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Executive Summary

Background

Farm Radio International (FRI) is a Canadian not-for-profit, non-governmental organization (NGO) that builds the capacity of African rural radio broadcasters to research, design, produce, air and evaluate interactive radio programs that reach millions and result in measurable change in the uptake of innovations and practices. In collaboration with Dr. Stan Kutcher of the IWK Health Center, Farm Radio Trust, and the World University Services of Canada (WUSC), we are implementing a 3-year global mental health program called "An Integrated Approach to Addressing the Issue of Adolescent Depression in Malawi and Tanzania". Launched in October, 2012 with funding from Grand Challenges Canada, the program uses a multi-sector approach that combines school-based mental health curriculum integration, a radio-based mass media campaign, and capacity-building for primary care providers. It aims to improve access to mental health care for young people in Malawi and Tanzania. The program focuses on: improving mental health literacy of youth (aged 14 – 25); increasing demand for mental health services by young people by improving health-seeking behaviours; increasing the capacity of the primary health system to diagnose and treat young people suffering from Depression.

This report is a summary of data collected in Malawi by local partners to assess the impact of the integrated program on overall objectives at midpoint (covering the period Nov. 2012 – Sept 2014). In addition to providing a preliminary assessment of results to date, the midterm evaluation has proved useful to provide the team with information to make mid-course corrections and amendments to the overall project to ensure maximum impact in both the pilot site (Malawi) and the replication site (Tanzania). The evaluation used a mixed methods approach to triangulate data, incorporating a survey, perceived impact questionnaire, knowledge assessment retention test and audience reception study. The robustness of thematic analysis, combined with researcher triangulation, lends credibility to the research results reported here.

Results

Both quantitative and qualitative research findings are encouraging given the significant evidence of program contribution to important drivers of the process of change, and the self-reported evidence of decreased stigma and improved health-seeking behaviours by young people who listened to the radio campaign. Further, knowledge retention tests and perceived impact questionnaires demonstrate that the capacity-building activities for educators and primary care providers have contributed to enhanced knowledge and improved ability of the health and education sectors to identify and treat adolescent Depression.

Charts on results (# of facebook users, # of young people who are in mental health clubs in schools, # of episodes of radio campaign broadcast to date, # of teachers, peer educators and health providers trained)

1 The impact regions are Lilongwe, Salima and Mchinji in Malawi and Arusha and Meru in Tanzania
2 The midterm evaluation did not include Tanzania, as the program launched in Tanzania after the midpoint as a replication study
**Preliminary Evidence of Impact**

The midterm evaluation provides preliminary evidence that the program is progressing towards meeting key indicators of success in Malawi in each of the following domains: Improved knowledge, attitudes and health-seeking behaviours among young people; enhanced capacity of the school system to help identify young people who may be suffering from depression and refer them for care; enhanced capacity of the primary health system to screen for, diagnose and treat adolescent depression.

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**Program Reception**

*Involvement in curriculum and peer educator training*

Most participants felt that participation in training about mental health as educators or peer educators was useful and worthwhile. Participants reported that information about mental health in schools is important and needed in their communities, and that the training provided them with information about mental health and Depression that they would like to transfer to their students and peers.
Audience Reception of Youth Radio Program ‘Nkhawa Njee’

The radio program—Nkhawa Njee—is one of the most popular youth radio shows in Malawi. Out of 368 listeners to the radio program who were surveyed at midterm, 69% listened every week or most weeks. 94% of young people who listen to the radio program feel it is entertaining and that it gives important information for young people. 96.8% of listeners indicated they learned things about mental health they didn’t know before, and 96.4% indicated they would seek help for their mental health or encourage a friend to seek help as a result of the radio program.

“I think the program is really cool. We are the youth and they talk about us. They talk about how we live our life and how we can make it better. They talk about how we should avoid stress in our life so we can live longer.”

