Drama's Effects on HIV Attitudes and Policy Priorities: A Field Experiment in Tanzania

Abstract: A growing body of evidence investigates how mass media interventions to address HIV/AIDS influence knowledge, stigma, and openness to discussing HIV status. The present study shows that in addition to these effects, mass media interventions influence cognate policy preferences, including support for access to HIV/AIDS medical care. A condensed (2 hour) version of a popular Swahili radio drama was presented to rural Tanzanians as part of a placebo-controlled experiment randomized at the village level. A random sample comprising 1,200 participants were interviewed at baseline and invited to attend a presentation of the radio drama, and 83% attended. 95% of baseline respondents were re-interviewed two weeks later. In addition to increased knowledge and support for transparency, the radio drama produced sizable and statistically significant effects on prioritization of policies to increased access to HIV/AIDS treatments and on vote choice for hypothetical candidates promising improved HIV/AIDS treatment.

Keywords: entertainment education, media, attitudes, HIV/AIDS

Word count: 4,434

Introduction

A growing body of research investigates the effects of media and entertainment education ("edutainment") on knowledge, stigma, and transparency about HIV/AIDS (Banerjee et al., 2019; Bertrand, 2005; LaCroix et al., 2014). These interventions are generally premised on one or both of the following theories. First, changing *individual beliefs* about the risks of HIV/AIDS, the pathways of HIV transmission, and the efficacy of HIV treatments reduces risky behaviors and promotes the adoption of effective treatments (Bogale et al., 2011; McGill & Joseph, 1996; Valente & Bharath, 1999; Vaughan et al., 2000; Xiaoming et al., 2000). Second, reducing *stigma* around HIV/AIDS decreases the harmful social effects of living with HIV and encourages HIV positive people to disclose their status and seek medical care (Bekalu et al., 2014; Creel et al., 2011; O'Leary et al., 2007).

However, the burgeoning literature on edutainment strategies to address HIV/AIDS has generally neglected a third channel of media influence: changing the *political preferences* of citizens with respect to government provision of HIV/AIDS medical care. In addition to their effects on individual knowledge and social attitudes, narrative media interventions may increase citizen demands for government action by highlighting the social costs of HIV/AIDS and the value of government health services, especially in areas where those services are generally unavailable.

In this study, we present evidence from a field experiment in Tanzania's northeastern Tanga Region designed to test the effects of an entertainment education campaign to address HIV/AIDS. The radio drama *Wahapahapa* was developed by a Tanzanian media organization to increase awareness of HIV/AIDS treatments, reduce stigma towards HIV positive individuals, and thereby increase listeners' willingness to disclose their HIV status. We conducted a cluster-randomized trial testing the effects of exposure to a condensed version of *Wahapahapa* in 30

villages in Tanga. In addition to measuring standard outcomes about knowledge, stigma, and transparency, we also include two novel measures of policy preferences about access to HIV/AIDS medical care.

Our findings demonstrate the powerful influence that entertainment education can have on both the salience of public health issues and policy preferences. When political attitudes were measured two weeks after exposure to the radio program, villagers assigned to the treatment group were substantially more likely to rank HIV/AIDS treatment as a top community priority (more than one village-level standard deviation) and gave 16 percentage points more vote support to a hypothetical candidate running on a platform to increase access to medical care. These effects are much larger than corresponding effects on health awareness and outlook. The radio drama significantly increased knowledge about HIV/AIDS treatments and increased respondents' willingness to share their status, but we found no statistically significant effect on stigma reduction.

This study's focus on policy attitudes is inspired by Wakefield et al.'s (2010) call for research designs that capture alternative pathways by which media campaigns affect public health outcomes, including setting the agenda of public discussion and increasing demand for community and political action (Abroms & Maibach, 2008; Hornik, 2002; Wallack & Dorfman, 1996). A number of non-experimental studies suggest that media campaigns operate by stimulating political change (Yanovitzky & Bennett, 1999; Yanovitzky & Stryker, 2001). By focusing primarily on health knowledge and outlook, scholars evaluating entertainment education may be overlooking policy-relevant effects on community priorities and demand for health services. However, to our knowledge, no randomized trial has directly assessed the effect of entertainment education on these outcomes.

The study also builds on prior research on edutainment and public health in Sub-Saharan Africa. A prior quasi-experimental research design in Tanzania found that a radio drama campaign affected attitudes, behaviors, and discussions around HIV (Vaughan et al., 2000) and family planning (Rogers et al., 1999). Recent randomized evaluations of mass media campaigns to affect public health outcomes in Sub-Saharan Africa have found similar success: Sarrassat et al. (2018) show that a mass media campaign affected health seeking behaviors by new mothers in Burkina Faso; Banerjee et al. (2019) show that public health messages embedded in a popular television show improved HIV/AIDS knowledge, attitudes, and testing behaviors; and Green et al. (2020) show that short films increased willingness to report intimate partner violence. We extend this line of research by investigating whether entertainment education dramatizations of HIV/AIDS also influence political preferences.

