Presentation Title

## Characteristics of Women in Robson Group 1, British Columbia 2008/2009 to 2012/2013

Author #1

Brooke Kinniburgh Epidemiologist Perinatal Services BC **Author #3** 

Lily Lee Provincial Lead, Surveillance

Perinatal Services BC

Author #2
Gillian Frosst
Epidemiologist
Perinatal Services BC

In British Columbia, nulliparous women at term with a singleton vertex pregnancy with spontaneous labour (Robson group 1) are a larger contributor to the cesarean delivery rate than similar women with induced or no labour (Robson group 2). Using hospital deliveries from the British Columbia Perinatal Data Registry (BCPDR), we describe the health, labour, and delivery characteristics of women and infants in Group 1 discharged between April 1, 2008 and March 31, 2013.

The cesarean delivery rate in Group 1 increased from 19.7% in 2008 to 21.6% in 2012 (p<0.01). Over the same period among Group 1 deliveries, the proportion of women <25 years of age at delivery decreased (29.0% to 21.7%, p<0.01) as did the proportion of women receiving oxytocin for augmentation (35.7% to 33.1%, p<0.01). The proportions of women aged 35+ at delivery, with pre-pregnancy BMI >25, or with gestational hypertension were unchanged. Cesarean deliveries were increasingly performed for fetal distress (25.7% to 34.2%, p<0.0001) and decreasingly performed for dystocia or malposition (66.0% to 57.7%, p<0.0001). The proportion of infants born large for gestational age decreased from 8.8% to 7.5% (p<0.01) and the proportion of infants with a five minute Apgar <7 increased from 1.8% to 2.4% (p=0.003). There was no change in in-hospital perinatal mortality.

The cesarean delivery rate among Group 1 continues to increase in BC despite relatively stable maternal characteristics. Data from the BCPDR suggest that fetal distress is increasingly cited as the reason for cesarean delivery among this low risk group.

## **Synopsis**

The Robson Ten Classification is increasingly used in Canada to assess which groups of women contribute disproportionately to the cesarean delivery rate. This presentation will discuss the characteristics of women in Group 1; the group with the second highest contribution to the cesarean delivery rate in British Columbia.

## **Learning Objectives**

- 1. Participants will be able to describe the general characteristics of women in Robson Group 1.
- 2. Participants will appreciate how the Robson Ten Group Classification can be used to inform hospital-level assessment of the cesarean delivery rate.

## **Biographies**

Brooke Kinniburgh joined Perinatal Services BC as an epidemiologist in 2011. She earned her masters degree in public health with concentration in maternal and child health in 2004. Brooke brings experience from the federal, state, and provincial levels having worked both in the United States and Canada. She has previously worked at the Canadian Institute for Health Information and is an alumna of the Canadian Field Epidemiology Program.

Lily Lee is the Provincial Lead, Surveillance, responsible for providing strategic leadership in the ongoing development, coordination, monitoring, and analysis of data for Perinatal Services BC. Lily has over 30 years experience in perinatal care and has held many leadership roles in advanced practice, education, management, and policy & program development.

Robson, M.S., Classification of caesarean sections. Fetal and Maternal Medicine Review, 2001. **12**(1): p. 23-9. Brennan, D.J., et al., *The singleton, cephalic, nulliparous woman after 36 weeks of gestation: contribution to overall cesarean delivery rates.* Obstet Gynecol, 2011. 117(2 Pt 1): p. 273-9.

Farine D and Shepherd D. Classification of caesarean sections in Canada: the modified robson criteria. <u>J Obstet Gynaecol Can.</u> 2012 Oct;34(10):976-9.