

# Setting the Standard: Achieving Consensus in a Review of the Queensland Healthy Hearing Minimum Standards of Early Intervention

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Children's Health Queensland Hospital and Health Service  
pays respect to the Traditional Custodians of the lands  
on which we have the privilege to work on.

We acknowledge and pay our respects to Aboriginal and  
Torres Strait Islander Elders past, present and emerging.



# Terminology:

The Queensland Healthy Hearing Minimum Standards of Practice in Early Intervention for children who are deaf or hard of hearing, and their families

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**“The Minimum Standards of Practice”**

# Terminology:

The Minimum Standards use the terminology deaf and/or hard of hearing (DHH)

**The research team respects the right of every person with lived experience to use the language they prefer to describe themselves and their community.**

## Background

Delayed identification and treatment of permanent hearing loss can impact quality of life through:

Speech and Language  
Acquisition

Social and Emotional  
Development

Education and  
Employment Outcomes

Slide reference:

Joint Committee on Infant Hearing. 2019. "Year 2019 Position Statement: Principles and Guidelines for Early Hearing Detection and Intervention Programs." *Journal of Early Hearing Detection and Intervention* 4 (2):1–44. doi:10.15142/fptk-b748.



## Background

**Access to, and engagement with Early Intervention optimises the communication and developmental outcomes of children who are DHH**

Slide reference:

Joint Committee on Infant Hearing. 2019. "Year 2019 Position Statement: Principles and Guidelines for Early Hearing Detection and Intervention Programs." *Journal of Early Hearing Detection and Intervention* 4 (2):1–44. doi:10.15142/fptk-b748.



# Background

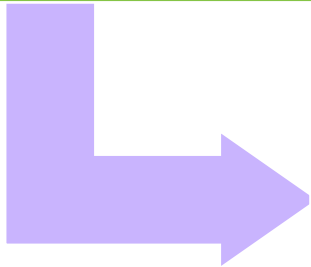
## The Minimum Standards of Practice:

- Used by Early Intervention Providers in Queensland since 2015
- Developed and maintained by the Healthy Hearing – Early Intervention Working Group (HH-EIWG)
- Framework which:
  - Emphasises universal and equitable standards of Early Intervention for children who are DHH
  - Is aimed at building and strengthening the quality of services by describing a minimum standard of care



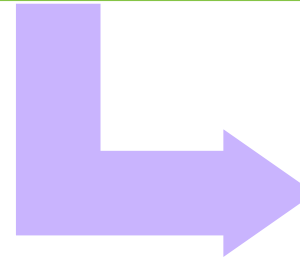
# Background

Best practices in family-centred early intervention for children who are deaf or hard of hearing: An international consensus statement (2013)



Special Issue: Family-Centred Early Intervention Deaf/Hard of Hearing (FCEI-DHH) (2024)

National Framework for Neonatal Hearing Screening (2013)



National Framework for Neonatal Hearing Screening (Expected in 2025)

Institute of Health and Welfare. (2013). National framework for neonatal hearing screening. National performance indicators to support neonatal hearing screening in Australia. Cat. no. CAN 73. Canberra: AIHW.

Moeller, P., Carr, G., Seaver, L., Stredler-Brown, A., Holzinger, D. (2013). Best practices in family-centred early intervention for children who are deaf or hard of hearing: An international consensus statement.

Journal of Deaf Studies and Deaf Education, 18 (4), 429-445.

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Bond, Waite, McHugh, & Marshall

# A Change in Approach

- FCEI-DHH influence
- Shift in sector focus from quantitative evidence-based outcomes, towards qualitative values-driven outcomes as determined by the family
- Diversity in families, and their goals, values, and perception of 'outcomes' for their children
- A need for a robust methodology
- Integrating the international evidence base with local expertise and context

Moeller, P., Carr, G., Seaver, L., Stredler-Brown, A., Holzinger, D. (2013). Best practices in family-centred early intervention for children who are deaf or hard of hearing: An international consensus statement. *Journal of Deaf Studies and Deaf Education*, 18 (4), 429-445.

