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AUSTRALIAN
Preterm Birth
Prevention
ALLIANCE



Australian Government
Department of Health and Aged Care

Closing the gap in preterm births

Professor John Newnham

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Preterm and early term birth

Definitions:

Preterm: Birth before 37 completed weeks

Early term: Birth between 37 weeks and 38 weeks and 6 days

Incidence:

In Australia: is 8+% - total 24,000

In First Nations Australians: is double – 14% or more



First, the problem....

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Preterm Birth

The problems

For the mother

Increased risks of obstetric intervention and separation from child

For the newborn

Increased risks of death, cerebral haemorrhage, respiratory support, bowel necrosis and sepsis

For children

Increased risks of cerebral palsy, chronic lung disease, deafness, blindness, learning difficulties and behavioural problems.

For adults

Increased risks of metabolic syndrome, diabetes/heart disease, loss of employment and socialisation issues.



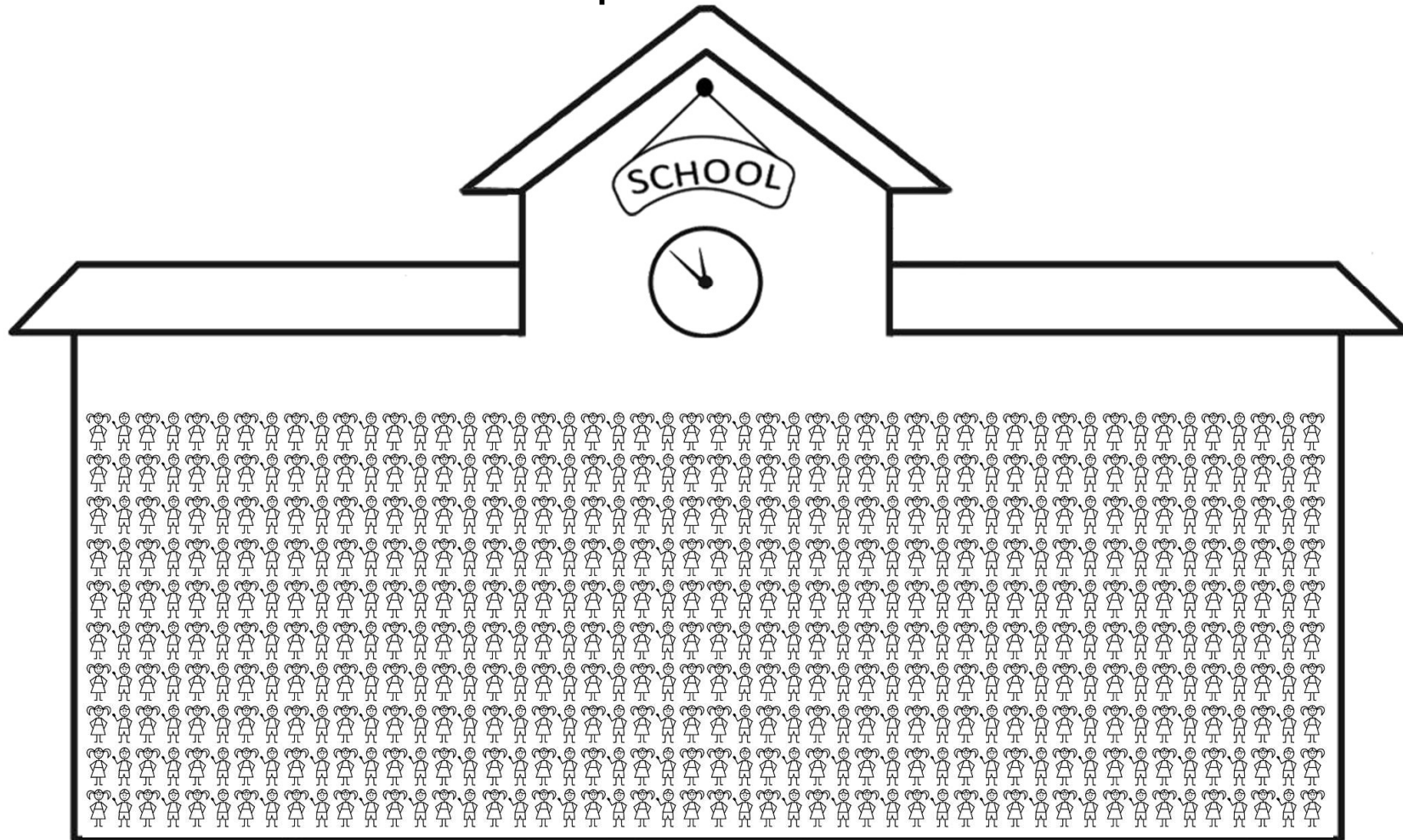
Early term birth: the clinical question



Imagine...
all the children from this
obstetrician go to one school

...in 8 years time
what would the school look like?

