



Rwanda Impact Report of  
“Umurage”:  
Kinyarwanda Radio Serial Drama

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## INTRODUCTION

Population Media Center (PMC) and Umurage Communication for Development (UmC), a nonprofit organization based in Kigali, Rwanda, produced and broadcast *Umurage*. This 156-episode radio serial drama aired from June 2017 through August 2018 in Kinyarwanda, one of Rwanda's official languages. As with all PMC radio shows, *Umurage* was created using PMC's unique methodology for entertainment-education. The drama addressed the themes of child protection, youth sexual and reproductive health, child health and nutrition, and sexual and gender-based violence (SGBV).

## BACKGROUND

Rwanda is recognized as being a leader in Africa, having made great strides, both in policy and on the ground, regarding the well-being and protection of children and their rights. As the situation for many children continues to improve, however, pockets of vulnerability and detrimental behaviors remain across the country, holding back the achievement of full protection and safe development for Rwanda's children.

PMC and UmC partnered with UNICEF to include a special focus in the drama to address child protection and related issues in Rwanda including child care reform, violence, nutrition, and community child protection. UNICEF works to ensure that quality, multi-sectoral child protection services are available across the country and that the most vulnerable groups of children have access to quality child welfare services in a strengthened protective environment.

With UNICEF as partner, PMC and UmC created and broadcast a radio serial drama to change current cultural norms, attitudes, and behaviors about child protection in Rwanda. The drama also aimed to increase use of child protection services across Rwanda. To accomplish this, *Umurage* modeled awareness and use of these services, especially for poor and vulnerable children, including those living with disabilities, affected by violence, or involved in child labor. The program's narrative also supported the goals of enhanced youth sexual and reproductive health, improved gender relations and women's empowerment, issues related to the health and nutrition of children, and greater social and community cohesion. The central storyline for child protection is Dancila's Story:

*Dancila lives in Murera with her daughter, Zabayo. Abandoned by her husband, she's struggling to support herself and her daughter. Because of these difficult circumstances, Dancila tells Zabayo to drop out of school to work in her cousin Margo's bar, where she is secretly involved with drugs and human trafficking. Margo persuades her that her*

*daughter will make more money if she sends her away to work in the city as a “house girl”; Dancila agrees. Dancila has a friend who is appalled by her choice to send Zabayo away and make her work instead of being in school, but Dancila does not listen to him. When Dancila’s daughter, Zabayo, suffers an accident, Dancila realizes the horrible conditions Zabayo’s been working in and takes her home. She begins to see the negative influences of her cousin Margo and understands that it is important for her daughter to be in school. Her cousin’s bar is exposed and shut down. With the help of her friend, Dancila opens a small business and finds positive ways to support herself and her daughter.*

## RESEARCH APPROACH

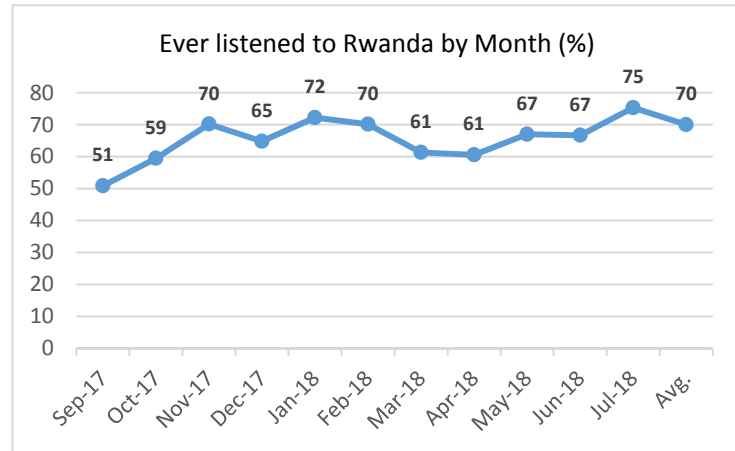
PMC used a logical framework as a means to establish goals, objectives, and indicators for each issue in the drama. To monitor and evaluate these indicators, PMC used a mixed-methods research approach. We triangulated four types of data to determine the impact of listening to *Umurage* on target audience members. During the broadcast, these included a monthly mobile phone survey using a random-digit dial method to monitor listenership, a clinic monitoring study conducted at health and child nutrition centers to assess demand creation, and a qualitative study with listeners. The fourth, a household endline study, was conducted post-broadcast and consisted of a nationally representative sample of quantitative face-to-face interviews. While UmC oversaw the qualitative participatory evaluation, Konsult Life Sciences (KLS), an independent research firm based in Kigali, conducted the clinic monitoring and endline studies. Viamo, a global social enterprise firm, conducted monthly mobile phone surveys. PMC’s Research Unit, in collaboration with the research firms, designed the research instruments with the objective of capturing listenership, demographics, and key programmatic impact indicators related to the drama’s four thematic areas listed above.



## RESULTS - LISTENERSHIP

### Monthly Phone Surveys

Monthly mobile phone surveys implemented during the broadcast asked respondents, “Have you ever listened to *Umurage*?” Results found that, on average, 70% of respondents had “ever listened” to the Kinyarwanda-language drama each month.