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**Theme 1: “Families of children with a diagnosed hearing loss have the information they need to make decisions about early intervention for their children”**

| Standards |  |
|-----------|--|
| 1.1       | All families are provided with accurate, balanced, and comprehensive information regarding entry to early intervention, the variety of communication approaches available, and what high quality early intervention entails. |
| 1.2       | Service providers are aware of the importance of basic support needs, and have a process to identify and connect families to appropriate referral options.   |
| 1.3       | All families are provided with information regarding funding options for Healthy Hearing Monitoring Assessments and Early Intervention, and service availability.  |
| 1.4       | Services provide families with information in a variety of formats, including translated formats to increase accessibility and understanding.  |



## Theme 2: “High quality early intervention services are accessible to everyone”

| Standards |   |
|-----------|---|
| 2.1       | Early intervention services support families to engage in high quality intervention for hearing loss within the timeframes recommended by the National Framework for Neonatal Hearing Screening – currently by 6 months of age. |
| 2.2       | Hearing family support services are offered.  |
| 2.3       | Early intervention services offer families the opportunity to link with family-to-family support networks and parent-led groups.  |
| 2.4       | Early intervention services provide accessible/flexible service delivery modes (e.g. face to face, telehealth).   |
| 2.5       | Services have a support structure to engage families from Deaf or Culturally and Linguistically Diverse backgrounds in a culturally safe manner.  |
| 2.6       | Services have a support structure to engage Aboriginal and Torres Strait Islander children and families in a culturally safe manner.  |



### Theme 3: “Early intervention services work together”

| Standards |   |
|-----------|---|
| 3.1       | <p>Early intervention services have protocols in place to:</p> <ul style="list-style-type: none"><li>• facilitate a collaborative family plan detailing responsibilities for transitions:<ul style="list-style-type: none"><li>- between clinicians within a service</li><li>- between services</li></ul></li><li>• facilitate a collaborative family plan detailing <u>responsibilities</u> for:<ul style="list-style-type: none"><li>- transitions from early education programs to school</li><li>- discharge planning</li></ul></li><li>• sharing and documenting assessment results between care teams</li><li>• sharing and documenting management plans between care teams</li><li>• adhering to their service's standard policy and procedure when a family disengages where appropriate.</li></ul> |
| 3.2       | <p>Early intervention services have protocols in place to facilitate a collaborative family plan detailing responsibilities for each invested party in cases where concurrent collaborative care provision is occurring, including enrolment in more than one early intervention service, or where there is shared care under a cochlear implant program.</p>   |
| 3.3       | <p>Early Intervention services have protocols in place to facilitate a collaborative family plan detailing responsibilities for referring children to appropriate multidisciplinary professionals if goal areas are not within the scope of the service.</p>  |



**Theme 4: “The early intervention offered is specific for deaf or hard of hearing children using best evidence available and is delivered in the context of the child and family”**

| Standards |   |
|-----------|---|
| 4.1       | Early intervention services demonstrate that all professional staff have and maintain the skills and qualifications required to provide services to babies and children who are deaf or hard of hearing and their families as relevant to their professional background, including: Auslan Teaching (qualifications in Auslan teaching are desired); listening and spoken language intervention; and/or speech pathologists and teachers of the deaf with specialist knowledge in providing communication intervention to children who are deaf or hard of hearing. |
| 4.2       | Families are offered tracking and monitoring of their child’s progress across developmental domains to assist in the development of goals for their child.  |
| 4.3       | Families are supported to contribute to goal setting for their child by identifying their family’s strengths and priorities.  |
| 4.4       | Services work towards involving deaf or hard of hearing and parent leadership in service design and delivery.   |



## Theme 5: “Early intervention services monitor and report outcomes and commit to continuous improvement”

| Standards |  |
|-----------|--|
| 5.1       | Early intervention services collect longitudinal clinical (case level) data.       |
| 5.2       | Early intervention services collect enrolment, disengagement, and discharge data.  |
| 5.3       | Early intervention services collect feedback from and for families.                |
| 5.4       | Services identify and develop plans to demonstrate continuous quality improvement. |
| 5.5       | Early intervention services report against the Minimum Standards of Practice.      |