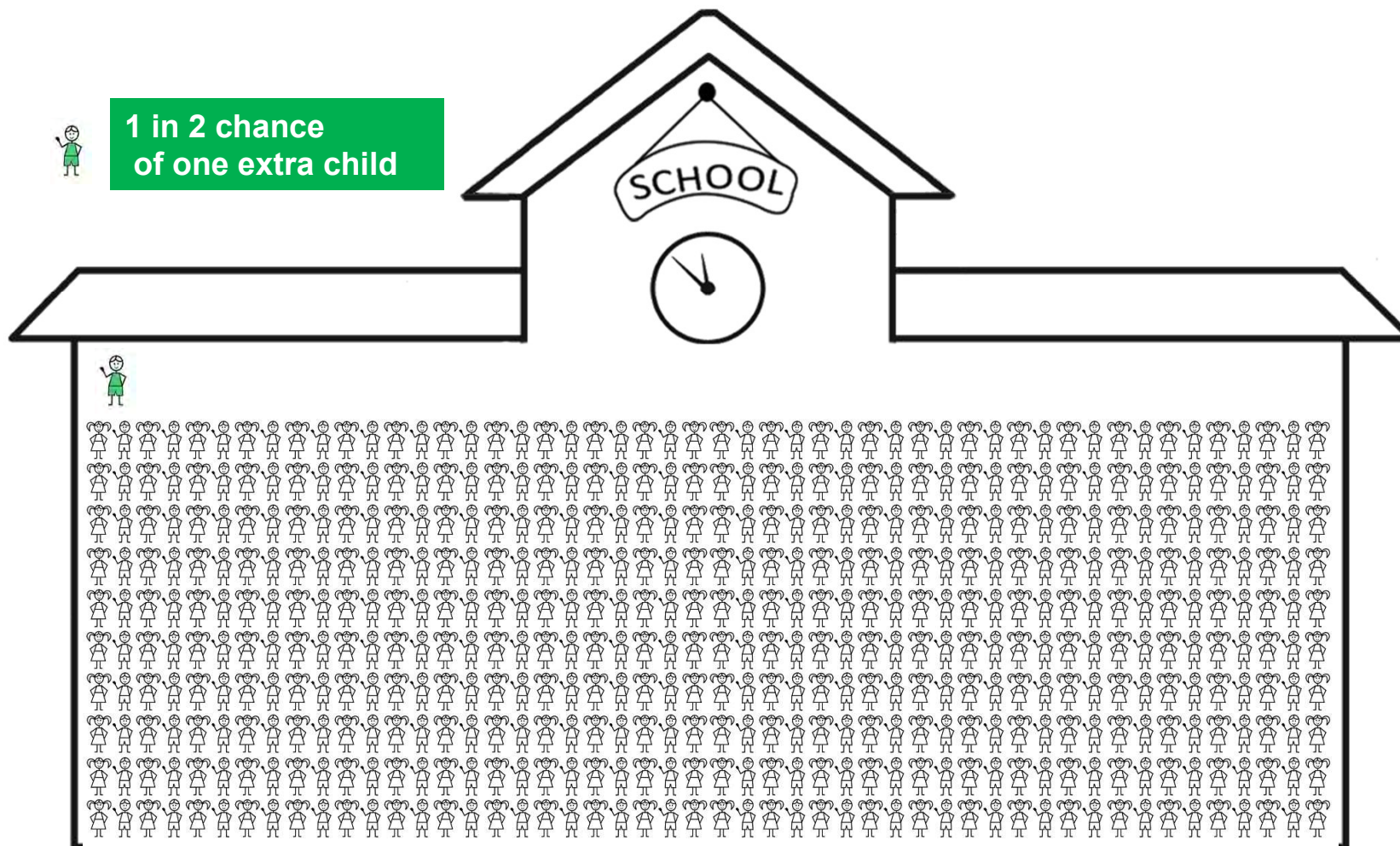
**In a school of 500 children
following a policy of electively ending all pregnancies at 37 weeks' gestation
compared with 39 weeks**



In a school of 500 children
following a policy of electively ending all pregnancies at 37 weeks' gestation

