

# KEMRI-Wellcome Trust Research Programme Community and Public Engagement

## 2016-2021 Evaluation Report



## Acknowledgements

Monitoring and Evaluation activities have been jointly co-led by Prof. Dorcas Kamuya and Dr. Alun Davies, and implemented by Irene Jao and Gladys Sanga, with support from Noni Mumba, Salim Mwalukore and members of the larger engagement and communications team.

The structuring, writing and finalization of this 2016-2021 Evaluation Report has been done by Dr. Alun Davies, Irene Jao, Gladys Sanga, Salim Mwalukore and Noni Mumba. Cynthia Mauncho and Roselyne Namayi have contributed information to specific sections of this report. The formatting and design of the report has been done by Joy Kiptim.

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## List of Abbreviations

AAS	African Academy of Sciences
AIDS	Acquired Immunodeficiency Syndrome
ARO	Assistant Research Officer
CDoH	County Department of Health
CHMI	Controlled Human Malaria Infection
CHV	Community Health Volunteer
CLG	Community Liaison Group
CLM	Community Liaison Manager
CLO	Community Liaison Officer
COVID	Corona Virus Disease
CPE	Community and Public Engagement
FGD	Focus Group Discussion
FW	Field Worker
GCP	Good Clinical Practice
GHBN	Global Health Bioethics Network
HIV	Human Immunodeficiency Virus
IDEAL	Initiative to Develop African Research Leaders
IDI	In-Depth Interview
JA	Jukwaa Arts
JKUAT	Jomo Kenyatta University of Agriculture and Technology
JLU	Jukwaa La Utafiti
KCDoH	Kilifi County Department of Health
KCR	KEMRI Community Representative
KEMRI	Kenya Medical Research Institute
KHDSS	Kilifi Health and Demographic Surveillance System
KLF	Kilifi
KPA	Kenya Paediatric Association
KWRTP	KEMRI Wellcome Trust Research Programme
MOP	Major Overseas Programme
MT	Magnet Theatre
NBI	Nairobi
NIHR	National Institute of Health
PCST	Public Communication of Science and Technology
PER	Public Engagement for Research
PI	Principal Investigator
PPE	Provision for Public Engagement
RO	Research Officer
SEP	School Engagement Programme
SIKA	Semi-Immune Kenyan Adults
SLAS	School Leavers Attachment Scheme
SMS	Short Message Service
SSA	Sub-Saharan Africa
TB	Tuberculosis
TGHN	The Global Health Network
TSC	Teachers Service Commission
UHC	Universal Health Coverage
UK	United Kingdom
WHO	World Health Organization
YPAG	Young Persons Advisory Group

## Introduction

This report provides an overview of the evaluation of KEMRI Wellcome Trust Research Programme (KWTRP) Community and Public Engagement (CPE) strategy between 2016 and 2021. The work was funded through a Wellcome Provision for Public Engagement (PPE) and co-led by Noni Mumba, Alun Davies, and Cynthia Mauncho. Our vision for the work was:

*To strengthen the science and ethics of health research in low-to-middle income settings through fostering effective, contemporary, and responsive engagement between KWTRP staff and diverse public stakeholders, and through sharing our experiences (inter)nationally.*

To realise our vision, we engaged large and diverse audiences with a range of public engagement activities comprising live radio programmes, magnet theatre outreaches, school and university engagement, public meetings and key education and health stakeholders and policy makers. We have aimed at a balance of 'wide' engagement activities, aimed at raising public awareness and listening to public views about research, with 'deeper' long-term engagement with smaller groups. The latter has offered opportunities to draw from diverse youth, community, and stakeholder insights to enhance and improve our research. Through publishing accounts of our engagement in peer-reviewed publications we have aimed at contributing to the growing literature, debates, and practice in engagement globally.

As well as the 'programme-wide' engagement activities described above, we worked with individual study teams to co-plan and support the implementation of 'study specific' engagement. Given that these tailor-made engagement strategies draw largely from the cross-platform activities, this report does not describe individual study-specific engagement. Drawing from a rich experience of engagement, the Community Liaison Group (CLG) provided further essential support to individual research studies through coordinating the Consent and Communication Committee and ensuring the accessibility (in terms of appropriate language) of consent materials and translation into local languages. This essential work to support regulatory processes is also not described in this report.

Our engagement and evaluation have been guided by an initial basic Theory of Change (ToC) premised on creating diverse fora to foster dialogue and mutual understanding between researchers and publics. Since 2016, drawing from the implementation and evaluation of engagement activities and input from an external advisory board, we have developed tools and approaches for evaluation and further developed the ToC into detailed ToCs for individual components, and an overall ToC guiding the entire KWTRP engagement strategy (see Annexe 5). To facilitate ethical oversight of the engagement evaluation, we have an evaluation protocol approved by the KEMRI Scientific and Ethical Review Unit. The protocol specifies the KWTRP goals of engagement as:

1. Building mutual understanding, appropriate levels of trust and respect between KWTRP researchers/institution and communities
2. Enhancing the ethical conduct of research; and
3. Strengthening the translation of research findings into policy

This report focuses on the first two objectives which were directly funded by the Provision for Public Engagement.

Given the wide differences in engagement activities, we have employed a wide range of evidence collection methods. These comprise: pre and post surveys; in-depth interviews (IDIs); Focus group discussions (FGDs); observations; note-taking; and workshop discussions. The evidence gathered through these methods have been shared in several peer-reviewed publications and reports. In some cases, many of our engagement activities (e.g., engaging stakeholders for specific studies) monitoring and evaluation activities have been integrated into individual sub-components (e.g., the school engagement programme) and conducted by Irene Jao, Gladys Sanga, and sub-component teams. The evaluation was led by Alun Davies. This report summarises the evaluation of ongoing as well as completed initiatives.

### ***Disruption to engagement caused by COVID-19 restrictions***

Like many other public-facing initiatives, the COVID-19 pandemic has seriously disrupted our engagement implementation as well as the evaluation. Key activities postponed include: all community and public engagement activities between March 2020 and January 2021: [the second SEP practitioners' workshop; community-based engagement survey; the second magnet Theatre outreach; open days and open house meetings and large community meetings (*Barazas*)].

Despite these disruptions we have made efforts to modify some of our approaches to on-line based engagement activities. Many of these, including their evaluation methods are still being adopted/evolving. Given this, the main focus of this report is on evaluations that were conducted prior to the closure of all COVID-19 engagement activities.

### ***Summary of activities and M&E methods/Outputs***

We provide a table on page 6, that gives a summary of KWTRP engagement activities conducted between 2016 and 2021, the human and financial resource implications, evaluation methods used and highlighted outputs. After this summary we provide brief evaluation reports for specific engagement areas/programmes.

Table 1: Summary of engagement areas, their human resource and activity costs, M&E evidence and highlight outputs<sup>1</sup>

Engagement component	Human Resources	Activity cost (excl. staff costs) 1 £ = 130	M&E evidence	Outputs
School and university engagement	CLO 5 Post grad lead 1	GBP 30K annually (excl. School Leavers Attachment, International Workshop, Book projects)	<ul style="list-style-type: none"> <li>- Student pre/post surveys (432)</li> <li>- Researcher surveys (27), IDIs (3)</li> <li>- Teacher FGDs (4)</li> <li>- Career tracking</li> <li>- Post University event surveys</li> </ul>	<ul style="list-style-type: none"> <li>- Reach: 14,000 students in 70 schools and universities, 36 attachments</li> <li>- Student input into research (Biobank, Shigella studies)</li> <li>- 5 Publications and TGHN SEP webpage</li> <li>- Winner of the Oxford University PER Award 2019</li> <li>- International workshop for practitioners: attended by 28 School engagement practitioners from 14 institutions worldwide.</li> <li>- Development of novel engagement products: a book featuring research scientists across SSA, videos, comics.</li> </ul>
Radio	Media engagement Lead 1 CLO 4	GBP 100K (over about 3yrs)	<ul style="list-style-type: none"> <li>- Episode monitoring inc. calls, SMSs, and social media</li> <li>- Review workshops with staff, fan-clubs and radio team</li> <li>- IPSOS Synovate media report</li> </ul>	<ul style="list-style-type: none"> <li>- Programmes: 54 (48 live &amp; 6 pre-recorded) programmes</li> <li>- Participants: 43 researchers, 11 KCDoh, 9 clinicians, 9 CPE staff, 3 KHDSS staff, 2 fan club members, 1 communications staff, 1 PhD student, 1 community member (parent of a child with autism).</li> </ul>
Magnet theatre	CLO 5	GBP 14K (12 outreaches in the community)	<ul style="list-style-type: none"> <li>- Reflection meetings and workshop reports and minutes</li> <li>- Audience observations/ counts</li> <li>- FGD with implementors</li> </ul>	<ul style="list-style-type: none"> <li>- Programmes: 12 community outreaches</li> <li>- Reach: 1454 total audience reached</li> <li>- Peer reviewed publication: 1</li> <li>- Information brief: 1</li> <li>- Blog: 1</li> </ul>
MT Radio drama (MT Reloaded)	CLO 3	GBP 15K (12 radio drama shows)	<ul style="list-style-type: none"> <li>- Episode monitoring including SMS and call logs, social media</li> <li>- FGDs, mid-term review reports</li> </ul>	<ul style="list-style-type: none"> <li>- Programmes - 12 radio MT dramas</li> <li>- Reach: up to 961 Facebook participant contributions per programme</li> </ul>
Open days	CLO 4	GBP 8K (per annum – depending on open day frequency)	<ul style="list-style-type: none"> <li>- Open day reports</li> <li>- Attendance Sheets</li> </ul>	<ul style="list-style-type: none"> <li>- Reach: up to 900 community members 2016-2019</li> </ul>
Staff/FW training	CLO 5-6	GBP 250 per training	<ul style="list-style-type: none"> <li>- Monitoring of trainings and feedback</li> </ul>	<ul style="list-style-type: none"> <li>- Over 200 staff trained on communication and consenting/ethics</li> </ul>
Media engagement	HoC 1, Media engagement lead 1	GBP 7K for 1 workshop and two media tours	<ul style="list-style-type: none"> <li>- Pre/ post-workshop survey, meeting reports, attendance reports</li> </ul>	<ul style="list-style-type: none"> <li>- 1 Media engagement workshop</li> <li>- 2 media tours</li> <li>- Reach: 53 repeat participants of 24 journalists, 3 bloggers, and 26 researchers</li> </ul>
KCRs	3 CLOs, 1 CLM, 1 FW	GBP 17K (per annum)	<ul style="list-style-type: none"> <li>- Debrief meetings minutes</li> <li>- FGDs transcripts</li> </ul>	<ul style="list-style-type: none"> <li>- 2 rounds of elections = over 400 community representatives reached</li> <li>- 2 rounds of 16 meetings (each group membership between 9-25 members)</li> <li>- 1 annual workshop with 16 KCR groups</li> <li>- Reports and meeting minutes</li> </ul>
M&E	1 RO, 1 ARO, 4 FWs And 3 data clerks	Integrated with activities		<ul style="list-style-type: none"> <li>- Reports, publications, info briefs (noted above)</li> </ul>

**Abbreviations:** CLO = Community Liaison Officer; FW = Fieldworker; FGD = Focus Group Discussion; IDI = In-depth Interviews



## 1 The School Engagement Programme

### 1.1 Description

Between September 2016 and September 2021, the SEP has facilitated engagement interactions between health research staff and students from over 70 educational institutions across Kenya, including 55 secondary schools, 15 primary schools and 15 colleges/universities. The range of activities is broad and aimed at: raising student interest in science, health research and careers in both; incorporating student views into research; and nurturing researcher appreciation of community views. Pre-Covid-19 activities comprised: the school leaver attachment scheme (funded through IDEAL); student visits to KEMRI; primary school science clubs; young persons' advisory groups (university and school based). Due to the pandemic, SEP activities were on hold between April 2020 and May 2021. From May 2021 the team has been developing and testing virtual engagement, and evaluation of these activities are currently being planned.

### 1.2 Key outputs/outcomes

These are described in detail in the SEP report 2019. In summary, highlight outcomes include:

- Engagement with ~ 14,000 primary and secondary students (September 2016 – April 2020). For students, involved direct engagement with researchers and research staff through:
  - Attending KWTRP lab-tours and interactive discussions with researchers.
  - Attending school-based discussion sessions (ranging between 20 and 400 students) with researchers.
  - Having on-line textual chats, Q&A, seminars through teams and the "I'm a scientist get me out of here" platform.
  - Motivational talks given (est. 800 students per talk) and one-to-one discussions with smaller groups at County Science and Engineering Fair.
  - Weekly primary science club activities.
  - Inter-school competitions and seminars at KWTRP.
  - Discussions about ethical dimensions of research through participation in Young Person's Advisory Groups.
- Establishment of a university engagement programme.
- Development of a primary science club work-package piloted in 15 schools.
- 36 school leavers attached at KWTRP for 3 months, 4 of which received scholarships to attend international meetings. Alumni's have progressed to further attachment/employment in research, a Rhodes Scholarship, and a PhD fellowship.
- Since schools re-opened in April up to October 2021, SEP staff have implemented: 19 online seminars involving 398 students and 12 teachers across 8 schools; 13 YPAG sessions with 38 students across 3 schools; and an essay competition.



### 1.3 Evaluation findings

This is presented for primary school, secondary school, and University components:

#### 1.3.1 Primary school Engagement

The primary school science clubs project was initiated in 2017 through a formative research project to explore existing science club practices and the appetite for establishing school clubs in Kilifi. This informed a development phase which involved working with a group of 5 teachers to develop locally appropriate activities for students comprising science worksheets and a symposium. Teachers contributed significantly to the development and testing of activities and worksheets, which are currently being developed into workbooks for students and teachers.

Table 2: Summary of the Primary School Science Club development 2017-2020

Date	Activity	Outputs
2017	Stephen Mwaniki Formative research conducted.	Telephone survey across 30 primary schools Interviews with headteachers finding: <ul style="list-style-type: none"> <li>• Students lack opportunities for practical science.</li> <li>• No existing science clubs.</li> <li>• An enthusiasm for starting science clubs.</li> </ul>
2018	Shadrack Baraka Development and piloting of primary school activates.	<ul style="list-style-type: none"> <li>• 5 schools identified and agreed to participate.</li> <li>• Primary curriculum review and science club practical sessions developed (circulation, nutrition, plant growth).</li> <li>• Piloted over 13 sessions with 130 students.</li> </ul>
2019	Participatory development and piloting of further sessions, annual model competition and evaluation.	<ul style="list-style-type: none"> <li>• Development of materials through teachers' workshop (<i>properties of matter, energy, solar system, weather instruments, teeth, and flowers</i>).</li> <li>• 40 club sessions facilitated with 200 students.</li> <li>• Science Symposium - 120 students and 20 teachers.</li> <li>• Student's experience explored through survey.</li> </ul>
2020	Teachers' evaluation meeting.	Workshop where teachers shared their experience of the clubs and activities (notes taken).

#### Monitoring and evaluation

Two methods were used to evaluate the primary school project: documenting teachers views and experiences during development workshops (detailed notes were taken of all the points raised); and a student post-activity survey (n=99).