Achmed, 17 years old
Introduction

The program *An Integrated Approach to Addressing the Issue of Youth Depression in Malawi and Tanzania* commenced in Malawi in October 2012, and in Tanzania in June 2014. The midterm evaluation was conducted in Malawi between Sept-Oct 2014 to assess the impact of the program’s major activities on progress towards key indicators of success. The midterm evaluation had the following objectives:

- To determine the reach and listenership of the radio program and assess whether and how it was effecting knowledge and attitudes about mental health and Depression among regular listeners
- To assess retention levels among educators of the information they received during the first phase of curriculum training and their ability, motivation and willingness to apply the curriculum in their classrooms
- To determine the impact of the Adolescent Mental Health Identification, Mitigation and Treatment program on the capacity of health providers to treat adolescent Depression in primary care settings
- To make mid-course corrections, establish priorities and plan for the second phases of the radio program, curriculum training and primary care capacity building programs
- To inform and accelerate the Tanzania component of the program by capturing the successes and challenges of program implementation in Malawi.

Research Design and Methods

We implemented the following research activities as part of the midterm evaluation:

- **Knowledge, Attitudes and Practices (KAP) Survey:** We selected 436 young people (ages 14 – 25) from school-based mental health clubs, out-of-school youth clubs and radio listening clubs using purposive sampling techniques. Each respondent answered 36 multiple choice knowledge questions, 10 attitudes questions using a likert scale, 5 multiple choice questions intended to measure help-seeking practices and intention to practice, and 19 radio program listening questions. Average scores for knowledge and attitudes were compared against baseline scores and correlated with frequency of exposure to the radio program.

- **Trained Educator Retention Test:** Repeating the same pre and post test administered during a 3-day curriculum training that took place in June 2013, the retention test was used to assess the retention of improvements in knowledge and attitudes about mental health and depression over time. 47 educators were randomly selected from the original cohort of 265 trainees.

- **Student and Educator Perceived Impact Questionnaires:** Students and Educators who participated in the program were selected to complete a perceived impact questionnaire to obtain their perceptions of the impact of the mental health school program. The impact was determined by measuring qualitative perceptions according to metrics of life improvement
established collaboratively by the program partners. A total of 46 student questionnaires and 43 educator questionnaires were completed and the data analyzed.

- **Mass Listening Poll:** Using an Interactive Voice Response (IVR) system, we designed a six question mass listening poll that was sent out to thousands of regular listeners to the radio program. We received approximately 800 competed surveys from listeners across Malawi. The mass listening poll sought to establish the features of the radio program that youth like the most, the features they like the least, and what they would like to see added in terms of content for the second season of the program in Malawi. Data was analyzed qualitatively by grouping the responses according to positive versus negative responses, and determining the most prevalent themes. We acknowledge that the methodology produced biased results because they were only collected from self-selected youth who were regular listeners, and therefore favourably disposed to the program. Responses were overwhelmingly positive, attributable to the fact that respondents self-selected to participate rather than being randomly selected.

*Photo: A teacher teaches a mental health literacy class in Lilongwe, Malawi*
Results and Discussion

Indicators of Lives Improved

Improved Health Literacy as an Indicator of “Lives Improved”

The World Health Organization (WHO) defines health literacy as “the cognitive and social skills which determine the motivation and ability of individuals to gain access to, understand and use information in ways which promote and maintain good health” (WHO, 2009). There is a general agreement that improvements in health literacy increase demand for services and ultimately improve health outcomes. The WHO further argues that by improving people’s access to health information and their capacity to use it effectively, health literacy is critical to empowerment (ibid). Defined this way, health literacy goes beyond a narrow concept of health education and individual behaviour-oriented communication, and addresses the environmental, political and social factors that determine health. Health education is achieved therefore, through methods that go beyond information diffusion and entail interaction, participation and critical analysis.

