C-section rate rises globally as "costly intervention" replaces "natural process"

■ Cite as: CMAJ 2018 December 17;190:E1489-90. doi: 10.1503/cmaj.109-5686

Posted on cmajnews.com on Nov. 28, 2018.

his is absolutely unjust," said Dr. Séverine Caluwaerts, a Belgian gynecologist who has worked with Médecins sans frontières (MSF) in Sierra Leone and the Central African Republic. She was referring to the enormous differences in the rate of cesarean-section delivery among countries reported in a recent study in the *Lancet*, which found that many women undergo unnecessary C-sections in some countries while in other countries those who actually need the procedure don't have access.

The global rate of C-section doubled from 2000 to 2015 and now accounts for more than 1 in 5 live births, according to an analysis of data collected from 169 countries. While access to the procedure is important for safe deliveries, the study highlights a high rate of medically unnecessary C-sections and disparities among countries.

At one extreme is Brazil, where the overall rate is 55%. However, the rate in that country ranges from about 80% (women in the top quintile of household income) to near 20% (those in the lowest quintile), according to study coauthor Dr. Fernando Barros, an epidemiologist in Brazil. He has studied C-section as the rate has risen in Brazil, from 26% in 1992.

"Women have the right" to decide how their babies are delivered, he said, "but this cannot compete with the right of the baby to be delivered at full term." He recently published a study that showed high rates of pre-term and early-term births linked to C-section. "These babies run a much higher risk of morbidity and mortality."

At the other extreme is Sierra Leone, where the rate is among the lowest in the world, at 2.2% of deliveries, said Caluwaerts. While working there, she saw cases of

mothers who lost babies because of a lack of trained health care providers and midwives who could recognize delivery complications. Women with obstetrical fistula, obstructed labour or placenta previa often had to travel 12–24 hours to clinics or hospitals. The outcomes for mothers and babies were often grim.

"We were absolutely surprised" by the differences among countries, said the Lancet study's principal author, Ties Boerma, a professor in the Centre for Global Public Health at the University of Manitoba. The expected rate of C-section for medical reasons is 10%–15%. A rate lower than this usually results from lack

of access to care, but a much higher rate — seen in countries in Latin America, the Caribbean and the Middle East — is also cause for concern, he said.

"There is an increased risk of maternal and baby morbidity and mortality with C-section — it's small but you can't ignore it," he said.

"We're replacing a natural process with a costly intervention," added Boerma. "There is also an economic aspect that needs to be taken into account."

According to Barros, "this is a complex, multi-factorial situation." Among patients, "this is a question of money. As people become more educated, have a



The global rate of C-section doubled from 2000 to 2015 and now accounts for more than 1 in 5 live births.

higher income and pay more for doctors, they have more access to C-section." In Brazil, women perceive C-section as safer than vaginal delivery, although that is not true, he said. Poor pain prevention is also a factor.

In countries where the C-section rate could be compared with education level, higher education among mothers was correlated with more C-sections because of higher rates of hospital delivery, said Boerma. Both he and Caluwaerts had heard the expression "too posh to push" used in Kenya and South Africa, reflecting this correlation.

But physicians are also pushing up the rates. In some countries, obstetricians are paid more for C-section or may fear litigation after vaginal births, Boerma said. In Brazil, physicians are getting more training in C-section than in vaginal delivery in medical schools, said Barros. They prefer C-section because it is faster than vaginal delivery, and they also feel the pressure of potential litigation. "Physicians feel that, if they give a cesarean, they cannot be accused of not providing the best care."

In the Middle East, MSF physicians feel pressure from local medical staff and patients to perform C-sections. "It's diffi-

cult to resist," said Caluwaerts. The issue has been taken up by the International Federation of Obstetricians and Gynecologists, which published a position paper on the topic.

In Brazil, the ministry of health and the federal council of medicine are launching a public awareness campaign to make women aware of the advantages of vaginal delivery, following the success of campaigns to promote breastfeeding and vaccination. "I am hopeful we will be able to reverse the trend," said Barros.

Carolyn Brown, Ottawa, Ont.