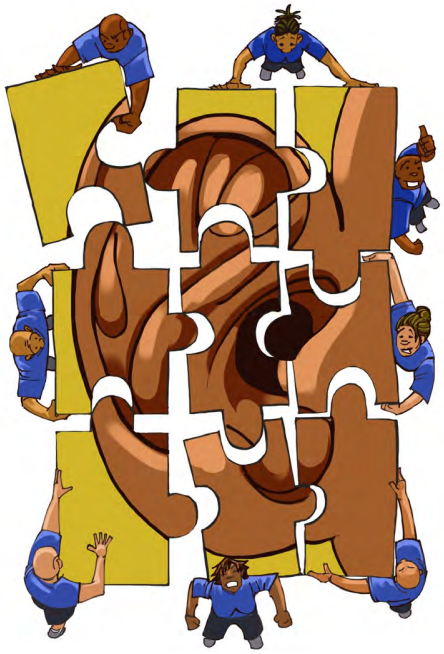
Kimberley Regional Ear Health Strategic Plan

2016 – 2018

A high-level framework to guide collaboration in the Kimberley



Endorsed by the Kimberley Aboriginal Health Planning Forum
OCTOBER 2017

EXECUTIVE SUMMARY

In 2015, the Kimberley Aboriginal Health Planning Forum (KAHPF) reviewed its Kimberley Aboriginal Health Plan 2012 – 2015 and produced an updated 2015 Implementation Plan which requires a strategic plan to improve Ear Health service delivery in the region to be developed by the KAMS and KPHU ear health team leaders.

By adopting the key principles and recommendations of the Aboriginal Ear Health Programs Voluntary Framework, the writing group of this Strategic Plan acknowledges the contribution of the authors of the Framework.

This strategic plan describes the agreed aspirations and key components to guide all ear health service providers that work in partnership with primary health care providers in the Kimberley. In developing the Plan, we accepted guiding principles and core values from the Aboriginal Ear Health Programs Voluntary Framework and Kimberley-based organisations, namely KAMS and WACHS including cultural security, accountability, justice, mutual respect and teamwork. Our aspirational goal from now is to achieve parity by 2018 in the prevalence of middle ear disease in Aboriginal children in the Kimberley and their clinical outcomes when compared to those of urban mainstream Australian children. Nine approaches have been agreed. These are not considered hierarchically or sequentially. Each is critically important in its own right, fitting together like a jigsaw puzzle:

1. **Regular monitoring, screening / surveillance and early diagnosis** of ear disease
2. **Comprehensive follow up** of children with ear disease using evidence-based guidelines and best practice standards
3. **Support for training responsive to needs and local capacity**
4. **Promoting listening,** healthy ears and normal hearing as norms
5. **Primary prevention of ear disease through a broad-based approach to health promotion**
6. **Program evaluation, quality improvement and transparent reporting of key performance indicators**
7. **Community ownership, engagement and partnership**
8. **Accessible services to other community members outside the target age group** with opportunistic ear health checks and hearing assessment wherever possible
9. **Innovative approaches to challenges**

Each of these is described in greater detail in the pages that follow. More work is planned through the Kimberley Ear Health Co-ordinating Panel and KAHPF member services to support implementation of the endorsed plan with agreed key performance indicators (KPIs) and other measures of progress.

This plan acknowledges that longstanding local service arrangements differ by community in order to respond to unique community characteristics and service partner strengths. These are respected as strong foundations for ongoing service development. Adding a regional perspective to these existing arrangements by referring to this strategic plan enables partnerships to improve and bring greater benefits to larger numbers of Aboriginal children and families across the Kimberley. This strategic plan also enables service providers to come forward, bringing their specific strengths and skills to benefit Aboriginal people. It promotes an understanding of how everyone's contribution fits together and why specific actions are recommended.

Please join us to make a positive difference to the lives of Aboriginal children in the Kimberley.

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BACKGROUND

Although the prevalence of middle ear disease in children in some Aboriginal communities in Australia is the highest in the world, implementation of successful ear health programs will achieve levels of hearing similar to children in non-Aboriginal communities. There are more than 1600 Aboriginal children aged 0 – 4 years old across the Kimberley; in total, there are nearly 5000 Aboriginal children aged up to 15 years across the Kimberley. A prevalence study conducted in the Fitzroy Valley in 2010/11 to establish rates of FASD also reported rates of ear disease and hearing loss. 44% of children assessed had Otitis Media while 55% had some form of hearing loss. Every Aboriginal child growing up in the Kimberley deserves the best chance in life: this includes normal hearing and healthy ears. Persisting ear problems among adults are generally unquantified. Nearly 7000 Aboriginal adults 25 years and over also require assessment and treatment as appropriate.