#### Summary of teachers' views and experiences:

##### Strengths:

1. The activities aroused learners' interest, confidence and exposure in science and imparted knowledge.
2. The symposium was enjoyed and presenting their work strengthened learners' confidence and self-expression skills.
3. Other teachers got interested in science club activities.
4. The use of locally available materials to build models was appreciated because it was low cost.
5. Children came up with their own activities and learned from their peers.
6. Teachers and pupils appreciated the prizes.

##### Challenges:

1. The establishment of school science clubs fostered a demand for inclusion by many students. However, the practical nature of the activities limited the number of students who were able to participate.
2. Teacher preparation and practical sessions were time-consuming.

*Student survey:* given that measuring impact is expensive and time consuming, and that any time taken from student learning activities must be weighed up against the potential benefits to students, a post-exposure survey was taken. It provides some limited evidence of enjoyment, learning about KEMRI and support to curricular activities. Survey results can be seen in Figure 1.

### STUDENT RESPONSES TO LIKERT STATEMENTS

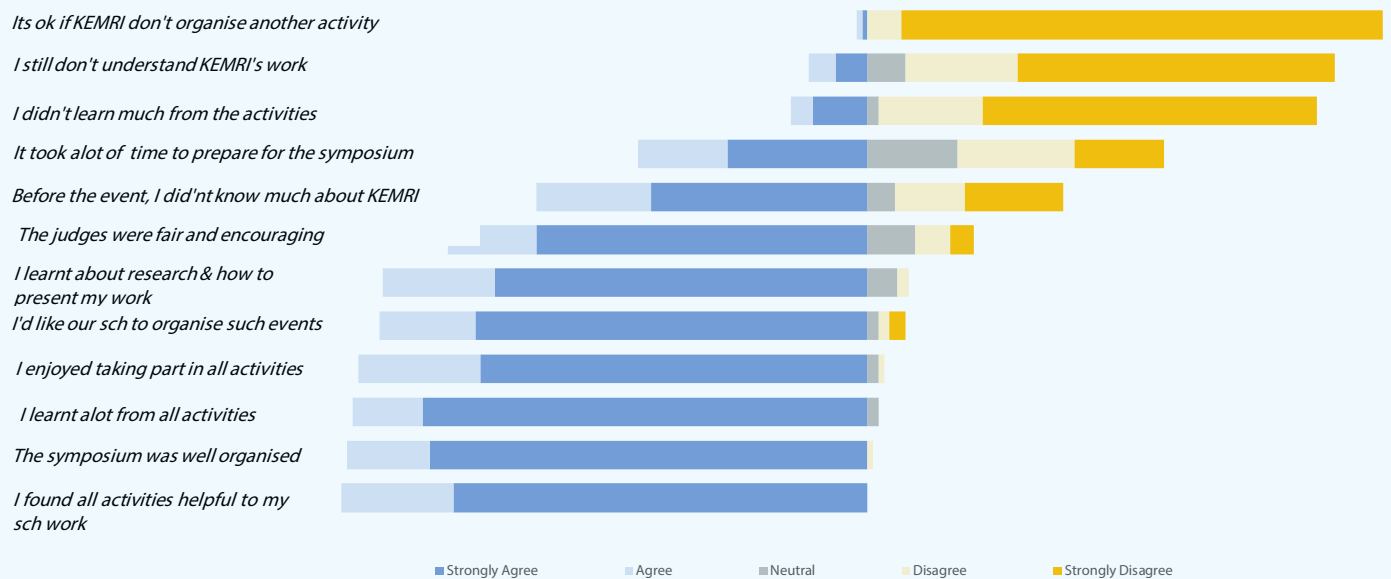


Figure 1: Student responses to Likert statements related to participation in engagement

### 1.3.2 Secondary School Engagement

Table 3: A summary of secondary school activities 2017-2019 is described in the table below:

Year	Activity	Participants
2017	School lab tours and interactions with KWTRP researchers.	555 students - 9 schools.
	Researchers visiting schools to give career and health talks.	1200 students - 5 schools.
	School-leaver Attachment students hosted for 3 months.	9 students - 3 months.
	Secondary school science symposium.	116 students - 29 schools.
	I'm a scientist on-line platform.	21 schools (NBI and KLF).
	Attending/supporting Kilifi County Science & Engineering fair.	Teachers and students (900) - Kilifi schools.
2018	School lab tours and interactions with KWTRP researchers.	450 students - 9 schools.
	Researchers visiting schools to give career and health talks.	1000 students - 5 schools.
	School-leaver Attachment students hosted for 3 months.	9 students - 3 months.
	Secondary school science symposium.	110 students - 36 schools.
	I'm a scientist on-line platform.	334 students in 22 schools.
	Attending/supporting Kilifi County Science & Engineering fair.	Teachers and students (900) - Kilifi schools.
	Local Education stakeholders meeting.	12 attendees.
	Young Persons Advisory Groups YPAG (3).	15 meetings - 48 students.
	<b>International School engagement workshop, Nov 2018.</b>	29 attendees.
2019	School lab tours and interactions with KWTRP researchers.	629 Wstudents - 10 schools.
	Researchers visiting schools to give career and health talks.	2800 students - 7 schools.
	School-leaver Attachment students hosted for 3 months.	9 students - 3 months.
	Secondary school science symposium.	102 students - 34 schools.
	I'm a scientist on-line platform.	500 students - 18 schools.
	Attending/supporting Kilifi County Science & Engineering fair	600 students - 30 schools.
	Local Education stakeholders meeting.	6 attendees.
	Young Persons Advisory Groups YPAG (3).	18 meetings - 48 students.
	Science club support.	42 students - 2 schools.
2021	Young Persons Advisory Groups YPAG (3).	13 meetings - 38 students.
	Essay competition.	39 participating schools.
	Education stakeholders meeting.	6 participants.
	On-line seminar-discussions with students (19 sessions).	398 students - 8 schools.

## Monitoring and evaluation

Four methods of evaluation were drawn upon to evaluate the secondary school programme: a) student pre and post lab-tour survey done in 2018-2019 (see annexe 4 for complete survey results); b) annual teacher reflection workshops; c) Interviews with researchers (done in 2021); and d) the researcher survey.

Table 4 illustrates examples of positive impacts on school students:

- Understanding of and attitudes towards KWTRP health research.
- Attitudes towards science and interest in pursuing science related careers.
- Acknowledgement of Kenyan scientists, and specifically female scientists.
- Reflection of the relevance and importance of science subjects in health research.

Table 4: Selected pre and post engagement student responses illustrating impacts of SEP

Sample Likert statement	Pre-visit student responses (n=432)	Post-visit student responses (n=431)
Kenya has world leading female scientists		
The work of KWTRP is good for the community		
Biology is important for health research		
I do not know what happens to blood samples taken by KWTRP		
I'm interested in a job related to maths		
Biology is important for my future job		

Researchers expressed that participation in SEP:

- Despite being challenging, provided enjoyment and satisfaction.

*"Anxiety, anxiety excitement umm and eventually satisfaction that I've been able to probably and hopefully mentor a few people..." (M2, Male researcher)*

- Positively influenced their appreciation of challenges in the community and the significance of community engagement.

*"...I would have really mixed feelings about it both being exciting and also a reality-check of the disparities between the different levels of capacity of school... You get a lot of insights from very many different places and especially for social science work, every interaction with someone in terms of in relation to your work is always a learning opportunity to get new perspectives that you didn't think about..." (F1, female researcher)*

- Strengthened their communication skills and to engage.

*"I [was] trying to umm discuss some of my work was challenging because it may seem abstract to someone who is not ah very much involved in the kind of work that I was doing..." (M2, Male researcher)*

- Researchers' busy schedules, limited time, and training for engagement constrained impact on students.
- Some researchers felt inadequately prepared to respond to questions about sexual reproductive health.

*"These are teenagers, it does boil down to sexuality, sexual reproductive health, and interpersonal relationship. So sometimes you get a little, not sure what the right word is, a little unsure how to respond to a lot of the questions..." (M1, Male researcher)*

Figure 2 below illustrates that 7/27 researchers (mainly PhD and post-doctoral researchers) felt that engaging school students influenced their work, 27/27 expressed that they enjoyed participating in SEP activities and that the activities were beneficial to students.

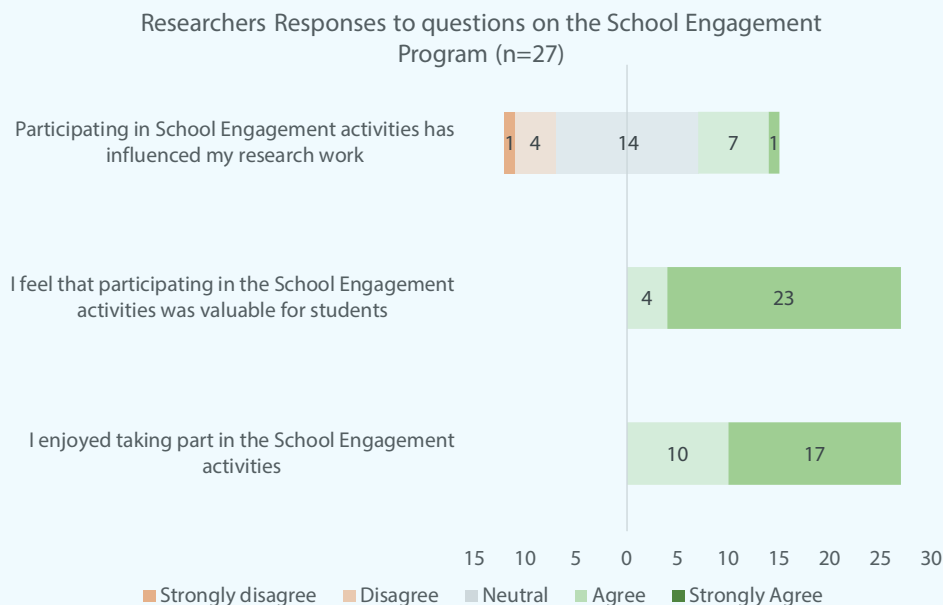


Figure 2: Results from the researcher surveys to the three Likert type statement asked specific to the SEP

#### Teachers reported that:

- Their students enjoyed and were motivated by the activities and adopted scientist role models.
  - *"Is it George [researcher who regularly participates in SEP], yeah yeah that George. So you realise that most of them they will want to be like him so you see now through KEMRI such boys are being motivated and then they get to attain to their dreams and that is through your work that you are doing as KEMRI."* (P3, Male science teacher)
  - *"...in fact they were telling me that we should organise to come so that they could see most of those things which are in the lab..."* (P9, Male science teacher)
- In some cases, engagement led to reported improvements in science interest and performance.
  - *"...I think for the last three years now we have had a positive deviation in the science subjects because it [Science Symposium] is really, really motivating."* (P9, male science teacher)
- Students faced language challenges, and in a few instances, did not understand why they were visiting KWTRP.
- Teachers appreciated the prizes their schools won in competitions, but experienced negative views about KEMRI from colleagues:
  - *"Now I think the views are a bit negative from majority of them. I remember talking to one of my colleagues about the medical research done in KEMRI and then this colleague is a teacher who is learned, and she was telling me that KEMRI people want blood from people. That's a teacher saying they want blood from people."* (P5, science teacher)
- Teachers would like to be more involved in organising of events like the symposium (recently we have been able to facilitate this through forming a teacher's committee to support the 2021 inter-school essay-writing competition.
  - *"In future you can involve a teacher, maybe you can involve teachers the schools that are participating yeah it is good because we need to be fair at some point in terms of the syllabus coverage."* (P5)
- Some teachers regularly request for financial rewards for facilitating their students' participation.



### 1.3.3 University engagement

Between April 2019 and September 2021 an estimated 846 students from 15 Universities and 3 colleges attended fora hosted by KWTRP. These students were from 14 public institutions and 4 private universities in different cities and towns across Kenya.

Table 5: Summary of University engagement activities

Date	Activities and Outputs
2019	<ul style="list-style-type: none"> <li>275 students from 7 universities attended 6 KWTRP sessions.</li> <li>JKUAT students were awarded KES 25,000 to host a youth-led forum to discuss Universal Health Coverage (UHC).</li> </ul>
2020-21	<ul style="list-style-type: none"> <li>223 UoN and Strathmore students at 3 different forums on health research in Kenya and on careers health research and science.</li> <li>The I'm A Scientist (IAS) online platform facilitated online engagement between students and 12 African researchers for a two-week period responding to a wide range of questions.</li> </ul> <p>Post lockdown</p> <ul style="list-style-type: none"> <li>184 students from 6 institutions attended 4 virtual meetings (Nov 2020 - Feb 2021) on: Understanding COVID19, the ChAdOx1 Clinical trial, gender equity in science and careers in health research and science.</li> <li>Young People Advisory Group (YPAG) constituted comprising 20 students from 5 universities across Kenya. The University YPAG has been consulted on: Shigella challenge studies; and a film about mental health.</li> <li>132 university students participated in a CPE forum. This was the largest ever on-line university meeting which served as a learning resource for implementors on best practises when hosting online engagement forums.</li> </ul>

### Monitoring and Evaluation

The programme was evaluated mainly through on-line student surveys, but also through group reflection and the researcher survey. Findings are listed below:

2019

- 78% of respondents agreed that discussions with researchers were interactive.
- 68% of respondents reported learning about possible research careers.
- 92% of the respondents enjoyed the presentation and engagement.
- The quotes below provide evidence of students learning about research.

*"The forum on Universal Healthcare stood out the most to me because I had never heard of such a term before and to find out the possibilities of an entire population, especially the less fortunate, getting health care cover seems within reach for our country."*

*“The discussion on the fundamental principles of research was just awesome. I learnt that it is majorly through unwavering research that even the treatment of threatening illnesses will be achieved. I also learnt about the possible careers in health research.”*

2020 -2021

- 100% of respondents were interested in attending other KWTRP activities.
- The IAS platform was given an average rating of 4.32/5.00 by participating students and commented that the scientists were knowledgeable, friendly, and provided prompt answers to their questions.
- Questions raised by students on career opportunities in research, malaria research, health related questions like secrets to healthy living, causes of haemorrhoids, bacterial infections.
- Large virtual meetings for students across many institutions are logistically challenging (reimbursement of data bundles and ascertaining student motivation for joining). More focused virtual meetings, for example, with YPAGs proved to be more fruitful.

As figure 3 below illustrates, 6/13 researchers (mainly PhD and post-doctoral researchers) felt that engaging school students influenced their work, 13/13 expressed that they enjoyed participating in SEP activities and 12/13 felt that the activities were beneficial to students.

