Caesarean section deliveries among low-risk women

Alternate Name*
Percentage of low-risk deliveries by delivery type

INDICATOR DESCRIPTION

Description*
This indicator measures the proportion of deliveries among low-risk women who gave birth in Ontario hospitals by delivery type:
• caesarean section
• vaginal delivery

Indicator Status*
Active

HQO Reporting tool/product
Public reporting

Dimension*
Effective
Safe

Type*
Process

DEFINITION AND SOURCE INFORMATION

Unit of Measurement*
Percentage

Calculation Methods*
Numerator divided by the denominator times 100

Numerator including inclusion/exclusion*
Number of cases within denominator resulting in:
• caesarean section
• vaginal delivery

Denominator including inclusion/exclusion*
Total number of women with a low-risk delivery in Ontario.

**Inclusions:**
- Robson criteria 1 to 4:
  - Robson 1: Nullipara (first time mothers) who had singleton, full-term (gestational age ≥37 weeks), and cephalic (head first) delivery with spontaneous labour
  - Robson 2: Nullipara (first time mothers) who had singleton, full-term (gestational age ≥37 weeks), and cephalic (head first) delivery with induced labour or caesarean section before labour
  - Robson 3: Multipara (women who have given birth before) who had singleton, full-term (gestational age ≥37 weeks), and cephalic (head first) delivery with spontaneous labour
  - Robson 4: Multipara (women who have given birth before) who had singleton, full-term (gestational age ≥37 weeks), and cephalic (head first) delivery with induced labour or caesarean section before labour

**Exclusions:**
- Autoimmune - lupus; rheumatoid arthritis; autoimmune other
- Cancer - diagnosed in pregnancy; medication exposure in pregnancy-chemotherapeutic agents
- Maternal cardiovascular - acquired heart disease; antihypertensive therapy outside of pregnancy; cardiovascular disease; congenital heart defect; congenital heart disease; pre-existing hypertension; renal disease; other cardiovascular
- Diabetes - diabetes and pregnancy
- Gastrointestinal - liver/ gallbladder - cholecystitis; colitis; crohn’s; hepatitis; liver/ gallbladder - intrahepatic cholestasis of pregnancy;
- Genitourinary - acquired renal (insufficiency; chronic infections); congenital/ genetic renal (renal agenesis; pelvic kidney); renal disease; uterine anomalies; genitourinary other
- Maternal haemotology - gestational thrombocytopenia; haemophilia (a; b von willebrand); idiopathic thrombocytopenia; sickle cell disease; thalassemia; thrombophilia; haematology other
- Hypertensive disorders in pregnancy - gestational hypertension; eclampsia; hellp; preeclampsia; preeclampsia requiring magnesium sulfate; pre-existing hypertension with superimposed preeclampsia; maternal unknown
- Musculoskeletal - muscular dystrophy/ neuromuscular disorder; myotonic dystrophy; osteogenesis imperfecta; achondroplasia; musculoskeletal other
- Neurology - cerebral palsy; multiple sclerosis; myasthenia gravis; spina bifida/ neural tube defect; neurology other
- Placental - placenta accreta; placenta increta; placenta percreta; placenta previa; placental abruption; placental other
- Fetal complications - anomalies; isoimmunization/ alloimmunization; intrauterine growth restriction; oligohydramnios; fetal therapy - fetal surgery
- Fetal genetic anomalies - cgh microarray abnormality polymorphism; chromosome abnormality; other birth defects; other genetic inherited disorders/ syndromes

**Adjustment (risk, age/sex standardization)- detailed**
None

**Data Source**
BORN Information System (BIS)

**Data provided to HQO by**
Ontario Better Outcomes Registry & Network (BORN)

Reported Levels of comparability /stratifications (defined)

Time
Region

OTHER RELEVANT INFORMATION

Caveats and Limitations
Data can only be reported for hospitals who submit and acknowledge their own data. Data from FY2012/13 onwards are extracted from the BORN Information System (BIS). Maternal neighborhood income quintile was assigned using the Postal Code Conversion File Plus (PCCF+) based on a mother’s postal code. The national neighbourhood income quintile was included in the applicable tables. Missing data on this variable represents records where either a valid postal code was not entered or the PCCF+ program was unable to assign a neighbourhood income quintile.

Comments Detailed
For this indicator, values for type of birth are derived from the Birth Mother encounter, unless a different value was entered in the Birth Child encounter, in which case the value from the Birth Child encounter is used. The BORN Information System (BIS) collects data on every birth and young child in the province from Data is collected from a number of sources including:
- Prenatal Screening laboratories
- Hospitals (labour, birth, and early newborn care information including NICU admissions)
- Midwifery Groups (labour, birth, and early newborn care information)
- Specialized antenatal clinics (information about congenital anomalies)
- Newborn screening laboratory
- Prenatal screening and newborn screening follow-up clinics
- Fertility clinics

TAGS

TAGS*
- Acute Care/Hospital
- Process
- Maternal and Child Health
- Effective
- Safe
- BORN Information System (BIS)

PUBLISH

PUBLISH DATETIME*
20/11/2018 15:42:00