In 2015, the Kimberley Aboriginal Health Planning Forum (KAHPF) reviewed its Kimberley Aboriginal Health Plan 2012 – 2015 and produced an updated 2015 Implementation Plan which requires a strategic plan to improve Ear Health service delivery in the region to be developed by the KAMS and KPHU ear health team leaders. This strategic plan describes the agreed aspirations and key components to guide all ear health service providers that work in partnership with primary health care providers in the Kimberley. Because it was developed by the ear health team leaders with input from a working group of senior managers and Rural Health West (RHW) participation, it is acknowledged that its emphasis is on children due to the current funding arrangements for these team leader positions.

A consultation workshop was held on 20 November 2015 to obtain expert feedback from stakeholders and those contributing ear health services to the Kimberley. This was followed by extensive community consultations throughout the Kimberley during May 2016 and June 2016 ensuring that key ideas and strategies were scrutinised through an Aboriginal lens by key Aboriginal people. We listened to retelling of the experiences of Aboriginal parents and children during the course of developing this strategic plan. Recognising the current funding focus on children, the need to include adult treatment also to this plan was heard.

This final draft is recommended to KAHPF as a contemporary strategic plan which will continue to strengthen collaborations and ways of working to benefit Aboriginal children and adults with ear disease, their families and communities of the Kimberley. Ongoing engagement is key.

KAHPF endorsed an early version of this strategic plan at its meeting in Halls Creek on 24 August 2016. KAHPF endorsed this final version in principle at its meeting in Broome on 23 August 2017 with out-of-session endorsement confirmed 5 October 2017.

ACKNOWLEDGMENTS

Initial development of this strategic plan was delegated to a writing group comprising Joe Ghandour, Julie Owen, KAMS Hearing Health team, Mel James and Jeanette Ward. All non-Aboriginal members of the working group confirm they have completed cultural awareness training. They also acknowledge the role of historical trauma in contributing to poorer prospects, fewer opportunities and inequitable health outcomes for Aboriginal people in the Kimberley. Achieving better hearing and reducing Aboriginal children's hearing loss through well-planned and well-managed services is a worthwhile contribution to reconciliation and partnership between Aboriginal and non-Aboriginal peoples in the Kimberley. When achieved, benefits will extend beyond ear health. By adopting the key principles and recommendations of the Aboriginal Ear Health Programs Voluntary Framework, the writing group of this Strategic Plan acknowledge the contribution of authors of the Framework. Feedback on the progressive drafts of this strategic plan has been generously and thoughtfully provided by key stakeholders and external service providers including those able to participate in consultation workshops held in November 2015 as well as local Aboriginal people. We also thank Brenton McKenna for artwork.

We acknowledge the Aboriginal people of the many traditional lands and language groups of Western Australia. We acknowledge the wisdom of Aboriginal Elders both past and present and pay respect to Aboriginal communities of today.

Where this document refers to Aboriginal people, it is referring to Aboriginal and Torres Strait Islander people. The term Indigenous has only been used in this document where it appears in data collected by an organisation such as the Australian Bureau of Statistics (ABS).

GUIDING PRINCIPLES AND CORE VALUES

This work has incorporated a synthesis of guiding principles and core values from two organisations, namely KAMS and WACHS.

- Cultural security
- Holistic approach
  - Mutual respect
  - Teamwork
    - Accountability
    - Innovation
      - Continuous improvement
      - Consumers first in all we do
        - Safe, high-quality services and information always
      - Care closer to home where safe and viable
      - Evidence-based services
    - Partnerships and collaboration
    - Community
  - Compassion
  - Quality
- Integrity
- Justice

This strategic plan also honours the holistic foundations of primary health care. Holistic care ensures every Aboriginal child is viewed as the whole child with innate potential for a long and healthy life and never as a mere body part. Our language, attitudes and behaviours will reflect this foundation.

OUR PLAN

ASPIRATIONAL GOAL: To achieve parity in the prevalence of middle ear disease in Aboriginal children in the Kimberley and their clinical outcomes when compared to those of urban mainstream Australian children.

Key components of the Kimberley regional ear health strategic plan 2015-2018:

To promote improvements in hearing and listening, nine primary care/public health approaches have been agreed. These are not considered hierarchically or sequentially. Each is critically important in its own right and just as important as part of a whole strategic plan which encompasses essential clinical and public health aspects. Figure 1 presents these agreed approaches as nine jigsaw pieces that interlock to make a complete picture (next page).

