

MIDWIVES AT THE CENTRE OF PRETERM BIRTH PREVENTION

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The Background

In 2018 the Australian Preterm Birth Prevention Alliance (APTBP) was formed with the aim to safely lower the rate of preterm birth across Australia. The APTBP was formed because of the success of the Western Australian Preterm Birth Prevention Initiative, led by Professor John Newnham. In 2014, Professor Newnham led a team of experts that implemented seven key strategies in a statewide initiative, that saw a 7.6% reduction in preterm birth rates across the state and 20% reduction in the tertiary centre¹. Following the success of WA, the Australian Capital Territory (ACT) implemented the same seven strategies and saw a 10% reduction in their preterm birth rates and a 34% reduction in early term birth rates².

The lessons learnt from the initial campaign led the key APTBP stakeholders to consider implementation of this initiative on a larger, national scale. In the 2021/2022 Federal Budget, the Commonwealth Government funded a world-leading national program to introduce the seven key strategies throughout Australia. The APTBP, Women's Healthcare Australasia (WHA), the Institute for Healthcare Improvement (IHI) and Safer Care Victoria (SCV) became partners, forming the **Every Week Counts: National Preterm Birth Prevention Collaborative**. The Every Week Counts National Collaborative uses the breakthrough series collaborative methodology, through the application of improvement science, that has been used successfully in health care across the world.

"The National Collaborative aims to safely reduce preterm and early term birth across Australia by 20% through supporting hospitals in the adoption of evidence-based changes in clinical care," Professor John Newnham.

The seven key, evidence-based, strategies implemented nationwide to reduce preterm birth rates are:

- No pregnancy to be ended until at least 39 weeks unless there is obstetric or medical justification.
- Measurement of the length of the cervix at all mid-pregnancy scans
- Use of natural vaginal progesterone (200mg each evening) if the length of the cervix is less than 25mm
- If the length of the cervix is less than 10mm or continues to shorten despite progesterone treatment, consider cerclage

- Consider use of natural vaginal progesterone if there is a prior history of spontaneous preterm birth
- Women who smoke should be identified and offered Quitline support
- To promote midwifery continuity of care models during pregnancy

More than 52 hospitals across Australia have chosen to join the Every Week Counts: National Preterm Birth Prevention Collaborative. Each site is represented by a multidisciplinary team of healthcare professionals with a key focus on leadership. Three learning sessions over 18 months have been scheduled and attended by the team representatives, October 2022, March 2023 and finally August 2023. Participating hospitals and the teams learn improvement science, how to implement change and test change ideas through Plan, Do, Study, and Act cycles (PDSA). Midwives throughout Australia have been instrumental in creating and testing changes ideas in their local hospitals and health care services.

Midwives making changes to implement key strategies

Midwives around Australia are the driving force behind many of the change ideas being implemented to support the seven strategies, to deliver safe care and improve outcomes for women and their babies. By working collaboratively with the multidisciplinary teams and their obstetric colleagues, midwives are leading the way in preterm birth prevention.

Early term birth

Early term birth is also a key focus of the Every Week Counts: National Preterm Birth Prevention Collaborative. Early term birth, defined as birth between 37.0 and 38.6 weeks gestation, has been steadily rising. In 2017 the caesarean section rate with no medical or obstetric indication before 39 weeks was between 43-56%, with 13-19% of these being performed before 37 completed weeks of pregnancy⁴⁻⁵ (see image 2). This translating to almost 1 in 5 babies being born preterm, without a medical or obstetric indication.

Like preterm birth, early term birth has potential long-term consequences for a child. A large Swedish population study n=3.5million, found the risk of intellectual disability increased weekly before and after 40 weeks

