

# RESTACKING — THE ODDS

## Restacking Webinar 24 May 2023



# Contents

- Equity: The State of Play
- RSTO overview
  - Background
  - Current focus
- Panel discussion



**Why is this the case?**

Inequity is the **presence of systematic and potentially remediable differences among population groups** defined socially, economically, or geographically

International Society for Equity in Health [ <http://www.iseqh.org> ]

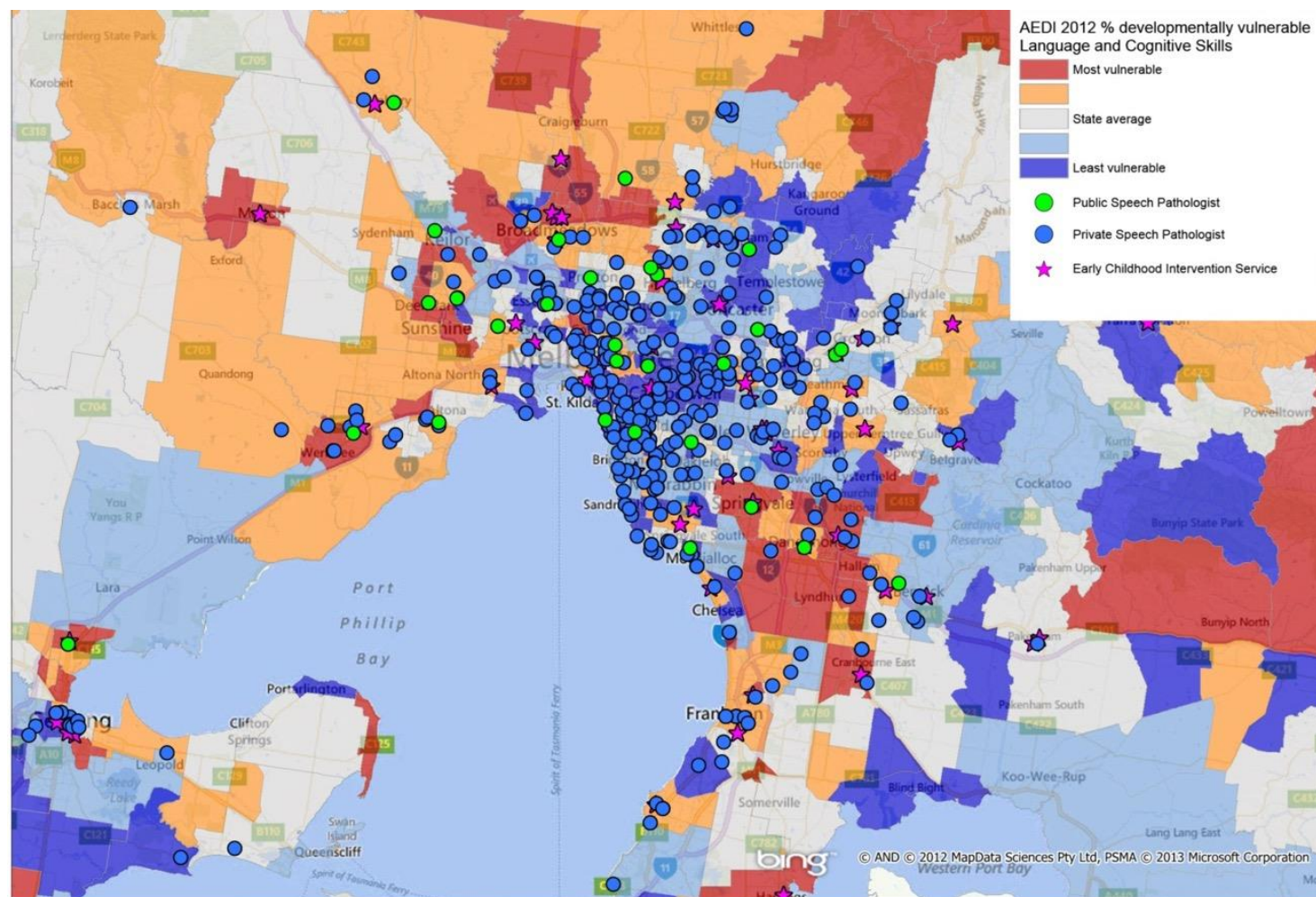
Venkatapuram S, Bell R, Marmot M: **The right to sutures: social epidemiology, human rights, and social justice.** *Health Hum Rights* 2010, **12**:3-16.



# Service inequities

What is it about the services we provide that make a difference to child health, learning and development?





Reilly S, Harper M, Goldfeld S. The demand for speech pathology services for children: Do we need more or just different? *Journal of Paediatrics and Child Health*. 2016.



# Medicare Spending

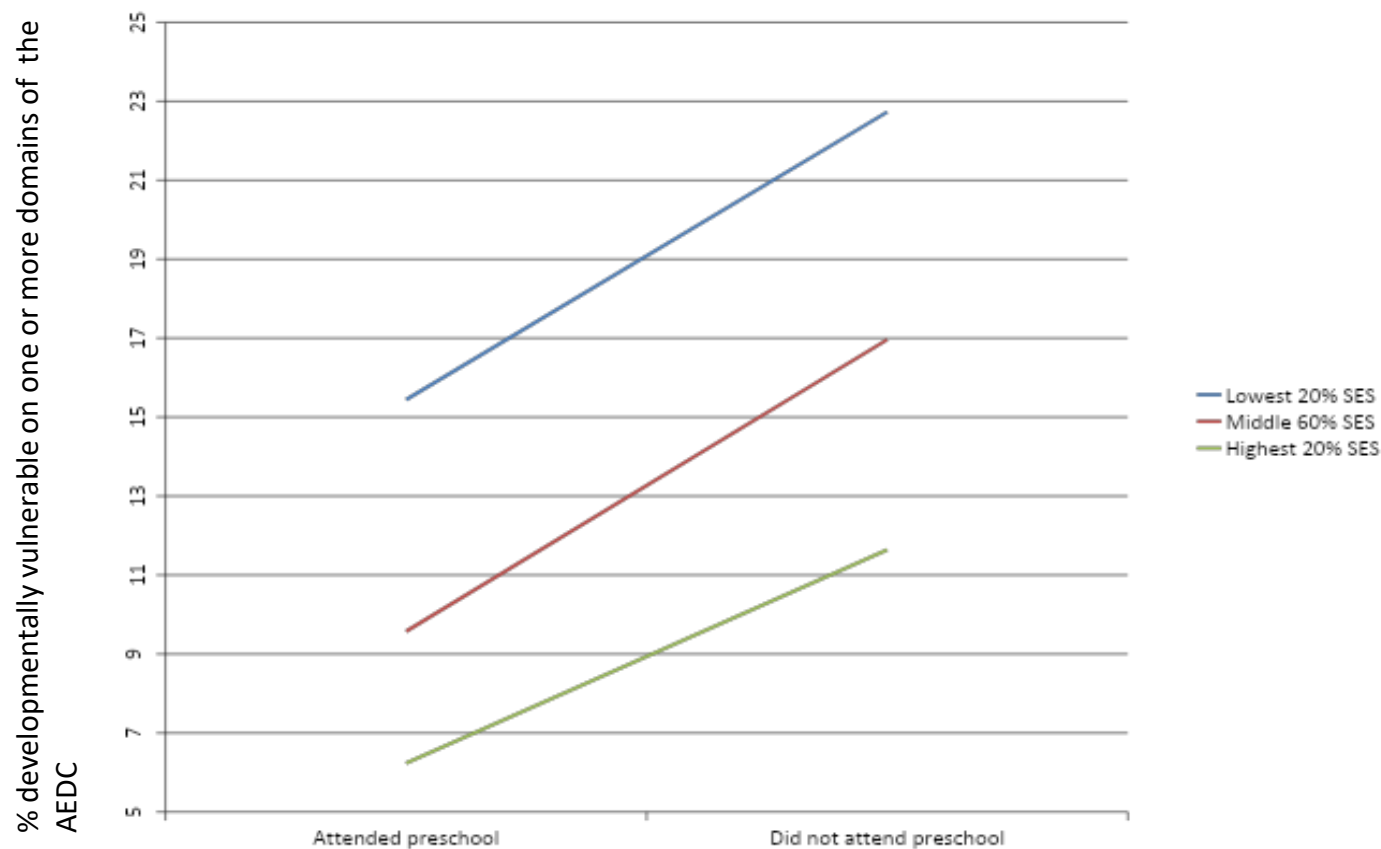
Shares of the Medicare spending by income quintile, birth to 11 years of age

