

mythbusters

USING EVIDENCE TO DEBUNK COMMON MISCONCEPTIONS IN CANADIAN HEALTHCARE

MYTH BUSTED MAY 2011

MYTH: C-SECTIONS ARE ON THE RISE BECAUSE MORE MOTHERS ARE ASKING FOR THEM

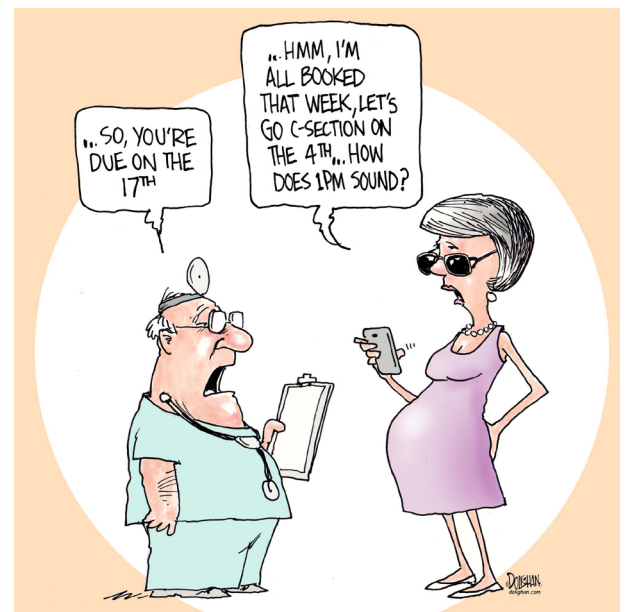
Britney Spears had one; so did Kate Hudson, Victoria Beckham and Elizabeth Hurley—all *glitterati* moms who gave birth by Cesarean section. Media attention to high-profile surgical births in the last decade makes it seem as though a C-section is the choice *de rigueur* of the modern woman, not merely a medical necessity when birth complications arise. Is this a case of celebrity holding a mirror to society? Or are these trend-setters inspiring new mothers to turn away from “old-fashioned” childbirth? Whatever the reason, the C-section rate is climbing steadily and experts fear that by doing too many we are putting mothers in danger.

In Canada, women are having more C-sections than ever before. In 2008-09, more than one in four hospital deliveries were by C-section, a nearly 10% increase since 1995-96.^{1,2} Many countries are seeing the same trend.³ But is a high C-section rate a problem? After all, isn't C-section a safe, life-saving procedure?

While surgical birth can be a lifesaver when it is medically necessary, it is not 100% safe. Compared to vaginal delivery, C-sections pose greater risk of cardiac arrest, hysterectomy, infection, fever, pneumonia, blood-vessel clotting, and hemorrhaging^{4,5} as well as risks for the baby.⁶ They also cost more. In Canada, a first-time C-section costs approximately \$2,265 more than a vaginal delivery. Canada's healthcare system could save close to \$25 million if the rate of first-time C-sections, let alone repeat C-sections, could be reduced to the 15% recommended by the World Health Organization.⁷

TO C OR NOT TO C?

No one knows how many mothers in Canada choose C-sections (inconsistencies in the national data make it impossible to tell) but the number is probably very low. In British Columbia, where maternal choice is tracked, a recent study found that less than 2% of C-sections were done because the mothers requested them.⁸ A 2008 survey on Canadian maternity experiences reported a higher (though still low) number: just over 8% of mothers requested C-sections, and most of these women had already given birth by C-section.⁹ A similar survey of U.S. mothers found that less than 1% of first-time Cesareans were done at maternal request without a medical reason.¹⁰ Interestingly, most of the mothers who had a C-section indicated that it was their healthcare provider who made the decision.



A low rate of on-demand C-sections would not be a surprise given that most women say they don't want them. A recent systematic review of women's preferences found that, worldwide, only about 16% of women would choose to have a C-section.¹¹ The number is even lower (10%) when you exclude women who have already had a C-section.

C-SECTION BEGETS C-SECTION

Eight out of every 10 women who have had a C-section will have another one,⁷ and many of these procedures don't need to happen. Doctors perform repeat C-sections to avoid tearing the scar left on the uterus from a previous C-section, a dangerous but uncommon outcome. The Society of Obstetricians and Gynaecologists of Canada recommends that women with a previous C-section try a vaginal birth; if a woman is unable to safely give birth in this way, the option to perform surgery remains.¹² Canada's high rate of repeat C-sections persists in spite of these guidelines, pointing to a dissonance between evidence and practice.

CHILDBIRTH ALL OVER THE MAP

The variable regional rates across Canada suggest that the chances that a woman will give birth by C-section depend on where she lives. In Newfoundland and Labrador, for example, the rate was highest in 2008-09 at 31.5% of births, whereas in Manitoba the rate was moderate at just over 20%. In Nunavut it is only 6.9%.¹ Some variation should be expected, given how the demographics differ from place to place, but these numbers also point to inconsistent decision-making on the part of practitioners.

Researchers examining the variation problem in British Columbia found that one of the biggest contributors was how practitioners responded to dystocia, the term used for an extremely difficult birth.¹³ Some obstetricians performed many C-sections for this reason and some did not. It isn't likely that the rates of dystocia would be so different across the province; it is more probable that some doctors turn too quickly to the surgical solution. A recent review of U.S. Cesarean practice found that many doctors were abandoning labours far too soon because of dystocia.¹⁴ They seemed to be out of step with recent evidence indicating that it can take longer for many women who have previously given birth to go into labour. They were also out of step with practice guidelines.