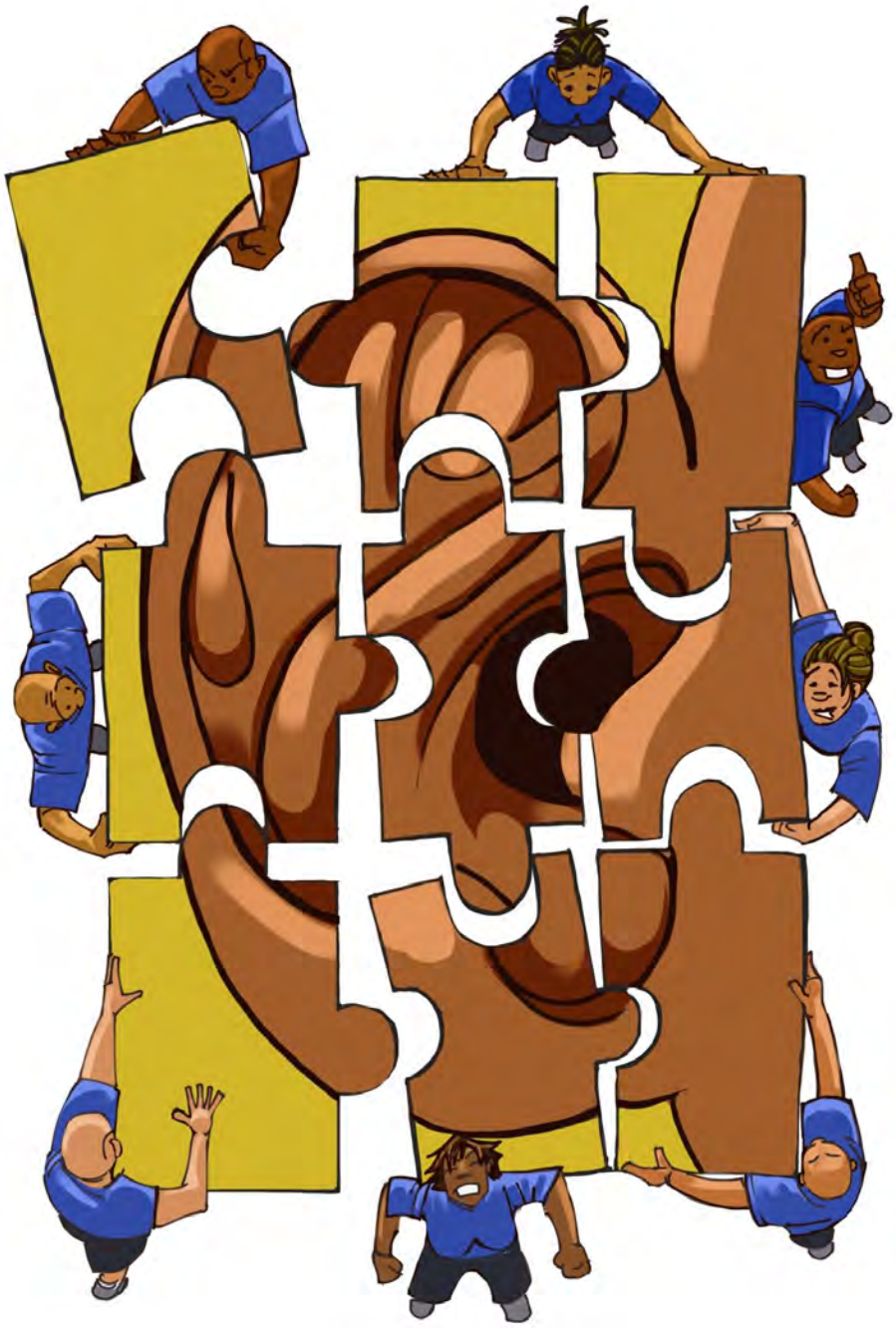
1. **Regular monitoring, screening / surveillance and early diagnosis** of ear disease
2. **Comprehensive follow up** of children with ear disease with effective secondary prevention of hearing loss using a primary care/public health approach as well as surgical intervention and tertiary audiological intervention when necessary
3. **Training responsive to needs and local capacity**
4. **Listening, healthy ears and normal hearing** are promoted as 'norms'
5. **Primary prevention of ear disease through a broad-based approach to health promotion**
6. **Program evaluation, quality improvement and transparent reporting of key performance indicators**
7. **Community ownership, engagement and partnership**
8. **Services accessible to other community members outside the target age group** with opportunistic ear health checks and hearing assessment wherever possible
9. **Innovative approaches to challenges**

This plan acknowledges that longstanding local service arrangements differ by community in order to respond to unique community characteristics and service partner strengths. These are respected as strong foundations for ongoing service development. Adding a regional perspective to these existing arrangements enables partnerships to improve in scale, scope and impact bringing benefits to larger numbers of Aboriginal children and families across the Kimberley. Greater efficiency in how resources are used and where funds are best spent is achieved with local knowledge of need and co-ordination of both on-site and visiting services. This strategic plan enables visiting service providers to come forward, bringing their specific strengths and skills to benefit Aboriginal people. It promotes an understanding of how everyone's contribution fits together and why specific actions are recommended.

