RESTACKING THE ODDS

USING THE RIGHT DATA TO GUIDE EARLY CHILDHOOD SERVICES

Key messages

- Equitable provision of early childhood services supports child development
- Early indicators of service quality, quantity and participation (lead indicators) provide information necessary to improve early years services
- Restacking the Odds has developed and tested a framework of evidence-based lead indicators to support more equitable service delivery
- Putting these indicators in the hands of early years practitioners, policymakers and governments can reduce equity gaps

Timely data on quality, quantity and participation play a key role in creating more equitable early years services for children and families.

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High-quality early childhood services are vitally important for children's health, development and wellbeing. They are particularly important for children and families experiencing disadvantage (e.g. due to social, financial or health circumstances). These families often have less access to and lower participation in services that support early childhood development.[1, 2, 3]

To create a more equitable early childhood service system, providers and policymakers need timely and accurate data. Essential service information includes:

- **quantity:** are there enough services available?
- **quality:** are they good quality?
- **participation:** are children and families accessing them?

These are also known as lead indicators.[4]

Restacking the Odds (RSTO) has developed a framework and tested evidence-based lead indicators in a 'proof of concept' project, showing that they can be used to make better data-informed decisions with and for communities.

The value of evidence-based lead indicators

Globally, health and education sectors use frameworks that rely heavily on outcome (or 'lag') data to measure success. While necessary for tracking progress at a population level, lag indicators are measured too late for opportunities to drive effective change on the ground.

Long delays – sometimes years – between an action and collecting outcome data make it difficult to determine if actions are effective in real time. Alternatively, lead indicators provide early signals of progress toward an outcome, enabling decision makers, service providers and communities to anticipate and influence outcomes. This is because lead indicators focus on the processes that influence performance and closely reflect the activities directly undertaken by practitioners and staff.

Lead indicators are valuable tools for:

- understanding issues more effectively
- determining priorities
- setting actions
- supporting accountability
- using resources more effectively
- facilitating continuous improvement.

An example of lead indicator data could be tracking the percentage of pregnant women referred to a smoking cessation service. This data helps identify areas for improvement, like referral pathway barriers for earlier intervention. On the other hand, lag data (e.g. the percentage of new mothers who smoked during pregnancy) are only collected after a window for intervention has passed. By measuring lead, rather than lag indicators, data can provide the opportunity to improve referral pathways, respond to barriers and enable earlier intervention.

When service providers and policymakers have lead indicator data on service quality, quantity and participation, they are better placed to ensure that families can access and participate in high-quality services that support children's health, development and wellbeing. Lead indicator data provide valuable insights to guide continuous improvement efforts, enabling service providers to make timely and evidence-informed adjustments that enhance service delivery.

What was our aim?

This 'proof of concept' project was designed to address some of the data limitations to decision making that practitioners and policymakers face when providing early years services.

The aim was to develop a framework of evidence-based lead indicators for five key early years services: antenatal care, early childhood education and care, the early years of school, sustained nurse home visiting and parenting programs.

We also wanted to test whether it is possible to collect and analyse these lead indicators in Australian communities.

What did we do?

We conducted a series of systematic literature reviews* to establish evidence-based lead indicators linked to child outcomes for each of the five early years services (Figure 1).[5, 6, 7] After reviewing the indicators, collection and analysis of indicators was tested with seven communities experiencing disadvantage in Victoria, New South Wales and Queensland.

The **RSTO Indicator Guide** provides a collection of evidence-based lead indicators for five key early childhood services (Figure 1):

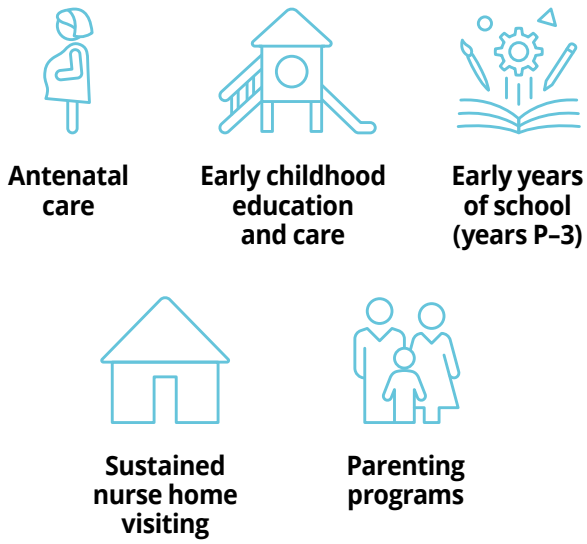

Figure 1: The RSTO Indicator Guide focuses on five key early childhood services

*These identified several existing quality frameworks. Examples include the UK National Institute of Clinical Excellence Quality Standards and Statements, World Health Organisation and Partnership for Maternal Newborn and Child Health (antenatal care). Australia's National Quality Standard (ECEC) and school improvement frameworks are used by Australian state education departments (EYS). No existing quality frameworks were identified for sustained nurse home visiting or parenting programs.