Method

Setting

The intervention was conducted in Tanga, a northeastern region of Tanzania. Tanga is statistically similar to other rural parts of the country. According to the 2017 Tanzanian Human Development Report, the human development indicator score for Tanga Region is 0.65, compared to a 0.61 average on the Tanzanian mainland as a whole (UNDP, 2017). Literacy rates among those age 15 or older are 82% among males and 70% among females (DHS, 2010). Limited state capacity is evident throughout rural Tanga -- there are few paved roads, little electrification, and no sewage infrastructure. Although immunization rates have increased markedly since the 1990s, hospitals and clinics remain rare outside of urban areas.

With regard to HIV in particular, the nationwide 2016-2017 Tanzania HIV Impact Survey (MoHCDEC, 2017) found 8.7% of rural households have at least one HIV-positive member, and prevalence in Tanga is similar to rural Tanzania as a whole. Roughly two-thirds of Tanzanian adults report having been tested for HIV in the past, but this rate is lower in rural areas. Of HIV-positive individuals in Tanga, 43% were unaware of their status, underscoring the importance of testing and access to antiretroviral drugs (ARVs). Persons living with HIV face stigma. Among respondents in Tanga 15 and older, 29% said no to either the question "Would you buy fresh vegetables from a shopkeeper or vendor if you knew that this person had HIV?" or "Do you think that children living with HIV should be able to attend school with children who are HIV negative?"

Intervention

The radio drama was a 1 hour and 50-minute abridged audio screening of *Wahapahapa*, a serialized Swahili radio drama written and produced by Media for Development International (MFDI). The plot of the abridged version of *Wahapahapa* concerns Ray, a young musician living in a town who comes to terms with his own HIV positive status. The narrative also follows Ray as he discloses his status to his romantic partner, employer, and friends, and receives their support in seeking out antiretroviral drugs and medical support from clinics and physicians. The plot is especially focused on Ray modelling the process of seeking out appropriate medical care, and the positive impact of anti-retroviral drugs on his well-being.

Placebo villages received a 1 hour and 45-minute abridged audio screening of *Tamapendo*, a serialized Swahili radio program developed by the NGO UZIKWASA that focused on reducing support for early and forced marriage (EFM). The effects of the placebo on EFM-related opinions are reported in a separate study. For purposes of the present study, the key feature of this abridged

version of *Tamapendo* is that it makes no mention of HIV or access to medical care. Thus, the placebo is expected to have no influence on the outcome measures of interest here.

In both treatment and placebo villages, 40 randomly selected respondents were invited to attend a community screening of the abridged radio drama. In each village, a single screening was held in the early evening to accommodate respondents' work obligations. The screenings were held in a classroom or other indoor community meeting place near the center of town, and attendees were provided light snacks and refreshments. At all sites, two members of the research team briefly discussed the logistics of the screening and provided refreshments mid-way through the event but did not formally moderate the sessions.

It is common for Tanzanians to listen to the radio together rather than alone. In our sample, 54 percent of respondents who reported listening to the radio reported that they sometimes listened with other members of their community. Moreover, data from a nationally-representative survey in 2017 shows that Tanzanians often report listening to the radio despite having no radio in their own household, suggesting that at least some of these respondents are listening with others. For example, close to 30% of respondents in the nationally-representative Afrobarometer Round 7 who report neither owning a radio nor living in a household that owns a radio nevertheless report listening to the news via radio a few times a week or every day.

Site Selection

The study sites comprised 30 rural villages distributed evenly across 15 wards in Tanzania's northeastern Tanga Region. Sites were eligible for inclusion if they met the following criteria: (1) villages did not border a main or secondary road and were at least 8km from a major town, to focus the study on rural citizens and limit the risk of attrition, and (2) villages were at least 4km from

any other selected village, to minimize the risk of spillovers. In wards containing three or more eligible villages, we randomly selected two villages.

Random Assignment and Blinding

We assigned villages to experimental groups after blocking at the ward level. Figure 1 shows the geographic distribution of treatment and placebo villages. Each letter represents a distinct ward; upper or lower case reflects treatment or placebo assignment, respectively.

[FIGURE 1 HERE]

Because the study was designed as a placebo-controlled trial, we made every effort to maintain symmetry between experimental groups when encouraging participation in the listening events. Enumerators conducting baseline surveys were blind to the treatment assignment of each village so that their encouragement to participate could not be affected by the content of the audio drama. Consistent with the assumptions of our design, attendance rates were nearly identical in treatment villages (82.80%) and placebo villages (82.84%).