This strategic plan clearly and willingly embraces inclusiveness, opportunity and accountability to the communities we are serving as well as to funding agencies and to each other. Sustainability further motivated the development in 2015 of this plan. Implementation requires ongoing engagement.

Agreed features of each key component are explained in further detail in the following pages.

Figure 1 each jigsaw piece to represent one of nine approaches



1. Regular monitoring, screening and early diagnosis

This component includes two sections: types of screening, and then screening tools and diagnostic methods.

1.1 Types of screening / surveillance include:

- **Regular monitoring of young children (0 – 4yrs) and older children (5 – 10)** for the presence of acute ear disease (in particular discharging ears, ear pain or onset of hearing loss) is essential. Regular monitoring takes place in different settings including primary healthcare clinics, family and children centres, schools and visiting service clinics. This flexibility is key to ensuring regular monitoring of Aboriginal children in the Kimberley. Establishment of formal or informal reporting networks by teachers and peers to primary health care will continue to be encouraged. Opportunistic and scheduled screening of younger children (eg EACHS [WACHS], BTSE and AMS Medicare billed child health checks [WACHS and KAMS]) will be encouraged to ensure coverage of all children according to the recommended regularity of monitoring that they need. Strategies to reach children of itinerant families will be developed. Primary health care clinic outreach services will be supported to ensure children less than three years of age in very remote communities are seen and their ear health assessed as agreed on a regular basis. Periodicity of regular screening differs by age and will be specified in local operational protocols. The aim is to promote early diagnosis and treatment of ear disease and early referral for specialist follow up when necessary. The additional aim of either regular monitoring or opportunistic screening is to identify disease that is immediately treatable. This means that treatments and other interventions will be initiated immediately or as soon as possible to optimise the child's clinical outcome. Wherever the person who has undertaken the screening is not credentialed to perform treatment, they must ensure that treatment occurs as specified in Kimberley protocols, such as within 24 to 48 hours. Overall performance of primary health care services will be monitored to reduce any delays unsafe for Aboriginal children's health.

- **Periodic screening and disease prevalence surveys where negotiated through KAMS, WACHS or other Primary Health Care services**

  This plan recognises additional benefits of periodic screening and disease prevalence surveys by visiting services planned in conjunction with local primary health care. These include more precise measurement of disease-based program outcomes such as prevalence among children of specific ages of presumptive functioning ears and training opportunities or deliberate skills development for local people and local primary health care staff.

1.2 Screening Tools and Diagnostic methods

The aim of regular periodic screening and disease prevalence surveys is to measure and closely follow the prevalence of presumptive functioning (presumed hearing) ears in Aboriginal children to help assess the success of regular monitoring and opportunistic interventions as well as public health interventions such as health promotion. In order to do this it is important that best-practice screening tools are used to identify children with presumptive functioning (presumed hearing) ears and also to identify those children who require referral for more complex assessment. As it may not always be practical for providers to conduct pure tone audiometry on all children at each periodic screening survey either because of the age of the child (lack of suitable equipment or trained staff suitable for very young children) or simply due to lack of time when screening large numbers of children, the following is agreed:

1. All children will have a pure tone screening audiogram (at 500Hz, 1000Hz, 2000Hz and 4000Hz frequencies) if they have suspected hearing loss or significant speech delay and/or developmental delay OR at least once (and preferably at least every two years) to help exclude adventitious severe sensorineural hearing loss in one or both ears. The use of oto-acoustic emissions is an adjunctive method to screen for cochlear functioning; however, this is currently not widely available in remote communities.
2. A presumptive functioning (presumed hearing) ear is defined for this framework as an ear in a child that has at some point been known to be functioning i.e. has had a pure tone level of less than or equal to 20 to 25db (depending on the testing environment) at 500Hz, 1000Hz, 2000Hz and 4000Hz or having a normal oto-acoustic emission PLUS either
    a. A mobile intact drum on pneumatic video-otoscopy (images will ideally be stored for later verification if required) OR
    b. An intact drum on plain otoscopy (preferably recorded and stored video otoscopy) PLUS a Type A Tympanogram (tracings to be imaged and stored ideally).

Those children who have an ear which does not fulfil the definition of a presumptive functioning ear will be followed carefully through future follow up and/or referral for the required follow up by an ENT specialist and an Audiologist based on local protocols.

2. Comprehensive follow up based on endorsed Kimberley Ear Health Protocols

This component includes four sections: treatment of middle ear disease, indications for referral to ENT specialists for further investigation and management, and Pre and Post-operative primary care management. Reference has been made to *Recommendations for clinical care guidelines on the management of Otitis Media in Aboriginal and Torres Strait Islander Populations* (2010) and WA Health's *Otitis Media Model of Care* (2013).