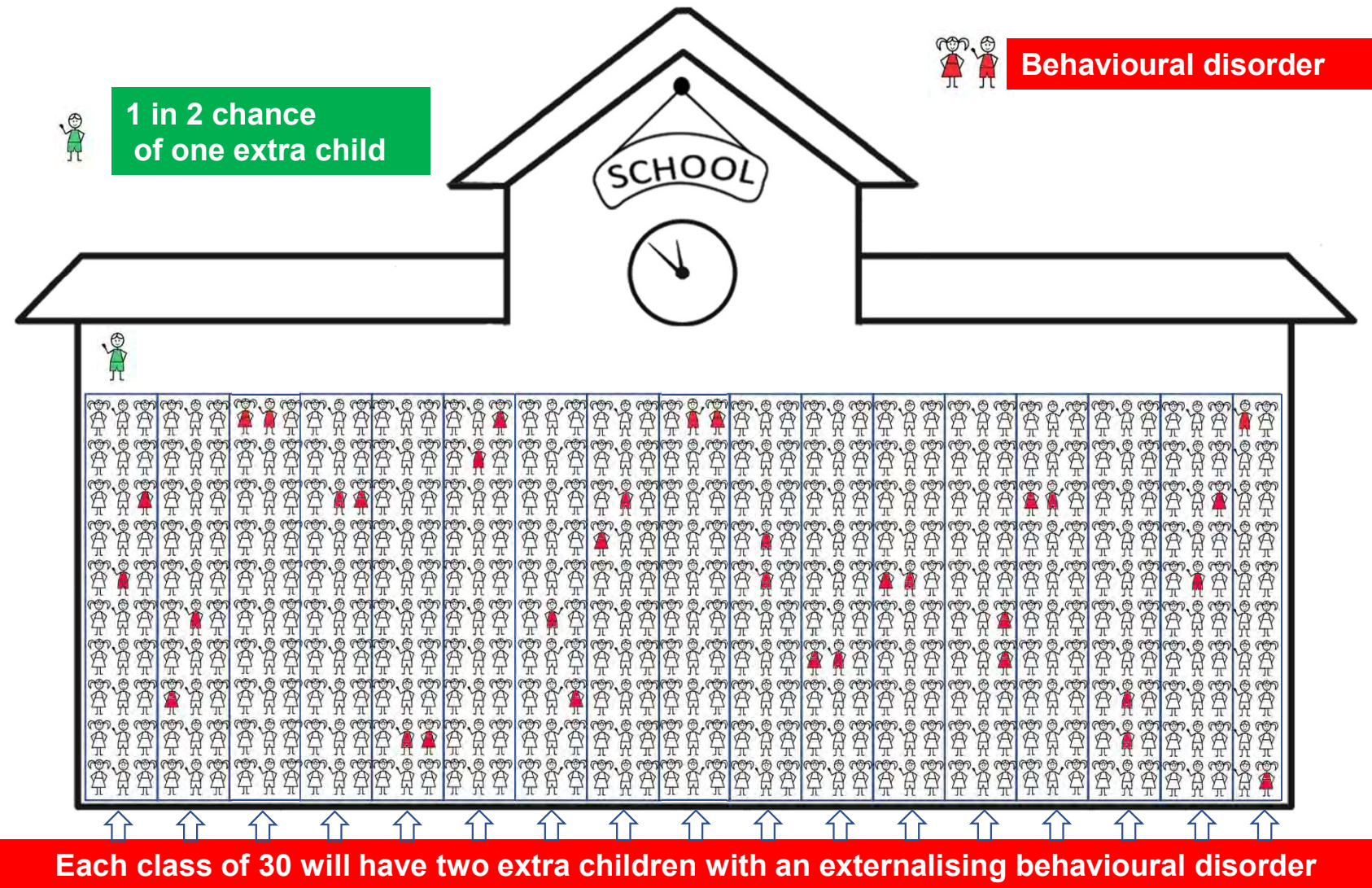


1 in 2 chance
of one extra child

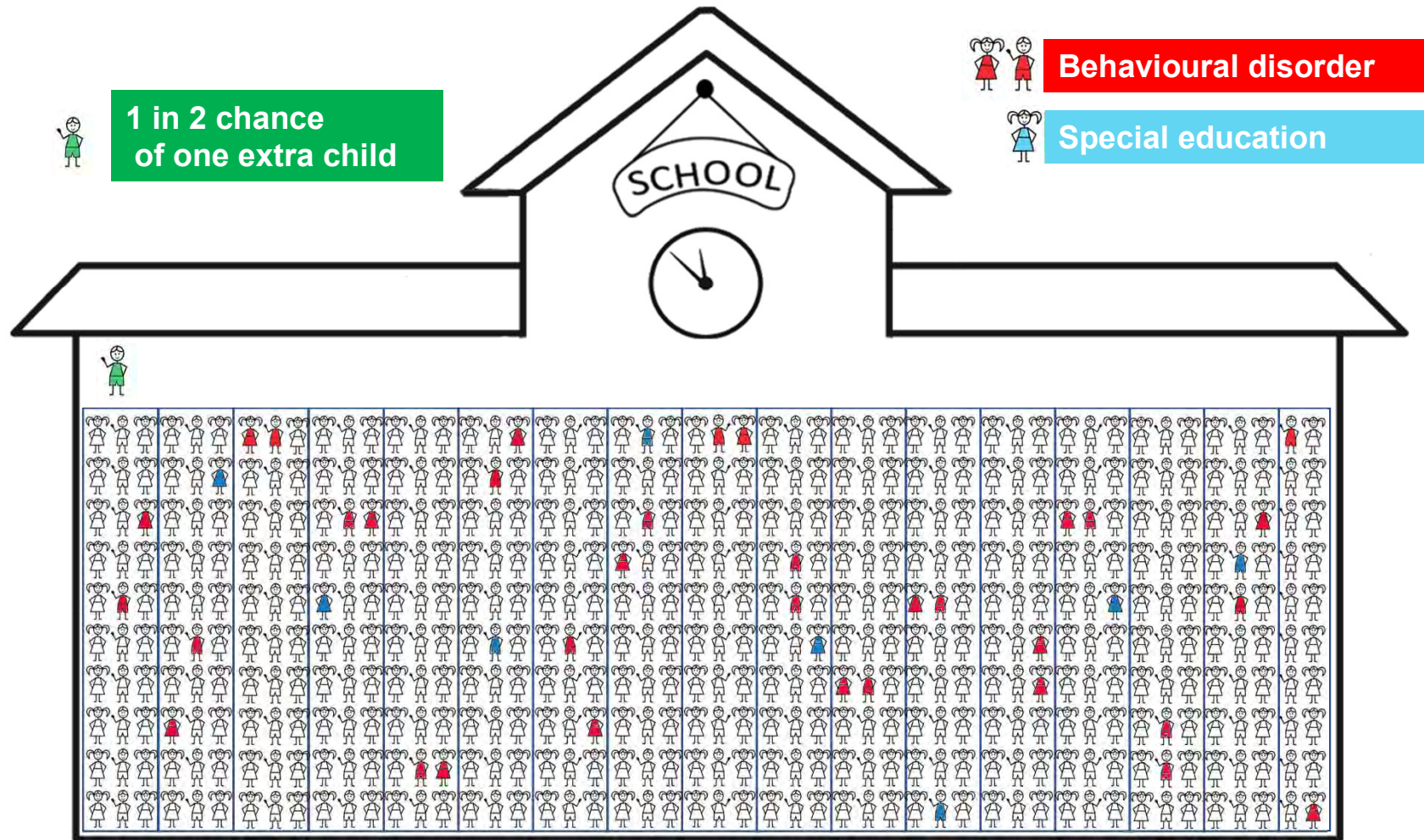


There is a 1 in 2 chance there may be one extra child in the school (prevented a stillbirth) (NNT about 1350 births)

In a school of 500 children
following a policy of electively ending all pregnancies at 37 weeks' gestation