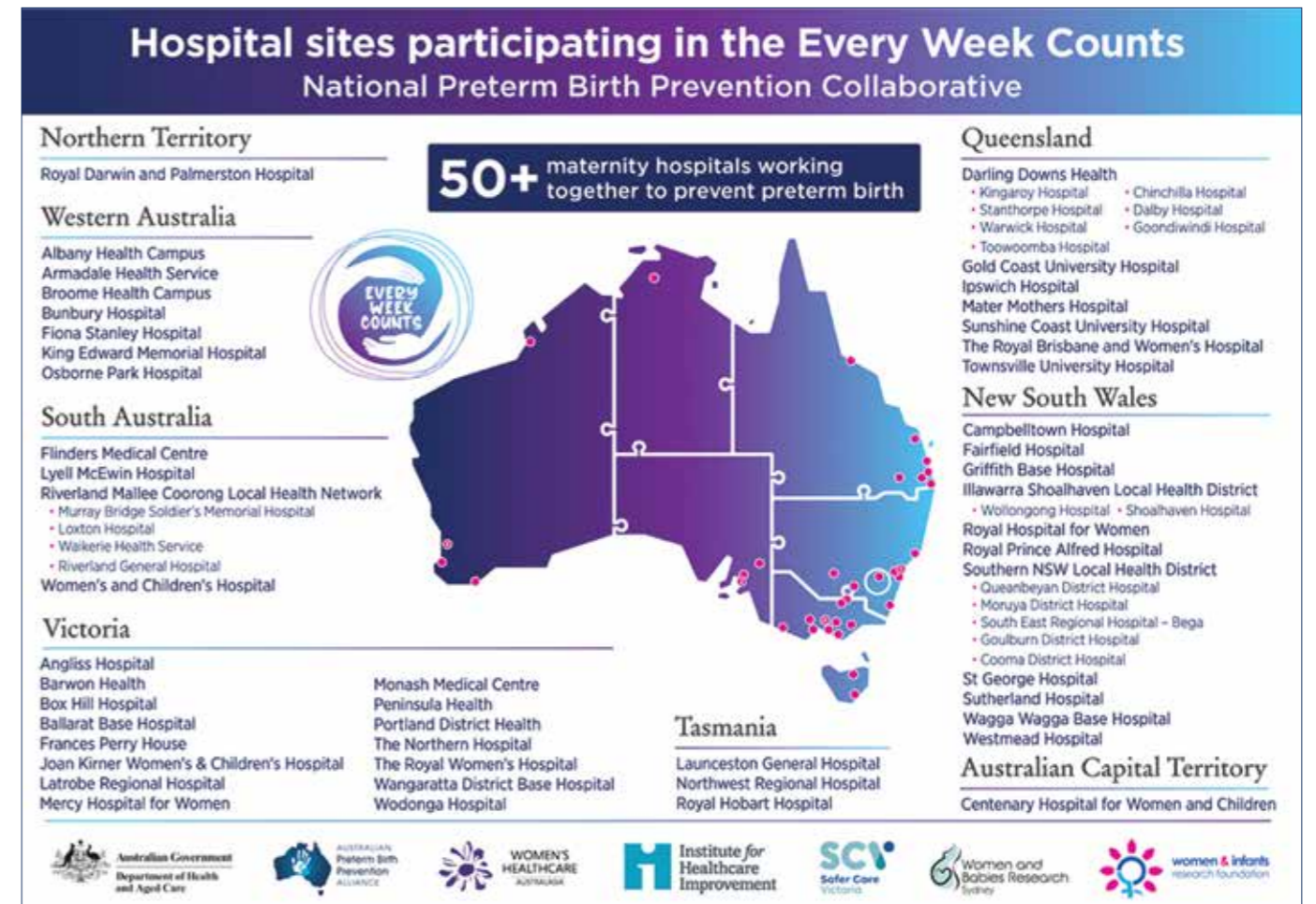


IMAGE 1

gestation⁴. The rate held steady for mild, moderate and severe intellectual disability, but was strongest for severe disability, these findings remain robust after adjustment was made for confounders⁴.

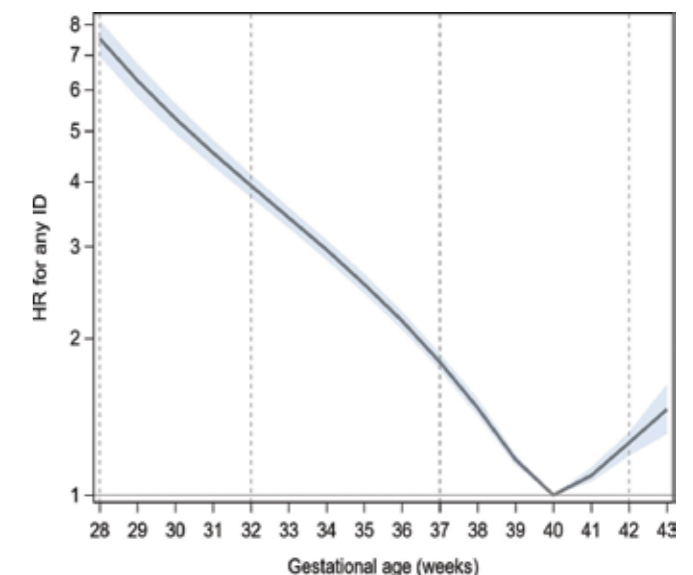
In addition, another population-based study by Bentley et al. (2016) showed the relation between mode of birth, labour onset per gestational age and the relative risk of education vulnerability in early childhood⁶. The results show an increased risk of poor child development at school age with births prior to 39 weeks, particularly for planned births⁶.

IMAGE 2 Rates of early term births in 2017 without a medical or obstetric indication⁴⁻⁵



Source: Yin, W., Döring, N., Persson, M. S., Persson, M., Tedroff, K., Ådén, U., & Sandin, S. (2022). Gestational age and risk of intellectual disability: A population-based Cohort Study. *Archives of Disease in Childhood*, 107(9), 826-832. <https://doi.org/10.1136/archdischild-2021-323308>

IMAGE 3 Gestational age and risk of intellectual disability: A population-based cohort study



Timing of birth

Midwives across the country are sharing ideas and working together to roll out educational resources for women and their families on improving decision-making around timing of birth. For example, QR codes have been made that create an easy pathway for women to access the Every Week Counts website (Image 4). The website also contains translated information for Culturally and Linguistically Diverse (CALD) women and their families. Midwifery and Obstetric teams are working together, process mapping change ideas to review induction of labour and elective caesarean booking processes, to facilitate change around timing of birth. Hospital and Health Services across the nation are discussing how to safely continue pregnancies up to and beyond 39 weeks gestation, whilst also closely monitoring rates of stillbirth greater than 28 weeks gestation. The APTBPA and The Stillbirth Centre for Research Excellence (The Stillbirth CRE) have issued a joint position statement, as both programs share the common goal to improve pregnancy outcomes overall, and minimise harm in achieving this. Both believe that decision-making on timing of birth can be optimised to prevent stillbirth and unnecessary preterm and early term birth, with careful considerations of any consequences and interventions that may be required.



