Victorian Infant Hearing Screening Program

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The Royal Children's Hospital Melbourne

Is early intervention by six months the exception rather than the norm?

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Overview of presentation

- NHS Pathway
- Frameworks and guidelines for early support, amplification, EI
- Data from a two-year cohort: quantitative/qualitative
- Reflections and next steps

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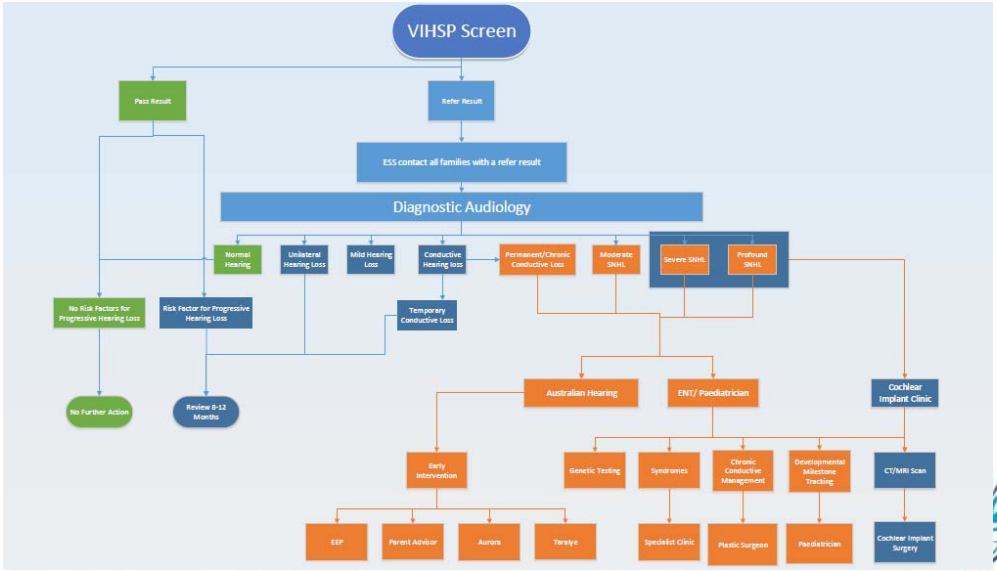
VIHSP Early Support Pathway



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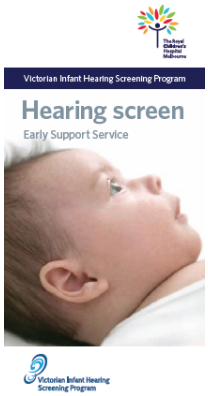
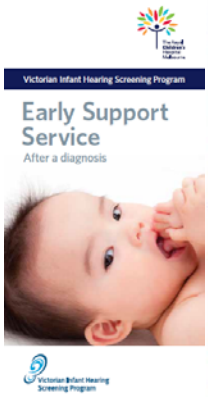
VIHSP Pathway – Early Support

- Contact families at point of second refer on screen
- After diagnosis:
  - Information about choices and options
  - Promote early access to services





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Key Performance Indicators

- **Screening**
  - % of eligible newborns screened for hearing deficit before one month of age (corrected); Target: > 97

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✓

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Key Performance Indicators

- **Screening**
  - % of eligible newborns screened for hearing deficit before one month of age (corrected); Target: > 97
- **Early Support**
  - % of newborns referred to ESS and the referral has been actioned within 3 business days; Target: >90
- **Audiology**
  - % of newborns referred from NHS to diagnostic audiology who have commenced assessment within 3 months of age (corrected); Target: > 80 ✓

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Key Performance Indicators

- Screening
- Early Support
- Audiology

- What about **after** this point? What should we be aiming for?

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Amplification and EI – guidelines/benchmarks

ANZPOD: Quality Standards for Newborn Hearing Screening Services – Supporting families

- Family Support from first screen along any point in the pathway
- Provision of unbiased, accurate, timely and up-to-date information
- Professional is the expert in hearing loss
- All infants with confirmed PHL should receive EI as soon as possible after diagnosis but at no later than 6m

ANZPOD, 2009

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Amplification and EI – guidelines and benchmarks

National Framework for Neonatal Hearing Screening 2013

- Family support services
  - available up to six years of age
  - minimum contact once every three months

Community Care and Population Health Principal Committee, Australian Health Ministers Advisory Council

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Amplification and EI – guidelines and benchmarks

National Framework for Neonatal Hearing Screening 2013

- families provided with range of options regarding amplification, communication and intervention within six weeks of diagnosis (>97%)
- babies with permanent HI engaged in formal EI by 4 months of age (>97%)

Community Care and Population Health Principal Committee, Australian Health Ministers Advisory Council

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Benchmarks, frameworks and guidelines

- All emphasize importance of early access
- Imply minimising delays wherever possible

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Project context

- Early diagnosis and access to amplification/EI a priority
- Post diagnosis: fewer resources allocated to data monitoring/collection
- Amplification/EI services provided entirely outside of program service delivery
- Reports that children "fall through the cracks"

Question: What do we know about timing to amplification and EI?

