Pathways of care Longitudinal study: Outcomes of Children and Young People in Out-of-Home Care

Data User Training Resource

By NSW Department of Communities and Justice

October, 2019
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Introduction

Aims of Training

Aims of the Study
Aims of data user training

The aim of the data user training is to assist researchers to learn about the POCLS data.

This resource will also direct you to other important documents such as the questionnaires, data dictionaries, data books, measures manual and technical reports.
Aims of the Study

The aim of the Pathways of Care Longitudinal Study is to provide significant new knowledge that will inform policy to improve the outcomes of children and young people in OOHC.

The *Pathways of Care Longitudinal Study* (POCLS), is a large-scale prospective study that follows children and young people aged 0–17 years entering out-of-home care (OOHC), under the NSW *Children and Young Persons (Care and Protection) Act 1998*, for the first time.

POCLS is designed to examine how child protection history, parental risk factors, system response, type of court order, placement and carer characteristics interact with each other to influence child and young person (hereafter child) outcomes over time.

POCLS objectives are to:

- describe the characteristics, child protection history, development & wellbeing of children at the time they first enter OOHC
- describe the services, interventions & pathways for children in OOHC, post restoration, post adoption & on leaving care at 18 years
- describe children’s experiences while growing up in OOHC, post restoration, post adoption and on leaving care at 18 years
- understand the factors that influence the outcomes for children who grow up in OOHC, are restored home, are adopted or leave care at 18 years
- inform policy & practice to strengthen the OOHC service system in NSW to improve outcomes for children in OOHC (including permanency, safety, and wellbeing (including their physical health, socio-emotional wellbeing and cognitive/learning ability))

Examines the impact of child protection history, parental risk factors, system response, type of court order, placement and carer characteristics on outcomes over time
Factors influencing outcomes of children in OOHC - conceptual overview

<table>
<thead>
<tr>
<th>Family background and pre-care context</th>
<th>Entry into OOHC</th>
<th>OOHC context</th>
<th>OOHC carer characteristics</th>
<th>Child’s relationship with carers</th>
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<tbody>
<tr>
<td>Neighbourhood and community characteristics</td>
<td>Children’s Court Order</td>
<td>OOHC placement characteristics</td>
<td>Demographics &amp; socio-economic status</td>
<td>Child development in OOHC</td>
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<td>• Geographic location</td>
<td>• Duration</td>
<td>• Placement type</td>
<td>• Family composition</td>
<td></td>
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<tr>
<td>• Unemployment rate</td>
<td>• Type</td>
<td>• Placed with siblings</td>
<td>• Health and wellbeing</td>
<td></td>
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<td>• Housing affordability</td>
<td>• PR aspects</td>
<td>• Physical environment</td>
<td>• Experience, support and satisfaction</td>
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<tr>
<td>• Social cohesion</td>
<td></td>
<td>• Culturally matched</td>
<td>• Parenting style</td>
<td></td>
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<tr>
<td>• Crime rate</td>
<td></td>
<td>• Geographic location</td>
<td>• Activities with child</td>
<td></td>
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<td></td>
<td></td>
<td>• Neighbourhood</td>
<td>• Social support</td>
<td></td>
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<tr>
<td>Child characteristics</td>
<td>Care Plan</td>
<td>OOHC services and support</td>
<td>Quality of relationship with birth family</td>
<td></td>
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<tr>
<td>• Age</td>
<td></td>
<td>• Assessment of child’s needs</td>
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<tr>
<td>• Cultural background</td>
<td></td>
<td>• Provision of services</td>
<td></td>
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<tr>
<td>• Gender</td>
<td></td>
<td>• Childcare, school, work</td>
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<td></td>
<td></td>
<td>• Casework and monitoring of placements</td>
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<td>• Case planning and review (including adoption/restoration/leaving care)</td>
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<td>• Professional relationship with carer, child and birth family</td>
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<td></td>
<td>• Carer training and support</td>
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<td>• Caseworker training and supervision</td>
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<td>• Documentation and record Keeping</td>
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<td>Child’s relationship with service providers</td>
<td></td>
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<tr>
<td>Birth parent characteristics</td>
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<tr>
<td>• Age and cultural background</td>
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<tr>
<td>• Socio-economic status</td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>• Family composition</td>
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</tr>
<tr>
<td>• Grew up in OOHC</td>
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<tr>
<td>• Risk factors</td>
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<tr>
<td>• Physical health</td>
<td></td>
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<tr>
<td>• Domestic violence</td>
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<tr>
<td>• Substance use</td>
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<tr>
<td>• Mental health</td>
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<tr>
<td>• Intellectual disability</td>
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</tbody>
</table>

Source: Literature review: factors influencing the outcomes of children and young people in OOHC, Walsh et al. (2018).
All these can be explored within a longitudinal analytic framework, with data being organised in a person-place-time structure.

See technical report number 13 - Human Capital Formation During Childhood: Foundations of the Pathways of Care Longitudinal Study
Accessing POCLS data and user resources

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Access to POCLS data

Approval and access process

SURE
Access to POCLS data

Scientifically sound, ethically acceptable and feasible research proposals

Access to POCLS data is contingent on:

- a feasible research question answerable with the available data
- a scientifically sound and feasible research proposal
- ethics approval for the proposal and data custodian approval for access to linked data, if required

There are two ways to use the POCLS data:

1) Access the survey data and DCJ child protection and out-of-home care data only

2) Access all data including linkage data (i.e., health, education and offending etc.)

There are additional conditions and requirements for accessing linkage data
Access process

**Step 1: EOI**
Researcher submits a Expression of Interest (EOI) form.
POCLS Chief Investigator assesses feasibility and provides estimates of likelihood of approval. The researcher then seeks funding for the project.

**Step 2: Application**
If scientifically sound, feasible and consistent with participants’ consent, the Chief Investigator approves the application.

**Step 3: Access**
The researcher gains any necessary approvals and the researcher is given access to the data in SURE.

**Step 4: Amendments**
In the event of any changes to the approved project protocol, the researcher submits a Research Project Amendment form. Written approval for amendments must be obtained before they are implemented in practice.

**Step 5: Reporting**
A Project Progress and Final Report for all research projects is required. The information provided will be used to inform POCLS partners, Study participants and to update the website and other information sources.

For more information please see Data Access, Analysis and Publication Guidelines
Accessing record linkage data

There are specific conditions attached to the use of the record linkage datasets.

A data use guide on accessing these administrative datasets is available in the Technical Report ‘Guidelines for using record linkage data’.
Process for requesting access to linkage data*

For NAPLAN data

1. Researchers complete Statement Form and Letter in Section 3.2 by specifying the variables requested and research questions.

2. Researchers scan and send signed template letter and signed form to DCJ.

3. DCJ to sign off that questions and variables comply with ethics, and send the signed documents to the NSW Department of Education (DoE) for approval.

4. DoE returns the signed statement form to DCJ who will forward a copy to the named researcher.

5. DCJ to release data to researcher’s SURE workspace.

For other linkage data (BOCSAR, AEDC, Health etc.)

1. Complete Self-declaration Form in Section 3.1 by specifying linkage datasets requested and research questions.

2. Scan and send signed form to DCJ who will forward a copy to the relevant data custodian for reference.

3. DCJ to release relevant data to researcher’s SURE workspace.

* Extract from the guidelines. For more information please see Guidelines for using record linkage data
Secure Unified Research Environment (SURE)

It is necessary to manage risks to confidentiality and privacy inherent in release of unit record data, whilst supporting ready access to data collaboration amongst researchers. Flexible data access and distribution control is therefore required. To this end, data files will only be accessible to researchers through the Secure Unified Research Environment (SURE).

SURE is a high-powered computing environment where researchers remotely and securely access a data research laboratory to analyse project data.

A project-data-curator controls import and export of files to the project workspace.

A process map for access to POCLS data through SURE environment is available at the POCLS website. Further details about SURE, including access costs are available at https://www.sax institute.org.au/our-work/sure/
POCLS SURE business rules for uploading and downloading files

- All users agree to only access documents that belong to their team.
- Each team puts their folder name in as part of a file name for inbound and outbound files, such as "USYD results part 1.docx" etc.
- File Encryption: you can use 7zip to encrypt and password protect files (when required) for UPLOADING inbound or outbound files.
- A random password can be created for you to use. Alternatively, you can create your own password. If you prefer to use your own password, please email the Data Custodian (Albert.Zhou@facs.nsw.gov.au) a copy of your password. This is necessary as we need the password to view and approve your files in the curated gateway.

- DCJ curates all the files that go into and out of SURE.

For more information, please see the POCLS SURE Business Rules document.
User resources

Data User Guide
A detailed Data User Guide is available on the POCLS website.

Questionnaires & Data Dictionaries
Close review of the questionnaire items, skip and loop patterns and response options and codes is essential during analysis of the POCLS data. POCLS Questionnaires and Data Dictionaries are available on the POCLS website.

Data Books (only available in SURE)
Simple frequency tables for POCLS data items are useful when planning and checking analyses.

Data Books presenting frequency tables for all coded POCLS survey variables are available on the POCLS website.

Measures Manual
An overview of the standardized assessment tools and measures applied in the POCLS surveys are available on the POCLS website.

Guidelines for using record linkage data
An overview of the standardized assessment tools and measures applied in the POCLS surveys are available on the POCLS website.