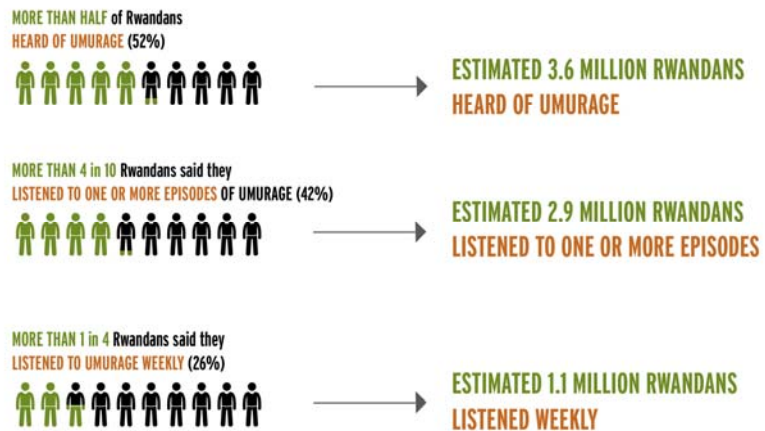


### Clinic Monitoring Study

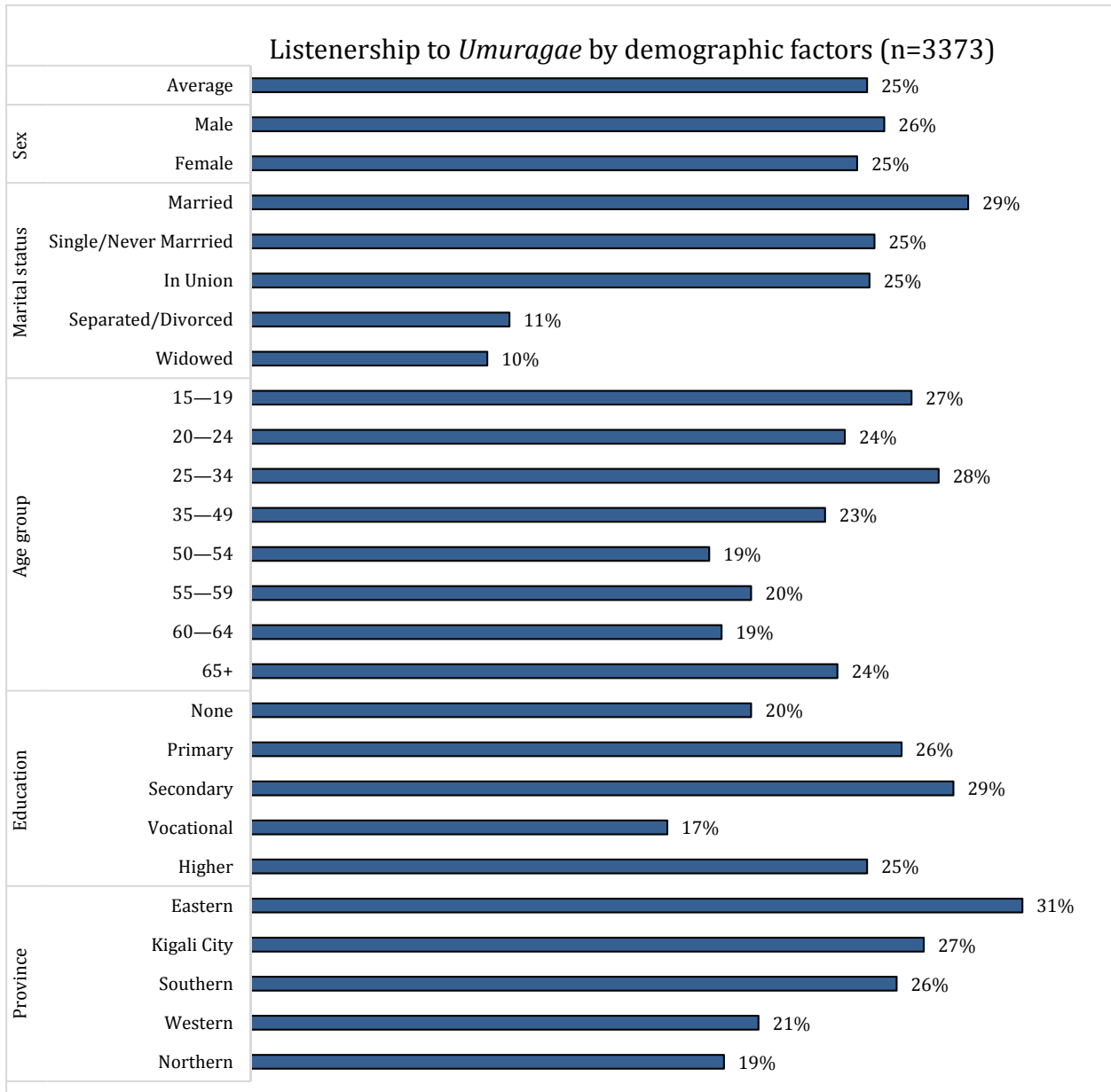
To complement the phone surveys during broadcast, we also assessed listenership as part of the clinic monitoring study conducted in July 2018. In the exit survey, interviewers asked clinic clients if they “listened to *Umurage*.” Overall, more than seven of ten clients (71%) said they listened to *Umurage*.

### Quantitative Endline Study

For the quantitative endline study conducted post-broadcast, respondents were asked, “Have you heard about the radio serial drama called *Umurage*?” Those who said “yes” were asked, “Have you listened to one or more episodes of *Umurage*?” Listeners who said “yes” were further asked, “How often did you listen to the radio serial drama *Umurage* each week?” The figure above presents listenership by level of exposure and audience estimates using United Nations population data for Rwanda.



To understand the popularity of the drama by demographic factors, we disaggregated listenership (defined as listening weekly to *Umurage*) by sex, marital status, age, education, and province (see figure below). Groups with the highest listenership included those living in Eastern Province (31%) and those with a secondary education and listeners who are married (both 29%).



Weekly listenership to *Umurage* by demographic factors

# IMPACT OF LISTENING TO *UMURAGE*

## Clinic Monitoring Study

The independent Rwandan research firm (KLS) conducted the clinic monitoring study in July 2018. The objective of the study was to monitor whether, during the broadcast, the drama motivated listeners to seek services including child protection, youth sexual and reproductive health, nutrition, and SGBV. The study sample for the drama is representative of provinces, regions, and the number of clients served by the different types of health facilities located within those provinces and regions where the national drama aired. In consultation with the research firm, the appropriate sample size for the study was determined to be 722 exit interviews of male and female clients aged 16 and older.

## Results

Of all new and continuing clients interviewed for the study, nearly one in five (20%)<sup>1</sup> said they were motivated by *Umurage* to get services<sup>2</sup>. It is of note that of the 26% of new and continuing clients that cited “radio” as their source of motivation, 74% cited *Umurage* as the motivating radio program.

To assess awareness of child protection services as well as to satisfy a required UNICEF indicator for child protection, clients were asked, “Are you aware of any services related to child protection?” Results found that:

- Of all clients interviewed, 84% are aware of child protection services.
- Those clients motivated to get services by *Umurage* (87%) are more likely to be aware of child protection services than those not motivated by *Umurage* to get services (84%).
- Listeners to *Umurage* (90%) are more likely to be aware of child protection services than nonlisteners (73%).