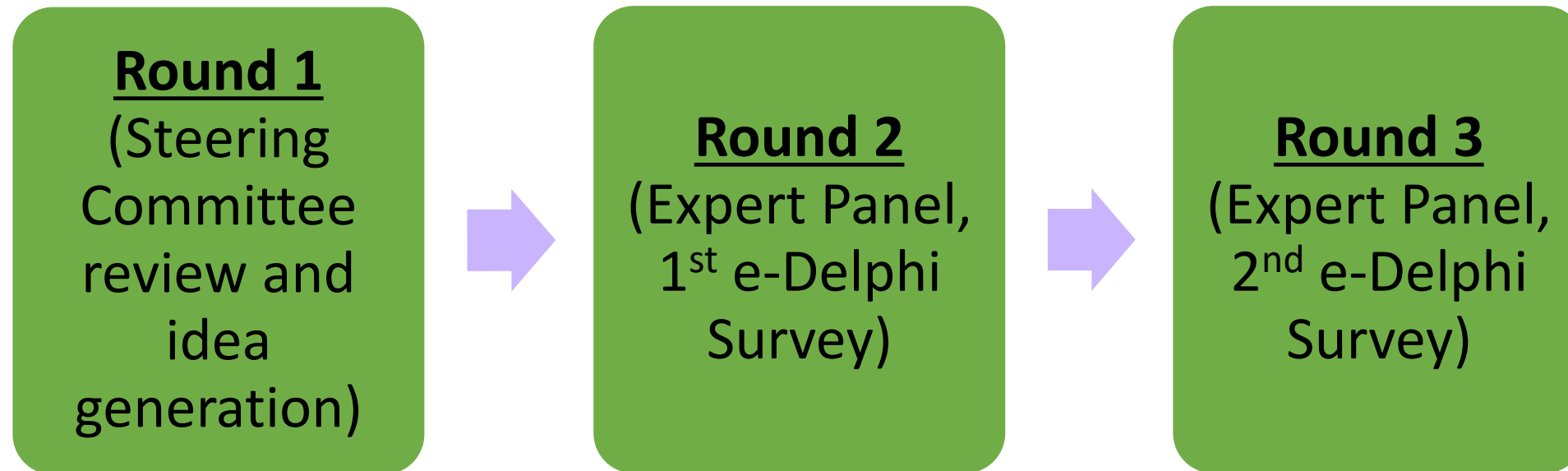
# Project Aim

To achieve expert consensus on a revised Queensland Minimum Standards of Practice in Early intervention for Children who are Deaf or Hard of Hearing