2.1 Finalise and endorse update of Kimberley Ear Health Protocols

There are currently two Kimberley protocols designed for use across the region. To ensure consistent clinical and public health action in the Kimberley, these protocols will be updated annually according to the newest evidence and in conjunction with experts. An implementation plan for each protocol will be developed.

Updated Kimberley protocols will also provide a basis for confident use throughout the region of Telehealth consultations and confidential exchange of clinical information such as video-otoscopic images and the results of tympanometry and audiometry to maximise efficient yet safe use of resources for the benefit of Aboriginal people. As shown by McDonald (2013), success in embedding guidelines into practice is enhanced through leadership from local professionals and managers with the motivation, initiative and energy to drive local quality improvement to implement protocols and challenge practice of their peers which falls short.

2.2 Treatment of people with middle ear disease

The management of middle ear disease will follow the local Kimberley ear health protocol which is based on the national otitis media management guidelines. Periodic audits will form the basis of data-driven clinical quality improvement.

2.3 Indications for referral to ENT specialists for further investigation and management

The indication for urgent (to be seen immediately – Category 1) referral to ENT specialist includes

1. Acute mastoiditis non-responsive to antibiotics
2. Complicated cholesteatoma
3. Acute otitis media with partial or evolving facial nerve paralysis

The indication for urgent (to be seen within 3 months – Category 2) referral to an ENT specialist includes

1. Suspicion of Cholesteatoma
2. A continually discharging ear for >6 months despite medical management
3. Bilateral moderate to severe hearing loss for >3 months despite medical management with moderate to severe speech delay and/or developmental delay
4. Discharge from a single hearing ear (i.e. profound hearing loss in the contra-lateral ear) which is non-responsive to medical therapy after 7 days

The indications for non-urgent referral (to be seen with 6 months - Category 3) to an ENT specialist includes

1. Recurrent acute otitis media >6 episodes/year
2. Bilateral otitis media with effusion with mild hearing loss and mild speech delay and/or developmental delay
3. Dry perforation in a child at least 5 years of age which is persistent for >6 months

Initiation of a referral is a significant responsibility for a member of the primary health care team. Feedback loops will be developed to close the gap between referral and provision of a complete referral service. In addition, follow up of referrals by ENT specialist for surgery or follow up of patients identified with issues that need to be monitored should be improved systematically by services.

2.4 Pre and Post-operative primary care management of children with ear disease

Co-ordination of services and logistics is essential to ensure that Aboriginal people referred for surgery receive it and that the continuity of care from which they will benefit upon returning to their communities is available to ensure follow-up. This co-ordination can be compromised if there is no specific designation of this function. In WACHS Kimberley, there is no single point of coordination that occurs once a person is referred onto a surgical pathway, and the system relies on communication between specialist clinic clerks, remote clinics, community health and the patient. Compounding this, discharge summaries are typically sent to the clinic from which the patient was referred, which may not always be the community in which they reside. A single ear health coordination position for people experiencing significant ear pathology on the surgical pathway requires exploration within WACHS. Mobility of Aboriginal people across the Kimberley may also mean that the patient may not be seen for necessary pre-surgical assessment. KAMS has a position to co-ordinate these logistics and support post-discharge communication in communities served by KAMS or other ACCHOs.

Children who have been referred for surgery will receive consistent pre and post-operative management. Flowcharts will be developed to standardise these processes. This strategic plan also emphasises the importance of well-written, informative and timely discharge summaries. Checklists will be developed to assist consistent co-ordination and provision of discharge summaries to the correct primary healthcare service(s). Support will be provided for the sharing of clinical information with patient consent.

1. Sharing of clinical information and where available diagnostic images with the treating ENT specialist and local service providers with patient consent (who is going to perform the child's surgery). If the treating ENT specialist does not agree with the proposed surgery, the referring primary care clinicians and clinic manager (and the ENT specialist who made the referral to the surgical waiting list) will be notified immediately in order to avoid unnecessary patient transfers to regional centres. These transfers can be distressing for children and their families and also costly to the health care system.

2. Review by the primary care clinician around 14 days prior to surgery to ensure:
    a. The patient will be in the community at the time they require transfer
    b. The parents/guardians are aware of the proposed surgery and have provided full informed consent
    c. The child's ear is currently suitable for surgery (e.g. it is not discharging and/or the OME has not spontaneously resolved)
    d. Treatment is given to ensure the child is suitable for surgery or the surgery is postponed if the child will not be ready for surgery by the due date
3. Review and follow-up by the primary care team after specific surgical procedures as specified in agreed protocols to ensure that, for example:
    a. Discharge from the grommet has settled
    b. The myringoplasty remains intact and has not developed a purulent discharge and the surgical wound (if present) is healing.
    c. There is adequate medication adherence
    d. The necessary postoperative review by an ENT surgeon takes place.
4. A formal audiogram at the next period screening survey or visiting audiology service to ensure that surgery has successfully restored hearing.
5. All Aboriginal people presenting for surgery require and should receive culturally safe treatment and care. Rates of non-attendance can be seen as indicators of the cultural safety of the specific service as can recruitment and retention of Aboriginal staff within a service. Attention to cultural safety is not unique to ear health and will bring benefit beyond ear health. Perspectives and preferences of Aboriginal people will be sought and incorporated to raise standards for culturally appropriate healthcare.