IMAGE 4: Source: www.everyweekcounts.com.au

Consumer involvement

Women and families provide another lens on preterm and early term birth experience and using their own perspective help teams build system improvement within maternity services. Therefore, consumer representation and engagement is also a key component within the Every Week Counts National Collaborative, to ensure the consumer voice is heard. Midwives' Collaborative stakeholders, and consumer representatives are working together to achieve best outcomes.

IMAGE 5

The key elements to prevent preterm birth

More than 26,000 Australian babies are born too soon each year.

New research discoveries have led to the development of key elements to safely lower the rate of preterm birth and are continuing to make pregnancies safer for women and their babies.

1

No pregnancy to be ended until at least 39 weeks unless there is obstetric or medical justification.

2

Measurement of the length of the cervix at all mid-pregnancy scans.

3

Use of natural vaginal progesterone (200mg each evening) if the length of cervix is less than 25mm.

4

If the length of the cervix continues to shorten despite progesterone treatment, consider surgical cerclage.

5

Use of vaginal progesterone if you have a prior history of spontaneous preterm birth.

6

Women who smoke should be identified and offered Ouline support.

7

To access continuity of care from a known midwife during pregnancy where possible.

National Preterm Birth Prevention COLLABORATIVE

Midwifery Continuity of Care

Midwives are pivotal in the delivery of safe, quality maternity care. Midwifery led continuity of care is considered the gold standard, with high level evidence, in the form of a systematic review, proving women experience better outcomes; more spontaneous vaginal births, less likely to experience instrumental birth and less chance of requiring an epidural⁷. The Lancet series in 2014, also highlights the crucial role midwives play in the delivery of high-quality care to women with all levels of risk^{3,8,9}. It is shown to improve maternal and neonatal morbidity and mortality rates, and improving the rates of unnecessary interventions, when working collaboratively within a multidisciplinary team, within a functional health care system^{3,8,9}.

It is known that midwifery continuity of care can reduce the rate of preterm birth by 24%⁷. What has been highlighted within the Every Week Counts National Collaborative is the varied models of midwifery led care being reported across the country, and a growing interest in exploring site specific definitions of continuity of care. An Affinity working group has been formed within the Every Week Counts National Collaborative to gain a greater understanding of the current state of continuity of care across the country, to support data collection measures and provide networking opportunities for clinicians to learn about the varying continuity of care models. The Every Week Counts National Collaborative teams are collecting site specific process measure data on women at risk of preterm birth who have been provided antenatal continuity of care.

Closing the gap

The National Agreement on Closing the Gap (the National Agreement) has 19 national socio-economic targets across areas that have an impact on life outcomes for Aboriginal and Torres Strait Islander people¹⁰. Target 2 is focused on Aboriginal and Torres Strait Islander children being born healthy and strong¹⁰. For First nations women, it is known that they are near twice as likely to have a preterm baby, and wide discrepancies in social determinants of health undoubtedly are the most important aspects requiring attention¹⁰⁻¹¹. For example, in Northern Territory (NT), the preterm birth rate is around 10%, and 17% in the Indigenous population¹². As part of the Every Week Counts National Collaborative, there is ongoing work being done in this space to contribute to the National Agreement Target 2 through safely reducing preterm and early term birth within our First Nations population.

Education

Jurisdictional teams from around the country, consisting of Improvement team experts, midwifery leads and obstetric clinical leads, are traveling around their individual states,



visiting Collaborative and non-Collaborative facilities to provide support and education on the Every Week Counts National Collaborative, through Improvement science and change management. Sites then use these skills to implement the seven strategies into their health service. Individual site champions and midwifery leads complete their own education rollout of in-service sessions and presentations, continuing to spread the key messages.

The authors form part of the national team of midwifery jurisdictional leads providing key support within each individual state. Midwives throughout the Collaborative are considered the key players in preterm and early term birth prevention and have implemented change in most of the hospitals in executing the seven strategies. Their comprehensive knowledge has empowered them to identify risk factors, work through the improvement methodology and implement change ideas to safely reduce the rate of preterm and early term birth. With continued commitment from passionate midwives, while working together with our obstetric colleagues and teams of Improvement experts, we can make a difference in improving the outcomes for women, their babies, their families and meet the aim of the Every Week Counts: National Preterm Birth Prevention Collaborative.

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Partners: Australian Preterm Birth Prevention Alliance, Women's Healthcare Australasia, Institute for Healthcare Improvement, Safer Care Victoria



Scan the QR code for references.