

Aboriginal Ear Health Program Guidelines

Summary Suggested strategies to address otitis media prevalence amongst Aboriginal children in NSW, their parents, carers and wider community.

Document type Guideline

Document number GL2011_013

Publication date 08 November 2011

Author branch Health and Social Policy

Branch contact

Review date 31 March 2021

Policy manual Patient Matters

File number

Previous reference N/A

Status Review

Functional group Population Health - Health Promotion

Applies to Local Health Districts, Specialty Network Governed Statutory Health Corporations, Community Health Centres, Public Health Units

Distributed to Public Health System, Divisions of General Practice, NSW Ambulance Service, Ministry of Health

Audience Directors Aboriginal Health;Population Health;Planning & Performance;Otitis Media Coordinators

Aboriginal Ear Health Program Guidelines

Document Number GL2011_013

Publication date 08-Nov-2011

Functional Sub group Population Health - Health Promotion

Summary Suggested strategies to address otitis media prevalence amongst Aboriginal children in NSW, their parents, carers and wider community.

Author Branch Aboriginal Health

Branch contact Paul Huntley 9391 9567

Applies to Local Health Districts, Speciality Network Governed Statutory Health Corporations, Community Health Centres, Public Health Units

Audience Directors Aboriginal Health, Population Health, Planning & Performance, Otitis Media Coordinators

Distributed to Public Health System, Divisions of General Practice, NSW Ambulance Service, Ministry of Health

Review date 08-Nov-2015

Policy Manual Patient Matters

File No.

Status Active

NSW ABORIGINAL EAR HEALTH PROGRAM GUIDELINES

PURPOSE

The purpose of this document is to provide Local Health Districts with a range of suggested strategies developed by the NSW Otitis Media Expert Advisory Committee to:

Reduce the number of young Aboriginal children being adversely affected by otitis media by reducing lifestyle risk factors amongst parents, carers and their extended families.

Improve the level of awareness about otitis media amongst the Aboriginal community, health and education professionals, thereby supporting a preventive approach and improved early identification.

Improve the effectiveness of services which lessen the impacts of otitis media on health and learning outcomes.

KEY PRINCIPLES

The primary aim of the attached guidelines are to encourage Local Health Districts to move away from, screening-only approaches, which have been found to be ineffective at reducing prevalence rates and to instead focus on prevention using a broad public health approach.

Effective primary prevention strategies outlined in the attached NSW Aboriginal Ear Health Program Guidelines include improving nutrition and the home environment, increasing breastfeeding and reducing passive smoking.

USE OF THE GUIDELINE

Local Health Districts developing local and regional responses addressing otitis media are asked to consider the directions and suggested strategies contained herein which place priority on prevention through a broad public health approach incorporating existing child health surveillance and health care programs (rather than universal-style screening).

REVISION HISTORY

Version	Approved by	Amendment notes
November 2011 (GL2011_013)	Director-General	New Guideline

ATTACHMENTS

1. NSW Aboriginal Ear Health Program Guidelines

NSW Aboriginal Ear Health Program

Guidelines 2011–2015



Health

Guidelines

These Guidelines illustrate the fundamental directions and operation of the NSW Aboriginal Ear Health Program. It is expected that local and regional needs may vary the implementation of some of the suggested strategies, however the core goals and principles must be maintained.

Artwork

NSW Ministry of Health would like to acknowledge Adam Ingram of the Wiradjuri nation, whose artwork appears in this document. The painting reflects the artist's concept of strong families and communities; the hands bordering the painting represent the community encircling the family. The large hands at the centre of the painting holding a sphere represent mother earth holding the sun. The figures which appear above the sun represent the family and the green leaves and yellow fruits which appear below the sun represent the traditional fruits eaten by Aboriginal people.

© New South Wales Ministry of Health for and on behalf of the Crown in right of the State of New South Wales.

Acknowledgements

This work was prepared by the Centre for Aboriginal Health, NSW Ministry of Health with invaluable assistance provided by the NSW Otitis Media Expert Advisory Committee. The Centre would like to thank the committee members for their contribution of ideas, suggestions, strategies, critiques and ongoing support throughout the development of this paper.

The committee members are:

Professor Garth Alperstein, Paediatrician, Notre Dame University; Ms Jodie Kinchela, Aboriginal Otitis Media Coordinator, Greater Western Area Health Service; Mr Brian Smyth King, Director Disability Programs, Department of Education & Training; Ms Barbara Nudd, Audiologist, Northern Sydney Central Coast Area Health Service; Dr Greg Stewart, Director Population, Planning & Performance, Sydney South West Area Health Service; Ms Robyn Sutherland, Aboriginal Otitis Media Coordinator, Eleanor Duncan Aboriginal Medical Centre; Mr David Tierney, Project Officer, Department of Aboriginal Affairs; Ms Elisa Dalla Valle, Audiologist, South East Sydney Illawarra Area Health Service; Mr Neale Waddy, Manager Disability Policy & Planning, Department of Education & Training; Ms Vicki Wade, Director Aboriginal Health, Sydney South West Area Health Service.

NSW MINISTRY OF HEALTH

73 Miller Street
NORTH SYDNEY NSW 2060
Tel. (02) 9391 9000
Fax. (02) 9391 9101
TTY. (02) 9391 9900
www.health.nsw.gov.au

This work is copyright. It may be reproduced in whole or in part for study training purposes subject to the inclusion of an acknowledgement of the source. It may not be reproduced for commercial usage or sale. Reproduction for purposes other than those indicated above requires written permission from the NSW Ministry of Health.

© NSW Ministry of Health 2011

SHPN (CHA) 110119
ISBN 978 1 74187 669 7

For further copies of this document please contact:
Better Health Centre – Publications Warehouse
PO Box 672
North Ryde BC, NSW 2113
Tel. (02) 9887 5450
Fax. (02) 9887 5452

Further copies of this document can be downloaded from the
NSW Health website www.health.nsw.gov.au

October 2011

Statement of Commitment

We acknowledge that we are located on the lands of the Cammeraygal people. The Cammeraygal are the traditional custodians of this land and are part of the greater Eora Nation. We pay our respects to past, present and future ancestors of the Aboriginal nations.

The NSW Ministry of Health acknowledges that we are located on the lands of the Cammeraygal people. The Cammeraygal are the traditional custodians of this land and are part of the greater Eora Nation. We pay our respects to past, present and future ancestors of the Aboriginal nations.

This Statement of Commitment, originally signed on Sorry Day, 26 May 2010, is an acknowledgment of regret over past practices and policies which have impacted on the social and emotional wellbeing of Aboriginal people and their health.

We recognise Aboriginal people as the First Nations' People of Australia and the traditional owners and custodians of land. Aboriginal people have lived here for over 60,000 years and are recognised as being the oldest living, continuous culture of the world, with unique languages and spiritual relationships to the land and seas. We are strongly committed to improving the physical, cultural, spiritual and family wellbeing of Aboriginal people in this State.

The NSW Ministry of Health, is **Sorry** for the pain and loss placed on the lives of Aboriginal people who have been dislocated from their culture, displaced from their homelands and watched their children being taken away.

We have made this Statement of Commitment to continue to:

- Uphold and apply cultural protocols such as 'Welcome to Country' or 'Acknowledgment of Country';
- Acknowledge and respect Aboriginal cultural identity, practices and beliefs by working in partnership with Aboriginal peoples through the use of the NSW Aboriginal Health Partnership Agreement;
- Use the Aboriginal Health Impact Statement when developing or reviewing significant policies and programs; and
- Implement agreed actions that support delivery of services and programs to Aboriginal people in NSW.

For the NSW Ministry of Health, this Statement of Commitment means building our cultural competence and working to deliver sustainable health outcomes and contribute to closing the health gap between Aboriginal and non-Aboriginal people.



Health

Key Terms and Abbreviations

ACCHS	Aboriginal Community Controlled Health Service	DOH	Department of Health
AECG	Aboriginal Education Consultative Group	ENT	Ear Nose and Throat
AHMRC	Aboriginal Health and Medical Research Council	ETS	Environmental Tobacco Smoke
AHS	Area Health Service	GP	General Practitioner
AMIHS	Aboriginal Maternal Infant Health Strategy	GPNSW	General Practice NSW
AHW	Aboriginal Health Worker	HfH	Housing for Health
AOM	Aboriginal Otitis Media Coordinator	LHD	Local Health District
AH	Australian Hearing	MOH	Ministry of Health
ATSIECSAG	Aboriginal & Torres Strait Islander Early Childhood Sector Advisory Board	NGO	Non-Government Organisation
Blue Book	Personal Health Record	NITV	National Indigenous Television
CAH	Centre for Aboriginal Health	NRT	Nicotine Replacement Therapy
CEC	Catholic Education Commission	RIDBC	Royal Institute for Deaf and Blind Children
AANSW	Department of Human Services /Aboriginal Affairs NSW	StEPS	Statewide Eyesight Pre-schooler Screening
DET	Department of Education and Training	SWISH	Statewide Infant Screening Hearing
FACS	Department of Family and Community Services NSW	TAFE NSW	Technical and Further Education, NSW

For the purposes of this paper 'Aboriginal' refers to both Aboriginal and Torres Strait Islander people. The term acknowledges that Torres Strait Islanders are a separate people, and Aboriginal people are the original inhabitants of New South Wales. (Circular 2003/55).

Content

Statement of Commitment	1	Performance Indicators	37
Key Terms and Abbreviations	2	Future Evaluation Framework	40
Foreword	4		
		Appendices	
Program Snapshot	5	1 Bibliography And References	41
Introduction	9	2 Summary of Relevant Nsw Government Policies...43	
Earlier Approaches	10	3 Summary of Relevant Complementary Programs .45	
Evaluation and the Need for Change	11	4 Screening Referral Pathways.....	47
Goals	12	5 Paediatric Management Flowchart.....	48
Principles	13	6 Aboriginal Otitis Media Coordinators.....	49
Burden of Otitis Media	14	7 Hearing Health Workers (OATSIH).....	50
Key Risk Factors for Otitis Media	16	8 Hospital & Allied Audiologists Group.....	51
Key Strategies (What to do?)	19	9 Student Support Coordinators (DET).....	55
Prevention and Awareness	20	10 AECG Regional Representatives	56
Strategy 1. Reduce exposure to tobacco smoke ...	20	11 Aboriginal Pre-Schools of Nsw.....	57
Strategy 2. Breastfeeding & Nutrition	21	12 Sample (Draft) Model – Greater Western	
Strategy 3. Environmental Health.....	23	Area Health Service	62
Early Identification	25		
Strategy 4: Professional Development	25		
Strategy 5: Parents and Carers knowledge.....	27		
Strategy 6: Children’s knowledge	28		
Treatment and Support	30		
Strategy 7: Timely medical care.....	30		
Strategy 8: Best practice management.....	31		
Strategy 9: Reducing recurrent infection.....	33		
Patient Journeys	35		
Jane’s story	35		
Danny’s story	36		

Foreword

The health and wellbeing of NSW's future generations of Aboriginal children is one of the most important issues facing us today.

Middle ear infection (otitis media) rates are much higher for Aboriginal children than non-Aboriginal children, which has the potential to limit their health and educational achievement.

The NSW Aboriginal Ear Health Program Guidelines have been put together by a passionate group of people from the community and government health and education sectors.

The Guidelines provide NSW with an opportunity to tackle otitis media in a new way, targeting a range of risk factors which directly contribute to the higher rates of infection in Aboriginal children. The Guidelines provide practical broad public health strategies around prevention, awareness, early identification, treatment and support.

With the combined efforts of dedicated individuals and organisations, I am confident that we can make a difference.



Dr Mary Foley
Director-General

Program Snapshot

Population

Aboriginal children in NSW, their parents, carers and wider community.

Results

- Reduce the number of young Aboriginal children being affected by otitis media (middle ear disease) by reducing lifestyle risk factors amongst parents, carers and their extended families.
- Improve the level of awareness about the disease amongst the Aboriginal community, health and education professionals, which supports a preventive approach and improved early identification.
- Improve the effectiveness of services which lessen the effects of otitis media on health and learning outcomes.

Experience

- Incidence of otitis media for Aboriginal children across Australia is high, however prevalence and severity varies greatly between communities.
- Limited information on the prevalence for Aboriginal children in NSW, much of the research focussed on Northern Territory and Western Australia.
- Data suggests that burden of otitis media for Aboriginal children in NSW may not be as high as reported for Northern Territory, however, in NSW, the burden appears to increase with increasing remoteness.

What Works

Existing evidence and primary care guidelines for the management of otitis media in Aboriginal and Torres Strait Islander people identifies effective primary prevention strategies of improving nutrition and the home environment, increasing breastfeeding, and reducing passive smoking. This is consistent with the recommendation of the Evaluation of the NSW Otitis Media Screening Program for 0-6 year old Aboriginal Children to focus on environmental health (healthy housing; overcrowding), smoking, nutrition (breastfeeding) and integration with existing surveillance and healthcare programs.

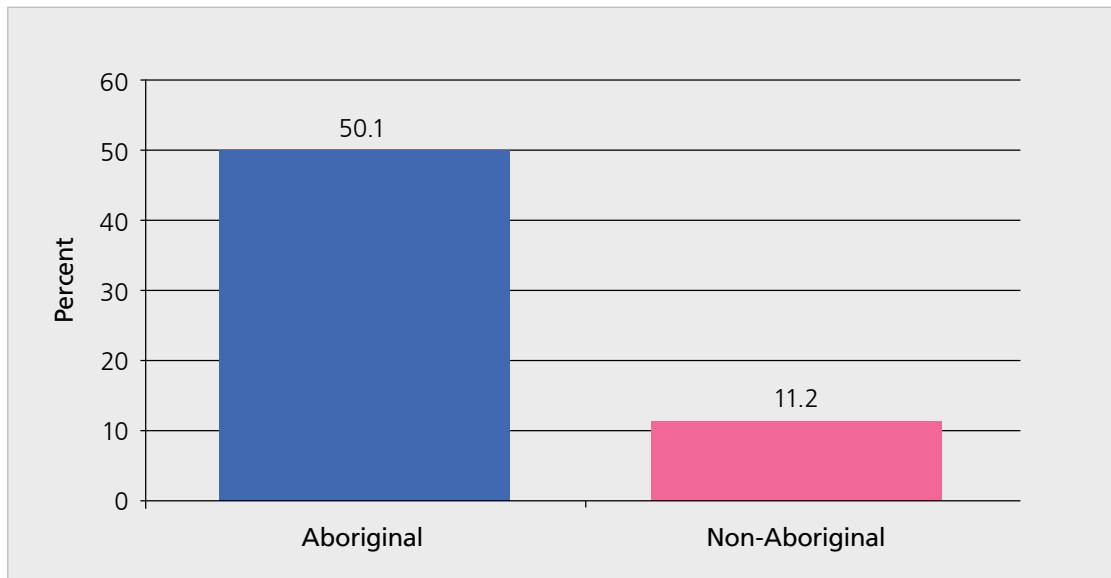
Evaluation

The formation of an Expert Advisory Group will assist the NSW Ministry of Health to decide the most appropriate form of evaluation type and methodology to be used. The evaluation will need to show if the Program is effective at reducing the prevalence of otitis media and/or ameliorating its affects.