Guidelines for survey, analysis and publication

Looping and conditional branching

POCLS technical reports (see next slide)

POCLS website
These documents and a whole range of other information can be found at www.community.nsw.gov.au/pathways

The POCLS team
User resources

**POCLS technical reports**
(Available on the POCLS website)


The POCLS team

Current members in the POCLS team

- Merran Butler (Chief Investigator) Merran.Butler@facs.nsw.gov.au
- Marina Paxman (Project Manager)* Marina.Paxman@facs.nsw.gov.au
- Albert Zhou (Data Manager)# Albert.Zhou@facs.nsw.gov.au
- Sharon Burke (Senior Analyst) Sharon.Burke@facs.nsw.gov.au
- Courtney Breen (Senior Researcher) Courtney.Breen@facs.nsw.gov.au
- Robert Wells (Senior Researcher) Robert.Wells@facs.nsw.gov.au
- Nafisa Asif (Senior Researcher) Nafisa.Asif@facs.nsw.gov.au
- Henry Durant (Research Officer) Henry.Durant@facs.nsw.gov.au
- Toula Kypreos (Project Officer) Panagiota.Kypreos2@facs.nsw.gov.au

* Main contact for anything related to research agreement/contract, amendment to research agreement/research proposal and POCLS questionnaires etc.

# Main contact for any data and analysis related issues.
POCLS design and samples

Governance and Ethics

Study timeline

Study cohorts
NSW DCJ is funding and leading the study, with a team of experts contracted to provide advice on the study design and data analysis.

The expert team includes representatives from the Australian Institute of Family Studies (AIFS), Sax Institute, Chapin Hall Center for Children (University of Chicago), and Professor Judy Cashmore (University of Sydney), Professor Paul Delfabbro (University of Adelaide) and Professor Ilan Katz (University of NSW).

The fieldwork is being undertaken by I-view, an independent social research data collection agency.

University of New South Wales Human Research Ethics Committee (UNSW HREC) granted approval for POCLS (Approval Number HC10335 & HC16542).

The Aboriginal Health and Medical Research Council (AH&MRC) of NSW Ethics Committee granted approval for POCLS (Approval Number 766/10).

NSW Department of Education and Communities State Education Research Approval Process (SERAP) granted approval for POCLS (Approval Number 2012260) and the Catholic Education Office (CEO) Sydney (and relevant Diocese) granted approval for the childcare worker and teacher survey.

Approval for record linkage was granted by the NSW Population and Health Service Research Ethics Committee (Approval Number Ref: HREC/14/CIPHS/74 Cancer Institute NSW: 2014/12/570). Record linkage was performed by the NSW Centre for Health Record Linkage (CHeReL).

Approval for record linkage to Australian Government-held datasets will be provided by the Australian Institute of Health and Welfare (AIHW) Ethics Committee and record linkage performed by the AIHW Data Linkage Unit (an Accredited Integrating Authority).
Study Timeline

Capture data on experiences and development of children in OOHC

Entry ≠ W1
Measures on outcomes from survey were not available at this point.

Repeated measurements (from interview) from wave 1 onward.

Data is currently available on 4 waves of interviews and captures information about OOHC which is not available through the administrative data.

Entry to study was from May 2010 to October 2011
Wave 1 data collection was from June 2011 to August 2013
Wave 2 data collection was from April 2013 to March 2015
Wave 3 data collection was from October 2014 to July 2016
Wave 4 data collection began in May 2017 to November 2018
## Key reforms over the life of POCLS

### Reforms as a result of inquiries and reviews

<table>
<thead>
<tr>
<th>Year</th>
<th>Review</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>Wood Special Commission of Inquiry into Child Protection</td>
<td>Keep Them Safe (KTS) in 2009</td>
</tr>
<tr>
<td>2012</td>
<td>Child Protection Legislative Reforms</td>
<td>Safe Home For Life (SHFL) in 2014</td>
</tr>
<tr>
<td>2016</td>
<td>Independent Review of Out of Home Care</td>
<td>Their Futures Matter &amp; Permanency Support Program (PSP) in 2017</td>
</tr>
</tbody>
</table>

For more information, see the technical report “Out-of-home care policy landscape in NSW: 2009-2018 (W1-4)”
Study cohorts

POCLIS population cohort: all children aged 0-17 years entering OOHC for the first time between May 2010 – October 2011 (n=4,126)

No final care and protection orders by April 2013 (n=1,298)

Final care and protection orders by April 2013 (n=2,828)

Final orders interview sample pool (n=1,789)

Child & caregiver face-to-face interviews (repeated every 18-24 months)
  W1: 1285
  W2: 1200
  W3: 1033
  W4: 962

Two components within:
1. In-OOHC at W1 (n=2305)
2. Restored at the time of W1 recruitment (n=521) and not included at W1. Of these, n=96 participated at W2; n=60 at W3…

No comparison group on children who have never entered OOHC

Record linkage data provides service use, broad outcome data (e.g., education, offending) and pre-care context (ROSH reports, OOHC placements)

Face-to-face interview provides rich data on developmental outcomes (via standardised measures), experiences in OOHC etc
Study cohorts

The sample was drawn from the DCJ (formerly FACS) Key Information Directory System (KiDS) and included all children entering care for the first time between May 2010 & October 2011 (n=4,126). Prior to recruitment of children and young people to the study the KiDS data was verified by regional staff to ensure the demographics data and care data was up to date.

Caregivers of children who went on to receive final orders by April 2013 (n=2,828) were recruited to participate in face-to-face interviews. Those that did not receive final orders by April 2013 (n=1,298) were not invited to participate in face-to-face interviews.

Final versus non-final orders:
The due date for receiving a final order (30/04/2013) doesn’t bear any significance in terms of how a child was developing at that point in time.

Those who were not on final orders by April 2013 might have received a final order later, returned to their birth parents, adopted or received a guardianship order. Similarly, those on final orders might have returned to their birth parents, adopted or exited OOHC to guardianship.

1,789 carers and children agreed to participate in face-to-face interviews with 1,285 providing data in Wave 1, 1,200 providing data into Wave 2 and 1,033 providing data in Wave 3. Wave 4 962. Wave 5 is currently underway.
## Participation in the POCLS interviews

<table>
<thead>
<tr>
<th>Wave</th>
<th>n</th>
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</thead>
<tbody>
<tr>
<td>Wave 1</td>
<td>1,285</td>
</tr>
<tr>
<td>Wave 2</td>
<td>1,200</td>
</tr>
<tr>
<td>Wave 3</td>
<td>1,033</td>
</tr>
<tr>
<td>Wave 4</td>
<td>962</td>
</tr>
<tr>
<td>All Waves</td>
<td>734</td>
</tr>
<tr>
<td>At least one wave</td>
<td>1,507</td>
</tr>
</tbody>
</table>
Main reasons for not participating in interview

- Hard refusal (no longer wanted to be interviewed)
- Unable to contact
- Unable to find a convenient time for interview
- Child changed placement and carer before interview could be scheduled.
# Cohort Characteristics

