Early Detection and Intervention in Audiology

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Sufficient evidence exists to support increased efforts towards early hearing detection and intervention (EHDI) in South Africa. Regardless of the proven benefit of EHDI for the hearing impaired, its implementation remains difficult due to the numerous challenges that have been detailed in various chapters in this book. Confronting these challenges and ensuring successful EHDI programmes that are contextualised to South African realities is important. This chapter provides recommendations, inspired by evidence emanating from earlier chapters, for EHDI implementation. These recommendations take cognisance of the environment to allow for best or next practice. We advance recommendations for EHDI in sub-Saharan Africa, with a special focus on South Africa, bearing in mind the various levels of service delivery in that country’s health care setting. We make suggestions around how to confront the realities impacting EHDI implementation in this context, including contextualisation of risk factors for hearing impairment and deliberations on EHDI in the educational context. Furthermore, we offer proposals on how to deal with South African complexities around EHDI, such as EHDI in the context of other sensory impairments, family-centred EHDI, EHDI in the context of HIV/AIDS (burden of disease), as well as how to engage with EHDI in the context of tele-audiology.

A significant number of hearing-impaired children in South Africa will continue to have their rights denied until EHDI is incorporated as part of a cohesive, systematic and comprehensive nationalised health care strategy that is contextually responsive and relevant (Kanji, Khoza-Shangase, Petrocchi-Bartal, & Harbinson, 2018; Khoza-Shangase, Kanji, Petrocchi-Bartal, & Farr, 2017). We strongly believe that ear and hearing health care practitioners bear the ethical responsibility to ensure that the rights of hearing-impaired children are upheld through best practice in EHDI.

EHDI is the gold standard for any practising audiologist and for the families of infants and children with hearing impairment. EHDI programmes aim to identify, diagnose and provide intervention to children with hearing impairment (as well as those at risk for hearing impairment) by six months of age to ensure that they develop and achieve in line with their hearing peers. EHDI remains a significant challenge for low and middle-income
(LAMI) countries, and in South Africa various initiatives are in place to address this gap in transferring theory into practice. The linguistic, cultural and socio-economic diversity of the South African context presents unique challenges to the academic teaching and research endeavours in this field, which prompted this book project. The South African government’s heightened focus on increasing access to health care through the re-engineered primary health care (PHC) model and the National Health Insurance (NHI), as well as the early childhood development (ECD) programmes make this an opportune time for establishing and documenting evidence-based research for current undergraduate and postgraduate students. This book provides research-anchored and evidence-based information on EHDI, grounded in an African context. The chapters comprehensively cover both the detection and the intervention aspects of hearing impairment, paying careful attention to contextual relevance and responsiveness. Although the focus of the book is South Africa, contextual realities are similar across the whole of Africa, and parallels can be drawn for most LAMI countries.

EHDI implementation in African countries faces numerous challenges, key of which are resource constraints in terms of health care professionals and significant demand–capacity challenges. In some countries this picture of an overburdened health care system is exacerbated by a shortage of ear and hearing health care professionals in relation to the population that needs to be served. These challenges influence the implementation of early hearing detection services and adherence to the early hearing detection principles which are aimed at facilitating maximum potential in children presenting with hearing impairment. Hence, interim approaches to early hearing detection need to be explored in each context as health service delivery models may differ in each country. This exploration should include primary and middle-level workers in task-shifting models of delivery in newborn hearing screening (NHS), as well as the use of PHC settings to ensure universal coverage. Furthermore, innovative service delivery models such as the use of hybrid tele-audiology alongside task shifting may be the solution to increasing access to, and success of, EHDI programmes in Africa. This is particularly important, as the World Health Organization (WHO, 2018) estimates that more than 6.1 percent (approximately 466 million people) of the world’s population lives with disabling hearing loss, with 7 percent (34 million) of them being children. Mulwafu, Kuper, and Ensink (2016) report that this prevalence is higher in sub-Saharan Africa than in other parts of the world.

Early detection of hearing impairment

Early detection of hearing impairment continues to be a challenge in the wider African context as well as in South Africa specifically. Key to addressing
this issue is political will on the part of African governments and their departments of health in mandating universal newborn hearing screening (UNHS) and providing the resources required for the early detection of hearing impairment as part of programmatic planning, such as within the respective countries’ ECD priorities. In chapter 2, Kanji argues that framing early hearing detection services under sustainable development goals (SDGs) that include indicators related to maternal, newborn and child health, and universal coverage may facilitate support from governments. This programmatic approach is also required for comprehensive implementation and sustainability of EHDI initiatives. Kanji posits that the use of foreign aid during the SDG period may be effective in supporting the implementation of UNHS services if mandated by governments.