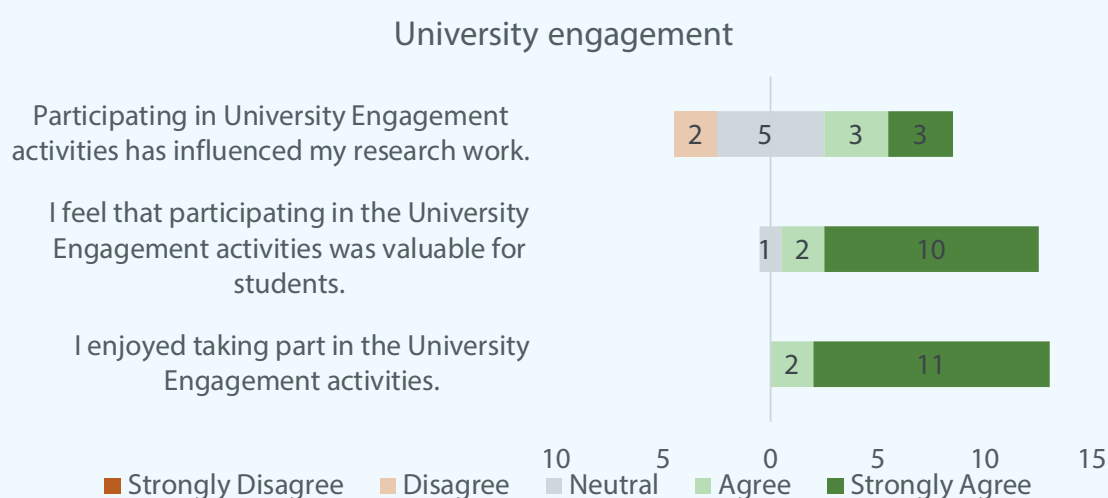


Figure 3: Researcher responses to Likert type statements on university engagement\

#### 1.4 Challenges encountered:

- Kilifi education stakeholder engagement - We have regularly engaged with staff at the county education office from the SEPs initiation in 2008, and since 2017, have held Kilifi education stakeholder meetings at KWTRP. Since 2016, SEP activities in Kilifi require permissions from the Teacher Service Commission (TSC) as well as the county education office. Frequent changes in county directors of both bodies seriously disrupt and cause delays to our work. Continuous and sustained engagement with both groups and flexibility will be needed to continue the smooth running of the programme in Kilifi.
- Obtaining national permissions for I’m a Scientist Get me out of here has been challenging despite repeated submitting, re-submitting timely applications and reports and frequent follow-ups.
- In Nairobi - instead of school engagement, we have focussed on university engagement. This is in line with researcher preferences shared in 2016.
- Holding meetings with teachers has been challenging over the past two years due to internet connectivity and teachers’ (particularly primary) lack of familiarity with Teams.

### 1.5 How well the objectives have been met

As reflected in table 6, each component addressed SEP goals to different extents, and this is partly because of the age of the students, and also because of how the goals were negotiated with teachers. For example, the primary school engagement focussed more towards nurturing an interest in science through science club activities as agreed upon with teachers, while it was felt that older secondary school and university students would be more able to comprehend research concepts and apply them towards sharing their insights into research.

Table 6: Summary of evaluation evidence of success in meeting specific goals at primary, secondary and university levels

	Type of evidence	Primary school engagement	Secondary school engagement	University engagement
<b>Raised an interest in science</b>	Quantitative	Yes	Yes	No
	Qualitative	Yes	Yes	No
<b>Raised awareness of health research</b>	Quantitative	Weak	Yes	Yes
	Qualitative	Weak	Yes	Yes
<b>Researchers draw insights into research</b>	Quantitative	No	Yes	Yes
	Qualitative	No	Yes	Yes

Two points are worthy of consideration in looking forward to future evaluation. First, while we have some evaluative data which suggests that school engagement activities have met its objectives with respect to participating students, our evaluation lacks consideration of the impact of SEP on teacher and parental attitudes towards KWTRP. Anecdotally, through stakeholder and community meetings there appears to be community support to the SEP activities, though this could be explored further. Second, drawing from YPAGs towards incorporating youth views into research is gaining prominence in the engagement field, and while our work towards this is 'outcome-based', future evaluations could explore researcher views of the usefulness of the activities, and student views of any benefits which they gained from the activities.



## 2 Radio Programme

### 2.1 Description of activities

Engagement through radio has the potential to reach a wide coverage across varying geographical and socio-economic settings. KWTRP implemented an interactive radio programme named 'Jukwaa la Utafiti' (JLU) aimed at stimulating dialogue about health research among publics. JLU provided health research information while giving the audience a chance to engage with scientists and raise questions and concerns. The programme was implemented in collaboration with the Kilifi County Department of Health (KCDoH) and a Coastal Kenya radio station - Baraka FM after a 6-month pilot programme in 2016. Co-developed themes which aired over 1-5 weeks per theme, included vector-borne diseases, HIV and mental health. Programme content comprised of topics like KWTRP's research mandate, research ethics, diseases, their causes, signs and symptoms, treatment, prevention measures and research activities and KWTRP capacity building initiatives and research careers. JLU ran from July 2018 to July 2019 and was aired every Thursday between 7.00pm and 9.00pm during 'Chanja Maswala'; a popular Kiswahili discussion segment on Baraka FM. A total of 54 programmes (48 live and 6 pre-recorded programmes) were aired in that one year. The radio programme was promoted using a road show that started in Mombasa and ended in Malindi where branded items including fliers, and gift items like bags, T-shirts, pens, and key holders were distributed throughout. It was also promoted during Magnet Theatre outreaches (see section 4 below).

### 2.2 M&E methods

Implementation of JLU was guided by a theory of change, and its M&E employed both qualitative and quantitative data collection methods. Quantitative data included monitoring the number of calls and text messages received during the programme. A report from Ipsos Synovate; an independent media monitoring company obtained at the end of the programme also contributed quantitative data. Qualitative data was obtained from reports and interviews. Qualitative data obtained in these meetings were analysed using a framework approach. M&E activities are summarised in table 7.

Table 7: Summary of Radio M&E methods

M&E activity	Frequency	Total
<b>Quantitative</b>		
Live monitoring of the radio programmes	Weekly	54
Monitoring of calls and texts received during the show	Weekly	54
Monitoring of the radio station's Facebook page	Periodically	
Review of data from Ipsos Synovate media monitoring company	Once	1
<b>Qualitative</b>		
Reports of review meetings with Baraka FM radio station staff	Every 6 weeks	6
Reports of review meetings with fan club members	Quarterly	9
Reports of review workshops with Baraka FM, fan clubs and studio guests	Quarterly	3
Reports of open days with 2 fan club groups at a time	Once	3
Analysis of transcripts of short video interviews with studio guests	Once	3



## 2.3 Outcomes

### Learning from M&E and continuous improvement on programme implementation

M&E activities were embedded into programme's one-year implementation. Continuous monitoring facilitated learning and where applicable, the findings were used in real time to improve the ongoing radio programme in an iterative manner. This included programme adjustment drawn from learnings obtained from monitoring meetings with members of the fan club groups. Examples include:

- Extending the programme to two hours from the initial one hour.
- Improvement of presenters' time management to ensure his engagement with the studio guest did not eat into time for audience engagement.
- Diversifying incentives from gift hampers which had to be picked at Baraka FM or KWTRP to airtime to save on transport costs.
- Involving the fan club members in recording dramas in the community on themes of their choice which were then aired as pre-recorded programmes.

Additionally, in response to fan club members' requests, open days were arranged at the end of the programme in 2019, in which members were taken on a laboratory tour.

### The reach of the radio programme

The radio programme had far-reaching listenership in the Coastal part of Kenya, from Lunga Lunga in Kwale County which borders with Tanzania in the south, to Tana River County in the north. Approximately 150,000 listeners per episode (Ipsos report) tuned in and engaged with researchers on JLU. This was however only 0.1% of the listenership compared to 1.5% overall daily reach, which placed Baraka FM at position 14 out of 15 of the radio stations analysed in the Ipsos report. The reduced evening listenership was a common phenomenon for all the coastal radio stations because of the competitiveness between the numerous new radio stations for the 7pm - 9pm slot. These included Kaya FM and Tana FM and also by national radio stations like Radio Citizen and Radio Maisha as illustrated in figure 4 below. This was particularly because the other radio stations aired equally popular programmes at the same time with JLU.

## COMPARING DAILY REACH WITH EVENING REACH

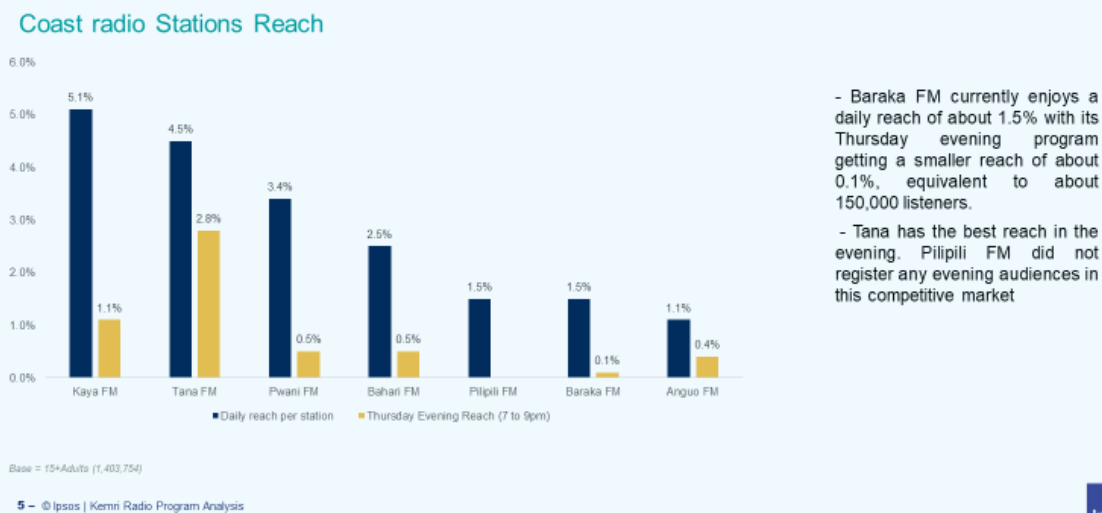


Figure 4: Baraka FM evening listenership compared to other radio stations

Competition between radio stations was also confirmed by qualitative data gathered from the fan club members during the quarterly review meetings. Our data indicated that most of the participants had listened to JLU only once or twice within the 3 months, where an average of at least 12 programmes had been aired. A few amongst them had listened to a maximum 4 or 5 programmes. Other barriers reported to listenership included that JLU aired when people were either at work or in school or on the way home, being tied up with household chores and poor reception/radio waves in some localities.

## Engagement during the JLU programme

Over the duration of the programme, 2313 mobile phone messages (SMSs) were received; the majority comprising of questions about medical/public health problems. Figure 5 illustrate this and shows the specific health areas eliciting discussion with nutrition and HIV dominating the questions.

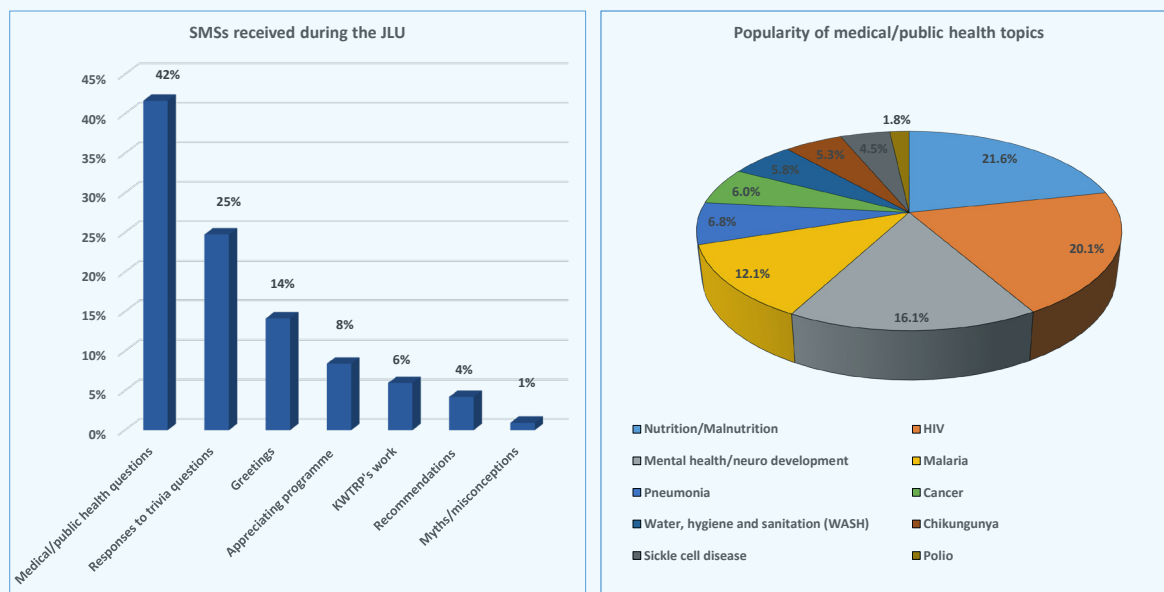


Figure 5: Audience SMS messages received by thematic area and specific health topics

## Promoting better understanding of KEMRI's work among listeners

A common misconception in the community in Kilifi is that KEMRI and the County hospital are one and the same thing. Through the radio programme, listeners expressed having gained a better understanding of the role of KEMRI as being a research institution, as shown in the quote below.

*"... I live here in Mnarani and when KEMRI was starting I saw it like this, but I came to know more about KEMRI because of Baraka FM. When we ask questions in those [radio] programmes, they answer us and because of the way they give us information, that is how I got to understand that KEMRI does so much more work than I initially thought."* (2nd Kilifi-Malindi review meeting)

## Listeners appreciating the relevance of the programme

Fan club members stated that they could identify directly with the diseases/conditions and situations being discussed on radio and that the programme was therefore relevant to the different contexts the communities they lived. They especially appreciated that it provided an opportunity to engage with the researchers and CDoH officials on health issues affecting them directly.

*"I usually listen to radio and I listen to this [station] because whether a person [lives] in the rural or in town, they get to hear what research is going on at Kilifi and also the citizens get an opportunity to contribute or talk about what is happening in the community. It is therefore easy for someone to listen to the things that are happening in the community you live in."* (Fan club member round 1 review meetings)

## Improving listeners' understanding of health and health research

Fan club members lauded the researchers for how well they explained about the diseases/conditions and how they were treated; and acknowledged that the information they provided was based on their rigorous research. They were particularly happy about being able to receive answers to their questions in real time. They also reported that they appreciated the researchers' politeness and attempts to use simple language despite the technical nature of the topics being discussed. They said that this motivated them to continue to listen and engage.

*"... when the questions are asked the responses that they give about the particular disease they research on*

*are very informative. ...it is very clear and captivating, and everybody understands. Even when someone gets stuck, you find that even the [researcher] who is there, if he doesn't know the word in Kiswahili you still find him really trying to explain until you find that it becomes clear ...and you know that this is what he is aiming at. So, you find that it becomes very easy to understand.”* (Fan club member round 3 review meetings)

### **Enhancing Researcher communication skills**

The radio programmes were conducted in Swahili and this was challenging to many scientists who used mostly English and had no prior experience of engaging with the public through radio. Despite initial fears and reservations of communicating in Swahili, participating scientists expressed that they enjoyed the live studio shows.