Criteria

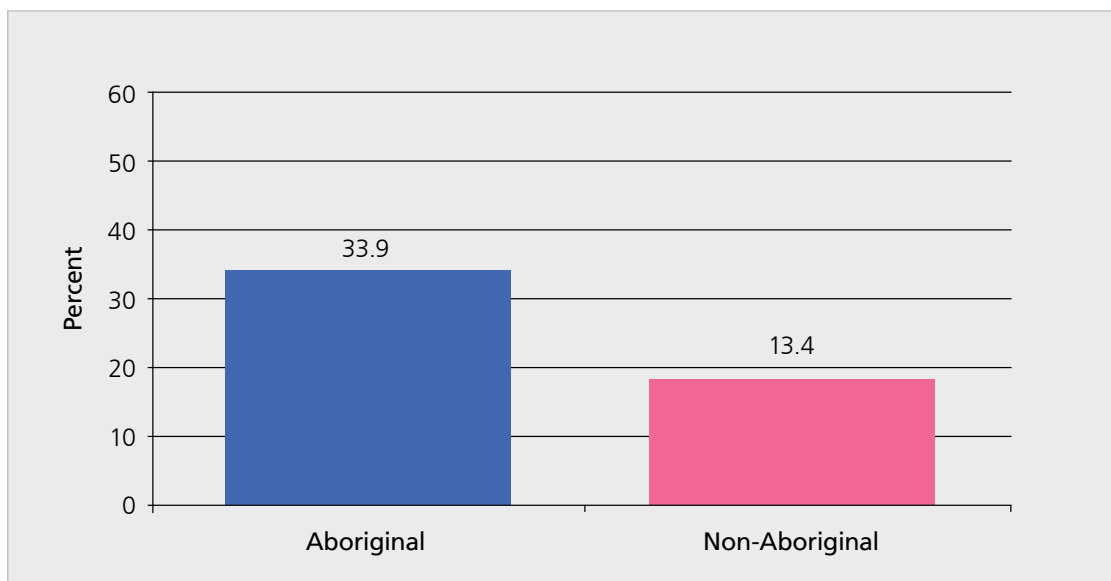
Population Health Measures

Smoking rates during pregnancy by Aboriginality



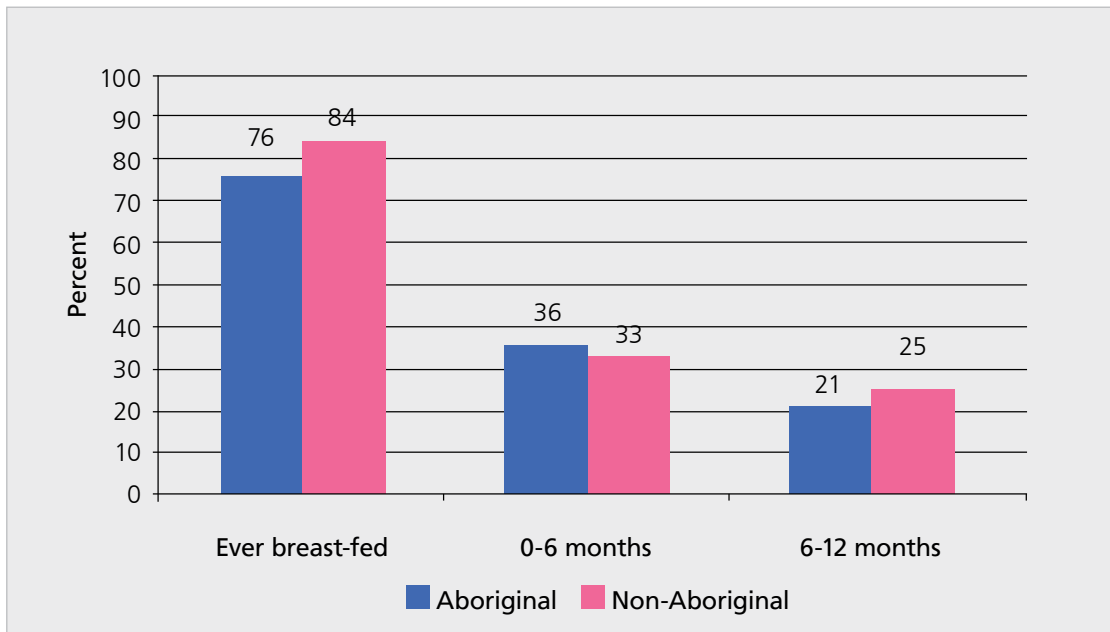
Source: NSW Public Health Bulletin Supplement, Vol21, (S1), June 2010 (NSW Mothers & Babies Report 2007 p78)

Community smoking rates by Aboriginality



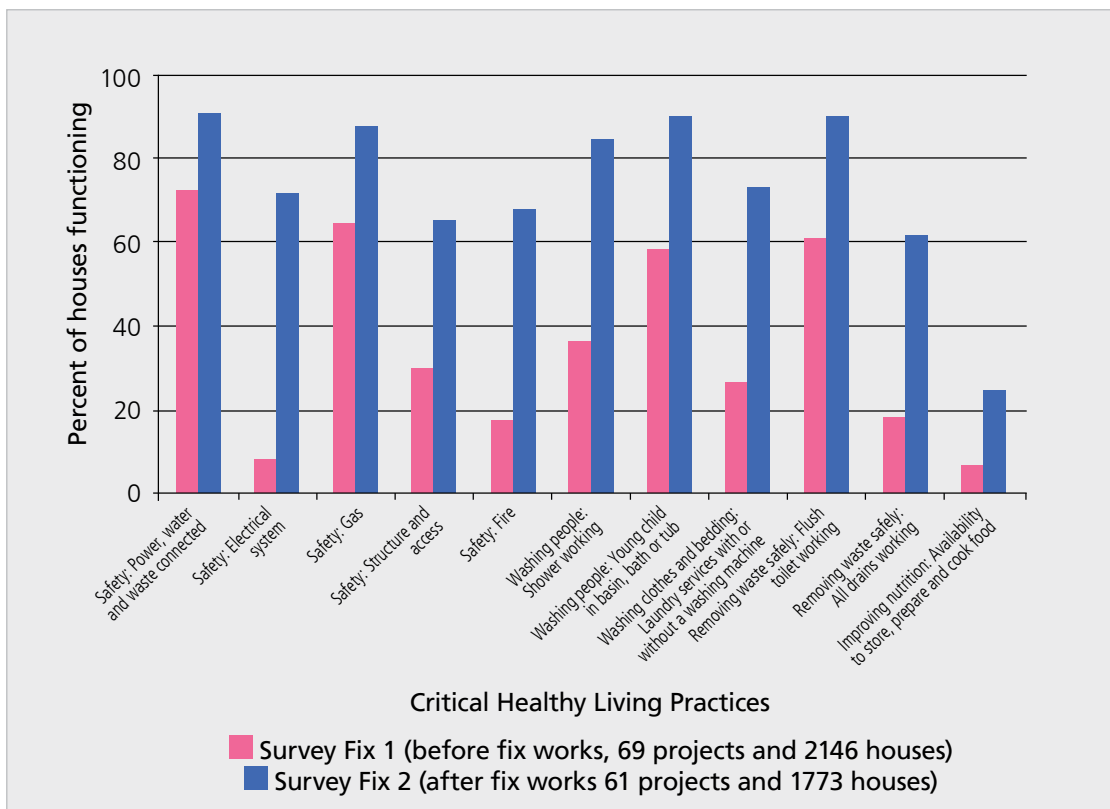
Source: 2006-2009 Report on Adult Aboriginal Health and NSW Population Health Survey 2009. Note: Prevalence rates are not age standardised and therefore age differences between Aboriginal and Non-Aboriginal will account for some of this difference.

Breastfeeding rates by Aboriginality



Source: www.aihw.gov.au/WorkArea/DownloadAsset.aspx?id=6442458689.

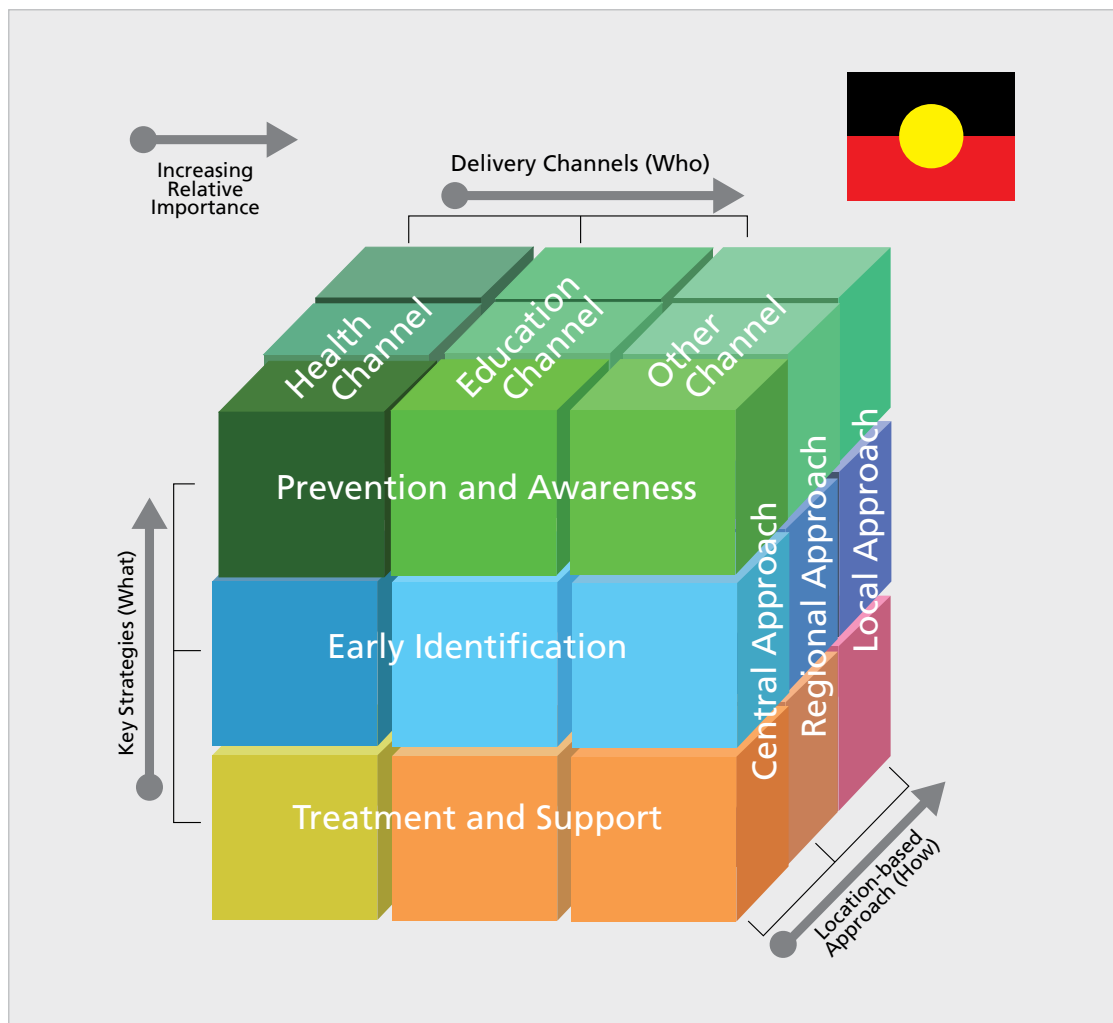
NSW Housing for Health projects 1999-2009



Source: NSW Health, Closing the Gap: 10 Years of Housing for Health in NSW, Jan 2010 P15.

Strategy & Action Plan:

- Key strategies (What?)
 - Prevention and Awareness
 - Early Identification
 - Treatment & Support
- Delivery channels (Who?)
 - Health
 - Education
 - Other
- Location-based approach (How?)
 - Central
 - Regional
 - Local



Introduction

Over recent years, the focus of the NSW Aboriginal Otitis Media Program was on near-universal screening for 0-6 year old Aboriginal children.

An extensive review of the Program in 2008 recommended the cessation of the near-universal screening approach and the return to a comprehensive public health approach. This approach encompasses existing child health surveillance strategies and a greater focus on health promotion activities designed to address the major risk factors for otitis media.

It has become increasingly clear that the near-universal screening approach, while diligently implemented by many dedicated individuals and organisations, is insufficient to realise meaningful improvements in health and educational outcomes for Aboriginal children.

The formation of the NSW Otitis Media Expert Advisory Committee in 2008/09 allowed key stakeholders to critically examine the program in light of the recommendations from the evaluation and to develop practical and effective solutions to realign resources and improve outcomes.

These guidelines for the NSW Aboriginal Ear Health Program provide an opportunity to reconsider the impact of ear health on Aboriginal children, their families and community and how it might best be addressed in the future.

Earlier Approaches

Operating between 2000 and 2004, the NSW Otitis Media Strategic Plan for Aboriginal Children was a comprehensive health and education plan for Aboriginal families and 0-12 year old Aboriginal children. It aimed to improve the health and education status of young Aboriginal children by improving the provision of health and education services to Aboriginal communities to prevent, manage and control otitis media.

Beginning in 2004/05, the NSW Otitis Media Screening Program for 0-6 year old Aboriginal Children was, as its name suggests, a narrowly focussed screening program aiming to identify young Aboriginal children with otitis media through whole-of-population based screening (near-universal screening).

It was an initiative selected for enhancement funding under the Aboriginal Affairs Plan: Two Ways Together for a defined four year period operating from 2004/05 to 2007/08.

The rationale for the program was that some younger Aboriginal children (aged less than 7 years) were not being provided with access to health services addressing otitis media as effectively as those in older age groups under the NSW Otitis Media Strategic Plan for Aboriginal Children.

One of the reasons for this was that as soon as children enter the school system, accessing them becomes much easier from a health worker's perspective. With the same amount of finite resources, it was far easier and more efficient to provide services to a group of children of primary school age than to locate and provide the same services for an equal number of younger children who had not yet entered the education system. Delivering ear health services to the youngest of Aboriginal children would be a much more resource intensive exercise, primarily because there was no common access point for this age cohort, unlike older children who attend school.

The NSW Otitis Media Screening Program for 0-6 year old Aboriginal Children sought to address this by specifically targeting the youngest of Aboriginal children. It also differed from the NSW Otitis Media Strategic Plan for Aboriginal Children in that it aimed solely to provide screening services and did not directly invest in dedicated prevention or health promotion activities.

It had ambitious escalating targets to screen from 50% up to 85% of 0-6 year old Aboriginal children in NSW which was achieved by the third year of the program. This was all the more remarkable when one considers that prior to 1 July 2004, there were perhaps less than twenty Aboriginal Health Workers who were qualified to perform community ear screening.

Evaluation and the Need for Change

A formal review of the NSW Otitis Media Screening Program for 0-6 year old Aboriginal Children was commissioned by NSW Health in 2008.

The review was undertaken by ARTD Consultants Pty Ltd using a post-hoc design drawing on the existing screening data and program documentation, together with input from stakeholders and those involved in delivering the program gathered through case studies and interviews.

The review final report found a number of positive outcomes including:

- increased identification of children with otitis media and hearing loss
- improved skill development of Aboriginal Health Workers
- increased awareness of the disease amongst Aboriginal communities
- enhanced relationships with schools, former Area Health Services and ACCHSs

Importantly the review also highlighted a number of significant issues including:

- difficulty in accessing the very youngest children
- limited scientific evidence to support the near-universal screening approach
- difficulty in demonstrating outcome data
- unsustainable long term training costs due to staff turnover
- universal screening did not address the underlying social and environmental factors contributing to otitis media in Aboriginal children

The review recommended that the existing near-universal screening approach be abandoned and a comprehensive public health approach be adopted.

NSW Health supported the review recommendations and released the final report to key stakeholders in October 2008.

It was agreed that a new approach would require action to be taken to genuinely improve otitis media prevention by:

- addressing environmental health risk factors
- reducing maternal ante-natal smoking
- increasing maternal post-natal breastfeeding
- improving safe and healthy housing conditions
- linking with existing child health surveillance programs and
- improving awareness and education amongst the Aboriginal community and human services professionals.

NSW Health formed the NSW Otitis Media Expert Advisory Committee in late 2008 to provide advice on implementation of the report recommendations and to assist in the development of performance indicators for a broad public health approach.

The recommendations to move away from the near-universal screening approach to a prevention and surveillance approach were further supported by the recent 'Rapid Evidence Summary' by the Menzies School of Health Research (Hopkins and Morris 2009) which found that:

“...treatment of children detected through repeated screening has been shown to provide no long term developmental or academic benefit...”

Goals

The overarching goals for the NSW Aboriginal Ear Health Program are to:



Reduce the number of young Aboriginal children being affected by otitis media by reducing lifestyle risk factors amongst parents, carers and their extended families.



Improve the level of awareness of ear health amongst the Aboriginal community, health and education professionals, thereby supporting a preventive approach and improved early identification.



Improve the effectiveness of services which lessen the impacts of otitis media on health and learning outcomes.

Principles

Implementation of the NSW Aboriginal Ear Health Program is supported by these principles:



Whole-of-life view of health



Self-determination



Working in partnership



Cultural understanding



Recognition of trauma and loss

Burden of Otitis Media

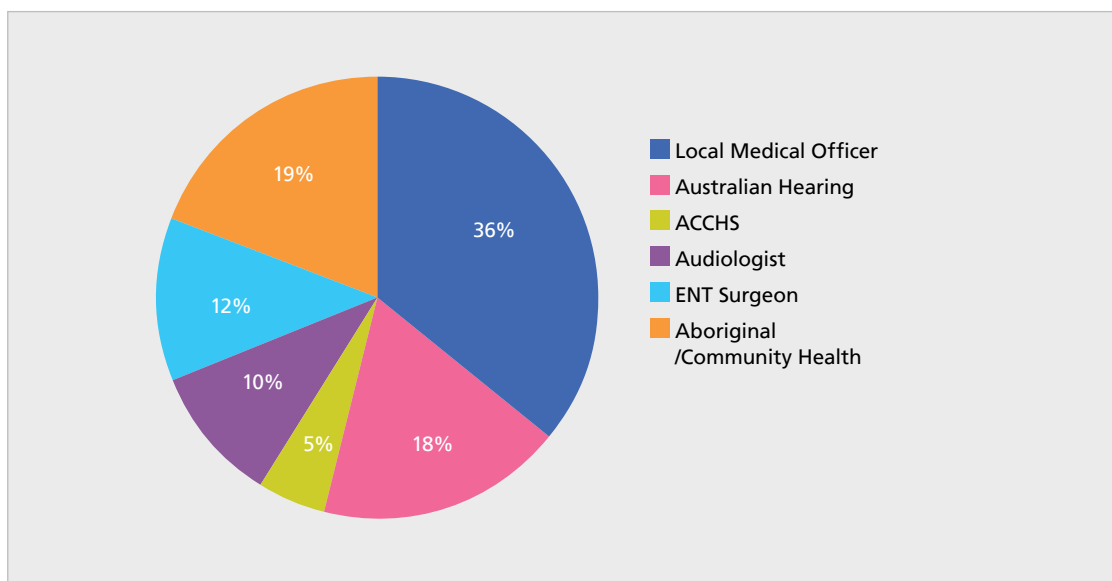
The incidence of otitis media for Aboriginal children across Australia is high, however the prevalence and severity varies greatly between communities. There is very limited information on its prevalence among Aboriginal children in NSW, with much of the research focussed on the Northern Territory and Western Australia.