What did we find?

Published literature assessing service quality was extensive. While literature assessing participation was also identified, there was very little evidence specificially assessing service quantity. This informed the development of a framework of 141 evidence-based lead indicators. Figure 2 provides examples of lead indicators for quality, quantity and participation from the framework.

There were challenges collecting data in each of the five services. These included:

- a lack of available data
- inconsistencies in measurements and processes
- complex systems making it difficult to integrate data
- limited time for service providers to spend extracting data
- A lack of knowledge about specific variables relevant to lead indicators.

Consequently, it was not possible to calculate all indicators. The number of extractable indicators varied across communities. These findings highlight gaps in service system datasets and practices.

What does this mean?

The development of this framework has implications for policy, practice and ultimately the funding of early years services. We found that:

- organisations without lead indicator data do not know if they are reaching families in greatest need, or if they are delivering services to an acceptable (evidence-based) standard
- without lead indicator data, decisions about resource allocation and solution design may rely on best guesses or 'business as usual' delivery rather than evidence
- service managers, data-administrators and staff need data literacy training to build capability and continuous improvement strategies. Access to user-friendly, electronic data systems for recording and analysing lead indicator data is essential.
- mandatory data reporting requirements at state or national levels are needed to facilitate routine collection of lead indicator data
- service (and service system) improvement initiatives could be strengthened by regular collection and analysis of data to track and evaluate the lead indicators.

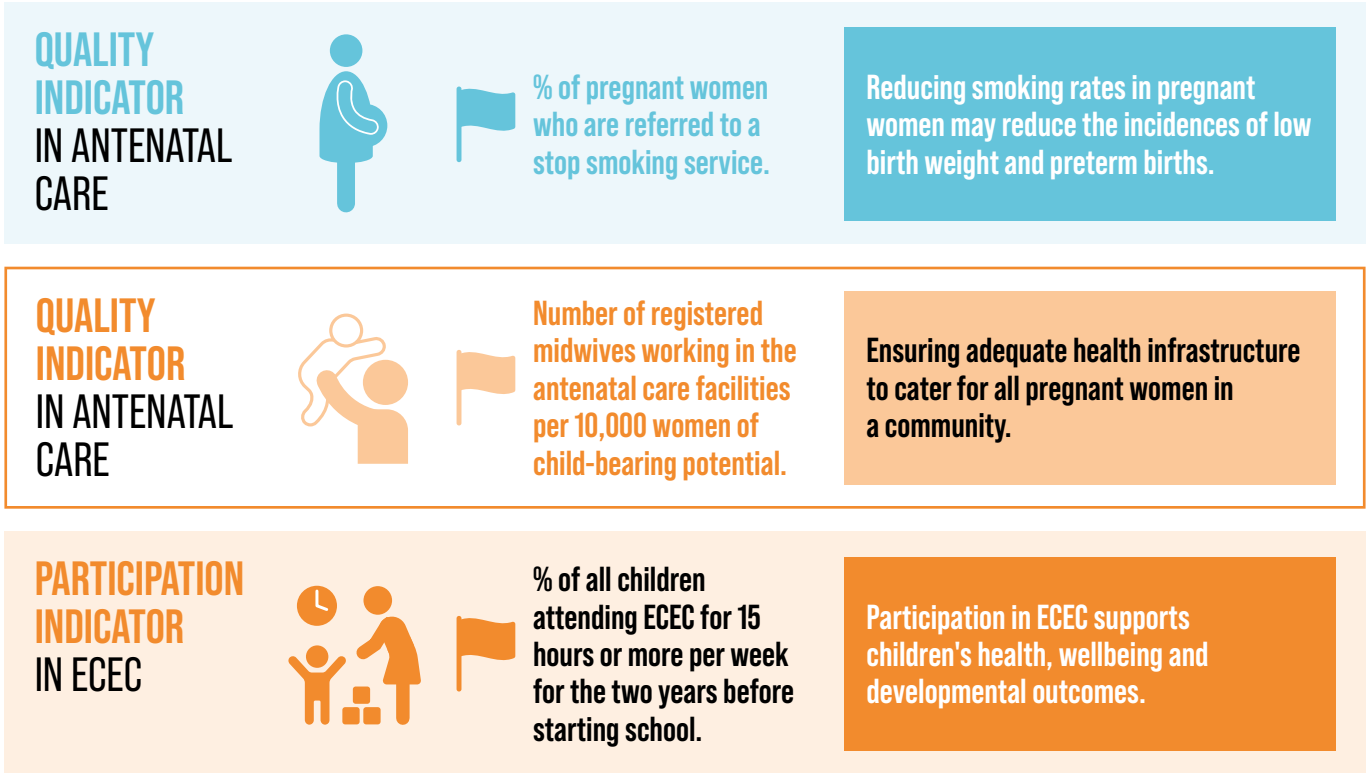

Figure 2: Examples of lead indicators

Governments should consider adopting consistent, evidence-based lead indicators when determining how organisations are funded to deliver early childhood services, while also supporting organisations to use these indicators for improving practice.