Methodology

- Retrospective chart review
- DOB 2013-2014
- Target condition hearing loss
- Extraction & merging of data in 3 electronic datasets

Data sources

- Source 1: screening data

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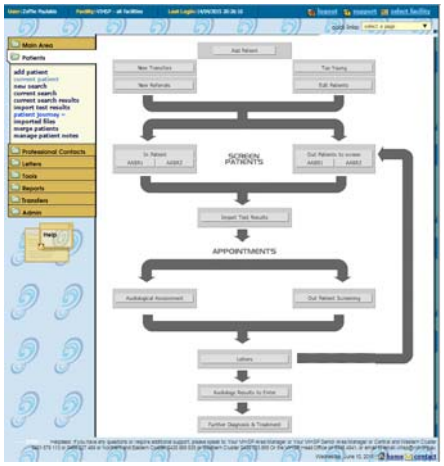

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Data sources

- Sources 2 and 3: audiology and ESS data sets ✓

Data sources NOT used

- Early Support Service paper records

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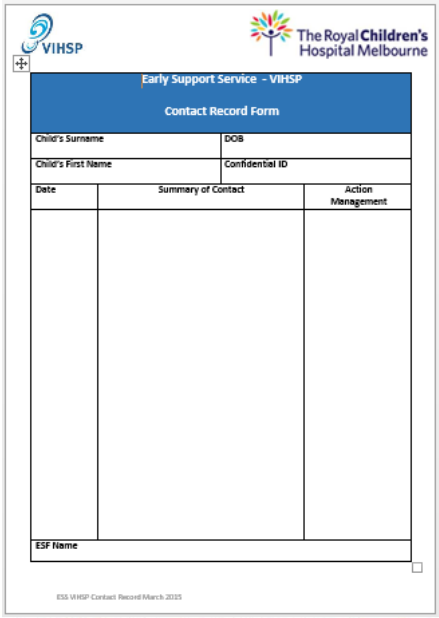

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Early Support Service – VIHSP

Contact Record Form

Child's Surname	DOB
Child's First Name	Confidential ID

Date	Summary of Contact	Action Management

ESF Name

ESS VIHSP Contact Record March 2015

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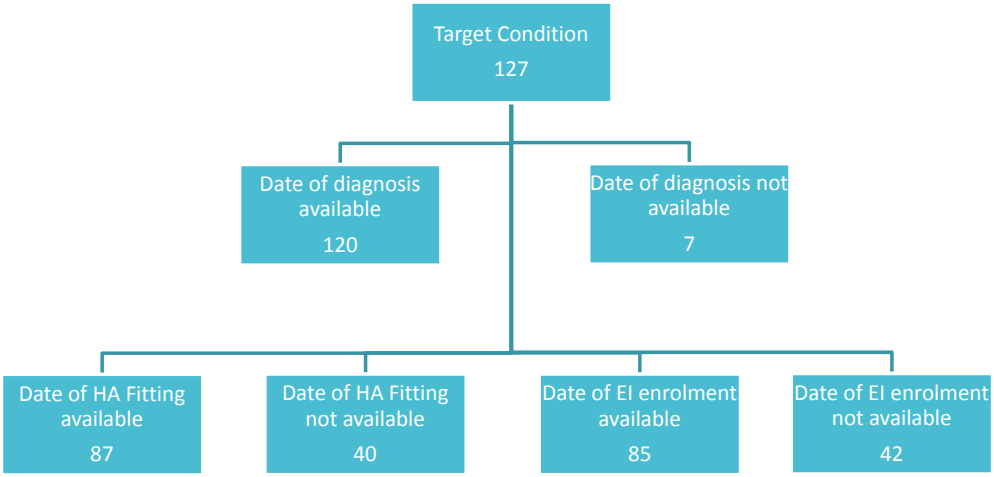
Results