<table>
<thead>
<tr>
<th>Age at first entry</th>
<th>Population cohort</th>
<th>Final orders cohort</th>
<th>Wave 1 Interview</th>
<th>Wave 2 Interview</th>
<th>Wave 3 Interview</th>
<th>Wave 4 Interview</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>0-2 years</td>
<td>1,649</td>
<td>40.0</td>
<td>1,377</td>
<td>48.7</td>
<td>707</td>
<td>55.4</td>
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<tr>
<td>3-5 years</td>
<td>752</td>
<td>18.2</td>
<td>533</td>
<td>18.8</td>
<td>236</td>
<td>18.5</td>
</tr>
<tr>
<td>6-11 years</td>
<td>1,031</td>
<td>25.0</td>
<td>680</td>
<td>24.0</td>
<td>259</td>
<td>20.3</td>
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<tr>
<td>12-17 years</td>
<td>693</td>
<td>16.8</td>
<td>238</td>
<td>8.4</td>
<td>75</td>
<td>5.9</td>
</tr>
<tr>
<td>Sex</td>
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</tr>
<tr>
<td>Male</td>
<td>2,059</td>
<td>49.9</td>
<td>1,452</td>
<td>51.3</td>
<td>638</td>
<td>49.7</td>
</tr>
<tr>
<td>Female</td>
<td>2,066</td>
<td>50.1</td>
<td>1,376</td>
<td>48.7</td>
<td>647</td>
<td>50.4</td>
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<tr>
<td>Cultural background</td>
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<tr>
<td>Aboriginal</td>
<td>1,323</td>
<td>32.1</td>
<td>927</td>
<td>32.8</td>
<td>438</td>
<td>34.1</td>
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<tr>
<td>CALD</td>
<td>429</td>
<td>10.4</td>
<td>298</td>
<td>10.5</td>
<td>131</td>
<td>10.2</td>
</tr>
<tr>
<td>Other Australian</td>
<td>2,373</td>
<td>57.5</td>
<td>1,603</td>
<td>56.7</td>
<td>659</td>
<td>51.3</td>
</tr>
<tr>
<td>Both CALD and Aboriginal</td>
<td>57</td>
<td>4.4</td>
<td>1,816</td>
<td>64.2</td>
<td>420</td>
<td>35.0</td>
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<tr>
<td>Placement type</td>
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</tr>
<tr>
<td>Foster care</td>
<td>2,372</td>
<td>57.5</td>
<td>1,816</td>
<td>64.2</td>
<td>661</td>
<td>51.4</td>
</tr>
<tr>
<td>Kinship/relative care</td>
<td>1,186</td>
<td>28.8</td>
<td>719</td>
<td>25.4</td>
<td>598</td>
<td>46.5</td>
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<tr>
<td>Residential care</td>
<td>38</td>
<td>0.9</td>
<td>22</td>
<td>0.8</td>
<td>26</td>
<td>2.0</td>
</tr>
<tr>
<td>Other</td>
<td>529</td>
<td>12.8</td>
<td>270</td>
<td>9.5</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>District</td>
<td></td>
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<tr>
<td>Hunter new england</td>
<td>750</td>
<td>18.2</td>
<td>507</td>
<td>17.9</td>
<td>281</td>
<td>22.0</td>
</tr>
<tr>
<td>South western sydney</td>
<td>515</td>
<td>12.5</td>
<td>379</td>
<td>13.4</td>
<td>140</td>
<td>11.0</td>
</tr>
<tr>
<td>Western nsw</td>
<td>395</td>
<td>9.6</td>
<td>256</td>
<td>9.1</td>
<td>134</td>
<td>10.5</td>
</tr>
<tr>
<td>Western sydney</td>
<td>355</td>
<td>8.6</td>
<td>266</td>
<td>9.4</td>
<td>74</td>
<td>5.8</td>
</tr>
<tr>
<td>Nepean blue mountains</td>
<td>300</td>
<td>7.3</td>
<td>226</td>
<td>8.0</td>
<td>124</td>
<td>9.7</td>
</tr>
<tr>
<td>Illawarra shoalhaven</td>
<td>242</td>
<td>5.9</td>
<td>171</td>
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<td>155</td>
<td>5.5</td>
<td>79</td>
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<tr>
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<td>223</td>
<td>5.4</td>
<td>180</td>
<td>6.4</td>
<td>74</td>
<td>5.8</td>
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<tr>
<td>Northern nsw</td>
<td>223</td>
<td>5.4</td>
<td>121</td>
<td>4.3</td>
<td>73</td>
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<tr>
<td>Southern nsw</td>
<td>218</td>
<td>5.3</td>
<td>144</td>
<td>5.1</td>
<td>58</td>
<td>4.5</td>
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<tr>
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<td>151</td>
<td>5.3</td>
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<td>2.5</td>
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<td>4.4</td>
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<tr>
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<td>17</td>
<td>1.3</td>
</tr>
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<td>1.1</td>
<td>np</td>
<td>np</td>
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<td>np</td>
</tr>
<tr>
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<td>np</td>
<td>np</td>
<td>np</td>
<td>np</td>
</tr>
<tr>
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<td>4,126</td>
<td>100.0</td>
<td>2,828</td>
<td>100.0</td>
<td>1,285</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Other in the Placement type includes supported accommodation, parents etc.
Data sources and survey contents

- Survey versus administrative data
- Internal versus external
- Child and Carer measures and interviews
- Carer interview modules
- Child interview modules
- Childcare/School teacher and Caseworker online surveys
The POCLS has a multi-informant data approach and includes:

- Primary Data Collection from children and caregivers
- Primary Data Collection from Childcare/School teachers and Caseworkers.
- Record linkage to retrospective FACS Administrative data
- Record linkage to Education Administrative Data
- Record linkage to Health Administration Data
- Record linkage to Justice Administrative Data
Child and Carer measures and interviews

**Carer Measures and Interviews**

By now, 4 waves of interviews, 18-24 months apart to capture information about OOHC (not available through the administrative data) have been conducted.

To ensure that the measures of infant development were reliable, carer face-to-face interviews were not conducted until the child was aged 9 months old.

Caregivers gave consent for the childcare and school teacher surveys.

Most open ended responses have been coded. The data file also contains all verbatim as collected.

**Child Measures and Interviews**

Children under 3 years did not participate directly in the data collection.

An interviewer-administered measure of language comprehension was undertaken with children aged 3 years and older.

An interviewer-administered measure of non-verbal reasoning skills was undertaken with children aged 6 to 16 years old.

A short questionnaire was completed by children aged 7–17 years.

Most open ended responses have been coded. The data file also contains all verbatim as collected.

**Child FELT Security Activity**

The Kvebaek Family Sculpture Technique (FKST) is a symbolic figure placement procedure used in family assessment and research. The technique was adapted for POCLS to measure the child’s view of how close they feel to others (FELT Security).

The FELT Security activity was completed at each wave by children 7 years and older. The datasets that hold all of the FELT Security activity information are the INTV_felt_w1234_long.

(Note: For those who do not complete activity, questions are asked in ACASI.)

*The datasets that include all of the in-depth interview data collected from children and carers at each wave is called the INTV_cypc_w1234_long*
Carer interview modules

- Carer experience and training
- General health
- Relationship with the study child
- Restoration experience
- Partner relationship
- Needs and support
- Details of the carer who cares most for the study child (Carer 1)
- Details of the spouse of Carer 1 (if applicable)
- Other household members
- Finances and housing

Standardised measures completed by carers include:

- Socio-emotional wellbeing -
  - Ages and Stages Questionnaire (ASQ-3) for children 9-66 months
  - Brief Infant Toddler Social Emotional Assessment (BITSEA) for children 12-35 months
  - Child Behaviour Checklist (CBCL) parent report and teacher report for children 1.5-17 years
  - Abbreviated Temperament Scales, adapted from the Revised Infant Temperament Questionnaire, the Toddler Temperament Questionnaire and the Childhood Temperament Questionnaire for Children and the School Aged Temperament Inventory (short form) for children 9 months-17 years.

- Cognitive and language ability -
  - Communication and Symbolic Behaviour Scale Infant and Toddler Checklist (CSBS ITC) for children 9-23 months old
  - MacArthur Communicative Development Inventories—Short form for children 24-29 months old
  - MacArthur-Bates Communicative Developmental Inventories (MCDI-III) for children 30-35 months old.

Measures

The POCLS Measures Manual provides an overview of the standardised measures used in interviews, along with measure-specific references and suggested citation.

The Measures Manual is available on the POCLS website.
**Child interview modules**

- School and friends
- Health
- Wellbeing
- Placement
- Casework and support

Additionally, young people aged 12-17 years were asked questions on:

- Further education and work
- Health concerns
- Smoking, alcohol and drug use
- Case plan development
- Other thoughts and comments
- Personal contact details (to support ongoing contact with the young person (aged 14 years and older))

*Standardised measures completed by children included:*

- School Problems Scale for children 12-17 years
- School Bonding Scale for children 12-17 years
- Short Mood & Feeling Questionnaire for children 12-17 years
- Self-Report Delinquency Scale for children 10-17 years
- Felt security activity (adapted from the Kvebaek Family Sculpture Technique) for children 7-17 years.
- Peabody Picture Vocabulary Test (PPVT-IV) for children 3-17 years
- Wechsler Intelligence Scale for Children (WISC-IV) for children 6-16 years
Childcare/School teacher and Caseworker online surveys

Childcare and school teacher Surveys

Administered **online from Wave 2**. Captures rich information about the child’s behaviour at school and support provided to the child (childcare and teacher surveys completed on \( n=779 \) children).

On-line **cross sectional** survey data collected from childcare or school teachers.

The dataset that holds the Childcare/Teacher survey information is **SURV TEA**

Caseworker Survey

Administered **online in Wave 3** to caseworkers for the final care and protection orders cohort (Caseworker surveys completed on \( n=1652 \) children). The survey captures rich information about OOHC not available through the administrative data.

On-line **cross sectional** survey data collected from OOHC caseworkers.

**Most open** ended responses have been coded. The data file also contains all verbatim as collected.

The dataset that holds the Caseworker survey information is **SURV CW**

**Caregiver’s give consent for the childcare and school teacher surveys**
Important notes for using the data – Childcare/School teacher and Caseworker online survey dataset

**Childcare/School teacher dataset**

Where carer consent is provided, the school’s principal or the childcare director was contacted to identify the worker/teacher who knows the child best.

The survey was voluntary and secondary school teachers with less involvement with the students may not have felt they knew the child well enough to participate.

Administered to 1,789 interview sample pool.
Response rate 43.5%

**Caseworker dataset**

The Caseworker survey was completed online by the OOHC Caseworker who was nominated to know the child best.

The Caseworker survey was voluntary.

Administered to 2,828 final orders cohort.
Response rate 58.4%
Administrative Data linkage in POCLS

FACS Administrative Data

Education Administrative Data

Health Administrative Data

Justice Administrative Data
Linkage to DCJ Administrative Data

Historical data on child protection reports, legal status and OOHC placements

Provides historical data on child protection reports, legal status and OOHC placements for the study population cohort (n=4,126) up to 30 June 2016. This date corresponds to the completion of the Wave 3 survey data collection.

Deterministic linkage undertaken by DCJ.

The four FACS administrative datasets are:

- Child protection events data file (FACS_CP_REPORT);
- Detailed OOHC placements data file (FACS_OOHC_PLACMT);
- OOHC care periods data file (FACS_OOHC_PERIOD);

A linked file comprising selected variables from the child protection episodes and OOHC care periods files is available (FACS_SUMMARY).
The AEDC assesses physical health, language and cognitive skills, emotional maturity, social competence, communication skills and general knowledge at school start (Commonwealth Department of Education). The AEDC data is available for the calendar years 2009, 2012 and 2015.

