



Perinatal Health Report
Deliveries in British Columbia
2014/15

Publication Information

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Contents

	Page
General Notes	vi
Section 1: Maternal Health	1
Total Deliveries	2
Deliveries by Resident Health Authority	3
Deliveries Within Home Health Authority	4
Deliveries by Parity	5
Average and Median Maternal Age at Delivery by Parity	5
Maternal Age at Delivery	6
Maternal Age at Delivery, Nulliparous Women	7
Maternal Age at Delivery, Parous Women	8
Antenatal Care Visits	9
Pre-Pregnancy Body Mass Index (BMI)	10
Appropriate Weight Gain During Pregnancy by Pre-Pregnancy Body Mass Index (BMI)	11
Hypertensive Disorders of Pregnancy	12
Diabetes Mellitus in Pregnancy	13
Substance Use During Pregnancy	14
Cigarette Use at Any Time During Pregnancy by Maternal Age	15
Cigarette Use at Any Time During Pregnancy by Parity	16
Maternal Screening Tests	17
Offer of Maternal Serum Screening by Maternal Age	18
Uptake of Prenatal Genetic Screening by Maternal Age	19
Use of Artificial Reproductive Technology by Plurality	20
Use of Artificial Reproductive Technology, Nulliparous Women by Age	21
Section 2: Labour and Delivery	22
Labour Augmentation	23
Method of Labour Augmentation	24
Labour Induction	25
Method of Labour Induction	26
Primary Indication for Labour Induction	27
Method of Fetal Surveillance During Labour	28
Vaginal Delivery	29
Vaginal Delivery by Maternal Age	30
Type of Vaginal Delivery	31

	Page
Perineal Trauma	32
Cesarean Delivery	33
Cesarean Delivery by Maternal Age	34
Type of Cesarean Delivery	35
Primary Indication for Cesarean Delivery	36
Vaginal Birth After Cesarean (VBAC)	37
Anesthesia or Analgesia During Labour and Delivery, Vaginal Deliveries	38
Anesthesia or Analgesia During Labour and Delivery, Cesarean Deliveries with Labour	39
Epidural Anesthesia or Analgesia During Labour and Delivery by Parity	40
Delivery Provider	41
Any Care Provided by a Registered Midwife	42
Deliveries at Home Attended by a Registered Midwife	43
Length of Stay (Hours) for the Delivery Episode of Care (Antepartum, Postpartum, and Total) by Mode of Delivery	44
Maternal Morbidity	45
Adverse Outcome of Labour or Delivery	46
Maternal Hospital Transfers	47
Post-Delivery Admissions	48
ction 3: Newborn Health	49
Total Births	50
Total Births by Resident Health Authority	51
Births Part of a Multiple Gestation	52
Preterm Birth	53
Low Birthweight Singletons	54
Weight for Gestational Age	55
Newborn Resuscitation by Gestational Age	56
Birth Injury by Mode of Delivery	57
Neonatal Morbidity by Gestational Age	58
Type of Neonatal Morbidity	59
Congenital Anomalies	60
Open Neural Tube Defects and Selected Aneuploidies	61
Median Length of Stay (Hours) for the Birth Episode of Care by Mode of Delivery	62
Breastfeeding During the Birth Admission	63
Breastfeeding During the Birth Admission by Mode of Delivery	64
Neonatal Intensive Care Use During Birth Episode of Care by Gestational Age	65

	Page
Transfer to Another Hospital from the Birth Admission	66
Transfer to Another Hospital from the Birth Admission, Preterm Births	67
Post-Neonatal Admissions	68
In-Hospital Perinatal Mortality	69
Section 4: 'Normal Labour'	70
Deliveries with 'Normal Labour' by Resident Health Authority	71
Cervical Dilation at Admission	72
Labour Augmentation	73
Method of Fetal Surveillance During Labour	74
Anesthesia and Analgesia During Labour and Delivery	75
Median Length of Labour Stages (Hours) by Mode of Delivery	76
Median Length of Stay (Hours) in Acute Care for Delivery Episode of Care by Mode of Delivery	76
Mode of Delivery	77
Primary Indication for Cesarean Delivery	78
Delivery Provider	79
Any Care Provided by a Registered Midwife	80
Deliveries with 'Normal Childbirth'	81
Newborn Resuscitation	82
Low 5 Minute Apgar Score	83
Weight for Gestational Age	84
Neonatal Intensive Care Use During Birth Episode of Care	85
Definitions	86
Episodes Included in the Perinatal Health Report	98
Detailed Specifications for Selected Variables	100
Gestational Age Algorithm	112

General Notes

This report is based on delivery, postpartum transfer/readmission, newborn, and newborn transfer/readmission records submitted to Perinatal Services BC's British Columbia Perinatal Data Registry (BCPDR). The registry captures >99% of deliveries and births that occur in the province.

Records used to generate this report meet the following conditions:

- Mother delivery and baby newborn records must be linked. Unlinked mother delivery or newborn records are excluded (<0.2% of babies are not linked to a mother).
- Complete late terminations are excluded from all indicators except the Crude Stillbirth Rate; pregnancies involving selective fetal reduction are retained.
- Mother's delivery record has a discharge date between April 1, 2010 and March 31, 2015.
- Fiscal years begin on April 1 and end on March 31 of the following year. Fiscal year is based on the mother's discharge date from the delivery admission.
- Resident Health Authority was derived by linking the postal code on the mother's delivery record with the September 2015 version of BC Stats' Geocoding Self Service translation file.
- Rates with numerators of 1-4 cases are not reported (NR).

Terms used in the Perinatal Health Report (see specifications on pages 98 and 99) <u>Delivery Admission</u>

- Record of care provided between admission to acute care and discharge from acute care for delivery of a baby. Woman can be discharged to home or to another hospital. OR
- Record of care provided by a registered midwife for deliveries at home.
 - NOTE: Until March 31, 2014, if a woman who delivered at home with a registered midwife was admitted to acute care within 24 hours of delivery, the acute care admission was her Delivery Admission and the transfer was not recorded. Effective April 1, 2014, all deliveries at home attended by a registered midwife have home as the location of the Delivery Admission. All admissions to acute care within 42 days, including those within 24 hours of delivery, are counted as Post-Delivery Admissions.