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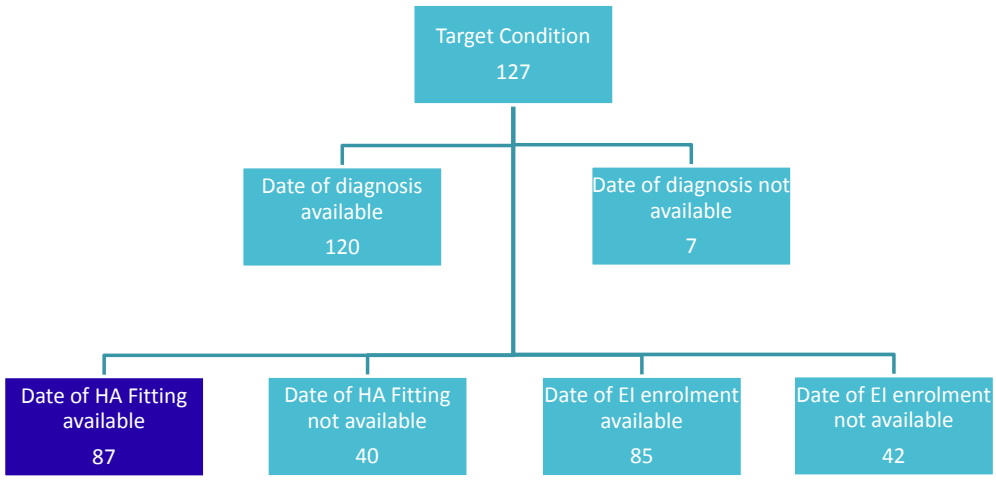
Results



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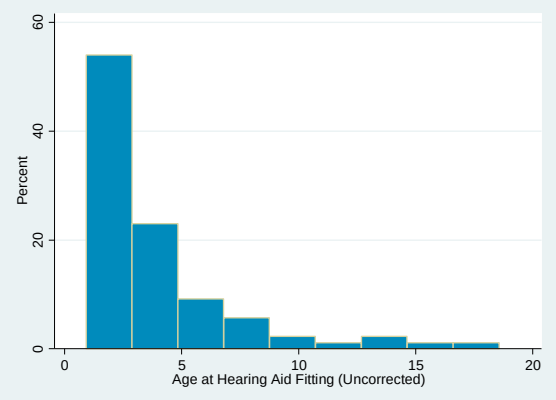
Pathway milestones – fitting of hearing aids



- Mean: 3.9m *3.5m*
- Median: 2.8m *2.5m*
- Min: 0.9m
- Max: 18.5m
- 25-75%^{ile}: 1.9m – 4.7m

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Case note review – late aid fit (≥6m age corrected)

	N
Child Factors	
Other health issues/disabilities a priority	2
Not eligible for services (AN, NH, out of state)	4
Family Factors	
None Documented	0
Lost to documentation	
No information in our data	9
Loss to follow up	
Failed to engage/ disengaged with services	2

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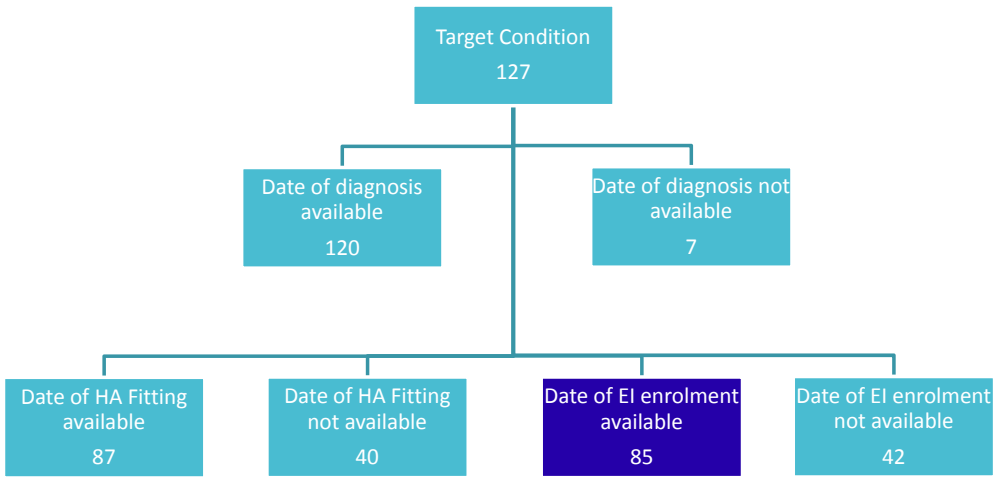
Results