3. Support for training responsive to local needs and capacity

It is essential that there is reliable support for training. The aim of training is to build ever better local capacity including knowledge and skills of Aboriginal people. There needs to be a stable core capacity of basic ear health skills in every community. This strategic plan recognises the importance of a structured approach to community skills (such as ear cleaning) and consideration of the Northern Territory's two-level approach (McDonald 2013). One level is for those who diagnose and medically manage children with OM and the other is less complex for those who need to identify if a child's ear appears healthy or not in order to refer those whose ears do not appear healthy for medical review. This approach matches skill with responsibility. Mentoring Aboriginal Health Workers is also strongly encouraged.

Once a description of local capacity is agreed, it will be strengthened in four key ways. A competency-based approach will underpin training and in-service opportunities to ensure the longevity and efficient operation of ear health programs are embedded in local primary health care. In each location, there will be a system for initial orientation and ongoing access to expert support where required to ensure reliable local capacity and prompt training and reinforcement of new staff in the context of high staff turnover. Visits by specialist teams also will provide opportunities for initial and ongoing training of local community staff. Quality improvement and quality assurance of local community staff's screening techniques and treatment procedures will drive in-service training and other learning opportunities. How this is done operationally will be flexible such as a local coordinator ("champion") who is identified and empowered to help muster the support of others in each location. Tools will be developed to gauge local capacity and monitor early signs of reduced capacity from staff turnover that need prompt attention in order that essential service standards will not drop. Because of the important role played by visiting services in building local capacity, there needs to be a greater awareness of their schedules to support local in-service. Access to an annual calendar of visiting services may assist.

4. Promotion of listening and enhancing school performance

This Strategic Plan acknowledges the unique contribution that can be made by partnering effectively with schools, staff and families with school-age children. Because everyone is committed to Closing the Gap in Education for Aboriginal children, it is in everyone's interest that Aboriginal children can hear.

Schools can have highly effective teachers who demonstrate exemplary practice but, if Aboriginal children cannot hear, they fall behind their non-Aboriginal peers rapidly. Research shows when Aboriginal children fall below minimum levels in literacy and numeracy they rarely catch up. This is a galvanising call to action in this Strategic Plan.

Developing partnerships with schools is crucial to improving ear health of Aboriginal children which, in turn, improves their engagement, attendance, retention and education outcomes from K to Yr 12. Schools already have an existing respectful and trusting relationship with children and families that has been built up over

many years. Trusting relationships with any organisation is very important to Aboriginal people as too often they have been frustrated and disenchanted by the revolving door of service providers. Good communication and liaison with schools is important to ensure that teachers and family members fully understand any limitations of hearing and make adjustments to help promote effective hearing and listening. Working collaboratively with schools, especially in remote locations will go a long way to arresting any resistance Aboriginal families may have towards engaging with health care providers.

Schools also have direct influence and control over the physical environment; daily hygiene program and health curriculum to make a difference. This is through:

- Engaging daily in the Breathe Blow Cough (BBC) program across all years.
- Washing hands and face properly and brushing teeth.
- Healthy canteen or school lunch program
- Using the Sound Field Amplification system at all times. This should include maintenance of the system as well.
- Making classroom acoustically suitable
- Integrating Ear Health into the curriculum
- Induction for new teachers on Ear health
- Providing ongoing professional development to teachers on promoting ear health.
- Teachers being able to identify or suspect a discharging ear and directing the child to an AIEO or Education Assistant for follow up.
- Ensuring links between all schools and community or school nurses in their local primary health care clinic to strengthen support for the school including those schools with a teacher leading Student Services.

This Strategic Plan commits to an ever stronger partnership with schools in the Kimberley through as many diverse ways as possible. Creating opportunities to speak to principals, teachers and Aboriginal education officers about ear health and seeking their support in observing children who may have ear problems or hearing loss or who have recently received surgery and require follow-up. In every community with a school, a strong local partnership between education, community and primary health care services should be encouraged, supported and enhanced. Specific support can be provided to ensure that school sound systems are being used and maintained. This includes further clarification of eligibility criteria for children with hearing loss for additional services and resources.

