

# Acknowledgements

- Tess Bright
- Wakisa Mulwafu
- Mwanisha Phiri
- Toni Baum
- Study participants
- Funder:



# Background

- Prevalence of hearing impairment in children in Sub-Saharan Africa: 1.9% (WHO estimates)



ENT Specialists

2



ENT Clinical Officers

27



Audiologists

4



Audiology  
technicians

4

# Background

## Specialist services

KCH  
African Bible College

Queen Elizabeth  
Central Hospital



## Primary ear care pilot project in Thyolo district



Community health workers identified and trained



People with ear and hearing issues in Thyolo identified and listed by community health workers



Screening camps held in health centres in Thyolo



Referral to Queen Elizabeth Central Hospital ENT Department



## Primary ear care pilot project in Thyolo district



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People with ear and hearing issues in Thyolo identified and listed by community health workers



Screening camps held in health centres in Thyolo

**170 children referred for medical rehabilitation (hearing aids, surgery)**



Referral to Queen Elizabeth Central Hospital ENT Department

**5% took up referral**

Mulwafu et al, 2017



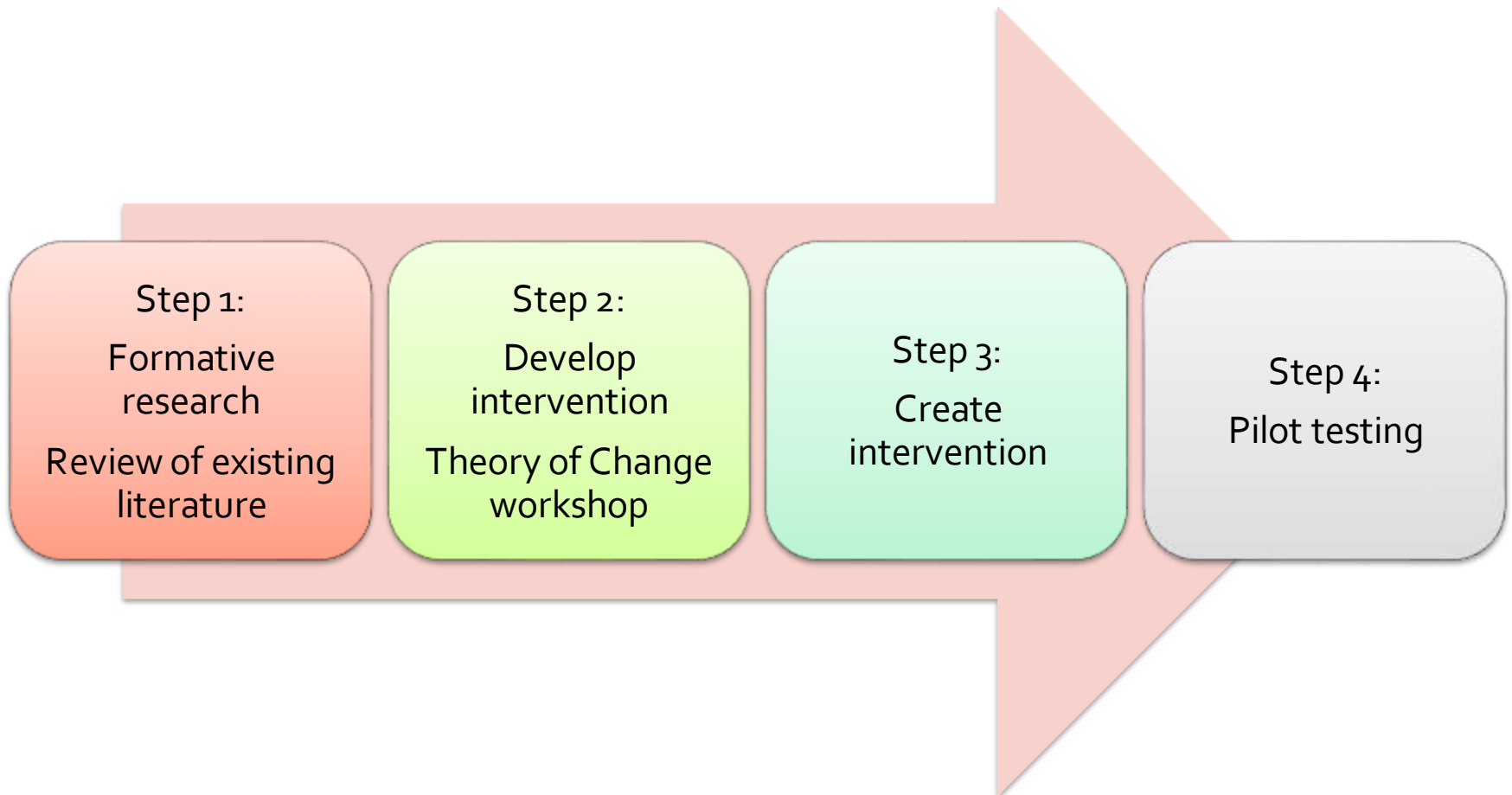
**Why is the uptake so low?**

**How can uptake be improved?**

To develop and test an intervention to improve uptake of referral for children with ear and hearing conditions in Thyolo district, Malawi.

