Supporting literacy, numeracy and well-being for deaf children in low-resource environments

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INTRODUCTION

Global outreach in audiology and deaf education has become increasingly well represented, by individual and organizational efforts, in professional magazines, particularly short-term projects. Audiology often supports literacy, numeracy and well-being development for deaf children in these low-resource environment projects, and both sustainable and less-sustainable practice can be noted. This poster considers ways of moving sustainability and cultural sensitivity towards best practice in collaboration, offering examples and resources.

BACKGROUND

Smith (2016) reported on the World Health Organisation's data regarding the scope of the issue of hearing loss world-wide: 80% of the estimated 32 million children with moderate or worse hearing loss, live in low-income countries. With dramatic increase in recent decades, the highest prevalence amongst children (2.4%) is in South Asia and second highest in Sub-Saharan Africa. This prevalence increases proportionately to decreases in a country's income; thus these regions deal with more than twice as many deaf children than western developed countries, but with the lowest level of resources. Hearing loss is particularly marked as leading to poverty, but poverty also leads to hearing loss, so a vicious cycle exists.

FIG. 1 Comparison of hearing loss prevalence in children with gross national income, WHO, 2011 estimates

Reports in McPherson (2008) compare the number of professionals available to work with hearing impairments in low-resource countries (one audiologist per 0.5 million people) to those in developed countries (one audiologist per 20 thousand people). Details about numbers of trained teachers of the deaf were not revealed. Therefore many deaf children remain unidentified, untreated and under-educated due to family poverty and stigmatisation (Haigh, 2015, Caron 2016).
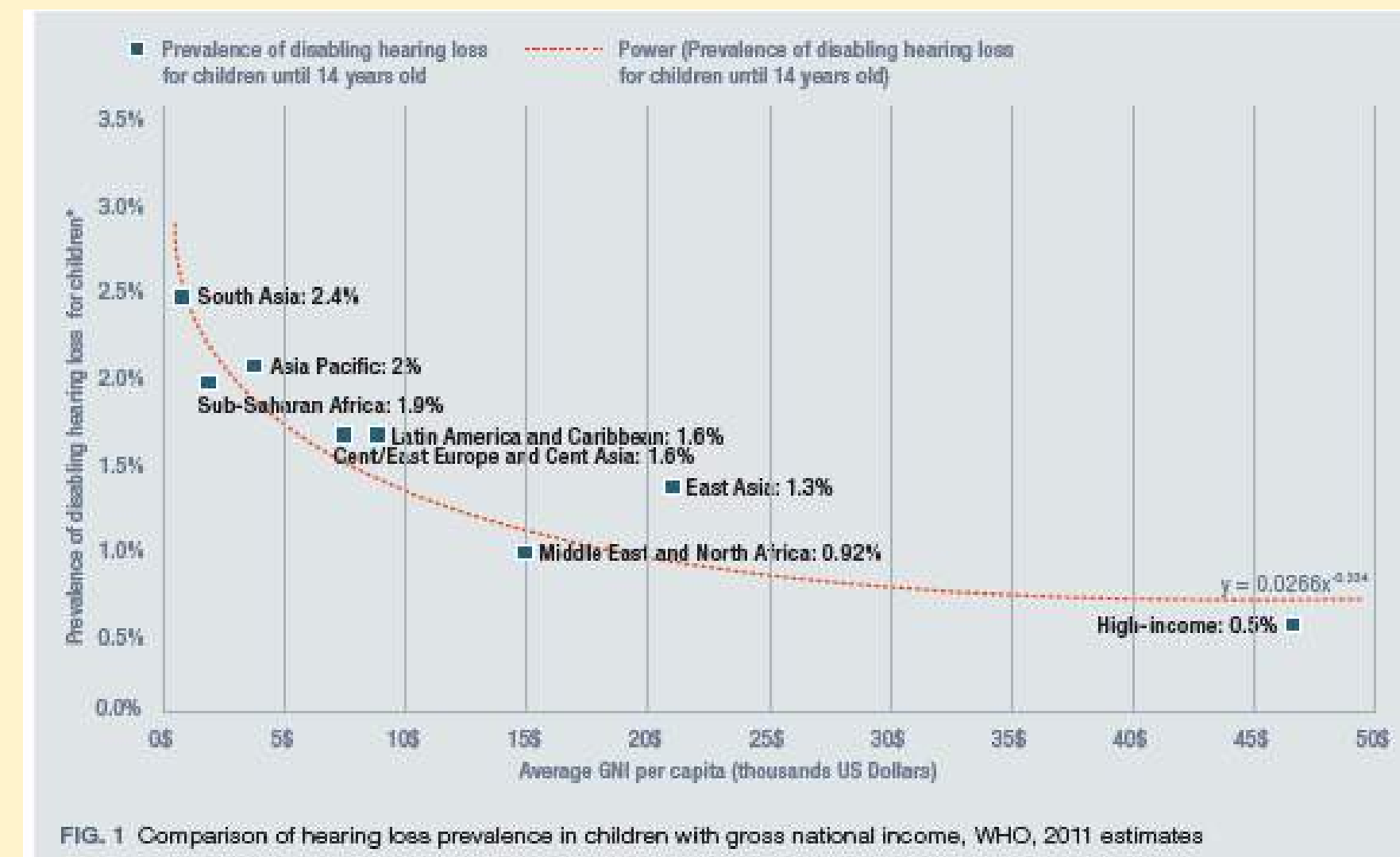
CONTEXT