## Endline Study

KLS also conducted a nationally representative, cross-sectional endline survey in July and August 2018. The survey sample is representative of the target population and stratified by province. The total sample of reproductive aged individuals for the *Umurage* evaluation is 3,373

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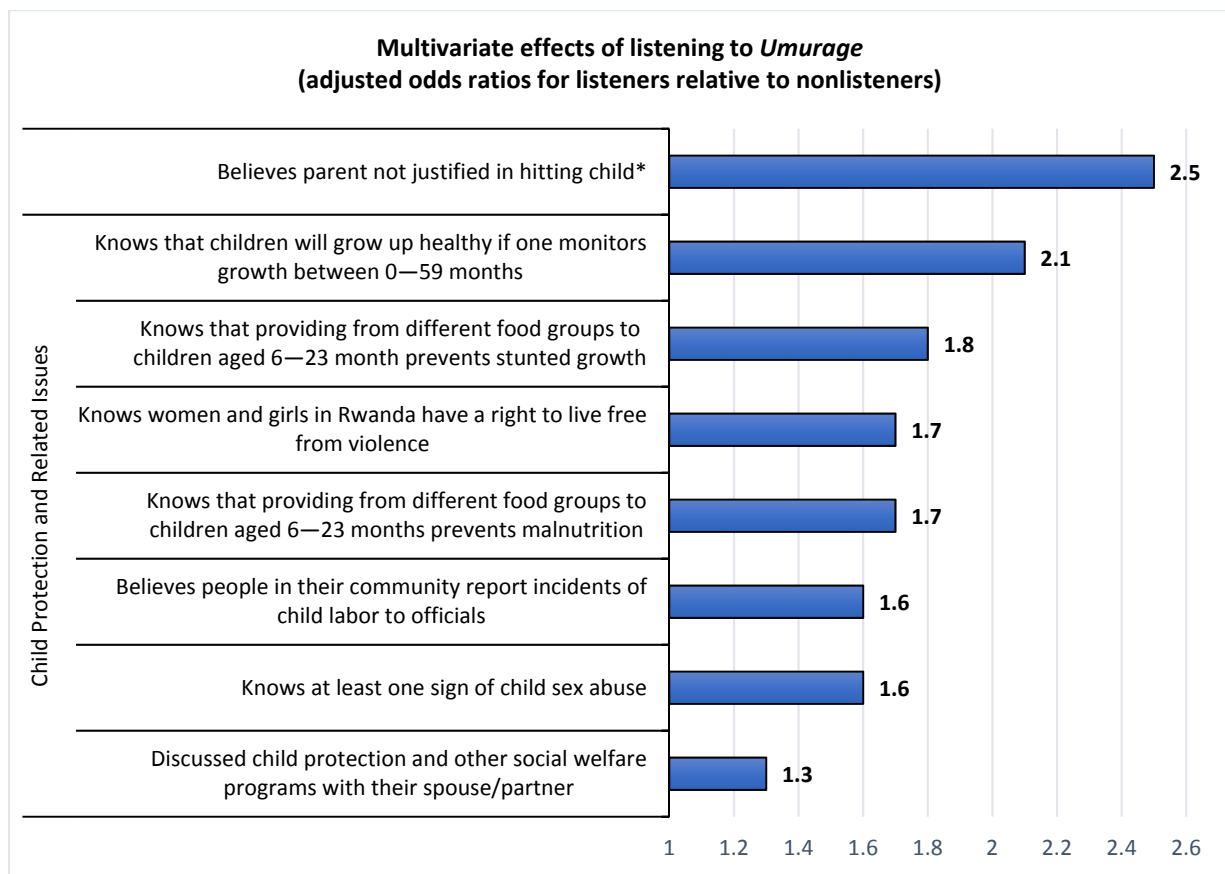
<sup>1</sup> This result is rounded upward from 19.5%.

<sup>2</sup> Percentage of new and continuing clients seeking services at sampled clinics that cited *Umurage* as the direct or indirect (i.e., motivated by an *Umurage* listener) source of information that motivated the visit on the day of the interview.

completed interviews (52% women, 48% men). The endline survey collected information on demographic factors and key programmatic indicators (from logical frameworks) while also measuring respondents’ exposure to the radio serial drama. We evaluated changes in knowledge, attitudes, and behaviors due to exposure to the radio drama by comparing listeners and nonlisteners to the drama. We made comparisons by generating odds ratios from multivariate logistic regression to determine whether differences are statistically significant after controlling for potentially confounding factors such as sex, age, number of children, marital status, education, language, province, and religion.

## Results

We present the adjusted odds ratios on the primary thematic area of child protection for *Umurage* in the figure below<sup>3</sup>.



Multivariate effects of listening to *Umurage* in adjusted odds ratios

<sup>3</sup> \*For at least one of the following reasons: (1) if they perform badly in school because of doing household chores, (2) if they disobey their parents, (3) if they are impolite to their parents, and (4) if they embarrassed the family.

Social norms, attitudes, and behaviors about child protection are some of the factors that influence the well-being of children in Rwanda. Changing these in a positive way can elevate the health status of the country's child population and will help Rwanda to achieve the Sustainable Development Goals (SDGs), especially those related to child protection.

Results from the multivariate analysis demonstrate that listening to *Umurage* affected key child protection indicators established to measure impact of the drama. The greatest impact concerned attitudes about disciplining children: Listeners were 2.5 times more likely than nonlisteners to think that a parent is not justified in hitting his/her children for any one of four reasons: (1) if they perform badly in school because of doing household chores, (2) if they disobey their parents, (3) if they are impolite to their parents, and (4) if they embarrassed the family.

Knowledge indicators were also impacted significantly — from knowing when to monitor the growth of the child and different food groups that prevent malnutrition to knowing signs of sexual abuse. One of the behavioral indicators was also impacted significantly: Listeners were 1.3 times more likely than nonlisteners to have discussed child protection and other social welfare programs with their spouse/partner. While the magnitude of this behavioral impact is lower than indicators mentioned above, behaviors are often more difficult to change than knowledge and attitudes.

In our analysis, we also found positive, but not statistically significant, impacts and one negative impact on the child protection indicators. (We discuss these findings in the Lessons Learned section below). For the majority of other thematic indicators established for the drama, we found positive and significant impacts in the endline analysis. For example, for the youth sexual and reproductive health indicators, results found that listeners were 1.7 times more likely than nonlisteners to have discussed risk behaviors related to early pregnancy with their peers in the last six months. For SGBV indicators, listeners were 2.4 times more likely than nonlisteners to think that a husband is not justified in hitting or beating his wife if she neglects the children. For comprehensive results of the endline study findings, see Appendix A.

## Qualitative Evaluation

To understand how *Umurage's* characters and storylines impacted the lives of loyal listeners, we conducted a qualitative evaluation in July of 2018. The study, conducted by UmC (with guidance from PMC) consisted of eight focus group discussions (FGDs) with loyal listeners.