*“Ooh, that was a more interesting day. ...So, when I got the call to go and do [a programme] I was, “It has nothing to do with me, you know! What do you tell people on radio? What do you speak for two hours to people? And then additionally the worry that it's all in Swahili? ... I am a scientist, you know, how do I speak on radio! But it went very [well] surprisingly once the programme begun... then really the time flies by.”* (Studio guest short interview 1)

In addition, they recognized the importance of disseminating their research to public audiences and reported learning how to communicate complex science to enable the lay public to understand their work.

*“So, I think one of the take-home messages, aside from the learning, is that it is important to be able to communicate what you do. Sometimes we do really high impact work, we do work that is so important but we as scientists are not able to communicate it out there and consequently sometimes it's picked up by journalists or picked up by lay people who then misinterpret it. So, in addition to doing excellent work, I think to be able to communicate what you are doing to a lay public and be able to interact with people. Tell them, well, what you are doing is important and what they can do with the information that you are generating.”* (Studio guest short interview 1)

### **Promoting 'people-centred' research**

Scientists who participated in the radio programme were surprised that the audience who they thought were not well informed about science and research asked questions and made pertinent contributions from a lay man's point of view. This helped them learn a lot and they reported having better appreciation for the importance of engagement for research.

*“But I think the most interesting point was when we were given an opportunity to go and interact with them one on one through a radio fan club [meeting] where I was actually able to learn so much from them and about some issues that I had not thought about; some lens which the community interprets epilepsy that a medical person doesn't.”* (Studio guest short interview 2)

They also expressed that the insights gained from participating in the radio programme had an impact on their work.

*“Yeah, so I would say that it has had an impact on my research work from now going forward. Previously, I was more keen on epidemiology and studies on understanding the nature of the disease, but following these radio shows I have realized that I really need to invest much on research that addresses the problems of the people directly. And subsequently, we have been able to obtain funding that will enable us to work very closely with the community, with the epilepsy stakeholders in Kenya, civil society as well as international stakeholders to reduce both the diagnostic and treatment gap for epilepsy as envisaged in the World Health Assembly Resolution for Epilepsy.”* (Studio guest short interview 2)

Data from the researchers' survey indicated that 53% of researchers said that participating in the radio programme changed the way they work.

## 2.4 Reflecting on what works and what doesn't work for Radio engagement

While radio has a very large listenership; rated as the most accessed form of media by [GeoPoll](#) in 2021, we learned that different challenges prevent listeners from tuning in and listening to our radio shows (already highlighted earlier in this report). In the initial pilot radio project (2016), we had also partnered with one radio station, with a fortnightly evening show. Findings of both the pilot and phase 2 of the radio programme indicated that being on air on one radio station at a fixed time slot was limiting listenership, despite public interest in the programme. In response, we expanded the radio engagement to five additional radio stations, covering different times of the day (morning, afternoon, and evening shows). Four of these are local coastal stations while one is a station with a national reach based in Nairobi.

We also learned the intricacies of how radio stations work, and how listeners can get attached to one presenter to an extent that change of a presenter can positively or negatively impact radio shows. This was seen when the presenter we worked with in 2016 left for further studies and left 'big shoes to fill'.

*"There are consequences once we have started something, and then change the person [presenter] midway, why, because many people get used [to someone]; in fact, even for those who listen to radio, you find that they listen to other [stations] because maybe one moved from this group and went to another station and [listeners] followed [him/her] there. So, there is a danger right now because some people had grown to treasure that [presenter] and by the time they get used to another..." (P24, male, Radio Fan Club member, Kalokeni-Mariakani-Rabai)*

The radio station management has the final decision-making power on who gets assigned to lead and present a radio programme. However, monitoring of the phase 2 (2018-2019) radio programme revealed concerns that the assigned JLU presenter was not meeting our expectations. This resulted in a replacement presenter. The M&E and CLG teams were satisfied with the other presenters.

Despite our aim of engaging publics on health research, mobile phone text messages and calls to scientists in studio indicate the great need for health information in the population. Instead, Figure 5 on page 18 shows that 42% of questions asked were medical/public health questions, against 6% that were about KWTRP research work. This highlights the importance of discussing research within its broader health context so that the discussions are aligned with listener priorities. This is consistent with other research radio shows that have been implemented previously, for example in Malawi where listeners of a health research radio programme asked more questions about diseases/illnesses, compared to questions about research.

### Benefits of relationship building

Our partnerships with local media houses, especially Baraka FM with whom we have had the longest radio partnership, came into fruition in 2020 when the COVID-19 pandemic started. Government and institutional restrictions meant that we could no longer hold physical engagement activities. Baraka FM and 3 other local/coastal radio stations and 1 radio station with a national reach were essential as an avenue for continued engagement at a time when communication was needed to support work on COVID-19 and inform the population, but physical meetings could not take place.

In the context of emerging epidemics and social restrictions on engagement, radio becomes an essential tool for engagement. Continuous M&E with regular feedback between the CLG and radio staff has been essential in refining the engagement and the findings will inform its use in the future. For example, the radio programme was initially only one hour but it was increased to two hours after fan club members reported the need for longer engagement. This was negotiated with Baraka FM and implemented. Fans also reported poor Baraka FM reception in some localities within Kilifi; which Baraka FM worked on and rectified.

### Responsiveness to our listeners recommendations

A concern that was brought up in several engagement sessions with a group of community representatives was that Baraka FM reception was very poor (or non-existent) in some areas. Baraka FM had stronger reception in Mombasa town and its environs but became poor further away from the city. Community representatives, and radio fan club members recommended moving the radio show to a different station. In our discussions, we felt that dropping Baraka FM where we have built capacity, as well as a good following, would not be a good option, and opted instead to add radio stations in an effort to reach those not reached through Baraka FM.

## **2.5 How well the objectives have been met**

The data presented in this report has indicated that despite stiff competition for listeners, Baraka FM where JLU was aired was able to reach approximately 150,000 listeners every Thursday. The data has showed that those who tuned in enjoyed the programme with some actively participating in calling in and sending text messages. JLU therefore offered opportunities for co-learning; where the community learnt about KEMRI's work, about health and health research, and researchers learned about community needs and concerns around health issues and health research. The data also shows evidence of how researchers developed a better appreciation for engagement which has had an impact on how they will conduct research henceforth. This mainly addresses objective 1 of the M&E protocol which it "building mutual understanding, appropriate levels of trust and respect between KWTRP researchers/institution and communities."

In terms of the radio initiative addressing the second goal of CPE (enhancing ethical conduct of research) we have provided some evidence that to some extent the approach gave an opportunity for (i) a limited number of community members to raise concerns and questions about health research for which they received responses either on real time or after the programme (ii) improved understanding of health and health research which can both lead to informed decision making (iii) showing respect to community members through being responsive to their suggestions.

Whilst radio may be criticized as being predominantly a one-way mode of communication, we were able to sustain engagement beyond the studio time by sending audience questions to scientists. In addition, lessons learned from implementing the radio phase 2 have been drawn upon to implement phase 3 with Baraka FM, three other local coastal stations and one national station where further reach, increased engagement and therefore more mutual-learning is envisioned.



### 3 Magnet Theatre

#### 3.1 Description

Magnet Theatre (MT) is a specific form of participatory community theatre that is conducted at a regular time and place over an extended period. A key characteristic of the approach is that actors present a topic of interest, in this case health research, and the drama is paused at a point where the actors face a dilemma. The audience are then invited to reflect on the problem, discuss possible solutions to the dilemmas and enact how the drama should proceed. KEMRI Wellcome Trust Research Programme's (KWTRP's) MT aimed at raising audience awareness of research and at enabling members of the public to share their views, experiences, and concerns about health research.

Jukwaa Arts (JA), a local Kenyan theatre company was contracted to conduct MT at two localities 100km apart in Kilifi County (i) *Mtwapa*; an urban town south of Kilifi; and (ii) *Mida*; a rural setting to the north of Kilifi.

Sites were carefully selected in consultation with community leaders and drama scripts were co-produced between JA and the KWTRP engagement team based on topics derived from questions raised by the community. Six outreaches per site were conducted fortnightly from 3.00pm to 5.00pm between March and September 2018. The drama presented health research-related dilemmas to the audience who were subsequently invited to share their views and act out how they would address the dilemma.

#### 3.2 M&E methods

Data collection methods comprised: desk reviews of minutes of planning and debrief meetings; field notes; outreach monitoring reports; a reflective workshop conducted with audience members who had attended four or more consecutive outreaches at each site; and a focus group discussion (FGD) with community engagement staff involved in the implementation.

#### 3.3 Results

##### 4.3.1 Audience reached

A total of 1454 people living around the identified venues attended the outreaches in both sites and it appeared that the public promotion of the events was effective. Estimated counts revealed that in both sites the majority of the audience were observed to be women as seen in the table below and staff commented that they were mostly middle-aged.

Table 8: Breakdown of outreach attendance

Site	Male	Female
Mtwapa	338	514
Mida	270	332
<b>Total</b>	<b>608</b>	<b>846</b>

### 4.3.2 Evaluation findings

#### **MT offering opportunities for audience members to share their views concerns and questions**

Regular performances at a single venue provided a forum for audiences to raise questions and share their views and concerns about health research. Views comprised:

- Concerns about the consequences of refusing to take part in research.
- Concerns that KWTRP promoted sex at the Mtwapa clinic.
- Questions about blood drawing, specifically the large blood volumes drawn from children.
- The time taken from research conduct to getting results/findings (why some results are given immediately, and others are not given).
- The difference between research and medical interventions (diagnosis and treatment).
- KWTRP's response in the event of research participant death.
- Suspicion raised between spouses about cost reimbursement for research participants.

#### **Alleviating fears**

The reflective workshop yielded evidence that the discussion stimulated through MT, where research/engagement staff drew on tools like sample collection tubes, syringes, and storage bottles alleviated fears audience members had about KWTRP.

*"Whenever they came to my place, when I saw them coming, I would tell [the children] "Tell them mother is not around because I am not interested with their stuff, they are now coming for my child's blood already," I would leave with the child. [Laughter] Do you hear that? All that was due to lack of knowledge but when I saw these plays and its information, I came to understand and now when they come, I wish they could take longer". (Mida Repeat Audience, Female)*

*"All along, I have known them [KWTRP] to be paying people to participate in research... I have now learnt that the money was not payment however it was fare reimbursement and compensation for the time she had spent during the research process". (Mida Outreach Audience Member, Male)*

Some audience members felt that learning about KWTRP's work enabled them to reconsider unsupportive rumours about the research institute and form their own views about research. For example, in some cases, audience members reassessed their prior view that the KWTRP HIV clinic promoted same sex relationships.

*".....When you meet with the [KWTRP] staff they will explain to you until you understand. So, with that we got some knowledge that [KWTRP] people are okay, they are not evil and all those people who speak have not had a chance to be informed, but whoever will be educated will understand". (Mida Repeat Audience, Male)*

*"I personally didn't know about the Mtwapa [KWTRP]. I didn't know what work they do, but one of them came and was asked what work they were doing there which he answered. So, I also understood that there is certain type of work that they are doing there". (Mtwapa Repeat Audience, Female)*

Whilst audience members' narratives provided evidence of changes in attitude and reported behaviour, despite repeated engagement over the last decade or so in Kilifi, understanding of research, for example, the required blood volumes for research, reimbursement of participant travel costs and the distinction between research and diagnostic tests, remains challenging for many community members. This highlights the need for engagement to be on-going and sustained long-term.

#### **KWTRP staff views about MT**

Performance observation notes provided evidence that outreaches were widely enjoyed and KWTRP facilitators felt that in contrast to large community meetings, the performances had combination of fun, seriousness, and learning. Overall, facilitators recommended that MT be used alongside other engagement activities to reinforce learning because: a) it enabled audiences to raise their concerns (as described above); b) it reached audiences which were not reached through other approaches; and c) they felt that the approach nurtured trust. These are highlighted below:

*"I was about to say there was active participation and it was an open forum where the community could easily vent out the issues they had about KEMRI and its work, and at the end I think it cleared the perceived*

*misconception which the community has about our work". (P5, KWTRP engagement staff, Female)*

*"I think one of the lessons that I learnt, through the magnet theatre is that having a repeated interaction with the community... brings the level of trust more to good levels that they can share deeper concerns which means maybe they could not have shared in just one interaction". (P4, KWTRP engagement staff, Female)*

#### **4.4 Challenges for MT implementation:**

- *Insufficient researcher participation:* While researchers' presence added credibility to the messages conveyed and demonstrated a willingness to be part of a community, they were reticent to participate, and few attended. The novelty of MT may have contributed to researchers' hesitancy to participate. To remedy this, researchers need to be convinced of the importance of participation, and also need to be sensitized and engaged so as to be comfortable with the medium.
- *Identifying suitable sites* which were busy enough to attract a sizeable audience whilst not being too noisy for engagement and maintaining a reasonable distance from places which could not be disturbed, was challenging. Specific challenges were raised by the sites' proximity to busy roads, churches/mosques and informal bars selling palm wine, sometimes referred to as 'mnazi dens'.
- *Insufficient performances:* Lastly, while community members reported that they learned from the dramas, some expressed a concern that the number of performances were insufficient. This suggests that careful consideration of the time and financial costs of MT are required for it to be employed as a long-term engagement approach. This expression can also be interpreted as an indication of enjoyment of the activity
- *The costs of Magnet Theatre* include the contracting of a community theatre group, and the time needed to develop scripts, select sites, and perform the theatre. Some engagement staff questioned the implementation cost of MT in comparison to other engagement activities.

#### **4.5 How well the objectives have been met**

MT provided a means of nurturing public engagement with health research. Conveying research concepts through co-created dramatized dilemmas, everyday issues, and moments of joy and conflict, provided an entertaining way for audiences to learn about research, and for researchers to learn about public questions and concerns. In addressing mutual understanding, the data shows evidence of gains in audience awareness of KWTRP's main mandate as reported at the reflective workshop. The participating research staff also reported that they gained an appreciation of community concerns related to their research work. MT allowed for a deeper interaction with the public compared to other engagement approaches.

Whilst participation of researchers was disappointing, the evaluation suggests that MT contributed to making research practice ethical in two ways. First, initial engagement with community leaders in selecting sites and gathering their views on drama content afforded respect and responsiveness to their views. Secondly, through the MT, KWTRP made conscious and deliberate efforts, through conveying information in a familiar and culturally appropriate way, to enable audiences to understand and engage with research. This, coupled with the outreach being held in a public place, away from the potentially intimidating 'research surroundings' of KWTRP enabled community members to openly share views and concerns about research, and listen to responses from research staff. Though expensive in terms of time and money, we recommend MT as a complementary and enjoyable addition to research institutes' engagement strategies.



## 4 Magnet Theatre – Reloaded

### 4.1 Description

Restrictions to face-to-face engagement brought about by the COVID-19 pandemic necessitated innovative approaches to facilitate engaging communities/publics with COVID-19 and related topics. For this reason, the engagement team modified the second phase of Magnet Theatre (MT) outreaches to a radio-drama dubbed 'MT Reloaded'. This involved airing a pre-recorded radio drama developed and inspired by the MT format. One episode comprised a topical seven-minute drama which reached a 'dilemma' freeze point, similar to that of community-based MT outreaches as described in section 4. The public was then invited to respond through calls and short messages (SMSs). Topics for the radio drama were developed through participatory consultations with KEMRI community representatives (KCRs), Baraka FM fan club members through their coordinators and Jukwaa Arts (JA) Theatre Company. KWTRP partnered with Radio Kaya; a coastal radio station where the programme popularly known as 'Jukwaa La Utafiti' (JLU) was aired. JLU featured from 4.15pm to 5pm on Thursdays of alternate weeks, starting on 17<sup>th</sup> December 2020 and ending on 20<sup>th</sup> May 2021 making a total of 12 episodes.