Delivery Episode of Care

Total time woman spent in one or more hospitals, beginning from admission to hospital
for delivery of a baby. Includes the Delivery Admission and all acute care episodes
captured in the BCPDR where the woman was discharged from one hospital and
admitted directly to a different hospital.

Maternal Admission

 Any record of maternal care received by the BCPDR. Includes deliveries at home attended by a registered midwife, admissions to acute care for delivery, and postpartum readmissions or transfers within 42 days of delivery.

Post-Delivery Admission

- Any record of post-delivery maternal care received by the BCPDR. Includes acute care
 episodes that are transfers from another hospital and admissions from home, up to 42
 days after delivery.
 - NOTE: Until March 31, 2014, if a woman who delivered at home with a registered midwife was admitted to acute care within 24 hours of delivery, the acute care admission was her Delivery Admission and the transfer was not recorded. Effective April 1, 2014, all deliveries at home attended by a registered midwife have home as the location of the Delivery Admission. All admissions to acute care within 42 days, including those within 24 hours of delivery, are counted as Post-Delivery Admissions.

Birth Admission

- Record of care provided between baby's birth and discharge from acute care after birth.
 Baby can be discharged home or to another hospital. OR
- Record of care provided by a registered midwife for births at home.
 - NOTE: Until March 31, 2014, if a baby born at home with a registered midwife was admitted to acute carel within 24 hours birth, the acute care admission was their Birth Admission and the transfer was not recorded. Effective April 1, 2014, babies born at home with a registered midwife have home as the location of the Birth Admission. All admissions to acute care within 28 days, including those within 24 hours of birth, are counted as Post-Neonatal Admissions.

Birth Episode of Care

 Total time baby spent in hospital between birth and discharge home. Includes the Birth Admission and all acute care episodes captured in the BCPDR where baby was discharged from one hospital and admitted directly to a different hospital.

Baby Admission

Any record of baby care received by the BCPDR. Includes births at home attended by a
registered midwife, admissions to acute care from birth, neonatal readmissions or
transfers before 28 days of age, and continuous episodes of care (never discharged to
home) from birth up to one year of age.

Post-Neonatal Admission

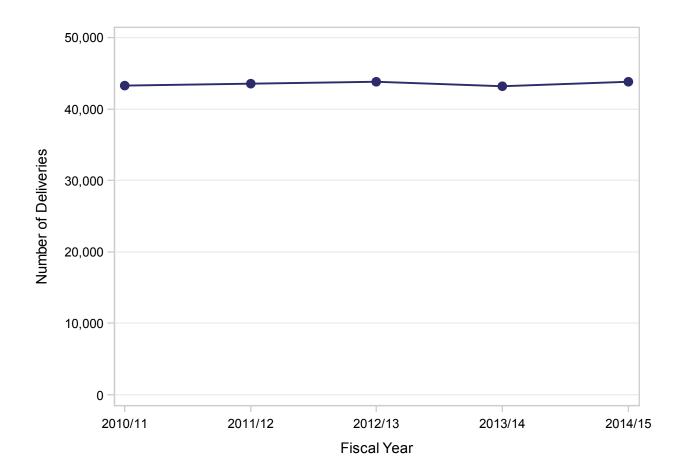
- Any record of post-birth baby care received by the BCPDR. Includes acute care
 episodes that are transfers from another hospital and admissions from home, up to 28
 days after birth.
 - NOTE: Until March 31, 2014, if a baby born at home with a registered midwife was admitted to acute carel within 24 hours birth, the acute care admission was their Birth Admission and the transfer was not recorded. Effective April 1, 2014, babies born at home with a registered midwife have home as the location of the Birth Admission. All admissions to acute care within 28 days, including those within 24 hours of birth, are counted as Post-Neonatal Admissions.

Perinatal Health Report 2010/11 to 2014/15 Deliveries in British Columbia

Section 1: Maternal Health

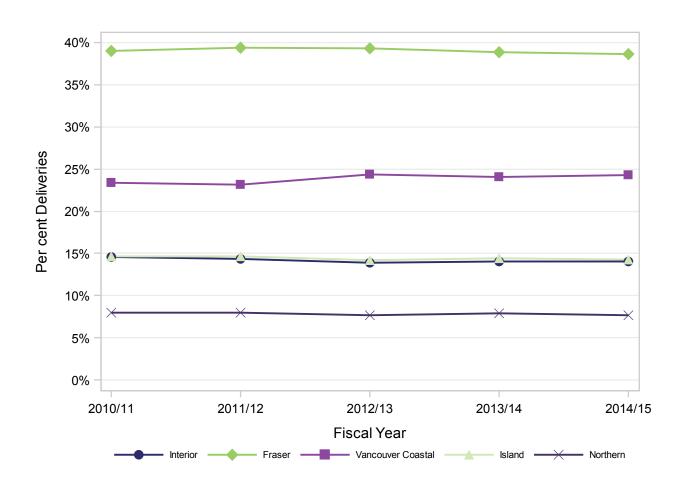
Total Deliveries

Deliveries in British Columbia: April 1, 2010 - March 31, 2015



	Fiscal Year						
	2010/11	2011/12	2012/13	2013/14	2014/15		
British Columbia	43,265	43,531	43,853	43,146	43,805		

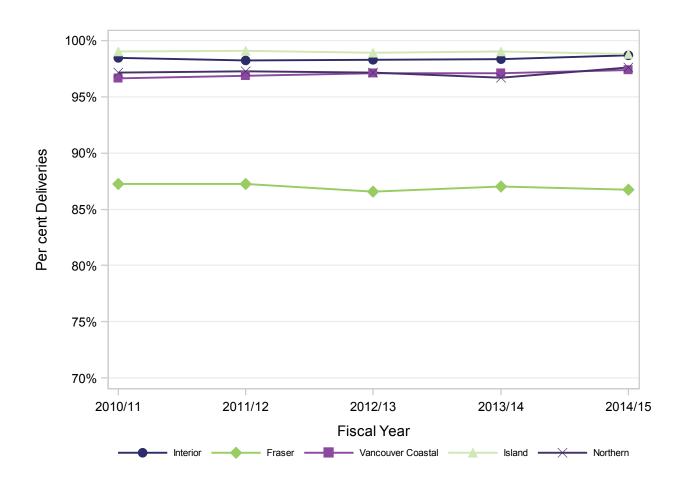
Deliveries by Resident Health Authority Deliveries in British Columbia: April 1, 2010 - March 31, 2015