5. Health promotion

A health promotion approach which adopts the principles of the Ottawa Charter (where appropriate) will be highly visible throughout the Kimberley including:

1. A focus on primary prevention including improving access of children to safe and clean recreational water (e.g. use of showers/baths, swimming pools, clean natural water sources)
2. Advocacy for improved housing
3. Advocacy for improved nutrition
4. Advocacy for improved personal hygiene including face and hand washing and nose blowing

Health promotion will be informed by the conceptual framework to study causal pathways to otitis media [Lehmann *et al* 2008](Appendix 1). Priorities for health promotion in the Kimberley to meet the aspirational goal of this strategic plan are identified in green. This strategic plan commits the Kimberley Ear Health Co-ordinating Panel to work in close partnership with KAHPF Environmental Health SubCommittee to develop new strategies to address social and environmental determinants of ear health.

6. Comprehensive program evaluation, quality improvement and transparent reporting of key performance indicators

It is essential that all ear health programs have an effective evaluation program to ensure that the program is achieving its aims and opportunities to improve the service are identified and acted upon. Quality improvement including feedback to providers will also be highly visible across the Kimberley through the efforts of individual services as well as in forums where services share experiences with each other and collectively raise service standards. Finding opportunities to improve services will be encouraged and the positive changes that result will be celebrated.

Program evaluation will be described in more detail in a separate document and will include:

1. Activity based performance indicators e.g. numbers of children seen
2. Quality based performance indicators e.g. Staff training and performance reviews
3. Outcome based performance indicators e.g. changing prevalence of presumptive functioning ears in a community

KPIs will be selected that support implementation and improvement of successful ear health programs across the Kimberley. Regional monitoring will be undertaken to verify that benefits for Aboriginal children across the region are being achieved and trends over time are on track. This will include indirect costs such as PATS and greater use of less expensive options such as Telehealth. Attention will be given to the expeditious development of a Kimberley minimum data set for the benefit of service providers and quality improvement. Agreed KPIs will support wise use of limited resources, encouraging collaboration and shared learning between

services and stakeholders. KPIs for environmental determinants will be developed with the KAHPF Environmental Health SubCommittee.

There are significant outcomes at stake. High-level social measures will be considered to ensure collaborative effort is on track over the long term. Correlations such as NAPLAN results, incidence and prevalence of childhood behavioural disorders and epidemiological studies including data from juvenile justice are measures that capture the broader results that better hearing will deliver. Where possible, objective measures of outcomes will be supported.

There will also be regular audits of capital equipment to ensure the right equipment is in the right place at the right time in the right condition to achieve efficiency and support excellence in service delivery.

7. Community ownership, engagement and partnerships

Re-empowerment of remote Aboriginal communities is the essential foundation for long term health improvement. This strategic plan acknowledges that community ownership, community engagement and genuine partnerships are integral to ear health. This includes empowering support to parents, carers, leaders and communities. This strategic plan identifies that successful engagement of young children 0-4 years of age and their families is a 'barometer' of effective community engagement.

Through the timeframe of this strategic plan, the burden of ear disease should also reduce through increased self-initiation by children themselves or their parents and family to seek ear checks or a clinical consultation for an acute symptom.

In recognising the uniqueness of each community, strategies to partner with communities need to be flexible and responsive. Primary health care staff have huge potential to make a difference on the ground. To bolster efforts in community engagement, visiting ear health services will be kept informed by primary healthcare of local activities, changes in community capacity and opportunities to contribute.

Each community has strengths and assets known by the community about itself. Public assets and infrastructure include the school, the store, the Aboriginal community council, Aboriginal cultural organisations and the relevant shire as well as the primary healthcare clinics or hospital. An entire community can learn the necessary knowledge and skills to end hearing loss from non-sensory neural causes as a crippling disease with social, educational, cultural and clinical consequences. Wider recognition is welcomed of the enormous opportunity to expand our vision of what communities can do with true partnership and participation.

A professional approach to community engagement will be required using the expertise of other KAHPF subcommittees such as the Health Promotion subcommittee, academic with relevant expertise and local skill

development. Over time, services will contribute and have access to a versatile evidence base for strategies to work with communities wherever they are located across the Kimberley.

8. Provide other community members outside the target age group with opportunistic ear health checks and hearing assessment if requested and time is available

Without compromising the achievement of priorities and agreed performance requirements of funding agencies which currently prioritise a focus on Aboriginal children, communities in the Kimberley will be offered inclusive service delivery where feasible to raise community awareness of ear disease and encourage whole community participation.

9. Innovative approaches to challenges

Developing this strategic plan has shown there is great advantage to local Aboriginal communities in unity, collaboration and partnership. This has encouraged the formation of the Kimberley Ear Health Co-ordinating Panel with membership from Department of Education, KAMS, RHW and WACHS to take on the key role of monitoring implementation, achievements and difficult challenges. Through the Kimberley Aboriginal Health Planning Forum, events will be scheduled to share experiences, compare results and develop service models together based on data and outcomes. Challenges such as continuity of care are critical to better health and well-being. Successful strategies are not confined to one service provider alone but should be shared in a spirit of partnership and commitment to those we serve in the Kimberley.

