Media Release

women & infants research foundation

Examining a pioneering WA program and how it is preventing premature births

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A significant reduction in rates of preterm birth in the state's major perinatal hospital together with encouraging signs in the far north of Western Australia are among the key findings of a detailed analysis of a world-first program to prevent premature birth and its far reaching impacts.

Recently published in PLOS ONE, the world's largest science journal, the study presents detailed outcomes for the first three years of the Western Australian Preterm Birth Prevention Initiative delivered in partnership by the Women & Newborn Health Service, King Edward Memorial Hospital (KEMH), and the Women & Infants Research Foundation (WIRF).

In 2017, it was widely reported that this whole-of-population, whole-of-state program had successfully lowered the rate of preterm birth across WA by 8 per cent. In the state's major perinatal centre, KEMH, the rate fell by 20 per cent.

Founder of the Initiative, 2020 Senior Australian of the Year, and WIRF Chief Scientific Director, Professor John Newnham AM, said it was pleasing to see the rate of preterm births at KEMH had retained its sizeable reduction.

"This effect also extended into prevention at the younger gestational ages – the very early preterm births. This benefit was ongoing despite the fact that the number of high-risk cases being managed at the hospital continued to rise," Prof Newnham explained.

In the Kimberley the news was equally as positive. In women in early pregnancy who would not have been thought to be at high-risk, there was a dramatic reduction in preterm birth.

"We think it is a combination of two things. At the beginning of the Initiative in 2014 a decision was made in the Kimberley for progesterone treatment to be provided free-of-charge," Prof Newnham said.

"Second, the Kimberley had adopted a program of midwifery continuity of care, for which there is good evidence that it may prevent many pregnancy complications. It is likely that the free progesterone, combined with strong midwifery care, have together lowered the rate of preterm birth."

The study also revealed that the beneficial effect that had initially been observed at secondary level hospitals, outside KEMH, wore off, indicating the intensity of the educational program needs to be ongoing and sustained.

"There was also no beneficial effect seen in births at private hospitals at any time in the three years of the study. All the reductions had occurred in the public sector."

Prof Newnham said the results of this three year evaluation have shown that:

- The rate of preterm birth can be lowered, safely, by applying known interventions across a population.
- The benefit is greatest in women who would not have been identified in early pregnancy as being at particular risk, indicating that preterm birth prevention programs need to include the whole of the pregnant population, not just women with risk factors.
- The effect can be sustained where the program is most intensive, but is at risk of dissipating elsewhere.
- The effect was particularly noticeable in a region where progesterone had been made free-of-charge, aided by a program of strong midwifery care.

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"It's taken us more than 30 years to find out how we can safely prevent preterm birth and now – armed with detailed analysis to inform our approach moving forward - we can work on reducing rates of early birth even further," Prof Newnham said.

"There is no better place in the world to have a baby than in Australia and we want to keep it that way."

In 2018, the key practice points and public health campaign developed as part of WA Initiative were used to shape and inform development of the Australian Preterm Birth Prevention Alliance.

As Chair of the Alliance, Prof Newnham said this national partnership was created with a singular goal: "To safely lower the rate of preterm birth across Australia."

The Alliance brings together clinical leaders, health departments and communities to adapt, modify and tailor the existing WA Initiative for introduction and implementation in each state and territory.

This study was supported by the National Health and Medical Research Council of Australia, the Women & Infants Research Foundation of Western Australia, Channel 7 Telethon and private philanthropy.

'The elements of success in a comprehensive state-wide program to safely reduce the rate of preterm birth', can be viewed online at PLOS ONE here:
https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0234033

ENDS

Media opportunity:

Professor John Newnham AM is available for interview and follow-up media comment. You can view his WIRF researcher profile here.

Media contact:

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Background:

The Women and Infants Research Foundation

The Women & Infants Research Foundation is one of Australia's leading medical research institutes dedicated to improving the health of women and infants. We focus our research and programs across four principal areas: the prevention of preterm birth, gynaecological cancers, women's mental health, and the development of an Artificial Womb. Our research and programs have directly contributed to a number of improved clinical practices and health outcomes.