	Fiscal Year									
	201	0/11	201	1/12	201	2012/13		2013/14		4/15
Health Authority	Count	Per cent	Count	Per cent	Count	Per cent	Count	Per cent	Count	Per cent
Interior	6,306	14.6%	6,257	14.4%	6,091	13.9%	6,060	14.0%	6,158	14.1%
Fraser	16,874	39.0%	17,139	39.4%	17,227	39.3%	16,762	38.8%	16,928	38.6%
Vancouver Coastal	10,131	23.4%	10,077	23.1%	10,694	24.4%	10,383	24.1%	10,656	24.3%
Island	6,325	14.6%	6,384	14.7%	6,225	14.2%	6,226	14.4%	6,250	14.3%
Northern	3,448	8.0%	3,487	8.0%	3,363	7.7%	3,424	7.9%	3,374	7.7%

Deliveries to women with unknown, out of province, or out of country residence are not shown. Definitions and specifications begin on Page 86 of this document.

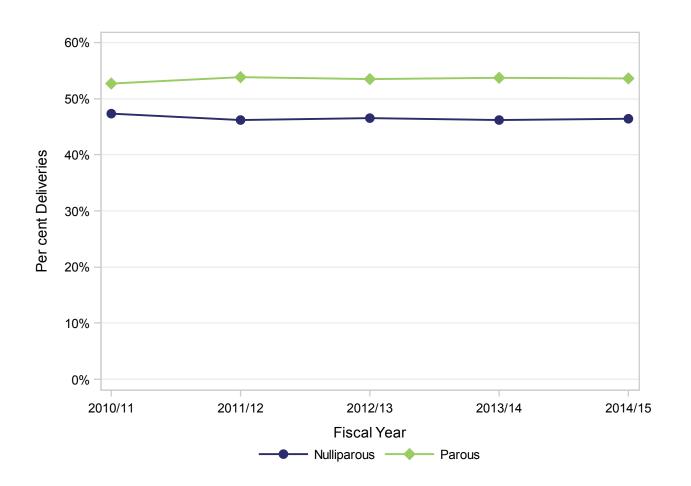
Deliveries Within Home Health Authority Deliveries in British Columbia: April 1, 2010 - March 31, 2015



	Fiscal Year						
Health Authority	2010/11	2011/12	2012/13	2013/14	2014/15		
Interior	98.5%	98.2%	98.3%	98.4%	98.7%		
Fraser	87.3%	87.2%	86.6%	87.0%	86.7%		
Vancouver Coastal	96.6%	96.9%	97.1%	97.1%	97.4%		
Island	99.0%	99.1%	98.9%	99.1%	98.8%		
Northern	97.1%	97.2%	97.2%	96.7%	97.6%		

Deliveries to women with unknown, out of province, or out of country residence are not shown. Definitions and specifications begin on Page 86 of this document.

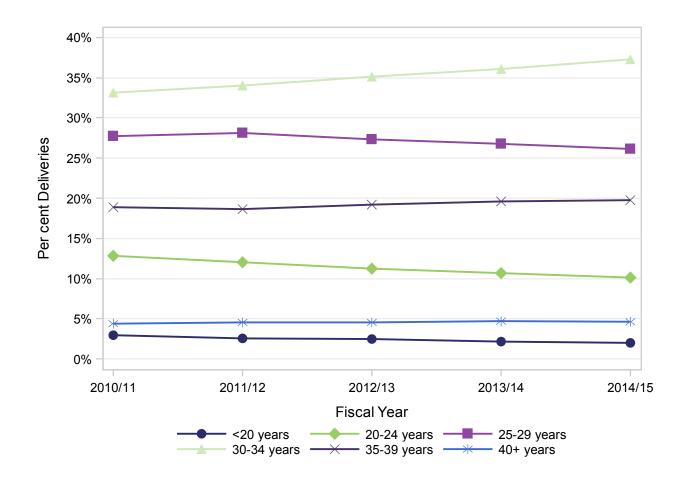
Deliveries by ParityDeliveries in British Columbia: April 1, 2010 - March 31, 2015



Average and Median Maternal Age at Delivery by Parity

	Fiscal Year									
	2010/11		2011	/12	2012	2/13	2013	/14	2014	/15
Parity	Average	Median	Average	Median	Average	Median	Average	Median	Average	Median
All	30.7	30.9	30.9	31.0	31.0	31.2	31.2	31.3	31.3	31.4
Nulliparous	29.3	29.4	29.5	29.5	29.7	29.9	29.9	30.0	30.0	30.3
Parous	32.0	32.1	32.0	32.1	32.2	32.3	32.3	32.4	32.4	32.5

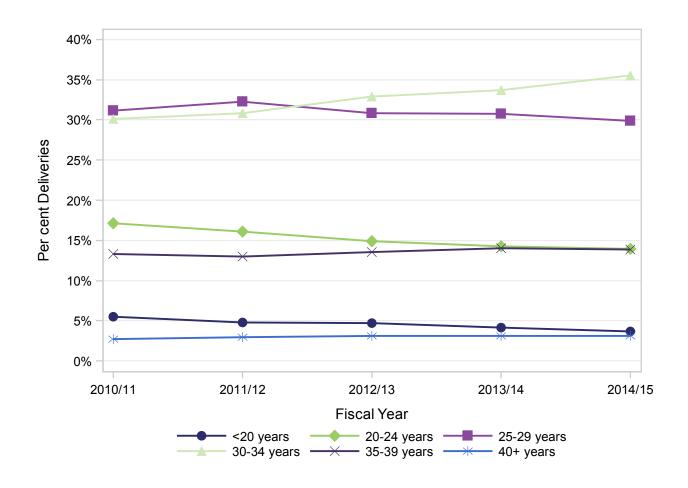
Maternal Age at Delivery
Deliveries in British Columbia: April 1, 2010 - March 31, 2015