Over the four years of the NSW Otitis Media Screening Program for 0-6 year old Aboriginal Children, approximately 60,000 screenings were conducted. A snapshot analysis of screening for Quarters 1 and 2 in 2006/07 and 2007/08 identified that 27% and 32% respectively of those screened required further referral, with the vast majority referred to

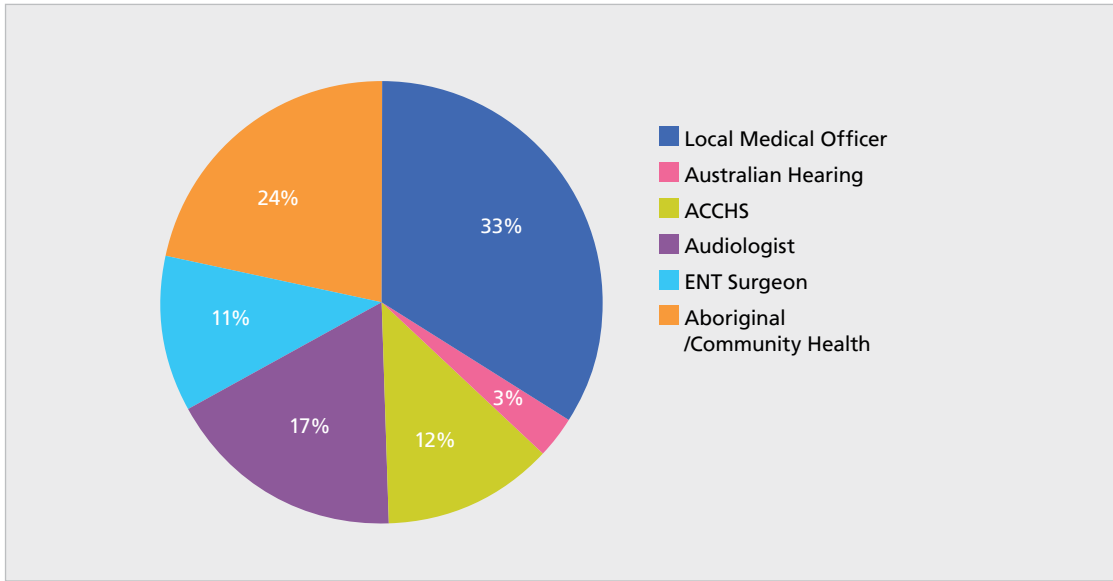
primary health care services for follow up, with only 11-12% with problems serious enough to warrant referral to Ear Nose Throat (ENT) specialists (refer Figure 1 below). ENT referrals represent approximately 3-4% of total screenings during the periods.

Figure 1: Referral types for the NSW Otitis Media Screening Program for 0-6 year old Aboriginal Children, Quarters 1 and 2, 2006/07 and 2007/08.

(a) 2006/07



(b) 2007/08



Source: ARTD Pty Ltd (2008) Evaluation of the Aboriginal Otitis Media Screening Program Final Report to the NSW Department of Health, 12 June 2008

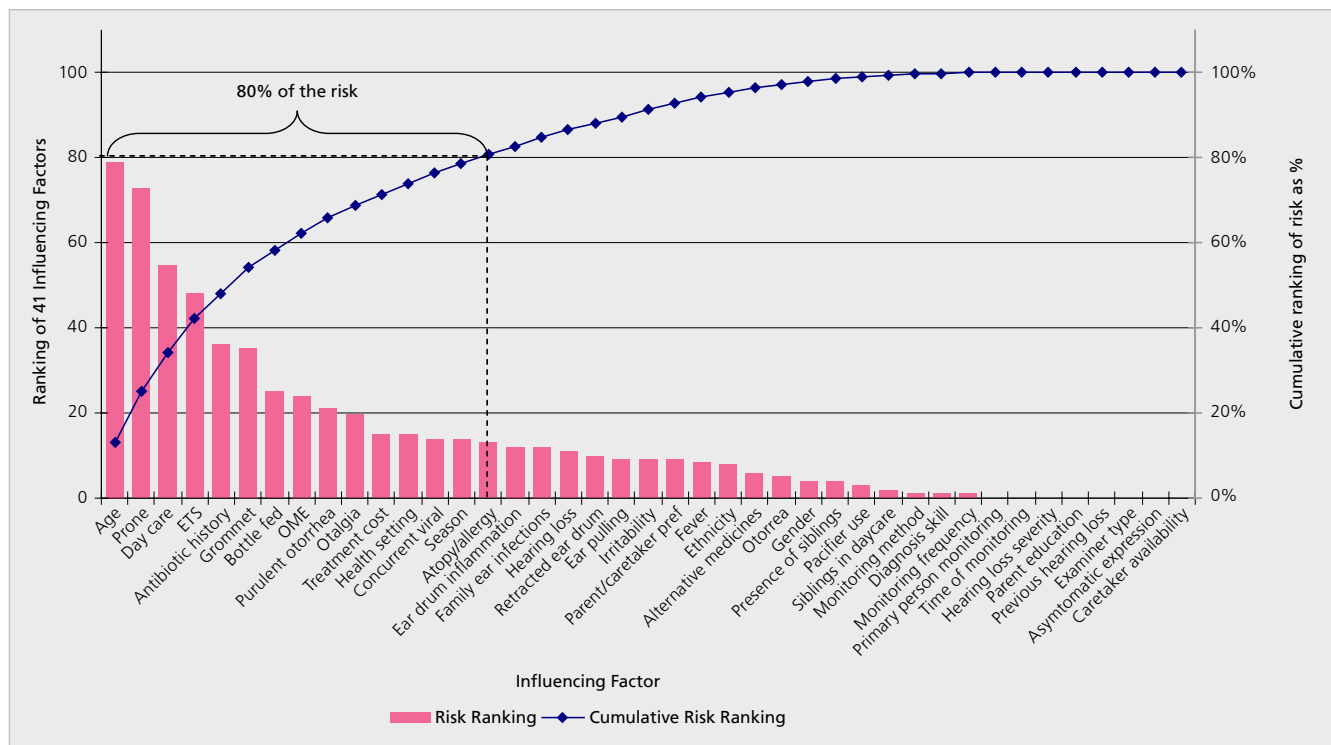
Key Risk Factors for Otitis Media

To make effective use of limited health system resources, it is fundamental to consider the known risk factors associated with otitis media, particularly those that are modifiable. Modifiable risk factors are those which we can reasonably expect to influence in order to realise improvement as a direct result of our combined efforts. A review of evidence for management of acute otitis media by Chan et al (2001) attempted to rank 41 influencing factors. Their ranking is graphically represented in Figure 4 below.

A Pareto Analysis shows that 80% of the risk is associated with a relatively small number of factors; and of those that are modifiable, cross infection associated with children in daycare; exposure to tobacco smoke; a sustained history of antibiotic use; bottle-only feeding; and treatment cost and setting feature prominently. Whilst these findings may not

be generalised for the Aboriginal population of NSW, a systematic review of existing evidence and primary care guidelines for the management of otitis media in Aboriginal and Torres Strait Islander people by Couzos et al (2001) identified improving nutrition and the home environment, increasing breastfeeding, and reducing passive smoking as effective primary prevention strategies. These various reviews are consistent with the recommendation of the Evaluation of the NSW Otitis Media Screening Program for 0-6 year old Aboriginal Children, particularly the recommendations to focus on environmental health (healthy housing; overcrowding), smoking, nutrition (breastfeeding) and integration with existing surveillance and healthcare programs.

Figure 4: Pareto chart - Otitis Media risk factor ranking



Source: Adapted from Chan et al, 2001

The Way Forward

Whilst early identification and medical management of otitis media are necessary, they are not sufficient to bring about marked reductions in prevalence of otitis media in the Aboriginal population of NSW. They represent a 'health centric' view of how to address the problem.

The way forward must be led from the 'person centric' view of the problem, that is, from the parent's, carer's and child's perspective in terms of what they want and what their priorities are.

In order of priority, these can be represented by the following statements:

1. "I don't want my child to suffer from otitis media in the first place."
2. "If my child does have otitis media, I would like to have it identified as soon as possible."
3. "Once identified, I would like to know how to have otitis media treated and prevent it from coming back."

Therefore, the way forward must focus priority towards prevention initiatives; specifically those that address the identified modifiable risk factors.

The way forward must take a longer term view of health and development surveillance rather than the narrow and short term view implied by hearing screening. Wherever possible, surveillance should occur within existing programs; for example: Child Health Checks and the Personal Health Record (Blue Book), Statewide Infant Screening – Hearing (SWISH), Statewide Eyesight Preschool Screening (StEPS), Aboriginal Oral Health program, Aboriginal Maternal and Infant Health Strategy (AMIHS), Building Stronger Foundations for Aboriginal Children, Families and Communities.

The way forward must establish hearing health networks, not only for equitable access for treatment of the problem, but to support the professional development of those involved with Aboriginal hearing health. In recognition of the formal Partnership, the MOH will seek advice from the AHMRC on these and related matters

The way forward must recognise that the 'health system' may not be best placed to address otitis media due to its limited contact with Aboriginal people. The education system and particularly the formal and informal social networks of Aboriginal communities are key delivery channels for the prevention and surveillance messages.

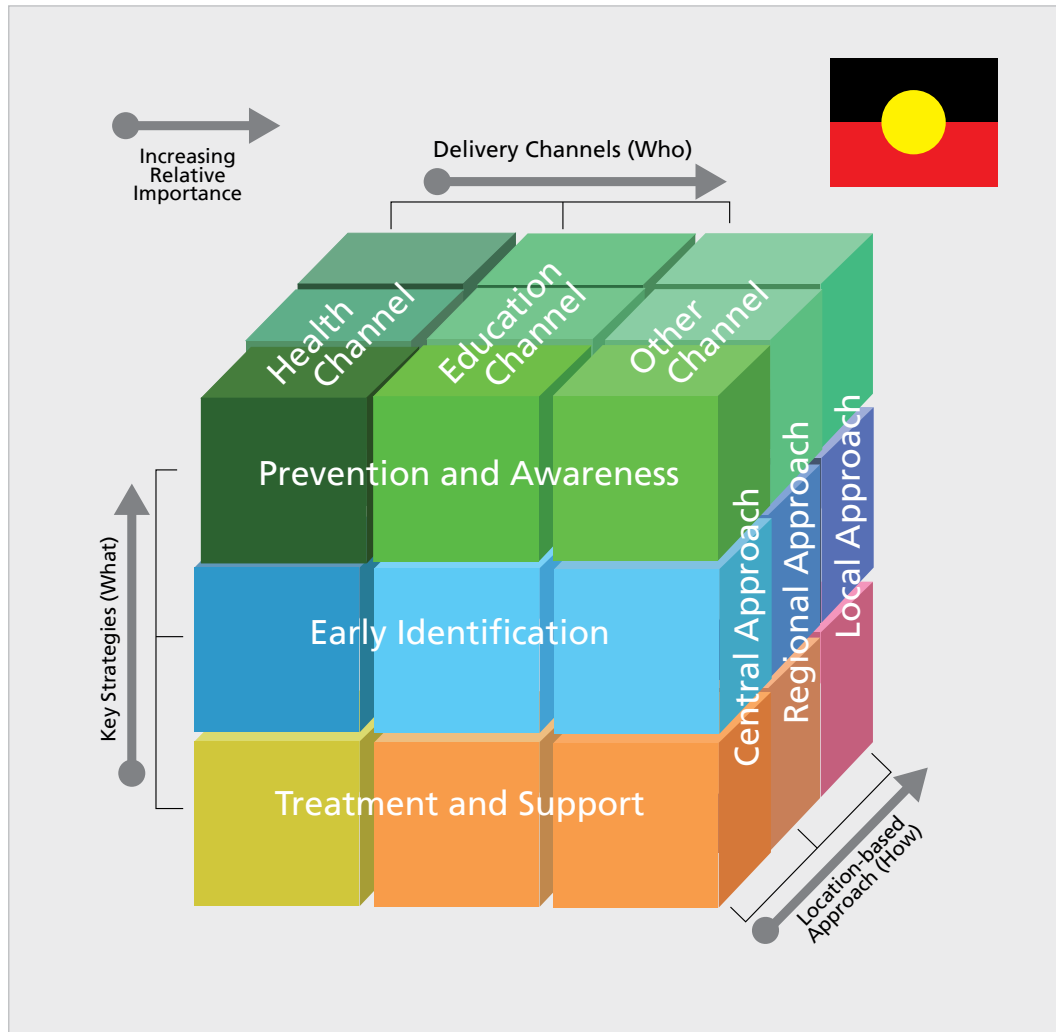
The way forward must consider that location-based approaches are far more likely to be successful than anything driven by central agencies. This recognises that the impact of otitis media strategies are different in far west NSW than it is in Sydney, and that different approaches are required.

Further work will be undertaken at a state, regional and local level through workshops with key stakeholders in health, education and other relevant agencies to develop and implement strategies for otitis media.

The way forward will, therefore, identify:

- **Key strategies**
(What we are going to do)
- **Delivery channels**
(Who is going to do it)
- **Location-based approach**
(How we are going to do it)

Figure 5 below captures the essence of the way forward for the NSW Aboriginal Ear Health program.



The following pages provide greater detail on each of the strategies, channels and approaches.

Key Strategies (What to do)

The NSW Aboriginal Ear Health Program Guidelines comprises nine separate strategies under three key areas for action which are best placed to reduce the prevalence and burden associate with middle ear disease. They are:

Prevention & Awareness

1. Reduce exposure to tobacco smoke
2. Breastfeeding and nutrition
3. Environmental health

Early Identification

4. Professional development
5. Parents and carers knowledge
6. Children's knowledge

Treatment & Support

7. Timely medical care
8. Best practice management
9. Reducing recurrent infection

Each strategy contains an objective and a range of actions, concepts and ideas which may be taken at the central, regional and local levels by Aboriginal communities and government and non-government organisations in the health and education sectors.

Some of the work described is currently underway but much is new effort that will require new relationships and partnerships to be formed in order to achieve the goals of the program.

Each of the strategies is described in detail throughout the following pages.

Prevention and Awareness

Strategy 1. Reduce exposure to tobacco smoke

Reduce the number of Aboriginal women who smoke during pregnancy, and reduce babies' exposure to environmental tobacco smoke (ETS).

Central	Regional	Local
Health		
The Ministry of Health (MOH) to support initiatives which will increase access to nicotine replacement therapy (NRT) for pregnant Aboriginal women (eg free NRT). The MOH to continue to provide funding support for smoking cessation programs.	OM Coordinators to determine availability of quit smoking resources (SmokeCheck, NRT, Tobacco worker, Quit Line, quit support groups etc) within their area and develop linkages and referral pathways to these programs.	Health professionals to provide quit smoking information to pregnant women and women smokers in their child bearing years. In addition, Aboriginal quit smoking promotional materials to be displayed in health settings.
The MOH to develop more Aboriginal specific quit smoking resources, particularly those aimed at pregnant women (eg pamphlets, posters, fact sheets).	LHDs (Local Health District) Environmental health staff and OM Coordinators may work with ACCHS networks (eg Bila Muuji) and ACCHS to increase awareness of environmental health by providing input into the development of systems and resources.	Aboriginal Health Workers in ACCHSs and LHDs may support environmental health programs where appropriate.
The MOH to work with the AH&MRC and GPNSW to coordinate distribution of Aboriginal specific quit resources through the ACCHS and the Divisions of GP networks.	LHDs & regional ACCHS alliances and ACCHS and OM Coordinators to coordinate the distribution of quit smoking resources.	OM and other relevant staff to be trained in brief smoking cessation interventions through smoking cessation programs.
Education		
The MOH to work with the Aboriginal Education Consultative Group (AECG) to determine how to engage AECG members regarding quit smoking promotion and environmental tobacco smoke (ETS) education.	LHDs & regional ACCHSs and ACCHS to liaise with the AECG regarding provision of information on otitis media on learning outcomes and the contributing factors to otitis media, including ETS and smoking during pregnancy.	OM coordinators to work with AECG members to determine how to utilise informal networks.

Central	Regional	Local
The MOH to liaise with the DET and the Catholic Education Commission (CEC) to develop promotional materials for parents of Aboriginal children regarding smoking in pregnancy and ETS.	LHDs & regional ACCHS alliances and ACCHS to work with School Education Directors to promote the benefits of parental smoking education to school principals.	OM coordinators to work with schools on how to provide quit smoking and ETS information to parents through school communications (eg school newsletter, pamphlet).
The MOH to work with TAFE NSW to develop resources (eg pamphlets, posters, fact sheets) to increase awareness in students of the effect of smoking in pregnancy and ETS on the learning outcomes of young children.	The MOH to approach the Institute Directors, TAFE in order to gain support for smoking awareness on TAFE campuses.	OM Coordinators to work with TAFE campuses to look at options to promote smoking cessation and reductions in ETS.
Other Organisations		
The MOH and AHMRC to approach Aboriginal media regarding advertising and/or segments on otitis media and smoking cessation.	LHDs & regional ACCHS alliances and ACCHS to help promote awareness of segments on otitis media and smoking cessation in Aboriginal media.	ACCHS staff (eg OM Coordinator and Chronic Care Worker) to utilise informal social networks to promote smoking cessation.
The MOH and AHMRC to promote TV and radio media opportunities to LHD staff. The MOH to provide the GWAHS otitis media advert to all LHDs.	LHDs & regional ACCHS alliances and ACCHS to seek TV and radio media opportunities to air the GWAHS otitis media advertisement.	OM Coordinators to investigate ways to promote smoking cessation on local radio stations using adverts and interviews.
The MOH to promote networking to OM Coordinators through the 6-monthly OM Coordinators meetings.	LHDs & regional ACCHS alliances and ACCHS to promote social networking between OM Coordinators and complementary program staff.	Promotion of smoking cessation to occur on television through Aboriginal media and adverts on local TV stations (eg the adverts run by GWAHS on Prime TV).