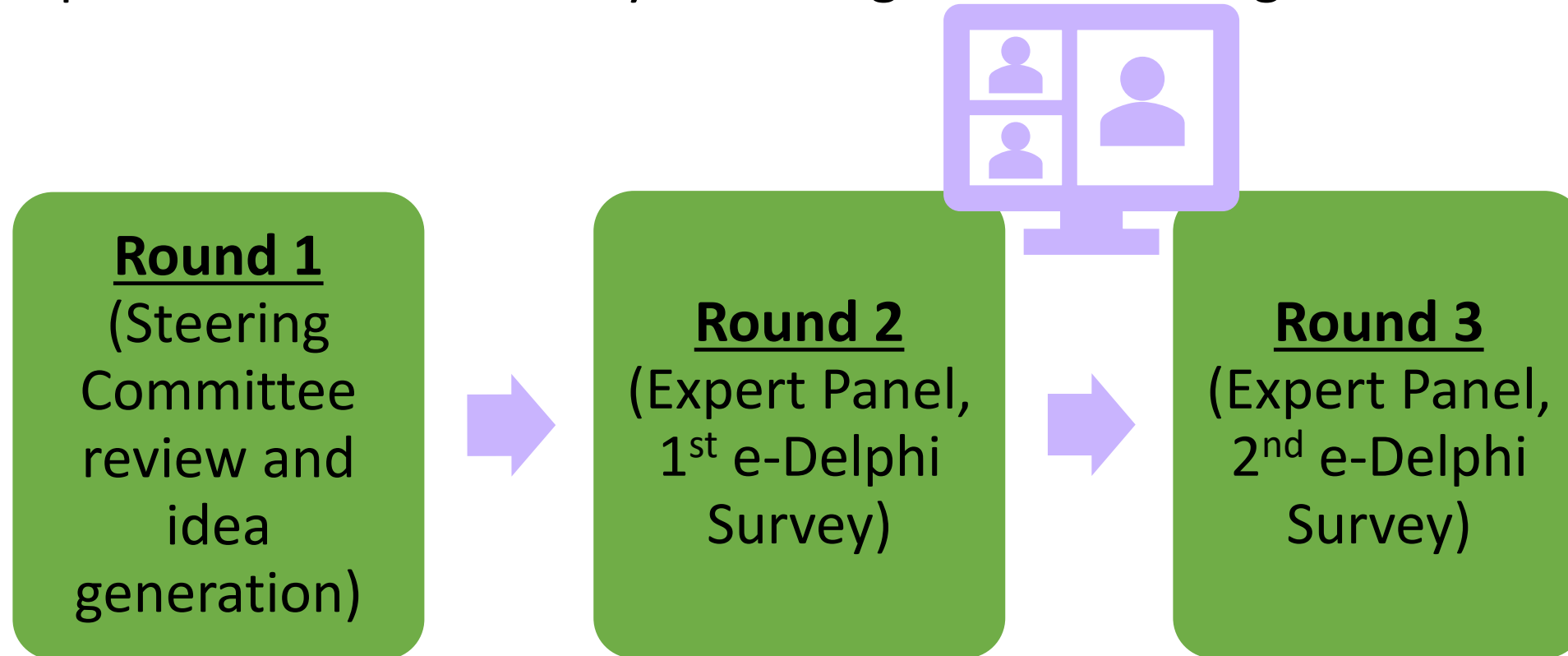
# Modified e-Delphi Study - Methods

- Multiple-round online survey – starting with a steering committee review



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- Multiple-round online survey – starting with a steering committee review

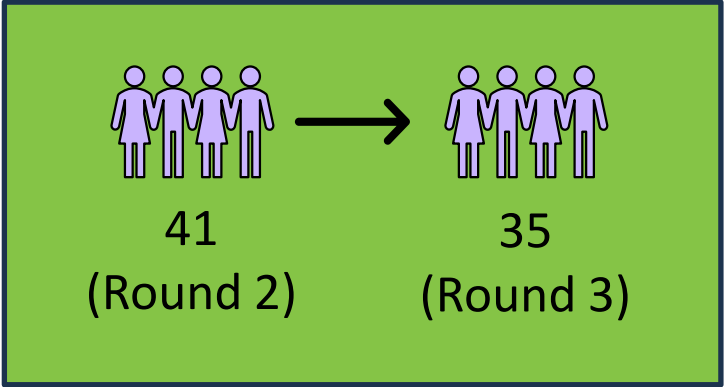


# Steering Committee

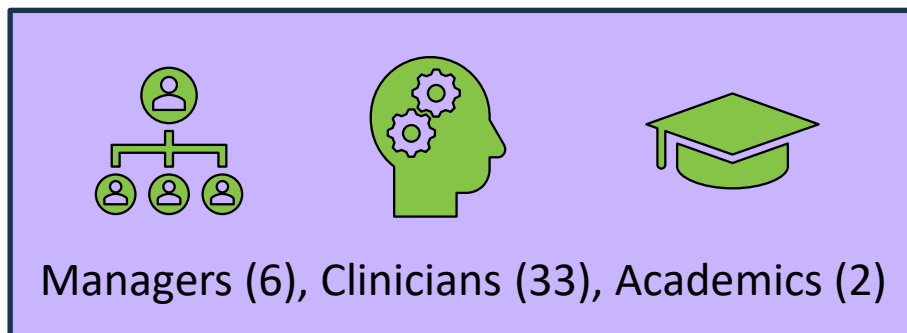
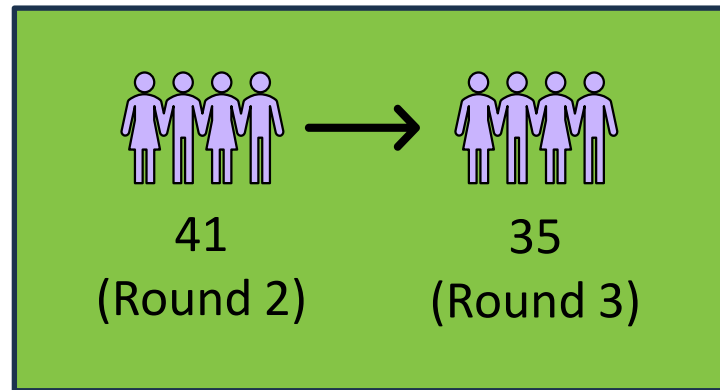
- Ann Porter (Aussie Deaf Kids)
- Bronwyn Green (The Department of Education)
- Claire Flanagan (Deaf Connect)
- Kirsty Gibson (Queensland Children's Hospital Speech Pathology)
- Lynda Farwell (Hear and Say)
- Dr Melissa McCarthy (Macquarie University; University of Newcastle)