### 4.2 M&E methods

#### Data collection methods

MT-Reloaded was monitored and evaluated using qualitative and quantitative data collection methods. Quantitative data collection comprised: analysis of the number of calls and SMSs received by the radio station during the programme; reports of Facebook activities for both Jukwaa Arts (theatre company) and Radio Kaya Facebook pages and a phone survey to assess numbers of KCRs who listened to the programme. Qualitative data comprised: minutes of all planning meetings; review meetings and debrief meetings with Jukwaa Arts (JA) and Radio Kaya; informal discussions; reports of all monitoring and evaluation activities; including script and drama development, promotional activities, and data from a Focus Group Discussion (FGD) with KCRs who had listened to one or more episodes of the radio drama.

#### Data analysis

Quantitative data generated counts and frequencies of audience SMSs, calls and Facebook activities (JA and Radio Kaya) stimulated by the programmes. Qualitative data was analysed using a content analysis approach. Important themes were identified through analysis charts and reports and illustrative quotes are used to highlight key findings. Data from the descriptive analysis of the quantitative data was triangulated with the qualitative data for complementarity.

### 4.3 Results

#### 5.3.1 Information dissemination through of a wide range of COVID-19 related topics

MT reloaded addressed COVID-19 disease, the impact of the pandemic and COVID-19 related research, thus bridging the existing information gap in a timely manner (given the absence of engagement activities at the time). Details of the topics aired and studio guests who were invited to engage with the audience including officials from the County Department of Health, Ministry of Education officials, research scientists and engagement staff from KWTRP are shown on Annexe 6.

Data on the reach of MT reloaded listenership was not available. Data on Facebook activities indicated that 5667 people on the JA Facebook page reacted to programmes. This comprised 85 and 961 people responding to the Facebook posts per programme as seen in Annexe 7. However, numbers could not be ascertained for the Radio Kaya as the M&E team received minimal data from the Radio Kaya team. Disappointingly, out of 183 KCRs contacted, 11 reported that they had heard at least one drama episode despite receiving WhatsApp reminders from the Community Liaison Group; nine of whom participated in the FGD. Data from the KCR FGD showed that reasons for not listening to the programme included: lack of access to radios; poor radio reception in some localities; and confusion given that the programme was on alternate weeks and not weekly.

#### 5.3.2 Public views about COVID-19

Analysis of the text messages and calls received during the programme indicated that most questions in the studio came from the presenters; a total of 71, compared to 37 questions by the audience (16 SMSs and 21 phone calls) as seen in Annexe 8. There was more interaction from the audience during episode 5 on mental health (11 SMS and 3 calls) and safety in research (8 SMS and 3 calls) as shown in Annexe 8. The questions and comments from the audience reflected public lack of understanding and mistrust of COVID-19 vaccine development and distribution, and a desire for the relevant authorities to prioritize treatment that could end the COVID-19 suffering as opposed to concentrating on vaccine research.

All the same as representatives of the community, KCR listeners generally appreciated that the drama topics were relevant and timely to the current COVID-19 situation. They reported that the dramas were entertaining, informative, reflected the reality on the ground and responded to community concerns.

*“According to me, I think this drama on vaccines is 100%. What the husband and wife acted on reflects what happens here. For instance, as the Corona vaccination exercise is going on now, we have witnessed children running to the forest when they see the vehicle approaching their school without even understanding the aim of the visit. They claim its corona, the vaccine kills, it causes blood clots. They ran away only to realise it was mask distribution. So, the man acted very well...”* (P5 KCR FGD)

*“There exactly, I listened, and they had similar views to mine; I think they are meeting their objectives very well in the community. For instance, you will find someone prefers treatment instead of research, but later after receiving information about the importance of research in drug development, then the community understands that research has to be done in order to get better drugs. So, I see that the drama met the objectives.”* (P3 KCR FGD)

KCRs added that it would be good in future to have guests on the programme who had lived experience; for example, those who had received the vaccine could share their experiences, allay fears about vaccine safety, and become agents of change in the community.

*“My recommendation on the coming programmes to have a guest who received the vaccine to share his/her experience on the injection... is there anything negative that s/he observed or are there any side effects or challenges that one might get for us to receive too, bearing in mind that s/he received the vaccine but has not had any side effects...”* (P3 KCR FGD)

They also reiterated that the focus on COVID-19 seemed to have side-lined other important health and health research priorities, and that attention needed to be refocussed on these. They wanted future programmes to address reduction of stigma for COVID-19, through making communities understand that COVID-19 was here, would probably stay with us for long and that communities should be taught how to live with it like the way people learnt to cope with HIV/AIDS and tuberculosis.

*“Corona is real but there is too much attention on it, everything focuses on corona. So, I recommend future programmes to highlight that corona is here with us and we should live with it like any other diseases such as HIV/AIDS, TB”.* (P9 KCR FGD)

#### **4.4 Learning - what works and what doesn't work**

The following reflections were made by team members:

- The importance of buy in and understanding of roles and expectations of the engagement by the radio station being engaged is key.
  - Programme was placed in a vernacular segment that had too much interference of vernacular/traditional music in-between the programme.
  - It may also not have been a very popular/convenient time for the target audience.
- Understanding radio station operations before the engagement is key, for example, broadcasting policies required that radio stations did not take live calls during the programme. They censored in the background and only recorded and provided those they considered 'safe' to be publicized.
  - Review meeting was not very successful. The station staff did not seem receptive to suggestions of improvement of the programme and on mechanisms of providing relevant M&E data. This adversely impacted the quality of M&E data.
- Jukwaa Arts were given the responsibility of taking lead of the project and directly liaising with Radio Kaya. Whilst they can be lauded for high quality dramas throughout, their ability to manage Radio Kaya proved challenging for KWTRP in terms of implementation and M&E of MT reloaded.
- While the MT was enjoyed, the format was challenging for radio - KCR FGD participants indicated confusion in that they felt that the play was short, didn't have a beginning or an end, was left hanging, and was therefore difficult to understand. They suggested that such a radio drama needed a facilitator to guide the listeners.
- KCRs felt that there was a gap because the programme did not address dispelling stigma around COVID-19.

#### **4.5 How well the objectives have been met**

In addressing mutual understanding between researchers and community members, the evaluation provided evidence that it raised listeners' understanding of research. Through implementing radio drama in the form of magnet theatre, we also aimed to explore its capacity to nurture interaction with the public. Whilst the extent to which the radio medium enabled only limited opportunities for listeners to give feedback or raise concerns about research in comparison to the face-to-face MT, evaluation of the adapted radio version yielded some evidence of community members learning about research. Researchers were able to learn about community concerns around COVID-19 as well, specifically the mistrust around COVID-19 vaccines. The community learnt about COVID-19 and the importance of research on drug and vaccine development.

Where social restrictions curb face-to-face interaction, radio becomes an important tool for engagement. Research concepts are often abstract and unfamiliar to many community members, concerted efforts must be made to enable community members to contextualise research into their daily lives. Conveying research through drama, to some extent, enhanced this.



## 5 KWTRP staff on-the-job capacity development

### 5.1 Description

KWTRP staff play a central role in CPE through formal KWTRP activities and informal conversations in the community. Through training and engagement activities, we aim at enhancing staff: knowledge of a range of KWTRP research projects; research communication skills; understanding of research ethics; and good relations with community members and stakeholders. Training sessions involve the use of case studies, role plays, group discussions, rich picture, and plenary sessions and comprise:

- New field staff attend a mandatory 5-day communication, consent and ethics training.
- Every 2 years, field staff attend a 2-to-3-day refresher training.
- New staff are taken on a field visit to see how field research activities are undertaken.
- Programme-wide staff open day exhibitions are held within KWTRP every 2 years, bringing together 200 field and operations staff. One-day exhibitions involve research teams presenting their work and answering questions/receiving recommendations.

### 5.2 M&E methods

Regular planning, reflective and debrief meetings are held to plan and monitor progress of training activities. At the end of each training, a workshop evaluation is conducted to draw lessons for improving future trainings. For the programme-wide open day exhibition, a survey is usually sent out the next day, to get feedback that is used to improve the subsequent staff open days.

### 5.3 What are the key outputs/outcomes?

- Over 200 field and research staff attended trainings.
- Research activities (e.g., administering informed consent) are done as per GCP guidelines.
- Following training, staff have a better understanding of KWTRP research work, which helps them better handle community views and concerns while in the field as demonstrated by Programme-wide evaluation responses.

### 5.4 Some participant feedback:

In response to “Will the information you have gained here be useful in your work? (Briefly explain your response).”

*“[The training was] Extremely relevant because the research here is interdisciplinary, so I was able to learn how my work which is on vaccines is relevant and related to other disciplines such as vector-biology, and even the KHDSS surveillance programme which provides a good platform for testing the products.”*

*“Yes. I usually come across different study groups while working in the ward and field. By understanding what they do, I will be able to better support them.”*

*“Yes, since am dealing with the community directly, I at least have an idea of who’s doing which study in the organization so that if am asked a question by a community member I can at least source for more information to feedback to the community member or direct the question the researcher to explain to the community member.”*

### **5.5 How well the objectives have been met**

Staff training activities are aimed at enhancing ethical conduct of research, through ensuring that field staff especially, understand research ethics, and are able to appropriately articulate study information. There hasn’t been formal evaluation of staff training activities, however, self-reported information shows that staff greatly appreciate the learning they get from training. Staff are better able to administer informed consent to research volunteers, after being taken through informed consent training. There are reduced cases of staff and community members conflict due to improved communication skills gained through the communication skills training. Our experience suggests:

- Successful implementation of staff training requires buy-in from study coordinators and principal investigators. Sometimes, study timelines and training schedules clash, and this requires flexibility on the part of trainers and study team.
- Good communication skills for field staff must not be underestimated. Good relations, trust building, and ethical conduct of research is underpinned by how well staff are able to articulate institutional research policies and activities at community level.

## 6 Open Days

### 6.1 Description

Open days are aimed at sensitizing stakeholders from organized groups about KWTRP, its role, the medical research review processes and research ethics. During open days participants interact with researchers and research staff in a workshop setting. Study teams give presentations of ongoing research and planned studies to describe the range of KWTRP research. Participants tour the research labs and interact with lab staff to demystify what happens to collected research samples from research participants. Participants are afforded an opportunity to share opinions and share questions and concerns so that research staff can respond. Over the review period over 900 people participated in open days as shown in the table 9.

### 6.2 Monitoring and evaluation

Participation is monitored through attendance sheets and all issues and questions raised are documented. At the end of each open day event, participants are asked to fill in evaluation forms and feedback is used by community facilitators to improve subsequent open days. Activity reports are compiled for all open day events.

Table 9: Participants reached in open days

Year	Target Group	No of participants
2016	Religious Leaders	155
	Community Health Volunteers (CHVs)	104
	Media & Communication teams	008
	Kilimo Primary School Board of Management	016
	Gongoni Primary School Board of Management	019
	Lab staff open day	079
	All staff open day	267
2017	Gongoni Primary Teachers	021
	Malaria Challenge Study (CHMI) Participants	057
2018	Study participants for the CHMI study from Kilifi and Ahero	060
2019	Facility Health Committee Members	133
2020	Radio listeners fan club members	104

### 6.3 How have the objectives been met?

Open Days were conducted specifically to enhance trust among community members, and to reduce rumors surrounding sample collection (specifically blood drawing). Our experience is that community groups who initially held unsupportive views about KWTRP's work, changed their minds after visiting the campus, taking a tour of facilities, and interacting with scientists. This activity is key in supporting continued buy-in, as it enables scientists to open up to the non-scientific population about their work and listen to community members views and concerns. Some lessons learned include:

- Scientists are able to respond to participants' concerns about KWTRP research work very well, including through using demonstrations such as how procedures are done in the laboratory.
- Lack of awareness about KWTRP has led to some religious leaders giving inaccurate information, e.g. *"I used to tell my congregation not to associate themselves with [KWTRP] as the research activities appeared suspicious but now, I understand the important role the research programme plays in our community. Keep it up! I will now share the right information."*
- Community groups enjoy the open day events. Participants often request repeat visits.
- Open day events require a lot of time commitment for lab staff; often having to negotiate with them for an appropriate time to take visitors to ensure work is not disrupted.



## 7 The KEMRI Community Representatives (KCRs) Network

### 7.1 Description

The KCR Network comprises Administrative Chiefs (co-opted) and a cross-section of community members elected from the 16 administrative units (locations) of the Kilifi Health Demographic Surveillance System (KHDS). After being elected, they attend workshops where they learn about health research, research review processes and research ethics. These are summarized in table 10. This is done through a participatory learning process. The Community Liaison Group (CLG) then meets with the KCR three times in a year at their locations to discuss any issues that they may have gathered from the community. KCRs serve a 3-year term after which a new group is elected and have 2 roles: (i) to be a group which can be consulted to give views about research undertaken by KWTRP; and (ii) to share community views about research with KWTRP CLG in regular scheduled meetings.

### 7.2 Monitoring, evaluation and documentation

All questions, views and concerns etc. raised in meetings are documented, and inform and feed into the KCR workshop programme and engagement activities. After each activity/meeting with KCRs, CLG staff meet for a debrief and lessons are implemented immediately in subsequent meetings. When KCRs are consulted on specific research/engagement activities, their views are shared with the respective PI, study teams or engagement lead through reports as well as transcripts where needed. The KCR network is formally evaluated through interviews and FGDs with KCR network members and community facilitators.

In 2019, we conducted a pre and post KCR training survey during the first year of the current KCR cohort (see Annexe 9 for the tool). The aim of this survey was to explore the impact of workshop participation on KCRs' knowledge and attitude gaps. The findings would then feed into their training curriculum. Section 8.3 below shows some of the outcomes and results from these M&E activities.

### 7.3 Outcomes and outputs

- Researchers draw on the KCR network for feedback and input into planned and ongoing research studies. Views shared by KCRs represent the views of the community, as well as their own.
- Consultative workshops with KCRs yielded reports of KCR views on Biobanking and a proposed Shigella Human Infection Study.
- KCR views and recommendations have been used to develop training material for field staff resuming activities after COVID-19 research activities were paused. Examples of recommendations taken up include KWTRP field staff carrying extra masks and hand sanitizers while visiting homesteads for research activities; KWTRP leading by example through correctly and consistently wearing masks while working in the community; ensuring staff are equipped with appropriate COVID-19 messages including about COVID-19 vaccines.

Table 10: Activities undertaken with KCR over the review period.