The notion of sustainable development is a widely accepted tenet for best practice, but one with a myriad of subtle differences in interpretation according to Pearce et al (2013), including breadth of issues such as social justice and community participation. Defining the issue, within the sphere of deaf education in low-resource environments, is part of the process at work in the increase of publications in professional magazines about individual and group efforts.

Cultural sensitivity also is a widely accepted idea and features prominently in the priorities of Mowford and Munt's (2016) treatise on development and the 'new tourism' (engaging in some way in humanitarian or ecological aid whilst enjoying travel). Even with such prioritisation, development work is an unequal and uneven process, exemplified by the increasingly thwarted movements of migrants from low-resource to developed countries whilst relatively wealthy westerners increase new tourism movement to low-resource countries. Larger socio-economic issues are beyond the remit of this poster, but the context of sustainability and cultural sensitivity is considered.

SUPPORTING LITERACY, NUMERACY and WELL-BEING

Cultural sensitivity and holistic sustainability are important for education anywhere, especially in low-resource environments. Whilst volunteers from developed countries have much to offer, it is imperative to maintain a teachable outlook, particularly in regards to the local environment, resourcefulness and collaboration. Many donated teaching resources are useful and needed, but others may be overtly culturally inappropriate. In order to provide sustainable training for indigenous teachers, empowering them to develop the best means of using available resources in teaching (*e.g.* sourcing in-country indigenous sign language dictionaries or complementing literacy with oral traditions) can be very effective in conveying needed concepts along with the dignity and respect of local ways and means. Of note, over 103 distinct sign languages can be found in the Ethnologies Database (2016); which like the multitude of regional spoken languages in low-resource environments (in addition to the national language of schooling) each exhibit historic and cultural variations. Educational needs can best be addressed holistically when health and nutrition needs are also met. Within many short term projects, overseas volunteers must be prepared to collaborate locally with extra-curricular efforts such as building or sanitation projects.