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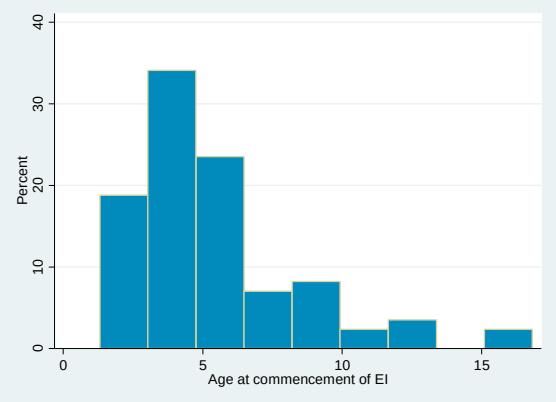
Pathway milestones – commencement EI



- Mean: 6.9m *6.3m*
- Median: 6.6m *6.3m*
- Min: 1.6m
- Max: 18.7m
- 25-75%ile: 3.2m – 9.0m

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Case note review – late EI (≥6m age corrected)

	N
Child Factors	
Other health issues/disabilities a priority	4
Family Factors	
NESB factors not addressed	2
Family out of state	3
Lost to documentation	
No information in our data	10
Loss to follow up	
Failed to engage/ disengaged with services	9

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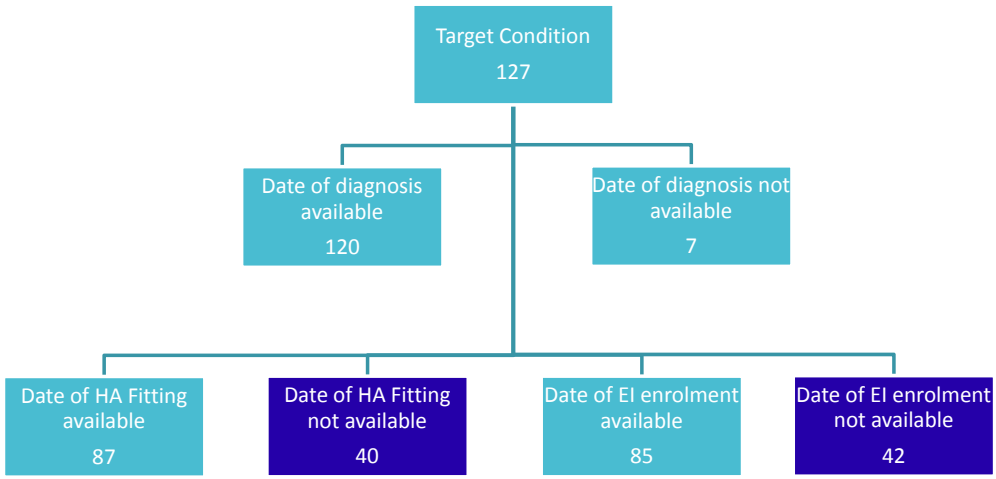
Results



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Explanations for no HA fitting date or EI enrolment date

49 have either no HA date or no EI enrolment date

- Perhaps they are still young?
  - Out of 49, 17 were born July 2014 or later
- Perhaps they were born prem and are still not well/ready?
  - 12 were born pre-term (<37 weeks)
- Are there other reasons?
  - Case note review

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Case note review – no aids or EI	N
Child Factors	
Delays in getting a definitive diagnosis	10
Other health issues/disabilities a priority	10
Not eligible for services (AN, NH, out of state)	15
Family Factors	
NESB barriers not addressed	6
Family out of state	5
Other/prior experience with the system/other agencies involved	7
Lost to documentation	
No information in notes	23
Loss to follow up	
Failed to engage/ disengaged with services (inc. ESS)	39

Summary of reasons for late or no access to aids or EI

- Child factors
  - Delays in definitive diagnosis
  - Other medical conditions/disabilities
  - Not eligible for services
- Family Factors
  - Out of state
  - NESB
  - Prior experience of system

Summary of reasons for late or no access to aids or EI

- Loss to documentation
- Loss to follow up

Which of these can we realistically try to impact on?

Next steps

- Promote early access
  - priority in past, present, future
- Child factors
  - Limited capacity to impact/change on these
- Family factors
  - Limited, focus on NESB families

Next steps

- Loss to documentation
  - room for improvement
  - promote data recording to service's core duties
  - use of electronic records, consolidate databases
  - increase activities to obtain key data (eg dates of events)
- Minimise loss to follow up
  - room for improvement
  - explore risk factors for LTF & ameliorate
  - networking with other services

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Next steps

"Loss to documentation and loss to follow-up rates are threats to the effectiveness of EHDI systems. Reduction in these losses is a high priority…"
(AAP, Pediatrics 2013, p. 1326)

Prioritise: engagement with services,
linking between services,
electronic recording of key milestones

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Thank you to VIHSP ESS and SPO teams