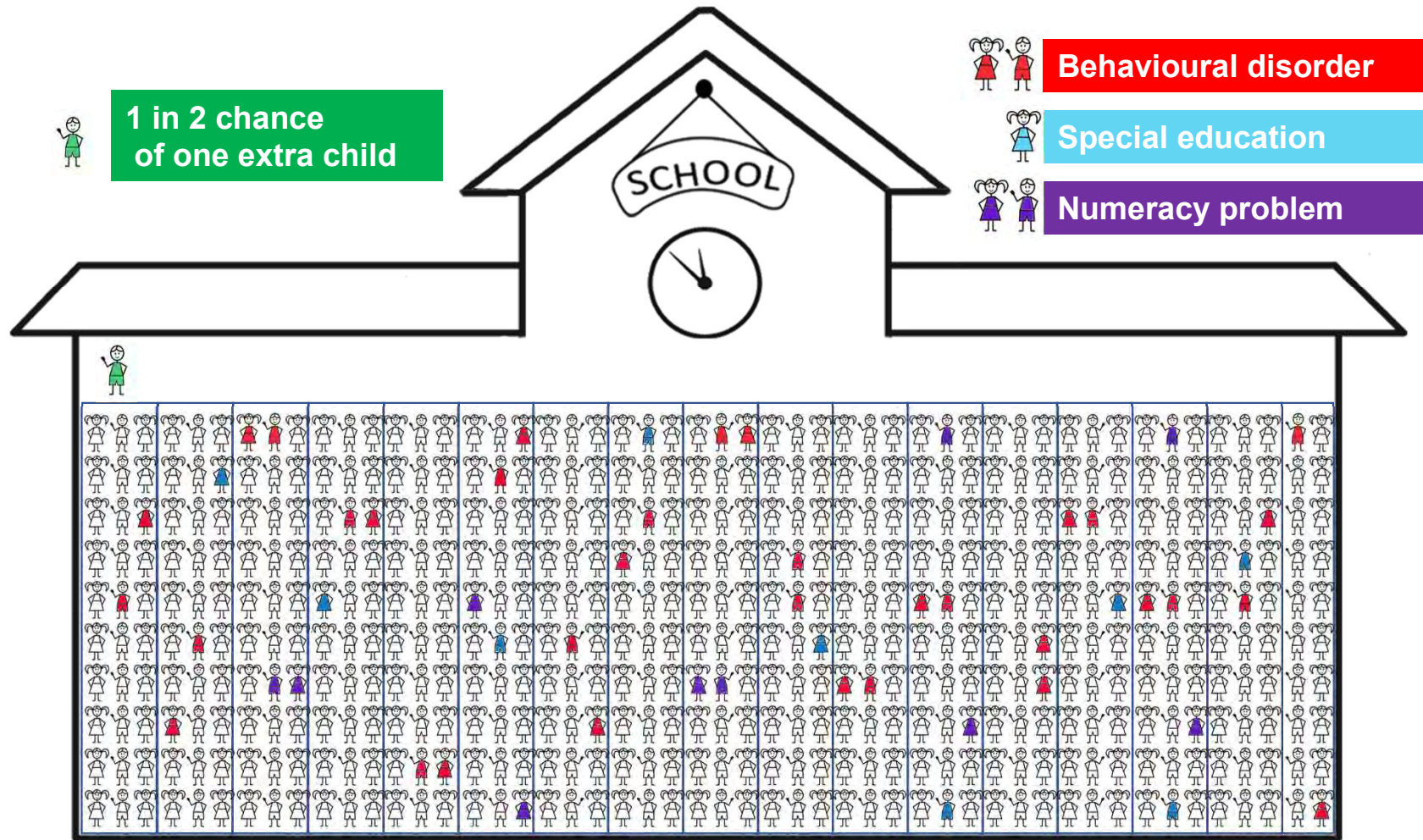


In a school of 500 children
following a policy of electively ending all pregnancies at 37 weeks' gestation



Across every two classes will be 1 extra child with need for special educational assistance

In a school of 500 children following a policy of electively ending all pregnancies at 37 weeks' gestation



The key strategies 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 strategies to safely lower the rate of preterm birth and are continuing to make pregnancies safer for women and their babies.



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 cervix is less than 25mm.



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



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



Women who smoke should be identified and offered Quitline support.



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



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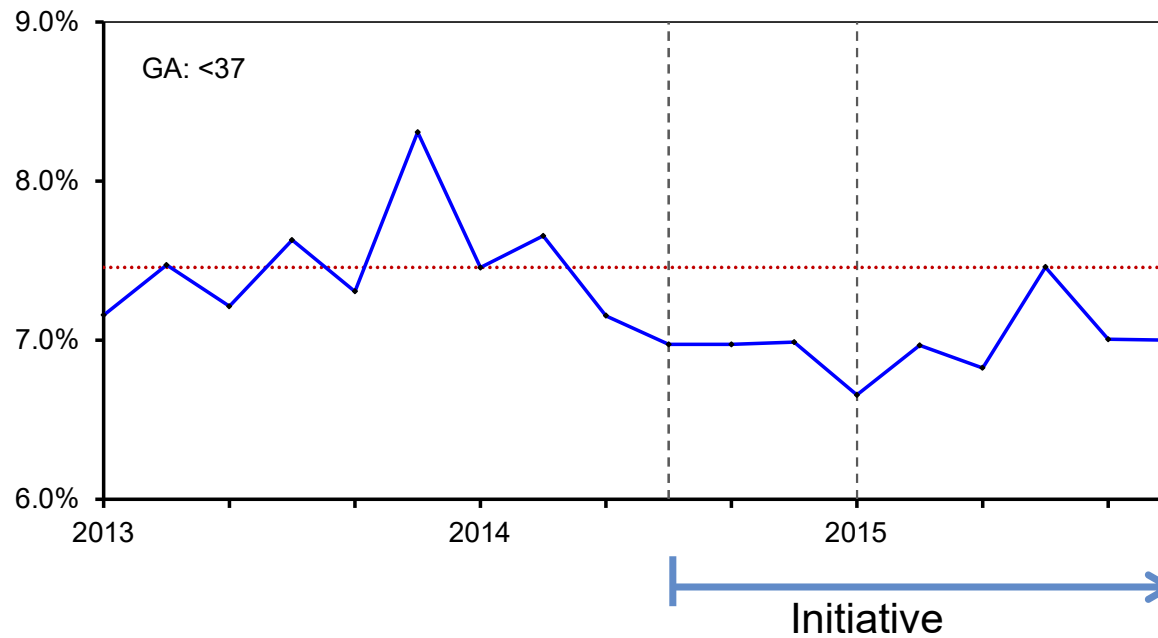
These strategies have been approved and endorsed by the Australian Preterm Birth Prevention Alliance.

