

PRETERM BIRTH

IN THE DEVELOPED WORLD

Preterm birth is the leading cause of death in children under 5 in high-income countries, and the second leading cause worldwide. Yet despite years of research, our knowledge of what causes some 15 million babies to be born at less than 37 weeks' gestation is still quite poor.

Moreover, the percentage of premature babies is going up, not down. And while attention is usually focused on the developing countries, where rates are highest, numbers in the developed countries are rising too.

"It's a big problem, and a costly one," says Shoo K. Lee, Scientific Director of the Canadian Institute of Human Development, Child and Youth Health. "Understandably, the issues in developing and developed countries are very different."

Lee and his colleagues focused on developed countries: what are the problems here, and what can we do about them? Using data from 39 countries, they sought to estimate how many preterm births could be prevented if current evidence-based interventions were widely implemented. The goal was to establish a rate reduction target for Born Too Soon, an initiative of the World Health Organization (WHO).

It was the first multi-country analysis of trends in preterm birth rates and potential prevention through existing interventions. Specifically, the study focused on smoking cessation, use of progesterone, cervical cerclage, reducing non-medically indicated induction and caesareans, and limiting multiple embryo transfers.

The results were both disappointing and shocking: within the two-year target, if all the known interventions were put into place, researchers projected a mere 5% reduction in preterm births.

The impact is potentially larger in some developed countries than others, however. For instance, in the United States, which has one of the highest preterm birth rates among de-



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veloped countries (12%), the primary drivers for rising rates are increasing maternal age, assisted reproductive techniques, non-medically indicated induction and caesarians. In the last few years, a reduction in non-medically indicated procedures has helped push the rate down.

Practices surrounding assisted reproductive techniques also vary from country to country. Whereas European countries typically restrict the transfer of more than one embryo, this practice is allowed in the U.S. and Canada. Implanting multiple embryos increases the chance of twins and triplets, which in turn increases the risk of the babies being born early.

"Reducing rates of preterm birth is perhaps the most serious perinatal challenge facing industrialized countries," notes K. S. Joseph, from the University of British Columbia and the Children's and Women's Hospital and Health Centre in British Columbia. "This review shows just how difficult the challenge is."

Canada's preterm birth rate is in the middle range (7.8%), but still higher than countries such as Finland (5.5%). On the positive side, Joseph points out that sometimes lives are saved precisely because we intervene. "In Canada, we monitor pregnancies very carefully. If the obstetrician sees the baby is having problems, they will deliver early. A decision is made that the baby will do better outside than inside the womb."

However, both Lee and Joseph say that decades of research on preterm births have only made a small dent in the problem so far. "Known causes account for only about 30% of preterm births," Lee admits. "For the other 70%, we have no idea what causes them. We need to put a lot more effort into trying to understand them and figuring out how to address this issue." 🦋

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