

Hypertensive disorders of pregnancy increasing in Canada, finds study

July 29 2024



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In Canada, rates of hypertensive disorders of pregnancy (HDP) have increased, but the good news is there has been a decline in some related health conditions, according to new research published in the *Canadian*

Medical Association Journal (CMAJ).

Hypertensive disorders of pregnancy include [chronic hypertension](#) ([high blood pressure](#)), gestational [hypertension](#), and preeclampsia or eclampsia. These disorders affect 5%–10% of pregnancies worldwide, and cause more than 50 000 [maternal deaths](#) and 500 000 deaths in fetuses and infants every year.

A large study of more than 2.8 million births in hospitals in Canada (excluding Quebec) between 2012 and 2021 identified females with HDP, with the aim of understanding trends in HDP and related health outcomes. Over the study period, the rate of any HDP increased from 6.1% to 8.5% in absolute numbers, with a relative increase of 40%. Pre-existing hypertension temporally increased from 0.6% to 0.9%, gestational hypertension rose from 3.9% to 5.1%, and preeclampsia from 1.2% to 2.6%

The researchers noted several trends. Rates of HDP were higher in females under age 20 and in those older than 34 years. There was also variability in rates across provinces and territories, with the Northwest Territories (6.5%) and Ontario (6.9%) having the lowest rates, and the highest rate (10.7%) in Newfoundland and Labrador.

The authors adjusted for [risk factors](#) for HDP, including maternal age, number of previous livebirths, pre-existing diabetes, and rural residence, but doing so did not significantly affect the risk of HDP. "[T]he rise in HDP may be explained by factors that we did not account for, including [body mass index](#) (BMI)," writes lead author Dr. Susie Dzakpasu, senior epidemiologist at the Maternal and Infant Health Section of the Public Health Agency of Canada, with co-authors. "High BMI is a known risk factor for hypertension, including during pregnancy."

Between 2015 and 2021 in Canada, rates of overweight or obese BMI

status increased from 41% to 48% among females aged 18–34 years, and from 56% to 64% in those aged 35–49 years. The authors also found that provinces with higher rates of overweight and obesity had higher rates of HDP.

"[D]ownward trends in other adverse outcomes suggest that the clinical management of HDP may have improved over time," write the authors. "This underscores the importance of standard measurement of blood pressure at each prenatal visit and the institution of evidence-based antihypertensive therapy."

In a related [editorial](#), Dr. Catherine Varner, deputy editor, *CMAJ*, writes that the "growing population of high-risk obstetrical patients should alert health policy-makers that more people need easily accessed, specialized obstetrical care."

Females with hypertension and other disorders should be monitored in the early postpartum period, yet there is a shortage of qualified health care providers.

The findings of Dzakpasu and colleagues "highlight the increasing demand for obstetrical care providers with the expertise to care for high-risk patients, supported by appropriate models of care both before and after delivery."

"As the number of obstetricians will be unable to conceivably meet the needs of the growing population entering their reproductive lives with more comorbidities than the preceding generation, scaling team-based maternity care may help people receive the right care, at the right time, in the right place, by the right provider," Dr. Varner concludes.

More information: Trends in rate of hypertensive disorders of pregnancy and associated morbidities in Canada: a population-based

study (2012–2021), *Canadian Medical Association Journal* (2024). [DOI: 10.1503/cmaj.231547](https://doi.org/10.1503/cmaj.231547)

Provided by Canadian Medical Association Journal

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