As stated in the KAHPF Primary Health Plan 2012-2015, all health service providers have to contend with aspects of service delivery that are unique to the Kimberley including a reliance on visiting specialist services and funding for outreach programs from organisations external to the Kimberley. In this context, effective practices for service delivery co-ordination must:

- Focus on outcomes
- Be culturally appropriate
- Invest time and resources into community consultations
- Apply a strengths-based approach
- Support Aboriginal and non-Aboriginal staff (Stewart *et al* 2011).

There is a potential role for any visiting service provider as described in this strategic plan. Their expressions of service capacity against the nine components of this strategic plan will promote transparency and openness about the strengths of each contributing service. Together, collective efforts will be 'fit-for-purpose' as recommended (Stewart *et al* 2011).

As challenges are tackled together, efforts will be prioritised to enhance the quality of collaborative partnerships and aspects of governance including awareness and management of conflicts of interest. Having been created, this Kimberley Ear Health Co-ordinating Panel will continue to facilitate collaborative action and to share local knowledge. This strategic plan will be checked every quarter for progress by the Panel. Visiting service providers will be regularly invited to join meetings of the Panel to maximise collaboration and reduce duplication. A public forum will be held in mid-2017 to obtain feedback from stakeholders about implementation.

Ear health in Aboriginal children is a high priority for member services in the Kimberley Aboriginal Health Planning Forum. A mechanism for reporting against this strategic plan to the Forum will be developed.

CONCLUSIONS

"We are living in a first world nation. Why should any child in Australia endure the kind of ear troubles which are so imperative to their development, growth, long term prospects, employment, education and their dreams. Every child in Australia should be born to be able to dream and be what they want to be."

Dr Kelvin Kong, ENT specialist and Aboriginal doctor 2014

http://www.sbs.com.au/ondemand/video/109208643589/Living-Black-Conversations-S2014-Ep11-Dr-Kelvin-Kong

While there are valuable initiatives in place, many facets need to be improved. These include clinical leadership, service and care co-ordination, shared data systems, health promotion and environmental health programs, Telehealth usage, and true support and education for Aboriginal families. The biggest challenge is to get multiple funders, multiple providers, and health professionals offering multiple delivery methods to all work together with shared and accountable information systems. [Melissa Vernon, Chief Operating Officer - Strategy and Reform, WA Country Health Services 20 March 2015]

We are all part of the solution! [Belinda Bailey, CEO, Rural Health West 20 March 2015]

Building personal connections with local people is the best way to address health care at the local level and tackle local issues. Working with the community would help improve primary prevention by understanding children and cultural family dynamics as to who is responsible for their care. We need to educate parents, teachers, and carers about ear health. This may be achieved through home visits, health workers, events such as NAIDOC. Local Aboriginal health workers are most effective in communicating with Aboriginal families. Communication with Aboriginal families can be improved by developing a simple message, and communicating this in a way that is understandable, through hands-on activities and the use of various visual media. The key message is that local people have to be given a voice. [Dr Annette Stokes and Ms Dorren Champion, Goldfields 20 March 2015].

Service delivery is faced with a range of practical and logistic problems. The follow-through of some services (such as ear syringing) may be inadequate, and there are waitlists and limitations on the number of speech pathology sessions that will be funded. Ear disease is often accepted as 'normal' in families and intervention is therefore delayed. Staffing (health workers, drivers, administration) is often inadequate and needs to be reassessed. The introduction of case management along the Northern Territory lines should be considered. It would be an advantage to have a child development team in each region. In the end we need to have a holistic system built from the grassroots up. [Dr Kim Isaacs, GP, BRAMS 20 March 2015]

From an AHCWA perspective:

1. *The importance of comprehensive primary care services as the core providers of ear health services (screening/surveillance and management) – especially for the under 4s.*
2. *The importance of imbedding ear health within an holistic child health approach (wherever possible)*
3. *The importance of community involvement – including the community control (ACCHO) model*
4. *The essential role of the health record – for management, communication and data (so much more needs to be done in this space).* [Dr Marianne Wood, Public Health Medical Officer, ACHWA 20 November 2015]

When finalised, this Kimberley Regional Ear Health Strategic Plan will be distributed widely to support collaborations and partnerships in ear health. A process to review the plan will be initiated in August 2018 by the Kimberley Ear Health Co-ordinating Panel. As the development of WA Child Ear Health Strategy is underway, specific reference will be made to it when it is finalised to ensure this Kimberley regional plan remains contemporary and aligned to other strategies.

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Acknowledgements and Copyright

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Conceptual framework to study causal pathways to Otitis Media (Lehmann et al.)