Strategy 2. Breastfeeding & Nutrition

Increase the number of Aboriginal babies who are fully breastfed from birth.

Central	Regional	Local
Health		
Develop a new resource to promote breastfeeding for mothers of Aboriginal children.	Snr LHD managers & OM Coordinators to work with ACCHS networks (eg Bila Muuji) and ACCHS to promote breastfeeding.	OM Coordinators to work with ACCHSs to incorporate breastfeeding promotion into their Action Plans.

Central	Regional	Local
Distribute above resource through ACCHSs via the AH&MRC.	LHDs and regional Divisions of General Practice to promote breastfeeding for Aboriginal infants.	OM Coordinators and other Health Workers to deliver breastfeeding information to playgroups, mothers' groups and through other social networks.
Work with child and maternal health programs to include otitis media awareness in current breastfeeding promotion.	The MOH to work with LHDs to coordinate distribution of the breastfeeding resource particularly through child and maternal health sites.	OM Coordinators to further enhance linkages between ACCHS and child and maternal health sites.
Education		
The MOH to work with the Aboriginal Education Consultative Group (AECG) and the Aboriginal and Torres Strait Islander Early Childhood Sector Advisory Group (ATSIECSAG) to determine mechanisms for promoting breastfeeding in Aboriginal communities.	The MOH to consider approaching the Institute Directors, of regional TAFEs in order to gain support for increasing breastfeeding 'friendliness' on campuses and to assist in the dissemination of resources.	OM coordinators to work with local AECG members to consider using their informal networks to promote otitis media awareness.
The MOH to work with with the DET and TAFE NSW to develop strategies (eg providing private breastfeeding areas) and resources (eg posters aimed at increasing peer acceptance of breastfeeding) for increasing the breastfeeding 'friendliness' of TAFE campuses.	Consider providing information sessions regarding the importance of breastfeeding education to be provided to: local AECG Presidents attending regional level AECG meetings, and ATSIECSAG members attending regional workshops.	OM Coordinators to consider working with TAFE campuses to provide private areas for breastfeeding. In addition, campuses to mount posters which encourage support for breastfeeding.
The MOH to work with DET to develop resources for the promotion of breastfeeding.	LHDs to work with DET School Education Directors to determine appropriate mechanisms for providing information about breastfeeding to high school and TAFE campuses.	OM Coordinators to work with local DET staff to assist with dissemination of breastfeeding material at high schools and TAFEs.
Other Organisations		
The MOH to develop presentation/ facilitation plans for OM Coordinators to provide ear health education to a variety of community groups (eg play groups, community groups, land councils, mothers' groups etc).	OM Coordinators to approach local community groups regarding ear health education sessions.	OM Coordinators to provide age-appropriate ear health education to children in play groups.

Central	Regional	Local
The MOH to develop a 'yarning' resource to assist OM Coordinators and other relevant staff utilise social networking health promotion strategies.	OM Coordinators to plan or link in with strategic events which will foster social networking health promotion (eg BBQ, fire pit, pool party etc).	OM Coordinators to utilise networking to educate parents on how to prevent otitis media.
The MOH to develop an ear health poster suitable for local sports/ community clubs, local libraries and community centres.	OM Coordinators approach local sports/community clubs regarding placing ear health education materials on community notice boards.	Ear health education material may be distributed to community organisations for display on notice boards in local sports/community clubs, libraries and community centres.

Strategy 3. Environmental Health

Reduce the exposure of Aboriginal children to environmental risk factors associated with otitis media, including poor hygiene and overcrowding.

Central	Regional	Local
Health		
The MOH to support environmental health strategies for Aboriginal people (eg Housing for Health [HfH]). Environmental Health Branch may negotiate with other Departments regarding responsibilities for environmental health strategies.	OM Coordinators may work with Environmental Health Branch and Public Health Units to identify priority communities for the Housing for Health initiatives in their regions and, where possible, develop complementary projects.	Community nurses, Environmental health staff, Aboriginal health workers and relevant health professionals may participate in implementing initiatives to complement Housing for Health and other environmental health projects.
The MOH may work with housing providers and public health agencies to develop systems and resources to support healthier homes on an on-going basis.	PHUs (Regional Environmental Health staff) and OM Coordinators may work with ACCHS networks (eg Bila Muuji) and ACCHS to increase awareness of environmental health by providing input into the development of systems and resources.	Aboriginal Health Workers in ACCHSs and PHUs may support environmental health programs where appropriate.
The MOH to work with GPNSW and the AH&MRC to increase GPs and Health Workers awareness of environmental determinants of health (eg article in the '10 Minute Update').	Regional Divisions of General Practice to promote environment health through regular communication mechanisms (eg newsletters, websites etc).	GPs may liaise with Public Health Units when environmental health related conditions are prevalent in Aboriginal communities.

Central	Regional	Local
Education		
The MOH to work with the AECG and DET to determine whether the hygiene curriculum in early Stage 1 (kindergarten) and Stage 1 (approx. Years 1-2) is culturally appropriate.	LHDs to work with regional AECGs and DET School Education Directors to consider options to incorporate hygiene curriculum and teachers' awareness of environmental health.	OM coordinators to work with local AECG groups to consider options for ensuring that the hygiene curriculum is culturally appropriate. The ATSI ECSAG newsletter may include an article to increase awareness of the need for hygiene education.
The MOH to work with the AECG and ATSI ECSAG to determine mechanisms for increasing awareness of environmental health in teachers, childcare workers and Aboriginal Education Officers.	LHDs and regional ACCHS alliances to consider discussing the potential of community nurses in local schools with high Aboriginal populations.	OM coordinators to work with local AECG groups to consider whether community to increase ear health awareness.
The MOH to liaise with the AH&MRC and LHDs to discuss increasing the number of Aboriginal community nurses in schools with high Aboriginal populations.	LHDs & regional ACCHS alliances and ACCHS to discuss the possibility of increasing Aboriginal community nurses in schools with high Aboriginal populations.	Where deemed culturally appropriate, community nurses from either LHDs or ACCHSs to attend schools with high Aboriginal populations.
Other Organisations		
The MOH may work with the NSW Aboriginal Lands Council to develop systems and resources to support healthier homes on an on-going basis.	LHDs may work with Aboriginal Land Councils zone offices to assist with implementing any systems and distributing resources developed, to local Aboriginal Land Councils.	OM coordinators may liaise with Aboriginal Land Councils regarding the implementation of any systems and resources developed.
The MOH may work with the NSW Aboriginal Housing Office to develop systems and resources to support healthier homes on an on-going basis.	Senior LHD managers may work with NSW AHO Regional Housing Committees to distribute any systems and resources developed, to NSW AHO clients.	NSW AHO workers may provide any systems and resources developed, to their clients where appropriate.
The MOH may work with Community Services NSW (CSNSW) to develop systems and resources to support healthier homes on an on-going basis.	The MOH to provide education sessions to CSNSW staff on the importance of environmental health promotion.	OM coordinators will liaise with CSNSW Brighter Futures regarding any systems and resources developed for healthier homes.

Early Identification

Strategy 4: Professional Development

Improve early identification of otitis media by educating human services professionals on the symptoms of the disease.

Central	Regional	Local
Health		
<p>The MOH to refine and distribute the Clinical Practice Guidelines for otitis media in Aboriginal children for the following health professionals: Ear Nose and Throat Surgeons; Audiologists; General Practitioners; Aboriginal Health Workers; OM, SWISH Coordinators and ACCHS staff.</p>	<p>LHDs to deliver sessions on the Clinical Practice Guidelines to health professionals through the: Quarterly NSW Hospital and Allied Audiologists Group meetings; Annual Audiological Society of Australia conference; Division of GP regional network meetings and other relevant events.</p>	<p>The Clinical Practice Guidelines to be disseminated to relevant professionals through the LHDs, ACCHSs and professional organisations.</p>
<p>The MOH to engage relevant professional organisations (eg NSW Hospital and Allied Audiologists Group; Audiological Society of Australia; GPs NSW and AH&MRC) regarding effective distribution strategies for the resources. The MOH to engage the Hearing Health Network in order to devise professional development opportunities relating to otitis media awareness.</p>	<p>SWISH Coordinators to be engaged in order to: increase recording of the Aboriginality of infants through SWISH data collection; provide ear health education material (pamphlet or fact sheet) to parents of Aboriginal children at time of screening; and provide contact information for Aboriginal children to OM Coordinators where consent has been provided by parents.</p>	<p>The Clinical Practice Guidelines to be promoted through a variety of professional newsletters and websites (eg 10 Minute Update).</p>
<p>The MOH to advocate for consolidation of screening in young children (ie children are not screened separately for ears, eyes and oral health, but are screened for the three at the same time) eg via child health checks.</p>	<p>LHDs may consider dissemination of the Clinical Practice Guidelines to health professionals not accessed through other promotional mechanisms.</p>	<p>SWISH screeners to record Aboriginality data, provide ear health information to parents of Aboriginal newborns and provide OM Coordinators with the contact details of Aboriginal newborns where possible.</p>

Central	Regional	Local
Education		
The MOH to seek input from the AECG and ATSI ECSAG to seek input for the development of otitis media health promotion resources.	LHDs to consider working with Regional School Directors to provide Aboriginal Education Officers and other relevant school staff (eg teachers with high numbers of Aboriginal students) with professional development regarding otitis media.	OM Coordinators to work with local representatives of the AECG and ATSI ECSAG regarding writing an article about otitis media symptoms and educational consequences, for inclusion in their newsletter.
The MOH may work with the DET to develop a 'Quick Facts' sheet for teachers on the symptoms and effects of otitis media. An additional resource to be developed regarding teaching strategies (see below).	LHDs to work with DET School Education Directors and the AECG to assist in the dissemination of otitis media materials to pre-schools and primary schools.	OM Coordinators may assist with the distribution of a 'Quick Facts' resource to school staff.
The MOH may seek support from DET to develop referral pathway resources (both medical and educational) for teachers.	LHDs to work with DET School Education Directors regarding development of resources for referral pathways for children suspected of having otitis media.	OM Coordinators to work with local DET staff to distribute referral pathway resources to school staff.
Other Organisations		
The MOH may engage relevant hearing related organisations (Shepherd Centre, Royal Institute for Deaf and Blind Children and Australian Hearing) regarding effective distribution strategies for the resources.	The MOH may liaise with the Sax Institute regarding the plausibility of a learning outcomes section to the SEARCH project.	The Clinical Practice Guidelines to be disseminated to relevant professionals through hearing related organisations.
In order to inform best practice, the MOH may investigate whether the SEARCH project undertaken by the AHMRC and the Sax Institute is able to examine which interventions provide the best learning outcomes for those children with otitis media/hearing loss.	Hearing related organisations to, where possible, utilise their regional offices to assist in the dissemination of medical management guidelines.	If possible, the SEARCH project to include research regarding which interventions provide the best learning outcomes for those children with otitis media/hearing loss.
The MOH may work with CSNSW (eg 'Brighter Futures' program) to coordinate the distribution of the simplified medical management and otitis media symptoms resources to CSNSW staff.	The MOH may provide education sessions to CSNSW staff on otitis media identification and treatment.	CSNSW staff (eg Brighter Futures workers) provide referrals for otitis media medical management where appropriate.

Strategy 5: Parents and Carers knowledge

Increase early identification of otitis media by educating parents and carers on the symptoms of otitis media, and the necessity of obtaining medical management for the disease.

Central	Regional	Local
Health		
The MOH to develop resources for parents, educating them about otitis media symptoms and explaining the consequences of the disease (eg pamphlets, fact sheets).	OM Coordinators to present or facilitate information sessions to parents about ear health.	OM Coordinators to develop a plan of strategic ear health activities. OM Coordinators to provide one-on-one education to parents as part of ear health surveillance.
The MOH to work with a variety of NSW Health programs (eg SWISH, HfH, StEPS) and ACCHS to coordinate distribution of the resource to parents.	Where possible, regional television and radio station adverts to be used to promote ear health awareness (eg the Prime television advertisement used in GWAHS).	OM Coordinators to utilise formal (events, play groups etc) and informal (yarning) social networking strategies to educate parents on ear health.
The MOH to develop resources to assist health workers present or facilitate sessions on ear health awareness.	Adverts and articles in local newspapers to be used to promote awareness of ear health.	Resources are distributed to parents through a variety of NSW Health programs (eg SWISH, HfH, StEPS).
Education		
The MOH may work with the DET and the CEC in order to develop the following resources to be provided to parents: Consent form parent information sheet on ear health.	LHDs to work with DET and CEC School Education Directors and the AECG to assist in the dissemination of otitis media materials to pre-schools and primary schools.	OM coordinators to work with schools to discuss ways to provide OM resources to parents.
The MOH may promote television and radio media opportunities to LHDs. The MOH to provide the GWAHS otitis media television advertisement to all LHDs.	Where possible, regional television and radio station adverts may be used to promote ear health awareness (eg the Prime television advertisement used in GWAHS).	Parents may be informed of ear health through television and radio promotional activities.
The MOH may seek support from DET to develop referral pathway resources (both medical and educational) for teachers.	Resources may be developed for teachers regarding referral pathways for children suspected of having otitis media.	OM coordinators may provide information regarding referral, medical and education options to schools.

Central	Regional	Local
Other Organisations		
The MOH may work with CSNSW (eg 'Brighter Futures') to coordinate the distribution of the simplified medical management and otitis media symptoms resources to CSNSW staff.	The MOH may provide education sessions to CSNSW staff on otitis media identification and treatment.	CSNSW staff (eg Brighter Futures workers) provide information to parents on otitis media when appropriate.
The MOH may engage relevant hearing related organisations (Shepherd Centre, Royal Institute for Deaf and Blind Children and Australian Hearing) regarding effective distribution strategies for cultural sensitivity resources.	Hearing related organisations to, where possible, utilise their regional offices to assist in the dissemination of cultural sensitivity resource.	Cultural sensitivity resource to be disseminated to relevant professionals through hearing related organisations .

Strategy 6: Children's knowledge

Educate Aboriginal children about ear health to increase their awareness of risk factors, disclosure of symptoms, and compliance with treatment procedures.

Central	Regional	Local
Health		
The MOH to develop health promotion resources for children that may be distributed through either health or education channels.	OM Coordinators to assist in disseminating health promotion resources to health and education providers.	Health promotion resources are provided to children through ACCHSs, LHDs, private GP practices and the offices of hearing health professionals.
The MOH may provide education on strategic screening planning through the 6 monthly OM Coordinators meeting.	OM Coordinators to develop a plan of strategic ear health screening activities.	OM screening to include explaining to children the purpose of the procedure and to occur in both education and health settings.
The MOH may develop 'What if?' resources for ear health workers to provide to parents and children when a 'refer required' screening result occurs.	OM Coordinators to disseminate 'What if?' resources to ear health workers.	OM screeners to provide parents and children with relevant 'What if?' resources as required.

Central	Regional	Local
Education		
The MOH may work with the DET and the CEC to develop the following resources to be used in the classroom: posters; session plans; age appropriate activities; find-a-word stencils; and matching games.	DET and CEC School Education Directors may assist in the dissemination of ear health materials to pre-schools and primary schools.	Teachers to have access to a range of ear health education resources.
The MOH may work with the Aboriginal Education Consultative Group (AECG) and ATSIECSAG to coordinate distribution of the resources.	The MOH may promote ear health education resources to Aboriginal Education Officers and other engaged education professionals through the AECG and ATSIECSAG's newsletters and professional development activities.	OM coordinators to work with schools to provide ear health information to teachers for classroom activities.
The MOH may work with the DET and the CEC to coordinate distribution of the resources.	OM Coordinators to build linkages with: regional AECG groups; local AECG members; and key staff at pre-schools and primary schools with high Aboriginal populations.	Local AECG members may utilise their informal social networks to promote otitis media awareness to parents and children.
Other Organisations		
The MOH may develop presentation/facilitation plans for OM Coordinators to provide ear health education to children in play groups.	OM Coordinators to approach council libraries regarding dissemination of ear health resources to children.	OM Coordinators to provide age-appropriate ear health education to children in play groups.
The MOH may develop resources for children in public libraries (posters, pamphlets – same as other parental resources).	OM Coordinators approach local play groups regarding ear health education sessions.	Ear health promotional materials for children are accessible at local libraries.
The MOH may develop an ear health awareness poster suitable for local sports/community clubs.	OM Coordinators approach local sports/community clubs regarding ear health education.	OM education material is mounted on community notice boards in local sports and community clubs.

Treatment and Support

Strategy 7: Timely medical care

Provide timely medical, educational and social management of otitis media.