Respondent Sampling

In each village, we employed a four-step strategy to identify study participants. First, the research team used satellite maps to identify the approximate village radius as 200, 400, 600 or 800 meters from the village center. Second, a census team listed all households living within the village radius, as well as the age and gender of household members between 18 and 65. Third, the census team's survey software randomly selected 20 households for the female respondent group and 20 households for the male respondent group, and randomly selected a household member of the targeted gender. Female respondents were interviewed by women, and male respondents were interviewed by men. Fourth, if an individual of the targeted gender and age range was not available

from the household during the census phase, the household was dropped and a replacement household was randomly selected.

Data Collection

The baseline survey was rolled out consecutively across wards so that the treatment and placebo pair in each ward received the baseline survey, audio screening, and end-line evaluation at similar points in time. An overview of the data collection timeline appears in the online appendix. Cooperation rates were extremely high. The initial sample of 1,200 respondents completed a baseline survey and were invited to attend a screening with others surveyed from their village three or four days later. Of the baseline respondents, 998 (82.8%) attended. The end-line survey team collected outcome measures 13-16 days after the village screenings, regardless of respondent attendance. 95% of baseline respondents completed the end-line survey.

Ethics

The research team took a number of steps to ensure the autonomy and well-being of study participants. First, we carefully developed and deployed the screening intervention to ensure that the message would not do psychological harm to individuals living with HIV/AIDS. MFDI, the non-governmental organization that produced *Wahapahpa*, conducted extensive pilot testing of the content to ensure that the program did not produce adverse effects. The data collection team also shared daily qualitative reports about community discussion and feedback following each screening to ensure that the screenings were not promoting anti-HIV stigma or having other adverse consequences. We received no negative reports about the reception of *Wahapahpa* during the intervention.

Second, we designed the data collection process to ensure that neither the baseline nor endline surveys undermined the safety of research participants. We worked closely with Tanzanian researchers to ensure that the wording of questions, in particular questions about HIV status and stigma, were phrased so that they did not pressure respondents to disclose their HIV status or produce negative emotional effects. We also assigned female surveyors to female respondents and conducted surveys in private to help ensure that respondents were as comfortable as possible during the survey.

Outcome Measures

The primary outcomes are measured by responses to the endline survey. English translations of the Swahili survey questions used to measure each outcome are provided in the online appendix.

Knowledge. Like other evaluations of HIV-related entertainment education interventions, ours attempts to assess gains in knowledge from information provided via the drama. The five knowledge questions focus on familiarity with ARVs, mother-to-infant transmission of HIV during pregnancy, and confidence in traditional healing methods for HIV.

Stigma Attitudes and Norms. Another set of outcome measures assesses whether the drama's message reduced HIV stigma, or negative attitudes towards HIV-positive people. In addition to its adverse social and psychological consequences, HIV stigma contributes to the spread of HIV because it reduces the likelihood that HIV-positive people will disclose their status and seek treatment. (Mbonu et al., 2009). To measure stigma against HIV-positive people, two questions asked whether the respondent would be willing to work alongside or cohabitate with an HIV-positive person. Respondents were also presented with the scenario, "Do you think a young

boy with HIV should be allowed to play football with other boys?" Finally, respondents were asked whether they perceived that others in the community would feel about working alongside an HIV-positive person.

Disclosure. Disclosure of one's HIV status is another prominent theme in the drama. Four questions measure the respondent's willingness to disclose to his/her spouse, family, friend, and co-worker; a fifth question asks whether the respondent would want a family member to disclose his/her HIV status.

Discussion. Finally, we measure three outcomes that gauge the importance that respondents accord HIV as a policy concern. The first question invites respondents to reflect about a list of topics they may have discussed with friends or family during the past two weeks. One of the listed items is HIV/AIDS; this measure is scored 1 if the respondent indicates discussing this topic, 0 otherwise. We view discussion as a potential first step in media's influence on political priorities. According to the classical two-step flow of communication model developed by Lazarsfeld (1944), media shapes local political priorities by influencing local opinion leaders who then disseminate their views through discussion with the wider community.

Community Priorities. A second measure of priorities gauges the importance accorded to HIV compared to other "goals for your village." Respondents were handed a set of cards, each with the name and image associated with a given goal: reduce the number of people who do not have enough food to eat; reduce the incidence of forced marriage; increase the number of roads; increase the availability of electricity; reduce the amount of crime; and increase the availability of medicine for HIV/AIDS. Respondents were asked, "Please choose the three that are currently the most important to you, and the item that is least important." The resulting scale ranges from 0 (HIV rated least important) to 4 (HIV ranked first). To avoid contamination by the placebo

treatment, we removed the priority ranking associated with forced marriage. For example, if a respondent ranked forced marriage as their top priority and HIV as their second priority, we coded HIV as the respondent's top priority. This recoding scheme results in a scale that ranges from 1 (HIV rated least important or unranked) to 4 (HIV ranked first or ranked second if forced marriage is ranked first). In the Appendix, we show that results are robust to alternative coding strategies.