Income quintile	Total spending	GP	Specialist	Imaging & pathology
Lowest	18%	20%	15%	16%
Second	19%	19%	18%	18%
Third	20%	20%	19%	20%
Fourth	21%	21%	22%	22%
Highest	22%	20%	26%	24%

Data source: LSAC

Dalziel et al, Soc Sci and Medicine, in press

# Equity and ECEC



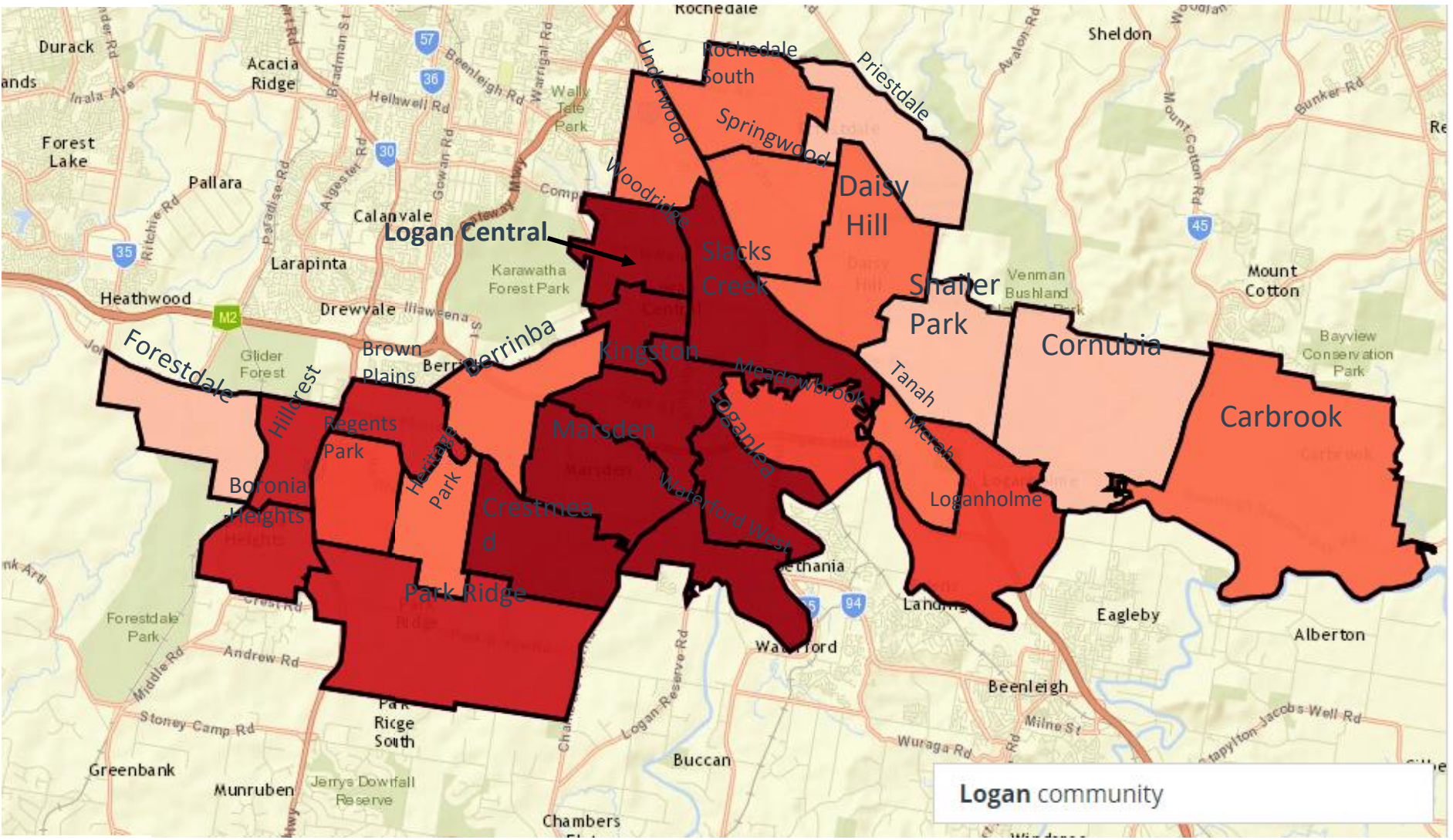
Percent of children living in the top 20% of advantaged SES communities, middle 60% of SES communities, and bottom 20% of disadvantaged communities who are developmentally vulnerable on two or more AEDC domains.

**Goldfeld, S.,** O'Connor, E., O'Connor, M., Sayers, M., Moore, T., Kvalsvig, A., & Brinkman, S. The Role of Preschool in Promoting Children's Healthy Development: Evidence from an Australian Population Cohort. *Early Childhood Research Quarterly*.2015. doi: 10.1016/j.ecresq.2015.11.001 (AEDI)

# Geographic inequities

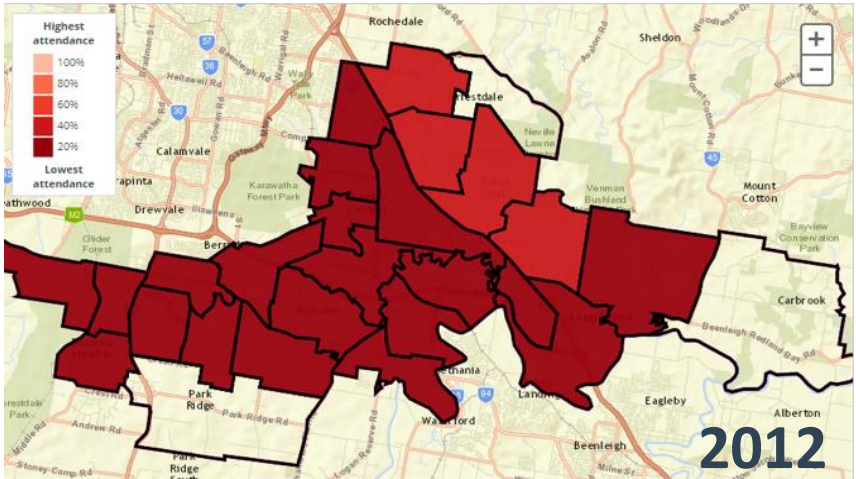
What is it about where you live that makes a difference to child health and development?