Kwan, Frankish and Rootman (2006) identify personal or internal and external factors that influence the health information context, which in turn influences the acquisition of health knowledge and subsequent health decisions and actions. They correlate improved health literacy with improvements in health outcomes, quality of life, and health system outcomes. Palwak (2005) similarly argues that health literacy is influenced by a variety of determinants, and that health literacy in turn is a determinant of health. Pawlak’s model of health literacy directly links improvements in health literacy to improved health outcomes.

The same arguments for correlating improvements in health literacy with improved health outcomes can be found within the field of mental health. Scholars and practitioners argue that mental health literacy is foundational for improving access to care and reducing stigma related to mental illness (Jorm et al., 1997; Reavely and Jorm, 2011; Jorm, 2012; Wei et al., 2013; Kutcher and Wei, 2014; Kutcher et al., in press). "Mental Health Literacy” was initially defined by Jorm as “knowledge and beliefs about mental disorders which aid their recognition, management and prevention” (Jorm et al., 1997). In recent years, this definition has been expanded to include four components: 1) enhancing capacity to obtain and maintain good mental health; 2) enhancing understanding of mental disorders and their treatments; 3) decreasing stigma related to mental illness; 4) enhancing help-seeking efficacy (Kutcher and Wei, 2014; Kutcher et al., in press).

Based on the arguments found in the literature on health literacy published by the WHO and others, improvements in mental health literacy garnered by this program will both stimulate demand for mental health services and directly improve health outcomes and quality of life. Resting on these assumptions, the program management team in collaboration with the Principle Investigators established the following "life improvement metrics” to assess the impact of a mental health literacy program on improvements both in the individual health and wellbeing of target beneficiaries as well as the health systems of the target regions more broadly.

Life Improvement Metrics – Students

In order to assess the impact of the intervention on life improvements among students, a help-seeking variable and a future-learning variable were created based on information available from self-reported questionnaires. Surveys from students who had participated in peer education

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sessions on mental health in their schools and/or who had received information about mental health in their classes were examined on these life improvements metrics.

Of the 46 self-reported student responses, 14 (30.4%) came from students in Lilongwe, while 32 (69.6%) came from students in Mchinji. Ages ranged from 10-21 years old, although only two students were under 12 and only five were over 18. There were 27 (58.7%) female respondents and 19 (41.3%) male respondents. Students were in forms 3, 4, Std 5, 6, 7 and 8. There were 42 students who had received some training in mental health. Among these 42 students, 34 (81.0%) had improved lives based on help-seeking: they had either suggested a friend get help for a mental health problem and/or gone to get help for a mental health problem themselves. Of these 42 students, 41 (97.6%) thought that all young people should be taught about mental health and Depression, while one (2.4%) student did not share this belief. These results are very promising for the real-life impact of the intervention because of the importance of help-seeking behaviours and the desire/intention to learn about mental health.

**Life Improvement Metrics – Educators**

Additional life improvement metrics were generated based on educators’ self-reported questionnaires. These included a stigma reduction variable, improved behaviour variable, and a help-seeking variable. These variables were examined among educators who had received training and taught at least one lesson on mental health. Both quantitative and qualitative feedback were provided for the subjectively improved attitudes and improved behaviours questions. We had some concerns with the qualitative feedback (comments). As a result two team members independently went through the comments on improved attitudes and behaviours to evaluate whether or not each comment was relevant to mental health and reasonable/credible. Any questions that were not agreed on immediately were discussed until a consensus could be reached. Any questions (n=3) where a consensus could not be reached, a third researcher was consulted to decide whether or not the comment was relevant and reliable. This is a method that is commonly used in systematic reviews when deciding whether or not to include studies in a meta-analysis. Most of the responses were excluded through this method. Remaining comments are included below.