## Results

The study found that participants learned from the characters in the drama and found the storylines engaging and entertaining. For example, when asked, “What did you learn about protecting your child and his/her rights? Or how has it changed your understanding on children’s rights?” one participant in a group of women aged 28–40 in Kimisagara, Kigali City, responded:

*The first thing about a child’s rights is to be fed, to have medical care, to be clean, to talk to them, just caring about the child, you pay attention to their everyday life, you let the child play with other kids. I think that’s what it [Umurage] has helped me with.*

Results from the study also found that *Umurage* prompted some listeners to take action in the area of child protection. For example, when asked, “What have you learned about child protection and child rights from *Umurage*?” one participant in a men’s group (aged 24–36) in Nyanza-Busasamana responded:

*Although I haven’t followed the whole story, I managed to get some lessons from it. I can mention child rights. For example, a child can be deprived of its rights to education for its own future and the future of the country. What I have learnt from the drama with regard to child rights in general is that a child should go to school and get whatever it needs. After listening to “Umurage” drama, I approached a neighbor’s child and asked it why it had not gone to school. It replied that it [the child] had not got money. Then I informed the leader of the village and this latter promised me to deal with this issue immediately. My reaction was stirred by the lesson that I had learnt from “Umurage” drama. I also advised it [the child] to rejoin the school for it is important for its future.*

In a focus group of men aged 28–48 years old in Kimisagara, Kigali City, the moderator asked, “Is there anything that this drama has taught you about healthy nutrition?” One participant responded:

*Other people think that healthy nutrition means meat, fries, rice and they would think that they ate well. Children have to gain weight but we have learnt that a healthy nutrition can even be easy and cheap, vegetables for 100–200 Rwandan Francs. We realized that it’s very good, and we have gained something from healthy nutrition. Someone could be poor or rich but they could still get healthy nutrition without saying that you have to spend a lot of money to buy those expensive things.*

In a group of women aged 18–29 in Gasabo, Kigali City, the moderator asked, “As a female who follows the *Umurage* drama, which scenes are crucial to you and why?” The discussion that ensued reveals the different aspects of the drama content that were touchpoints for female listeners:

***Participant 1:*** *The scene that I remember was played in Murera and Cyuza where Nzungu grew vegetables and fruit trees in order to improve nutrition in the community because Pangarasi’s family was suffering from malnutrition. He also taught them how to prepare a complete diet. It has helped me, for I have young children, and adults also need a rich diet, but it helps children grow well. It also taught us to make a kitchen garden.*

***Participant 2:*** *The scene that I liked is the story of Izabayo, where she was abused and sent to work in a pub. I liked it because it reminds me of the principle that everyone should treat a child as their own.*

***Participant 3:*** *As a female, we often experience gender-based violence, and most of the victims are female. I can refer to Queen’s story where her mother’s lover had sex with her. This is a crucial lesson for young girls. We must refrain from adultery to avoid bad consequences that may result from it.*

In a group of women aged 18–29 in Bugesera District, Mayange Sector, Cell Mbyo, the moderator asked, “Please tell me, what have you learned about sexual and reproductive health from *Umurage*?” One participant expressed that she was motivated by the drama to speak to her children about one of the topics addressed in the drama:

*After hearing the story of the young girl who was sexually abused and caught HIV/AIDS, I discussed it with my children. I am blessed to sit in the living room and converse with my children. I tell them to come and listen to the drama and I instruct them to follow what happened to a certain character. I give them an example of a young boy in the drama and warn them not to behave like him. A young boy who has sex! They may argue with me and explain that condoms are affordable. Then, I tell them that refraining from having sex is better than using a condom, but in case of failure, a condom can be used. I remind them that a condom can be torn and encourage them to abstain from sex instead of being contaminated with HIV/AIDS.*

Among both younger and older audience members, male and female, participants in the qualitative study expressed that they enjoyed listening to *Umurage* and learned something

important from one or more storylines within the drama. Participants also said that the drama spurred them to discuss the issues presented with someone, while some said they were inspired to take action because of the drama.

## CONCLUSION

Combined, the results from the mixed-methods research suggest that listening to *Umurage* benefited Rwandans, particularly as it relates to the UNICEF focus areas of child protection and nutrition. Other thematic areas showed positive impact, including GBV and youth sexual and reproductive health. Some quantitative child protection indicators from the endline study, such as knowledge of child labor, self-efficacy to get child protection services, and intention to take action when witnessing child abuse, showed little or no impact on listeners.

## LESSONS LEARNED

The team at UmC and PMC responsible for creating and broadcasting the drama engaged in a “debrief” process to examine the results of the evaluative studies and discuss what worked and what did not work. We concluded that, for most thematic areas, the drama was a success — with a robust loyal listenership, a substantial number of Rwandans listening regularly to the drama (1.1 million), and impact on most key indicators developed prior to broadcast. Most notably, UNICEF indicators for knowledge of signs of child sexual abuse and knowledge of a place to get child protection services were positively impacted.

Much of the contribution to this success rests with engaging storylines, interesting characters, and epilogues that promoted child protection and other health services — all in an informative, realistic, and relatable manner. It is important to note that in addition to the drama broadcast of *Umurage*, UmC also did community outreach as part of the program. This included youth debates, road shows, and other promotional activities that may have contributed to the impact of the drama.

As part of the “debrief,” we examined child protection indicators that were not impacted, in an effort to understand what did not work and how to improve on these learnings for the next drama.

One indicator related to knowledge was negatively impacted: We found that listeners were 51% less likely than nonlisteners to report knowledge of at least one benefit of protecting children from child labor<sup>4</sup>. In the debrief we asked our creative team to reflect on this finding:

*It is not easy to explain why nonlisteners were more likely than listeners [to know one or more benefits], but generally the issue is connected to the culture and the interpretation of what is child labor in Rwandan society. It's not clear if sending a child to fetch firewood or water is child labor or not. A lot of Rwandans believe that a child should work hard for his/her better future. Who should work and what is the type of work children should do? Those are the discussions, but in the drama we clearly explained that parents and adults should protect children from child labor. Much emphasis in coming programs should be on the benefits of protecting children from child labor with a comparison approach.*

Results from the endline also found that listening to the drama had no impact on listeners' confidence to get child protection services if they needed them: Multivariate analysis found listeners were no more likely than nonlisteners to say that they are confident they could get child protection and other social services if they needed them. (Though this self-efficacy indicator was not significantly impacted, the drama did have a positive and significant impact on the level of self-efficacy among respondents who did say they were confident they could get child protection and other social services if they needed them: When we asked, "How confident are you?" we found that listeners were 1.2 times more likely than nonlisteners to say they were "very confident" they could get child protection and other social services if they needed them).

While our clinic monitoring study found that listeners to *Umurage* (90%) were more likely to be aware of child protection services than nonlisteners (73%), the endline study found that some *Umurage* listeners may not have experienced improved self-efficacy to get such services. (Self-efficacy is a key component in PMC's Theory of Change and functions as a mediator to behavior change, in this case, having confidence to get child protection services). We asked our creative team to reflect on this finding:

*In the drama, we clearly explained the role of Inshuti Z'umuryango (IZU) (Friends of Family) at [the] local level, and one of our characters was a member of IZU. This Positive character in this theme worked a lot to demonstrate the role of IZU structure and intervened a lot when there were child protection-related issues. It has been well explained [in the drama] that there are different institutions at [the] local level that can*

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<sup>4</sup>(1) Children aged 5–11 years doing at least one hour of economic activity per week, (2) children aged 12–14 years doing at least 14 hours of economic activity per week, (3) children aged 12–14 years doing at least 28 hours of household chores per week, (4) withdrawing children aged 5–14 years from school to perform household chores, and (5) withdrawing children aged 5–14 years from school to work to provide for family's financial needs.