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Results:

In the first full year (2015), what happened?

The State of Western Australia

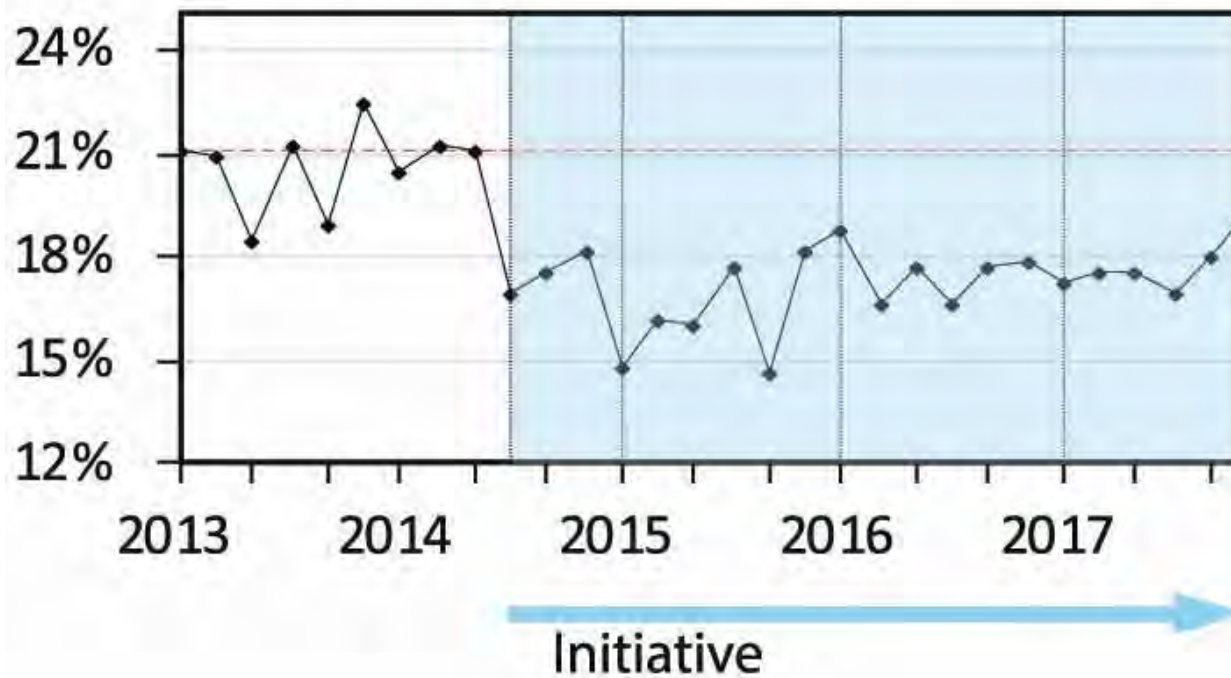


PTB singleton rates:

- 2012: 7.4%
- 2013: 7.5%
- 2014: 7.2%
- 2015: 6.9%

In 2015, the rate of PTB was reduced by 7.6%

Preterm birth rates in WA's tertiary level centre (KEMH) before and after the Initiative



Australian Preterm Birth Prevention Alliance

- Grew from the WA state-wide initiative 2014
- Became national in June 2018
- Supported by an NHMRC Partnership grant
- The world's first national PTB prevention program



Australian Government
Department of Health

Budget 2021–22



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Preventive Health – Preventing pre-term birth

The Australian Government is investing \$13.7 million for the national rollout of a world-leading program to prevent pre-term birth in Australia. This investment includes:

- \$8.8 million to roll out the successful Australian Preterm Birth Prevention Alliance (The Alliance) program nation-wide
- \$2.5 million to deliver a national education campaign to raise awareness of safe and effective strategies to prevent pre-term birth, and
- \$1.9 million to improve data and analysis for future policy development.

The Alliance is a partnership of clinical leaders, researchers, maternity hospitals, and communities working together to safely reduce the rate of early birth.

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***So, how do we
change clinical practice
across Australia?***

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National Preterm Birth Prevention Collaborative



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HEALTHCARE
AUSTRALASIA

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Institute for
Healthcare
Improvement

SCV
Safer Care
Victoria


Australian Government
Department of Health
and Aged Care

Hospital sites participating in the Every Week Counts National Preterm Birth Prevention Collaborative

Northern Territory

Royal Darwin and Palmerston Hospital

Western Australia

Albany Health Campus
 Armadale Health Service
 Broome Health Campus
 Bunbury Hospital
 Fiona Stanley Hospital
 King Edward Memorial Hospital
 Osborne Park Hospital

South Australia

Flinders Medical Centre
 Lyell McEwin Hospital
 Riverland Mallee Coorong Local Health Network
 • Murray Bridge Soldier's Memorial Hospital
 • Loxton Hospital
 • Waikerie Health Service
 • Riverland General Hospital
 Women's and Children's Hospital

Victoria

Angliss Hospital
 Barwon Health
 Box Hill Hospital
 Ballarat Base Hospital
 Frances Perry House
 Joan Kirner Women's & Children's Hospital
 Latrobe Regional Hospital
 Mercy Hospital for Women

Monash Medical Centre
 Peninsula Health
 Portland District Health
 The Northern Hospital
 The Royal Women's Hospital
 Wangaratta District Base Hospital
 Wodonga Hospital

Tasmania

Launceston General Hospital
 Northwest Regional Hospital
 Royal Hobart Hospital

Queensland

Darling Downs Health
 • Kingaroy Hospital • Chinchilla Hospital
 • Stanthorpe Hospital • Dalby Hospital
 • Warwick Hospital • Goondiwindi Hospital
 • Toowoomba Hospital
 Gold Coast University Hospital
 Ipswich Hospital
 Mater Mothers Hospital
 Sunshine Coast University Hospital
 The Royal Brisbane and Women's Hospital
 Townsville University Hospital

