

RESTACKING THE ODDS

**Submission to the Review to Inform a
Better and Fairer Education System**

August 2023

This submission is made on behalf of the [Restacking the Odds](#) initiative (Restacking) – a collaboration between the Centre for Community Child Health (CCCH) at Murdoch Children’s Research Institute (MCRI), Social Ventures Australia (SVA) and Bain & Company. This submission focuses on **Chapter 5** of the Consultation Paper: ‘Collecting data to inform decision-making and boost student outcomes’.

The Restacking initiative is also referenced in separate submissions from CCCH and SVA. This submission provides further detail on the proposals in those submissions that lead indicators for quality be incorporated into the measurement framework for the next National School Reform Agreement (NSRA). Our work suggests lead indicators embedded through the performance reporting framework for the NSRA, have potential to support a fairer education system.

Restacking aims to drive equitable outcomes in the early years by ensuring that children and families can and do access a combination of high-quality, evidence-informed services where and when they need them.

The Australian Early Development Census (AEDC) shows us that each year, one in five children start school developmentally vulnerable. Developmental vulnerability in the poorest areas of Australia is three times that of the wealthiest areas. These inequities have not shifted in over a decade¹. To redress inequities, research tells us that efforts delivered during early childhood (pregnancy to eight years of age) deliver the greatest benefits through better health and learning outcomes and improved productivity.

Restacking focuses on five evidence-based platforms and programs in early childhood: antenatal care; sustained nurse home visiting; early childhood education and care; parenting programs; and the early years of school (through to Year 3). *Restacking* has chosen to focus on these strategies because research demonstrates they improve early childhood outcomes, they are available across early childhood, they focus on both the child and the parents and can be targeted to those most in need.

The initiative’s unique approach uses data and evidence-based indicators to focus on *how* to work differently to improve outcomes for children, families and communities. It develops the skills and knowledge of practitioners, community leaders and government for collecting, understanding and using lead indicators to answer three simple questions:

- Are the services available locally in sufficient **quantity**, relative to the size of the target population?
- Are the services delivered at a standard that the evidence says is required (**quality**)?
- Are the relevant children and families receiving the services, and at the right dosage levels (**participation**)?

During Phase 1 of *Restacking* (2016-2021), we undertook research that involved:

- Showing that ‘Stacking’ these five fundamental strategies, (i.e., ensuring they are all applied for a given individual) has a cumulative, positive effect on child development outcomes, measured through reading scores at ages 8-9. The research findings from our analysis of data from the Longitudinal Study of Australian Children are published at: <https://pubmed.ncbi.nlm.nih.gov/31586934/>
- Developing and applying evidence-based lead indicators for the effective delivery of the five fundamental strategies in seven communities across Victoria, New South Wales and Queensland. These indicators define how the strategies should be delivered across the dimensions of quality, quantity and participation.² Our research and community level work has shown that evidence-based lead indicators can be defined and populated for each strategy and reveal an array of important gaps in services, which can be acted on. Service providers, policymakers and community representatives recognise the data gap and welcome our attempts to address it.

Lead indicators are essential. They allow service providers and other stakeholders to regularly assess performance and progress, and course-correct when required. While outcome data is the ultimate arbiter of success, lead indicators about which strategies families and children are actually experiencing allow services to make adjustments and accumulate learning regularly, rather than waiting years to see outcomes.

¹ Australian Early Development Census (AEDC), AEDC National Report 2021 Early Childhood Development in Australia, 2021, accessed 5 May 2023 at <https://www.aedc.gov.au/resources/detail/2021-aedc-national-report>.

² Centre for Community Child Health (CCCH) at Murdoch Children’s Research Institute (MCRI), Social Ventures Australia (SVA) and Bain & Company, [The Restacking the Odds Indicator Guide: Quality, quantity and participation indicators across early years services and why they’re important](#), Royal Children’s Hospital Melbourne, January 2023, accessed 31 July 2023 at <https://www.rsto.org.au/resources/rsto-indicators/>

Figure 1: Example of lead indicator in Early Years of School

Lead Indicator	Potential Action	Outcome Indicator
Proportion of P-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	Proportion of children at expected level in reading (NAPLAN)

For the **early years of school**, our focus has been on identifying effective strategies to improve quality. Quantity and participation are expected to be in line with state and territory legislation for compulsory schooling.