	Fiscal Year						
Maternal Age	2010/11	2011/12	2012/13	2013/14	2014/15		
<20 years	3.0%	2.6%	2.5%	2.2%	2.0%		
20-24 years	12.8%	12.0%	11.2%	10.7%	10.2%		
25-29 years	27.8%	28.2%	27.3%	26.8%	26.2%		
30-34 years	33.2%	34.0%	35.2%	36.1%	37.3%		
35-39 years	18.9%	18.7%	19.2%	19.6%	19.7%		
40+ years	4.4%	4.5%	4.6%	4.7%	4.6%		

Maternal Age at Delivery Nulliparous Women

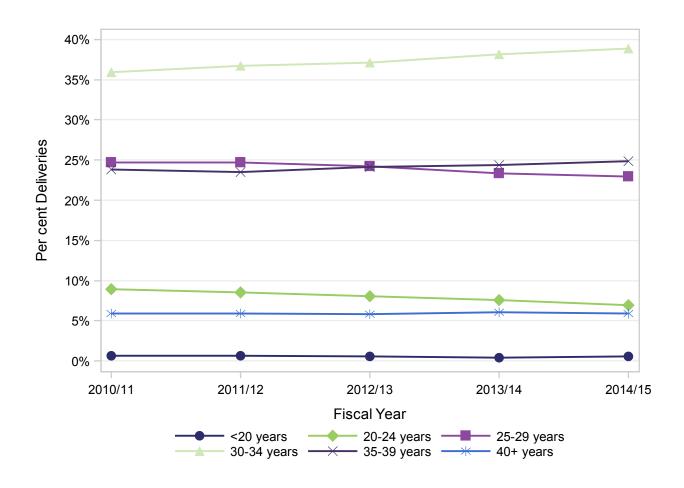
Deliveries in British Columbia: April 1, 2010 - March 31, 2015



	Fiscal Year						
Maternal Age	2010/11	2011/12	2012/13	2013/14	2014/15		
<20 years	5.5%	4.8%	4.7%	4.2%	3.7%		
20-24 years	17.2%	16.1%	14.9%	14.3%	13.9%		
25-29 years	31.2%	32.2%	30.8%	30.7%	29.9%		
30-34 years	30.1%	30.8%	32.9%	33.7%	35.5%		
35-39 years	13.3%	13.0%	13.5%	14.0%	13.9%		
40+ years	2.7%	3.0%	3.1%	3.1%	3.1%		

Maternal Age at Delivery Parous Women

Deliveries in British Columbia: April 1, 2010 - March 31, 2015

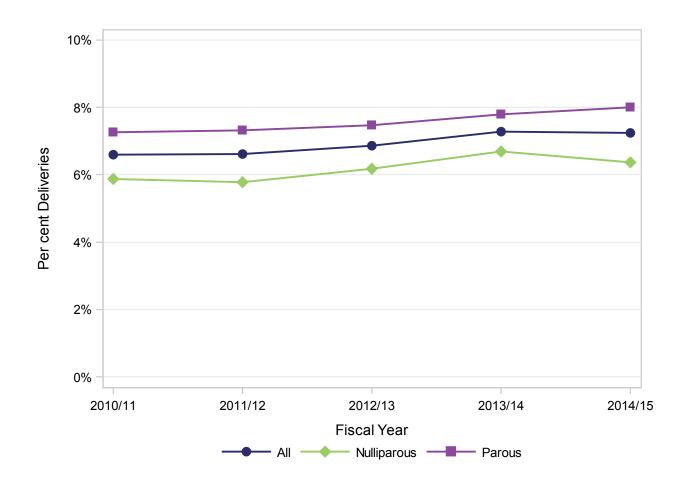


	Fiscal Year						
Maternal Age	2010/11	2011/12	2012/13	2013/14	2014/15		
<20 years	0.7%	0.7%	0.5%	0.4%	0.5%		
20-24 years	8.9%	8.5%	8.1%	7.6%	6.9%		
25-29 years	24.7%	24.7%	24.2%	23.3%	23.0%		
30-34 years	35.9%	36.8%	37.1%	38.2%	38.8%		
35-39 years	23.8%	23.5%	24.2%	24.4%	24.8%		
40+ years	5.9%	5.9%	5.9%	6.1%	5.9%		

Antenatal Care Visits

Deliveries in British Columbia: April 1, 2010 - March 31, 2015

Deliveries with <5 Antenatal Care Visits by Parity

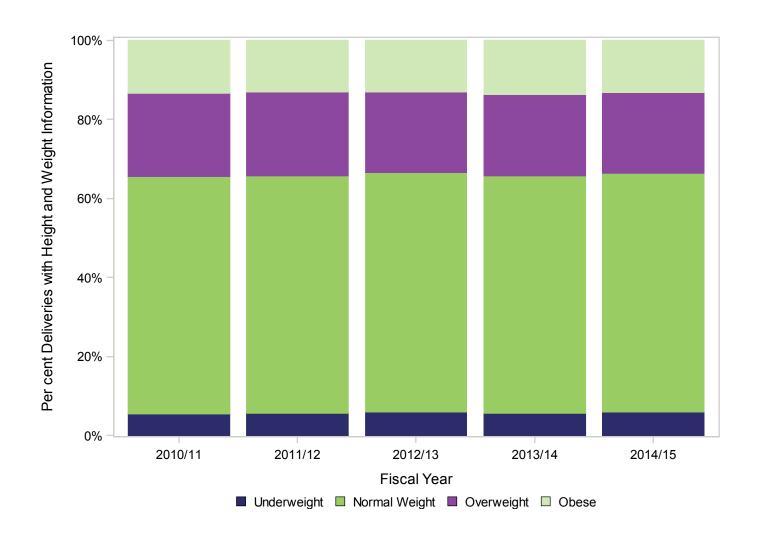


Deliveries with <5 Antenatal Care Visits or Missing Number of Visits

	Fiscal Year							
	2010/11	2011/12	2012/13	2013/14	2014/15			
<5 Visits	6.6%	6.6%	6.9%	7.3%	7.2%			
Missing Visits	7.9%	7.6%	8.4%	8.3%	10.5%			

Pre-Pregnancy Body Mass Index (BMI)Deliveries in British Columbia: April 1, 2010 - March 31, 2015