Over and above procurement of appropriate screening equipment, serious planning is needed around the personnel required for the provision of ear and hearing health services in these contexts. Equipment that is sensitive and easy to use opens up opportunities for using non-professionals, as in task shifting, to increase the reach in contexts where professionals are not available. Increased training of audiologists and otorhinolaryngologists is recommended, as well as of mid-level workers such as audiology assistants and non-professionals (volunteers who can serve as screeners) in screening programmes managed by audiologists. Due to the documented shortage of audiologists in the African context, access to global human resources for supervision through tele-audiology should be seriously explored.

The training of non-professionals should adhere to minimum standards set out by regulating bodies such as the Health Professions Council of South Africa (HPCSA) and the Botswana Health Professions Council. In countries where such regulatory bodies and training institutions do not exist, South Africa could serve an advisory role and also share best practice. For example, audiologists need to engage with EHDI guidelines in their respective countries, and contextualise them to their contexts. In South Africa, one contextually responsive solution may be to begin with an approach to NHS that is not only feasible within the broader context, but per level of health care service delivery. Screening at both PHC and hospital level may increase coverage rates and facilitate the screening of both well babies and high-risk neonates. Each African country would need to engage with such factors to determine what is best for their context to ensure increased access and success of NHS programmes. In countries where audiologists or hearing health care services are limited or non-existent, South Africa needs to lead the way with possible solutions. These could include international collaborations in terms of training, as well as tele-supervision and tele-mentoring where the use of tele-practice could be explored within PHC levels of service delivery.

PHC re-engineering in contexts such as South Africa needs to be considered as a platform for early detection services, particularly as this strategy
forms the cornerstone to addressing the social determinants of health (Scott, Schaay, Schneider, & Sanders, 2017). PHC also provides a commitment to universal health coverage and primary care, which are important when considering early detection of hearing impairment. In addition, a key emphasis on health reforms in resource-constrained contexts such as South Africa is ensuring the inclusion of not only curative but also preventative and promotive primary health services (Ataguba, Day, & McIntyre, 2015). Early detection of hearing impairment is thus important, particularly as it is a secondary prevention strategy within PHC service delivery.

In the resource-constrained African context, careful deliberations around approaches to early detection are imperative. They should take into consideration context and adopt a realist approach that aims for scaled, systematic implementation of screening programmes. Early detection of hearing impairment through NHS is the initial step to any EHDI programme. Although considered the gold standard worldwide, UNHS may not be feasible for some LAMI contexts, where contextual challenges to implementation exist. While UNHS is the goal that LAMI countries such as South Africa need to strive toward, attention needs to be paid to specific and local needs of the context. This will ensure that the approach to early detection is contextually relevant, realistic, appropriate and sustainable. ‘As health care professionals we need to acknowledge the limitations but not allow it to preclude us from providing quality services within our means’ (Kanji, 2018, p. 3). Targeted newborn hearing screening (TNHS) is a possible interim approach that may be implemented in such contexts.

Audiologists need to evaluate the contexts in which they work, and decide on the most suitable approach to early detection of hearing impairment. Once the chosen approach has been established, there needs to be consideration of how to develop the programme, including data capturing that allows for proper and accurate assessment and monitoring of the programme’s efficacy, success and sustainability. Audiologists need to record data accurately in order to monitor the efficiency of programmes, document prevalence and incidence rates for hearing impairment and use the data to motivate for funding of the programme. This can only be done if the programme is evaluated regularly against key benchmarks specified in the regulating body’s guidelines, such as the HPCSA (2018) EHDI guidelines. Audiologists should also share key challenges and successes of the programmes at appropriate forums in order to develop such programmes at provincial and national levels. Differences between levels of service delivery also need to be explored and tiered approaches may be necessary to ensure the highest possible coverage rate, while ensuring continuity of care within a migration-aware health care system. A migration-aware health system calls for a response to migration and health that acknowledges that people move internally within South Africa, and in the case of EHDI, that children move
from sector to sector, which has implications for EHDI nationally. Continuity of care for the hearing-impaired child should be ensured for maximal benefit from EHDI initiatives.