Currently, there is no national quality framework for schools. Each state and territory has its own framework for improving school quality and performance. Each of the frameworks identifies a range of domains thought to reflect school quality and within each of the domains, may suggest improvement strategies. However, the evaluation tools utilised in existing frameworks have significant limitations. These include overly complex structures, reliance on subjective ratings from school leaders and ambiguity of quality indicators compromising the extent to which they are measurable and modifiable. By contrast, the early childhood education and care sector has a National Quality Standard. This sets a national benchmark for quality across the sector and supports continuous quality improvement.

Restacking the Odds has identified evidence-based quality indicators for the early years of school. These indicators are tied to school processes (i.e. process indicators at the classroom, student or lesson level that contribute to the achievement of high-quality outcomes) and teaching staff competencies (i.e. provider indicators). The indicators map to nine domains of quality, listed in Figure 2.

Figure 2: Overview of quality domains

Domains	Primary Outcomes
Part I: Effective Classroom Pedagogical Practices	
1. Application of pedagogical content knowledge	Student academic achievement & academic engagement (e.g. on-task behaviour)
2. Effective differentiated teaching	
3. Peer tutoring and collaborative learning	
4. Physical activity for academic achievement	
5. Technology-assisted teaching and learning	
6. Class size and Teacher-Student ratios	
Part II: School Environment and Student Wellbeing	
7. Social-emotional and behavioural (SEB) interventions to promote a positive school climate	Student social-emotional or behavioural outcomes (including school engagement) & staff-student relationships
Part III: Providers and Partnerships (teacher & principal professional development, family engagement, community collaboration)	
8. Staff and leadership development	Student academic, social-emotional /behavioural and health outcomes
9. Partnerships with families	

The full set of indicators and further details on the methodology and findings are outlined in the attached [Communication Brief](#). The full technical report is being peer reviewed.

The identification of evidence-based indicators provides a potential framework to guide quality in schools. Populating the indicators gives practitioners data to better understand performance and select quality improvement initiatives. Embedding lead indicators of quality in the NSRA measurement framework has potential to elicit an array of benefits including:

- At the school/classroom level for continuous improvement, including early intervention.
- At the state or system level to inform decisions on resourcing and support for schools and at the regional level to create learning collaboratives to drive systemic change in response to local context.
- Over time, to track how school processes are impacting student outcomes and inform policy responses at the population level.

Having completed proof of concept, *Restacking* is in a second phase of the project to build toward large-scale adoption of the *Restacking* framework. The current focus is co-designing a series of prototypes for service providers and communities to routinely collect and act on their *Restacking* data – as self-sufficiently as possible – and to test how this helps them better understand and act on priorities and improve performance.

Drawing value from data requires capability to collect, interpret and identify actionable insights to improve services and outcomes for families and children. Currently resources for both collection and interpretation of data are typically limited.

Practical, scalable solutions are being developed that address the key barriers and promote enablers to collecting, reporting, and using lead indicator data, informed by research that explores these barriers and enablers in the five *Restacking* early years' service settings.

To drive sustainable change, *Restacking* research has identified that a new **learning system** is needed. The learning system has three core components:

1. **Technology platform** – to collect, measure, interpret and visualise the data.
2. **Improvement support program** – to build data literacy and embed a model for continuous improvement in services and communities to respond, innovate and act on data.
3. **Community of practice** – to share learnings, experiences, knowledge and resources across participating organisations and the sector more broadly.

Investment is needed in this learning system across schools to support collection, interpretation and use of lead indicator data to improve services and outcomes for children.

We continue to test the indicators to determine which are pragmatic to collect, resonate with communities, and provide robust measures to stimulate community and government action. We note that a detailed cost analysis would provide additional context to inform decisions about program choices, budgets, and strategies in the early years of school.

Attachment: C. Molloy, R Beatson, S Goldfeld, N Perini, C Harrop, *Restacking the Odds Communication Brief, Early years of school: An evidence based review of indicators to assess quality*, 2020