NAPLAN looks at five dimensions of educational achievement: reading, writing, numeracy, spelling and grammar in Years 3, 5, 7 and 9 of school (NSW Department of Education and Communities). The NAPLAN data is available for the calendar years from 2008 to 2014.
Important notes for using the Education Administrative datasets

**NAPLAN**

Children not registered in NSW government schools in years 3, 5, 7, 9 between 2008 & 2014, are not included in the current linked dataset.

We’re currently sourcing NAPLAN from NSW Educational Standard Authority (NESA) to include all schools.

Refer to the study timelines above for relative timing of NAPLAN results of different test years.

Consult the Technical Report ‘Guidelines for using record linkage data’ prior to applying for linked data.
AEDC

AEDC is a population based measure of children’s development as they enter their first year of full time school. Data is collected nationally every three years.

Teachers complete the Australian version of the Early Development Instrument (AvEDI).

The AEDC measures five ‘domains’ of early childhood development:
- Physical health and wellbeing
- Social competence
- Emotional maturity
- Language and cognitive skills
- Communication skills and general knowledge

For each domain is scored 0 & 10, where 0 is most developmentally vulnerable.

Domain indicators are reported as proportion of children who are regarded as developmentally:
- on track (26th to 100th percentile)
- at risk (11th to 25th percentile)
- vulnerable (0 to 10th percentile)

Summary indicators

Summary indicators are:
- Developmentally vulnerable on one or more domains
- Developmentally vulnerable on two or more domains
Linkage to Health Administrative Data

Administrative health data on emergency department presentations, hospital admissions, perinatal and birth information, and mental health diagnoses and treatment

Provides information on attendance at hospital emergency departments and admissions to hospital, birth outcomes for mother and baby, and use of non admitted mental health services.

The availability of health administrative data varies depending on the type of data requested. For example, the NSW PDC data is available from 1 Jan 1994 to 31 Oct 2011, while the NSW EDDC is available up to 31 March 2016, corresponding to the completion of the Wave 3 survey data collection.

Probabilistic linkage undertaken by CHeReL.

The four NSW Ministry of Health administrative datasets are:

- Perinatal Data Collection (PDC)
- Emergency Department Data Collection (EDDC)
- Admitted Patient Data Collection (APDC)
- Mental Health – Ambulatory Data Collection (MH-ADC)

Two Death Registrations data sets are:

- Registry of Births Deaths and Marriages death registrations (NSW RBDMS)
- Cause of Death Unit Record File (COD-URF)
Important notes for using the Health Administrative datasets

Consult the Technical Report ‘Guidelines for using record linkage data’ prior to applying for linked data.

The Health Administrative datasets are for the most-part transactional, with each interaction with the health system recorded as a separate entry for the individual participant. So, for example, an individual will have many ‘row’s of hospitalisations data, each ‘row’ representing a hospital separation.

The Health Administrative datasets are complex in others ways also and it is important that the relevant Data Dictionary, provided by the Data Custodian, is consulted prior to use.

Useful links:
Linkage to Justice Administrative Data

- The Re-Offending Database (ROD). The ROD data is available from 1 Jan 2003 to 30 June 2015.

Probabilistic linkage undertaken by CHeReL

ROD provides data on dates of proven offences, severity of offence, penalties and custodial episodes.

Two files were received from BOCSAR (Bureau of Crime Statistics and Research) relating to either offences (proven/unproven) or custody.

The two BOCSAR datasets are BOCSAR-Custody and BOCSAR-Proven
Important notes for using the Justice Administrative datasets

Consult the Technical Report ‘Guidelines for using record linkage data’ prior to applying for linked data.

Some of the offending variables have a particular interpretation and it is important that the relevant Data Dictionary, provided by the Data Custodian, is consulted prior to use.

Of note:

- indexdate: Court finalisation date
- index_pooffdate: date of the proven offence that received the most significant penalty
- provenoff: nature of finalisation - whether all charges proven or some (no unproven matters)
- index_polawpart: offence level description of principal offence
POCLS variable naming convention

- Layout – Core fields
- Layout – Additional fields
- Important notes for using the data
- Important issues by dataset
Data dictionary layout – core fields

All data dictionaries include a standard set of core fields

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>LABEL</th>
<th>CODES</th>
<th>INSTRUCTIONS</th>
<th>ELIGIBILITY</th>
<th>APPLICABILITY</th>
<th>TYPE</th>
<th>LENGTH</th>
</tr>
</thead>
</table>

**Variables:** unique identifiers for each piece of data

**Labels:** short descriptions of the meaning of the variable

**Codes:** sets of possible values assigned to the variable and if appropriate value labels

**Instructions:** important information to know when using the variable

**Eligibility:** information on who was eligible to answer the question and/or provide the information (eg age group, sex)

**Applicability:** information on whether the question was relevant dependant on previous answers (eg skip patterns)

**Type:** how the data are provided eg character, numeric, date

**Length:** the maximum field length in characters and number of decimal places
Data dictionary layout – additional fields

The questionnaire data dictionaries also include Module, Questionnaire item, Mode, History and Source.

<table>
<thead>
<tr>
<th>MODULE</th>
<th>QUESTIONNAIRE _ITEM</th>
<th>MODE</th>
<th>HISTORY</th>
<th>SOURCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Module: group of related variables (ie related questions or service events)</td>
<td>Question identifier: a link to the questionnaire item asked of the participant</td>
<td>Mode: description of how the data was collected (eg Admin, CAPI, online survey) and who provided the data</td>
<td>History date when the variable was defined in its current form as well as any changes in question wording and/or codes</td>
<td>Source: reference for the questionnaire item and/or information (eg LSAC)</td>
</tr>
</tbody>
</table>
**Data dictionary – an example**

[Image of a data dictionary table]

**POCLS DATA DICTIONARY**

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>LABEL</th>
<th>CODES</th>
<th>INSTRUCTIONS</th>
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<th>N2_APP (Y/N)</th>
<th>N1_APP (Y/N)</th>
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<th>MODULE</th>
<th>QUESTION/ITEM</th>
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<tbody>
<tr>
<td>AC_COR_ACT_DINNER</td>
<td>CAREER</td>
<td>Days in last week spent doing activities with Study Child: Involved Study Child in everyday activities at home, such as cooking or caring for pets</td>
<td>Wave of data collection</td>
<td>3 months/6 years; 3 months-5 years; 3 months-5 years</td>
<td>Ask all</td>
<td>Numeric</td>
<td>5</td>
<td>CHILD ACTIVITIES</td>
<td>ACTIV</td>
<td>DAP</td>
<td></td>
</tr>
<tr>
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<td>Wave of data collection</td>
<td>3 months/6 years; 3 months-5 years; 3 months-5 years</td>
<td>Ask all</td>
<td>Numeric</td>
<td>5</td>
<td>CHILD ACTIVITIES</td>
<td>ACTIV</td>
<td>DAP</td>
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</tr>
<tr>
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<td>3 months/6 years; 3 months-5 years; 3 months-5 years</td>
<td>Ask all</td>
<td>Numeric</td>
<td>5</td>
<td>CHILD ACTIVITIES</td>
<td>ACTIV</td>
<td>DAP</td>
<td></td>
</tr>
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<td>3 months/6 years; 3 months-5 years; 3 months-5 years</td>
<td>Ask all</td>
<td>Numeric</td>
<td>5</td>
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<td>ACTIV</td>
<td>DAP</td>
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<td>Ask all</td>
<td>Numeric</td>
<td>5</td>
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<td>ACTIV</td>
<td>DAP</td>
<td></td>
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<tr>
<td>AC_COR_ACTIVE</td>
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<td>Activities attended by Study Child: Involved Study Child in everyday activities at home, such as cooking or caring for pets</td>
<td>Wave of data collection</td>
<td>3 months/6 years; 3 months-5 years; 3 months-5 years</td>
<td>Ask all</td>
<td>Numeric</td>
<td>5</td>
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<td>ACTIV</td>
<td>DAP</td>
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<td>Ask all</td>
<td>Numeric</td>
<td>5</td>
<td>CHILD ACTIVITIES</td>
<td>ACTIV</td>
<td>DAP</td>
<td></td>
</tr>
<tr>
<td>AC_COR_ACTIVE_MUSIC</td>
<td>CAREER</td>
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<td>Ask all</td>
<td>Numeric</td>
<td>5</td>
<td>CHILD ACTIVITIES</td>
<td>ACTIV</td>
<td>DAP</td>
<td></td>
</tr>
</tbody>
</table>
Variable naming convention

**Variable name structure**

Each variable is named using a standard naming convention. The variable name structure is:

\[
\text{Module}_\text{Informant}_\text{QuestionDescriptor}_\text{Answer}
\]

For example, the variable regarding changes to the carer’s family routine in preparation for the child’s arrival is PC_CRR_PREP_FAMILY.

The structure being:

- **Module**: eg Setting up child’s placement and casework (PC)
- **Informant**: eg Carer (CRR)
- **Question descriptor**: eg Preparation (PREP)
- **Answer**: eg Family routine (FAM)

**Standard suffixes** are used to indicate variables for which free-text response is one of the available response options (CODE) and the actual text response (TXT).

**Variable Label**

The variable label is based on the Questionnaire item from which the variable is derived.