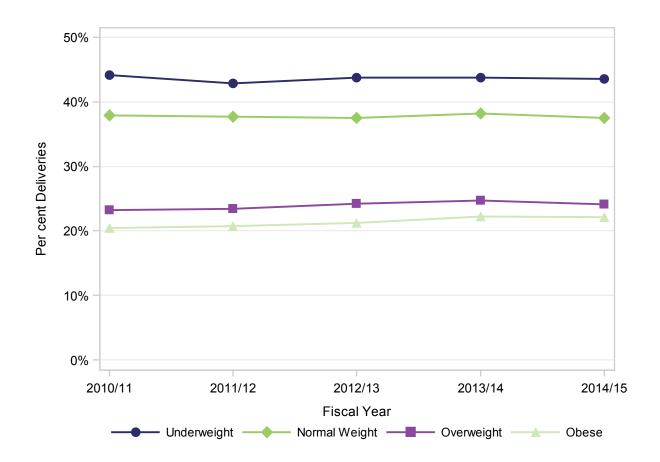
Distribution of Pre-Pregnancy BMI Among Deliveries With Complete Height and Weight



Distribution of Pre-Pregnancy BMI Among ALL Deliveries

	Fiscal Year						
BMI Category	2010/11	2011/12	2012/13	2013/14	2014/15		
Underweight	3.9%	4.2%	4.6%	4.4%	4.6%		
Normal Weight	42.5%	44.1%	45.6%	45.6%	46.1%		
Overweight	14.9%	15.6%	15.4%	15.7%	15.6%		
Obese	9.4%	9.5%	9.8%	10.4%	10.0%		
BMI Missing	29.4%	26.7%	24.6%	24.0%	23.7%		

Appropriate* Weight Gain During Pregnancy by Pre-Pregnancy Body Mass Index (BMI) Deliveries in British Columbia: April 1, 2010 - March 31, 2015

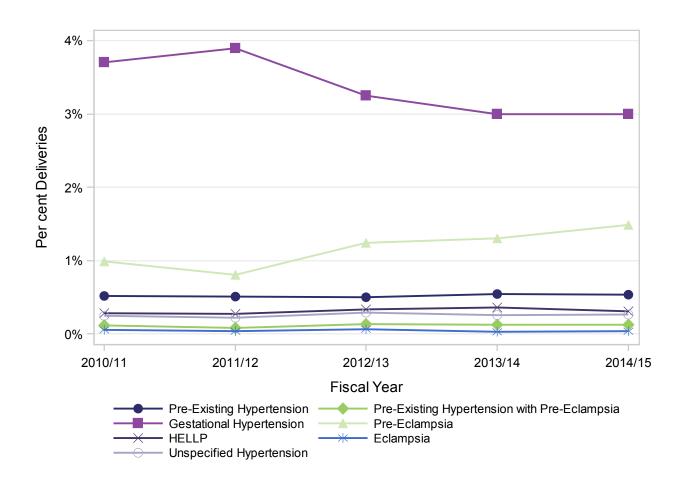


	Fiscal Year					
BMI Category	2010/11	2011/12	2012/13	2013/14	2014/15	
Underweight	44.2%	42.9%	43.7%	43.7%	43.5%	
Normal Weight	37.9%	37.7%	37.5%	38.2%	37.5%	
Overweight	23.2%	23.4%	24.2%	24.7%	24.1%	
Obese	20.5%	20.7%	21.3%	22.2%	22.1%	

Data are limited to deliveries with complete height and weight information (54% of deliveries in 2014/15). Definitions and specifications begin on Page 86 of this document.

^{*} As defined by the Institute of Medicine.

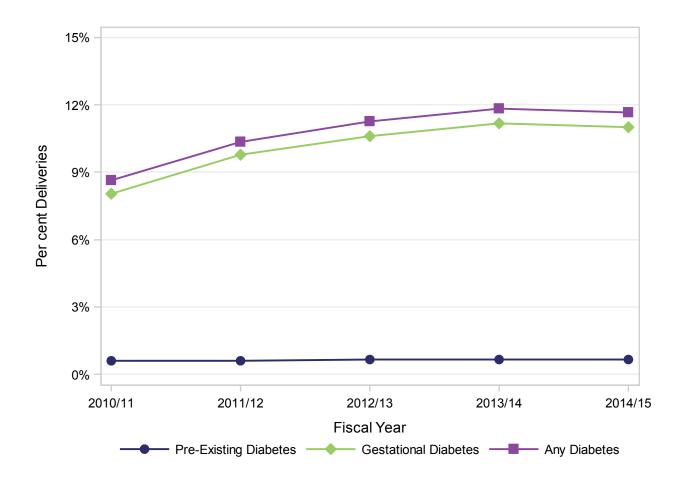
Hypertensive Disorders of PregnancyDeliveries in British Columbia: April 1, 2010 - March 31, 2015



	Fiscal Year					
Type of Hypertension	2010/11	2011/12	2012/13	2013/14	2014/15	
No Hypertension	94.1%	94.2%	94.2%	94.4%	94.3%	
Pre-Existing Hypertension	0.5%	0.5%	0.5%	0.5%	0.5%	
Pre-Existing Hypertension with Pre-Eclampsia	0.1%	0.1%	0.1%	0.1%	0.1%	
Gestational Hypertension	3.7%	3.9%	3.2%	3.0%	3.0%	
Pre-Eclampsia	1.0%	0.8%	1.2%	1.3%	1.5%	
HELLP	0.3%	0.3%	0.3%	0.4%	0.3%	
Eclampsia	0.1%	0.0%	0.1%	0.0%	0.0%	
Unspecified Hypertension	0.2%	0.2%	0.3%	0.3%	0.3%	

Diagnosis codes for hypertensive disorders of pregnancy, notably gestational hypertension and pre-eclampsia, changed effective April 1, 2012 discharges. This has caused a break in the trend for these two diagnoses. Definitions and specifications begin on Page 86 of this document.