Central	Regional	Local
Health		
<p>The MOH will work with the NSW Hearing Health Network Coordinator to determine mechanisms for the collation of local referral pathway information. The MOH will work with the AH&MRC, GP NSW, LHDs, Hospital and Allied Audiologists Group and the Audiological Society of Australia to coordinate distribution of the referral pathway.</p>	<p>OM Coordinators to work with the Hearing Health Network to determine available otitis media related services within their area and develop linkages and referral pathways to these programs.</p>	<p>OM Coordinators to provide information and support to parents of children who are referred for specialist assessment.</p>
<p>The MOH will analyse rates of ear surgery.</p>	<p>The Hearing Health Network may publish a 'quick reference' referral pathway guide for each LHD.</p>	<p>Referral pathway information is provided to GPs, ACCHS staff, LHD staff and Audiologists.</p>
<p>The MOH will advocate to the Child Health Networks to ensure designated Aboriginal ear surgery places.</p>	<p>The MOH will support OM Coordinators to meet with the regional Divisions of General Practice, LHDs and AH&MRC to promote improved referral pathways and determine mechanisms for resource distribution through ACCHS.</p>	<p>OM Coordinators will provide information and support to parents of children who are referred for specialist assessment.</p>
Education		
<p>The MOH will work with the DET, the CEC, ATSIESCAG and the AECG to coordinate distribution of simplified medical referral pathway information to teachers and other relevant education staff.</p>	<p>Information sessions may be provided to local AECG Presidents attending regional level AECG meetings and ATSIESCAG members attending regional workshops regarding the importance of effective referral.</p>	<p>OM coordinators to work with schools and pre-schools to support children who are affected by otitis media, including the use of aids such as soundfield amplification. AECG members to advocate for referral when necessary.</p>

Central	Regional	Local
The MOH will work with the DET, the CEC and the AECG to develop local educational referral pathway information (including referral to disability services, & literacy programs).	DET School Education Directors may assist in the dissemination of medical and educational referral pathway information.	Medical referral information may be provided to teachers and education staff.
The DET may embed information on teaching strategies for students with otitis media into relevant curriculum and teaching resources.	OM Coordinators will work with the DET and CEC to determine available ear health related education services within their area and develop linkages and referral pathways to these programs. Information on state-wide programs to be provided by the central agencies.	Educational referral information may be provided to teachers and education staff.

Strategy 8: Best practice management

Provide best practice medical, educational and social management for Aboriginal children with otitis media.

Central	Regional	Local
Health		
The MOH will refine and distribute Clinical Practice Guidelines for otitis media in Aboriginal children for the following health professionals: Ear Nose and Throat Surgeons; Audiologists; General Practitioners; Aboriginal Health Workers; OM, SWISH Coordinators and ACCHS staff.	The MOH and AHMRC will deliver sessions on the new Clinical Practice Guidelines to health professionals including through the: Quarterly NSW Hospital and Allied Audiologists Group meetings; Annual Audiological Society of Australia conference; Division of GP regional network meetings and other relevant events.	The Clinical Practice Guidelines may be disseminated to relevant professionals through the LHDs, ACCHS and professional organisations.
The MOH will engage relevant professional organisations (eg NSW Hospital and Allied Audiologists Group, Audiological Social of Australia, GP NSW and AH&MRC) regarding effective distribution strategies for the resources.	OM Coordinators will devise a plan for the dissemination of the Clinical Practice Guidelines to health professionals not accessed through other promotional mechanisms.	The Clinical Practice Guidelines may be promoted through a variety of professional newsletters and websites (eg 10 Minute Update).

Central	Regional	Local
---------	----------	-------

The MOH will liaise with the Hearing Health Network in order to devise professional development opportunities relating to ear health best practice. The MOH may develop 'What if' resources for ear health workers to provide to parents and children after a 'refer required' screening result occurs.

OM Coordinators may disseminate 'What if' resources to ear health workers.

Ear health workers to provide parents and children with relevant 'What if' resources as required.

Education

The DET may embed information on teaching strategies for students with otitis media into relevant Aboriginal education curriculum and teaching resources.

DET and CEC School Education Directors may promote information on teaching strategies for students with otitis media (eg professional development, bulletins etc).

Teachers/education staff will employ appropriate teaching strategies when children are affected by otitis media, including the use of aids such as sound field amplification.

The MOH will work with the DET and the CEC to develop ear health resources to be used in the classroom: posters; session plans; age appropriate activities; find-a-word stencils and matching games.

The MOH/LHD will work with Regional School Directors to provide Aboriginal Education Officers and other relevant school staff (eg teachers with high numbers of Aboriginal students, Itinerant teachers) with professional development regarding ear health.

Teachers will have access to a range of ear health education resources.

The MOH may seek AECG and ATSI ECSAG input for the development of ear health resources.

DET and CEC School Education Directors may assist in the dissemination of ear health materials to pre-schools and primary schools.

An article on best practice teaching strategies may be included in the AECG and ATSI ECSAG newsletters.

Other Organisations

The MOH will engage relevant hearing related organisations (Shepherd Centre, Royal Institute for Deaf and Blind Children and Australian Hearing) regarding effective distribution strategies of the Clinical Practice Guidelines.

Hearing related organisations may, where possible, utilise their regional offices to assist in the dissemination of Clinical Practice Guidelines.

The Clinical Practice Guidelines may be disseminated to relevant professionals through the hearing related organisations (see above for list).

The MOH will engage the Royal Institute for Deaf and Blind Children regarding effective distribution strategies of the Clinical Practice Guidelines.

The Royal Institute for Deaf and Blind Children may utilise its centres to assist in the dissemination of the Clinical Practice Guidelines.

The Clinical Practice Guidelines and referral pathways may be disseminated to education professionals through the Royal Institute for Deaf and Blind Children.

Central	Regional	Local
The MOH will work with CSNSW (eg 'Brighter Futures' program) to coordinate the distribution of the simplified medical management and otitis media symptoms resources to CSNSW staff.	The MOH may provide education sessions to CSNSW staff on otitis media identification and treatment.	CSNSW staff (eg Brighter Futures workers) may provide referrals for otitis media medical management where appropriate.

Strategy 9: Reducing recurrent infection

Reduce recurrent infection by educating parents and carers how to prevent the disease from returning.

Central	Regional	Local
Health		
The MOH and AHMRC will develop more Aboriginal specific quit smoking resources, particularly those aimed at pregnant women (eg pamphlets, posters, fact sheets).	The MOH will work with ACCHS networks (eg Bila Muuji), ACCHS and Division of GPs to increase awareness of available quit and environmental health resources.	OM Coordinators and other relevant staff utilise informal social marketing (yarning) to inform parents of ways to prevent otitis media.
The MOH may work with the AH&MRC and GPNSW to increase awareness and coordinate distribution of quit and environmental health resources through the ACCHS and the Divisions of GPs networks.	The MOH may work with LHDs to coordinate the distribution of quit smoking and environmental health resources.	OM Coordinators and other relevant staff may be trained in brief smoking cessation interventions through the SmokeCheck program.
Education		
The MOH may work with the AECG to determine how to engage their members regarding promotion of otitis media prevention strategies (ETS and environmental health).	The MOH will present information at the AECG six-monthly conference regarding the effects of otitis media on learning outcomes and the contributing factors to otitis media, including ETS and smoking during pregnancy.	Local AECG members may utilise their informal social networks to promote ear health awareness.
The MOH may engage the DET and the CEC to develop promotional materials for parents of Aboriginal children regarding otitis media prevention.	Senior LHD managers & OM Coordinators may work with School Education Directors to promote the benefits of parental smoking education to school principles.	OM information will be provided to parents through school communications (eg school newsletter, pamphlet).

Central	Regional	Local
The MOH may work with TAFE NSW to develop resources (eg pamphlets, posters, fact sheets) to increase awareness in students of the effect of smoking in pregnancy and ETS on the hearing health of young children.	Senior LHD managers & OM Coordinators will work with the Institute Directors, TAFE in order to gain support for smoking awareness on TAFE campuses.	Local TAFE campuses may mount posters which promote quitting smoking during pregnancy and the reduction of ETS.

Other Organisations

The MOH may develop presentation/facilitation plans for OM coordinators to provide ear health education to a variety of community groups (eg play groups, community groups, land councils, mothers groups).	OM Coordinators will approach local community groups regarding ear health education sessions.	OM Coordinators may provide age-appropriate ear health education to children in play groups.
The MOH may develop a 'yarning' resource to assist OM Coordinators and other relevant staff utilise social networking health promotion strategies.	OM Coordinators may plan strategic events which will foster social networking health promotion (eg BBQ, fire pit, pool party).	OM Coordinators may utilise social networking to educate parents on how to prevent otitis media.
The MOH to develop an otitis media prevention poster suitable for local sports/community clubs, local libraries and community centres.	OM Coordinators may approach local sports/community clubs regarding placing ear health education materials on community notice boards.	Ear health education material is mounted on community notice boards in local sports/community clubs, libraries and community centres.

Patient Journeys

An example of the new approach to addressing otitis media is illustrated below in fictional patient journeys for Jane and Danny.

Jane's story

Jane is a healthy 12 month old girl. Her likelihood of suffering middle ear disease is less than when her brother Danny was born four years ago, due to more effective complementary programs which tackle various aspects associated with otitis media in a more holistic manner.

In the year prior to Jane's birth her parents house had a faulty stove and bath which the housing provider hadn't fixed.

"Bathing Danny was so hard. This time it will be different for my daughter," said her mother Jill.

While pregnant the 'Housing for Health' program visited Jill's community and repaired wiring to the stove and had the broken water pipe replaced without cost to her.

When Jill visited her local doctor at the AMS with her husband Charlie, she was told about a child and maternal health program which enabled support from a midwife and an Aboriginal Health Worker during her pregnancy. Jill had antenatal checks while pregnant to make sure everything was ok. Jill and Amy talked a lot about breastfeeding as Jill hadn't breastfed Danny for very long after he was born. "Charlie didn't like other men looking at me breastfeeding in public," she said.

Amy explained how breast milk was the best food for her new baby and how it would assist Jane's immune system. Amy also helped Charlie feel more confident about his wife breastfeeding in public and he later became a great support for her. Jill was concerned about how her smoking might affect her baby. "Maybe you should give those durries up like I did," said Charlie. Amy helped her to start a successful quit smoking program.

Jane was born only a few days early, whereas Danny was almost two weeks early and Jane weighed more than Danny. Before Charlie and Jill took Jane home, a 'SWISH' nurse checked Jane's ears for any permanent hearing loss which she may have been born with. The nurse also gave Jill some information about otitis media and explained how it was different to the 'SWISH' check. Jill agreed to have the local Otitis Media Coordinator contact her at a later time.

Jill and Charlie took great pride in seeing Jane grow and would use the 'Blue Book' parent-assessed developmental checks. Jill stuck with her new smoke-free lifestyle saying, "Even my friends know not to smoke around here anymore."

With support from Charlie and Amy, Jill continued to breastfeed her baby until she was 6 months old.

At one point daughter Jane and son Danny both fell ill with colds, so Jill visited her doctor. Danny also had otitis media which the doctor prescribed medicine for and referred him for a hearing assessment with an audiologist. The doctor mentioned an initiative called 'Child Health Check' which Jill took advantage of for Danny. Jill decided later in the year to take advantage of 'Adult Health Checks' for herself and her husband.

Jane's story illustrates how the environment and her mother's health and lifestyle factors impact upon her own wellbeing.

What's good about this story?

- improved environmental health
- smoking cessation
- breastfeeding to 6 months
- developmental checks performed
- greater vigilance and early detection
- strong education & support by health professionals
- a few key lifestyle changes can provide a big health benefit
- empowered parents
- sets a positive example for other community members

Danny's story

Four year old Danny attends an independent pre-school and starts primary school next year. One day when Charlie went to pick up his boy from school, his teacher Sarah told Charlie about a free eyesight check called 'StEPS' which all 4 year olds could have before they start primary school. "That sounds like a good idea to me," said Charlie and agreed to have Danny's eyes checked.

Soon after Danny started school, he came home with a big smile showing off his (temporary) tattoo sticker on his arm. It was the colourful Aboriginal flag which made his parents smile too. Danny said, "The teacher and her friend put it on my arm." Danny gave his parents a little bag which contained further resources and information about otitis media.

Charlie and Jill remembered the messages on Koori radio about otitis media and were happy to make sure Danny was ok. Danny had his ears checked at school and he was fine but later in the year he told his Dad he didn't want to play. "My ears hurt dad" said Danny. The next morning Charlie spoke with Danny's teacher Sarah about his ears. Sarah arranged for Bev the OM Coordinator to drop by the school to check Danny's ears. Bev found a mild hearing loss in one of Danny's ears and provided a report and suggested he be referred to the doctor. Bev spoke with Danny's father and teacher and answered their questions about middle ear infection.

Sarah recalled the education sessions she had received earlier from the Itinerant Support Teacher about otitis media and the various classroom strategies which assist children with hearing loss.

Charlie took his son to the doctor who read the tympanogram and audiogram Bev had prepared. The doctor diagnosed Danny with acute otitis media and provided him with medication and asked that he be reviewed in two weeks.

Danny's teacher made some changes in the classroom including use of the soundfield amplification system to help Danny until his hearing was restored to normal levels.

When Danny returned to the doctor in two weeks for a follow-up, his otitis media had successfully resolved and his hearing too had returned to normal.

Danny's story illustrates how integrated health promotion activities when combined with appropriate medical interventions provide more effective resolutions and improved health and learning outcomes.

What's good about this story?

- Improved community awareness eg Koori radio
- More complementary programs eg StEPS
- Greater parental vigilance and early detection
- Better teacher education
- Improved referral mechanisms
- Greater GP awareness of otitis media
- GP professional development eg tympanograms, audiograms
- More aggressive management/liaison by GPs

Population Health Measures

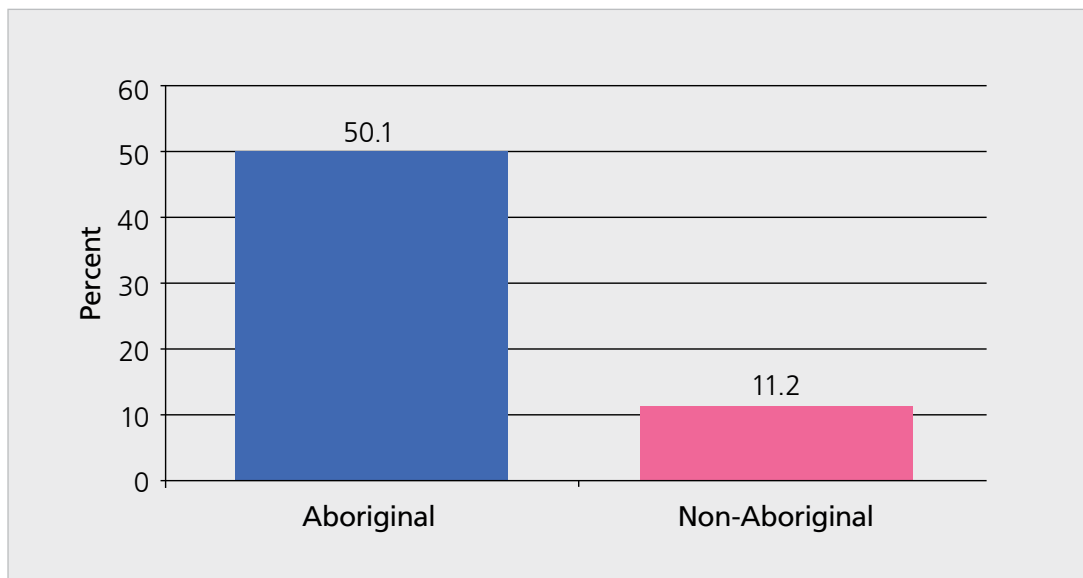
Population Health Measures

With the new approach to otitis media now focusing on actions aimed to actively reduce prevalence rates, the proposed population health measures are centred around three modifiable lifestyle risk factors which have the greatest scope for improvement.

Smoking during pregnancy

- Reduce the number of Aboriginal mothers who smoke while pregnant.

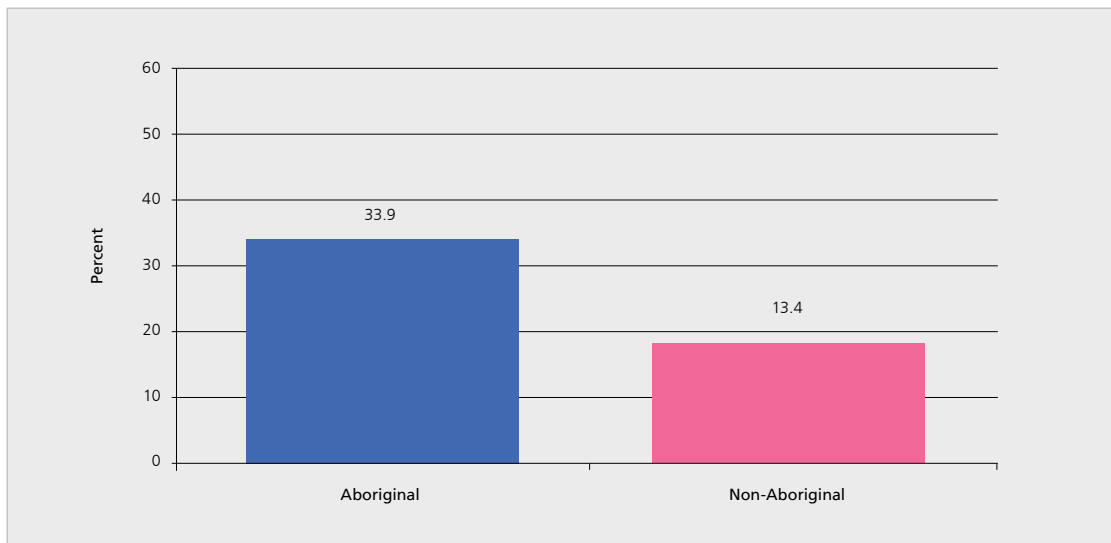
Smoking rates during pregnancy by Aboriginality



Source: NSW Public Health Bulletin Supplement, Vol21, (S1), June 2010 (NSW Mothers & Babies Report 2007 p78)

Smoking rates during pregnancy in NSW Aboriginal communities are at least four times those of non-Aboriginal Australians. The health effects of tobacco on infants also contributes to higher rates of Aboriginal morbidity and mortality, with increased risks of low birth weight, sudden infant death and respiratory illness recorded for Aboriginal babies born to mothers who smoke (Graham, Jackson Pulver, et al 2007, p.511). The links to respiratory infections such as asthma, and pneumonia, and higher rates of otitis media amongst Aboriginal children should not be underestimated (Jacoby, Coates, et al 2008, p.599).