The label contains descriptors which indicate the Informant (eg CARER), whether the data is derived from administrative sources (PREFILLED), whether the variable contains free-text (FREE TEXT), and whether the data were coded from a free-text response back to a predetermined response (RECODE).
Derived variables

- **Placement type at time of interview – based on the relationship variable**
  \( PL\_CRR\_CARER1\_RELNCYODE \)

- **Flags of restoration, adoption and guardianship**

- **Binary and non-binary variables of Aboriginality and CALD**

- **Admin variables at time of interview, including:**
  - District
  - Community Services Centre (CSC)
  - Postcode
  - Placement purpose
  - Parental Responsibility status, etc
# Data confidentialisation

<table>
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<tr>
<th>Variable</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Survey data</strong></td>
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<td>Geographical</td>
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</tr>
<tr>
<td>Suburb</td>
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<td>Child</td>
<td></td>
</tr>
<tr>
<td>Child Date of birth (DOB)</td>
<td>Replaced by Month and Year of Birth.</td>
</tr>
<tr>
<td>ID (Study ID)</td>
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<tr>
<td>Height</td>
<td>Calculate BMI and remove Height/Weight.</td>
</tr>
<tr>
<td>Weight</td>
<td>Calculate BMI and remove Height/Weight.</td>
</tr>
<tr>
<td>Carer 1</td>
<td></td>
</tr>
<tr>
<td>Carer 1 ID</td>
<td>Replaced by ID.</td>
</tr>
<tr>
<td>Carer 1 Date of birth (DOB)</td>
<td>Replaced by Month and Year of Birth.</td>
</tr>
<tr>
<td>Carer 2</td>
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</tr>
<tr>
<td>CarerSpouse ID</td>
<td>Replaced by ID.</td>
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<tr>
<td>CarerSpouse DOB</td>
<td>Replaced by Month and Year of Birth.</td>
</tr>
<tr>
<td><strong>Administrative data</strong></td>
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</tr>
<tr>
<td>Child</td>
<td>Replaced by ID.</td>
</tr>
<tr>
<td>Carer</td>
<td>Replaced by ID.</td>
</tr>
</tbody>
</table>
Recorded response options

Available response options to questionnaire items are listed in the Data Dictionaries.

Response to a questionnaire item is often split across several related variables. For example:

- The Carer questionnaire asks the respondent about “Do you know what things about your family were considered as suitable for the child’s placement here?”. The allowed responses are ‘Yes (WRITE IN)[TEXT BOX]’, ‘No’, ‘DON’T KNOW’, ‘REFUSED’.

The questionnaire item requires that a ‘Yes’ response is accompanied by further, free-text, explanation. The text responses are captured in the variable IN_CRR_FAM_SUIT_TXT.

For this example the free-text response has also been coded and is available from the variables IN_CRR_FAM_SUIT_FAM, IN_CRR_FAM_SUIT_SAFE, ...... IN_CRR_FAM_SUIT_OTH.

These variables have the codes -9=not applicable, -7=not asked, 0=no, 1=yes.

You can see that analysis of this question may require inclusion of three levels of variables, i/ the basic coded response; ii/ the recoded free-text variables; and iii/ un-coded free-text.

Sorting the dataset by the variable name will group related variables.

Close review of the POCLS Questionnaires, response options and codes is essential prior to and during analysis of the POCLS data. POCLS Questionnaires and Data Dictionaries are available on the POCLS website.
Looping and conditional branching

All questionnaires include items that, depending on the response to the question, require the interviewer to ‘loop’ back to a previous question, repeat (‘loop’) the current question, or ‘skip’ a question.

‘Looped’ questions result in multiple response variables per question and each of these may align with multiple other variables.

‘Skip’ patterns (conditional branching) force the respondent to take a customised path through the questionnaire, the path will vary based on the response to the questions.

‘Skip’ patterns result in missing (blank) responses for specific questions for specific respondents, thus affecting frequency counts and having direct influence on selecting the denominator for calculation of proportions.

It is critical to refer to the relevant questionnaire and data dictionary to ensure the appropriate variables are identified and aligned.

Refer to the technical paper ‘Looping and Conditional Branching’ for further details.
Looping and conditional branching (continue)

- *An example of looping:*

  “What are three things you like doing?” – this question allows the respondent to provide up to three responses.

  Where the respondent provides activities of interest, the follow-up question asks, “… how often do you get to do these activities?” Each of the activities requires a frequency response.

  Hence at data collection the “… how often do you get to do these activities?” needs to be repeated (‘looped’ through) up to three times..
Data analysis issues

Data weights
Small cell counts and confidentiality
Sample size and statistical power
Sample heterogeneity
Left censoring
Definition of Aboriginality and CALD
**Data weights**

Being a longitudinal study, POCLS enables cross sectional estimation and analysis, estimation and analysis of changes between waves, and longitudinal data analysis involving several waves.

At each wave of the study a proportion of the population will not respond or not provide sufficient information for use in producing estimates. Non-respondents may also differ in key characteristics leading to bias.

Adjustments can be made to the estimates calculated from the responding sample that may reduce biases due to non-response.

Cross sectional and longitudinal weights have been calculated for the survey waves.

Notes on the derivation of the weights are available in the Technical Report ‘Weighting for the Pathways of Care Longitudinal Study’
Data weights – treatment of two sub-populations

- The population has two components: restored, who were not included in Wave 1, and those in OOHC, who were included in Wave 1.

- Substantive consideration of the restored cases suggested that they were different in many ways from the in-OOHC children.

- These two components of the population should be analysed separately, not least for the practical reason that there are no restored cases in Wave 1.

- If there are analyses that substantively make sense that combine the two components that can be achieved using the weights that have been calculated.

- For estimation of the variances and standard errors of estimates each component should be treated as a stratum in the statistical software being used.
Small cell counts and confidentiality

Presentation/reporting of small counts may pose some disclosure risks.

Deciding on a guideline regarding reporting small counts is often a trade-off between maintaining the usefulness of the data and maintaining the confidentiality of individual participants.

Further detailed guidance is available in the Technical Report ‘Guidelines for reporting results with small sample sizes’
POCLS Guidelines for reporting small numbers

- A frequency threshold value of 5 is adopted for reporting on analyses involving geographic location and/or demographic variables (i.e., age, sex, Aboriginality, primary cultural identity and language spoken).

- For analyses involving response variables (i.e., variables other than the geographic and demographic variables) or their interaction with geographic/demographic variables, the above rule can be relaxed.

- Use weighted data for analysis and reporting purposes where available unless there are specific reasons not to use weights in the analysis.

- Report on percentages and column or row totals (rather than the actual frequency value for each cell) in the tables and/or graphs if possible.

For more information, please see the POCLS Guidelines for reporting results with small sample sizes.
Minus codes

These are the set of minus codes used in the questionnaire data:

- Don’t Know: ‘-2’
- Refused to answer: ‘-3’
- No response: ‘-4’
- Text response available: ‘-5’
- Missing (in W1 because question added in W2 – back-coded at W1): ‘-6’
- Missing (because question added during W1): ‘-7’
- Missing (due to technical error): ‘-8’
- Not Applicable: ‘-9’.
Treatment of minus codes in the data

- While other minus codes can be considered as non valid/meaningful categories, the category ‘don’t know’ is usually one of the valid responses and has some meaning.

- For example, for the question “Does Study Child have an OOHC education plan?“, the carer can choose from ‘Yes’, ‘No’, ‘Don’t know’ and ‘Refused’.

A response of ‘don’t know’ could mean different things. It could mean:

“I don’t know what that document is” – which could suggest that they haven’t ever seen it or

it may mean “I received lots of documents and can’t recall if that was one of them” or

it could mean “I can’t remember at all” or something.

-
Treatment of minus codes in the data (continue)

- Users are reminded to check the frequency distributions of the relevant variables as part of the initial/preliminary analysis before making a decision on how to treat ‘-2’, e.g., whether to recode it, to combine it with other category or to exclude it from analysis altogether.

- The POCLS data books provide the frequency tables for all numeric variables from each wave.
Sample size and statistical power

- A sample size of at least 500 children from a homogeneous group (e.g., infants) was calculated as needed to support robust analysis of child development linear and quadratic growth by at least four major factors at a time (for example region, cultural background, placement type and child protection background).

- Sample size calculation used a 5% or 10% statistical significance level and 80% statistical power and was informed by National Study of Child and Adolescent Well-Being (NSCAW).

- For more information, please see the POCLS technical report number 5 - Statistical Power, Selection Bias, and Non-response Correction in the Pathways of Care Longitudinal Study. Pathways of Care Longitudinal Study: Outcomes of Children and Young People in Out-of-Home Care.
Sample heterogeneity

- The assumption of homogeneity – mixed effects model generally assumes that the population/sample is homogenous with respect to the association between predictors and outcomes.

- Because the POCLS cohort is a mixed bag of ages, their developmental trajectory would be very different given their age at entry (from the outset). So the POCLS cohort is heterogeneous in terms of the makeup of the children and their outcomes (see next slide).

- To address sub-group heterogeneity, alternative approaches, such as growth mixture models, may be worth considering.

- For example, the group-based semiparametric mixture modelling approach is designed to identify distinctive, prototypal developmental trajectories within the population; to calibrate the probability of population members following each such trajectory; and to related those probabilities to covariates of interest (Nagin, 2005).
Sample heterogeneity (continue)

Socio-emotional trajectories over the first three waves by age at entry using CBCL total problems scores
Left censoring

- Left censoring refers to the fact that we weren’t picking the child up at the time of initial placement from a measurement perspective.

