

## Preterm births cost Australian Government \$1.4 billion annually

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A new study has shown that the annual cost of preterm birth to the Australian government is approximately \$1.4 billion with one quarter of this arising from the need for educational assistance for those born too soon.

Conducted by the Australian Preterm Birth Prevention Alliance in partnership KPMG Australia, the study was developed to estimate the costs of preterm birth in the first 18 years of life for a hypothetical cohort of 314,814 children - the number of live births in 2016.

Being born too early is the single greatest cause of death in young children in Australia and all similar societies. It is also one of the major causes of disability, both in childhood and adulthood. These disabilities include cerebral palsy, deafness, blindness and learning and behavioural problems.

Recently published in the Australian and New Zealand Journal of Obstetrics and Gynaecology (ANZJOG), the study revealed two thirds of the costs were borne by health care services with costs of preterm birth inversely related to gestational age at birth. Extremely preterm births were most expensive at \$236,036 each, very preterm birth at \$89,709, and late preterm birth at \$25,417.

Chair of the Australian Preterm Birth Prevention Alliance and 2020 Senior Australian of the Year, Professor John Newnham AM said assessments of economic costs were critical to inform evaluations of interventions aimed at the prevention or treatment of preterm birth.

"Discovering how to safely lower the rate of preterm birth and then evaluating the impact of that effectiveness needs to be one of our highest priorities in contemporary healthcare," Professor Newnham said.

"The consequences of preterm birth for individuals, families and societies are considerable, both in terms of human suffering and economic consequences."

Whilst previous international studies had quantified direct medical expenditure, this latest analysis also sought to measure the significant costs to educational services.

"The benefits of preterm birth prevention include fewer children with behavioural and learning problems, including the need for special education assistance," Professor Newnham said.

"In our study, additional costs at school were calculated to contribute 25% of the cost of preterm birth. Promotion of programs to safely prevent preterm birth needs to include the educational advantages at school, as well as the profound benefits for families that arise from avoidance of behavioural problems."

Professor Newnham explained that it should no longer be assumed that the high costs of preterm birth are an inevitable consequence of our reproduction.

"The rate of preterm birth has been rising dramatically in Australia and elsewhere over the last two decades. There are many pathways to untimely early birth, each requiring a different clinical approach, and we have discovered some are now amenable to prevention."

In 2014, the WA Preterm Birth Prevention Initiative was launched – the world's first whole-of-state and whole-of-population program to prevent preterm birth. This program was managed and delivered through the Women & Infants Research Foundation.

Results from the first year of this program revealed a reduction in the rate of preterm birth across WA by 8% and by 20 per cent at the major tertiary level centre – King Edward Memorial Hospital.

The success of the WA program, which has also extended to the ACT as part of their reported 10% reduction of preterm birth rates in 2020, have been underpinned by the development of key interventions to safely lower the rate of early birth.

"When we apply these interventions as part of a multifaceted program across an entire population the rate of preterm birth can be reduced, at least by about 8%. Further advances in potential interventions can be expected to make prevention even more effective," Professor Newnham said.

"Investing in the prevention of preterm birth is a social and economic investment in our community's future."

As accurate data is only available to estimate the costs to 18 years of age, it is reasonable to conclude that the costs to government of preterm birth estimated in the current study represent only a fraction of the eventual overall burden to individuals, families and the nation.

In May 2021, the Australian government announced \$13.7 million in federal funding to bolster the Alliance's ongoing efforts to lower the rate of preterm birth across Australia.

The funding will support the expansion of a national education and outreach program to safely lower rates of preterm birth in each Australian state and territory.

The study, 'The health and educational costs of preterm birth to 18 years of age in Australia', has been published online in the Australian and New Zealand Journal of Obstetrics and Gynaecology (ANZJOG) and can be viewed here.

Authors for the original ANZJOG article are: John Newnham, Chris Schilling, Stavros Petrou, Jonathan Morris, Euan Wallace, Kiarna Brown, Lindsay Edwards, Monika Skubisz, Scott White, Brendan Rynne, Catherine Arrese, and Dorota Doherty.

## **ENDS**

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**Media opportunity:** Professor John Newnham is the Chair of the Australian Preterm Birth Prevention Alliance and is available for follow up media comment. You can view his <u>profile here.</u>

## **Background**

The Australian Preterm Birth Prevention Alliance is a national Alliance of clinical leaders, researchers, health departments, and communities working together to safely lower the rate of preterm birth in Australia.

The Australian Preterm Birth Prevention Alliance is proudly supported by the Women & Infants Research Foundation.