The feasibility of implementing early detection of hearing impairment, in the form of infant hearing screening, at the various levels of health care service delivery in the South African context requires exploration. There are inherent inequities in the various health care contexts and levels of service delivery – the public health care sector’s primary, secondary and tertiary contexts, as well as the private health care sector. Practicability and efficiency at each level of service delivery should be interrogated to ascertain feasibility in each context. Evidence indicates that:

- Midwife obstetric unit (MOU) three-day assessment clinics appear to be the most viable (Kanji et al., 2018; Khoza-Shangase & Harbinson, 2015).
- Screening at PHC immunisation clinics appears to be an appropriate platform, provided assets are fine-tuned and barriers are formally addressed, especially regarding staffing (Khoza-Shangase et al., 2017; Petrocchi-Bartal & Khoza-Shangase, 2016).
- Screening in the private hospital sector requires formal inclusion as part of the birthing package, with full medical aid cost reimbursement (Störbeck & Moodley, 2011; Swanepoel, Ebrahim, Joseph, & Friedland, 2007; Swanepoel, Störbeck, & Friedland, 2009).
- Aspects such as availability of hearing screening space, measurement and monitoring of ambient noise levels and discharge timing influence the practicability and efficiency of screening in various health care contexts (Bezuidenhout, Khoza-Shangase, De Maayer, & Strehlau, 2018).

In chapter 4, Petrocchi-Bartal, Khoza-Shangase and Kanji note that factors that may facilitate or impede the practicability and efficiency of early hearing screening may vary depending on the level and setting of the health care context. They make suggestions about how to maximise efficiency in each South African service delivery level.

Due consideration of NHS practicability and efficiency is necessary and should recognise, acknowledge and take into account the complexities of conducting NHS. These complexities are unique to the various levels of service delivery in the public and private sectors, as different levels introduce various influencing factors. As Kanji et al. (2018) state, the level of health care influences the practicability and efficiency factors and may act as an NHS facilitator or inhibitor.

In South Africa, current published evidence tends to support the MOU three-day assessment clinic as the most accessible and efficient context for hearing screening programme implementation (Kanji et al., 2018; Khoza-Shangase & Harbinson, 2015). Incorporating these context-specific findings into the NHI planning process would be strategic and would ensure that
NHS implementation becomes part of the government’s re-engineered PHC strategies for successful mandating of hearing screening. This would ensure that barriers around human resources and equipment are addressed prior to national implementation. Training of staff deployed to PHC clinics, as part of task shifting, could also be proactively done to include hearing screening. The recommendation by Kanji (2016) of a two-tiered approach to NHS involving early hearing screening of high-risk babies in the hospital setting, with screening of well babies at clinic level, should also be explored to ensure high coverage.

Because of the constantly changing health care landscape in a LAMI country like South Africa, continued reassessment of the best service delivery level for hearing screening and the associated assets and barriers regarding practicability and efficiency must remain a priority for the audiology community. This unflagging attention will facilitate implementation of the HPCSA (2018) EHDI guidelines in a dynamic process that responds to context and confronts the realities with which early detection of hearing impairment has to contend. In South Africa, these realities include lack of a government mandate for UNHS, significant resource constraints, a high burden of disease and poor social determinants of health.

In chapter 5, Khoza-Shangase presents possible solutions and recommendations for confronting these barriers to early detection. Firstly, the South African audiology community needs to plan strategically to implement successful EHDI programmes. Each of the country’s nine provinces needs to establish an EHDI programme responsible for creating, maintaining and improving the system of services needed to serve children with hearing impairment and their families. This would apply to all levels of health care for increased access, as well as within the proposed NHI system. We suggest that the provinces host national strategic planning activities to identify EHDI programme coordinators. They will in turn identify ways to implement the HPCSA (2018) EHDI guidelines using a strengths, weaknesses, opportunities and threats (SWOT) analysis and subsequent threats, opportunities, weaknesses and strengths (TOWS) matrix analysis (White & Blaiser, 2011).