# Expert Panel (Participants)



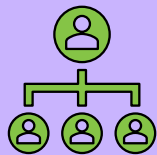
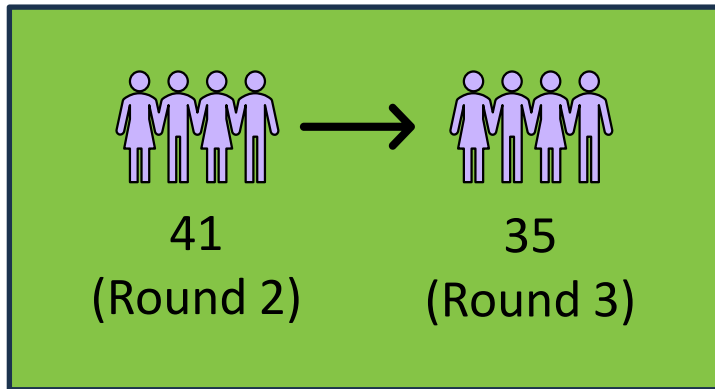
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## Settings:

- Not-For-Profit (24)
- School/Education (8)
- Private Practice (6)
- Hospital (2)
- University (1)

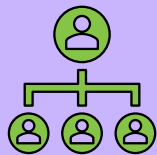
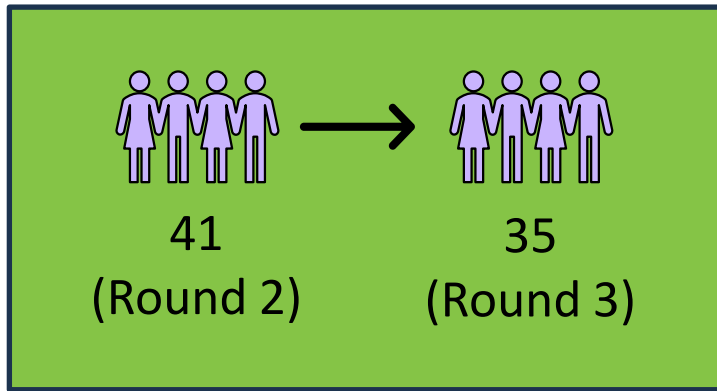


Managers (6), Clinicians (33), Academics (2)

# Expert Panel (Participants)

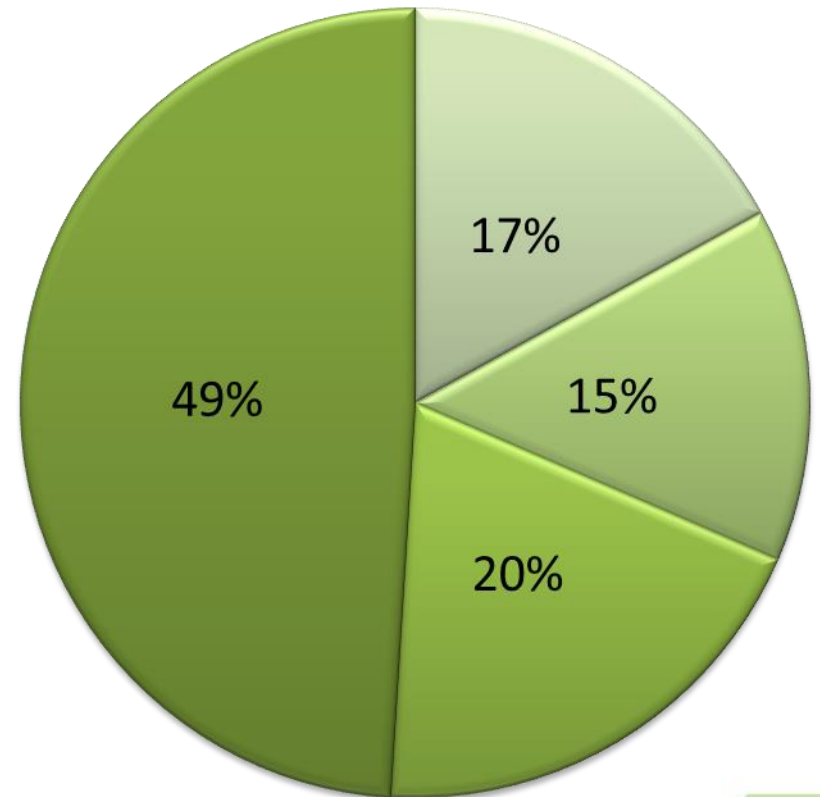
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## Years of Experience