New South Wales

Campbelltown Hospital
 Fairfield Hospital
 Griffith Base Hospital
 Illawarra Shoalhaven Local Health District
 • Wollongong Hospital • Shoalhaven Hospital
 Royal Hospital for Women
 Royal Prince Alfred Hospital
 Southern NSW Local Health District
 • Queanbeyan District Hospital
 • Moruya District Hospital
 • South East Regional Hospital - Bega
 • Goulburn District Hospital
 • Cooma District Hospital
 St George Hospital
 Sutherland Hospital
 Wagga Wagga Base Hospital
 Westmead Hospital

Australian Capital Territory

Centenary Hospital for Women and Children

50+ maternity hospitals working together to prevent preterm birth



Consultation with First Nations experts

- Advisory Group established
- Review of change package & driver diagram
- Advice on engagement with Aboriginal & Torres Strait Islander experts
- Tools for assessing cultural safety of care





Joint Position Statement on Timing of Birth

The “Every Week Counts: Preterm Birth Prevention Collaborative”, in partnership with the Australian Preterm Birth Prevention Alliance and the Stillbirth Centre of Research Excellence (CRE) are working closely together with health services, maternity care providers, consumers and researchers to reduce safely the rates of preterm birth and stillbirth.....

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The Model for Improvement

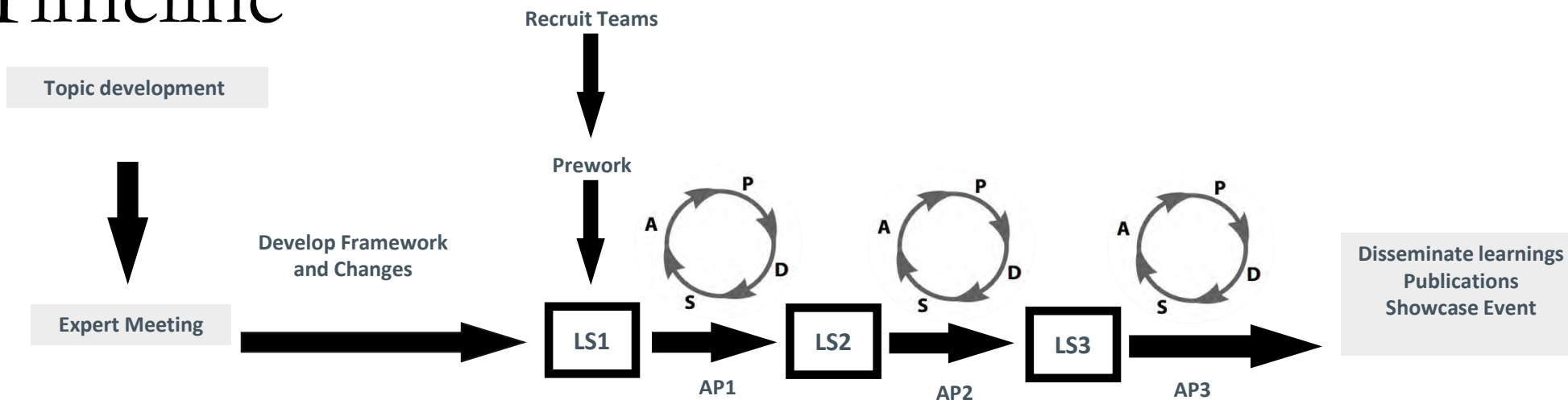


To improve the health of women and babies by safely reducing the rate of preterm and early term birth by 20% in participating maternity services across Australia by March 2024.



This Photo by Unknown Author is licensed under CC BY-NC-SA

Timeline



LS: Learning Session
 AP: Action Period
 P-D-S-A: Plan-Do-Study-Act

Supports:
 Email | Site visits | Webinars | Video calls | Collaboration platform | Monthly team reports | Assessments

Key Dates	Activity	Location
25-26 October 2022	Learning Session 1	Sydney – Novotel Olympic park
20-21 March 2023	Learning Session 2	Melbourne - MCG
14-15 August 2023	Learning Session 3	Brisbane – Grand Chancellor
19 March 2024	Show case	Canberra

