



Prevention in the first 2000 days

This document summarises the findings from a synthesis of knowledge conducted by members of the Collaboration for Enhanced Research Impact (CERI).

The first 2000 days (conception to age five) is a critical window to give children the best possible start in life.



Acting early reduces risk of disease in later life



Prevention at this age is effective and cost-effective



The public supports government action to protect children's health



What is the issue?

The first 2000 days is a window of opportunity in early life to establish and support healthy behaviours among parents and their children to reduce the likelihood of poor health outcomes and associated economic impacts in the short and long term.

This knowledge synthesis aimed to combine the expertise of research, policy and communications experts to draw out policy relevant lessons from research conducted by the Prevention Centre and the NHMRC Centres of Research Excellence within the Collaboration for Enhanced Research Impact (CERI), as relevant to the first 2000 days of life.

Our findings are based on evidence drawn from 60 peer reviewed articles, synthesised and interpreted with guiding input from 12 prevention policy makers from eight jurisdictions convened over two national roundtables.

Key messages

- We asked our policy partners how our research on the first 2000 days could support them in their work and identified answers from the research of CERI members.
- We found strong evidence to support the benefits of prevention in the the first 2000 days and identified several interventions that are effective and cost-effective to give children the best start in life.
- We found that implementation and scale-up of effective interventions in the first 2000 days requires collaboration between researchers, policy makers, health and social care practitioners, and consumers.
- We identified the need for research into design, implementation and evaluation of interventions for priority populations, and increased monitoring of risk factors across the first 2000 days.

What did we find?

Our policy partners indicated there are four key questions for which they need evidence to guide their work. The key answers from our knowledge synthesis are below.



1. What is the evidence for the benefits of prevention in the first 2000 days?

Prevention improves health for infants through to later life, and reduces pregnancy complications for women. Prevention is cost-saving (healthy children mean reduced hospitalisation costs and reduced parent productivity due to reduced student absenteeism), and there is considerable public support for the government to take action that protects children's health.



2. What prevention interventions are effective (and cost-effective) to give children the best start in life?

Women do not necessarily consider the importance of **preconception health** before they fall pregnant, yet evidence indicates that preconception health influences the health of mothers and their babies. Population-wide interventions and targeted interventions from practice nurses, in workplaces or online may effectively reach this group of women to support preconception health.

During **pregnancy**, combined targeted interventions (diet and physical activity-based lifestyle interventions) are effective, cost-saving and cost-effective.

After the birth, interventions delivered by health professionals and that combine diet and physical activity are effective. Women are particularly open to receiving support, including web-based support programs in the first 12 months after birth.

In early childhood, interventions commenced during pregnancy or early infancy have widespread benefits for obesity prevention. There is evidence for effectiveness of interventions including: a novel infant sleep intervention; scaling up Romp and Chomp to all Australian children; digital interventions in early childhood education and care settings; removing sugary drinks from sports and recreation settings; and delivering health promotion messages via telephone calls or text messages.



3. How do we support implementation and scale-up of effective interventions?

Our research confirms that co-design and collaboration between researchers, policy makers and health service delivery practitioners is important in the planning and implementing effective interventions. It is necessary to balance maintenance of the fidelity of an evidence-based program while making necessary adaptations to fit local circumstances.



4. How can we tailor, implement and scale-up prevention interventions to meet the needs of priority population groups including Aboriginal and Torres Strait Islander peoples, culturally and linguistically diverse people, and people experiencing socioeconomic disadvantage?

While there is a lack of evidence in relation to the first 2000 days in this area, the knowledge synthesis found that interventions must be tailored to unique circumstances, and underlying structural factors that influence health behaviour must be considered and addressed.

Opportunities for further research

We need more evidence to support the design, implementation, and evaluation of prevention interventions for priority populations; to monitor risk factors across the first 2000 days; and on specific areas of interest to our policy partners including food insecurity and parents' mental health.

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