Community smoking rates by Aboriginality



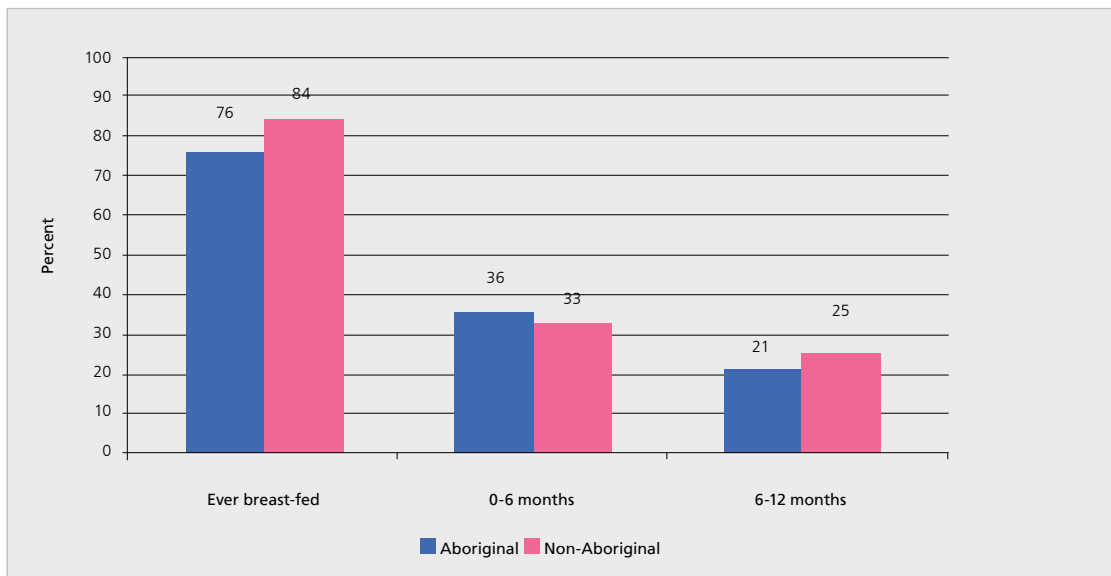
Source: 2006-2009 Report on Adult Aboriginal Health and NSW Population Health Survey 2009. Note: Prevalence rates are not age standardised and therefore age differences between Aboriginal and Non-Aboriginal will account for some of this difference.

Smoking rates in NSW Aboriginal communities are almost double those of non-Aboriginal Australians. Tobacco smoking remains the leading cause of death and greatest contributor to the burden of disease amongst Aboriginal populations in Australia (Penn 2008, p.39)

Breastfeeding

- Increase the number of Aboriginal mothers who maintain breastfeeding for six months from birth.

Breastfeeding rates by Aboriginality



Source: Australian Institute of Health and Welfare 2008. Aboriginal and Torres Strait Island Health Performance Framework, 2008 Report: Detailed Analyses. Cat no IHW 22. Canberra AIHW.

Breastfeeding rates for mothers in Aboriginal and non-Aboriginal Australian communities are reasonably consistent at all measured duration points. By six months, breastfeeding rates decline to less than half of what they were at the birth of the child.

Safe & healthy housing

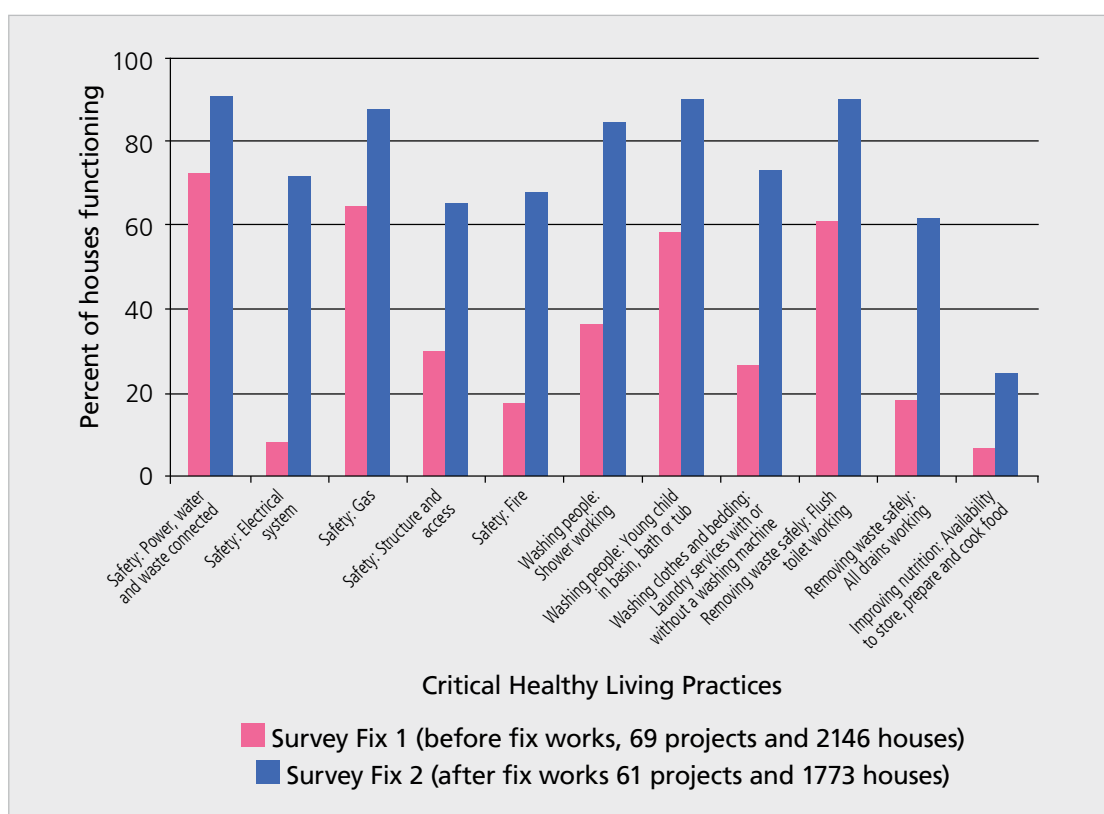
- Increase the number of safe, healthy, houses for Aboriginal families.

NSW Health has been managing the 'Housing for Health' program since 1998/99, with the majority of funding being provided under the NSW Aboriginal Affairs Plan:Two Ways Together (TWT) initiative. Between 1998/99 and 2008/09 projects have been run in 2230 houses across 71 communities around NSW benefiting 9,258 people.

The Housing for Health program has been able to demonstrate clear improvement in house function such as:

- Over two-fold improvement in structural safety and access in houses
- Over three-fold improvement in the ability to prepare, store and cook food
- Over two-fold improvement in occupants' facility to wash themselves, clothing and bedding
- Two-fold improvement in removing waste safely from homes

NSW Housing for Health projects 1999-2009



Source: NSW Health, Closing the Gap: 10 Years of Housing for Health in NSW, Jan 2010 P15.

Evaluation Framework

Evaluation of the NSW Aboriginal Otitis Media Program will be fundamental to its ongoing success.

To assist the MOH to best evaluate the effectiveness of the program Guidelines, an expert advisory group will be formed. This group will be comprised of experts in ear health and epidemiology, and representatives from the Ministry of Health and the Aboriginal community controlled health sector. The expert advisory group will decide the most appropriate form of evaluation design and methodology to be used, and will provide ongoing input into the evaluation process.

The evaluation will aim to show if the Program is effective at reducing the prevalence and incidence of otitis media and/or ameliorating its impacts.

A number of indicators can be used to demonstrate the effectiveness of the broad public health approach recommended in these Guidelines. Rates of breastfeeding and smoking during pregnancy can be compared at the introduction of the new guidelines and after a period of time. There are a number of other programs which will also impact on these measures.

Changes in the statewide prevalence and incidence of otitis media may be harder to measure, as at present there is no routinely collected data for these indicators. An option may be to measure the prevalence and incidence of otitis media in a representative sample of communities and to review prevalence and incidence in another 2 and 4 years.

It may be also possible to use surgical interventions for otitis media as an indicator for monitoring change in ear health, or access to ear health services, at the state level. However, there are several limitations to using these interventions to evaluate the Program which would need to be considered. These include changing clinical practice, the ability of surgery numbers or rates to reflect disease prevalence or access issues, and the small numbers of some surgeries.

The evaluation will be consistent with the core components from An Evaluation Framework for Aboriginal health programs: the NSW Health experience. The three core components are:

Assessment of the priority setting

- Was the priority setting process that led to the program appropriate and comprehensive?

Evaluation of program development and implementation

- Was the program adequately planned and implemented?

Effectiveness

- Has the program achieved its objectives, with regard to service provision, health improvement and community empowerment?

Bibliography and References

Anderman A, Blancquaert I, Beauchamp S, Dery V (2008) Revisiting Wilson and Jungner in the genomic age: a review of screening criteria over the past 40 years. *Bulletin of the World Health Organisation* 86(4):pp 317-319.

ARTD Pty Ltd (2008) Evaluation of the Aboriginal Otitis Media Screening Program Final Report to the NSW Department of Health, 12 June 2008.

Australian Institute of Health and Welfare 2008. Aboriginal and Torres Strait Island Health Performance Framework, 2008 Report: Detailed Analyses. Cat no IHW 22. Canberra AIHW.

Begg S, and Australian Institute of Health and Welfare & University of Queensland, School of Population Health 2007, Otitis Media – Disability adjusted life years (DALY) by age, in years – Australia 2003; The burden of disease and injury in Australia 2003; pp 47 and 214.

Begg S, and Australian Institute of Health and Welfare & University of Queensland, School of Population Health 2007, Otitis Media – Disability adjusted life years (DALY) by age, by sex in years – Australia 2003; The burden of disease and injury in Australia 2003; pp 47 and 214.

Chan LS, Takata GS, Shekelle P, Morton SC, Mason W and SM Marcy (2001) Evidence Assessment of Management of Acute Otitis Media:II. Research Gaps and Priorities for Future Research; *Pediatrics*; Vol 108 (1); August 2001; pp 248-254.

Commonwealth Department of Health and Aged Care (2001) Recommendations for Clinical Care Guidelines on the Management of Otitis Media in Aboriginal and Torres Strait Islander Populations. Office for Aboriginal and Torres Strait Islander Health. Commonwealth Department of Health and Aged Care, Canberra, ACT.

Couzos S, Metcalf S, Murray R, for the National Aboriginal Community Controlled Health Organisation. Systematic review of existing evidence and primary care guidelines on the management of otitis media in Aboriginal and Torres Strait Islander populations. Canberra: Commonwealth Department of Health and Family Services. Office for Aboriginal and Torres Strait Islander Health Services, 2001. <http://www.health.gov.au/oatsih/pubs/omp.htm>

Graham S, Jackson Pulver LR, Wang YA, Kelly PM, Laws PJ, Grayson N and EA Sullivan (2007). The urban remote divide for Indigenous perinatal outcomes. *Medical Journal of Australia*, vol. 186, issue 10, May 2007; p 511.

Illicali OC, Keles N, de er K, Sa un OF, Guldiken Y (2001). Evaluation of the effect of passive smoking on otitis media in children by an objective method: urinary cotinine analysis. *Laryngoscope* 111: pp 163-167.

Jacoby PA, Coates HL, Arumugaswamy A, Elsbury D, Stokes A, Monck R, Finucane JM, Weeks SA and D Lehmann (2008). The effect of passive smoking on the risk of otitis media in Aboriginal and non-Aboriginal children in the Kalgoorlie-Boulder region of Western Australia. *Medical Journal of Australia*, vol. 188, issue 10, May 2008; p 599.

Jan Smith and Associates (2003). Review of NSW Otitis Media Strategic Plan for Aboriginal Children: Final Report. Jan Smith and Associates, Bowral: New South Wales.

Johnson NC, Holger JS (2007) Pediatric acute otitis media: the case for delayed antibiotic treatment. *Journal of Emergency Medicine* 32: pp 279-284.

Morris P, and S Hopkins (2009). Rapid Evidence Summary – Does ear health screening improve outcomes in young children? <http://www.healthinfonet.edu.edu.au/other-health-conditions/ear/reviews/other-reviews>

Murphy TF (2006). Otitis media, bacterial colonisation and the smoking parent. *Clinical Infectious Diseases* 42: pp 904-906.

NSW Aboriginal and Torres Strait Islander Early Childhood Sector Advisory Group Inc., Aboriginal Preschool List 2009.

NSW Aboriginal Education Consultative Group Inc., AECG Regional Contacts 2009. www.aecg.nsw.edu.au/regions.php

NSW Department of Aboriginal Affairs, Two Ways Together: Indicators Report 2007. <http://www.daa.nsw.gov.au/publications/62.html>

NSW Department of Community Services, Families NSW Regional Contacts 2009. http://www.families.nsw.gov.au/your_area/regional_contacts.html

NSW Department of Community Services, Schools as Community Centres Contacts 2009.

<http://www.schools.nsw.edu.au/studentssupport/programs/ecip/schcommcentres/index...>

NSW Department of Education and Training, Student Support Coordinators Contacts 2009.

NSW Department of Health, Aboriginal Environmental Health Unit, 10 Years of Housing for Health in NSW - an evaluation of a healthy housing intervention, January 2010.

NSW Department of Health, Centre for Epidemiology & Research, NSW Mothers and Babies Report 2006, NSW Public Health Bulletin Supplement; Vol 20 (S1); March 2009; p 100.

NSW Department of Health, Centre for Epidemiology & Research, 2006-2009 Report on Adult Aboriginal Health from the NSW Population Health Survey.

http://www.health.nsw.gov.au/PublicHealth/surveys/hsa/0609ab/toc/ab_beh.asp

NSW Department of Health, Centre for Epidemiology & Research, Report on Adult Health from the 2008 NSW Population Health Survey.

http://www.health.nsw.gov.au/PublicHealth/surveys/hsa/08/toc/t_2_beh_12_smoking.asp

NSW Department of Health (2004) Aboriginal Health Otitis Media Plan, 2004-2010. NSW Department of Health.

NSW Health Department Working Party on Ear Disease in Aboriginal Children (1996). Guidelines on the prevention and control of otitis media and its sequelae in Aboriginal children. Medical Journal of Australia 164 (Supplement): S1-S17.

Penn, E and Australian Institute of Health and Welfare 2008, Cardiovascular disease series no. 29, Category no. CVD 41, Canberra, Cardiovascular disease and its associated risk factors in Aboriginal and Torres Strait Islander peoples; p 39.

Spiro DM, Tay K-T, Arnold DH, Dzuira JD, Baker MD, Shapiro ED (2007). Wait-and-see prescription for the treatment of acute otitis media. Journal of the American Medical Association 296: pp 1235-1241.

Summary of relevant NSW Government policies

Policy name	Summary	Aims	Priorities	Relevance
NSW Otitis Media Strategic Plan for Aboriginal Children, 2000.	New South Wales government recognises that otitis media is not solely a health issue – the condition impacts on education and thus employment, economic and social status.	To address otitis media and conductive hearing loss in school-aged children.	To reduce incidence of otitis media and conductive hearing loss (particularly recurrent and chronic forms). To reduce the impact of conductive hearing loss on Aboriginal children, their families and communities. Improve the provision of health and education services to Aboriginal communities to prevent, manage and control otitis media and conductive hearing loss. Ensure existing expertise, knowledge and resources are shared within Aboriginal communities as well as health and education agencies.	
Two Ways Together: A New Way of Doing Business with Aboriginal People, NSW Aboriginal Affairs Plan 2003-2012.	Aboriginal people, the New South Wales government and government agencies must work together, and are jointly responsible to plan and deliver solutions that meet community needs.	<p>To develop committed partnerships between Aboriginal people and Government.</p> <ul style="list-style-type: none"> To improve the social, economic, cultural and emotional well-being of Aboriginal people in New South Wales. Change the way the Government works with Aboriginal people. Enhance the skills and capacity of Aboriginal communities and individuals. Achieve real and measurable improvements for Aboriginal people in health, education, economic development, justice, housing and infrastructure, families and young people. Support and affirm Aboriginal people's culture and heritage. 	<p>Making services work – health, education economic development, justice, families and young people, culture and heritage, housing and infrastructure. New ways of doing business with Aboriginal people. Agency capacity to work with Aboriginal people. Government's role in enhancing the capacity of communities. Local planning and decision making processes. Accountability processes to ensure the plan is implemented at local, regional and State levels. Whole of government capacity.</p>	Specified in New South Wales Department of Health, Aboriginal Health Otitis Media Plan 2004-2010

Policy name **Summary** **Aims** **Priorities** **Relevance**

Children and Infants with Otitis Media – Acute Management PD2005_385 published Jan 2005

Basic clinical practice guidelines for the treatment of infants and children with otitis media.