Secondly, serious deliberations are needed around the use of tele-audiology, with task shifting as a complementary strategy to deal with the demand–capacity challenges around the availability of audiologists in the country, and should include the documented benefits of telehealth (Krupinski, 2015). Tele-audiology was established for this very reason – to overcome the extreme shortages of audiologists, speech-language pathologists and ear, nose and throat specialists (Fagan & Jacobs, 2009; Mulwafu, Ensink, Kuper, & Fagan, 2017). The health professionals currently located in health centres, usually in big cities and private practices, will be able to increase their reach to communities where people cannot access their services. For UNHS, the barriers to access are exacerbated by the limited working hours of audiologists, who
miss babies born outside these hours, and babies born and discharged when audiologists are attending to other work responsibilities. Therefore, tele-audiology can become an alternative model of service delivery, with audiologists serving as programme managers or directors while trained screeners and nurses perform the screening services. This strategy must, however, take into account regulations, scopes of practice and ethics.

Thirdly, if non-audiologists, such as trained screeners and nurses, are involved in NHS, it is important to ensure that they are trained and that there are minimum standards to adhere to. Because nurses are the backbone of PHC, and PHC is the first point of contact in the health system for over 80 percent of the South African population, it is important to ensure that this level of care is well equipped and well resourced to implement NHS. This level of preparedness must include training around hearing screening and referral practices at PHC clinics, with knowledge and skill capacitation of personnel involved (Khan, Joseph, & Adhikari, 2018). The knowledge capacitation would need to be extended to include parents through health education about risk factors and hearing impairment. Studies have supported the need for parental education in order to enhance EHDI implementation in South Africa (Govender & Khan, 2017).

Lastly, it is important to be aware that success in implementation of any programme also relies on a proper data management system. Data management includes the processes of data collection and storage, as well as analysis and interpretation of the data to guide the future planning, implementation and evaluation of EHDI programmes. The data management system must allow for tracking of identified infants as well as coordinated referral pathways within a migration-aware health care system, which South Africa encourages (Vearey, Modisenyane, & Hunter-Adams, 2017). This system should also be intersectoral to facilitate continuity of care for hearing-impaired children, from health services to school services. Evidence suggests that South Africa currently does not have such a data management system (Moodley & Störbeck, 2017).

In summary, considering the realities of the South African health care context, and given that EHDI is key for newborns and infants with hearing impairment, it is important to consider these realities to better implement EHDI in this context. As far as early detection is concerned, Kanji (2018) recommends that South Africa seriously consider TNHS as a starting point or interim approach to early identification, particularly within a hospital setting. Inclusion of the first follow-up visit at MOU clinics as an NHS site is recommended to include those babies without risk factors and those who were born at home. This approach respects both the documented evidence of established risk factors for hearing impairment, and the contextual challenge of resource constraints. It also affirms Kanji’s (2018) argument for a ‘doing better with less’ approach. This approach acknowledges that effective and
quality health care is not only dependent on individual professionals but also involves other main stakeholders (Moyakhe, 2014), such as using volunteers and nurses as screeners. It is only when such a strategic approach is adopted that EHDI goals aimed at eradicating the negative impact of hearing impairment can be achieved.

Contextualisation of risk factors for hearing impairment is important, particularly in LAMI countries. In chapter 6, Fitzgibbon, Beswick and Driscoll review the key risk factors used in programmes around the world for their relevance in the South African context. They highlight that the purpose of risk factor registries has changed in developed contexts where UNHS has become the norm. In these contexts, risk factors are used to identify children who may be at risk of developing postnatal hearing loss and require hearing surveillance throughout childhood. The scenario is completely different in LAMI contexts without a universal platform, where risk factor registries are used to identify children requiring assessment for congenital hearing impairment.

Fitzgibbon and colleagues offer important recommendations about risk factors for the South African hearing screening context. They highlight that it is important to clearly define and communicate the purpose of the programme, including the target population and hearing loss condition, as this will ensure appropriate tailoring of risk factors to specific conditions. Examples are birth risk factors to identify permanent congenital and postnatal hearing loss; risk factors if the purpose of the programme is expanded to detection of all hearing losses, including conductive hearing loss, and monitoring children with post-birth causes; and risk factors that require further evidence prior to inclusion in a registry. They also raise the need for increased public and professional awareness around risk factors, with careful cognisance of cultural influences.

Kanji and Khoza-Shangase (2019) note that the quadruple burden of disease in South Africa has a significant influence on the types of risk factors associated with hearing impairment. They argue that the risk for hearing impairment is influenced by four factors: medical advancements, technological advancement, the burden of disease and human advancement (Figure 14.1). According to these authors, any programme purporting to be contextually relevant and responsive should be aware of these influences. In their view, this will allow the South African audiology profession to engage in best practice that is poised for next practice in all its clinical initiatives and endeavours in the paediatric population.