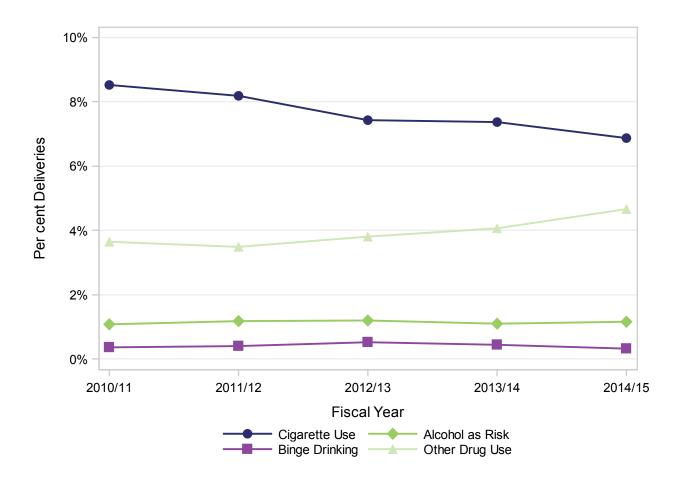
Diabetes Mellitus in PregnancyDeliveries in British Columbia: April 1, 2010 - March 31, 2015



	Fiscal Year					
Type of Diabetes	2010/11	2011/12	2012/13	2013/14	2014/15	
Pre-Existing Diabetes	0.6%	0.6%	0.7%	0.7%	0.7%	
Gestational Diabetes	8.0%	9.8%	10.6%	11.2%	11.0%	
Any Diabetes	8.6%	10.4%	11.3%	11.8%	11.7%	

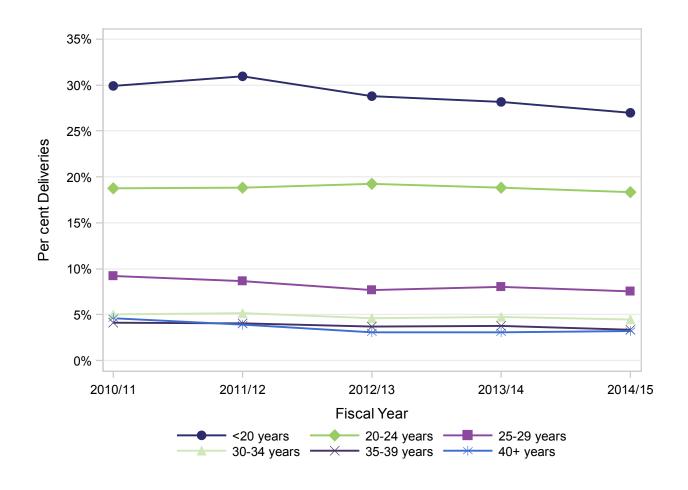
British Columbia adopted new diagnostic criteria for gestational diabetes in October 2010. This may cause a break in the trend for this diagnosis. Definitions and specifications begin on Page 86 of this document.

Substance Use During PregnancyDeliveries in British Columbia: April 1, 2010 - March 31, 2015



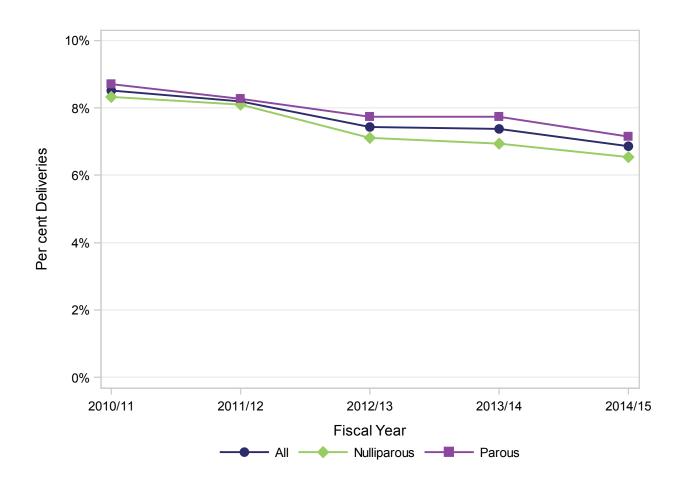
	Fiscal Year					
Substance	2010/11	2011/12	2012/13	2013/14	2014/15	
Cigarette Use	8.5%	8.2%	7.4%	7.4%	6.9%	
Alcohol as Risk	1.1%	1.2%	1.2%	1.1%	1.2%	
Binge Drinking	0.4%	0.4%	0.5%	0.4%	0.3%	
Other Drug Use	3.6%	3.5%	3.8%	4.1%	4.7%	

Cigarette Use at Any Time During Pregnancy by Maternal AgeDeliveries in British Columbia: April 1, 2010 - March 31, 2015



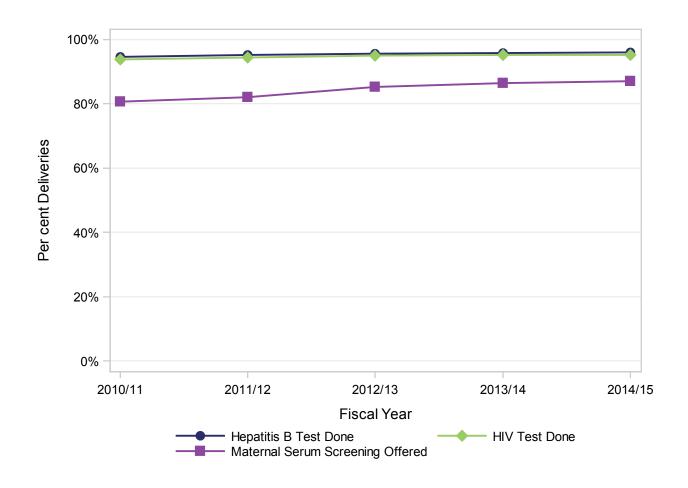
	Fiscal Year				
Maternal Age	2010/11	2011/12	2012/13	2013/14	2014/15
<20 years	29.9%	30.9%	28.8%	28.2%	27.0%
20-24 years	18.8%	18.8%	19.3%	18.8%	18.4%
25-29 years	9.2%	8.6%	7.7%	8.0%	7.6%
30-34 years	5.0%	5.2%	4.6%	4.7%	4.5%
35-39 years	4.2%	4.1%	3.7%	3.8%	3.4%
40+ years	4.6%	3.9%	3.1%	3.1%	3.2%

Cigarette Use at Any Time During Pregnancy by ParityDeliveries in British Columbia: April 1, 2010 - March 31, 2015



	Fiscal Year					
Parity	2010/11	2011/12	2012/13	2013/14	2014/15	
All	8.5%	8.2%	7.4%	7.4%	6.9%	
Nulliparous	8.3%	8.1%	7.1%	6.9%	6.5%	
Parous	8.7%	8.3%	7.7%	7.7%	7.1%	