To assist with consistent, safe and appropriate clinical care for children with otitis media.

Best possible paediatric care in all parts of NSW.

Compliance is mandatory for NSW Health and a condition of subsidy for public health organisations.

NSW Department of Health, Aboriginal Health, Otitis Media Plan 2004-2010

Builds on existing New South Wales Otitis Media Screening Plan for Aboriginal children. Underpinned by the principles and objectives agreed to by the Aboriginal Community Controlled Sector and the State and Commonwealth Governments. Focuses on 0-6 year olds enable Centre for Aboriginal Health to work proactively with many partners.

Raise awareness of otitis media and the resultant conductive hearing loss. Highlight the impact of otitis media and conductive hearing loss for children; provide strategies to screen children for otitis media in the target age group; give effect to the New South Wales Department of Health's objective of improving the health of Aboriginal children; ensure children experiencing otitis media; and conductive hearing loss access appropriate services

The program aims to screen progressive proportions of the New South Wales 0-6 year old Aboriginal population.
 2004/2005: 50% of eligible population
 2005/2006: 70% of eligible population
 2006/2007: 85% of eligible population
 2007/2008: 85% of eligible population

A New Direction for NSW: State Plan Towards 2010

Proposal for direction of New South Wales in five key areas, achievable by 2010.

To deliver better results for the community from New South Wales Government services. Reflects the Council of Australian Governments' national health reform agenda, including better community-based primary care, reducing the prevalence of chronic disease risk factors and improving health outcomes. Also in line with the priorities of the NSW Government State Plan to guide the public health system towards and beyond 2010.

Rights, respect, responsibility
 Delivering better services
 Fairness and opportunity
 Growing prosperity across NSW
 Environment for living
 Make prevention everybody's business
 Create better experiences for people using health services
 Strengthen primary health and continuing care in the community
 Build regional and other partnerships for health
 Make smart choices about the costs and benefits of health services
 Build a sustainable health workforce
 Be ready for new risks and opportunities

Priority 2:
 Improved access to quality health care,
 Priority 3:
 Strengthening Aboriginal communities
 Improved health and education for Aboriginal people
 Early intervention to tackle disadvantage

Summary of relevant complementary programs

Program name	Summary	Aims	Priorities	Relevance
Housing for Health	Delivers health and safety related community housing repairs to selected Aboriginal communities throughout NSW, at no cost to the tenant.	Maximise health benefits associated with improved housing capacity supporting healthy living practices.	Repairs supporting safety and nine healthy living practices: <ol style="list-style-type: none"> 1. washing people 2. washing clothes, bedding 3. removing waste safely 4. improving nutrition 5. reducing overcrowding 6. reducing the impact of animals, vermin and insects 7. reducing dust 8. controlling temperature 9. reducing trauma 	Direct health improvement for residents.
AMIHS Aboriginal Maternal & Infant Health Strategy	Provides community-based midwifery care for Aboriginal mothers during pregnancy and the early postnatal period.	To improve the health of Aboriginal mothers and babies, by providing a high quality service that is culturally sensitive, woman-centred, based on primary health care principles, and provided in partnership with Aboriginal peoples.	Ensure women participate in program as early as possible during their pregnancy Reduce the number of high risk pregnancies	Direct health benefit to mother and child.
SWISH State-wide Infant Screening for Hearing	Checks all newborns at hospital for neurological hearing deficits.	Identify babies born with significant hearing loss and introduce them to appropriate services as soon as possible.	Offer screen for all newborns prior to leaving hospital.	Earliest detection and intervention to restore hearing ability.
StEPS State-wide Eyesight Preschooler Screening	Offers all 4 year old children free vision screening.	Screen all 4 year olds in NSW prior to entering primary school.	Early detection and treatment to prevent further vision complications.	Direct health benefit to child.

Program name	Summary	Aims	Priorities	Relevance
Child Health Checks Aboriginal and Torres Strait Islander Child Health Check (Medicare Item 705)	Doctor performed health check for height, weight, eyes, ears, teeth, skin, heart sounds, lungs, abdomen, anaemia, and glucose in older children.	Maximise uptake of the voluntary check, including communicating with parents and carers.	All Aboriginal children under 16 years of age.	Direct health benefit to child.
ETS & Children Project	Campaign to raise awareness about risks associated with passive smoking.	Minimise childrens' exposure to environmental tobacco smoke in the homes and cars of NSW.	Eliminate exposure to tobacco smoke in cars and homes.	Direct health benefit to child.
The environmental tobacco smoke and children project				
Smoke Check The NSW SmokeCheck Project	Evidence-based smoking cessation intervention program.	Train AHWs to deliver smoking cessation interventions to Aboriginal clients.	Reduce child exposure to tobacco smoke.	Direct health benefit to child and family.
Blue Book Personal Health Record	Provides an important record of a child's health including key parent-assessed child development checks.	Encourage maintenance and usage of the Blue Book by parents, carers and health professionals.	Usage of the Blue Book from as early as possible following the child's birth.	Indirect health benefit to child.
Australian Hearing Specialist programs for Indigenous Australians	Provides visiting hearing specialists to communities on request.	Deliver best practice initial ear checks through to specialist intervention.	Specialist support for babies and children.	Direct health benefit to child.
RIDBC Outreach Royal Institute for Deaf & Blind Children – outreach screening program	Provides ear and eye screening to communities on request.	Develop ongoing relationship with key communities to provide initial checks through to specialist intervention.	Taree, Broken Hill, Walgett and Lightning Ridge communities and pre-schools.	Direct health benefit to child.
Healthy for Life Australian Government funding round initiative held every 4 years.	Funding to improve the health of Aboriginal men, mothers, babies and children. Additional support for chronic care.	Improve the health of Aboriginal men, mothers, babies and children; Improve the quality of life for people with a chronic condition Reduce the incidence of adult chronic disease.	Aboriginal men, women and children and those with chronic conditions.	Direct health benefit to family.

Screening Referral Pathways

REFERRAL PATHWAY FOR CHILDREN

Use this chart as a guideline for when and where to refer children who do not pass hearing screening.

- First Screen:** Otoscopy clear
- Type A tymps
 - Passed audiogram > Check next screen

- First Screen:** Otoscopy clear
- Type A tymps
 - Failed audiogram > Refer to audiologist

- First Screen:** Otoscopy, drums red
- Type C tymps
 - Passed audiogram > Re-screen in 3 months

- Second Screen:* Otoscopy, drums still red
- Type C or B tymps
 - Passes or fails audiogram > Refer to GP
 - Re-screen in 3 months, if unchanged or worse refer to GP

- First Screen:** Otoscopy dull or retracted drums
- Type B tymps, normal canal volume
 - Fails audiogram > refer to GP

- Second Screen:* Otoscopy still dull or retracted
- Type B tymps
 - Fails audiogram > refer to GP recommend ENT
 - Re-screen in 3 months

- First screen:** Otoscopy shows perforations
- Type B tymps, large canal volume
 - Passes or fails audiogram > Refer to GP

- Second Screen:* No change > refer to GP and recommend ENT
- Re-screen in 3 months

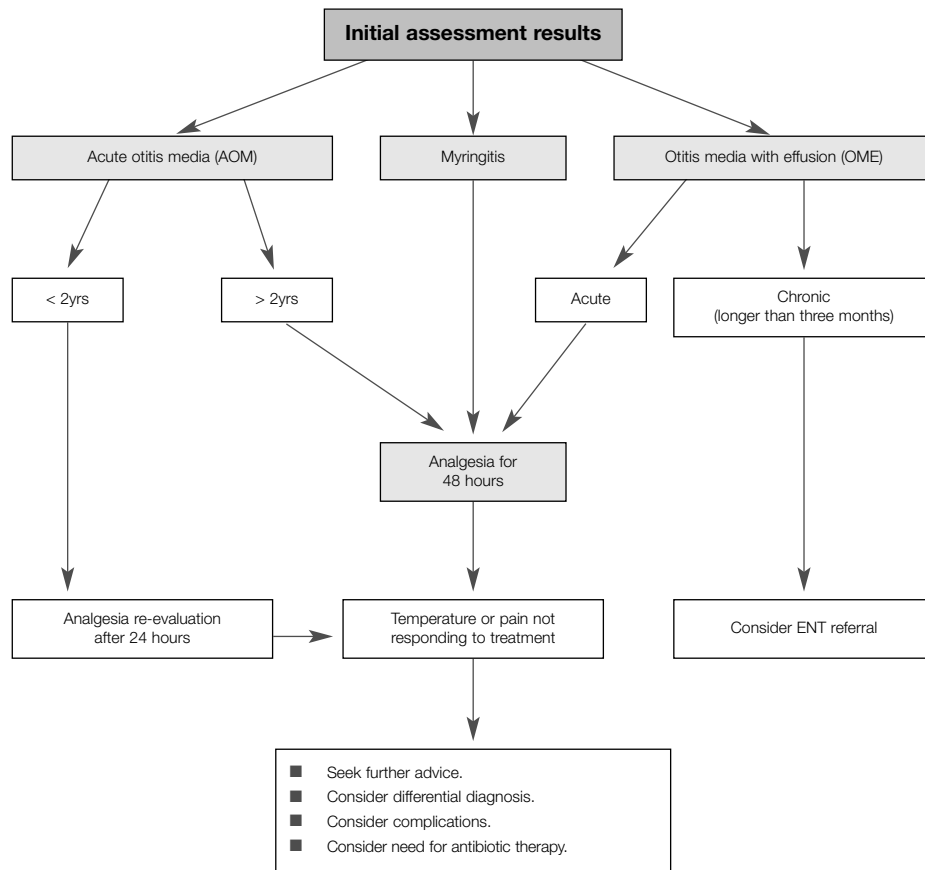
- First screen** Otoscopy shows discharge
- DO NOT perform Tymps
 - Passes or fails audiogram > Refer to GP

- Second screen:* No change > refer to GP and recommend ENT
- Re-screen in 3 months

Paediatric Management Flowchart

Assessment and management

Sore ear/otitis media – paediatric management flowchart



Source: NSW Health Policy Directive PD2005-385: Children and Infants with Otitis Media - Acute Management

Aboriginal Otitis Media Contact Officers

Local Health Districts	Address	Phone	Fax
Mid North Coast	Box 126 Port Macquarie 2444	02 6588-2828	02 6588-2837
Southern and Murrumbidgee	Box 159 Wagga Wagga 2250	02 6938 6173	02 6938 6176
Northern Sydney and Central Coast	Box 361 Gosford	02 4320 2694	02 4320 2695
Northern NSW	31 Uralba Street Lismore 2480	02 6620 7991	02 6622 2151
Western NSW	Box 4061 Dubbo 2830	02 6841-2316	02 6841-2349
Western NSW	Box 44 Cowra 2794	02 6340-2362	02 6340-2490
South Western Sydney	14 Queen Street Narellan 2567	02 4640-3500	02 6340-3513
South Eastern Sydney	Locked Bag 9 Wollongong 2500	02 4226-6745	02 4221-6722
Hunter New England	Box 119 Wallsend 2287	02 4924-6376	02 4924-6456
Western Sydney	Mt Druitt Hospital Aboriginal Health Unit Luxford Road, Mt Druitt 2770	02 9881-1670	02 4734-3938

NGOs	Address	Phone	Fax
Riverina Medical & Dental Aboriginal Corporation	Box 458 Wagga Wagga 2650	02 6921-7292	02 6921-7120
Eleanor Duncan Aboriginal Medical Centre	Box 466, Wyong 2259	02 4355-4637	02 4351-4635
Katungul Aboriginal Medical Service	Box 296 Narooma 2546	02 4476-2155	02 4476-1963
Awabakal Aboriginal Medical Service	Box 323 Wickham 2293	02 4969-2424	02 4961-0497

Hearing Health Workers (OATSIH)

NGOs	Address	Phone	Fax
Western Sydney Aboriginal Medical Service	Box 3160, Mt Druitt, 2770	02 9832-1356	02 9625-4152
Walgett Aboriginal Medical Service	Box 396, Walgett, 2832	02 6828-1611	02 6828-1201
Durri Aboriginal Medical Service	Box 136, Kempsey, 2440	02 6562-4919	02 6562-3371
Coomealla Health Aboriginal Corporation	Box 256, Dareton, 2717	03 5027-4824	03 5027-4429

Hospital & Allied Audiologists Group

Region	Phone
METROPOLITAN HOSPITALS	
Children's Hospital at Westmead	02 9845 2788
Concord Hospital	02 9767 6900
Hornsby Ku-Ring-Gai Hospital	02 9477 9216
Liverpool Hosoiatal	02 9828 3646
Mona Vale Hospital	02 9998 0387
Royal North Shore Hospital	02 9926 7080
Royal Prince Alfred Hospital	02 9515 6111
St Vincents Public Hospital	02 8382 3323
Sydney Childrens Hospital	02 9382 2271
Westmead Hospital	02 9845 7479
COUNTRY HOSPITALS	
Bega Community Hispital	02 6492 9620
Dubbo Community Health Centre	02 6885 8999
Gosford Hospital	02 4320 3121
John Hunter Hopital	02 4921 3550
Kid's Cottage	02 4297 1022`
Mudgee Community Centre	02 6378 6236
Orange Community Health Centre	02 6393 3300
Port Kembla Hospital	02 4223 8033
Wyong Hospital	02 4394 7968
METROPOLITAN PRIVATE	
Access Audiology Services	02 4721 3798
Advance Audiology	02 9476 8820
Allen Fisher Acoustics	02 9476 0002

Region	Phone
Applied Audiology Services	02 4587 9999
Benita Sarkin	02 9388 7963
Catherine Brown	02 9247 2140
Eastern Hearing	0414 944 629
Healthy Hearing & Balance Care	02 9387 3599
Hearing Consultants	02 9427 9407
Hearing Innovations	02 9327 6611
Jim Patrick Audiology Centre	02 9872 0872
AudioClinic	02 9585 1717
M.A.C. Audiology Service	02 9874 9000
Macarthur Audiology & Hearing Services	024625 2224
milliAmp Hearing	02 9565 2521
Northern Sydney Hearing	02 9939 4399
Northside Audiology	02 9419 6999
Patrick Yu	02 9868 4575
Paxton Barrand Hearing Aids	02 9299 4855
Precision Hearing	02 9360 7779
Sydney Adult and Childrens Ear Nose and Throat Centre	02 9399 3039
Westside Hearing Clinic	02 9749 4444
COUNTRY PRIVATE	
Albury Audio Diagnostics	02 6023 1300
Central West Audiology	02 6362 1800
AB Surgery	02 6563 1244
King Hearing Centre	02 6652 1757

Region	Phone
Laurette MacSween	02 4963 1300
Sue Slack	02 4943 2030
COCHLEAR IMPLANTS	
Cochlear Limited	02 9428 6316
First Sounds	02 9351 7883
SCIC (Sydney Cochlear Implant Centre)	02 9844 6800
SCIC Canberra	02 6248 6492
SCIC Newcastle	02 4969 5340
EDUCATION	
Catholic Education Office - Diocese of Parramatta	
Garfield Barwick School	02 9683 6400
Macquarie University	02 9850 8746
School of Communication Sciences and Disorders	02 9351 9693
The Shepherd Centre Canberra	02 6288 5920
The Shepherd Centre	02 9351 7883
OTHER - AUSTRALIAN HEARING	
Australian Hearing	02 9412 6800
National Acoustics Laboratories	02 9412 6925
Jan Davies	02 9484 7514
Gael Boon	02 9144 6060

Student Support Coordinators (DET)

Region	Phone	Fax
Hunter/Central Coast Region (Newcastle)	Phone: (02) 4348 9100	Fax: (02) 4904 3950
Illawarra And South East Region (Queanbeyan)	Phone: (02) 6200 5000	Fax: (02) 6299 0412
New England Region (Tamworth Regional Office)	Phone: (02) 6776 4125	Fax: (02) 6776 4145
North Coast Region (North Coast Regional Office)	Phone: (02) 6671 2316	Fax: (02) 6672 5192
Northern Sydney Region (Hornsby)	Phone: (02) 9987 3932	Fax: (02) 9987 3928
South Western Sydney Region (Bankstown Regional Office)	Phone: (02) 9796 5446	Fax: (02) 8713 6509
Sydney Region (St Peters)	Phone: (02) 9582 5849	Fax: (02) 9582 5899
Riverina Region (Wagga Wagga)	Phone: (02) 6937 3813	Fax: (02) 6937 3832
Western Nsw Region (Bathurst Office)	Phone: (02) 6334 8203	Fax: (02) 6332 1766
Western Sydney Region (Kingswood TAFE Campus)	Phone: (02) 9208 9638	Fax: (02) 9208 9300

