Making preterm birth history

John Newnham

Risky: Preterm birth is the biggest cause of death and disability in children.

Being born too early can have serious and lifelong consequences. Preterm birth is the single greatest cause of death and disability in children up to age five in the developed world. In WA, preterm birth affects one in 12 children and in Aboriginal people it is almost double.

Most children born too early go on to lead normal and productive lives. But for many others there may be serious medical problems followed by life-long disability.

Until quite recently, preterm birth has been considered to be an unavoidable and accidental consequence of pregnancy. Times have changed. Several decades of research conducted in WA and elsewhere have provided us with the knowledge to design a Statewide program that has a real chance of safely lowering the rate of preterm birth.

The program is known as the WA Preterm Birth Prevention Initiative and is launched today on World Prematurity Day. Our aim is to safely lower the rate of preterm birth through an integrated and Statewide approach involving new clinical strategies, education programs for healthcare providers and the general public, and a new clinic at King Edward Memorial Hospital. The initiative will be underpinned by research aiming to both improve the effectiveness of the clinical strategies and to monitor the success of the program.

There are many pathways to preterm birth and the prevention of each requires different clinical approaches. The initiative will be centred on nine clinical interventions, details of which can be found at thewholeninemonths.com.au.

Three of the interventions warrant special mention. First, is progesterone therapy given daily as a vaginal pessary. When given to pregnant women as a treatment, this natural hormone has been thought for many years to possibly prevent preterm birth, but only recently have we learnt how and when it should be used. When given to pregnant women with a history of spontaneous preterm birth that had occurred between 20 and 34 weeks, progesterone treatment will halve the risk of preterm birth recurring.

A second use of progesterone therapy is based on measurement of the length of the woman's cervix at the time of the standard ultrasound examination, which in Australia is between 18 and 20 weeks of pregnancy. A shortened cervix at this time in pregnancy is strongly predictive of preterm birth and if progesterone therapy is commenced the risk of early birth is halved. Ultrasound measurement of the length of the cervix in mid-pregnancy, and prescription of progesterone therapy whenever the cervix is found to be shortened, will now be recommended as standard practice for all WA pregnancies.

Third, is the avoidance of birth until the baby is fully developed. Recent evidence, including from our own population, has shown that many babies born before 38 weeks of pregnancy have increased medical risks, including learning and behavioural problems at school age. Unless there are medical reasons justifying earlier birth, babies should be left until at least 38 weeks.

The pilot Preterm Birth Prevention Clinic at King Edward Memorial Hospital started this month. This clinic is consultative and aims to provide individual treatment plans to women at high risk of preterm birth, after which the antenatal care and birth may be continued by the woman's regular healthcare provider. For some women, the service may not require a visit to the city and the consultation may be by teleconference or mail.

This initiative is unique. No health care system has previously launched an integrated clinical, educational and research program across a defined geographical region with the singular aim of safely lowering the rate of preterm birth. And until now, we did not have the scientific knowledge that would make such a program likely to be successful.

WA is ideal for this innovative clinical program. Our State has well-educated health care and general populations, served by a single tertiary level perinatal centre within the Women and Newborn Health Service, well established lines of communication, and computerised data bases that will ensure accurate monitoring of outcomes.

We also have for many years provided world-leading research in this field, ensuring that new discoveries will continue to improve our clinical strategies.

No single clinical treatment on its own is likely to affect the Statewide rate of preterm birth. The initiative launched today, however, aims to harness the expertise and commitment of the healthcare workforce and the 34,000 women who give birth each year in WA to safely lower the rate of this complication of pregnancy. By working together, lowering the rate of preterm birth will improve the lives of countless WA children and their families.

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