*provide child protection and other social services. In [the] next programs, we can focus a lot on the structure and availability of those services at local level and have a character who is totally dedicated for this work.*

Our creative team reflected on the Dancila storyline (child protection) and other possible reasons for the nonimpacted results. The writers related how the storyline featured heated and dramatic discussions with some of the families insisting that children should work while some of the characters also presented explanations of what constituted child labor. One writer indicated that another creative approach may be more impactful, especially when deciding who should be the transitional character for the child protection theme: In *Umurage*, Zubayo, the adolescent girl who was forced to work in her Uncle's bar, was not among the three main characters in the drama, and perhaps she should have been more prominent. Furthermore, this storyline may have emphasized other kinds of child protection issues such as abuse, neglect, and child trafficking, rather than child labor, all of which are UNICEF priority issues for child protection initiatives in Rwanda and should be given equal weight.

We plan to integrate into future UmC and PMC programs in Rwanda all of our team and partners' knowledge generated from these results and lessons learned, with an eye toward improving the lives of all Rwandans.

## Appendix A: *Umurage* - Descriptive Comparisons and Multivariate Logistic Regressions

### PMC Rwanda *Umurage* Endline Findings<sup>5</sup>

#### Theme: Child Protection

#### Knowledge about issues related to child protection

Descriptive Comparison: More than 9 out of 10 (92%) listeners versus 88% of nonlisteners reported knowing at least one sign of sexual abuse of children.

*Differences are statistically significant at  $p < .003$ .*

Multivariate Logistic Regression: Listeners were 1.6 times more likely than nonlisteners to report knowledge of at least one sign of sexual abuse of children.

*Adj. odds ratio = 1.560 (CI<sup>6</sup>=1.154-2.108),  $p < .004$ , controlling for sex, age, number of children, marital status, education, residence, province, and religion.*

#### Individual attitudes toward child physical and sexual abuse

Descriptive Comparison: Almost all (96%) listeners versus 90% of nonlisteners stated that a parent is not justified in hitting his/her children for any one of four reasons<sup>7</sup>.

*Differences are statistically significant at  $p < .001$ .*

Multivariate Logistic Regression: Listeners were 2.5 times more likely than nonlisteners to state that a parent is not justified in hitting his/her children for any one of four reasons stated above.

*Adj. odds ratio = 2.455 (CI=1.674-3.599),  $p < .001$ , controlling for sex, age, number of children, marital status, education, residence, province, and religion.*

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<sup>5</sup> Both descriptive and multivariate results are statistically significant if the p value is less than or equal to (.05):  $p \leq .05$ .

<sup>6</sup> CI=Confidence Interval

<sup>7</sup> Reasons: (1) if they perform badly in school because of doing household chores, (2) if they disobey their parents, (3) if they are impolite to their parents, and (4) if they embarrassed the family.

## Community attitudes toward child physical and sexual abuse

Descriptive Comparison: Almost 9 out of 10 (85%) listeners versus 79% of nonlisteners stated that people in their community report incidents of child labor to officials.

*Differences are statistically significant at  $p < .001$ .*

Multivariate Logistic Regression: Listeners were 1.5 times more likely than nonlisteners to state that people in their community report incidents of child labor to officials.

*Adj. odds ratio = 1.492 (CI=1.194-1.865),  $p < .001$ , controlling for sex, age, number of children, marital status, education, residence, province, and religion.*

Descriptive Comparison: Almost 9 out of 10 (88%) listeners versus 82% of nonlisteners stated that people in their community report incidents of rape and other sexual advances to officials.

*Differences are statistically significant at  $p < .001$ .*

Multivariate Logistic Regression: Listeners were 1.6 times more likely than nonlisteners to state that people in their community report incidents of rape and other sexual advances to officials.

*Adj. odds ratio = 1.635 (CI=1.267-2.110),  $p < .001$ , controlling for sex, age, number of children, marital status, education, residence, province, and religion.*

## Self-efficacy about seeking services related to child protection and other social services

Descriptive Comparison: An equal percentage of listeners and nonlisteners (94%) said that they are confident they can get child protection and other social services if they need them.

*Differences are not statistically significant at  $p < .548$ .*

Multivariate Logistic Regression: Listeners were no more likely than nonlisteners to say that they are confident they can get child protection and other social services if they need them. *Adj. odds ratio = 0.861 (CI=0.591-1.256),  $p < .438$ , controlling for sex, age, number of children, marital status, education, residence, province, and religion.*

Respondents who said “Yes” when asked whether they were confident they could get child protection and other social services if they needed them were then asked, “**How confident are you?**”

Descriptive Comparison: More than 3 out of 4 (77%) listeners versus 72% of nonlisteners said that they are very confident they can get child protection and other social services if they need them.

*Differences are statistically significant at  $p < .004$ .*

Multivariate Logistic Regression: Listeners were 1.2 times more likely than nonlisteners to say that they are very confident they can get child protection and other social services if they need them.

*Adj. odds ratio = 1.248 (CI=1.015-1.535),  $p < .004$ , controlling for sex, age, number of children, marital status, education, residence, province, and religion.*

## Behaviors

Descriptive Comparison: More than 2 out of 3 (69%) listeners versus 59% of nonlisteners said that they discuss child protection and other social welfare programs with their spouse/partner.

*Differences are statistically significant at  $p < .001$ .*

Multivariate Logistic Regression: Listeners were 1.5 times more likely than nonlisteners to say that they discuss child protection and other social welfare programs with their spouse/partner.

*Adj. odds ratio = 1.312 (CI=1.200-1.906),  $p < .001$ , controlling for sex, age, number of children, marital status, education, residence, province, and religion.*

## Theme: Youth Sexual and Reproductive Health

### Behaviors

Respondents were asked, “**Have you discussed any risky behaviors related to early pregnancy in the last six months with your peers?**”

Descriptive Comparison: More than 1 out of 2 (54%) listeners versus 42% of nonlisteners said “Yes.”



*Differences are statistically significant at  $p < .001$ .*

Multivariate Logistic Regression: Listeners were 1.7 times more likely than nonlisteners to say “Yes.”