Electoral Priorities. The final measure of policy importance is expressed through a series of votes in a hypothetical local election. Using randomly rotated candidate names signaling different gender and religions, we pitted candidates against one another, each running on a different platform. One candidate seeks to "increase the availability of medicine for HIV/AIDS," while the other candidate's platform is to improve the quality of roads in the village or to reduce the amount of crime. The outcome variable is scored 1 if the candidate running on the HIV platform attracts the respondent's vote; 0 otherwise. In control sites, the correlation between HIV-driven vote choice and access to HIV health care as a village policy goal is 0.28.

Although these electoral choices are hypothetical, the survey took place two months before local elections were planned in Tanzania, and the platforms were chosen because they reflected plausible priorities advocated by candidates for village chairperson. Tanzania, despite being a dominant party regime where the ruling Chama Cha Mapinduzi (CCM) political party has won elections since independence in 1961, regularly hosts competitive legislative and local elections. This political competition drives the dominant CCM party to provide public goods and services to ensure large governing majorities (Rosenzweig, 2015). All political parties, including the CCM, campaign on detailed party platforms that initiate and frame national as well as local political debate during and after elections, and such campaigning on policy toward providing public goods

and services existed even during the one-political party era when only the ruling political party was allowed to field candidates in elections (Bowles, 2020).

Statistical Analyses

In order to estimate the effects of the radio drama on attitudes and political preferences, we perform a series of ordinary least squares regressions. In line with the pre-analysis plan, the pool of subjects is restricted to compliers, i.e. those who complied with the invitation to attend a radio screening (either the treatment screening on HIV stigma or the placebo screening on early and forced marriage). Because villagers were unaware of their assignment to the treatment or placebo condition until they attended the screening, we can be confident that compliers in each condition are comparable (Green, Wilke, and Cooper 2020). This assumption is confirmed by nearly identical rates of compliance in the treatment and placebo condition and the fact that the two groups have statistically indistinguishable background attributes (Campbell and Walters, 2014).

Let y_i denote the survey outcome for any subject j, and d_j denote this subject's assigned treatment (1 if HIV, 0 if early and forced marriage). The regression model

$$y_j = \beta d_j + \gamma_l ward_{1j} + \gamma_2 ward_{2j} \ldots \gamma_{kj} ward_{kj} + u_j$$

expresses the outcome as a linear function of the randomly assigned treatment, indicator variables for each of the wards (blocks), and an unobserved disturbance term u_j. The key parameter of interest is β, which represents the average causal effect among compliers (CACE). This regression estimator is similar to the difference-in-means estimator, since the block indicators are orthogonal to the assigned treatment. Because assignment to treatment occurs at the village level, we report clustered standard errors. Exact p-values are calculated using randomization inference under the sharp null hypothesis of no treatment effect for any subject (Ludbrook & Dudley, 1998).

Results

Baseline Characteristics

Table 1 reports the baseline characteristics of individuals who attended screenings in treatment and placebo-assigned villages. As expected, random assignment is not significantly correlated with pre-treatment characteristics of screening attendees. Analysis of pre-treatment balance between treatment and placebo groups across all baseline variables appears in the online appendix. Of 41 pre-specified pre-treatment covariates, two covariates (4.8%) show differences between treatment and placebo attendees greater in magnitude than the largest 5% of differences obtained under 10,000 hypothetical re-randomizations, and four covariates (9.7%) show differences larger than the largest 10%.

[TABLE 1 HERE]

Findings

Knowledge. Table 2 shows the effect of the *Wahapahapa* screening on a variety of standard outcomes from previous research on mass media interventions to address HIV/AIDS: knowledge, stigma attitudes and norms, and status disclosure. Our first outcomes relate to *knowledge* about HIV treatment and HIV transmission. As noted above, we asked respondents five questions about HIV treatment and transmission. Three questions reflect the drama's recurrent narrative, the necessity and efficacy of ARVs. Two of the questions related to information conveyed only in specific scenes: the possibility of mother-to-child HIV transmission in pregnancy and the ineffectiveness of alternative herbal treatments. In line with our pre-analysis plan, we constructed a knowledge index by averaging the number of correct responses out of five questions. On average, villagers who attended the *Wahapahapa* radio drama answered 0.29 more questions about HIV

treatment and transmission correctly (out of 5) than villagers in the placebo group. The drama was particularly effective at increasing knowledge about the main topic of the drama, ARVs, while its effects on knowledge about transmission and non-traditional treatments was weaker and not statistically distinguishable from zero. Taken together, these results suggest that the radio drama conveyed knowledge only about HIV/AIDS topics that were depicted repeatedly.