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Learning Session 1

26-27 October 2022



Learning Session 2

20-21 March 2023



Learning Session 3

14-15 August 2023

The three Learning Sessions

About 240 attendees at each session

3 - 5 from each hospital

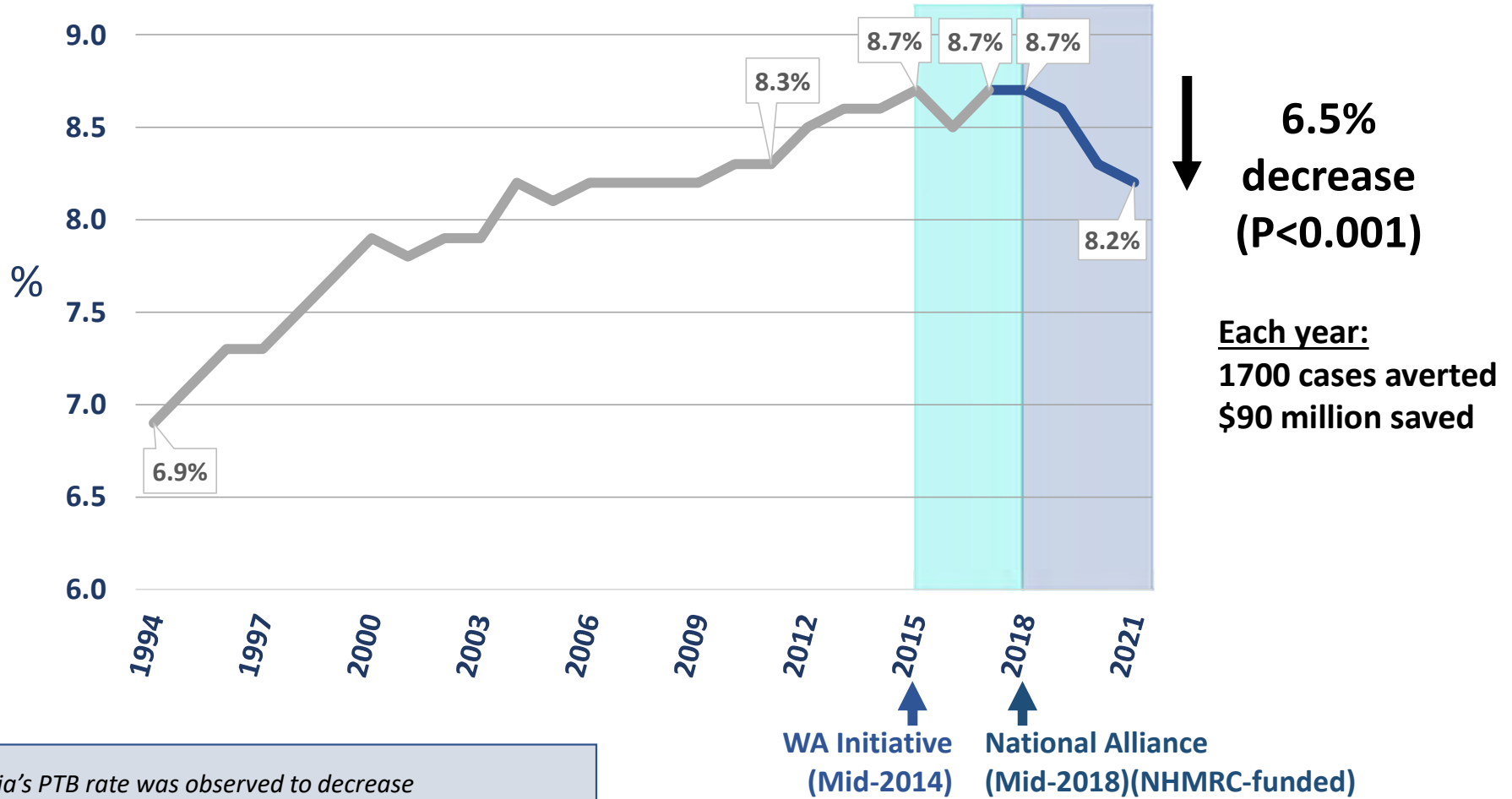
A blend of:

- scientific talks
- workshops
- interactive storyboard sessions
- improvement exercises
- sharing of data
- sharing of learned experiences
- collaborations
- friendly competition

First, the Australian data since the Alliance was established
and before the Collaborative started
(AIHW latest data)

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Australian PTB rates (<37 weeks) 1994 to 2021 (pre-Collaborative)