*Adj. odds ratio = 1.695 (CI=1.313-2.189),  $p < .001$ , controlling for sex, age, number of children, marital status, education, residence, province, and religion.*

Respondents were then asked, “**What risky behaviors did you discuss with your peers? Accepting gifts from sugar daddies/mamas.**”

Descriptive Comparison: Almost 3 out of 5 (59%) listeners versus 56% of nonlisteners said “Yes.”

*Differences are not statistically significant at  $p < .442$ .*

Multivariate Logistic Regression: Listeners were 1.5 times more likely than nonlisteners to say “Yes.”

*Adj. odds ratio = 1.518 (CI=1.022-2.253),  $p < .039$ , controlling for sex, age, number of children, marital status, education, residence, province, and religion.*

Respondents were then asked, “**What risky behaviors did you discuss with your peers? Unsafe sex.**”

Descriptive Comparison: Fully 4 out of 5 (80%) listeners versus 53% of nonlisteners said “Yes.”

*Differences are statistically significant at  $p < .001$ .*

Multivariate Logistic Regression: Listeners were 3.9 times more likely than nonlisteners to say “Yes.”

*Adj. odds ratio = 3.895 (CI=2.414-6.286),  $p < .001$ , controlling for sex, age, number of children, marital status, education, residence, province, and religion.*

Respondents were then asked, “**What risky behaviors did you discuss with your peers? Dropping out of school due to pregnancy.**”

Descriptive Comparison: Almost 3 out of 5 (58%) listeners versus 40% of nonlisteners said “Yes.”

*Differences are statistically significant at  $p < .001$ .*

Multivariate Logistic Regression: Listeners were 2.0 times more likely than nonlisteners to say “Yes.”

*Adj. odds ratio = 1.972 (CI=1.306-2.977),  $p < .001$ , controlling for sex, age, number of children, marital status, education, residence, province, and religion.*

Respondents were then asked, **“What risky behaviors did you discuss with your peers?  
Having sex with older men/women.”**

Descriptive Comparison: Almost 3 out of 5 (57%) listeners versus 30% of nonlisteners said “Yes.”

*Differences are statistically significant at  $p < .001$ .*

Multivariate Logistic Regression: Listeners were 2.5 times more likely than nonlisteners to say “Yes.”

*Adj. odds ratio = 2.483 (CI=1.700-3.625),  $p < .001$ , controlling for sex, age, number of children, marital status, education, residence, province, and religion.*

Respondents who are parents of teenagers were asked whether they had discussed risky behaviors with their teenage children in the last six months:

**Those who said “Yes” were asked, “How often?”**

Descriptive Comparison: Almost 1 out of 2 (48%) listeners versus 31% of nonlisteners said, “Frequently.”

*Differences are statistically significant at  $p < .001$ .*

Multivariate Logistic Regression: Listeners were 2.2 times more likely than nonlisteners to say “Frequently.”

*Adj. odds ratio = 2.201 (CI=1.403-3.452),  $p < .001$ , controlling for sex, age, number of children, marital status, education, residence, province, and religion.*

**Those who said “Yes” were asked, “What risky behaviors did you discuss?”**

Descriptive Comparison: Almost 3 out of 5 (58%) listeners versus 44% of nonlisteners responded, “Having sex with older men or women.”

*Differences are statistically significant at  $p < .001$ .*

Multivariate Logistic Regression: Listeners were 1.6 times more likely than nonlisteners to respond, “Having sex with older men or women.”

*Adj. odds ratio = 1.626 (CI=1.074-2.462),  $p < .022$ , controlling for sex, age, number of children, marital status, education, residence, province, and religion.*

To assess current use of modern family planning, respondents were asked, **“Are you and your partner currently doing something or using any method to delay or avoid pregnancy?”**

Descriptive Comparison: More than 1 out of 3 (37%) listeners versus 33% of nonlisteners said “Yes.”

*Differences are not statistically significant at  $p < .071$ .*

Multivariate Logistic Regression: Listeners were 1.3 times more likely than nonlisteners to say “Yes.”

*Adj. odds ratio = 1.287 (CI=1.058-1.565),  $p < .012$ , controlling for sex, age, number of children, marital status, education, residence, province, and religion.*

**Respondents who said “Yes” were then asked, “What method are you currently using?”**

**Response: “The pill.”**

Descriptive Comparison: Almost 1 out of 10 (8%) listeners versus 5% of nonlisteners said “Yes” to the above response.

*Differences are statistically significant at  $p < .001$ .*

Multivariate Logistic Regression: Listeners were 1.9 times more likely than nonlisteners to say “Yes” to the above response.

*Adj. odds ratio = 1.865 (CI=1.316-2.631),  $p < .001$ , controlling for sex, age, number of children, marital status, education, residence, province, and religion.*

**Response: “Condoms.”**

Descriptive Comparison: More than 1 out of 10 (13%) listeners versus 7% of nonlisteners said “Yes” to the above response.

*Differences are statistically significant at  $p < .001$ .*

Multivariate Logistic Regression: Listeners were 1.9 times more likely than nonlisteners to say “Yes” to the above response.

*Adj. odds ratio = 1.934 (CI=1.454-2.574), p<.001, controlling for sex, age, number of children, marital status, education, residence, province, and religion.*

## Theme: Sexual and gender-based violence (SGBV)

### Individual Attitudes

To evaluate individual attitudinal change toward SGBV attributable to listening to *Umurage*, respondents were asked several questions and to comment on several statements.

**Question: “What are the rights of women and girls in Rwanda?”**

**Response: “Right to live free from violence.”**

Descriptive Comparison: Almost 4 out of 5 (78%) listeners versus 66% of nonlisteners said “Yes” to the above response.

*Differences are statistically significant at p<.001.*

Multivariate Logistic Regression: Listeners were 1.7 times more likely than nonlisteners to say “Yes” to the above response.

*Adj. odds ratio = 1.690 (CI=1.391-2.053), p<.001, controlling for sex, age, number of children, marital status, education, residence, province, and religion.*

**Response: “Right to own property.”**

Descriptive Comparison: Over 2 out of 5 (42%) listeners versus 38% of nonlisteners said “Yes” to the above response.

*Differences are statistically significant at p<.046.*

Multivariate Logistic Regression: Listeners were 1.2 times more likely than nonlisteners to say “Yes” to the above response.

*Adj. odds ratio = 1.217 (CI=1.031-1.437), p<.020, controlling for sex, age, number of children, marital status, education, residence, province, and religion.*

**Question: “What would you do if you witness a man beating his wife?”**

**Response: “Report the matter to village leader.”**

Descriptive Comparison: Almost 2 out of 5 (17%) listeners versus 11% of nonlisteners said “Yes” to the above response.

*Differences are statistically significant at  $p < .001$ .*

Multivariate Logistic Regression: Listeners were 1.9 times more likely than nonlisteners to say “Yes” to the above response.