■ 1 to 5 Years

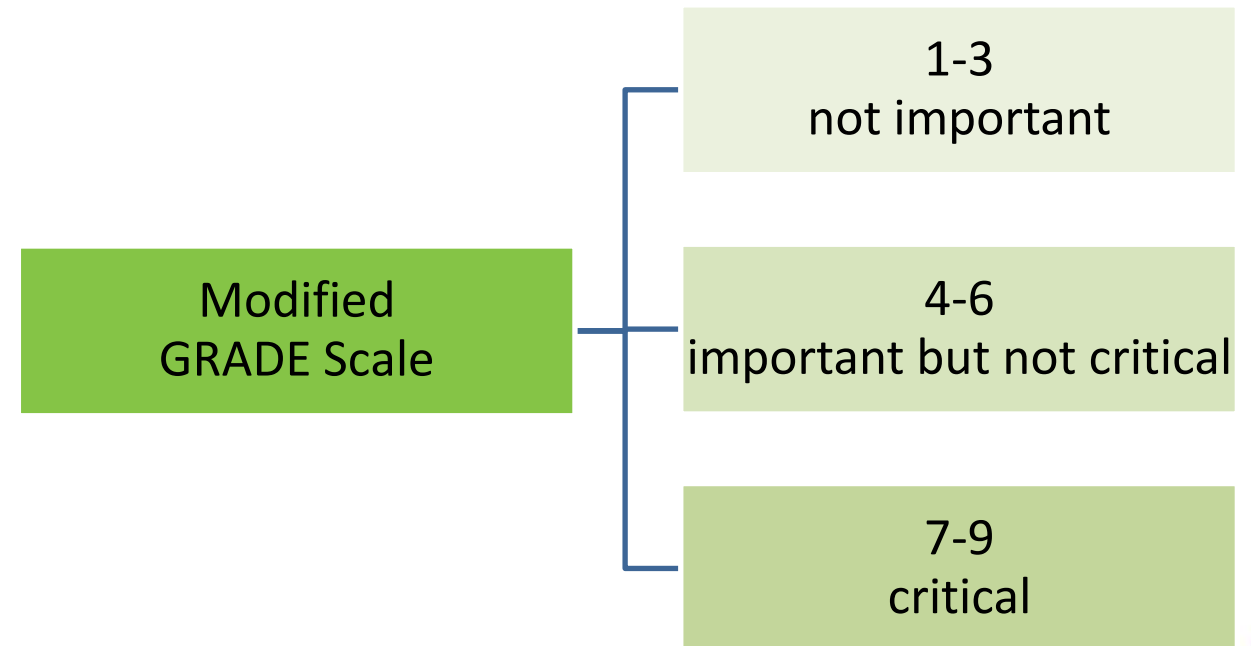
■ 5;1 to 10 Years

■ 10;1 to 20 Years

■ 20;1 to 20 Years

# Survey Development

- 2 part Qualtrics® survey:
  1. Demographics, and
  2. e-Delphi Statements for ratings
- Free text opportunities
- Survey Piloting



(see [www.gradeworkinggroup.org](http://www.gradeworkinggroup.org))

# Consensus Definition

**Any statement rated in the 7-9 range by at least 70% of the respondents**

and

**1-3 by less than 15% of the respondents**



# Round 1

- The Steering Committee met to discuss and review the previous statements
- An iterative process of feedback
- Identifying any new statements to include
- A total of 28 statements were developed and agreed upon



## Round 2

- 27 out of 28 items met the definition of consensus
- The steering committee met to review results and plan the round 3 survey
- 2 items were raised for discussion by the steering committee
  - Item 1.2 – which **did not** meet consensus
  - Item 2.1 – which **did** meet consensus, however required discussion due to a qualitative comment



# Round 3

- Revised items 1.2 and 2.1 returned to the e-Delphi panel
- 35 expert panellists returned and rated
- 2 out of 2 items met the definition of consensus



# Discussion

- This study achieved consensus on 28 statements proposed to determine consensus for a revised minimum standard of early intervention for children who are DHH in Queensland
- The Minimum Standards of Practice have been reviewed, aligning with sector changes and best-practice evidence
- Allows a program level focus on qualitative values-driven outcomes
- Modernised Queensland's approach to measurement of early intervention service quality and effectiveness



# Discussion

## Next steps:

- The expert panel provided significant qualitative data, with recurrent themes relating to implementation
- Further advocacy will be required to support wider professional adoption of these standards
- A plan to develop a codesigned resource to support families decision making



# Strengths



- A robust protocol to achieve consensus from experts
- High quality review of the Minimum Standards of Practice
- An online e-Delphi allowed increased participation regardless of geographical distance
- A strengths-based approach



# Weaknesses

- Generalisability of findings due to the composition of the expert panels
- Expert panellists from Queensland, New South Wales, and South Australia only



