The pieces of the jigsaw puzzle: The range of tools and resources required to deliver a quality newborn hearing screening programme in New Zealand

McLeod, M
“A tiling puzzle that requires the assembly of numerous small, often oddly shaped, interlocking pieces. Each piece usually has a small part of a picture on it; when complete, a jigsaw puzzle produces a complete picture”.

Wikipedia 2013
Jointly overseen by the Ministries of Health and Education

Ministry of Health is responsible for screening, diagnosis of hearing loss and medical interventions

Ministry of Education is responsible for early intervention education services

20 District Health Boards with 108 screeners.
“Poor quality screening is ineffective and may do more harm than good”.

Suite of tools and resources

1. National Policy & Quality Standards
2. Annual screener competency assessment
3. Consumer resources
4. Data monitoring guidelines
5. Three-yearly external compliance audits
Universal Newborn Hearing Screening and Early Intervention Programme

1. National Policy & Quality Standards
1. National Policy & Quality Standards

β Form part of the contract between the Ministry of Health and District Health Boards including sub contractors for the programme

β Professionals must work collaboratively as a well-coordinated multi-disciplinary team

β Recently been revised to strengthen the quality and monitoring of the programme.
§ Monthly referral rates from AOAE to AABR

§ Correct performance of daily equipment checks

§ Rates of declines, attempts /incomplete screens

§ Correct screening protocol, including calibration levels for AOAE screening.
National Policy & Quality Standards

- Multi-disciplinary clinical governance framework
- Defines lines of management and accountability
- Strong linkages between screening, audiology, maternity, well child and quality teams, and with Maori and Pacific health plans
- Service delivery plans.
Universal Newborn Hearing Screening and Early Intervention Programme

1. National Policy & Quality Standards
2. Annual competency assessment (ACE)
2. Annual Competency Assessment (ACE)

- Quality assurance of the screener workforce
- Assuring the safety of workplace practice
- Maintain high level policy and quality standards in the screening activities.

Screener competence assessment undertaken:
- Annually
- After a break of 6 months or more in screening for the UNHSEIP
## Annual Competence Assessment

<table>
<thead>
<tr>
<th>Domain</th>
<th>Assessment type</th>
<th>Assessed by</th>
<th>Proportion of total assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>UNHSEIP</td>
<td>Online</td>
<td>Quiz based questions</td>
<td>25%</td>
</tr>
<tr>
<td>Screening process</td>
<td>Observational practical</td>
<td>Assessor/ Coordinator/ trainer</td>
<td>50%</td>
</tr>
<tr>
<td>Protocol and record keeping</td>
<td>Data review</td>
<td>Coordinator</td>
<td>25%</td>
</tr>
</tbody>
</table>
Universal Newborn Hearing Screening and Early Intervention Programme

1. National Policy & Quality Standards
2. Annual competency assessment (ACE)
3. Consumer resources
3. UNHSEIP Consumer Resources

Right 6 of the Code of Rights

• Standard 5 of the National Policy and Quality Standards

• Interlinked with audit process.
3. UNHSEIP Consumer Resources

NSU must lead updating of the screener scripts to be more concise, clear and in plain English, and/or investigate other modes of delivering information about the programme to families to ensure full, accurate and appropriately conveyed information about newborn hearing screening is available.
Universal Newborn Hearing Screening and Early Intervention Programme

1. National Policy & Quality Standards
2. Annual competency assessment (ACE)
3. Consumer resources
4. Data monitoring guidelines
4. Data Monitoring-national

- Six-monthly national monitoring reports

- Reviewed by a multidisciplinary external advisory group who make recommendations to the National Screening Unit on quality, coverage and inequalities improvements.
4. Data monitoring-local

- AOAE/AABR refer rates and calibration levels
- Annual screener competency assessment
- Working with DHBs to support training and development of screeners, such as regional workshops
- Encouraging a culture of open communication within the screening team environment.
Universal Newborn Hearing Screening and Early Intervention Programme

1. National Policy & Quality Standards
2. Annual competency exercise (ACE)
3. Consumer resources
4. Data monitoring guidelines
5. Three-yearly external compliance audits
5. External Compliance Audits

- Audited three-yearly against the National Policy and Quality Standards and contract requirements by an external provider.

- Quality/performance improvement focus.

- Areas of partial or non-compliance highlighted.

- Examples of good practice.
Universal Newborn Hearing Screening and Early Intervention Programme

**Audits**

- Cramped working environment
- Poor visibility of newborn hearing service within DHB
- Lack of governance structure for service

**Incident**

- 43% screeners identified cramped working condition as a source of stress
- Lack of appreciation of role
- Wanted better links across other services
All the pieces are required to build the complete picture.

A missing, or incorrect piece, however small, can prove to be frustrating and delay completing the puzzle in a timely manner.
The aim of New Zealand’s Universal Newborn Hearing Screening and Early Intervention Programme is ...

“early identification of newborns with hearing loss so that they can access timely and appropriate interventions, inequalities are reduced and the outcomes for these children, their families and whanau, communities and society are improved.”

UNHSEIP Implementation Advisory Group 2007
Universal Newborn Hearing Screening and Early Intervention Programme