Disclosure. Did *Wahapaha* increase the willingness of respondents to speak openly about HIV/AIDS? The radio drama directly modelled HIV status disclosure. A central plotline in the drama concerned whether the main character would share his HIV status with his boss and family. When he does share his status, his family and coworkers are accepting and supportive. Modeling disclosure in this way appears to have affected listeners' attitudes. Respondents who attended the *Wahapahapa* screening were 9.17 percentage points more likely to say that they did not want their family members to keep their HIV status a secret. We also asked respondents whether they would keep their *own* HIV status a secret from their spouse, family, friends, or coworkers if they were HIV positive. Averaged across the four categories, respondents were willing to disclose to 0.29 more groups (out of 4). The radio drama's effect was strongest for sharing with coworkers and friends, but the effect on sharing with one's spouse is small and not statistically significant. These results suggest the dramatization encouraged disclosure in most but not all contexts.

Stigma Attitudes. Next, we turn to the effect of *Wahapahapa* on stigma towards people with HIV/AIDS. We asked respondents about their acceptance of HIV positive individuals in three contexts. The first two questions related to the primary types of stigma modelled by the drama: acceptance of HIV positive persons in the household and the workplace. The third question addressed a type of stigma not discussed in the drama: a respondent's willingness to allow their child to play football on the same team as an HIV positive child. Somewhat surprisingly, we find

no evidence that *Wahaphapa* increased the acceptance of individuals with HIV/AIDS in any of these domains.

Stigma Norms. However, when we asked respondents about whether *other villagers* would accept an HIV positive person in the workplace, we found suggestive evidence that the radio drama reduced *perceived* stigma on the order of one-half of a village-level standard deviation, although this estimate falls short of the conventional 0.05 level of statistical significance. The radio drama's muted effects on stigmatizing attitudes may be explainable in part by low baseline levels of stigma. The proportion of respondents in control villages who were unwilling to accept an HIV positive person in the three scenarios ranged from 4 to 10 percent.

[TABLE 2 HERE]

[TABLE 3 HERE]

Discussion with others. Finally, we turn to the effect of *Wahapahapa* on policy priorities. Table 3 reports the effect of the radio drama on three outcomes: discussion with others, community priorities, and electoral priorities. We find that *Wahapahapa* dramatically increased respondents' discussions about HIV/AIDS. Table 3 shows that respondents who attended the *Wahapahapa* screening were 18.5 percentage points more likely to report having discussed HIV/AIDS. This effect represents a shift of approximately two village-level standard deviations.

Community Priorities. Table 3 also demonstrates a profound shift in the priority ranking that respondents assign to the goal of "increasing the availability of medicine for HIV/AIDS." The radio drama substantially increased respondents' prioritization of HIV/AIDS, by more than a village-level standard deviation. Respondents were 12 percentage points more likely to rate HIV/AIDS among their top two priorities, and ranked HIV 0.35 points higher, on average ($p < 0.01$

in both cases.) We obtain similarly strong results if we use a nonlinear estimation method, such as ordered probit, to estimate effects without assuming that the outcome is anything more than a series of ordered categories. The first panel of Figure 2 shows the comparison in average HIV/AIDS priority ranking between villagers in treatment and placebo villages. The average priority ranking of each village is represented by a letter, and treatment and placebo villages in the same ward share a capital and lowercase letter, respectively. Figure 2 leaves no doubt that the treatment led to a marked increase in the HIV/AIDS priority ranking.

Electoral Priorities. Did shifts in community priorities correspond to changes in electoral preferences? When asked to choose between two hypothetical candidates running for village chairperson in Tanzania's impending local elections, respondents who attended the *Wahapahapa* screening were 15.8 percentage points more likely to vote for a candidate espousing a platform to increase access to HIV/AIDS care as opposed to a candidate who proposes to improve roads or crack down on stealing in the village ($p < 0.01$). To put this in perspective, the average vote share received by such a candidate in the control group was just 34.8%. The second panel of Figure 2 shows the comparison in vote share of the candidate advocating increased HIV/AIDS care in treatment and placebo villages. Whether we consider the overall shift in vote percentage or the shift within each village pair, the apparent effect is both large and high statistically significant.

