The Australian Early Development Index: Results over time, and the work of the Fraser Mustard Centre

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The views expressed in this webinar are those of the presenter, and do not necessarily reflect those of the Australian Institute of Family Studies or the Australian Government.
What is the A/EDI?
• The Early Development Instrument (AEDI) is an approximately 100-question behavioural checklist originally designed in Canada, to measure child development between 4 and 6 years of age. The AEDI is completed by the child's teacher.

• It is designed for use with whole populations of children (based on geographical or administrative boundaries) and cannot be interpreted at an individual level for diagnostic purposes.
EDI details (2)

• The EDI covers 5 domains:
  – physical health and wellbeing,
  – social competence,
  – emotional maturity,
  – language and cognitive development and
  – communication skills and general knowledge.

• A measure of how well the community has raised their children before school.
Background to the development of the EDI
Sensitive Periods in Early Brain Development

Graph developed by Council for Early Child Development (ref: Nash, 1997; Early Years Study, 1999; Shonkoff, 2000.)
Predictive Validity
Childhood vulnerability and long term outcomes are linked.
Predictive Validity – Literacy (LSAC dataset)

Best predictors:
• AEDI (all domains)
• WAI

Worst predictors:
• PEDS
• SDQ
Predictive Validity – Behaviour (LSAC dataset)

Best predictors:
- WAI
- AEDI (all domains)

Worst predictors:
- PEDS
- SEIFA
Observe Transitions from EDI to School Completion

<table>
<thead>
<tr>
<th>Vulnerability (EDI)</th>
<th>University Eligible Grades</th>
</tr>
</thead>
<tbody>
<tr>
<td>29%</td>
<td>41.5%</td>
</tr>
<tr>
<td>15%</td>
<td>50.3%</td>
</tr>
<tr>
<td>10%</td>
<td>55.6%</td>
</tr>
</tbody>
</table>

The Benefit:

GDP growth of 1% for every 1% reduction in EDI vulnerability

Source: Hertzman 2011
Change in the AEDI results
National And Jurisdictional Level Change
<table>
<thead>
<tr>
<th>State/Territory</th>
<th>2009</th>
<th>2012</th>
<th>Comparative result</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No. of children</td>
<td>Developmentally vulnerable on one or more domain/s</td>
<td>No. of children</td>
</tr>
<tr>
<td>New South Wales</td>
<td>82,710</td>
<td>21.3</td>
<td>88,921</td>
</tr>
<tr>
<td>Victoria</td>
<td>57,277</td>
<td>20.3</td>
<td>63,584</td>
</tr>
<tr>
<td>Queensland</td>
<td>52,603</td>
<td>29.6</td>
<td>57,994</td>
</tr>
<tr>
<td>Western Australia</td>
<td>26,052</td>
<td>24.7</td>
<td>30,631</td>
</tr>
<tr>
<td>South Australia</td>
<td>15,009</td>
<td>22.8</td>
<td>17,355</td>
</tr>
<tr>
<td>Tasmania</td>
<td>5,699</td>
<td>21.8</td>
<td>6,086</td>
</tr>
<tr>
<td>Northern Territory</td>
<td>2,865</td>
<td>38.7</td>
<td>3,117</td>
</tr>
<tr>
<td>Australian Capital Territory</td>
<td>4,180</td>
<td>22.2</td>
<td>4,594</td>
</tr>
</tbody>
</table>
Inequality

Top right corner = high inequality with high vulnerability.

Bottom left corner = low inequality and low vulnerability.

State comparison – vulnerability by SEIFA

N=261,000

State Comparison - Vulnerability by SEIFA

Percent vulnerable on one or more AEDI domains

Most disadvantaged 2 3 4 Least disadvantaged

SEIFA

ACT NSW NT QLD SA TAS VIC WA

N=261,000
Social Inequality in Child Health and Development in South Australia 2009

Targeted Programs by high social disadvantage

Proportionate Universal Programs that increasingly addresses barriers across the social gradient

Developmental vulnerability

Barriers to uptake

Targeted Programs by high developmental vulnerability

Social Disadvantage

High

Low

High

Low

FRASER MUSTARD CENTRE

A collaboration between

Government of South Australia Department for Education and Child Development

Talbot Institute for Child Health Research
Changes in South Australian Community (LGA) AEDI results

Vulnerable on 1 or more domain from 2009 - 2012
Community Level Change

Communities for Children Site

Mirrabooka,
Western Australia
Responding to the challenge

- A universal early literacy project
- A targeted indigenous playgroup
- A community park project focusing upon physical and social development
- Expanded playgroup provision in local schools with a school readiness focus
- Scholarships for primary aged children
- Changed public transport routes
AEDI Mount Barker Community, South Australia

We acknowledge the traditional owners of the land both past and present and acknowledge the important role Indigenous people play within the community.
Comparative Results Tool

The comparative results tool has been developed for communities to see whether their 2009 and 2012 results are significantly different. It provides information about the community-level change in vulnerability and whether critical difference has been reached in your community. The comparative results tool accounts for a range of important factors including the size of your community.

Step 1
Select your state and community.

Step 2
Select an AEDI indicator. The results will then be generated.

Step 3
After results generate, select a print option.

Comparative results

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of children</th>
<th>% vulnerable</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>359</td>
<td>9%</td>
</tr>
<tr>
<td>2012</td>
<td>375</td>
<td>6.4%</td>
</tr>
</tbody>
</table>

Community
Change in percentage of vulnerable children in your community.

Critical difference
Results can be either plus (+) or minuses (-). More

More
What does all this tell us and where to now?
What does all this tell us?

• The picture is significantly more complex than simply targeting geographically poor regions if we want to improve child development and reduce child development inequality.

• How can we as researchers help further enlighten policy makers around getting the right mix of targeted and universal services?
Lessons Learned

Strong inter-sectoral leadership

Alignment with school system

Focus on developmental outcomes
Lessons Learned

Build data systems for monitoring/evaluation/advocacy

Focus on facilitators to enable equitable access to high quality programming
Translational science fostering integration

- Launched September 2012
- Partnership between DECD SA and TICHR
- Co-located (sits in with Policy Directorate)
- Co-Directed
- Co-Governed
The Fraser Mustard Centre Aims

• Improve and promote the health and wellbeing of all children and young people through the unique application of multidisciplinary research

• Help shift focus from the historical delineation between health and education services to an integrated approach with a focus on child development

• Build capacity amongst public sector staff and academic researchers to design, undertake and use research to improve the environments in which children live and the service systems which support families and

• Attract funding for shared priorities for research that leads to improved developmental, education, health and wellbeing outcomes for children.
2. How do we reduce inequality in child development?

Things to think about:

- Differential service provision: community health, education, non gov services.
- Universal/targeted mix, continuity of care.
- Social, economic and demographic changes.
1. What are the drivers and thus the risk and resilience predictors of child development over and above socioeconomics?
2. Can communities make a difference using the AEDI results (barriers/facilitators)?
3. Are there commonalities across communities that have seen positive change in the AEDI?
4. How do we support policy and service delivery change on the basis of the AEDI results?
5. How do we interpret change in the AEDI results?