# SEIFA Score 2011 (Index of Relative Socio-Economic Disadvantage)

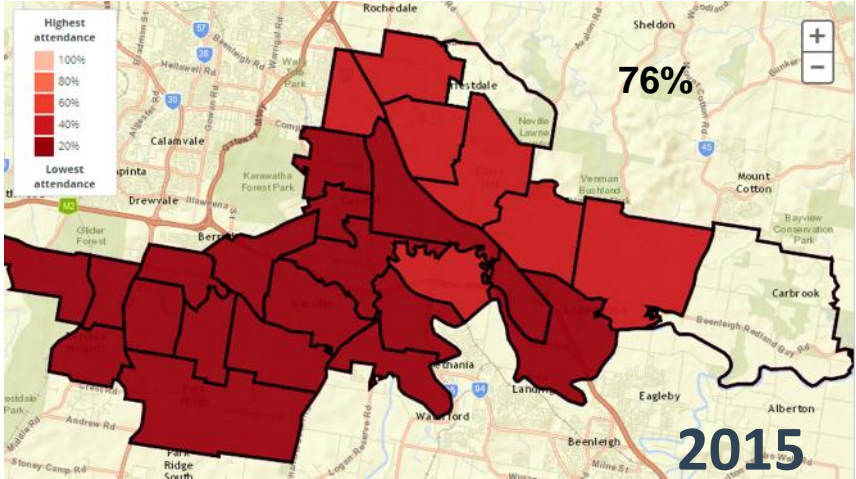




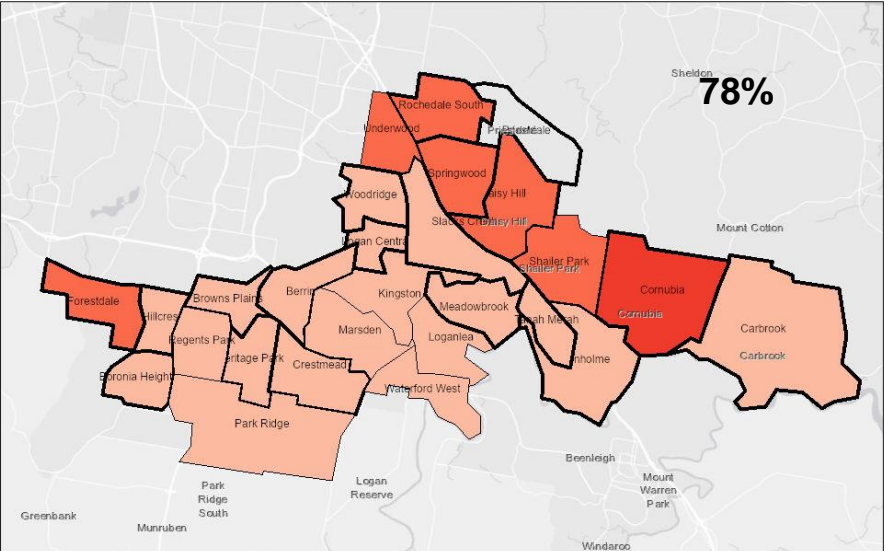
# Percentage of children who attended a preschool program