- In other words, their developmental status and/or the condition they were in at the time of their initial placement cannot be observed.

- This arises as repeated measures only started from the wave 1 (i.e., baseline) interviews, not at the time of the first entry to care.

- This means little or no data exists to allow us to account for the initial condition of the child (e.g., socio-emotional well-being) at the start of placement, which may help explain their subsequent developmental trajectory (at W1, 2 etc).
Definition of Aboriginality and CALD

- There are the differences in demographic data (e.g. Aboriginal status, cultural background) for some POCLS children across waves and from different sources of collection (admin vs. survey).

- This is an issue of change of classification.

- Instead of allowing a time-varying Aboriginal/CALD variable, POCLS has adopted the following definitions:
  
  - Definition of Aboriginality - A child is counted as Aboriginal if he/she was identified as Aboriginal or Torres Strait Islander in the FACS child protection administrative data at Wave 1 or Wave 2 or if the caregiver indicated that the child was Aboriginal or Torres Strait Islander at Wave 3.

  - Definition of CALD - A child is counted as CALD if he/she was identified as CALD in the FACS child protection administrative data at Wave 1 or Wave 2 or if the caregiver indicated that the child was CALD at Wave 3.

  - Some children have dual membership of both groups. There are n=56 children who were identified to have the dual membership at wave 4.

  - The POCLS data includes two binary variables (for Aboriginality and CALD each) and a categorical variable with four categories (i.e., Aboriginal only, CALD only, both Aboriginal and CALD and Other Australian children).
# Selected measures for child developmental outcome domains by age

<table>
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<tr>
<th>OUTCOME DOMAINS</th>
<th>9-35 mths</th>
<th>3-5 yrs</th>
<th>6-11 yrs</th>
<th>12-17 yrs</th>
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<td>Socio-emotional development</td>
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<td>CBCL</td>
<td>CBCL</td>
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<td>Cognitive development - non verbal</td>
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<td>ASQ</td>
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<td>CSBS MCDI-III</td>
<td>PPVT</td>
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</table>
Use of standardised measures for longitudinal data analysis

- The use of multiple measures across domains and ages poses challenges for statistical analyses and the interpretation of the results, especially for analyses examining changes over time.

- A change in the outcome might be due, in part, to the use of different measurement instruments over time (i.e., ASQ vs. WISC).

- At this stage, we don’t have a single interval measure that covers the entire age range in an outcome domain, so it is not possible to model changes over time in an outcome domain for all children using interval measures.

- We’re exploring the feasibility of deriving a composite developmental outcome index with scaling properties harmonized across the age ranges assessed at each wave.

- In the meanwhile, here are some suggested approaches: 1) focus on a single outcome measure over time, e.g., CBCL; 2) derive a categorical outcome variable by aligning different measures across different age groups at each wave using either the established cut-offs or the suggested consistent cut-offs.
Use of standardised measures for longitudinal data analysis (continue)

**Suggested consistent cut-off points are:**

- up to one standard deviation from the mean to categorise a child’s development as being typical
- more than 1 to 1.3 standard deviations to identify a child’s development as being at risk and needing support
- more than 1.3 to 2 standard deviations as signifying the ‘clinical’ range or children needing professional intervention
- more than two standard deviations from the mean as indicating that a child is in need of ongoing intensive professional support.

For more information, please see the discussion paper “Measuring child developmental outcomes: approaches and methods”
SURE demonstration
POCLS space in SURE
POCLS space in SURE
POCLS space in SURE
POCLS space in SURE

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</tbody>
</table>
AEDC data
Using data from the Australian Early Development Census for the Pathways of Care Longitudinal Study

Pathways of Care Longitudinal Study

Study Working Group meeting

AEDC

6 March 2018
Talking points

1. Who participates in the AEDC?
2. What is the AEDC used for in schools?
3. What are the ‘valid’ variables? How should they be used?
4. What is the best way to report results for the domains?
5. Are there any standards we can compare to?
AEDC essentials

Population based measure of children’s development as they enter their first year of full time school

Data collected nationally every three years

Teachers complete the Australian version of the Early Development Instrument (AvEDI) for each child in their class

The AEDC measures five ‘domains’ of early childhood development:

Physical health and wellbeing
Social competence
Emotional maturity
Language and cognitive skills (school-based)
Communication skills and general knowledge
AEDC essentials

*Domain indicators*

For each domain, children receive a score of between zero and ten, where zero is most developmentally vulnerable.

Domain indicators reported as proportion of children who are regarded as:

‘Developmentally *on track*’ (26\textsuperscript{th} to 100\textsuperscript{th} percentile)

‘Developmentally *at risk*’ (11\textsuperscript{th} to 25\textsuperscript{th} percentile)

‘Developmentally *vulnerable*’ (0 to 10\textsuperscript{th} percentile)

Cut off percentile for each domain based on the baseline set in Cycle 1 to provide a reference point for comparison of results over time.
AEDC essentials

Summary indicators

*Developmentally vulnerable on one or more domains (DV1)*

*Developmentally vulnerable on two or more domains (DV2)*

*No scores or cut offs – a child either ‘Yes’ or ‘No’ for each summary indicator*

Indicators essentials

*Developed and validated for use as a population measure at a group level*

*Not psychometrically tested for application in relation to individual children*
Who participates in the AEDC?

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<td>Child participation</td>
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<tr>
<td>Estimated child population</td>
<td>267,772</td>
<td>300,504</td>
<td>312,832</td>
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<tr>
<td>Number of participating children</td>
<td>261,147</td>
<td>289,973</td>
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<tr>
<td>Child participation rate</td>
<td>97.5%</td>
<td>96.5%</td>
<td>96.5%</td>
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<tr>
<td>School participation</td>
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<td>Estimated in-scope schools</td>
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<td>95.6%</td>
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<td>96.7%</td>
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</table>
Who participates in the AEDC?

*Under-coverage - schools*

Independent sector

*Potential for under-coverage – children*

Children attending independent sector schools
Children who move schools
Opted out children
Indigenous, LBOTE, overseas born children
Dual placement, school of the air

- Non-coverage - children

Home schooled
What is AEDC used for in schools?

*Schools with six or more children participating receive standard template-based data products*

AEDC School Profile
AEDC School Summary

*‘School stories’ section of the AEDC website provides good examples of how the data is used in schools:*

‘Community development, early intervention and student services feed into full service and extended school model to lower childhood vulnerability’

‘Socialising in the sandpit and more – schoolyard revamped to support learning’

‘School engages isolated new families with an onsite playgroup’
What is AEDC used for in schools?

‘School stories’ section of the AEDC website provides good examples of how the data is used in schools (continued):

‘Primary school partners with kindergarten services to improve outcomes for children’
‘Results trigger action to improve physical skills of migrant children’
‘How the AEDC data has changed teaching and family support practices’
‘Birth to Year 7 - school uses the results to create a coordinated approach to Early Years Planning’
‘Authentic relationships and tailored support create space for families to flourish’
What are the valid variables?

**Variable groupings in PoCLS data request**

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<tr>
<th>Demographic variables</th>
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<tr>
<td>Child - based geography</td>
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<tr>
<td>AvEDI variables / general variables</td>
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<tr>
<td>- Teacher observation at school</td>
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<tr>
<td>AvEDI variables / general variables</td>
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<tr>
<td>- Teacher knowledge of child circumstances outside school</td>
</tr>
<tr>
<td>Local community based geography</td>
</tr>
<tr>
<td>Domain variables</td>
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<tr>
<td>Sub-domain variables</td>
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</table>
What are the valid variables?

Official line on sub-domain variables

Sub-domain data is only made available for exploratory research purposes and further research is being undertaken in Australia and overseas to investigate the validity of the sub-domain scores.
How should they be used?

*Confidentiality rules*

Non-disclosure of adverse information

90 per cent vulnerability rule

*Rule of three*

*Interpretability rules*

15 valid AEDC children rule

80 per cent coverage rule

*ERP rule*

Refer to AEDC Data Guidelines for full details
Best way to report results for domains

*Typically presented as a proportion of children in each category for each group*

*Extracts from miscellaneous data products*

*School summary*
*School profile*
*Data explorer*
*Community profile*
*National report*
Best way to report results for domains

**Emotional maturity**

This domain measures children’s pro-social and helping behaviours and absence of anxious and fearful behaviour, aggressive behaviour and hyperactivity and inattention

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<th>Children with valid scores (%)</th>
<th>Year</th>
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<td></td>
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<td>40%</td>
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<th>Developmentally at risk (n)</th>
<th>Developmentally vulnerable (n)</th>
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<td>2009</td>
<td>28</td>
<td>85.2</td>
<td>2</td>
<td>27</td>
</tr>
</tbody>
</table>

**Table 3: Emotional maturity domain category definitions.**

- **Developmentally on track**: Almost never show aggressive, anxious, or impulsive behaviour. Children will have good concentration and will often help other children.
- **Developmentally at risk**: Experience some challenges in the following areas: helping other children who are hurt, sick or upset, inviting other children to join in activities, being kind to other children, and waiting their turn in activities. They will sometimes experience problems with anxious behaviours, aggressive behaviour, temper tantrums, or problems with inattention or hyperactivity.
- **Developmentally vulnerable**: Experience a number of challenges related to emotional regulation. For example problems managing aggressive behaviour being prone to disobedience and/or is easily distracted, inattentive, and impulsive. Children will usually not help others and are sometimes upset when left by their caregiver.