Year	KCR activities	Outcome
2016	KCR meetings	214 KCR elected and co-opted attended in 16 locations
	KCR workshop	205 KCR attended
2017	KCR by-elections	18 KCR replacements elected
	Induction training for KCR & Assist Chiefs	18 replacement KCR and 2 newly appointed assistant chiefs were inducted into the network
2018	KCR meetings	119 KCR attended the meetings in the 16 locations
	KCR elections	225 incoming KCRs elected in 16 sub-location level meetings
	KCR induction training	223 KCR and 47 co-opted members (chiefs) attended induction workshops
	KCR Election attendance	Approximately 8,000 community members across the KHDSS engaged on health and research during elections
2019	KCR meetings	200 KCR and 33 co-opted members attended
	End of year KCR workshops	217 KCR attended
2020	KCR meetings	2 virtual meetings held: attendance was 166 and 170 elected members and 24 and 26 co-opted members respectively
2021	KCR Meetings	130 KCRs and 28 co-opted members attended

### 7.3.1 Findings from pre and post survey

266 workshop participants comprised of newly elected KCRs, Chiefs and Assistant Chiefs, the majority of whom had been within the network for more than 5 years. Not all participants took the pre and post survey due to various issues including inability to read and write, inability to understand Likert style of questions, and absence during the time the questionnaire was distributed. As well as documenting improved understanding about KWTRP and health research over the training, the findings of this survey fed into developing additional training materials for KCRs, to support better understanding of research in future induction training sessions. Across all questions asked, having 3 correct answers was considered knowledgeable; 1 or 2 correct answers was considered partially knowledgeable, responding with 'don't know' was considered not knowledgeable, while giving incorrect information was considered mis-informed.

Figure 6 illustrates that the newly elected KCRs came into the training with partial knowledge about KWTRP's mandate. Responses that we looked for included: KEMRI is a government institution; KEMRI is a research institution; KEMRI was set up in 1979 by an act of parliament; KEMRI is under the Ministry of Health; has 14 centres in Kenya.

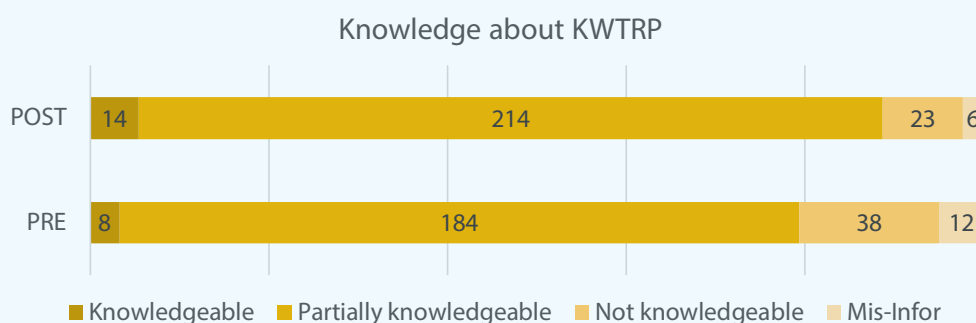


Figure 6: Pre and post Responses to the question – 'what in your understanding is KEMRI?'



We found that 114 KCR were initially “not knowledgeable” about health research. This number reduced after the training (Figure 7). In this case, correct responses included the following phrases: finding better ways of treatment; finding better ways of preventing diseases; of benefit to everyone; for now and in the future.

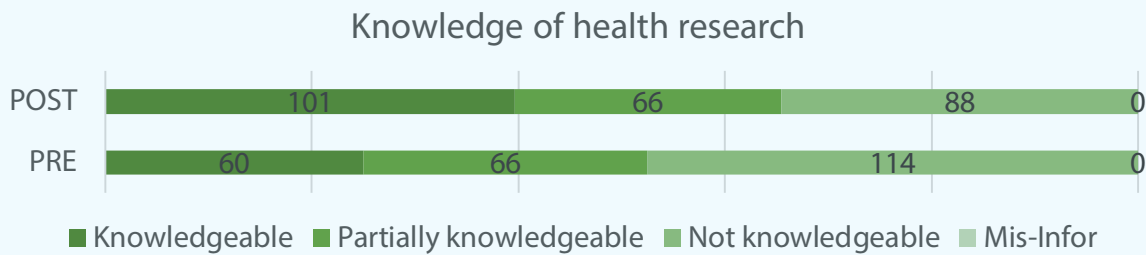


Figure 7: KCR responses to the question – ‘what is health research?’

In relation to knowledge about the roles of a KCR, we realised a marked difference in the number of participants who had incorrect knowledge about what KCRs are expected to do (Figure 8). Answers to this question included: to attend meetings; to collect views about KEMRI and research from the community and share these with CLG; to respond to community members’ questions about KEMRI; to participate in consultative workshops/meetings.

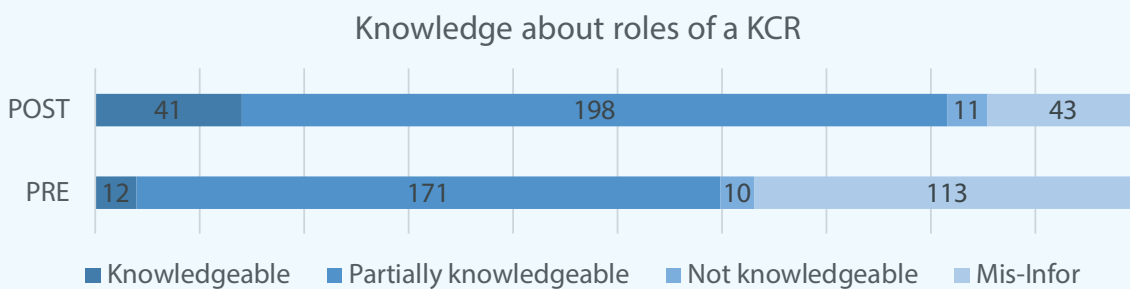


Figure 8: KCR responses to the question – ‘please give us the roles of a KCR’

#### 7.4 How well the objectives were met

The KCR network has enabled KWTRP to maintain a good relationship with the community, specifically within the KHDSS. Every 3 years, KCR elections are held in the entire KHDSS. This provides KWTRP with an excellent opportunity to foster mutual understanding between community members and researchers. Through deliberative and consultative workshops, KCRs have influenced KWTRP research policies and practice (e.g. input into [Data sharing](#) and data governance; [benefits and payments guidelines](#) among others). Drawing from this, specific lessons learned comprised:

- KCRs are always reluctant to relinquish their positions sat the end of their term.
- KCR would like to have a more proactive role in mobilising their communities to participate in KWTRP research activities. However, we feel that this will undermine their independence, and ability to critique KWTRP activities.
- KCR election meetings provide an opportunity to discuss KWTRP across the entire KHDSS.
- Though KCRs have limited access to smartphones, meaningful engagement with the few that had, was found to be possible through social media, especially during the COVID-19 pandemic period.



## 8 Media Engagement

### 8.1 Description

Media engagement is aimed at creating and enabling sustainable relations between researchers and the media to ensure accurate reporting of science and research findings and to support ongoing dissemination of KWTRP research. With increased media platforms, a thriving social media and online engagement culture, there is a growing interest in science/research and in turn an increased space to tell the research story. In addition, the strategy sought to empower local science journalists and build the internal capacity of researchers to engage with the Media.

### 8.2 Media engagement activities

The 1<sup>st</sup> media workshop held in 2018 brought together 25 journalists and science bloggers, with representatives from the Media council of Kenya, KWTRP communication team and 30 senior KWTRP researchers. Informal meeting structures, presentations about specific studies and experience sharing 'soapbox' sessions and panel discussions encouraged dialogue between researchers and journalists on the ethics of both professions and challenges faced by researchers in creating appropriate messages.

Media Tour: based on feedback by workshop participants, the media tour aimed at filling regional press teams research knowledge gaps. Despite their proximity to the research unit, the coast regional journalists felt that focus was given to national and international press teams. The two-day KWTRP media tour for 26 regional reporters comprised engaging with 30 researchers, a lab tour, group discussions on ongoing research and subsequent practical skills training from the journalists.

### 8.3 M&E Methods

Methods comprised pre and post event survey using a questionnaire and interviews with participants. Media tour attendees also provided feedback on how to improve the engagement and suggestions on activities to sustain engagement through an informal discussion at the end of the tour for all participants. The questions included asking the participants to highlight their experiences during the sessions, learning opportunities, indicate the challenges faced and suggest ways to improve interactions.

### 8.4 Outcomes, as reported in participant feedback

- Improved media and journalist working relations.
- A WhatsApp communication working group with regional reporters.
- Better informed science/research articles. Examples include work by [Verah Okeyo](#), [Dr. Mercy Korir](#), [Gatonye Gathura](#)
- Collaborative social media initiatives with journalists for science communication e.g., with Dr. Mercy Korir.
- We have had more opportunities for journalists to interact with researchers, i.e., field tours for research studies and activities.

### 8.5 Key learnings

- Feedback pointed to the value of sustained and regular engagement to build journalist capacity to report on research.
- Mistrust between researchers and journalists was evident which highlights the need for continued engagement.
- Further internal capacity building is needed for researchers to engage with media, leveraging on the interest by upcoming research leaders.
- Researchers require support to pitch research findings to editors (Journalist internships, master classes on novel research practices, Ethical issues for both professions).
- More engagement is needed with the editor cadre of news reporting.
- Collaboration with other research institutions would strengthen science communication.

Media engagement activities are an important support to the overall engagement strategy. Through engagement with journalists/media, we hope to reach even more people through various mass media channels, and eventually build a culture of valuing the place of science in society. Through current media engagement activities, we are contributing further to building mutual understanding between KWTRP scientists and members of the 4<sup>th</sup> estate.



## 9 International Conference on Fieldworkers

### 9.1 Brief description of activities

The International Fieldworkers Network (and Conference) was born out of a Global Health Bioethics Network (GHBN) Bursary project that mapped African health research centres' practices and experiences of supporting and managing fieldworkers. Findings from this project were discussed in the first International Conference on Fieldworkers held at KWTRP in Kilifi, in 2014. A second conference was held at the Medical Research Council (MRS) in the Gambia in 2015.

Through the Provision for Public Engagement (PPE) fund, a 3<sup>rd</sup> International Conference on Field Workers was held from the 13<sup>th</sup> to 15<sup>th</sup> of December 2017, at the Dodowa Health Research Institute in Ghana. The Network has been running two main activities as follows:

- *Development of a harmonized fieldworker curriculum:* drawing from recommendations from the GHBN project and 1<sup>st</sup> conference held at KWTRP, a harmonized fieldworkers' curriculum was initiated, aimed at developing set modules that individual research institutions could adapt and use in their contexts.
- *The International Conference on Fieldworkers:* This involved hosting a 2-3 day conference bringing together fieldworker managers and trainers from several African Countries. A steering committee comprising of staff from key stakeholder institutions (10 people), who coordinate the planning and eventual implementation of conference activities. Pre-conference activities included planning meetings, fundraising, and abstract call/reviews.

### 9.2 M&E methods

Monitoring was done through debrief meetings held by the steering committee members after each conference. During the conference, and end of conference evaluation form was circulated among participants. A sample conference evaluation form is provided in the figure below:

### Key outputs/outcomes

- A total of 35 delegates from 13 African countries and 1 from the UK participated in the 3<sup>rd</sup> conference held in Ghana.
- A written [report](#) of the conference proceedings.
- Formation of 3 working groups to spearhead key outcomes of the conference: (i) Formalization of the International Fieldworkers Network with a secretariat; (ii) Fundraising for sustainability of network activities; and (iii) Finalization of the harmonized fieldworkers' curriculum.

### 9.3 *Learning - what works and what doesn't work*

- In order to get commitment from delegates and participating research institutions, a delegate's fee might have to be levied in future conferences. This will not only promote ownership of network activities, but also cushion funding from donors and well-wishers.
- Developing a harmonized fieldworkers' curriculum also requires deliberations around accreditation if the curriculum is to be taken up by participating (and other) research institutions working with fieldworkers.
- Currently, there have been inconclusive discussions on developing the curriculum into an online resource.

The International FWs Conference has built up the profile of field workers in sub-Saharan Africa in relation to the ethical conduct of research. Experiences shared through the three have enabled the KWTRP team to critically think about how field workers are supported in terms of capacity building, mentorship, and career progression. Based on discussions at these conferences, the KWTRP field workers training team has revised the training curriculum, including establishing initial considerations for future online learning/training.



## 10 Engaging Research Stakeholders and Policy Makers

### 10.1 Brief description of activities

KWTRP has been engaging ministry of health, health associations (such as Nursing Council; Kenya Paediatric Association - KPA) for several years now. Through PPE funding, we have been able to support one stakeholder and three KPA pre-conference engagement events targeting ministry of health and health care workers respectively.

*Activities undertaken included:*

- One day Stakeholders Engagement Forum: This was held in Nairobi on 30<sup>th</sup> July 2019. The aim of the forum was to sensitize stakeholders on the history and focus of ongoing research work, and then allow stakeholders an opportunity to provide feedback and inform the ongoing and future research plans. A plenary session was used for sensitization and question and answer session; this was followed after lunch by break-out sessions where stakeholders met with research teams in smaller groups for deeper engagement and interaction on research work.
- Kenya Paediatric Association (KPA) Pre-Conference: KWTRP has been working very closely with the KPA in conducting research among children at various hospitals in Kenya. The KPA hold annual conferences which bring together different cadres of health workforce to deliberate on children's health well-being. KWTRP has supported 3 pre-conference events in 2018, 2019 and 2021 (virtual) where researchers have directly engaged the health workforce to better understand research in children. Pre-Conference activities have included plenary talks by KWTRP researchers and top KPA leadership, break-out group discussions focusing on specific research areas such as: how to develop a research question; understanding health research ethics; and how communities/participants are engaged (as part of ethics).

### 10.2 M&E methods

For the Nairobi Stakeholders Forum feedback about the meeting was collected through questionnaires that were administered before the last plenary session in the evening. During the KPA Pre-Conference, participants used an online tool to convey their feedback about the day's proceedings.

### 10.3 What are the key outputs/outcomes

- 71 participants attended the stakeholder's forum in Nairobi and appreciated the depth of research information discussed during the meeting.

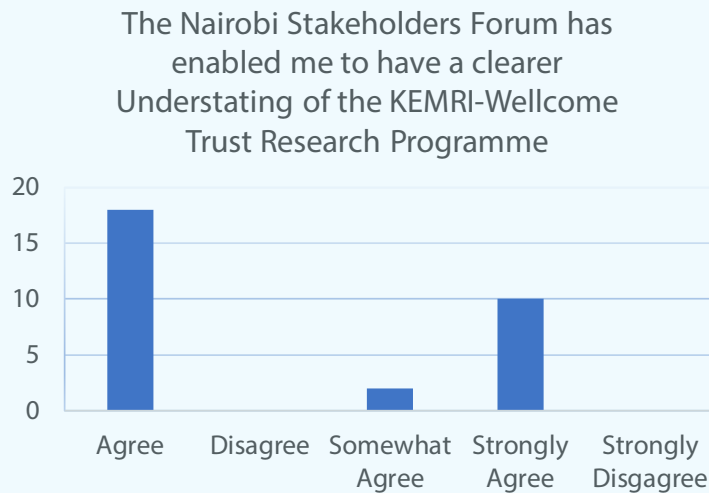


Figure 9: Respondents' views about the day's sessions

- Stakeholders and research teams identified key areas of research gaps for instance in the Population Health Unit, participants identified improving data quality by putting the right technologies and sufficiently trained workers for data collection as an important area of focus. The Gender break-out group identified the Impact of the Universal Health Coverage pilot implementation programme, on vulnerable groups.
- For the KPA conference, average attendance to the pre-conference small group engagement sessions was 150 participants for 2018, 2019 and 2021.