[FIGURE 2 HERE]

Social Desirability Bias

Were the positive reported effects of *Wahapahapa* the result of misreporting by research participants? There are several reasons to believe that social desirability bias did not substantially alter the results. First, the design and implementation of the study attempted to reduce the risk of

desirability bias by using different personnel for the audio screening and the surveys, and keeping the survey team blind to the treatment status of each village. The survey team also made it clear to respondents that their responses were anonymous and would not influence any future programming in their village. Second, the results of the study do not follow the pattern we would expect to see if social desirability were operative. We find little effect of the audio screening on several of the outcome measures where the message of the audio screening was most clear, such as willingness to work and live with an HIV positive person. Similarly designed studies, including analysis of the placebo drama's effects on attitudes towards gender hierarchy and violence against women, also show weak or mixed effects, which suggests that respondents do not feel compelled to affirm edutainment messages in subsequent surveys (Green et al., 2020; Paluck, 2010).

Conclusion

The rapid growth and development of the entertainment education literature in health has seen randomized trials assess a wide array of media formats, ranging from brief advertisements to feature films, deployed in countries that range widely in terms of economic development. The basic conclusion from this literature is encouraging: dramatizations typically generate positive effects on health-related perceptions and behaviors (Orozco-Olvera et al., 2019; Shen & Han, 2014; Wakefield et al., 2010). The focus of the present study is whether, in addition, entertainment education shapes the policy priorities of the audience.

Not only do we find effects that are statistically significant approximately two weeks after exposure; these effects are substantively large by almost any standard. Whether we consider the issues that respondents rank as priorities for their village or the votes they would cast for hypothetical candidates running on different issue platforms, exposure to the HIV/AIDs themed radio drama increased the priority given to this issue by a village-level standard deviation or more.

Our data cannot speak to the question of whether these effects endure over longer stretches of time, but they certainly suggest that this drama was capable of shaping priorities over a time frame that is roughly comparable to the span of an election campaign.

The question going forward is whether entertainment education routinely shapes policy-related priorities across different issue domains, and whether the effects persist beyond the two week time frame we consider here. It may be that the information conveyed about retroviral drugs was especially striking to Tanzanian villagers, who were unaware of this technological breakthrough and wanted to enjoy its benefits. Or it may be that policy priorities are relatively labile and subject to influence by dramatizations such as *Wahapahapa*. Our hope is that more studies of this kind will gauge policy priorities so that we can better understand the conditions under which dramatization exerts political influences on health-related outcomes.

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Table 1: Baseline Demographic Characteristics and Attitudes

Dependent variables	HIV Drama Group (n = 593)	Placebo Drama Group (n = 612)	RI p-value
A. Demographic Characteristics			
Age, years, *M (SD)*	38.29 (11.86)	38.53 (12.01)	0.831
Education, years, *M (SD)*	7.14 (3.21)	7.33 (3.06)	0.550
Male, %	49	52	0.442
Married, %	66	66	0.931
Born in village, %	56	58	0.708
B. Religion, %			
Muslim	65	65	0.953
Christian (non-denominational)	13	12	0.921
Christian (catholic)	13	10	0.465
Christian (specific protestant denomination)	10	13	0.683
C. Media Access, %			
Own TV	31	33	0.563
Own Radio	80	78	0.497
Own Cell Phone	14	19	0.853
D. Baseline HIV Attitudes			
Aware of HIV, %	99.80	99.80	0.700
Believe its safe for HIV+ person to work with kids	44	45	0.771
Comfortable sitting with HIV+ person on bus	92	91	0.768
Witnessed HIV+ exclusion (# of 4 situations), *M (SD)*	0.78 (0.85)	0.79 (0.79)	0.909

Notes: M = mean, SD = standard deviation. Randomization inference p-values based on 10,000 re-randomizations. All values are for compliers (respondents who attended the screenings)