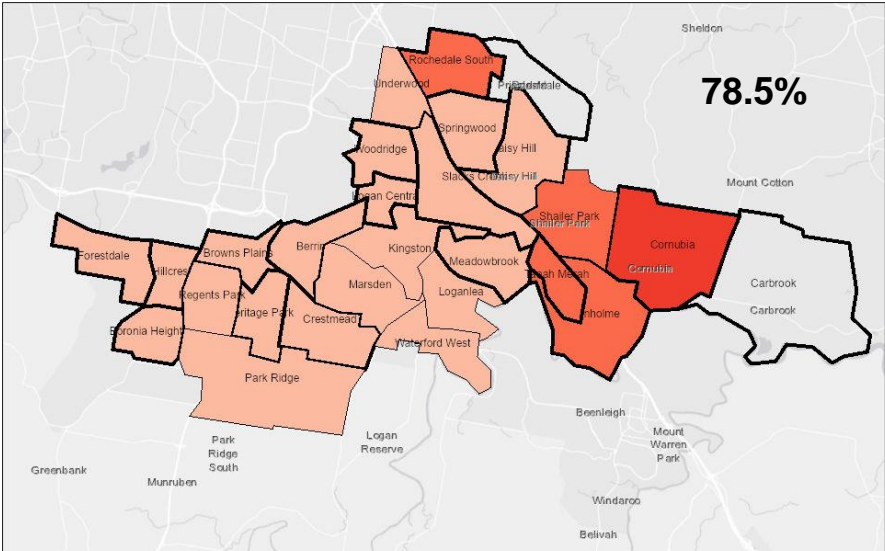
2018



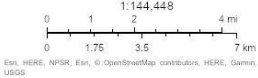
2021



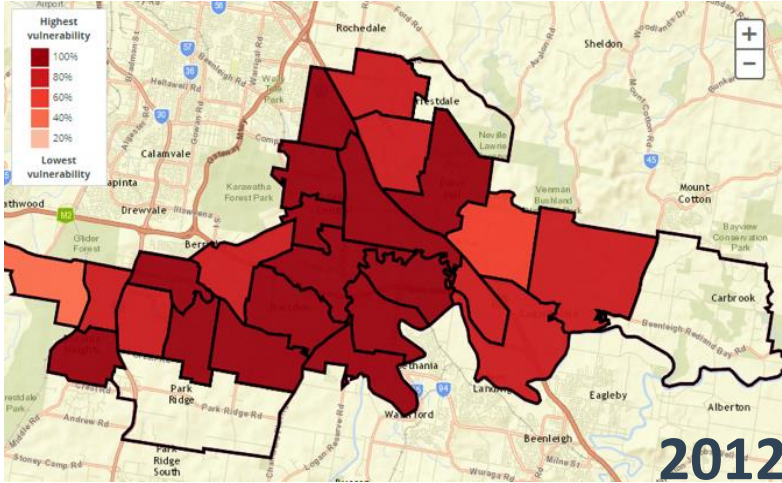
23/05/2023



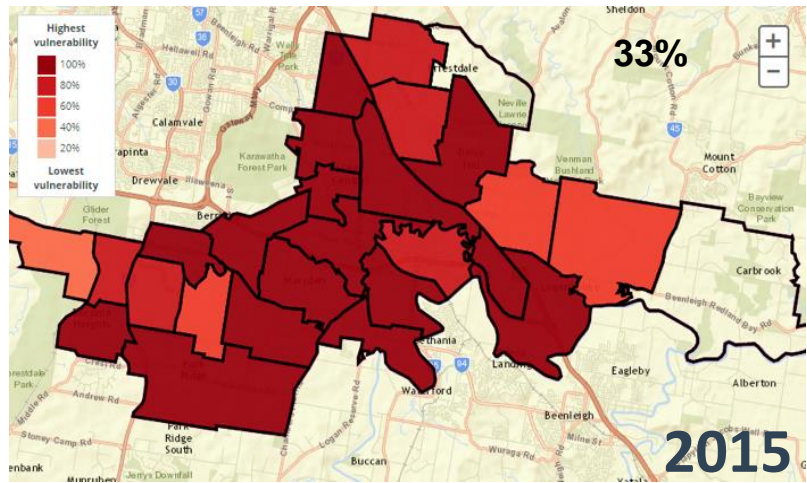
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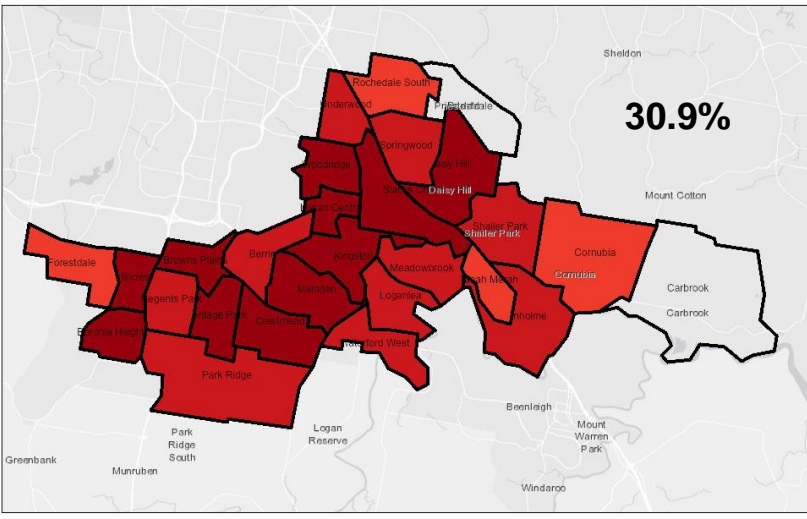
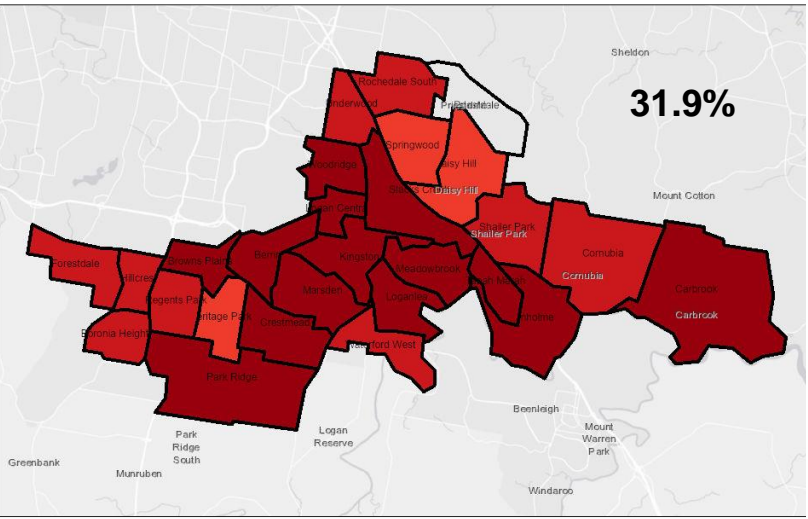
# Percentage of children developmentally vulnerable on one or more domains



2018



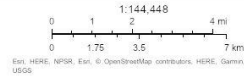
2021



23/05/2023



23/05/2023



Esri, HERE, NPSP, Esri, © OpenStreetMap contributors, HERE, Garmin, USGS

Esri, HERE, NPSP, Esri, © OpenStreetMap contributors, HERE, Garmin, USGS

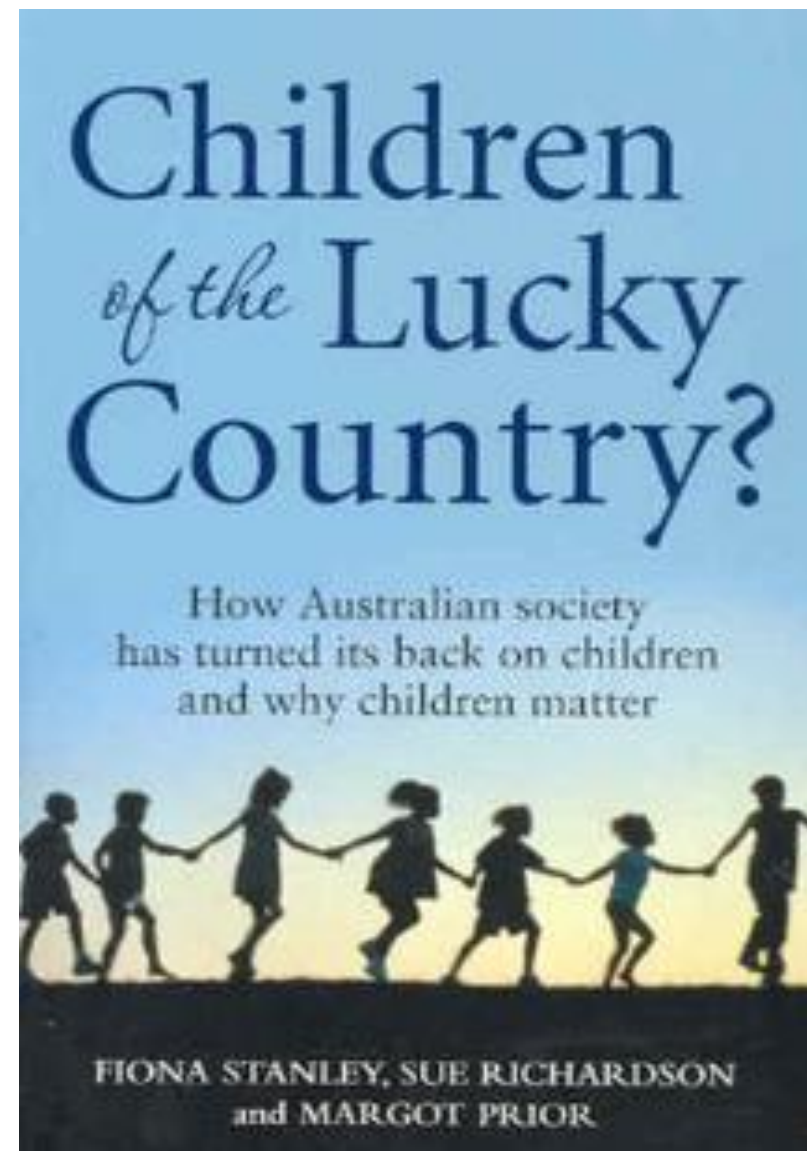




## Radical pragmatism: not only for crises

We argue the radical pragmatism of effective crisis response — **a willingness to try whatever works, guided by an experimental mindset and commitment to empiricism and measuring results** — represents a policymaking model that can and should be applied more widely, not only in times of crisis

“A society that is **good to children is one with the smallest possible inequalities for children** with the vast majority of them having the same opportunities from birth for health, education, inclusion and participation.”



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# A new way to assess and improve service performance for five strategies delivered within communities and service providers

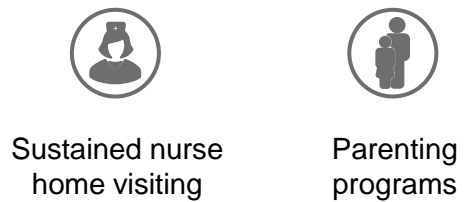
## Five key areas (antenatal to school)

We are focusing on 5 fundamental strategies, which global and local research has proven are effective in improving child development

### Continuous platforms



### Complementary programs



## Lead indicators (evidence-based)

We have developed measurable, evidence-based lead indicators for effective delivery of each strategy - across quality, quantity and participation



- Quality** of service
- Quantity** available
- Participation** rates

## Priorities (within and across communities)

In selected communities across Australia, we are building an empirical view of how the strategies are performing, relative to the indicators

	Quality	Quantity	Participation

## System response (policies, funding)

We will use our framework and findings to influence key players to change their actions, leading to better developmental outcomes

- Healthcare providers
- Community groups
- Government
- Government bodies
- Schools
- Other

Enabling the system to set the right priorities and take the best actions

- Policies
- Accreditation standards
- Funding & resources
- Program delivery
- Data capture
- Other



We are focused on lead indicators of strong outcomes, because knowing the score lets us change the outcomes