Most educator responses came from the districts of Mchinji (66.7%) and Lilongwe (26.2%), but a few also came from Dedza (4.8%) and Nkhotakota (2.4%). Respondents’ ages ranged from 25-53 years old. There were 15 (35.7%) females and 27 (64.3%) males. Forms taught ranged from 1-8. There were 33 surveys that were assessed for life improvement metrics. Most teachers (81.3%) noticed a positive change in their students’ attitudes toward mental illness after their mental health teaching. This reduction in stigma, a commonly cited barrier to seeking care for mental health problems, is very promising. Examples included:

- If students have a problem they know what to do and where to go.
- Learners now feel like they should act and not ignore people they meet who might have a mental illness.
- Learners were able to express their problems to others.
- One student resisted others who were teasing. Student helped the person who was being bullied by teaching the bullies about mental health.
- One student was fond of just keeping quiet in class but after the lesson, he came out and disclosed to the teacher the problem he was facing.
- The mental health club has much more membership now.
- Students approached teachers about changes such as stopping smoking and drinking
• Students were able to explain how depression is caused and how to handle different situations that can lead to suicide.
• The students are now open to talk about their mental illness experiences.
• They have changed how they treat the mentally ill. E.g. A student in Std. 8 who is mentally ill, now the students take good care of them.
• They often worry about performance in class, teachers advise them not to worry. Teachers give examples of themselves – students worry less.

Most teachers (96.9%) also noticed specific changes in behaviours of their students after they took their class on mental health. Examples included:

• If someone has a problem others can take the students to the teacher.
• One student was depressed because she had a baby and the other students could not just accept her, after the lessons the other students accepted her and she started concentrating in class.
• One student, very quiet, was asked about having problems at home. She was counseled and opened up about her issues. She improved in class and interactions with fellow students.
• Some boys were drinking & smoking. They are doing this less now because it can affect their brain.
• Students are now able to air out their problems to the mental health club matron unlike before.
• The students now behave well towards their friend who is mentally ill.
• They now have a spirit of helping out their friends who are depressed or stressed out.
• When they have a problem they can easily share their thoughts and seek assistance.

In terms of life improvement based on help-seeking, all educators who had received training and taught at least one lesson on mental health had students approach them with concerns about their mental health or that of a friend. Educators also indicated that they advised someone to seek help for a mental health concern, and/or the educator sought help themselves.
Photo: Girl attending a mental health training at a school in Salima
Educator Training Retention

Educators’ mental health knowledge and attitudes at midterm were compared to pre-training (baseline) and post-training (immediately following training) scores. Knowledge scores increased from pre-training (mean=17.5, standard deviation=4.1) to midterm (M=20.4, SD=2.0). This difference was statistically significant (p<0.001). This is highly statistically significant considering that the common threshold for failing to reject a theory within the academic sphere is a p-value of <0.05, which means that there is a 95% chance that an observed difference is real or true. Other domains may be more inclusive and use a threshold p-value of <0.10. In our case, we can be more than 99.9% certain that the improvement in knowledge that we see is truly a reflection of improved knowledge in the sample population. The potential scale of improvement in a broader population is very impressive.

Educator mental health knowledge declined from post-test (M=22.9, SD=2.9) to midterm (M=20.4, SD=2.0), p<0.001. However, educator knowledge at midterm was higher than at baseline, providing evidence of improved knowledge over time among trained educators.

Educators’ attitudes improved from baseline (M=36.9, SD=8.2) to midterm (M=40.6, SD=6.2), p=0.001. This p-value reflects a highly statistically significant improvement in attitudes, suggesting a significant reduction in stigmatizing attitudes among trained educators. Although the midterm scores were lower than post-test (M=44.3, SD=7.5), p=0.001, attitude scores remained higher than they were before training.
Radio Program Results

*KAP survey to assess improvements from baseline to midterm*

**Demographics**

Of the 2090 youth (12-25 year olds) included at baseline, 1139 (54.5%) were male and 951 (45.5%) were female. Of the 414 youth included at midterm, 187 (45.2%) were male and 227 (54.8%) were female. The sex distribution was statistically different from baseline to midterm (Pearson chi-square p=0.001). The average age of youth respondents was higher at baseline ($M=17.7, SD=4.1$) than at midterm ($M=15.7, SD=27$). This difference in mean age was statistically significant (p<0.001).

