# Increasing health knowledge in rural Tanzanian communities with digital health messages

Christine Holst (Mphil, Ph.D candidate),

Josef Noll and Andrea S. Winkler (supervisors)





#### Non-discriminating access for Digital Inclusion (the DigI project)

















extenso



















#### Digital Health components

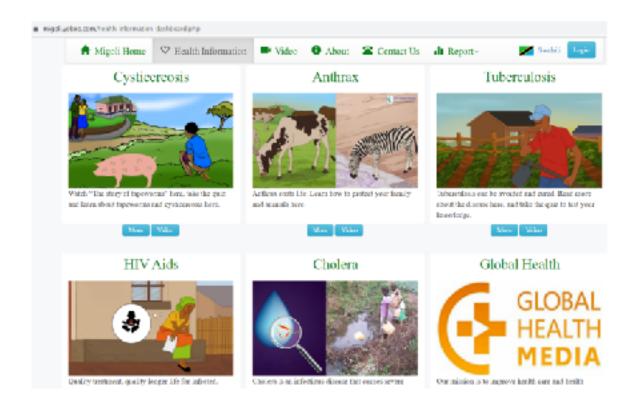
- The InfoSpots / equipment
  - Affordable equipment in village offices, schools and dispensaries
- The digital health platform
  - Digitized public health promotion
- The intervention
  - A) Exposure to animations (April / June 2019)
  - B) Access to InfoSpots with health platform (Nov 2019)
- The study
  - Non-randomized controlled study (April 2019 June 2020)
  - Semi-structured interviews (February 2020)





#### The digital health platform

- Creation of health messages
- Animations with local characters in local language
  - HIV / AIDS
  - TB
  - Taenia solium Cysticercosis/Taeniosis (TSCT)
- Text
- Illustrations
- Quiz





#### The digital health intervention







A) Exposure to the three animations (HIV, TB, TSTC (pork tapeworm and cysticercosis))

B) Access to the health platform in the InfoSpots



#### The study – data collection

- Non-randomized controlled study (April 2019 June 2020)
  - Baseline assessment: April / May 2019 (n=600), both groups
  - Immediate post-test in the intervention group (n=298)
  - First follow-up, both groups: August 2019 (n=550)
  - Second follow-up, both groups: June 2020 (n=500)
- Semi-structured interviews, intervention group: February 2020 (n=35)





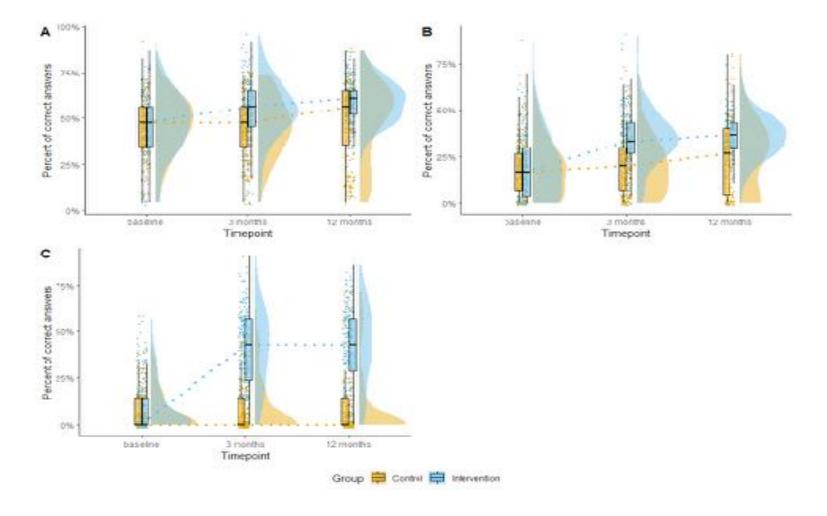
#### Results from the intervention study

- Mixed-effect models used.
- Significantly higher health knowledge in the intervention group than in the control group after one year:
  - HIV/AIDS 9.4% higher mean score
  - TB 10.7% higher mean score
  - TSTC 31.1% higher mean score
- Adjusted for education, occupation, age and gender
  - HIV/AIDS 9.6% higher mean score
  - TB 11.3% higher mean score
  - TSTC 30.8% higher mean score



Sensitivity (dropout) analysis performed

## Preliminary results from the intervention study







## Main findings from the qualitative round

- Acceptability in the community
  - InfoSpots
  - Animations
- Health workers use the digital health platform to refresh own memory and to educate communities and groups within the community
- Students use the animations to rehearse on their curriculum and to practice English
- InfoSpot users wants more coverage and more devices
- InfoSpot users want more health content
  - All non-users expressed that they would use InfoSpots if they knew they were open



# Highlights & Lessons learned

- Multi-disciplinary teamwork
- Animations very well received
  - High health knowledge retention: Important messages repeated by users
- The work with TZ- ground team and the sub-village leaders
- Ownership in the villages



#### Special thanks



Dr. Bernard Ngowi



Prof. Josef Noll



Prof. Andrea Winkler



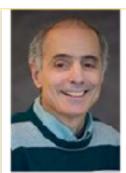
Prof. Helena Ngowi



Mr. Erwan Le Quentrec



Dr. Maurice Isabwe



Dr. Peter Cardellichio



Mrs. Flora Kajuna



Dr. Felix Sukums,



Dr. Danica Radovanovic



Dr. Elibariki Mwakapeje



Mrs. WisamA. Mansour



Dr. Inaki Garritano



Dr. Sudhir Dixit