*Adj. odds ratio = 1.884 (CI=1.481-2.396),  $p < .001$ , controlling for sex, age, number of children, marital status, education, residence, province, and religion.*

**Question: “In your opinion, is a husband justified in hitting or beating his wife under any of the following circumstances?”:**

**“If she neglects the children?”**

Descriptive Comparison: Almost 5 out of 5 (97%) listeners versus 91% of nonlisteners said “No” to the above question.

*Differences are statistically significant at  $p < .001$ .*

Multivariate Logistic Regression: Listeners were 2.4 times more likely than nonlisteners to say “No” to the above response.

*Adj. odds ratio = 2.357 (CI=1.556-3.3571),  $p < .020$ , controlling for sex, age, number of children, marital status, education, residence, province, and religion.*

**“If she argues with him?”**

Descriptive Comparison: Almost 5 out of 5 (98%) listeners versus 94% of nonlisteners said “No” to the above question.

*Differences are statistically significant at  $p < .001$ .*

Multivariate Logistic Regression: Listeners were 2 times more likely than nonlisteners to say “No” to the above response.

*Adj. odds ratio = 2.025 (CI=1.218-3.367),  $p < .007$ , controlling for sex, age, number of children, marital status, education, residence, province, and religion.*

**“If she refuses to have sex with him?”**

Descriptive Comparison: Almost all (97%) listeners versus 92% of nonlisteners said “No” to the above question.

*Differences are statistically significant at  $p < .001$ .*

Multivariate Logistic Regression: Listeners were 1.9 times more likely than nonlisteners to say “No” to the above response.

*Adj. odds ratio = 1.905 (CI=1.255-2.892),  $p < .002$ , controlling for sex, age, number of children, marital status, education, residence, province, and religion.*

### **“If she burns the food?”**

Descriptive Comparison: Almost all (98%) listeners versus 94% of nonlisteners said “No” to the above question.

*Differences are statistically significant at  $p < .001$ .*

Multivariate Logistic Regression: Listeners were 1.9 times more likely than nonlisteners to say “No” to the above response.

*Adj. odds ratio = 1.905 (CI=1.168-3.105),  $p < .010$ , controlling for sex, age, number of children, marital status, education, residence, province, and religion.*

### **Question: “To what extent do you agree or disagree with the following statements?”**

**Statement: “A woman should tolerate physical abuse from their spouse/partner if she goes out without telling him.”**

Descriptive Comparison: More than 2 out of 5 (41%) listeners versus 27% of nonlisteners said they “Strongly disagree.”

*Differences are statistically significant at  $p < .001$ .*

Multivariate Logistic Regression: Listeners were 1.7 times more likely than nonlisteners to say they “Strongly disagree.”

*Adj. odds ratio = 1.725 (CI=1.441-2.065),  $p < .001$ , controlling for sex, age, number of children, marital status, education, residence, province, and religion.*

**Statement: “Men and women should share work and responsibilities equally in the family.”**

Descriptive Comparison: More than 3 out of 5 (62%) listeners versus 52% of nonlisteners said they “Strongly agree.”

*Differences are statistically significant at  $p < .001$ .*

Multivariate Logistic Regression: Listeners were 1.5 times more likely than nonlisteners to say they “Strongly agree.”

*Adj. odds ratio = 1.488 (CI=1.243-1.782),  $p < .001$ , controlling for sex, age, number of children, marital status, education, residence, province, and religion.*

**Statement: “Men should view their wives/partners as equal partners in their relationship.”**

Descriptive Comparison: More than three out of five (61%) listeners versus 51% of nonlisteners said they “Strongly agree.”

*Differences are statistically significant at  $p < .001$ .*

Multivariate Logistic Regression: Listeners were 1.6 times more likely than nonlisteners to say they “Strongly agree.”

*Adj. odds ratio = 1.552 (CI=1.294-1.860),  $p < .001$ , controlling for sex, age, number of children, marital status, education, residence, province, and religion.*

## Community attitudes

To evaluate community attitudinal change (as perceived by respondents) toward gender-based violence attributable to listening to *Umurage*, respondents were asked, **“To what extent do people in your community approve or disapprove of a husband/spouse hitting/slapping/beating his wife under the following circumstances?”**

**“If she refuses to have sex with him?”**

Descriptive Comparison: Almost 1 out of 2 (45%) listeners versus 27% of nonlisteners said that people in their community “Strongly disapprove.”

*Differences are statistically significant at  $p < .001$ .*

Multivariate Logistic Regression: Listeners were 2.1 times more likely than nonlisteners to say that people in their community “Strongly disapprove.”

*Adj. odds ratio = 2.123 (CI=1.777-2.536),  $p < .001$ , controlling for sex, age, number of children, marital status, education, residence, province, and religion.*

### **“If she has sex with some else?”**

Descriptive Comparison: More than 2 out of 5 (42%) listeners versus 26% of nonlisteners said that people in their community “Strongly disapprove.”

*Differences are statistically significant at  $p < .001$ .*

Multivariate Logistic Regression: Listeners were 1.9 times more likely than nonlisteners to say that people in their community “Strongly disapprove.”

*Adj. odds ratio = 1.991 (CI=1.665-2.382),  $p < .001$ , controlling for sex, age, number of children, marital status, education, residence, province, and religion.*

### **“If she goes out without telling him?”**

Descriptive Comparison: More than 2 out of 5 (43%) listeners versus 27% of nonlisteners said that people in their community “Strongly disapprove.”

*Differences are statistically significant at  $p < .001$ .*

Multivariate Logistic Regression: Listeners were twice as likely as nonlisteners to say that people in their community “Strongly disapprove.”

*Adj. odds ratio = 1.857 (CI=1.553-2.220),  $p < .001$ , controlling for sex, age, number of children, marital status, education, residence, province, and religion.*

### **“If she argues with him?”**

Descriptive Comparison: More than 2 out of 5 (41%) listeners versus 26% of nonlisteners said that people in their community “Strongly disapprove.”

*Differences are statistically significant at  $p < .001$ .*

Multivariate Logistic Regression: Listeners were 1.8 times more likely than nonlisteners to say that people in their community “Strongly disapprove.”

*Adj. odds ratio = 1.768 (CI=1.477-2.115),  $p < .001$ , controlling for sex, age, number of children, marital status, education, residence, province, and religion.*

### **“If she burns the food?”**

Descriptive Comparison: More than 2 out of 5 (43%) listeners versus 27% of nonlisteners said that people in their community “Strongly disapprove.”

*Differences are statistically significant at  $p < .001$ .*



Multivariate Logistic Regression: Listeners were 1.8 times more likely than nonlisteners to say that people in their community “Strongly disapprove.”