- MRC framework for development of complex interventions
- Behaviour Centered Design (LSHTM)

# Research overview



# Step 1: Understanding the barriers to uptake

Research Question: What are the barriers to referral uptake for children with ear and hearing difficulties in Thyolo district, Malawi?

Methods:

In-depth interviews with

- 23 caregivers of children referred to ear and hearing services
- 15 stakeholders

# Step 1: Barriers to uptake -Key findings

## Location of hospital



“Imagine from here you will ride a bike and in the hills you will be walking. At Golati we board another [minibus] to Limbe and then another to Queens. It’s a long journey and you might not be assisted the same day”

# Step 1: Barriers to uptake -Key findings

## Transport: cost and unavailability



# Step 1: Barriers to uptake -Key findings

## Fear and uncertainty about hospital



“It is just fear, some have never been to Queens so referring them to Queens... and you give them directions. They may have money but for them to go, maybe it is fear.”

# Step 1: Barriers to uptake -Key findings

## Insufficient information about referral process



"I was not told that we needed to go. We were waiting information about the day to go"

# Step 1: Barriers to uptake -Key findings

## Multiple interacting barriers



# Step 1: What works elsewhere?

- Systematic review of strategies to improve access to health services for children in LMIC

Encouraging evidence for:

- Text message reminders
- Delivery of services close to home

.....more research needed

## RESEARCH ARTICLE

Open Access



### A systematic review of strategies to increase access to health services among children in low and middle income countries

Tess Bright , Lambert Felix, Hannah Kuper and Sarah Polack

#### Abstract

**Background:** Universal Health Coverage is widely endorsed as the pivotal goal in global health, however substantial barriers to accessing health services for children in low and middle-income countries (LMIC) exist. Failure to access healthcare is an important contributor to child mortality in these settings. Barriers to access have been widely studied, however effective interventions to overcome barriers and increase access to services for children are less well documented.

**Methods:** We conducted a systematic review of effectiveness of interventions aimed at increasing access to health services for children aged 5 years and below in LMIC. Four databases (EMBASE, Global Health, MEDLINE, and PSYCINFO) were searched in January 2016. Studies were included if they evaluated interventions that aimed to

## Step 2: Developing an intervention

- Focus Group Discussion with caregivers
  - Feedback of findings
  - Discuss strategies to address the key barriers.
- Participatory theory of change workshop in Blantyre
- Interventions to address barriers discussed and prioritised



## Multi-component intervention package:

- Pictorial information booklet about referral and process of attending ear and hearing services at QEH
- Counsellors trained to deliver information booklet in camp settings, including one “expert” mother (peer support) and a community health worker
- Text message reminders for caregivers who had been referred to QEH

# Step 3 – Creating the intervention

RE-UP: London based creative agency

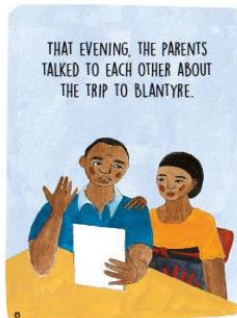
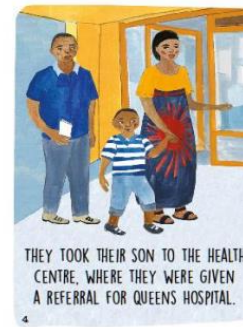
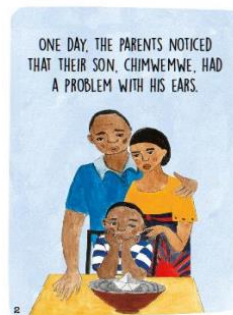
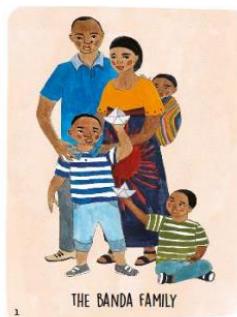


# The intervention - Booklet



# The intervention - Booklet

## Part 1 - Story



# The intervention - Booklet

## Part 2 – Places and People

### HOW TO GET THERE



**1**  
**Bus stop for Queens** - get off when you see the blue flyover. Then walk and ask for Queens.



**2**  
**QECH main gate** - from here, walk straight along main road until you get to a junction.



**3**  
**Junction 1** - when you walk up to the first junction, take the left road.



**4**  
**Junction 2** - then when you come to the second junction, take a right.



**5**  
**Eye clinic** - the Qech eye clinic is approx 50 metres away from the RNT clinic. When at the eye clinic, you will be guided to the RNT.