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**OUTCOME MEASURES ONLY**



**LEAD INDICATORS + OUTCOME MEASURES**



# Lead indicators guide practical actions towards outcomes

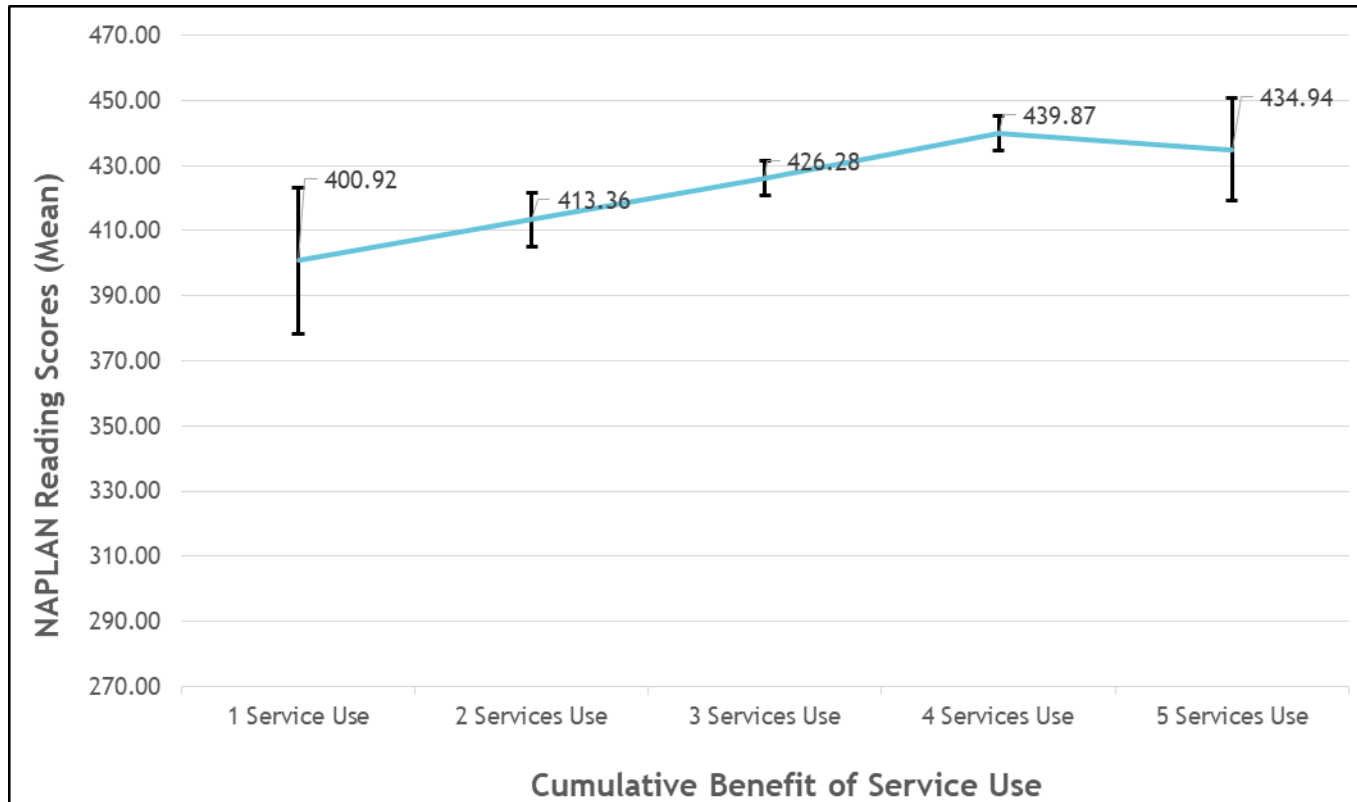
Strategy	Lead indicator	Potential action	Outcome indicator
<b>Antenatal care</b>	% of PW who smoke who are referred to an evidence-based stop smoking service	➤ Implement systematic process to ensure all pregnant women who smoke are referred to an evidence-based stop smoking service.	➤ % of pregnant women who smoke
<b>Sustained nurse home visiting</b>	% of antenatal & early post-partum visits where education/support on breastfeeding is offered	➤ Ensure program guidelines require nurses to provide early education & support, ideally before birth	➤ % of women who breastfeed
<b>Early childhood education &amp; care</b>	% of all children attending ECEC for 15 hours or more per week for the two years before starting formal school	➤ Overcome barriers to low participation rates e.g. reach out to CALD populations	➤ Proportion of children at school entry who are developmentally on track in health, learning and psychosocial wellbeing
<b>Parenting programs</b>	Number of places available in Supported parenting programs led by qualified facilitators, relative to the target population	➤ Provide adequate training to facilitators of parenting programs	➤ % of children with behavioural issues
<b>Early years of school</b>	% of K-3 classroom teachers that provide parents with strategies to use when reading with children at home	➤ Ensure teachers are provided with appropriate reading and learning packs to use at home	➤ % of children at expected level in reading (NAPLAN)

H1

**Stacking the five fundamental strategies has a positive impact on child development outcomes**



Higher total service use is associated with higher reading scores  
Each additional service is associated with an increase in reading scores of ~9 points.