Table 2: Knowledge, Disclosure, and Stigma Outcomes by Treatment Group

Dependent variables (%)	Treatment Drama Group (n = 507)	Placebo Drama Group (n = 491)	ATE	SE	RI p-value	Village SD	N
A. Knowledge							
Knowledge Index (Average # correct of 5 questions)	3.39	3.11	0.29	(0.05)	0.003	0.27	868
1. Aware of ARVs (no prompt)	19.92	12.65	7.68	(1.74)	0.003	0.09	997
2. Aware of ARVs (with prompt)	76.24	67.48	8.99	(2.71)	0.023	0.16	994
3. Aware of any drug to treat HIV/AIDS	87.18	80.61	6.80	(2.00)	0.026	0.09	997
4. Aware mother can transmit HIV during pregnancy	60.44	57.27	3.62	(2.72)	0.161	0.13	895
5. Believe prayer / alt. medicines can cure HIV (-)	92.11	92.01	0.00	(1.79)	0.497	0.05	957
B. HIV+ Status Disclosure							
Would want HIV+ family member to disclose status	75.49	66.33	9.17	(2.30)	0.011	0.12	996
Would disclose HIV+ status to… (Average of 4 groups)	2.82	2.53	0.29	(0.09)	0.031	0.47	998
1. Spouse,	86.39	85.74	0.42	(2.54)	0.472	0.11	998
2. Family	89.35	82.69	6.63	(2.06)	0.023	0.11	998
3. Friend	55.03	44.20	10.92	(3.67)	0.031	0.18	998
4. Coworker	50.89	40.33	10.70	(3.09)	0.020	0.16	998
C. HIV Stigma Attitudes							
Unwilling to work with HIV+ person (-)	84.62	91.04	-6.50	(3.61)	0.446	0.05	998
Unwilling to share house with HIV+ person (-)	95.46	96.33	-0.93	(1.24)	0.365	0.02	998
Young HIV+ boy can play football with others	91.42	89.81	1.60	(1.57)	0.119	0.03	982
D. HIV Stigma Norms							
Perceive others unwilling to work with HIV+ person (-)	89.74	85.56	4.20	(2.10)	0.109	0.07	975

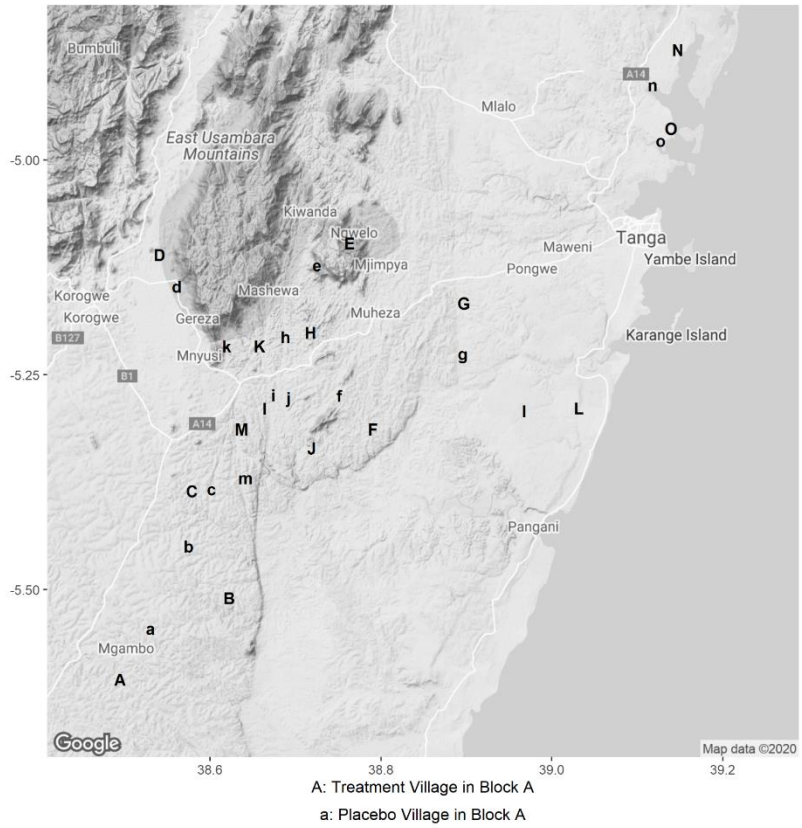
Notes: M = mean, SD = standard deviation, (-) = value of variable reversed, ATE = average treatment effect, SE = standard error, RI = randomization inference (10,000 re-randomizations), N = sample size. ATE estimated using Ordinary Least Squares (OLS) regression, with blocked fixed effects at the ward level. All values are for compliers (respondents who attended the screenings).

Table 3: Political Outcomes by Treatment Group

	Treatment Drama Group (n = 507)	Placebo Drama Group (n = 491)	ATE	SE	RI p-value	Village SD	N
A. Discussion							
Discussed HIV previous two weeks, %	58.97	40.73	18.46	(2.16)	0.001	0.09	998
B. Community Priorities							
HIV Priority Ranking (Average Rank 1-4), *M (SD) Placebo Item (FM) Rank Removed**	1.87 (1.17)	1.51 (0.89)	0.35	(0.06)	<0.001	0.24	998
HIV Priority Ranking (Average Rank 0-4), *M (SD) Placebo item (FM) Rank Included*	1.64 (1.25)	1.24 (0.83)	0.40	(0.06)	0.003	0.19	998
HIV Ranked Top 2 (Placebo Item Removed 0-1) *% Placebo Item (FM) Rank Removed**	29.20	16.00	12.10	(0.02)	0.002	0.10	998
C. Electoral Priorities							
Vote for candidate with HIV platform, %	49.24	34.15	15.80	(3.73)	0.005	15.89	508