At baseline, the highest proportion (49.2%) of respondents had primary education as their highest level of completed education, followed by secondary education (42.1%), tertiary/ post-secondary (4.4%), no education (4.1%) and adult literacy (0.2%). At midterm, the highest proportion (49.3%) reported secondary education as their highest level of education, follow by primary (46.1%), tertiary/ post-secondary (3.1%) and no education (1.4%). No one identified “adult literacy” as their highest level of education at midterm. The educational differences between participants at baseline and midterm were statistically significant (Pearson chi-square p=0.008).

The majority (50.7%) of respondents at baseline were students. This number was followed by youth club members (33.3%) and ‘other’ (14.4%). The vast majority (92.3%) of respondents at midterm were students. The only other group that was notably represented was youth club members (6.8%). All other categories had less than one percent representation at baseline and/or midterm. The representation from various respondent categories was statistically different from baseline to midterm (Pearson chi-square p<0.001). Demographic distribution from the baseline sample and midterm sample are different, and therefore differences in scores may be partially attributable to age, education and gender. For this reason, we analyzed the differences in scores from baseline to midterm using the mean score from each sample, disaggregating by gender and highest level of education achieved, and removing outliers (individuals under 12 or over 30 years of age) from the mean.
Knowledge
As shown in Figure 1, knowledge scores were 54.8% (M=19.2 out of a possible 35, SD=3.5) at baseline, and 65.6% (M=23.0, SD=3.3) at midterm. This improvement was statistically significant (p<0.001) and shows enhanced knowledge of mental health and mental illness in the sampled populations.

Attitudes
As shown in Figure 2, attitude scores increased from baseline (M=28.7 out of a possible 45, SD=4.5) to midterm (M=30.8, SD=5.0). This change was statistically significant (p<0.001).

Scores compared between radio listeners vs. non-listeners
To calculate radio listener levels, participants were awarded one point for having heard of the radio program, one point for claiming to be a regular listener, and one point for being a verified listener based on a specific question about the radio program. Hence the radio listener variable allowed for four possible scores ranging from 0 (participants who had never heard of the program) to 3 (verified regular listener). This section compares all four levels of radio program listeners and non-listeners.

Results
Demographics
Of the 67 level 0 radio listeners, 34 (50.7%) were male and 33 (49.3%) were female. Of the 43 level 1 listeners, 21 (48.8%) were male and 22 (51.2%) were female. Of the 109 level 2 listeners, 49 (45.0%) were male, while 60 (55.0%) were female. Finally, of the 195 level 3 listeners, 83 (42.6%) were male, while 112 (57.4%) were female. These differences in sex distribution were not statistically significant (Pearson chi-square p=0.657). The mean age was 16.3 (SD=3.0) for level 0 radio listeners, 15.3 (SD=2.1) for level 1 listeners, 15.7 (SD=2.5) for level 2 listeners, and 15.6 (SD=2.7) for level 3 listeners. Mean age did not differ by radio listener status across the four levels (Pearson chi-square p=0.875).

The vast majority of participants in all four groups had either primary or secondary education as their highest completed level of education. Participants with no education or with tertiary/post-secondary education accounted for less than 5.0% of each group. No participants reported ‘adult
literacy’ as their highest level of education. The proportion of respondents with primary education was 34.3% for level 0 radio listeners, 41.9% for level 1 listeners, 44.0% for level 2 listeners, and 52.3% for level 3 listeners. The percentage of participants with secondary education as their highest level of education was 61.2% for level 0 radio listeners, 55.8% for level 1 listeners, 52.3% for level 2 listeners, and 42.1% for level 3 listeners. Education level did not differ across radio listener levels (Pearson chi-square p=0.312).