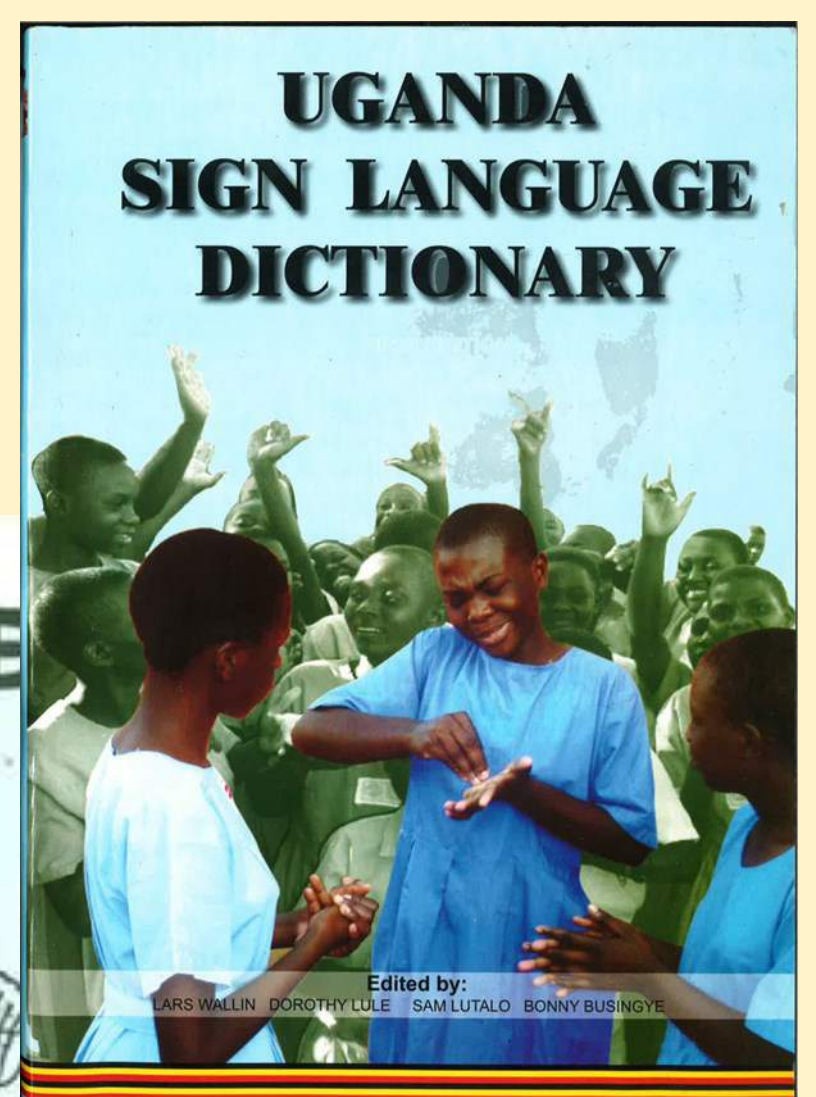
Efforts to sustain an indigenous workforce fall mainly into three models used at different times and regions.

1) For those areas with internet access, online materials such as MOOCS (massive online open courses, McCracken 2016); or MESH updateable evidence summaries to support teachers' practice access to research (2016) can be used sustainably.

2) In the model most prevalently featured in deafness-related professional magazines, trained professionals travel overseas, providing some professional training during their stay (Haigh, 2015; Rosenberg, 2016).

3) A third model involves workers from low-resource countries traveling to a developed country to receive training and returning home to cascade it, such as projects in the Philippines and Malawi (Rosenberg, 2015, Soundseekers/Caron, 2016).

CONCLUSIONS

At a 2016 conference workshop on global outreach and deafness (Rosenberg et al, 2016) results of delegates' considered discussions included:

. Culturally sensitive deaf awareness needs raising, especially in vulnerable and conflict-burdened settings.

. Collaborating with local governments and communities for early identification is needed to provide a starting point even in areas with minimal or no intervention.

. Sustainability considerations (*e.g.* innovations for power supply, reviewing HA fit, patient education) must be made when considering suitability of technology donations.

. Intervention focus should include communication modes as well as technology.

Collaborative practice is the way forward keeping holistic sustainability and cultural sensitivity at the fore.

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OTHER RESOURCES

Case Studies on audiology and deaf education in low resource environments:

Audacity - British Society of Audiology magazine (dedicated column in each issue)

BATOD Magazine – (features in many issues)

British Academy of Audiology Magazine (dedicated column in each issue)

International Journal of Audiology (articles include Nigeria, S Africa and India)

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