Implications for research

Restacking the Odds is currently undertaking research within professional development and continuous improvement processes to help identify:

- new ways to support the routine collection and use of lead indicator data
- how to facilitate large-scale adoption of lead indicators by early childhood services to improve equitable service delivery
- whether access to lead indicators and supports increases data-informed decision making and improves equitable service delivery (i.e. contributes to facilitating sufficient quantity, high quality and optimal participation).

The RSTO Indicator Guide can support a continuous cycle of analysing data, planning and implementing evidence-informed actions to ensure that all children and families receive high-quality services when and where they need them.

For further information

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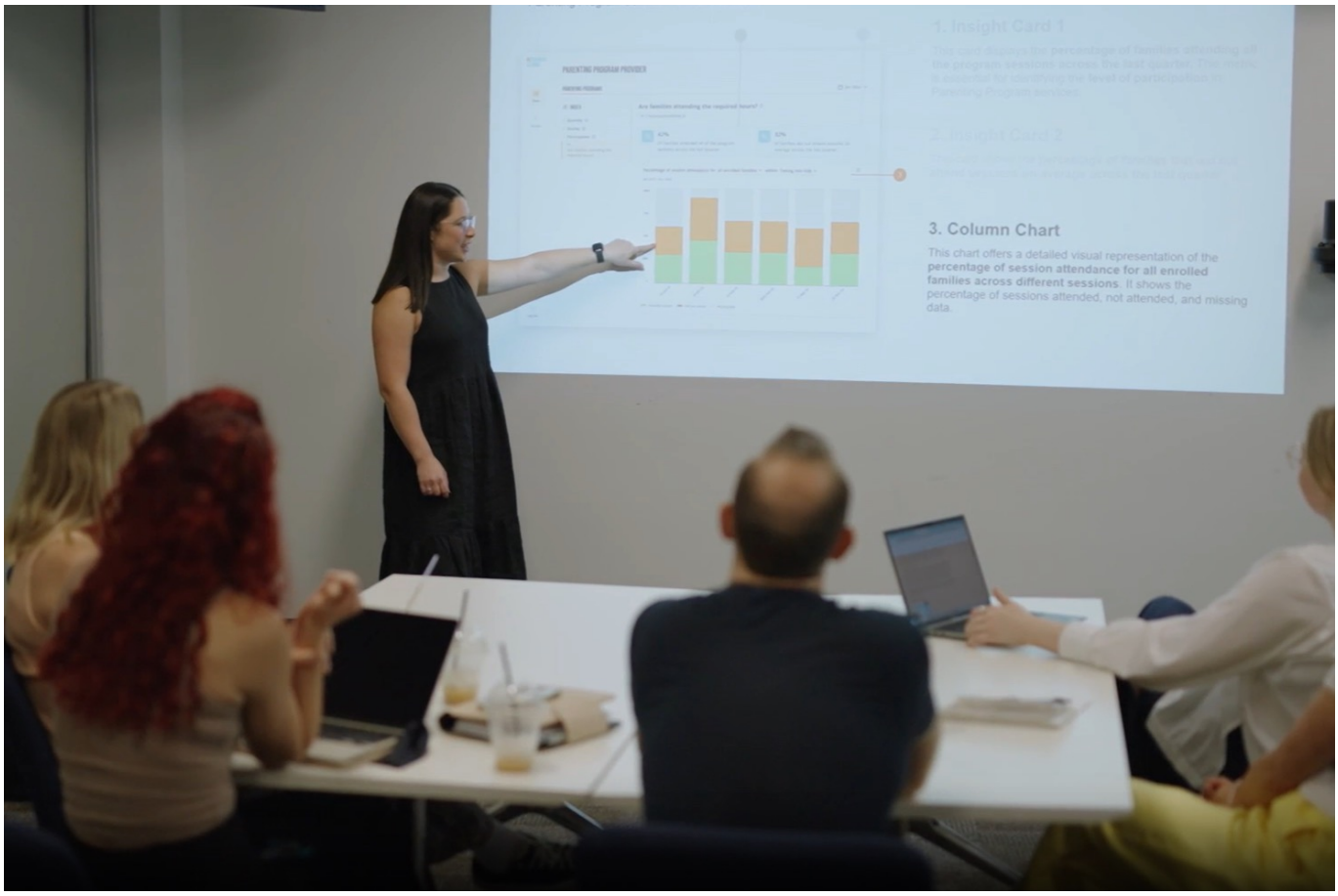

RESTACKING THE ODDS

RSTO is a collaboration between the Centre for Community Child Health at the Murdoch Children's Research Institute, Bain & Company, and Social Ventures Australia.

For information about the study or RSTO

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The Centre for Community Child Health is a department of The Royal Children's Hospital and a research group of the Murdoch Children's Research Institute.

We acknowledge the Traditional Owners of the land on which we work and pay our respect to Elders past, present and emerging.