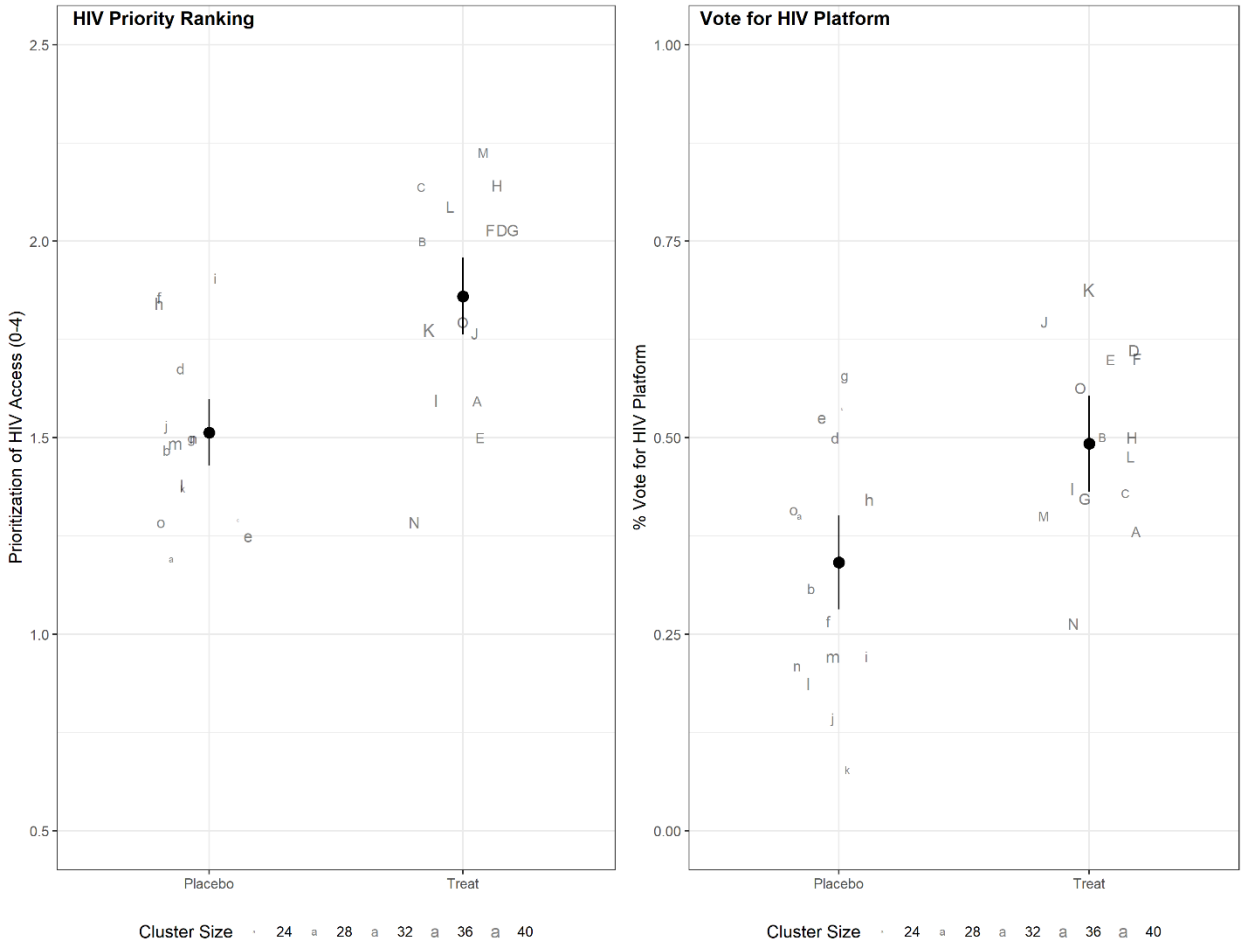
Notes: M = mean, SD = standard deviation, (-) = value of variable reversed, ATE = average treatment effect, SE = standard error, RI = randomization inference (10,000 re-randomizations), N = sample size. ATE estimated using Ordinary Least Squares (OLS) regression, with blocked fixed effects at the ward level. * = Forced marriage ranking removed before calculating outcome. See Appendix Table 3.B for details. All values are for compliers (respondents who attended the screenings)

Figure 1



Caption: Locations of treatment and placebo villages in Tanga Region. Villages in each ward are represented by a unique letter. Capital letters indicate a treatment village, lower case letters indicate a placebo village.

Figure 2



Caption: HIV-related policy priorities and electoral preferences, by treatment and placebo villages. Villages in each ward are represented by a unique letter. Capital letters indicate a treatment village, lower case letters indicate a placebo village. The size of the letter reflects the number of respondents in the village.