# Acknowledgements – Consultation for Review

- Aussie Deaf Kids
- The Benevolent Society, Early Childhood Early Intervention Partner
- Childhood Hearing Clinic, Children's Health Queensland
- Deaf Children Australia
- Deaf Connect
- Department of Education, Queensland
- Healthy Hearing, Children's Health Queensland
- Healthy Hearing Family Support Service, Children's Health Queensland
- Hear and Say
- Hearing Australia
- NextSense
- Speech Pathology, Queensland Children's Hospital, Children's Health Queensland
- Speech Pathology, Townsville University Hospital, Townsville Hospital and Health Service
- The University of Queensland

# Acknowledgements – Expert Panel

# Thank you!

For questions about this project please contact:

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# References

- Aged, Community and Mental Health Division, Victorian Department of Human Services. (2000). Guidelines for mental health services working with people who are deaf or hard of hearing. Melbourne: Australia
- Ambrose, S. E., Unflat Berry, L. M., Walker, E. A., Harrison, M., Oleson, J., & Moeller, M. P. (2014). Speech sound production in 2-year-olds who are hard of hearing. *American Journal of Speech-Language Pathology*, 23(2), 91–104. [https://doi.org/10.1044/2014\\_AJSLP-13-0039](https://doi.org/10.1044/2014_AJSLP-13-0039)
- American Speech-Language-Hearing Association (ASHA). Effects of hearing loss on development. Available at: [www.asha.org/public/hearing/effects-of-hearing-loss-on-development/](http://www.asha.org/public/hearing/effects-of-hearing-loss-on-development/) Accessed December 11, 2023
- Centers for Disease Control and Prevention 2019. “2017 Hearing Screening Summary.” Centers for Disease Control and Prevention. Accessed December 11 2023. <https://www.cdc.gov/ncbddd/hearingloss/2017-data/01-data-summary.html>
- Chen, X., M. Yuan, J. Lu, Q. Zhang, M. Sun, and F. Chang. 2017. “Assessment of Universal Newborn Hearing Screening And Intervention In Shanghai, China.” *International Journal of Technology Assessment in Health Care* 33 (2):206–214. doi:10.1017/S0266462317000344.
- Children’s Health Queensland Hospital and Health Service (2020). Queensland Minimum Standards of Practice, Early intervention for children who are deaf or hard of hearing and their families (Version 2). Retrieved from [https://www.childrens.health.qld.gov.au/\\_\\_data/assets/pdf\\_file/0025/174805/hh-min-stds-prac-qld.pdf](https://www.childrens.health.qld.gov.au/__data/assets/pdf_file/0025/174805/hh-min-stds-prac-qld.pdf) Accessed January 4, 2024
- Ching, T. Y. C. (2015). Is early intervention effective in improving spoken language outcomes of children with congenital hearing loss? *American Journal of Audiology*, 24(3), 345–348. [https://doi.org/10.1044/2015\\_AJA-15-0007](https://doi.org/10.1044/2015_AJA-15-0007)
- Cupples, L., T. Y. C. Ching, L. Button, M. Seeto, V. Zhang, J. Whitfield, M. Gunnourie, L. Martin, and V. Marnane. 2018. “Spoken Language and Everyday Functioning in 5-Year-Old Children Using Hearing Aids or Cochlear Implants.” *International Journal of Audiology* 57 (sup2):S55–S69. doi:10.1080/14992027.2017.1370140.
- Deaf Australia Inc. (2010). Terminology policy on use of terms in Australia. Retrieved from <http://www.deafau.org.au/info/terminology.php>.
- Institute of Health and Welfare. (2013). National framework for neonatal hearing screening. National performance indicators to support neonatal hearing screening in Australia. Cat. no. CAN 73. Canberra: AIHW.
- Joint Committee on Infant Hearing. 2019. “Year 2019 Position Statement: Principles and Guidelines for Early Hearing Detection and Intervention Programs.” *Journal of Early Hearing Detection and Intervention* 4 (2):1–44. doi:10.15142/fptk-b748.
- Keeney, S., McKenna, H. A., & Hasson, F. (2011). *The Delphi technique in nursing and health research*. John Wiley & Sons.
- Meinzen-Derr, J., Wiley, S., & Choo, D. I. (2011). Impact of early intervention on expressive and receptive language development among young children with permanent hearing loss. *American Annals of the Deaf*, 155(5), 580–591. <https://doi.org/10.1353/aad.2011.0010>
- Moeller, P., Carr, G., Seaver, L., Stredler-Brown, A., Holzinger, D. (2013). Best practices in family-centred early intervention for children who are deaf or hard of hearing: An international consensus statement. *Journal of Deaf Studies and Deaf Education*, 18 (4), 429-445.
- Moeller, M. P., Gale, E., Szarkowski, A., Smith, T., Birdsey, B. C., Moodie, S. T., ... & Holzinger, D. (2024). Family-Centered Early Intervention Deaf/Hard of Hearing (FCEI-DHH): Introduction. *Journal of Deaf Studies and Deaf Education*, 29(SI), SI3-SI7.