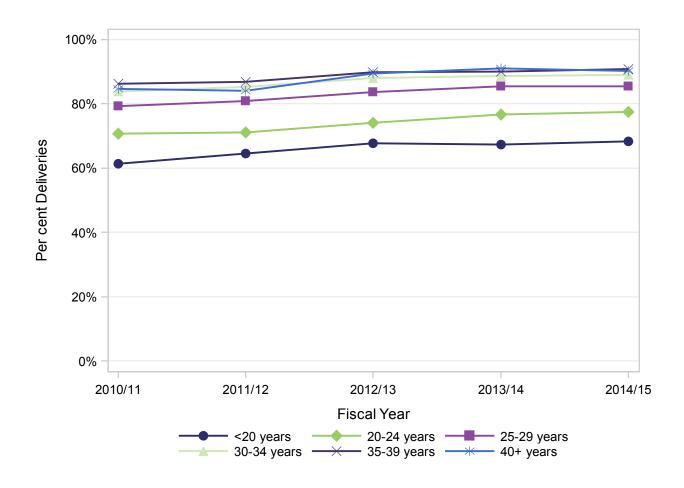
Maternal Screening Tests
Deliveries in British Columbia: April 1, 2010 - March 31, 2015



	Fiscal Year						
Type of Screening	2010/11	2011/12	2012/13	2013/14	2014/15		
Hepatitis B Test Done	94.6%	95.2%	95.6%	95.7%	96.0%		
HIV Test Done	93.7%	94.5%	95.0%	95.3%	95.1%		
Maternal Serum Screening Offered	80.7%	82.0%	85.2%	86.4%	87.0%		

Maternal serum screening refers to screening offered through the BC Prenatal Genetic Screening Program and to privately paid screening tests. Click here for information on the BC Prenatal Genetic Screening Program.

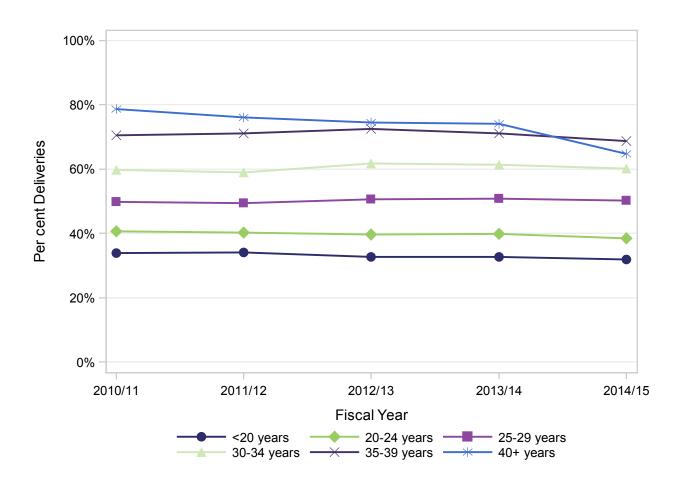
Offer of Maternal Serum Screening **by Maternal Age**Deliveries in British Columbia: April 1, 2010 - March 31, 2015



	Fiscal Year				
Maternal Age	2010/11	2011/12	2012/13	2013/14	2014/15
<20 years	61.3%	64.6%	67.7%	67.2%	68.3%
20-24 years	70.7%	71.0%	74.0%	76.6%	77.5%
25-29 years	79.3%	80.9%	83.7%	85.4%	85.5%
30-34 years	83.9%	85.2%	88.1%	88.7%	89.1%
35-39 years	86.2%	86.9%	89.9%	90.0%	90.8%
40+ years	84.6%	84.0%	89.4%	90.9%	90.2%

Maternal serum screening refers to screening offered through the BC Prenatal Genetic Screening Program and to privately paid screening tests. Click here for information on the BC Prenatal Genetic Screening Program.

Uptake of Prenatal Genetic Screening by Maternal AgeDeliveries in British Columbia: April 1, 2010 - March 31, 2015

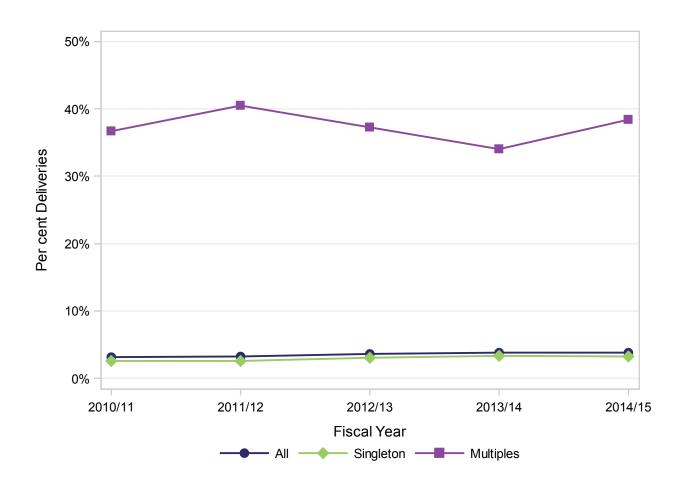


	Fiscal Year				
Maternal Age	2010/11	2011/12	2012/13	2013/14	2014/15
<20 years	33.8%	34.0%	32.7%	32.8%	31.9%
20-24 years	40.6%	40.2%	39.7%	39.9%	38.5%
25-29 years	49.8%	49.4%	50.7%	50.9%	50.2%
30-34 years	59.7%	59.0%	61.8%	61.3%	60.2%
35-39 years	70.5%	71.1%	72.5%	71.2%	68.8%
40+ years	78.7%	76.1%	74.5%	74.2%	64.7%

Prenatal Genetic Screening includes blood tests, amniocentesis, or chorionic villus sampling performed as part of the BC Prenatal Genetic Screening Program.

