

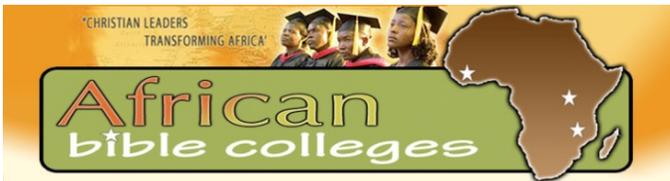
# Addressing the challenges of paediatric hearing aid reviews in a developing country

Helen Brough MSc CS

Clinical Scientist (Audiology)

African Bible College Hearing Clinic and Training Centre  
Malawi

Special thanks to Tiwa Kachaje for patient management



# Malawi



3<sup>rd</sup> poorest country in the world

Population >19 million

2 purpose-built Audiology clinics

3 Audiologists



## African Bible College Hearing Clinic and Training Centre (ABC HCTC), Lilongwe



- Adult and paediatric clinical facilities
- On-site earmould lab
- Diagnostic hearing assessment possible from birth
- Hearing aids fitted from age 6 months
- 1 Audiologist and 6 highly skilled audiology assistants

# A child has been fitted with hearing aids: what next?

- Regular reviews are vital to:
  - monitor progress with hearing aids
  - Reassess hearing
  - Identify problems and act



# Retrospective audit of paediatric hearing aid reviews

Audit Standard:

Schedule for paediatric reviews suggested by Beauchaine (2002)

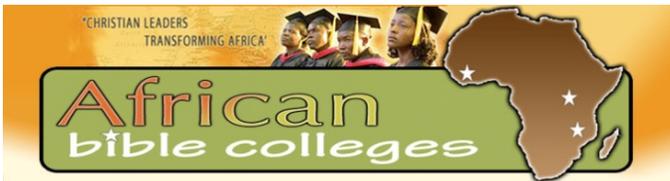
Age (years)	Frequency of Audiology review
<3	Every 3 months
3-5	Every 6 months
6-18	Every 12 months

All children fitted with one or two hearing aids from  
4 November 2013 to 1 January 2017



# Exclusions to audit

1. Unilateral hearing loss
  2. Profound bilateral hearing loss
  3. ANSD
  4. Atresia
- Recent fittings, not yet due for review
  - Age >18 at time of audit



# Initial results and actions

- 62 children fulfilled the criteria for inclusion in the audit
- 2/62 children had been reviewed within Beauchaine's timeframe and were due for further review
- Strenuous attempts were made to contact all 62 children to arrange review between April to July 2017



# Outcome of re-audit (62 children)

	Number of children
Attended review appointment	9
Family could not commit to an appointment, but agreed to attend a drop-in clinic at a time convenient to them, and did so within 8 weeks	2
No valid phone number	9
Did not answer phone	27
Did not attend review appointment	6
Family could not commit to an appointment, but agreed to attend a 'drop-in' clinic at a time convenient to them, and failed to do so within 8 weeks	2
Appointment booked in the future	5
Family unable to attend the clinic	2

# Information from reviews

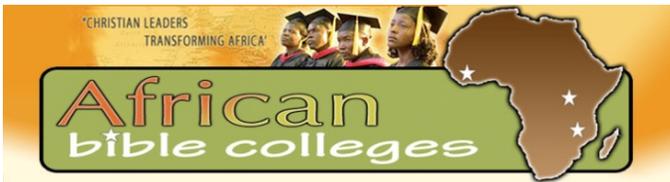
Situation at review	Number of children
Hearing aids lost	2
Hearing aids stolen	1
Not wearing aids	2
1 aid fitted: broken	4
2 aids fitted: one broken, one in use	2
2 aids fitted: both in use	0
1 aid fitted: in use	0

# Outcome following review

Outcome	Number of children
Hearing unaidable: referred to school for the Deaf	2
Fitted with replacement aids	4
Did not return for fitting replacement aids	5

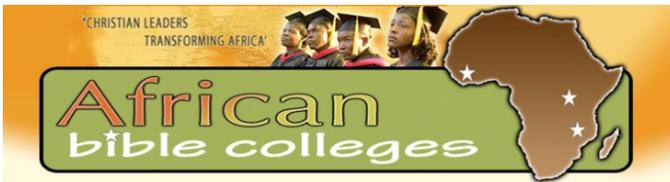
# Why are so many children not...

- returning when their hearing aid breaks?
- returning when they find the hearing aids are not beneficial?
- attending reviews?
- coming for fitting appointments after review?



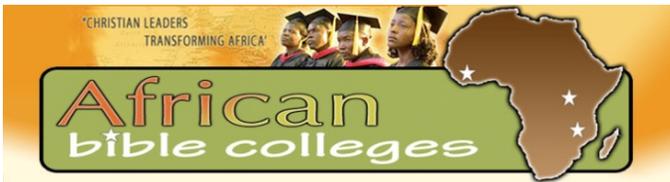
# Barriers to accessing care (Bright *et al* 2017)

- travel costs
- Incidental costs:
  - time away from work to travel to clinic
  - food for journey
- Lengthy journeys on public transport
- No-one available to care for other children

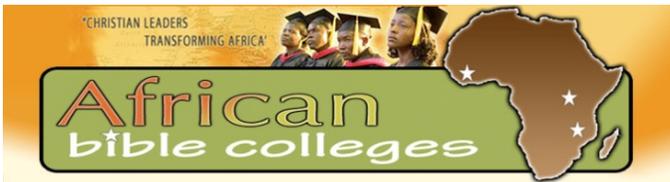


# Potential barriers to attending reviews

- Unaware of the need for regular review
- Attending a clinic for a 'check-up' is not culturally expected
- Anxiety about the cost of hearing aid repair/replacement
- Thinking that if one aid breaks, then the other will be sufficient
- Difficulty maintaining contact



How do we address these difficulties?



# Preferred profile for hearing aid technology for low and middle income countries

- World Health Organization document 2017
- Follow-up is listed as 'desirable' rather than 'essential'



# Changing the culture

Clinicians, commissioners and policy-makers need:

- a strong understanding and belief in the need for follow-up
- Clear and practicable pro-active follow-up protocols



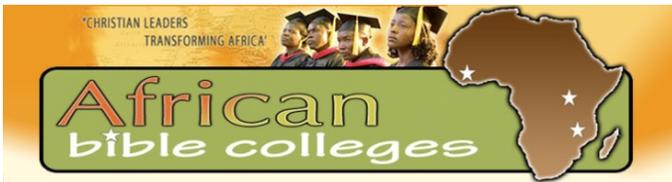
# Follow-up

- Absolutely vital
- Must be monitored and evaluated
- How is it funded?
- Is it ethical to provide paediatric hearing aids without also providing adequate long-term follow-up?



# Postscript

- ABC Hearing Clinic has an established commitment to paediatric follow-up
- Significant improvements observed in those children from the audit who are now under regular review



# References

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