Note on results: data is shown only for children with valid AEDC scores. For any given child, scores may be valid for only some domains (e.g. due to a certain number of AEDC questions not being answered). In such cases that child’s results do not contribute to the domain’s analysis. Totals may therefore vary across the domains as a result of this. Results for children with chronic special needs are not included in the results.
Best way to report results for domains

### Developmentally vulnerable on ≥1 and ≥2 domain(s)

<table>
<thead>
<tr>
<th>Summary indicators</th>
<th>Geography</th>
<th>Children with valid scores (%)</th>
<th>Year</th>
<th>Children with valid scores</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>0%</td>
<td>20%</td>
<td>40%</td>
</tr>
<tr>
<td>Developmentally vulnerable on one or more domain(s)</td>
<td>Your School</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SA</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>National</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Vuln 1</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Developmentally vulnerable on two or more domains | Your School | | | | | | | | | |
| | | | | | | | | | | |
| | SA | | | | | | | | | |
| | National | | | | | | | | | |
| | Vuln 2 | | | | | | | | | |
# Best way to report results for domains

## Overall AEDC domain results for your school

<table>
<thead>
<tr>
<th>Domain</th>
<th>Total number of children with valid results</th>
<th>Developmentally on track (Number of children)</th>
<th>Developmentally on track (Percentage of children - %)</th>
<th>Developmentally at risk (Number of children)</th>
<th>Developmentally at risk (Percentage of children - %)</th>
<th>Developmentally vulnerable (Number of children)</th>
<th>Developmentally vulnerable (Percentage of children - %)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical health and wellbeing</td>
<td>7</td>
<td>3</td>
<td>42.9</td>
<td>2</td>
<td>28.6</td>
<td>2</td>
<td>28.6</td>
</tr>
<tr>
<td>Social competence</td>
<td>7</td>
<td>5</td>
<td>71.4</td>
<td>0</td>
<td>0.0</td>
<td>2</td>
<td>28.6</td>
</tr>
<tr>
<td>Emotional maturity</td>
<td>7</td>
<td>4</td>
<td>57.1</td>
<td>2</td>
<td>28.6</td>
<td>1</td>
<td>14.3</td>
</tr>
<tr>
<td>Language and cognitive skills (school-based)</td>
<td>7</td>
<td>6</td>
<td>85.7</td>
<td>0</td>
<td>0.0</td>
<td>1</td>
<td>14.3</td>
</tr>
<tr>
<td>Communication skills and general knowledge</td>
<td>7</td>
<td>5</td>
<td>71.4</td>
<td>2</td>
<td>28.6</td>
<td>0</td>
<td>0.0</td>
</tr>
</tbody>
</table>

*In Table 2.1, percentage values have been rounded.*
Best way to report results for domains

Developmentally vulnerable children

Table 3.1 reports the number of children in your school who are vulnerable on one or more developmental domain(s).

<table>
<thead>
<tr>
<th>Total number of children with valid results</th>
<th>Developmentally vulnerable on one or more domain(s) (Number of children)</th>
<th>Developmentally vulnerable on one or more domain(s) (Percentage of children – %)</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>3</td>
<td>42.9</td>
</tr>
</tbody>
</table>

In Table 3.1, percentage values have been rounded.

Table 3.2 reports the number of children in your school who are vulnerable on two or more developmental domains.

<table>
<thead>
<tr>
<th>Total number of children with valid results</th>
<th>Developmentally vulnerable on two or more domains (Number of children)</th>
<th>Developmentally vulnerable on two or more domains (Percentage of children – %)</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>2</td>
<td>28.6</td>
</tr>
</tbody>
</table>

In Table 3.2, percentage values have been rounded.
Best way to report results for domains

You are here: Home > Data > Data explorer

Refine by:
STATE/TERRITORY
- NSW

COMMUNITY
- Ashfield

LOCAL COMMUNITY
- Select All
- Ashfield
- Haberfield
- Summer Hill

Ashfield community

DISPLAY
- Vulnerable

YEARS
- 2009
- 2012
- 2015
- Compare years

VIEW
- Percentage of children
  - Geographic comparisons
  - Percentile bands

CONTEXT
- Select other indicators

TABLE: Percentage of children developmentally vulnerable in 2015

<table>
<thead>
<tr>
<th>Geography</th>
<th>Physical</th>
<th>Social</th>
<th>Emotional</th>
<th>Language</th>
<th>Communication</th>
<th>Vuln 1</th>
<th>Vuln 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>9.7</td>
<td>9.9</td>
<td>8.4</td>
<td>5.5</td>
<td>8.5</td>
<td>22.0</td>
<td>11.1</td>
</tr>
<tr>
<td>NSW</td>
<td>8.5</td>
<td>9.2</td>
<td>6.8</td>
<td>4.6</td>
<td>8.1</td>
<td>20.2</td>
<td>9.6</td>
</tr>
<tr>
<td>Ashfield</td>
<td>5.4</td>
<td>6.3</td>
<td>3.7</td>
<td>2.3</td>
<td>7.4</td>
<td>17.1</td>
<td>5.1</td>
</tr>
</tbody>
</table>

Location:
Ashfield
- Physical
- Social
- Emotional
- Language
- Communication
- Vuln 1
- Vuln 2

Haberfield
- Physical
- Social
- Emotional
- Language
- Communication
- Vuln 1
- Vuln 2

Summer Hill
- Physical
- Social
- Emotional
- Language
- Communication
- Vuln 1
- Vuln 2
Best way to report results for domains

Figure 7 – Emerging trends on the communication skills and general knowledge domain.

Table 19 – Emerging trends on the communication skills and general knowledge domain (Percentages shown).

<table>
<thead>
<tr>
<th>Emerging trend</th>
<th>2009</th>
<th>2012</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage of children developmentally on track (%)</td>
<td>72.7</td>
<td>75.1</td>
<td>77.2</td>
</tr>
<tr>
<td>Percentage of children developmentally at risk (%)</td>
<td>14.1</td>
<td>16.3</td>
<td>15.4</td>
</tr>
<tr>
<td>Percentage of children developmentally vulnerable (%)</td>
<td>13.2</td>
<td>8.7</td>
<td>7.4</td>
</tr>
</tbody>
</table>

Note: Figures may not add up to 100% due to rounding.
Best way to report results for domains


<table>
<thead>
<tr>
<th>AEDC domain</th>
<th>Children by developmental category (%)</th>
<th>Year</th>
<th>Children by developmental category</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Developmentally on track (%)  Developmentally at risk (%) Developmentally vulnerable (%) Total*</td>
</tr>
<tr>
<td>Physical health and wellbeing</td>
<td></td>
<td></td>
<td>2015 221,855 77.3 37,347 12.0 27,711 9.7 296,913</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2012 211,808 77.3 36,637 13.4 25,470 9.3 273,222</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2009 182,081 77.7 32,157 13.0 22,044 8.3 247,232</td>
</tr>
<tr>
<td>Social competence</td>
<td></td>
<td></td>
<td>2015 215,605 75.2 42,862 15.0 28,351 9.9 286,848</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2012 200,149 76.5 39,018 14.3 25,367 9.3 273,534</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2009 180,265 75.4 37,469 15.2 23,425 8.5 247,189</td>
</tr>
<tr>
<td>Emotional maturity</td>
<td></td>
<td></td>
<td>2015 213,341 78.4 43,564 15.3 23,868 8.4 285,801</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2012 213,059 78.1 38,778 14.2 20,845 7.6 272,682</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2009 188,210 75.6 38,160 15.5 21,827 8.9 246,197</td>
</tr>
<tr>
<td>Language and cognitive skills (school-based)</td>
<td></td>
<td></td>
<td>2015 242,518 84.6 25,567 8.9 18,533 6.5 286,648</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2012 225,260 82.8 20,072 10.6 18,584 6.8 273,986</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2009 160,288 77.1 34,570 14.0 21,033 8.0 246,110</td>
</tr>
<tr>
<td>Communication skills and general knowledge</td>
<td></td>
<td></td>
<td>2015 219,023 78.3 43,415 15.1 24,475 8.5 286,913</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2012 204,702 74.7 44,033 16.3 24,520 9.0 273,852</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2009 185,484 75.0 39,027 15.8 22,701 9.2 247,212</td>
</tr>
</tbody>
</table>

Summary indicators

<table>
<thead>
<tr>
<th>Summary of vulnerability (%)</th>
<th>Year</th>
<th>Summary of vulnerability</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Number</td>
</tr>
<tr>
<td>Developmentally vulnerable on one or more domain(s)</td>
<td></td>
<td>2015 62,960</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2012 59,933</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2009 58,038</td>
</tr>
<tr>
<td>Developmentally vulnerable on two or more domains</td>
<td></td>
<td>2015 31,754</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2012 20,543</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2009 29,227</td>
</tr>
</tbody>
</table>

*Total children with valid scores

AEDC National Report 2015 | 15
Questions

Email: support@aedc.gov.au
Phone: 03 9236 8523
Web: aedc.gov.au
NAPLAN data
Using NAPLAN data linked to the Pathways of Care Longitudinal Study

Dr Nadine Smith, Principal Statistical Analyst
Statistics and Analysis, CESE
Education, Centre for Education Statistics and Evaluation

6th March 2018
Overview

• What is NAPLAN?