**6**  
**John Hopkins Centre** - this is what you will pass by, when you're on your way to the RNT clinic.



**7**  
**Entrance to RNT/Mercy James** - turn left here when you see Mercy James Centre - it's a large building.



**8**  
**RNT Clinic** - here is where you will meet the doctor who will treat your child.

### PEOPLE YOU WILL MEET



**THE NURSE**  
You can ask a nurse at the hospital to help you find the RNT department.



**THE ENT CLINICIAN**  
They will be the person who will deal with your child's hearing problem.



**THE HEARING SPECIALIST**  
They will check your child's ears and take you to the RNT doctor.

# The intervention - Booklet

## Part 3 – Action Planning

### THINGS TO KNOW



#### TODAY YOUR CHILD WAS FOUND TO HAVE:

- ☐ A problem with their ears that might be helped with surgery.
- ☐ A problem with their hearing that might be helped with hearing aids.

#### YOU NEED TO GO TO QUEENS FOR FURTHER TREATMENT OR TESTS, YOU CAN GO BETWEEN MONDAY AND FRIDAY.

You will not be asked to give money at hospital but you will need to pay for transport. The counsellor will discuss with you how much money you need.

You may be asked to pay what you want for hearing aids (as much as you can afford).

#### WE WANT TO HELP YOU TO PLAN YOUR JOURNEY TO QUEENS SO THAT YOUR CHILD CAN ALSO GET THE HELP THEY NEED.

How are you going to get there? \_\_\_\_\_

How much money will I need? \_\_\_\_\_

Who will stay at home with the other kids when you go to Queens? \_\_\_\_\_

Who will go with you? \_\_\_\_\_

How are you going to get home? \_\_\_\_\_

How long to wait? \_\_\_\_\_

What you need to take? \_\_\_\_\_

When are you going to go? \_\_\_\_\_

#### DO YOU HAVE ANY QUESTIONS?

If you still have any questions here are some useful contacts:

**QECH Audiology clinic:** 0995471446 or 0881379664.

**QECH ENT clinic:** 0998683716.

**Mwanaisha Phiri:** 0993667553.

# The Intervention – Text Message

- FGD and stakeholder consultation
- First message : two days before the scheduled appointment at 12:30pm
- Second message: if did not attend

Good afternoon, your child [name] was recently referred to Queen Elizabeth central hospital in Blantyre because of a problem with their ears or hearing. We want to remind you to attend your appointment on [day, date]. If you have any questions please call: [phone number]

# Step 4: Pilot test of intervention in outreach camps in Thyolo district



# Step 4: Pilot test - METHODS

Training community health worker and 'expert' mother to deliver counselling  
(1.5 days)

Pilot test in 3 outreach camps with children referred to QEH

- 30 children from 28 families

Follow up after 4 weeks

- In-depth interviews: carers of 11 children who did & 12 who did not attend QEH
- In-depth interviews: 6 implementers

## Step 4: Pilot Test – KEY FINDINGS

Out of 30 children referred, 16 (53%) attended QEH

# Step 4: Pilot Test – KEY FINDINGS

## Counselling: acceptability

- Enabled a two way conversation
  - Greater understanding
  - Expert mother testimony motivating
- Dispelling fear/misconceptions about hospital

“...wonderful because we were being encouraged. The doctor can explain to you, yes, but you might have questions, and we were able to have a discussion with them.”

# Step 4: Pilot Test – KEY FINDINGS

## Booklet: acceptability

- Motivation from storyline
  - Identification with family
  - Prompted questions, hope
  - Unrealistic expectations?
- Facilitating planning
- Sharing booklet with networks
  - Mobilising financial support

“I was refusing [uptake] since I didn’t have money for transport...And that’s when another woman [neighbour] said “can you bring your booklet and let me look at it”. And they read [it] and they told me that no matter what, I should do what I can to find money for transport and go with the child.”

## Counselling & Booklet: Feasibility

- Time taken
  - Waiting time complaints
  - Limited time
  - ...Group counselling?
- Primary caregiver not attending camp
- Comprehension of booklet
  - ~50% primary education only
  - Counsellor guidance key

## Text message: acceptability & feasibility

- Prompt for action
- Provoked anxiety
- Only two thirds received message
  - Electricity supply, faulty networks
- Involving community recommended

"What was good about the messages is that [caregivers] were greeted happily and we were not forcing them. ...And if you didn't understand you could call the same number to ask"

## Residual barriers to uptake

- Costs of seeking care (transport)
- Unfamiliarity with hospital

“There was no problem. Whatever happened here, everyone at home accepted it, and there was nothing to make us fail. We were just waiting. That’s when the sickness [of another family member] came. So when the time [for the child’s appointment] came close, we had spent the money [we had collected] for transport.”

## Future adaptations

- Build in more community support/involvement
- Group 'counselling' for carers of children:
  - Time taken at camps
  - Group solutions to transport and funding
- Follow up involvement of community leaders and CHW
  - Reminders
  - Support
- Adapt/test in different settings

- Participatory intervention development
- Feasible and acceptable
- Overcame some barriers: confusion about referral, fear & uncertainty of hospital, [cost]
- Residual barriers: transport & cost
- Next step: adapt and test in trial

# THANK YOU!

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