There are likely to be many more instances where a divergence between maternity care practice and science affects the C-section rate. Recent research into practitioners' attitudes toward maternity care shows that many hold views about C-sections that contradict the clinical evidence. For example, 25% of obstetricians, family physicians and nurses believe that a C-section will prevent urinary incontinence or sexual problems despite a lack of supporting evidence.¹⁵ Many also believe that a C-section is as safe as a vaginal birth, though the science shows definitively that it is not. The newest generation of obstetricians in particular holds negative views of natural childbirth and a predilection for C-sections along with other medical interventions.¹⁶

CONCLUSION

Canada's high C-section rate is a problem. Unnecessary C-sections lead to unnecessary harm and expense, so we should find ways to curb them. We can look abroad and compare our rates with other nations and the effect different rates have on neonatal and maternal health outcomes.¹⁷ One thing is clear, the spotlight must be turned away from the choices mothers make and shone on the decisions of their healthcare providers. Addressing the gap between birthing practices and the best available clinical evidence will reduce the number of C-sections much more effectively than policies aimed at changing women's preferences. Most of them would rather give birth the natural way.

This issue of Mythbusters is based on an article by the 2011 Mythbusters Award recipient, Mrs. Esther Shoemaker. Esther is a PhD candidate at the University of Ottawa, Ontario.

REFERENCES

1. Canadian Institute for Health Information. (2010b). *Health indicators 2010*. Ottawa, Ontario: Canadian Institute for Health Information. Retrieved from <http://secure.cihi.ca/>
2. Public Health Agency of Canada. (2008). Canadian perinatal health report, 2008 edition. Ottawa, Ontario: Public Health Agency of Canada. Retrieved from <http://www.phac-aspc.gc.ca/>
3. Organisation for Economic Co-operation and Development. (2009). *Health at a glance 2009: OECD indicators*. Paris: Organisation for Economic Co-operation and Development. Retrieved from <http://www.oecd-ilibrary.org/>
4. Liu, S., Liston, R. M., Joseph, K. S., Heaman, M., Sauve, R., Kramer, M. S., et al. (2007). Maternal mortality and severe morbidity associated with low-risk planned Cesarean delivery versus planned vaginal delivery at term. *Canadian Medical Association Journal*, 176(4), 455-460.
5. Miesnik, S. R., & Reale, B. J. (2007). A review of issues surrounding medically elective Cesarean delivery. *Journal of Obstetric, Gynecologic, and Neonatal Nursing*, 36(6), 605-615.
6. Negele, K., Heinrich, J., Borte, M., von Berg, A., Schaaf, B., Lehmann, I., Wichmann, H. E., & Bolte, G. (2004). Mode of delivery and development of atopic disease during the first 2 years of life. *Pediatric Allergy Immunology*, 15(1), 48-54.
7. Canadian Institute for Health Information. (2010a). *Health care in Canada, 2010*. Ottawa, Ontario: Canadian Institute for Health Information. Retrieved from <http://secure.cihi.ca/>
8. Hanley, G. E., Janssen, P. A., & Greyson, D. (2010). Regional variation in the Cesarean delivery and assisted vaginal delivery rates. *Obstetrics and Gynecology*, 115(6), 1201-1208.
9. Public Health Agency of Canada. (2009). *What mothers say: The Canadian maternity experiences survey*. Public Health Agency of Canada. Retrieved from <http://www.phac-aspc.gc.ca/>
10. Declercq, E. R., Sakala, C., Corry, M. P., & Applebaum, S. (2006). *Listening to mothers II: Report of the second national U.S. survey of women's childbearing experiences*. New York, New York: Childbirth Connection. Retrieved from <http://www.childbirthconnection.org/>
11. Mazzoni, A., Althabe, F., Liu, N. H., Bonotti, A. M., Gibbons, L., Sanchez, A. J., et al. (2011). Women's preference for Caesarean section: A systematic review and meta-analysis of observational studies. *British Journal of Obstetrics and Gynaecology*, 118(4), 391-399.
12. Society of Obstetricians and Gynaecologists of Canada. (2005). SOGC clinical practice guidelines. Guidelines for vaginal birth after previous caesarean birth. number 155 (replaces guideline number 147), February 2005. *International Journal of Gynaecology and Obstetrics*, 89(3), 319-331.
13. Hanley, G. E., Janssen, P. A., & Greyson, D. (2010). Regional variation in the Cesarean delivery and assisted vaginal delivery rates. *Obstetrics and Gynecology*, 115(6), 1201-1208.
14. Zhang, J., Troendle, J., Reddy, U. M., Laughon, S. K., Branch, D. W., Burkman, R., et al. (2010). Contemporary Cesarean delivery practice in the United States. *American Journal of Obstetrics and Gynecology*, 203(4), 326.e1-326.e10.
15. Klein, M. C., Kaczorowski, J., Hall, W. A., Fraser, W., Liston, R. M., Eftekhary, S., et al. (2009). The attitudes of Canadian maternity care practitioners towards labour and birth: Many differences but important similarities. *Journal of Obstetrics and Gynaecology Canada*, 31(9), 827-840.
16. Klein, M. C., Liston, R., Fraser, W. D., Baradaran, N., Hearn, S. J. C., Tomkinson, J., et al. (2011). Attitudes of the new generation of Canadian obstetricians: How do they differ from their predecessors? *Birth*, 1-11.
17. Betrán, A. P., Merialdi, M., Lauer, J. A., Bing-Shun, W., Thomas, J., Van Look, P., et al. (2007). Rates of Cesarean section: Analysis of global, regional and national estimates. *Paediatric and Perinatal Epidemiology*, 21(2), 98-113.

Mythbusters articles are published by the Canadian Health Services Research Foundation (CHSRF) only after review by experts on the topic. CHSRF is an independent, not-for-profit corporation funded through an agreement with the Government of Canada. Interests and views expressed by those who distribute this document may not reflect those of CHSRF. © 2011.