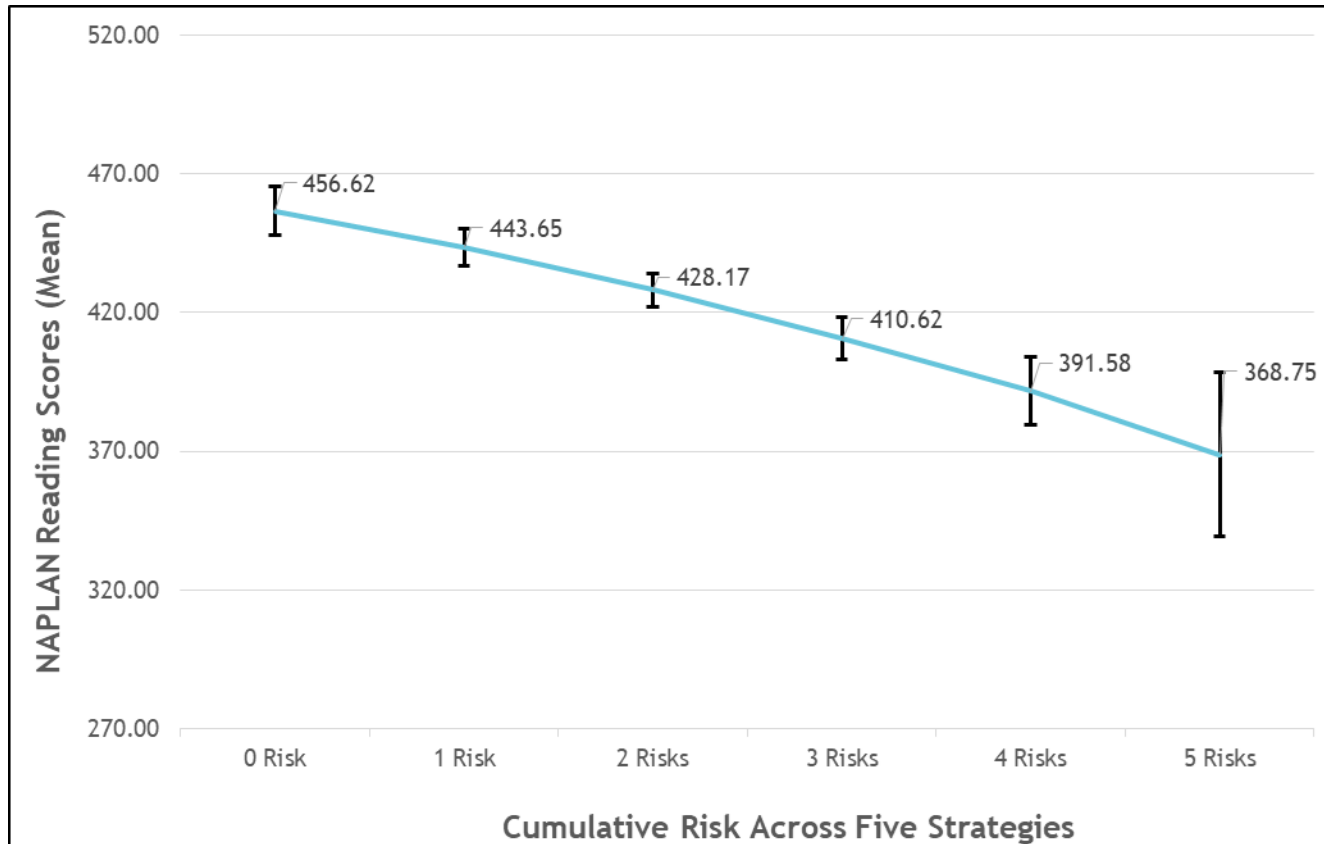
H1

**Stacking the five fundamental strategies has a positive impact on child development outcomes**



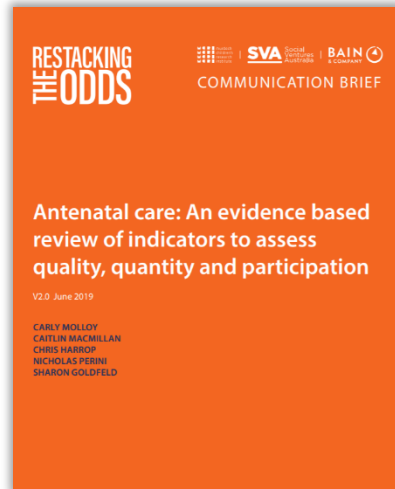
Higher total cumulative risk is associated with poorer reading scores

Each additional risk is associated with a decrease in reading skills by ~14 points.



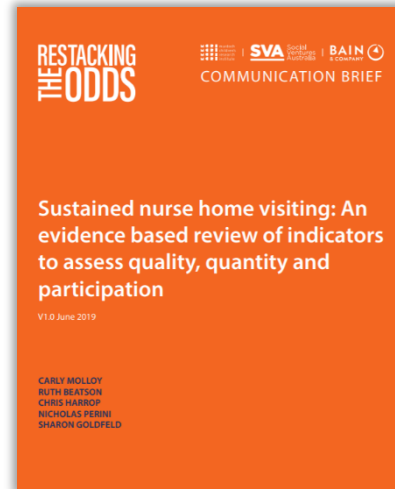
# We defined and documented evidence-based lead indicators across the five strategies, based on rigorous reviews of the latest research

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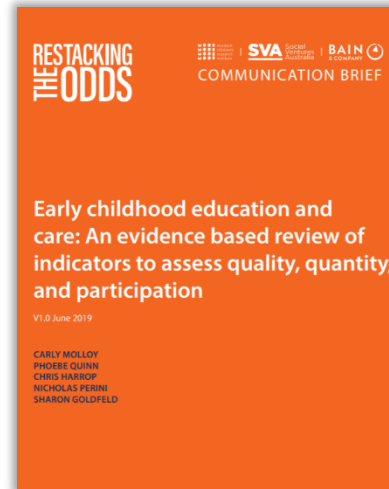
## 1. Antenatal Care

*Systematic reviews completed alongside use of Australia's NHMRC Clinical Practice Guidelines and UK's National Institute of Clinical Excellence (NICE) Quality Standards and Statements to inform focus and list of indicators.*



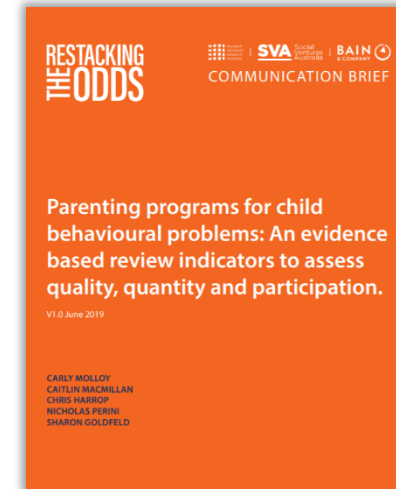
## 2. Sustained nurse home visiting

*Restricted evidence assessment (REA) completed to define list of indicators.*



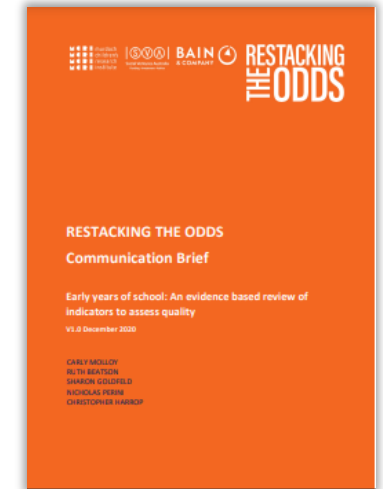
## 3. Early childhood education and care

*Restricted evidence assessment (REA) completed alongside use of the National Quality Standard (NQS) implemented by the Australian Children's Education and Care Quality Authority (ACECQA) to inform focus and list of indicators*



## 4. Parenting programs

*Restricted evidence assessment (REA) completed to define list of indicators.*



## 5. Early years of school

*Restricted evidence assessment (REA) completed to define list of indicators alongside use of the Victorian Framework for Improving Student Outcomes (FISO).*



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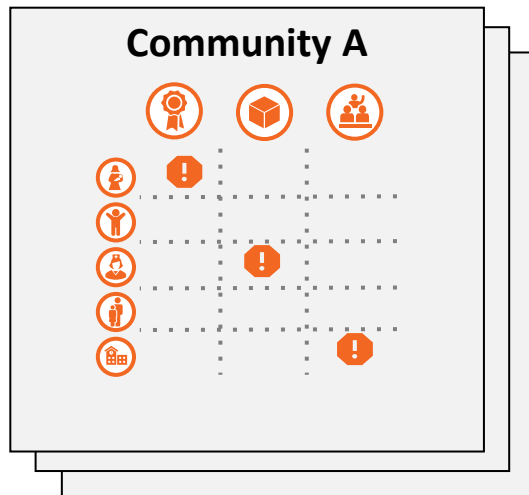
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# We are focused on co-creating prototypes to build toward large scale adoption

## Phase 1: Proof of concept (Completed work)

- **Focus: Concept validation and feasibility.**



## Phase 2: Prototyping (Current work)

- Understand barriers and enablers to collecting, interpreting and using indicators
- Identifying and engaging with partners to co-create scalable prototypes to address these barriers, support collection and use of data
- Build understanding of stacking and use of lead indicators with state and federal government
- **Focus: Scalability and repeatability.**



## Phase 3: Scaling (Future work)

- Execute on scaling approach and fully establish supporting elements
- Move from successful prototypes to wide-scale deployment (making Restacking the *de facto* methodology for early years services measurement)
- **Focus: System-wide adoption and impact.**



# Significant barriers to collecting and using data exist



## COM-B Factor – Capability

- **Lack of knowledge** about lead indicators; what indicators to measure; how to use lead indicator data to inform action
- **Inadequate skills** to collect, interpret and use data
- **Limited processes for engaging different stakeholders** to discuss and use data
- **Unclear on authority to act** on a particular data gap.