### 10.4 Learning - what works and what doesn't work

The COVID-19 pandemic has affected our regular engagements in being unable to hold in-person meetings. Finding time to meet with ministry of health officials especially in 2020 was challenging owing to the emergency situation we were in as a country (as well as globally).

Policy engagement is an area that is relatively new to the engagement team, however, having a designated staff who is well versed with engaging policy makers, has helped to realise some achievements during this period. A Policy Engagement Strategy has been developed, and we will be looking forward to fully implementing activities, with lessons shared widely.



### 11 KWTRP researcher participation in engagement activities.

As our engagement objectives imply, we anticipate that engagement contributes to research which is responsive to community perspectives and that it plays an important part in influencing researchers' work, perspectives on community and the importance of engagement. In March 2021, 240 KWTRP research staff were invited to take part in a web-based survey and 107 respondents shared their experiences and views on engagement. 88% (94/107) agreed that public engagement is essential, and 76% (81/107) and 71% (73/107) respectively expressed that engagement benefitted their research and influenced their research. 87% (93/107) of research staff reported that they took part in at least one engagement activity with 31% (33/107) taking part in multiple activities prior to the COVID-19 restrictions imposed in March 2021. Figure 11 below illustrates the range of engagement activities where research staff participated.

Engagement activities that researchers undertook

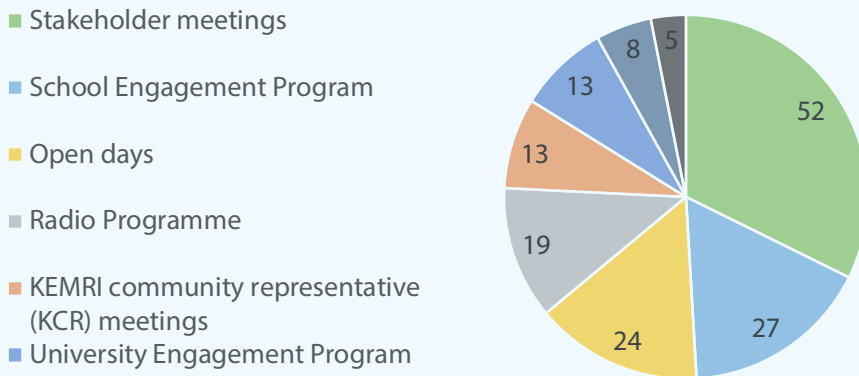


Figure 10: Research staff participation in engagement activities

Figure 12 describes how each individual component of the KWTRP engagement programme was enjoyed, valued by researchers, and how the component influenced researcher work.



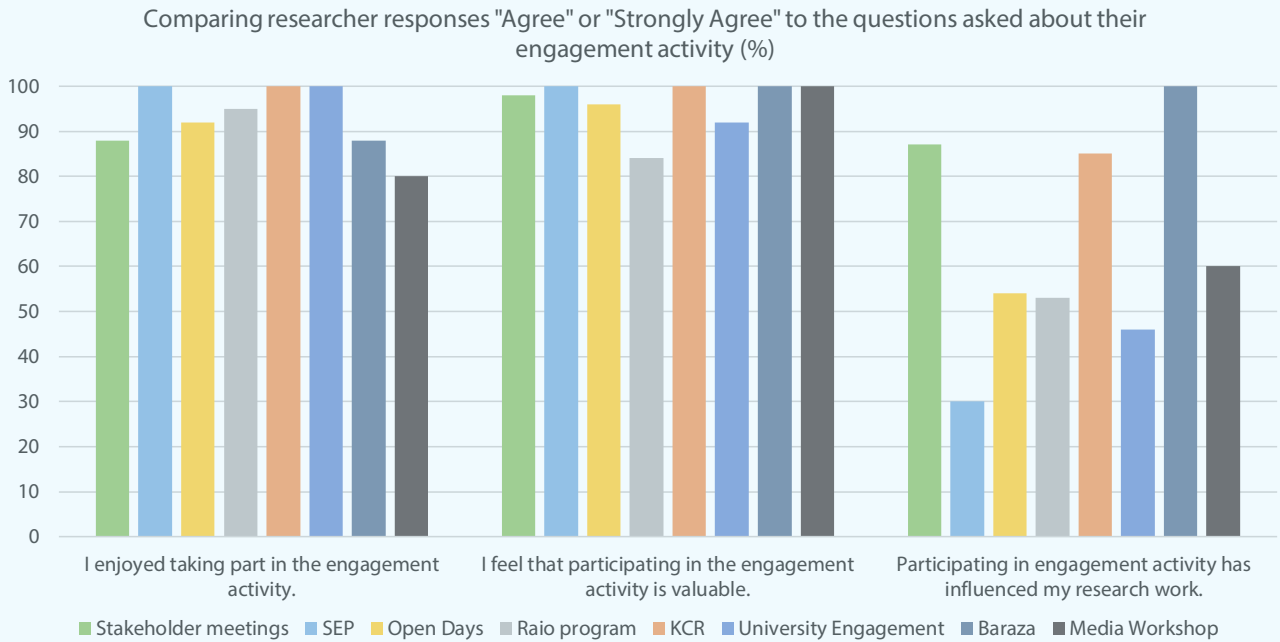


Figure 11: Researcher views about specific engagement activities

Participation in engagement inevitably reduced after COVID-19 restrictions were imposed with 23% (25/107) researchers reporting that they engaged the public between March 2020 and March 2021.



## 12 Community and Public Engagement External Advisory Panel Meeting

### 12.1 Description

To provide an external international perspective on KWTRP engagement work, a panel of international experts were convened in October 2019 and invited to attend summaries of each engagement component presented by sub-component leads. Presentations comprised overviews of the programmes, their outputs and outcomes and evaluation findings (gathered up until October 2019). The panel comprised engagement experts from Africa and beyond: Seye Abimbola, Anant Bhan, Lucy Gilson, Sarah Hawkes, and Oby Obyerodhyambo. Following 2 days of presentations, the panel documented their reflections and recommendations in a report.

### 12.2 Key reflections and recommendations

The panel recognized the KWTRP CPE platform as a “world leader in the field of community and public engagement” for science and were immensely impressed by both the work and the team. They recommended prioritising and highlighting CPE as central to the science of KWTRP in the programme’s future overall strategy. They also encouraged reflection about the contribution of CPE to this organisation over the past years as part of developing the future strategy - and in order to identify lessons that can support the institutionalization of ethical and equitable CPE practices within the organisation. Whilst the comprehensive list of recommendations to Wellcome, KWTRP management, and the CPE team is documented in the report, some key recommendations are already being taken up despite COVID restrictions, as shown in the table 11.

Table 11: Selected external advisory recommendations and how they are being addressed

Key recommendations	CPE team response
1. Strengthen the links between broader communications’ activities and the CPE programme; and develop an overarching strategy for CPE that establishes appropriate and clear roles within that strategy for each of the three settings (Kilifi, Nairobi, Uganda)	<p><i>All KWTRP engagement streams/area are now coordinated centrally through the appointment of a Head of Engagement (as of October 2020)</i></p> <p><i>New goals have been drafted and operationalised to some extent and substantive operationalisation will be done over the next funding cycle</i></p>
2. Consolidate your programme of work conceptually through developing a set of shared, future goals. Strategically consider any future advocacy goal (e.g., the value of science or research to society in general vs evidence uptake in policy generally vs specific policy recommendations, or some combination	
3. Embrace the idea of becoming a CPE resource hub for CPE inside and outside KWTRP, and drawing from your past experience to shape institutional norms and practices in KWTRP, Kenya, Africa and globally	<p><i>CPE leads have embraced this recommendation through taking up substantive roles in international bodies including: the NIHR engagement community of practice, the WHO task Force of COVID-19 clinical trials and the WHO Technical Advisory group for COVID-19 vaccine trials</i></p>
4. Consider evaluation and learning as an overarching function across all activities: for example, you could develop an actor-centric theory of change for the whole future programme	<p><i>An over-arching Theory of Change for the CPE platform has been drafted. This ToC will be used to plan, implement, and evaluate engagement from 2022</i></p>

## 13 Conclusion

Challenges to evaluating engagement, widely described in the literature, arise mainly because of the wide range of complex and sometimes conflicting goals. Different engagement approaches with widely different 'reaches' also make direct comparisons between activities problematic. For example, comparing the impact of a 1-hour radio programme on the awareness of research of the 150,000 listeners, with a stakeholder meeting aimed at facilitating permissions for research to be conducted, would be challenging. Equally, placing a value on the raised aspiration of a school student, to enable a comparison against, for example, the consensus of a KCR meeting on an ethical aspect of research would be challenging. From the outset, the evaluation has been designed to advise the on-going implementation and evolution of specific approaches.

Despite substantial constraints to engagement raised by the COVID-19 pandemic, this report documents evidence that from 2016-2021, the KWTRP provision for public engagement has facilitated the creation of diverse fora to foster public engagement with health research. In turn this has contributed to mutual understanding between researchers and publics, largely in Kilifi, but increasingly also in Nairobi and other parts of Kenya. Through our 'deep' engagement approaches/programmes comprising KCR Network, school, and university Young Persons Advisory Groups (YPAGs), and stakeholder engagement, we have drawn from diverse youth, stakeholder, and community groups to inform and improve aspects of our research. Through our more public facing engagement (radio, theatre, and schools) we have attempted to widen opportunities for engagement with health research but acknowledge the external advisory group's recommendation of partnering with other groups for more national outreaches.

A considerable effort has been made since 2016 to develop an overarching theory of change for the KWTRP engagement strategy and developing/operationalising evaluation approaches and tools specific for each sub-component. This process has highlighted the need for developing a comprehensive tool used across all engagement teams, for documenting all engagement activities, key indicators of success, challenges, participating researchers, audiences, and main engagement outcome. Systematising evaluation across all activities will strengthen decision making on resource allocation for engagement activities.

Finally, as evidenced by the annexes, we have made considerable efforts to contribute to the growing literature, debates, and practice in engagement globally through several peer-reviewed publications, videos, websites, information briefs and blogs.

## 14 Annexes

### Annexe 1: Publications/Articles/Workshop proceedings/Briefs/Blogs

These publications draw from the work of the KWTRP Community and Public Engagement platform 2016-2021.

1. **Sanga, G., Jao, I., Mumba, N., Mwalukore, S., Kamuya, D., & Davies, A.** (2021). Always leave the audience wanting more: An entertaining approach to stimulate engagement with health research among publics in coastal Kenya through 'Magnet Theatre'. *Wellcome Open Research*, 6.
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3. **Sudoj, A.**, De Vries, J., & **Kamuya, D.** (2021). A scoping review of considerations and practices for benefit sharing in biobanking. *BMC medical ethics*, 22(1), 1-16.
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1. Davies A.I.: Expectations, experiences and impact of engagement between health researchers and schools in Kenya. *Phd.*Open University, 2017.

### Website links

**Davies A.I.:** School Engagement <https://mesh.tghn.org/themes/main-school-engagement/>

### Working papers

1. **Molyneux S.,** Gobat N., Cheah P., **Mumba N., Davies A.,** Schwartz L., Marshall J., Moses L., Murthy S., Nouvet E., Thome B., Buhrmann A., Bayugo Y., Littler K. "Working with Community Advisory Boards for COVID-19 related clinical studies". 2020. World Health Organization. Available from: <https://www.who.int/publications/m/item/working-with-community-advisory-boards-for-covid-19-related-clinical-studies>
2. **Molyneux S.,** Gobat N., Cheah P., **Mumba N., Davies A.,** Schwartz L., Marshall J., Moses L., Murthy S., Nouvet E., Thome B., Buhrmann A., Bayugo Y., Littler K. Good Participatory Practice for Covid-19 Clinical Trials: A Toolbox: <https://www.who.int/publications/m/item/r-d-good-participatory-practice-for-covid-19-clinical-trials-a-toolbox>

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2. **Gladys Sanga, Irene Jao, Joy Kiptim, and Alun Davies**  
Using 'Magnet Theatre' to engage public audiences with health research in coastal Kenya  
(<https://mesh.tghn.org/articles/project-report-using-magnet-theatre-engage-public-audiences-health-research-coastal-kenya/>)
3. **School Engagement Programme Report 2019**

### Report on Mesh website

1. Magnet Theatre project report  
**Gladys Sanga and Irene Jao, Joy Kiptim, Alun Davies**  
<https://mesh.tghn.org/articles/project-report-using-magnet-theatre-engage-public-audiences-health-research-coastal-kenya/>

**Blogs:**

1. Magnet Theatre

**Gladys Sanga**

<https://blog.wellcomeopenresearch.org/2021/06/03/putting-on-a-show-a-creative-approach-to-engage-the-public-in-health-research/>

2. **Vicki Marsh, Noni Mumba, Salim Mwalukore, Sassy Molyneux and Dorcas Kamuya**

Deliberative approaches to community engagement: A case study from an international collaborative health research programme

[Resource guide for community engagement and involvement in global health research](#)

<https://www.nihr.ac.uk/documents/resource-guide-for-community-engagement-and-involvement-in-global-health-research/27077>

<https://www.nihr.ac.uk/documents/researchers/managing-community-engagement-involvement-resource-guide-2019.pdf> (Page 9)

**Selected Presentations and Webinars**

1. Erica Nelson, Dorcas Kamuya, Noni Mumba & Bridget Pratt. [Ethical dimensions of community engagement and involvement in global health research](#) <https://youtu.be/CsnXuHU6ME>
2. Noni Mumba, Alun Davies WHO – Webinar 12 June 2020 (Through TGHN) Engagement for Covid-19 vaccine trials
3. Alun Davies - *Addressing ethical and practical aspects of health research through engagement with school students: evidence from Kenya*. World Congress of Bioethics Philadelphia June 2020
4. Alun Davies Evaluating School Engagement and Participatory Video: Global Health Bioethics Network Conference, Oxford 2017 and 2019
5. Alun Davies: Evaluating School Engagement with health Research: Bioethics Society
6. Alun Davies: TGHN – M.E.S.H webinar on engaging schools with health research January 2020

**Annexe 2: Audio-visual outputs/Videos**

1. Radio Programme

Video interview with researchers involved in radio programme engagement

[https://kemriwellcometrust-my.sharepoint.com/:v/g/personal/rnamayi\\_kemri-wellcome\\_org/EW9WiKlixfJLgTBuICW0ZHYBMPDTQoy2I8oAWKVCVQAJeA?e=Vb1oTP](https://kemriwellcometrust-my.sharepoint.com/:v/g/personal/rnamayi_kemri-wellcome_org/EW9WiKlixfJLgTBuICW0ZHYBMPDTQoy2I8oAWKVCVQAJeA?e=Vb1oTP)

2. [Biobank information video/animation – currently being completed](#)
3. REACH compilation video currently being completed
4. [Covid-19 Vaccine Trial \(Chadox\)](#) <https://kemri-wellcome.org/covid/>

**5. SEP**

	<b>Video Name</b>	<b>Video link</b>
1	SEP 2020	<a href="https://vimeo.com/388424653">https://vimeo.com/388424653</a>
2	SLAS introduction 2019	<a href="https://vimeo.com/324172580">https://vimeo.com/324172580</a>
3	virtual tour 2019 of the KWTRP laboratory	<a href="https://vimeo.com/321419378">https://vimeo.com/321419378</a>
4	Jacob's Journey	<a href="https://vimeo.com/289814317">https://vimeo.com/289814317</a>
5	reflections	<a href="https://vimeo.com/271420128">https://vimeo.com/271420128</a>
6	transformers	<a href="https://vimeo.com/271419593">https://vimeo.com/271419593</a>
7	KEMRI-KEMRI	<a href="https://vimeo.com/271418816">https://vimeo.com/271418816</a>

## Annexe 3: Awards

### 1. Radio programme

The media Engagement Coordinator (Roselyne Namayi) emerged winner for the best visual presentation during the Public Communication of Science and Technology (PCST) Conference 2021. Roselyne's presentation in the "Science communication theory and practice" category was based on the experiences and learnings from our researchers who participated on the '*Jukwaa la Utafti*' radio programme phase 2. She won this category alongside Luis Islas Crus from Mexico. With this, Roselyne wins free registrations to PCST2023 in Rotterdam.

