Abstract: The objectives of the project are to develop affordable and innovative hearing devices and screening tools and to develop new community based hearing services appropriate for local communities in low-resourced settings in order to ensure inclusive and equitable quality education for children with hearing impairment in Tanzania. Project partners are SINTEF, NTNU, DeafAid and Open University of Tanzania.

Your research, education or innovation snapshot

An innovative and affordable Hearing Device are being developed for children and youth. The hearing device is based on available headphones and an clip on innovative audio processor compensating for the reduced hearing.

An innovative screening system base on smartphones/tablets and automatic screening procedures will be available at local clinics and schools. Local health care workers and teachers will be trained to do the screening and provision of the Hearing Device without the presence of hearing specialists. Follow up, adjustments and repair will be available locally.

The project is funded by the Norwegian Research Council from 2017 – 2020. Collaborating partners are SINTEF, NTNU, DeafAid and Open University of Tanzania.

Implications for Products, Provision, Personnel or Policy?

Traditional hearing aids are expensive, fragile and the global production meets less than 10% of the need (WHO, 2015). Furthermore, traditional hearing aids have to be fitted and followed up by hearing specialist using advanced screening tools and procedures. These factors seriously limit access to hearing aids and services.

The concept include both development of products and services for local provision of hearing devices and capacity building of persons with hearing impairments, their families and local health care workers.

1) Implications for Products: A new hearing device and screening tools appropriate for local communities in low-and medium income countries will be available.

2) Implications for Provision: A sustainable community-based model for screening children and adolescence with hearing impairments and local provision of hearing services will be feasible.

The community-based model might complement the traditional centre-based model for provision of hearing aids. Users with severe hearing impairments or medical conditions will be referred to specialists.

3) Implications for Personnel: Training programs for schoolteachers and local community health workers (CHW) will be available for capacity building in the communities.

Persons with hearing impairments will have

- increased availability of affordable and robust hearing devices
- improved access to hearing services in their local communities

Strategies to share and build global capacity based on this work

The innovation will be scalable and available for implementation in low- and medium income countries after being tested and improved. The results will be communicated through global initiatives as the GATE, through conferences as AAATE and AfriNead and through relevant journals.

Contact details for global liaison

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