## COM-B Factor – Opportunity

- **Low data sharing** due to fear of reputational risk if results poor; data ownership; privacy issues; no co-herent protocols for data sharing across organisation or community that recognise Indigenous data sovereignty; no coherent data system
- **Lack of trust in data fidelity** due to inconsistent frequency of data collection (outdated); data entry low quality
- **Lack of resources and funding** for data collection; reporting and use e.g. rely on already overworked practioners
- **Lack of influence** – initiatives/programs help facilitate data service level data sharing (e.g. overarching external strategy)



## COM-B Factor – Motivation

- **Lack of trust**, service provider to community; service provider to service provider i.e. concern that the data will not be used to inform activities
- **Lack of incentives** that prompt action at every stage e.g. collection, reporting, use
- **No immediate consequences** for not using data well
- **Limited incorporation of service user voice** into solutions (i.e. concerns that solutions wont reflect users needs)
- **Lack of focus from leadership** to foster a culture of data collection and use improve action

*I think there's still, in this community, probably a mistrust about sharing data... and that's just the mistrust that's developed over years and years of things being done poorly*

*If staff don't understand the purpose of collecting data, they are less likely to collect complete and accurate data*

*I think it's an area... that's been really, really neglected [data training]. I've been a midwife for nearly 20 years now, and in all my years across different settings, no one has ever sat me down and say, this is how we do... It's just one of those things*

# Prototypes need to address these barriers and be end to end **RESTACKING THE ODDS**

## COLLECT AND INTERPRET THE DATA

De-identified automated data extraction/contribution

Data mapping/calculations for RSTO indicators

Data visualization and benchmarking by provider/community/strategy

## ACT ON THE DATA TO IMPROVE SYSTEM PERFORMANCE

Quality Improvement and data literacy support

Implementing and testing approaches to address priority issues

Sharing learnings, approaches across participating communities and service providers



### Motivation to collect and use

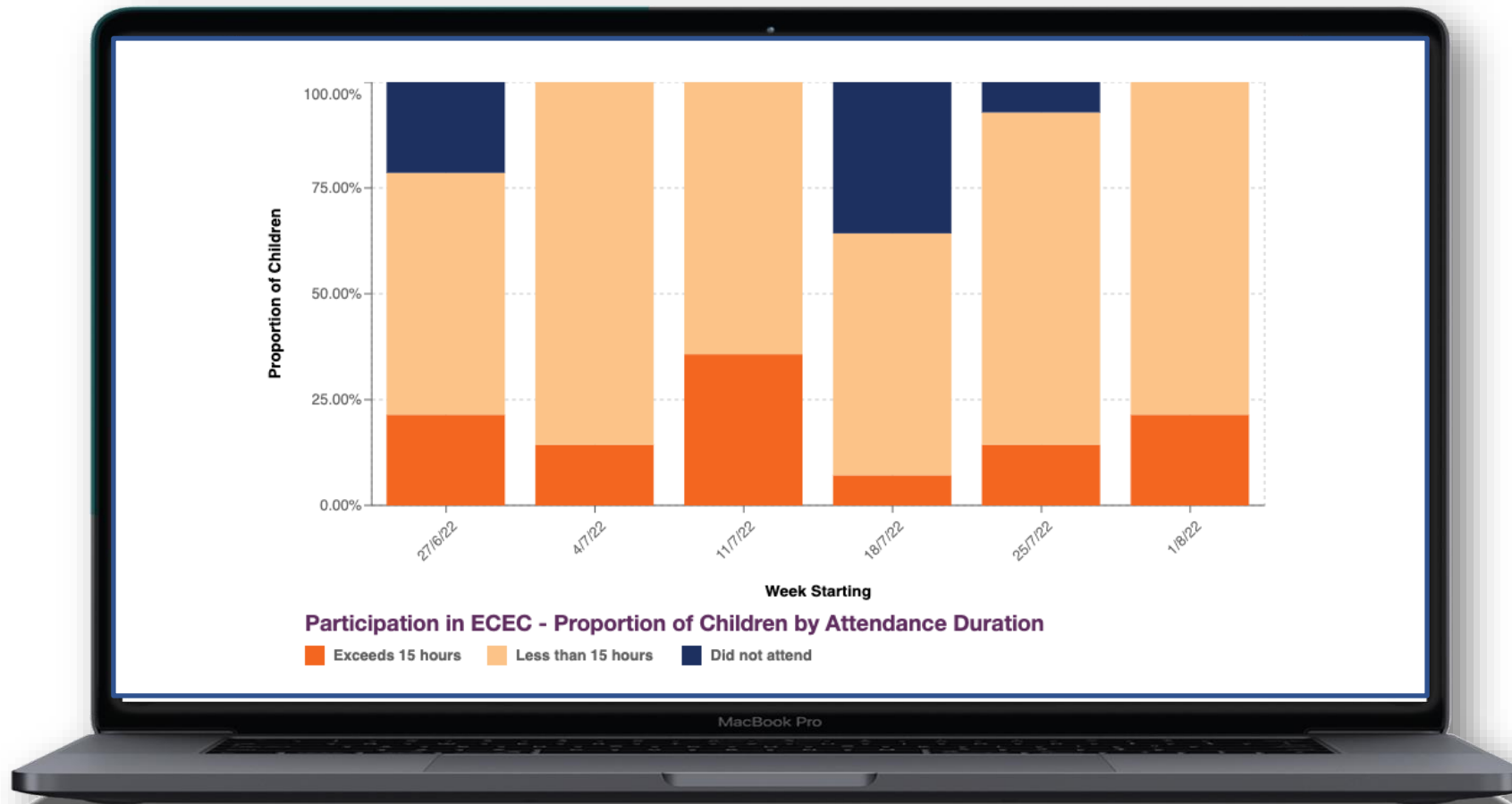
Funding/Commissioning coordination and incentives