### 2. SEP - Awarded the 2019 University of Oxford Vice Chancellors Public Engagement with Research Award



**Annexe 4: Student pre and post engagement responses to Likert responses (SEP)**

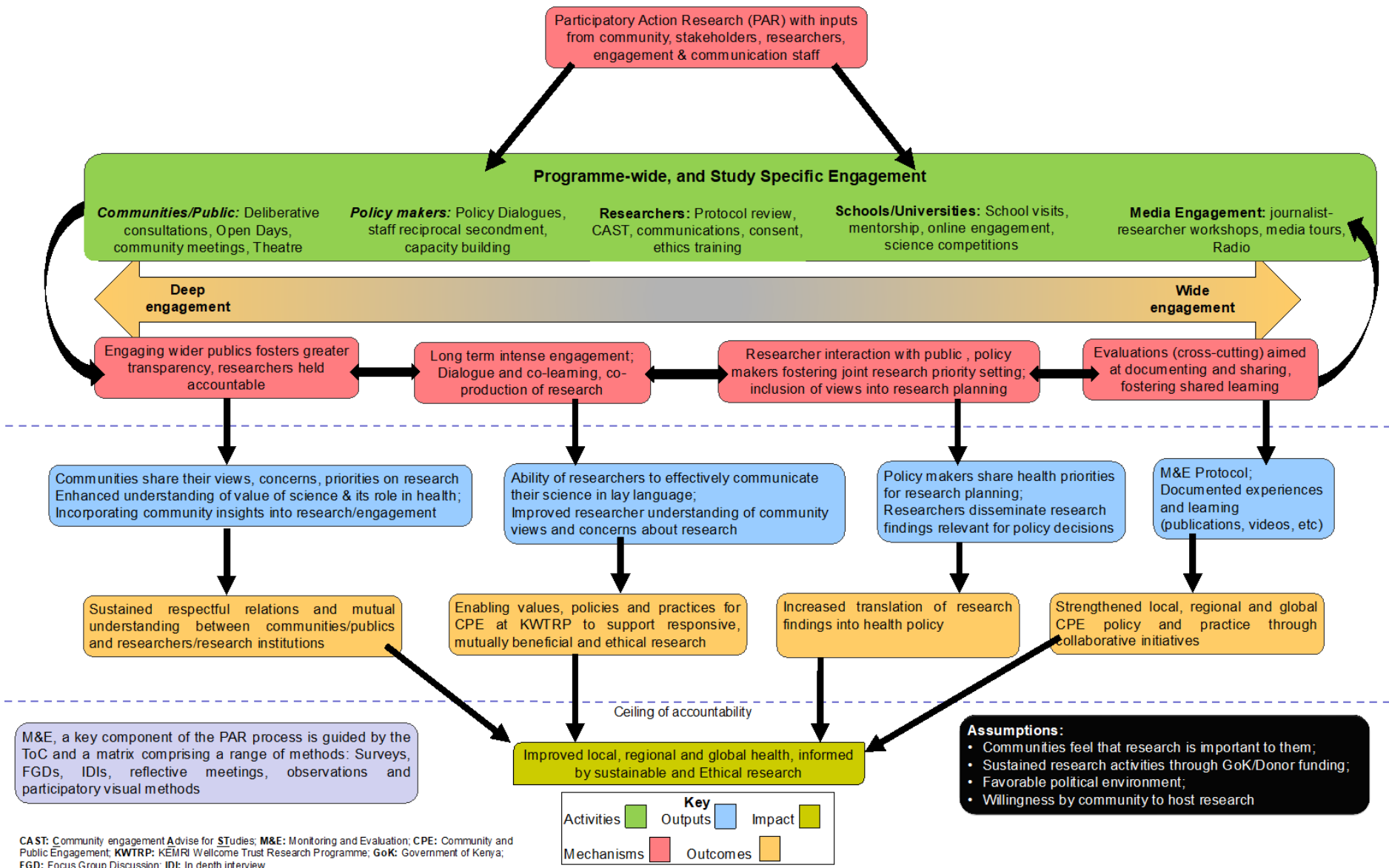
<b>Mean pre and post engagement, student responses (n=431) to Likert statements.</b>							
Statement	Mean PRE-engagement response			Mean POST- response			P_ Value
	Mean	Confidence Interval		Mean	Conf interval		
Scientists are sociable	1.65	1.58	1.72	1.48	1.41	1.54	0.0004*
Scientists are secretive	2.61	2.50	2.71	2.65	2.55	2.74	0.6005
I fear talking to scientists	3.36	3.28	3.44	3.40	3.32	3.48	0.5025
Confident talking to scientist	1.68	1.60	1.77	1.60	1.52	1.69	0.1822
Scientists use technical language	2.47	2.37	2.57	2.59	2.49	2.69	0.0911
Kenya has world leading scientists	2.14	2.05	2.23	2.03	1.94	2.12	0.088
Kenya has world leading female scientists	2.60	2.51	2.69	2.33	2.25	2.42	<0.0001*
Kenya world leading male scientist	2.18	2.09	2.27	2.17	2.09	2.25	0.8306
Some of the world's best scientists come from Africa	2.08	1.99	2.17	1.91	1.82	2.00	0.0060*
Uses people as Guinea pigs	3.09	3.00	3.17	3.08	2.99	3.14	0.9155
Fear work of KEMRI researchers	3.33	3.25	3.41	3.35	3.27	3.43	0.7359
I don't know what happens to blood samples taken for research	2.38	2.29	2.46	3.05	2.96	3.14	<0.0001*
The role of health research is to find better ways of treatment and Preventing diseases	1.32	1.26	1.38	1.23	1.80	1.28	0.0271*
A career in biology is boring	3.37	3.29	3.45	3.42	3.35	3.50	0.3176
A career in Chemistry is fun	2.19	2.10	2.29	2.04	1.95	2.18	0.0263*
Biology is important for my future job	1.57	1.50	1.65	1.46	1.39	1.53	0.0321*
I'm interested in job related to Maths	1.79	1.71	1.88	1.70	1.53	1.68	0.0011*
Scientists do more harm than good	3.26	3.17	3.35	3.33	3.24	3.41	0.2731
The work of KEMRI is good for community	1.41	1.35	1.47	1.33	1.27	1.38	0.0546
Too much money spent on research	2.08	2.00	2.17	2.03	1.94	2.13	0.4816
I benefit from health research	1.58	1.50	1.66	1.44	1.38	1.50	0.0070*
Usually enjoy biology classes	1.48	1.42	1.54	1.44	1.38	1.50	0.3721
Maths important for health research	2.07	1.98	2.16	1.72	1.65	1.80	<0.0001*
Chemistry important for health research	1.61	1.53	1.69	1.72	1.65	1.80	0.0002
Biology important for health research	1.51	1.44	1.59	1.32	1.26	1.37	<0.0001*
Physics important for health research	2.16	2.07	2.25	1.86	1.78	1.95	<0.0001*

\*denotes a statistically significant shift towards more positive attitudes towards research and science (1=Strongly Agree; 2=Agree; 3=disagree; and 4=strongly disagree)



# KEMRI | Wellcome Trust

## Community, Public and Policy Engagement Theory of Change (ToC)



CAST: Community engagement Advise for Studies; M&E: Monitoring and Evaluation; CPE: Community and Public Engagement; KWTRP: KEMRI Wellcome Trust Research Programme, GoK: Government of Kenya; FGD: Focus Group Discussion; IDI: In depth interview

## Annexe 6: Magnet Theatre reloaded topics and studio guests

DATE	TOPIC	STUDIO GUEST
11 <sup>th</sup> December 2020	Is Corona real? <i>"Half capacity kama matatu"</i>	Health Promotion Officer County Govt. of Kilifi
31 <sup>st</sup> December 2020	Can one tell the difference between symptoms of covid-19 and other respiratory infections? <i>"Mzee Amani ana mafua, yaweza kuwa ni Corona?"</i>	Medical Superintendent Kilifi County Hospital
14 <sup>th</sup> January 2021	Different strains and waves of COVID- Is the COVID in Africa the same as the one from Europe? Why are the effects different? <i>"Corona mpya"</i>	Research Scientist Epidemiology and Demography Dept. KWTRP
28 <sup>th</sup> January 2021	Impact of covid-19 on school going children and parents. <i>"Yamemwaika, yatazoleka?"</i>	Director of Education Mombasa County
11 <sup>th</sup> February 2021	Impact of COVID-19 on mental health <i>"Corona itanimaliza!"</i>	Research Scientist NeuroScience Dept. KWTRP
25 <sup>th</sup> February 2021	Role of research in health. Why is research important? <i>"Waridi mashakani"</i>	Community Liaison Manager KWTRP
11 <sup>th</sup> March 2021	Safety in research <i>"Mzee Amani anashuku utafiti"</i>	Community Liaison Officer KWTRP
25 <sup>th</sup> March 2021	Safety of vaccine <i>"Chanjo"</i>	Medical Officer of Health Kilifi North Sub-County
8 <sup>th</sup> April 2021	How can one take care of a COVID-19 infected person at home? <i>"Beka ana Corona"</i>	Disease Surveillance Officer Kilifi CoDH
22 <sup>nd</sup> April 2021	Why are some people infected by COVID and others living in the same household don't get infected? <i>"Corona gani hii?"</i>	Research Scientists (2) Epidemiology and Demography Dept. KWTRP
6 <sup>th</sup> May 2021	Myths and misconceptions around the COVID-19 vaccine <i>"Chanjo ina doa!"</i>	Head of Engagement KWTRP
20 <sup>th</sup> May 2021	Grande Finale <i>"Mzee Amani hana imani"</i>	Community Liaison Manager KWTRP

## Annexe 7: Real time activities on Jukwaa Arts Facebook page

Date	Episode	Brochure Posted	People reached	Likes Comments & shares	Post clicks	Total Impressions
17 December 2020	Episode 1	Yes	961	55	9	1012
31 December 2020	Episode 2		173	5	4	184
14 January 2021	Episode 3	Yes	840	31	7	871
28 January 2021	Episode 4		299	12	6	322
11 February 2021	Episode 5		85	3	0	90
25 February 2021	Episode 6		378	23	5	403
11 March 2021	Episode 7	1.07pm	454	20	4	471
25 March 2021	Episode 8	1.15pm	646	38	11	664
8 April 2021	Episode 9	1.15pm	342	11	4	347
22 April 2021	Episode 10	1.17pm	261	18	2	268
6 May 2021	Episode 11	1.25pm	584	45	18	584
20 May 2021	Episode 12	1.25pm	644	46	16	664
<b>Total</b>			<b>5667</b>	<b>307</b>	<b>86</b>	<b>5880</b>

## Annexe 8: Magnet Theatre reloaded studio engagement

Date	Episode	Presenter questions	Audience participation			
			SMSs		Calls	
			SMS Question	SMS comments	Calls Questions	Calls comments
17 December 2020	Episode 1	2	1	1	0	0
31 December 2020	Episode 2	8	2	0	2	0
14 January 2021	Episode 3	5	2	0	5	0
28 January 2021	Episode 4	6	0	5	0	4
11 February 2021	Episode 5	9	1	10	0	3
25 February 2021	Episode 6	5	0	6	0	4
11 March 2021	Episode 7	5	1	7	1	2
25 March 2021	Episode 8	15	2	0	3	0
8 April 2021	Episode 9	6	2	0	0	5
22 April 2021	Episode 10	7	1	0	0	0
6 May 2021	Episode 11	1	3	0	6	6
20 May 2021	Episode 12	2	1	0	4	3
<b>Total</b>		<b>71</b>	<b>16</b>	<b>29</b>	<b>21</b>	<b>27</b>

**Annexe 9: Conference evaluation form used during the 3<sup>rd</sup> International Conference on Fieldwork**

**Presentation Evaluation Form**

**Name of assessor** \_\_\_\_\_

**Date** \_\_\_\_\_

Rating: 1-Needs to improve.....5-Excellent

<b><i>To what extent did the presentation represent the following features?</i></b>	<b>P1</b>	<b>P2</b>	<b>P3</b>	<b>P4</b>	<b>P5</b>	<b>P6</b>	<b>P7</b>
1. Purpose/objective, methods, results and conclusion communicated clearly.							
2. Presenter well organized and easy to follow							
3. Presenter exhibited a good understanding of topic.							
4. Presenter looked well-prepared-confident							
5. Presenter spoke clearly/effectively							
6. Time for presentation used effectively-not go beyond allocated time							
7. Relevant visuals used to enhance presentation							
8. Presenter responded effectively to audience questions and comments.							
9. Presenter engaged audience (eye contact/asking questions, reflection).							
10. Other comments							
<b>Total</b>							

Annexe 10: KCR Pre & Post Workshop Evaluation Tool

KCR END OF YEAR PRE & POST WORKSHOP EVALUATION

Version 1.1

INITIALS: ..... SUB LOCATION: ..... DATE: .....

A. QUESTIONS ABOUT UNDERSTANDING

- 1. From your understanding, what is KEMRI? (Write anything that you know about KEMRI)  
.....  
.....  
.....  
.....
- 2. What is health research?  
.....  
.....  
.....  
.....
- 3. What are the things that happen before a health research is approved?  
.....  
.....  
.....  
.....
- 4. Assume you are a committee member and you have been given an opportunity to review a research proposal from a researcher, what are the things that you would consider before approving the research to begin?  
.....  
.....  
.....  
.....
- 5. Please outline the roles of KCRs.  
.....  
.....  
.....  
.....

ATTITUDE QUESTIONS

- 6. Please tell us your views about being a KCR member.  
.....  
.....  
.....  
.....
- 7. Please give us your views about KEMRI and its roles  
.....  
.....  
.....  
.....