Regardless of radio listener level, most respondents were students, followed by youth club members. The proportion of survey participants who were students was 88.1% for level 0 radio listeners, 95.3% for level 1 listeners, 94.5% for level 2 listeners, and 91.8% for level 3 listeners. The percentage of respondents who were youth club member was 10.4% for level 0 radio listeners, 4.7% for level 1 listeners, 2.8% for level 2 listeners and 8.2% for level 3 listeners. Level 1 radio listeners also had 1.5% representation from the teacher category, and level 2 listeners had 2.8% representation from the ‘other’ category. Differences in respondent category distribution were statistically significant across the four radio listener levels (Pearson chi-square p=0.029).

**Knowledge**

As shown in Figure 3, overall, knowledge scores increased with higher radio listener levels. The one exception to this was between levels 1 and 2 radio listeners. The mean knowledge score was 60.0% (M=21.0 out of 35, SD=3.3) for level 0 radio listeners, 64.8% (M=22.7, SD=3.0) for level 1 listeners, 64.4% (M=22.5, SD=3.3) for level 2 listeners, and 68.4% (M=24.0, SD=3.0) for level 3 listeners. The knowledge score differences based on radio listener levels was statistically significant (p<0.001).

**Attitudes**

As shown in Figure 4, mean attitude scores varied by radio listener status. The lowest attitude score was among level 0 radio listeners (M=28.7, SD=5.1), while the highest attitude score was among level 3 radio listeners (M=31.4, SD=5.0). However, level 1 radio listeners had higher attitude scores (M=31.1, SD=4.1) than level 2 radio listeners (M=30.7, SD=5.0). Differences in attitude scores based on radio listener level were statistically significant (p=0.002). While improvements in attitudes were much lower than improvements in knowledge, this is to be
expected as attitudes, beliefs and stigmas are typically more difficult to change than knowledge acquisition.

Primary Care Capacity Building

We were unable to assess the midterm results of the primary care capacity building program in Malawi as the training was only completed in November 2014. To date, 6 Training Facilitators and 20 Trainers have trained a total of 80 primary health care workers in Malawi. The Trainers are themselves primary care workers, so a total of 100 were trained. They were selected from district hospitals and district health centers in Lilongwe, Mchinji and Salima. The initial 5-day training yielded impressive results in the capacity of primary care workers to screen for, identify and treat adolescent depression.

Health care workers’ knowledge about general mental health improved greatly from pre-test, which was administered at the commencement of training (M=15.1, SD=3.4) to immediately following the training (M=24.8, SD=2.3). This improvement is highly statistically significant (p<0.001) and may have major implications for the care that mentally ill patients receive. This finding is positive and encouraging, but not surprising considering the lack of focused training on mental health for primary care providers in Malawi. During the training, the trainees expressed a great deal of enthusiasm and motivation to apply what they learned in their adolescent health care practice. We
will monitor the application of knowledge gained and the use of screening tools for adolescent depression at health centers in the impact districts over the coming months.

**Mechanisms of Change**

As indicated above, we view improvements in mental health literacy—enhanced knowledge about the signs, symptoms, causes and treatments of adolescent mental health problems coupled with a decrease in stigmatizing attitudes—as a key *mechanism of change* and a *determinant of positive mental health outcomes*. The WHO defines health literacy in terms of empowerment, which is widely understood as a driver of change and contributor of positive social outcomes in low and middle income countries. Further, we view improvements in mental health literacy as an important factor in stimulating demand for services, which in turn affects policy and puts pressure on governments to provide better mental health services for youth in the form of access to medicines and counseling services. Putting mental health on the policy agenda through increased demand for services by citizens is a crucial, and often overlooked, mechanism of change for improving mental health care and in turn improving health outcomes and saving lives.