• POCLS linkage: Who is missing NAPLAN data and why?

• NAPLAN participation and performance indicators

• Data considerations
What is NAPLAN?
National Assessment Program – Literacy and Numeracy

• Nationwide annual assessment

• Assesses literacy and numeracy skills required for students to progress through school and life

• Years 3, 5, 7 and 9

Example POCLS NAPLAN student data:

• Year 3 in 2008
• Year 5 in 2010
• Year 7 in 2012
• Year 9 in 2014
NAPLAN tests

- Reading
- Numeracy
- Writing
- Language

Genre changes: narrative or persuasive

 conventions  Spelling, grammar and punctuation
NAPLAN scaled scores

• One scale for each of the 5 domains
• Years 3, 5, 7 and 9 on the same scale
• Calendar years on the same scale
  • Example, Reading score of 400 reflects same level of attainment for a:
    • Year 3 student in 2008, and
    • Year 9 student in 2017
      (ignoring measurement/equating error)
POCLS/NAPLAN data linkage: Who was linked?

CHeReL project person number (PPN)

- 1711 PPNs linked to NAPLAN student identifiers
- 36 PPNs linked to multiple NAPLAN student identifiers
  - Students with multiple student IDs?
  - Incorrect linkage?
  - Recommend excluding these records from analysis
- 1675 PPNs linked to unique NAPLAN student identifier
- 3373 NAPLAN records
  - Between 1 and 4 records per student
POCLS/NAPLAN data linkage: Who was not linked?

• Students not registered in NSW government schools in Years 3, 5, 7 and 9 between 2008 and 2014

• Student age/year level out of scope

• NSW non-government student, out of state/country

• Missed linkage
  e.g. timing of enrolment vs NAPLAN school registration, poor identifiers

• Anything else?
NAPLAN participation

- **Present**
  - Sat the test
  - Received score/band
- **Absent**
  - Not present for testing *Disengaged from school? Error in school registration?*
  - No score/band
- **Withdrawn**
  - Withdrawn from the testing program by their parent/carer
  - No score/band
- **Exempt**
  - Students with significant disabilities may be exempted from testing
  - Language background other than English, arrived less than a year before test
  - No score, but deemed **below** national minimum standard

NAPLAN national minimum standard

• Nationally agreed minimum acceptable standard of knowledge and skill, without which a student will have difficulty making sufficient progress at school

• Students **below** are likely to need focused intervention and additional support to help them achieve the skills they require to progress in schooling

• Student **at** national minimum standard are often considered to also be at risk of having difficulty making sufficient progress at school

NAPLAN band structure

Percentage of students in bands varies by domain and year level, based on the selected cut-points. Only compare group differences or difference over time within a domain and year level.

NAPLAN performance indicator: At or below national minimum standard

- **At or below** minimum standard (educationally at risk)
  - Bottom two bands for year level, and
  - Exempt students
- **Above** minimum standard
  - Top four bands for year level
    - Can spilt if sample size permits
    - Middle two bands (on track)
    - Top two bands (premier’s target, well on track)
  - Absent and withdrawn students excluded from numerator and denominator
**Data considerations**

- *Sample size*
  - *Risk of identifying students, do not report cell sizes less than 5*
    - Try combining band categories
    - Use words not numbers
      e.g. More students were above min. standard in cohort 1 than cohort 2
  - *Challenging to drawing conclusions from small samples*

- *Measurement/equating error*

- *Comparing like with like*
  - *NAPLAN linkage*
  - *NAPLAN participation*
  - *Starting scores*
  - *SES*
Data considerations

*Socio-economic status*

- *Index of Community Socio-Educational Advantage (ICSEA)*
  - *School level indicator of average SES of student’s school at the time of NAPLAN testing*
  - *Variable linked to POCLS*
    - ICSEA value (lower = lower SES)
    - ICSEA decile within NSW government school
      e.g. Decile 1 – student’s school (at time of testing) was in the lowest 10% of NSW government schools by SES
Data considerations

Socio-economic status

- ICSEA limitations
  - School not student level
  - Parent/carer SES information may be out of date
    - From school enrolment form
    - Changes in parent/carer, e.g. OOHC
    - Changes prior to NAPLAN testing
  - Combines SES variables
    - Researchers cannot look at impact of individual SES variables
- Student level SES
  - Other SES variables in POCLS?
Data considerations

• **Individual student growth**

  • **Highly related to starting score**
    
    • Greater growth at the bottom of scale
    • Lower growth at top of scale
    • Potential for negative growth at the top end

• **Acceptable level of growth?**

  • Challenging to determine what is expected
  • Compare students with similar starting scores
Contacts

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9561 8226

Dr Lucy Lu  
Director, Statistics and Analysis, CESE  
Lucy.lu@det.nsw.edu.au  
9561 8691
School socio-educational disadvantage

How is ICSEA calculated

ICSEA VALUE – level of the school’s educational advantage

School socio-educational disadvantage

What does the ICSEA value mean for you?

The lower the ICSEA value, the lower the level of educational advantage of students who go to this school.

ICSEA is set at an average of 1000. You can use this value as an ICSEA benchmark.

The higher the ICSEA value, the higher the level of educational advantage of students who go to this school.

800 1000 1200

NSW Health data
POCLS Study Working Group

Health data: Tips and Tricks

Prepared by Michael Nelson
Principal Analyst, Strategic Information
Centre for Epidemiology and Evidence
NSW Ministry of Health
April 2018
Admitted Patient Data (APDC)

All inpatient separations (discharges, transfers and deaths) from all NSW:

- public, private, psychiatric and repatriation hospitals
- public multi-purpose services, private day procedure centres and public nursing homes.

Episode of care level data (Service Category changes: Acute / Rehab / Palliative Care)

Reporting by separation date

Diagnosis and procedures coded after separation (by trained clinical coders)

Patients are transferred between hospitals

Contract care arrangements may see care recorded in two facilities simultaneously
APDC – Variables requested

PPN

Episode Start Date

Days in Psych unit

The number of days the person was accommodated in a designated psychiatric unit, if they were admitted to a designated psychiatric unit at any time during the episode of care

Note from July 2017 there is a specific care type for mental health inpatient units

Episode length of stay

= episode end date – episode start date – leave days

Diagnosis codes

Major Diagnostic Category
Diagnoses and procedures coded using ICD10AM / ACHI

Classification and coding rules

Updated / changed every 2 years (10th Edition 1 July 2017)

Codes can change [eg: haemorrhoids]

Coding rules can change

Diabetes
Viral Hepatitis

Rehabilitation and primary diagnoses


Injuries have additional information:

External Cause [Accidents / Intentional Self Harm / Assault/V00 – X59]

Place [Y92]

Activity [Uxx.x]
APDC – details

*Major Diagnostic Category*

*DRG category (similar to primary diagnosis)*

*Versions change similarly to ICD10AM*

Emergency Department Data (EDDC)

Presentations to Public Hospital Emergency Departments

Coverage improving over time. Varies by region

Eg: Southern NSW – 1 hospital reporting.

Diagnosis coding – variation in coverage and classifications used

ICD9 / ICD10 / SNOMED

Not all facilities will report diagnosis information

Coded by staff at point of care

Overlap with APDC – patients admitted from / to ED

RBDM Death Registrations

Deaths registered in NSW

Medical certificate cause of death (free text)

Condition Directly Related / leading to death
Antecedent Causes
Other significant conditions
Some deaths are:

Reportable (Coroners act 2009 Section 6)
Examinable (Coroners act 2009 Section 23); (Coroners act 2009 Section 24)

NSW MOH receives daily feed of “registered” deaths

Coroners deaths may be slower

Cause information depends on coroner findings

RBDM Deaths linked every 6 & 10 Weeks
Cause of Death Unit Record File

Deaths registered in NSW

Cause of death information coded by ABS

http://www.abs.gov.au/ausstats/abs@.nsf/Latestproducts/3303.0Explanatory%20Notes12016

Using Coronial and MCCD data

Data released ~ annually. Currently available to 2016

Underlying cause

All contributing causes

Deaths coded to ICD10 (WHO)

Underlying Cause:

The disease or injury which initiated the train of morbid events leading directly to death. Accidental and violent deaths are classified according to the external cause, that is, to the circumstances of the accident or violence which produced the fatal injury rather than to the nature of the injury.

Record Axis (RACS) Data

The ICD-10 coded data representing all morbid conditions, diseases and injuries associated with the death as they are recorded after application of the ICD-10 coding rules and procedures for the selection of underlying and associated causes of death for mortality tabulation. Part of the process applies modification rules, improbable sequence rules and in addition duplicate codes and noise codes are removed.
Perinatal Data Collection (PDC)

All live births, and stillbirths of at least 20 weeks gestation or at least 400 grams birth weight in NSW public and private hospitals, as well as homebirths


Project person number
Mother's age
Mother's SLA of residence
Number of previous pregnancies
Gestational age
Birth weight
APGAR score (5 min)
Admitted to neonatal intensive care unit
Admission to Special Care Nursery or Neonatal Intensive Care
Questions?

Other useful links:


CHEREL Data Dictionaries:

Questions???
comments???

Please send feedback to
albert.zhou@facs.nsw.gov.au