*Adj. odds ratio = 1.882 (CI=1.575-2.250), p<.001, controlling for sex, age, number of children, marital status, education, residence, province, and religion.*

## Theme: Nutrition

### Knowledge

To evaluate knowledge changes in child nutrition attributable to listening to *Umurage*, respondents were asked the following questions:

**Question: “What are the benefits of providing foods from different food groups/sources to children aged 6–23 months?”**

**Response: “Prevents malnutrition.”**

Descriptive Comparison: Fully 4 out of 5 (80%) listeners versus 65% of nonlisteners said “Yes” to the above response.

*Differences are statistically significant at p<.001.*

Multivariate Logistic Regression: Listeners were 1.7 times more likely than nonlisteners to say “Yes” to the above response.

*Adj. odds ratio = 1.707 (CI=1.398-2.086), p<.001, controlling for sex, age, number of children, marital status, education, residence, province, and religion.*

**Response: “Prevents stunted growth.”**

Descriptive Comparison: Fully 3 out of 4 (75%) listeners versus 63% of nonlisteners said “Yes” to the above response.

*Differences are statistically significant at p<.001.*

Multivariate Logistic Regression: Listeners were 1.8 times more likely than nonlisteners to say “Yes” to the above response.

*Adj. odds ratio = 1.790 (CI=1.482-2.161), p<.001, controlling for sex, age, number of children, marital status, education, residence, province, and religion.*

**Question: “What are the benefits of monitoring growth of children 0–59 months at growth monitoring stations?”**

**Response: “Children grow up healthy.”**

Descriptive Comparison: More than 4 out of 5 (84%) listeners versus 67% of nonlisteners said “Yes” to the above response.

*Differences are statistically significant at  $p < .001$ .*

Multivariate Logistic Regression: Listeners were 2.1 times more likely than nonlisteners to say “Yes” to the above response.

*Adj. odds ratio = 2.114 (CI=1.701-2.627),  $p < .001$ , controlling for sex, age, number of children, marital status, education, residence, province, and religion.*

**Response: “Prevents malnutrition.”**

Descriptive Comparison: Fully 2 out of 3 (66%) listeners versus 60% of nonlisteners said “Yes” to the above response.

*Differences are statistically significant at  $p < .001$ .*

Multivariate Logistic Regression: Listeners were 1.7 times more likely than nonlisteners to say “Yes” to the above response.

*Adj. odds ratio = 1.691 (CI=1.415-2.019),  $p < .001$ , controlling for sex, age, number of children, marital status, education, residence, province, and religion.*

**Response: “Prevents Kwashiorkor.”**

Descriptive Comparison: Almost 3 out of 5 (57%) listeners versus 52% of nonlisteners said “Yes” to the above response.

*Differences are statistically significant at  $p < .001$ .*

Multivariate Logistic Regression: Listeners were 1.3 times more likely than nonlisteners to say “Yes” to the above response.

*Adj. odds ratio = 1.322 (CI=1.118-1.564),  $p < .001$ , controlling for sex, age, number of children, marital status, education, residence, province, and religion.*

**Question: To what extent do you agree with the statement below?**

**Statement: “Children aged 6–23 months old should be fed a balanced diet to prevent malnutrition and kwashiorkor.”**

Descriptive Comparison: Almost 3 out of 4 (71%) listeners versus 64% of nonlisteners said that they “Strongly agree.”

*Differences are statistically significant at  $p < .001$ .*

Multivariate Logistic Regression: Listeners were 1.3 times more likely than nonlisteners to say “Yes.”

*Adj. odds ratio = 1.290 (CI=1.069-1.557),  $p < .008$ , controlling for sex, age, number of children, marital status, education, residence, province, and religion.*

## Appendix B: *Umurage* - Characters and Intersecting Plotlines

### Issues in *Umurage* by Transitional Character

#### **Dancila's story**

##### Child Protection

Dancila lives in Murera with her daughter, Zabayo. Abandoned by her husband, she's struggling to support herself and her daughter. Because of these difficult circumstances, Dancila tells Zabayo to drop out of school to work in her cousin Margo's bar, where she is secretly involved with drugs and human trafficking. Margo persuades her that her daughter will make more money if she sends her away to work in the city as a "house girl"; Dancila agrees. Dancila has a friend who is appalled by her choice to send Zabayo away and make her work instead of being in school, but Dancila does not listen to him. When Dancila's daughter, Zabayo, suffers an accident, Dancila realizes the horrible conditions she's been working in and takes her home. She begins to see the negative influences of her cousin Margo, and understands that it is important for her daughter to be in school. Her cousin's bar is exposed and shut down. With the help of her friend, Dancila opens a small business and finds positive ways to support herself and her daughter.

#### **Queen's story**

##### Youth Sexual and Reproductive Health

Queen, a teenager from Budembe city, lives with her parents. Her parents run a successful business, and Queen is secretly in love with a boy they employ. Her close friend, who is active in the community and educates young people about sexual health, warns her against spending time with him since he is involved with drugs, sex, and alcohol. When Queen's father is arrested, she moves in with this boy, and despite the warnings of her friend, she starts drinking and having sex with him. Queen eventually learns that this boy and her own mother were engaged in a sexual relationship, and they had framed her father to get him put in jail. She then starts to take her friend's advice, gets tested for sexually transmitted diseases, and cuts off her relationship with the boy. Her father's innocence is revealed, and he is released from jail. Queen starts working with her friend to educate young people in her community about sexual health.

## **Saverina's story**

### Nutrition

Saverina is a young mother from the village Cyuza. Saverina drinks alcohol and doesn't eat properly while she's pregnant. She eventually suffers a stillbirth. Saverina's mother convinces her that her stillbirth happened because her sister-in-law poisoned her. Saverina grows cold toward her sister-in-law, not trusting her and refusing to listen to her advice about maternal health and the nutritional health of her children — who are growing ill. Saverina follows her mother's advice and uses traditional medicine until both her children become so sick that she has to take them to the local health center. After this incident, Saverina realizes that she should not trust her mother's advice about traditional medicine and works with her husband to make sure her family has a balanced nutritional diet.

## **Yabesi's story**

### Gender-Based Violence

Yabesi lives in Nyarweya village with his wife and two daughters. He and his friend own a bar, and it's this friend who convinces him that unless he has a son he will not be respected in the community. Yabesi picks up many of his friend's negative behaviors, such as drinking, beating his wife, selling all his crops for traditional medicine, and believing that men are the naturally superior heads of the households. Yabesi's sister supports his wife, urging her to go to the police to report Yabesi's abusive behavior. She also tries to tell Yabesi how damaging his behavior is to his wife. After Yabesi's wife miscarries a baby boy due to physical abuse, Yabesi begins to change. He apologizes and makes amends to his wife.