*Health literacy as empowerment: Strengthening active citizenship for health by bringing together a commitment to citizenship with health promotion and prevention efforts and involving individuals in: understanding their rights as patients and their ability to navigate through the health care system; acting as informed consumers about the health risks of products and services and about options in health care providers, and acting individually or collectively to improve health through the political system through voting, advocacy or membership of social movements.*

*World Health Organization, 2006*
**Barriers to Change**

In addition to the positive results achieved between October 2012 and December 2014, a number of barriers to change were identified in the midterm evaluation. These barriers will cause some shifts in program implementation over the next phase of the program, and have implications for timeline to completion. As a team, we have developed a number of strategies to mitigate these barriers, described below, but we also realize that some barriers are systemic and outside the scope of what this project is able to achieve.

*Motivation of teachers and school administrators to support mental health curriculum education*

In the focus group discussions and on the perceived impact questionnaires, teachers expressed low motivation, and a lack of incentive, to teach the mental health curriculum guide in their classrooms. During the last school year, few teachers taught more than five sessions throughout the year, and many teachers taught only a single session. Teachers cited a lack of incentive, high curriculum and student performance demands coupled with too little time, and a lack of support to feel confident and competent to deliver the curriculum. While many school administrators and district level education officials support the program, they do not want it to detract from other academic priorities, and there is little assistance available for teachers to effectively integrate the materials.

We are attempting to mitigate this barrier by: Assigning trainers to oversee particular schools to provide regular follow-up with teachers through regular phone calls, WhatsApp chat messages, and monthly in-person visits; lobbying the national government to include mental health as a part of the standard Life Skills curriculum; coordinating an end of school year retreat in August 2015 for the top performing 30 teachers to share lessons learned and plans to sustain the curriculum integration after the project end.

*Low access to appropriate medications and counseling services*

Students have indicated a need for someone to talk to about their problems, but there is a dearth of counseling professionals and services available in Malawi. Moreover, there is a lack of appropriate pharmaceuticals available for young people suffering from clinical Depression. While Fluoxetine (widely recognized as the least costly effective treatment for adolescent depression) is on the essential medicines list in Malawi and is therefore free for patients, it is not widely available due to its relatively high cost compared to antidepressants from the triptyline family. Triptyline medications are cheaper and therefore widely available, but have serious side effects when used in adolescent mental health care. District level medical stores with limited budgets prioritize medications for better understood and more immediately recognized ailments from the Central Medical Store. For Depression and other related illnesses, the district medical stores procure triptylines only.

In order to attempt to mitigate these barriers, we have implemented the following actions:

- We have worked closely with the Ministry of Health to revise treatment guidelines for adolescent Depression. The new treatment guidelines require districts to procure fluoxetine.
- We will have a final stakeholder meeting in both Malawi and Tanzania to lobby for better access to appropriate medicines to treat adolescent Depression.
- We will have the second phase of the radio program incorporate a monthly 30-minute call-in show where young people can call in to the station anonymously and ask questions to an expert.
- We have developed an “Effective Helping Program for Primary Care Providers” and will add additional training in cognitive behavioural therapy to the cohort of 100 health providers who participated in the Adolescent Mental Health Identification, Mitigation and Treatment program.
- We are planning to adapt a program called “Dealing with Depression” created for use in Canada by psychiatrists at the University of British Columbia. The program, which provides self-help, self-monitoring and self-care strategies for teens, will be adapted and translated for use in Malawi and Tanzania. The guides will be given out by trained adolescent health providers in district level hospitals and health centers for young people who are inquiring about Depression or who are diagnosed and undergoing treatment for Depression.

**Resilience of Stigmas**

Although we have seen modest improvements in attitudes as a result of the radio program from baseline to midterm, they were lower than knowledge gains, indicating that there is more work to be done to reduce stigmatizing attitudes. While knowledge gains were impressive, stigmas are more resilient to change. In order to mitigate this barrier, we are working closely with the radio broadcasters and the in-country creative team to focus the second phase of the radio program more directly on anti-stigma messages. While the first phase targeted a broad range of messages, the second phase will be designed with a stronger focus on reducing the stigmatizing attitudes that were still present in the midterm KAP survey.