# References

- Nair, R., Aggarwal, R., & Khanna, D. (2011, October). Methods of formal consensus in classification/diagnostic criteria and guideline development. In *Seminars in arthritis and rheumatism* (Vol. 41, No. 2, pp. 95-105). WB Saunders
- Nott P, Cowan R, Brown PM, Wigglesworth G. Early language development in children with profound hearing loss fitted with a device at a young age: part I—the time period taken to acquire first words and first word combinations. *Ear Hear.* 2009;30(5):526–540
- Princess Alexandra Hospital, Brisbane South Health District. (2008). *Deafness and mental health: guidelines for working with people who are deaf or hard of hearing*. Brisbane: Australia.
- Retamal-Walter, F., Waite, M., & Scarinci, N. (2022). Identifying critical behaviours for building engagement in telepractice early intervention: An international e-Delphi study. *International Journal of Language & Communication Disorders*, 57(3), 645-659.
- Scarinci N, Erbas E, Moore E, Ching TYC, Marnane V. The parents' perspective of the early diagnostic period of their child with hearing loss: information and support. *Int J Audiol.* 2018 May;57(sup2):S3-S14. doi: 10.1080/14992027.2017.1301683. Epub 2017 Mar 23. PMID: 28332410; PMCID: PMC5681436.
- Sharma, A., J. Campbell, and G. Cardon. 2015. “Developmental and Cross- Modal Plasticity in Deafness: Evidence from the P1 and N1 Event Related Potentials in Cochlear Implanted Children.” *International Journal of Psychophysiology* 95 (2):135–144. doi:10.1016/j.ijpsycho.2014.04.007.
- Sumsion, T. (1998). The Delphi technique: an adaptive research tool. *British Journal of Occupational Therapy*, 61(4), 153-156.
- Tomblin JB, Harrison M, Ambrose SE, Walker EA, Oleson JJ, Moeller MP. Language outcomes in young children with mild to severe hearing loss. *Ear Hear.* 2015;36 (suppl 1):76S–91S
- Turoff, M., & Linstone, H. A. (2002). *The Delphi method-techniques and applications*.
- Von Der Gracht, H. A. (2012). Consensus measurement in Delphi studies: review and implications for future quality assurance. *Technological forecasting and social change*, 79(8), 1525-1536.
- WHO 2010. “Newborn and Infant Hearing Screening: current Issues and Guiding Principles for Action.” World Health Organization. [https://www.who.int/blindness/publications/Newborn\\_and\\_Infant\\_Hearing\\_Screening\\_Report.pdf?ua=1](https://www.who.int/blindness/publications/Newborn_and_Infant_Hearing_Screening_Report.pdf?ua=1)
- Wood, S. A., G. J. Sutton, and A. C. Davis. 2015. “Performance and Characteristics of the Newborn Hearing Screening Programme in INTERNATIONAL JOURNAL OF AUDIOLOGY 803 England: The First Seven Years.” *International Journal of Audiology* 54 (6):353–358. doi:10.3109/14992027.2014.989548.
- Yoshinaga-Itano, C. (2003). Universal newborn hearing screening programs and developmental outcomes. *Audiological Medicine*, 1(3), 199–206. <https://doi.org/10.1080/16513860310002031>
- Yoshinaga-Itano, C., et al. (2020) Early intervention, parent talk, and pragmatic language in children with hearing loss. *Pediatrics*. 146(ISSN: 1098-4275 0031-4005. DOI: 10.1542/peds.2020-0242F.
- Yoshinaga-Itano, C., A. L. Sedey, M. Wiggin, and C. A. Mason. (2018). “Language Outcomes Improved Through Early Hearing Detection and Earlier Cochlear Implantation.” *Otology & Neurotology* 39 (10):1256–1263. doi:10.1097/MAO.0000000000001976.

# Questions?