Early intervention for hearing impairment

South Africa needs to consider the various approaches to early intervention, taking careful cognisance of their efficacy in the context, where the goal is
optimal and timely opportunities to develop linguistic, literary and communicative competence. In chapter 7, Kanji and Casoojee discuss various intervention approaches for children with a hearing impairment to learn to communicate. These range from auditory approaches such as auditory verbal therapy (AVT), incorporating listening and spoken language (LSL) principles, the oral–aural approach and cued speech, to more manual approaches such as total communication or sign language. Considering the global evidence base, it is widely accepted that AVT has its place in the spectrum of therapeutic intervention approaches. There is, however, a need for research-based evidence on adapted therapy methodologies, such as the South African version of LSL, and their benefits and limitations in the context. This is particularly important as linguistic and cultural diversity has an influence on intervention plans, especially in contexts where there is a linguistic and cultural incongruence between clinicians and the majority of the population they serve. Training institutions urgently need to address this issue (Khoza-Shangase & Mophosho, 2018).

There is a lacunae of evidence from countries in sub-Saharan Africa on outcomes of particular early intervention approaches in children with hearing impairment. Many of the intervention approaches and therapy resources used in South Africa have been developed by clinicians and researchers in the developed world due to the absence of South Africa’s own contextually relevant resources (Pascoe & Norman, 2011). This has important implications for future studies, which academic and research institutions need to respond to. Contextually relevant efficacy studies would allow for solid arguments

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**Figure 14.1 Quadruple influence on risk**

*Source: Kanji and Khoza-Shangase, 2019, p. 53*
for the relevance of EHDI as an approach in these contexts. Contextualised intervention approaches would also facilitate family-centred intervention, with active parental engagement and involvement, in line with the HPCSA (2018) EHDI guidelines. Additionally, Kanji and Casoojee (chapter 7) stress that the mismatch between the language and culture profiles of professionals and patients is particularly relevant when considering oral communication approaches to early intervention such as AVT, as well as in the development, integration and understanding of linguistic profiles such as the Language Assessment, Remediation and Screening Procedure (LARSP) of the different languages in South Africa. This calls for transformation of the student demographic profile as well as curriculum transformation in training institutions, to allow for efficacious intervention at different levels of service models.

The principles of early intervention for hearing impairment should be continuously interrogated, with careful consideration of the appropriateness of individual and group-based approaches in each context. Attention must also be paid to contextual factors which might influence this process. Furthermore, evaluations of the pros and cons of home- and centre-based intervention approaches should be conducted, with reflections on the availability of and access to these options in the African context. This requires government intervention and political will, with early childhood intervention prioritised and mandated. Moreover, health care professionals and teachers in the ECD context in Africa need to collaboratively advocate for access to early intervention services, particularly given the high percentage of childhood disability. In chapter 8, Kanji proposes that all educators or teachers should have some training in childhood disabilities, as this will assist in reducing one of the barriers to inclusive education. This training should be initiated in university curricula.

Implementation of EHDI remains a substantial challenge in the South African educational setting. These challenges are heightened when intervention extends from the health sector to the education sector. These sectors face different realities and do not collaborate seamlessly. Access to education has been a significant focus of the South African government. However, access without a similar emphasis on success is problematic and renders such access unproductive for all stakeholders involved, particularly for learners with barriers to learning, such as the hearing impaired. Efforts to facilitate success should include access to therapeutic services that remediate barriers to learning in order to achieve the goal of inclusive education for the hearing impaired. The use of telehealth in the form of tele-audiology should also be considered.