Summary and Conclusions

Are Program Objectives Being Met?

From our Results Management and Accountability Framework (RMAF), we have indicated that a metric of “number of lives improved” is the number of youth who have attended Mental Health Literacy sessions who seek help for Depression within 6 months. From our midterm evaluation, 256/436 of young people indicated that they have spoken to a friend or parent about their mental health, 171/436 indicated they have asked for help for a mental health problem, and 216/436 indicated they would seek help for a mental health problem after listening to the radio program. 16 health centres across Lilongwe, Mchinji and Salima are equipped with translated and validated screening tools, Depression case management tools, and tablets to track the number of new cases of adolescent Depression that are screened for, diagnosed, and treated over time.

Our RMAF also states that the intermediaries who lives have been touched by the intervention—i.e. who have accessed products and services—include educators and peer educators who have been trained to deliver mental health information to others, primary care providers who have developed the capacity to identify and treat adolescents suffering from Depression, and young people who have improved mental health literacy. In Malawi to date, 400 educators in Malawi have undergone at least one phase of curriculum training, 150 peer educators have received training to deliver a peer mental health program in mental health clubs, and 100 primary care providers have been trained to screen for and treat Depression. We estimate there are approximately 200,000 regular listeners to the radio program in Malawi, and 400 young people surveyed at midterm show statistically significant improvements in knowledge and attitudes about depression from baseline to midterm. Furthermore, teachers trained in adolescent mental health curriculum delivery have retained improvements in knowledge and attitudes 12 months after training.

We have completed one case study on the curriculum guide training for educators, which was accepted for publication in the peer-reviewed journal Global Mental Health.

The replication is well underway in Tanzania. To date, 115 teachers have received training on the delivery of the adolescent mental health curriculum guide, and peer educators and primary care providers will complete the first phase of training in February 2015. The radio program has commenced broadcasting on one station, with a second station to begin airing the program in February 2015.

Overall, the midterm evaluation shows that we are on track to achieve our program objectives, and highlights areas to focus our attention in the coming 9 – 12 months of the program.

Conclusions and Way Forward

While our program has achieved some impressive results, we still have a long way to go too improving adolescent mental health services in Malawi and Tanzania and in ultimately improving the lives of young people who are suffering from Depression. For this reason, we have decided to add a number of program objectives that are outside the scope of the original project design and have implication for the overall timeline of the program. We are requesting a three month extension (until December 31, 2015) to complete the following additional activities which we feel will enhance the program’s ability to achieve lasting and sustainable impact.
1. Retrieve data over time from health centers in the impact regions in both Malawi and Tanzania on the number of youth screened and treated for Depression in the coming year.

2. Conduct a business planning workshop with radio partners and other interested stakeholders (i.e., mobile phone companies) to discuss ways to sustain the youth radio program past the end of the project period through sponsorship and advertising.

3. Convene a final stakeholder meeting in both Malawi and Tanzania to lobby the government to improve access to appropriate medicines, and improve availability of counselling services for youth. Present the voices of youth obtained through the radio program voicing their perspectives on what is needed to improve mental health services in their countries.

4. Write and publish additional peer reviewed journal publications to share the results to encourage replication and scale up of the model in other low resource settings.

5. Ensure final translations and adaptations of curriculum materials are approved by the review boards of the Ministry of Education in both Tanzania and Malawi, and lobby for national integration of the curriculum guide in secondary schools.
References


WHO. Background Note: Regional Preparatory Meeting on Promoting Health Literacy [Internet]. UN ECOSOC, 2009. [http://www.who.int/healthpromotion/conferences/7gchp/Track1_Inner.pdf](http://www.who.int/healthpromotion/conferences/7gchp/Track1_Inner.pdf)