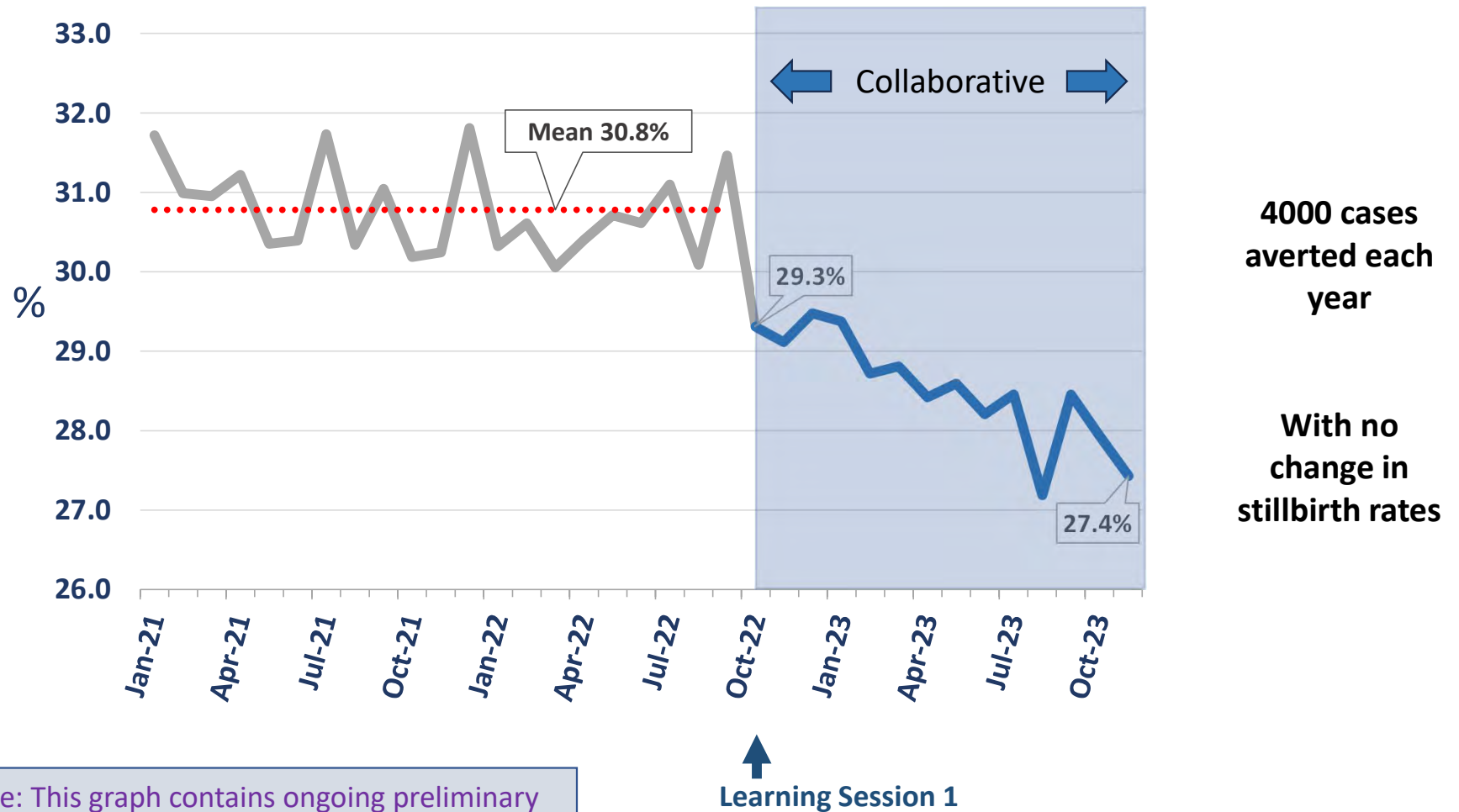


Australia's PTB rate was observed to decrease by 6.5% in the 3 years after the Alliance was established

And finally, the early term birth rate
in the Collaborative hospitals up to November 2023

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Australian early term rates (37-38⁶ weeks) Jan 2021 – Nov 2023



Confidentiality notice: This graph contains ongoing preliminary results from the collaborative. Please do not share.

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In conclusion:

- The rise in Australia's preterm birth rate has been stopped
- The national rate of preterm birth rate was lowered by 6% since the Alliance started and before the Collaborative was commenced
- The preterm birth rate since the Collaborative started has not yet reduced further, but is likely too early to see
- The early term birth rate has been lowered by 10% so far, amounting to 4000 cases averted each year
- We now know how to do this effectively in Australia

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But does this work in First Nations women?

RESEARCH

Open Access



The Western Australian preterm birth prevention initiative: a whole of state singleton pregnancy cohort study showing the need to embrace alternative models of care for Aboriginal women

Ye'elah E. Berman^{1*}, John P. Newnham¹, Scott W. White¹, Kiarna Brown^{2,3} and Dorota A. Doherty¹



ORIGINAL ARTICLE

Short cervix and preterm birth in the top end

Kiarna Brown^{1,2}, Chor Kiu (Maree) Lam² and Michael Binks¹

¹Menzies School of Health Research, Charles Darwin University

²Department of Obstetrics and Gynaecology, Royal Darwin Hospital, Darwin, Northern Territory, Australia

Correspondence: Dr Kiarna Brown, Menzies School of Health Research, Building 58, John Matthews Building, Royal Darwin Hospital, Tiwi, Darwin, Northern Territory 0810, Australia. Email: kiarna.brown@menzies.edu.au

Conflicts of interest: The authors

Abstract

Background: Reducing rates of preterm birth (PTB) remains a significant challenge. The Northern Territory (NT) records some of the highest rates of PTB in the country, especially in First Nations women. In 2014, a Western Australian (WA) preterm birth prevention initiative involved the implementation of seven key initiatives. One of these was routine mid-trimester cervical length measurement. The initiative successfully reduced PTB rates following its first year of implementation. This was the first successful reduction in PTB, including the earlier gestational ages, across a population.

Results: Adoption of routine screening of cervical length measurement at mid-trimester ultrasound in the NT was successful, increasing from 4 to 88%. Detection rates of short cervix doubled. However, there was no difference to PTB rates despite targeted management.

Conclusion: PTB remains a significant challenge in the NT, especially for First Nations women who are found to have a short cervix more commonly than non-Indigenous women in the Top End.

- Overall PTB rate 21%
- Screening rate increased from 4% to 88%
- Incidence short cervix 4%
- High use of cerclage
- No reduction in PTB



- Deanna Stuart-Butler
- Prof Cath Chamberlain
- Marisa Smiler-Cairns
- Dr Kiarna Brown

Yarning session: Great Hall, Parliament House, Canberra - 19 March 2024
The Australian Preterm and Early Term Birth Prevention National Program

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But we already know the answer of how to reduce preterm birth in First Nations women

- It is continuity of care with First Nations involvement in the healthcare team
- The problem is implementation and holding the gains



Contents lists available at ScienceDirect

EClinicalMedicine

journal homepage: <https://www.journals.elsevier.com/eclinicalmedicine>

EClinicalMedicine

Published by THE LANCET

Reducing preterm birth amongst Aboriginal and Torres Strait Islander babies: A prospective cohort study, Brisbane, Australia

Sue Kildea^{a,b,*}, Yu Gao^{a,b}, Sophie Hickey^{a,b}, Sue Kruske^{c,i}, Carmel Nelson^{c,j}, Renee Blackman^{d,e}, Sally Tracy^f, Cameron Hurst^g, Daniel Williamson^h, Yvette Roe^{a,b}

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^d Aboriginal and Torres Strait Islander Community Health Service Brisbane Limited, 55 Annerley Rd, Woolloongabba, Queensland 4102, Australia

^e Gidgee Healing Aboriginal Community Controlled Health Service, 28 Miles Street, Mount Isa, Queensland 4825, Australia

^f The University of Sydney, 88 Mallett Street, Camperdown, New South Wales 2050, Australia

^g QIMR Berghofer Medical Research Institute, 300 Herston Rd, Herston, Queensland 4006, Australia

^h Aboriginal and Torres Strait Islander Health Branch, Department of Health, 33 Charlotte Street, Brisbane, Queensland 4001, Australia

ⁱ School of Nursing, Midwifery and Social Work, University of Queensland

^j Poche Centre for Indigenous Health, University of Queensland

Reduced PTB from 11.6%
to 6.9%
(43% reduction)

Interpretation: The short-term results of this service redesign send a strong signal that the preterm birth gap can be reduced through targeted interventions that increase Indigenous governance of, and workforce in, maternity services and provide continuity of midwifery carer, an integrated approach to supportive family services and a community-based hub.

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