Translation of policy into practice is heavily influenced by resource constraints. Most children with disabilities in South Africa, including hearing-impaired children, are not taught in classrooms together with their typically developing peers, despite the provisions of Education White Paper 6
(Department of Education, 2001). Notwithstanding various policies and guidelines (see chapter 9), EHDI has also not been successfully implemented in South Africa, for various reasons, and this has a direct impact on inclusive education possibilities. Numerous barriers and challenges to achieving quality and inclusive education for learners with disabilities exist. These include a lack of resources, specifically rehabilitation professionals such as audiologists, and a mismatch between capacity and demand, especially in the basic education sector. We argue strongly for the use of technology in the form of telehealth as one strategy to overcome access barriers in order to enhance the success of early intervention initiatives in the educational setting – a continuity of care imperative. The use of telehealth will allow for transfer and carry-over of early intervention benefits from the health sector to enhance educational outcomes in the educational setting, leading to children with hearing impairment becoming productive and contributing members of society. The application of telehealth to hearing health care in this population is an exciting field with a broad scope of application possibilities, including education and training, screening, diagnosis and intervention. These services are not bound by distance or location and can bridge the gap between patients isolated from the audiological services they require and the facilities that can provide them. Like any new intervention strategy, significant contextually relevant research would need to be conducted in order to ensure a contextually relevant evidence base that will allow for best practice. This evidence gathering should take into consideration contextual issues such as linguistic and cultural diversity, as well as explore task shifting.

Complexities of EHDI

To ensure best practice in EHDI in the African context, four issues need to be considered: EHDI in the context of other sensory impairments, EHDI in the context of family, EHDI in the context of HIV/AIDS, and EHDI in the context of tele-audiology.

All stakeholders, including the families of hearing-impaired children, need to be aware of the impact that other sensory impairments, such as blindness, might have on the assessment and management of children with hearing impairments. This has implications for training, clinical assessment and management, policy formulation and resource allocations, including educational resources for hearing-impaired children with additional sensory impairments. Moroe (chapter 10) highlights the dearth of evidence in this respect from LAMI contexts, particularly from African countries. It is one of the most neglected aspects of early childhood intervention, and is an area requiring increased focus and development as it presents unique challenges
for both the attending clinician and the family of the blind and hearing-impaired child.

Family-centred EHDI in South Africa demands that due recognition be given to the unique concept of what constitutes a family in the African context, power and decision-making dynamics within this definition of family, as well as the multilingual and multicultural nature of society. Limited resources, demand–capacity challenges, and the language and culture mismatch between families and clinicians make family-centred interventions not only strategic but ethical as well. In chapter 11, Maluleke, Chiwutsi and Khoza-Shangase argue that family-centred EHDI is a viable option for decentralised service delivery in the South African context given the overburdened health care system, the country’s socio-political history and dynamics, and the poor access to health care services, especially by vulnerable populations.

EHDI in the context of the South African HIV/AIDS pandemic needs careful planning. There is sufficient evidence on HIV and general development in the paediatric population, as well as on HIV and auditory and otological manifestations, to warrant attention in planning and executing screening, assessment and intervention plans for this population, with implications for EHDI highlighted and mitigated. This includes evidence of the link between HIV and antiretroviral perinatal exposure and auditory manifestations. However, locally relevant evidence is still required, as most of the published evidence is from developed contexts, where the presentation of the disease and the treatment options and protocols are different to those in LAMI countries. Khoza-Shangase looks more closely into these and related issues in chapter 12.

EHDI in the context of tele-audiology is a reality that cannot be avoided in the South African context because limited resources demand that alternative hearing care service delivery options be adopted to increase access. However, tele-audiology is certainly not without its limitations and challenges, hence the importance of ethical considerations. In chapter 13, Naudé and Bornman argue that despite some inherent challenges, there are numerous opportunities for beneficial utilisation of tele-audiology applications in EHDI programmes, including screening, initial diagnostic assessments, behavioural assessment, hearing aid and cochlear implant programming, and the delivery of communication development options. Tele-audiology in the context of EHDI can also make important contributions to many facets of programme infrastructure, including communications, training and quality management. Ethically, these authors assert that audiology as a profession must work towards a sound evidence base for EHDI via tele-audiology. This is particularly important as telehealth is a rapidly growing field and as such often outpaces the ability of regulatory bodies to develop minimum standards, regulations and guidelines. For tele-audiology to be implemented ethically, adherence to regulations is key.
Conclusion

EHDI, as defined and recommended internationally, may not be feasible and practicable in the African context. However, numerous recommendations and interim solutions are available, as outlined in this book. These recommendations and solutions require increased effort from all stakeholders involved, with sensitivity to the context, while maintaining best practice in a less than ideal context. Doing the best with what Africa has in order to ensure best benefits for the hearing-impaired paediatric population should guide all engagements around EHDI planning, implementation and monitoring. A contextually relevant evidence base should be used to guide interventions, with careful attention to the complexities around EHDI in the African context.

References