AECG Regional Representatives

Name	Region	Email
Michelle Doolan	Western I	
Maxine Mackay	Western II	maxine.mackay@dadhc.nsw.gov.au
Julie-Anne Philp	Western III	julie-anne.philip@det.nsw.edu.au
Carl McGrady	North West I	gordon.mcgrady@det.nsw.edu.au
Belinda Tully	North West II	cgirl@dodo.com.au
Deborah Cook	Upper North Coast	deborahcook35@yahoo.com.au
Robert Waters	Lower North Coast	robertwaters.1@det.nsw.edu.au
Harry Callaghan	Manning	ghinni_ghinni@hotmail.com
Rachel Small	Hunter	rachelsmall@hotmail.com
Kathryn Farrowell	Met. East	glebe-p.school@det.nsw.edu.au
Bron Nurdin	Met. North	bronwynne.nurdin@det.nsw.edu.au
Kerry Burns	Met. West	kerry.burns@det.nsw.edu.au
Jeannie McKenny	Met. South West	
Helen Pussell	Upper South Coast	amin@vincentia-h.schools.nsw.edu.au
Kerry Boyenga	Lower South Coast	kerry.boyenga@det.nsw.edu.au
Deseleen Morgan	Riverina I	deseleen.morgan@det.nsw.edu.au
Amanda Johnson	Riverina III	amanda.johnson29@det.nsw.edu.au
Lesley Armstrong	Central Coast	abed@gorokan-high.nsw.edu.au

Aboriginal Pre-Schools of NSW

Pre-School	Local Health District	Phone	Email
Awabakal	HNELHD	02 4956 9132	Awabakal.pre-school@bigpond.com.au
Ballina Fox Street Pre-School	NNSWLHD	02 6686 3340	foxst@tpg.com.au
Bermagui Pre-School	SLHD	02 6493 4183	
Bland District Pre-School	WNSWLHD	02 6972 2795	council@blandshire.nsw.gov.au
Blinky Bill/Portland CCC	WNSWLHD	02 6355 5833	blinkyc@aaapt.net.au
Bomaderry Pre-School	SESLHD	02 44214034	bomopreschool@bigfoot.com.au
Baradine Pre-School	WNSWLHD	02 6843 1513	
Bonalbo & District Pre-School (Cluster with Tabulam Preschool)	NNSWLHD	02 6665 1440	Not on-line
Binnaway Preschool	WNSWLHD	02 6844 1569	Not on-line
Bowraville Community Pre-School (Cluster with Giiguy Gamambi)	NNSWLHD	02 6564 7657	bowravillepreschool@bigpond.com
Branxton Pre-School	HNELHD	02 4938 1990	branxtonpreschool@bigpond.com.au
Canowindra Pre-School	WNSWLHD	02 6344 1261	mu92610@bigpond.net.au
Collarenebri Pre-School Inc.	WNSWLHD	02 6756 2093	Not on-line
Condobolin Pre-School Kindergarten Inc.	WNSWLHD	02 6895 2784	condopreschool@bigpond.com
Coonamble Pre-School	WNSWLHD	02 6822 1484	cblepreschool@bigpond.com
Coolah Pre-School	WNSWLHD	02 6377 1173	cpki2843@bigpond.net.au
Coonabarabran Pre-School Centre Inc.	WNSWLHD	02 6842 1236	coonapre@bigpond.com
Coraki County Womans Association (Trading As Coraki Pre-School - Cluster with Jumbunna Community Pre-school and Early Intervention Centre Inc)	NNSWLHD	02 6683 2549	corakipreschool@bigpond.com
Dalaigur Pre-School	NNSWLHD	02 6562 2763	dalaigu@bigpond.net.au
Dandaloo Gayngil Pre-School	HNELHD	07 4676 2507	gayngil@yahoo.com.au

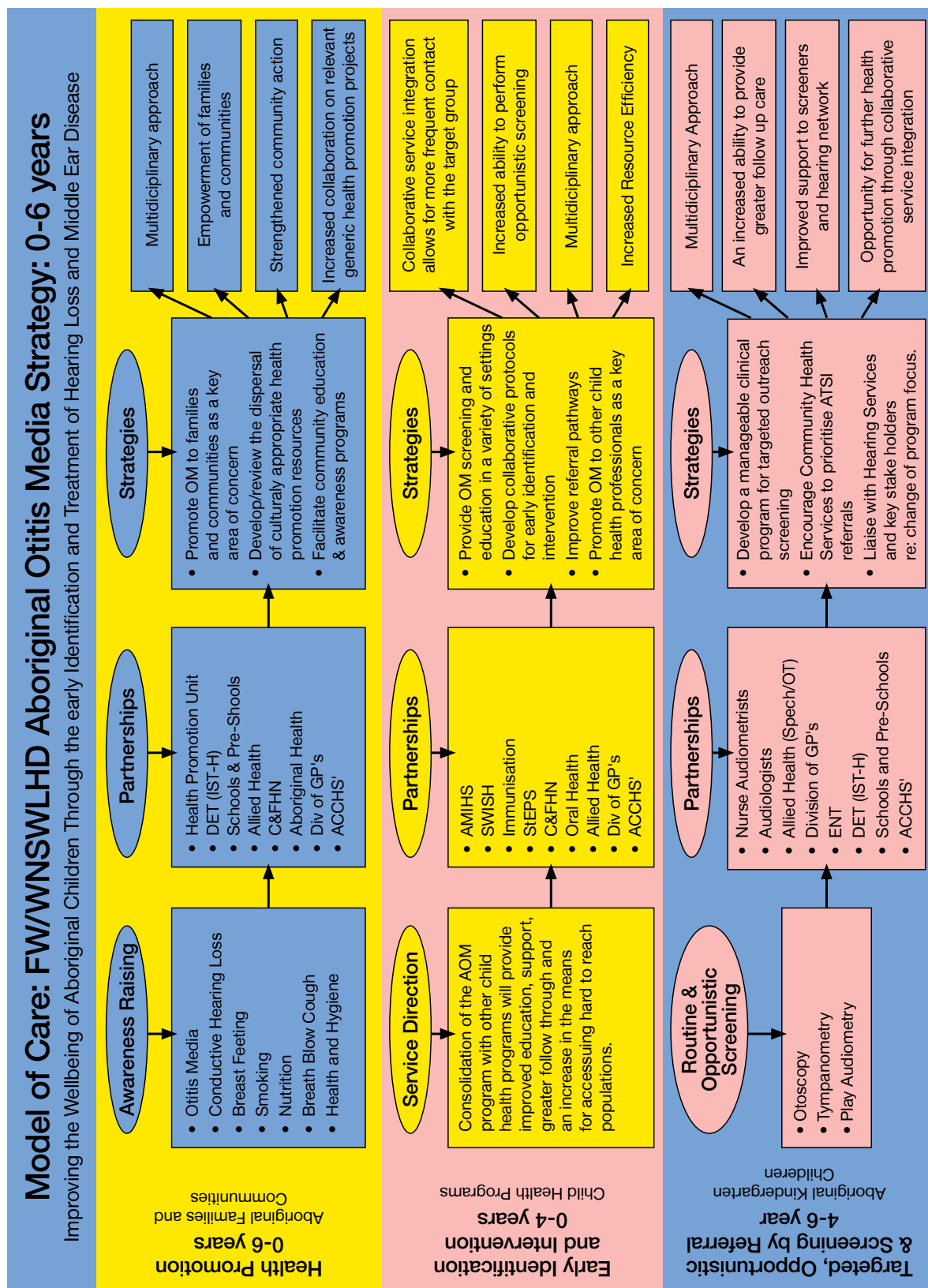
Pre-School	Local Health District	Phone	Email
Dubbo & District Pre-School (Cluster with Dubbo West Preschool)	WNSWLHD	02 6882 2691	ddpreschool@bigpond.com.au
Dubbo West Pre-School Inc.	WNSWLHD	02 6882 7144	dwps2830@bigpond.com.au
Dunedoo Pre-School	WNSWLHD	02 6375 1133	dunedoopreschool@bigpond.com
Eden Creek/Fairymont Pre-School Inc (Cluster With Jumbunna Community Pre-school and Early Intervention Centre Inc)	NNSWLHD	02 6632 1790	fairymount2@bigpond.com
Eden Pre-School Kindergarten Association Inc.	SNSWLHD	02 6496 1124	edenpsk@netspeed.com.au
Forbes Pre-School	WNSWLHD	02 6852 1040	forbespsadmin@westserv.net.au
Gainmara Birrilee Pre-School	WNSWLHD	02 6839 2311	gainmarabirrilee@hotmail.com
Giiguy Gamambi Pre-School	NNSWLHD	02 6569 4077	giiguygamambi@bigpond.com
Gilgandra Pre-School	WNSWLHD	02 6847 2330	gilpreschool@exemail.com.au
Girrawong Pre-School	NNSWLHD	02 6552 3880	girrawongpreschool@tsn.cc
Goodooga Pre-School	WNSWLHD	02 6829 6260	
Goonallabah Pre-School	NNSWLHD	02 6624 1422	office.gps@bigpond.com
Grace Lutheran Pre-School	HNELHD	02 6752 4198	admin@glpschool.ngo.org.au
Great Lakes Children's Centre	NNSWLHD	02 6554 7753	admin@glcc.ngo.org.au
Grenfell Pre-School	WNSWLHD	02 6343 1743	grenfellpreschool@hotmail.com
Griffith Wiradjuri Pre-School Inc	WNSWLHD	02 6962 2106	wirradj@bigpond.net.au
Gudga-Ga Nura Aboriginal Pre-School Inc.	SNSWLHD	02 4474 5299	
Gulargambone Pre-School	WNSWLHD	02 6825 1280	gularpreschool@hotmail.com
Gummyaney Pre-School	NNSWLHD	02 6642 2048	gummy@bigpond.net.au
Gumnut House	WNSWLHD	02 6352 1700	directorgumnut@aanet.com.au
Gunnedah Pre-School Kindergarten	HNELHD	02 6742 1002	gunnedahpre@northnet.com.au
Gyndarna Pre-School Inc.	WNSWLHD	03 5027 4333	gyndarn@bigpond.net.au
Illawarra Aboriginal Corporation (Trading As Winnaggay Pre-School)	SESLHD	02 4228 1585	noogaleek@bigpond.com
Inverell District Family Services (Trading as Kindamindi Pre-School)	HNELHD	02 6722 4038	kindamindipreschool@hotmail.com bartlettcarol@hotmail.com

Pre-School	Local Health District	Phone	Email
Jack & Jill Pre-School	WNSWLHD	02 6351 4347	jjlithgo@bigpond.net
Jarjum Pre-School Inc.	NNSWLHD	02 6621 9203	jarjum@tpg.com.au
Jambunna Community Pre-School and Early Intervention Centre.Inc.	NNSWLHD	02 6662 2866	jumbunnaei@bigpond.com
Karuah Community Pre-School Inc (Cluster with Awabakal Pre-School)	HNELHD	02 4997 5670	karuahpreschool@bigpond.com
Kempsey South Pre-School	NNSWLHD	02 6562 8002	skpresc@bigpond.com
Koolyangarra Pre-School Aboriginal Corporation	WNSWLHD	02 6828 1759	Koolyangarra2832@bigpond.com
Koori Kindermanna	SNSWLHD	02 6025 3475	
KU Childrens Services	SESLHD	02 9268 3921	Gisella.wilson@ku.com.au childrensservices@ku.com.au
Kulai Pre-School Aboriginal Corporation	NNSWLHD	02 6652 4337	kulaipreschool@aapt.net.au
Lake Cargelligo Pre-School	WNSWLHD	02 6898 1339	lakepreschool@bigpond.com
Lightning Ridge Pre-School Centre	WNSWLHD	02 6829 0626	admin@ridgepreschool.ngo.org.au
Little Yuin Aboriginal Pre-School	SNSWLHD	02 4473 7396	littleyuin@bigpond.com.au
Lismore Pre-School	NNSWLHD	02 6621 5428	lisprkinder@bigpond.com
Lithgow Rural Multipurpose Childcare	WNSWLHD	02 6352 1700	gumnut.info@aanet.com.au
Lyrebird Pre-School Kindergarten	SNSWLHD	02 4421 4604	lyrepre@bigpond.net.au
Macleay Community Pre-School	NNSWLHD	02 6645 2213	macpre@zcts.net
Mendooran Pre-School	WNSWLHD	02 6886 1167	Not on line
Menindee Children's Centre	WNSWLHD	08 8091 4246	preschool@menindee.org
Mindaribba Pre-School	HNELHD	02 4934 8511	mindakids@bigpond.com
Minimbah Pre-School	HNELHD	02 6772 4853	dotpreminimbah@optusnet.com.au
Minindi Community Pre-School (Cluster with Wee Waa and District Pre-School)	WNSWLHD		
Molong & District Pre-School	WNSWLHD	02 6366 8475	Mdp5@bigpond.net.au
Mungindi Community Pre-School	HNELHD	02 6753 2220	
Murawina Ltd	SESLHD	02 9319 4566	murawinaredfern@bigpond.com

Pre-School	Local Health District	Phone	Email
Boori Pre-School	SNSWLHD	02 44218855	murrang@bigpond.net.au
Murrin Bridge Pre-School	WNSWLHD	02 6898 1686	murrinbridgepreschool@bigpond.com
Nanima Pre-School Assoc. Inc.	WNSWLHD	02 6845 2436	nanpre@well-com.net.au
Narromine Pre-School Kindergarten	WNSWLHD	02 6889 1795	narrominepreschool@bigpond.com
Northern Roads Activity Van	HNELHD	02 6722 4038	
Nyngan Pre-School	WNSWLHD	02 6832 1460	nynpre@bigpond.com.au
Oberon Children's Centre	WNSWLHD	02 6336 1310	occ@lisp.com.au
Orange Pre-School Kindergarten	WNSWLHD	02 6362 7616	admin@orangepreschool.ngo.org.au
Ooranga Family Mobile Resource Unit Assoc. Inc.	HNELHD	02 6742 0603	ooranga@northnet.com.au
Orient Point Community Pre-School Inc.	SESLHD	02 444 72505	orientpointps@shoal.net.au
Parkes Early Childhood Centre	WNSWLHD	02 6862 3500	peccljf@bigpond.net.au
Peak Hill Pre-School Kindergarten Inc.	WNSWLHD	02 6869 1655	peakpre@hotmail.com
(Cluster with Narromine)			peakhillpreschool@aapt.net.au
Pius X Aboriginal Corp-(Kiah Pre-School) (Cluster Coordinator)	HNELHD	02 6752 8011	kiah@piusx.com.au
Project Enrichment of Childhood Pre-School Bourke Inc.	WNSWLHD	02 6872 2730	peoc@auzzie.net
Quirindi Pre-School	HNELHD	02 6746 1894	
St Mary's Community Pre-School Inc (Cluster With Jumbunna Community Pre-School and Early Intervention Centre Inc)	HNELHD	02 6662 1684	marytots@bigpond.com
Shoalhaven Community Pre-School	SESLHD	02 4421 2963	shoalhavenpreschool@bigpond.com
Stuarts Point Pre-School	NNSWLHD	02 6569 0844	spps@optusnet.com
Tabulam & District Community Pre-School (Cluster Coordinator)	NNSWLHD	02 6666 1344	tabulampreschool@hotmail.com
Tenterfield Pre-School Kindergarten	HNELHD	02 6736 1616	
The Basin Pre-School	SESLHD	02 4443 0000	basinpreschool@bigpond.com
The Factory Community Centre (Trading As POETS Corner)	SESLHD	02 9699 3175	poetspreschool@the-factory.org.au

Pre-School	Local Health District	Phone	Email
Tingha Pre-School	HNELHD	02 6722 4038	
Tooraweenah Pre-School	WNSWLHD	02 6848 5314 – (Director: Joan – H)	Not online
Tottenham War Memorial Early Childhood	WNSWLHD	02 6892 4230	Tottenham@ccinternet.com
Trangie Pre-School Kindergarten Association	WNSWLHD	02 6888 7296	admin@trangiepreschool.ngo.org.au
Trinity Pre-School Kindergarten	WNSWLHD	02 6362 6394	trinityadmin@colourcity.com
Warren Pre-School Kindergarten Inc.	WNSWLHD	02 6847 4826	warrenpreschool@bigpond.com.au
Wee Waa and District Pre-School	HNELHD	02 6795 4438	weewaapreschool@northnet.com.au
Wentworth Pre-School	WNSWLHD	03 5027 3067	wentypre@bigpond.net.au
Werris Creek and District Pre-School	HNELHD	02 6768 7004	
West Bathurst Pre-School	WNSWLHD	02 6331 5582	westbxpreschool@bigpond.com
Winnanggay Pre-School	SESLHD	02 4271 4098	noogaleek@bigpond.com
Wunanbiri Pre School	SESLHD	02 9319 5712	wunanbiri@jabbawoki.com
Wollongbar Community Preschool (Cluster with Goonellabah Pre-School)	HNELHD	02 6628 3800	wcps@ceinternet.com.au
Woodenbong Pre-School Kindergarten Inc. (Cluster with Tabulum Pre-School)	HNELHD	02 6635 1372	preschool@netbay.com.au
Yamba Pre-School Kindergarten	NNSWLHD	02 6646 2800	yampre@jazi.net
Yeoval Preschool	WNSWLHD	02 6846 4292	yeovalpreschool@westnet.com.au

Sample (Draft) Model – Far West/Western Local Health District



GWAHS AOM Model of Care: Otitis Media; March 4 2009.