System coordination

# RSTO in action – example of prototypes

## RSTO Dashboard

**Participation Indicator:** do children, two years before starting school, attend 15 hours pw?



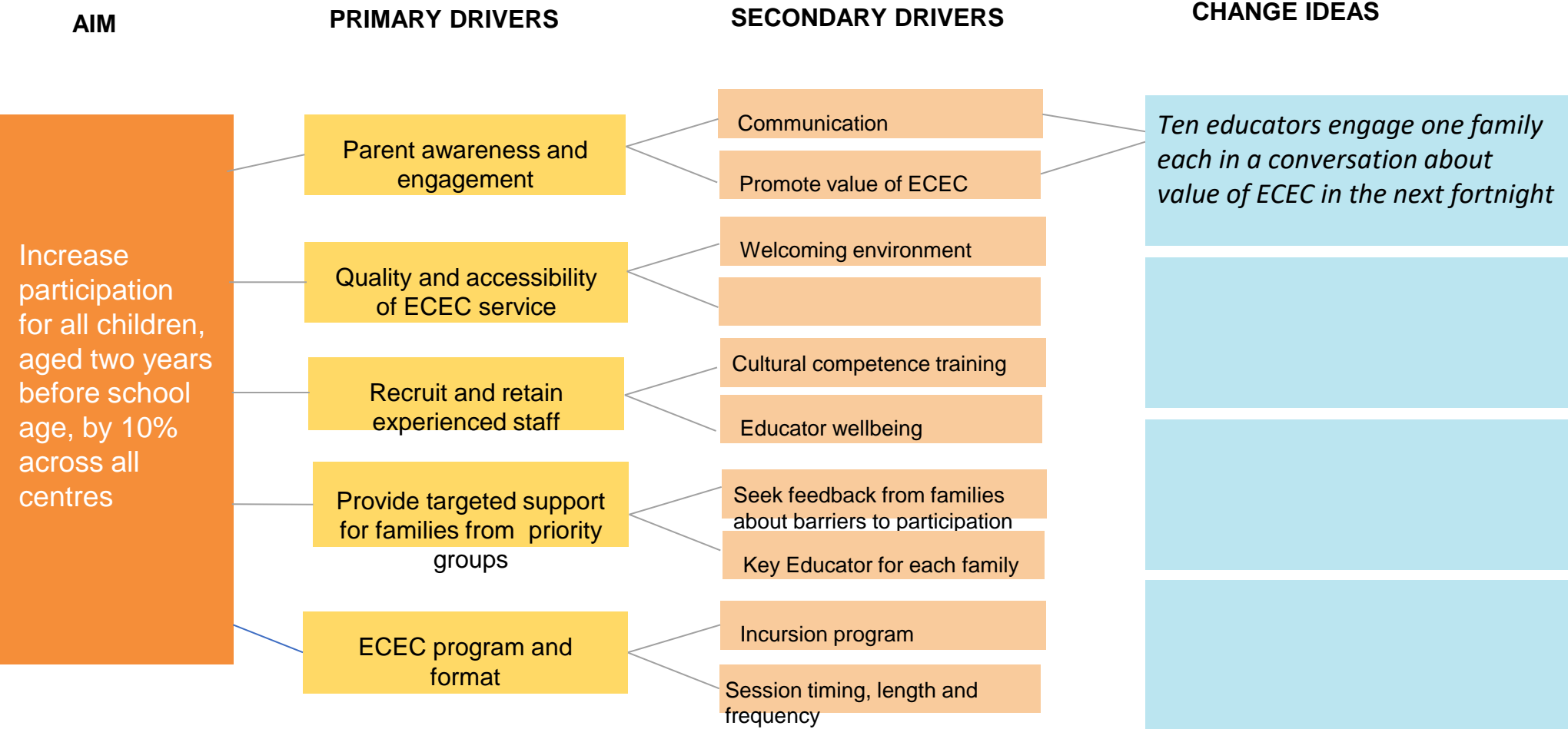
# RSTO in action – example Quality Improvement prototypes

## RSTO QI support program – using evidence to identify possible reasons for data gap

BARRIERS FOR FAMILIES Highlight the barriers that relate to your context	FEASIBILITY		
	Can you act on this barrier tomorrow? (Yes/No)	Do you need further resources? (List below)	Does it require you to work with other services? (List below)
<b>Access issues</b> – Such as lack of transport, difficulty parking for pick-ups and drop-offs, cost of service			
<b>Family scheduling conflicts</b> - Logistics with school-age children or other family commitments			
<b>Child issues</b> – Separation anxiety, shyness or social anxiety, developmental differences, lack of interest, previous negative experiences, physical or emotional issues			
<b>Parent attitudes and beliefs</b> - about ECEC and general distrust of services			
<b>Parent disadvantage</b> – including financial struggles due to low-income, single parenting or unemployment as well as challenges stemming from medical or mental health issues			
<b>Language and cultural barriers</b> – including different cultural norms on raising children and difficulty communicating and understanding English-based resources			
<b>Complex family issues</b> – such as child protection orders, family violence, caring for siblings with additional needs			
<b>Other issues</b> – please describe			

# RSTO in action – example Quality Improvement prototypes

**RSTO QI support program** – using a driver diagram to identify aim and then factors/ actions/ ideas that can support the achievement of the aim



# RSTO in action – example Quality Improvement prototypes

**RSTO QI support program** – using a PDSA cycle to enable action orientated improvement through iterative testing and learning

<b>PLAN</b> Define aim and activities to reach that aim	<b>DO</b> Carry out the plan	<b>STUDY</b> Document learnings	<b>ACT</b> Plan the next cycle
<p>Describe the CHANGE IDEA to be tested?</p> <p>WHO is responsible for testing the idea?</p> <p>What DATA will you use to measure the impact of the change idea</p>	<p>Start date:</p> <p>Completion date:</p> <p>Describe how you implemented the PDSA including any issues encountered</p>	<p>What worked well?</p> <p>What didn't work?</p> <p>Did your data show any change?</p>	<p><b>ADOPT</b> effective changes <b>ADAPT</b> successful elements <b>ABANDON</b> ineffective idea</p> <p>Will you continue with the activity, change or improve it?</p>



# RSTO in action - worked example



Early Child  
Education Care



Participation rates

## Challenge:

Service Provider intuitively believed they had poor participation across centres, especially with children two years before starting school age, but had no consistent data to evidence this.

## Goal:

Organisational goal was to improve improve participation, esp. for those more vulnerable. Needed a way to consistently collect and use participation data to incentive staff and their partners to develop local solutions to improve participation.

## Step 1: Understand current approach to data use and systems

RSTO discovered data was mostly used by the Chief Financial Officer for data compliance reporting not to improve local action.

Data was housed across multiple systems, data collection and reporting was very manual and time-consuming.

## Step 2: Extract and visualize data

RSTO worked with the service provider to extract deidentified data into the platform, calculate indicators and present analysis.

Results indicated; all centres were below evidence-based targets with two worse. Attendance of children experiencing disadvantage was lowest.

## Step 3: Build capabilities to act on data

The RSTO team worked with centre managers to understand all the possible reasons why attendance might be low and why attendance for children experiencing disadvantage was lower.

Barriers for attendance were discussed and solutions to these barriers brainstormed and prioritized with input from a community of practice.

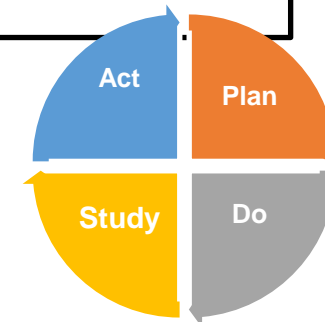
Simple plans were developed to trial a series of solutions.

## Step 4: Review and continue

Monthly data was reviewed to identify changes based on actions, refine and test again.

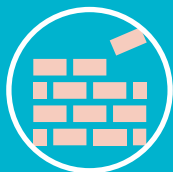
The service provider now routinely collects data through the RSTO platform and has built a regular practice with their team of reviewing the data, identifying gaps and opportunities as well as ideas to test to improve the results.

Participation across all centres has increased.



# Policy and advocacy

## Priorities for government policy and strategy



### 'Stacking'

- Guarantee access to a combination of evidence-informed early years services



### Measure progress

- Embed lead indicators of quality, quantity and participation for equitable service delivery



### Invest in capability

- Data and learning systems for continuous improvement
- Part of the 'glue'



### Emerging issues

- Children from disadvantaged cohorts are missing out on 15+ hours of ECEC
- Few locations offer evidence-based *sustained* nurse home visiting programs
- Patchy availability of parenting programs, with limited data on quality

## Service provider partners

- Gowrie Victoria (Early Childhood Education Care provider)
- Maryborough District Health Service (local Maternity Hospital)
- Bourke and District Children's Service (Early Childhood Education Care provider)

## Community partners

- Logan Together, Queensland
- Gladstone Region engaging in action Together, Queensland

## Other communities informing implementation include:

- Go Goldfields, Victoria
- Hands Up Mallee, Victoria
- By Five Wimmera Southern Mallee Early Years Initiative, Victoria
- Burnie Works, Tasmania

## Funders

- Paul Ramsay Foundation
- Eureka Benevolent Fund (RSTO 1.0)

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