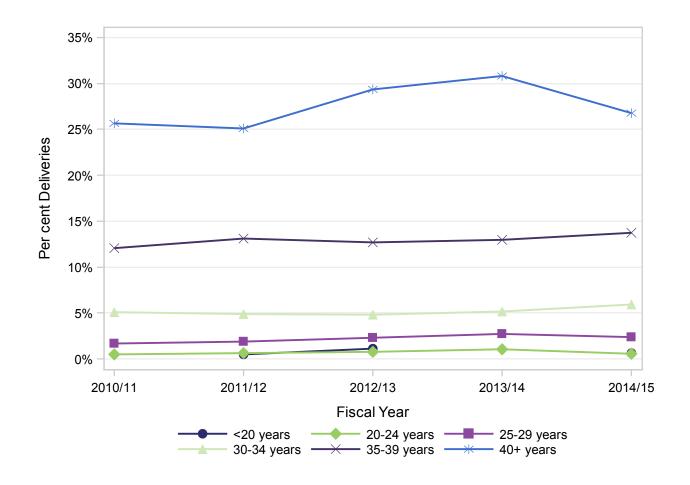
Click here for information on the BC Prenatal Genetic Screening Program.

Use of Artificial Reproductive Technology by Plurality Deliveries in British Columbia: April 1, 2010 - March 31, 2015



	Fiscal Year					
Plurality	2010/11	2011/12	2012/13	2013/14	2014/15	
All	3.1%	3.2%	3.6%	3.9%	3.9%	
Singleton	2.6%	2.6%	3.1%	3.3%	3.3%	
Multiples	36.7%	40.5%	37.2%	34.0%	38.4%	

Use of Artificial Reproductive Technology Nulliparous Women by Age Deliveries in British Columbia: April 1, 2010 - March 31, 2015



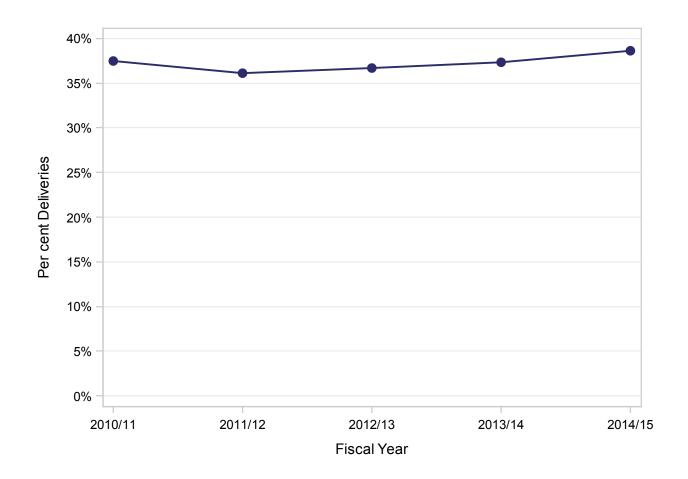
	Fiscal Year				
Plurality	2010/11	2011/12	2012/13	2013/14	2014/15
<20 years	NR	0.5%	1.1%	NR	0.7%
20-24 years	0.5%	0.6%	0.8%	1.1%	0.6%
25-29 years	1.7%	1.9%	2.3%	2.7%	2.4%
30-34 years	5.1%	4.9%	4.8%	5.2%	6.0%
35-39 years	12.0%	13.1%	12.7%	13.0%	13.7%
40+ years	25.6%	25.1%	29.4%	30.8%	26.8%

NR: Rates and per cents based on numerators of 1 to 4 are not reported. Definitions and specifications begin on Page 86 of this document.

Perinatal Health Report 2010/11 to 2014/15 Deliveries in British Columbia

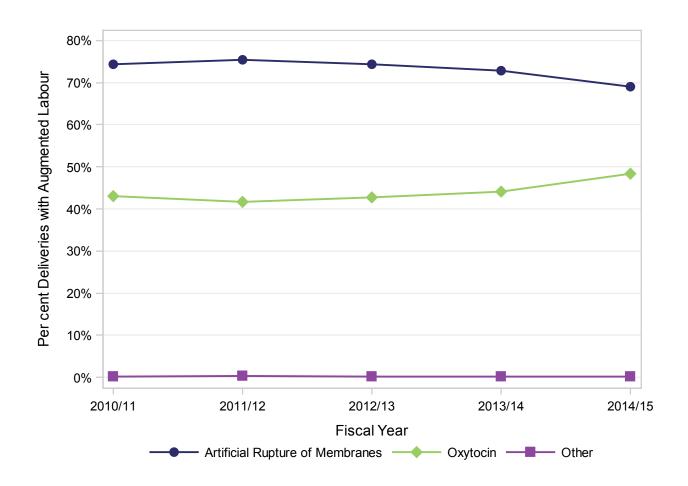
Section 2: Labour and Delivery

Labour AugmentationDeliveries in British Columbia: April 1, 2010 - March 31, 2015



	Fiscal Year						
	2010/11	2011/12	2012/13	2013/14	2014/15		
Labour Augmentation	37.5%	36.1%	36.7%	37.3%	38.7%		

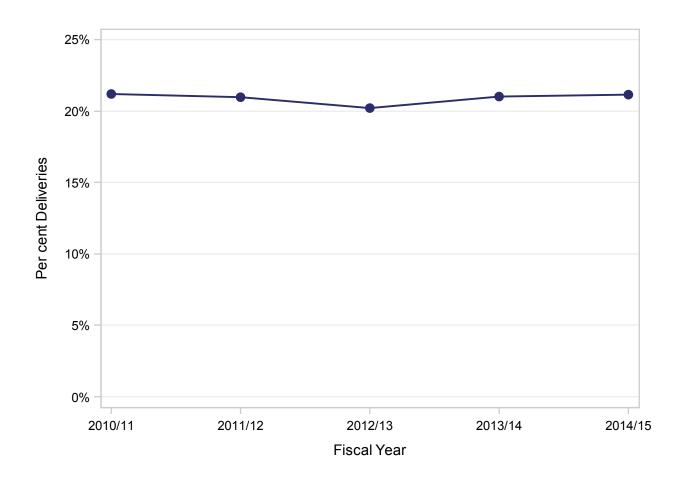
Method of Labour Augmentation Deliveries in British Columbia: April 1, 2010 - March 31, 2015



	Fiscal Year					
Method of Labour Augmentation	2010/11	2011/12	2012/13	2013/14	2014/15	
Artificial Rupture of Membranes	74.4%	75.4%	74.4%	72.9%	69.0%	
Oxytocin	43.0%	41.7%	42.7%	44.1%	48.4%	
Other	0.2%	0.3%	0.1%	0.2%	0.2%	

Labour Induction

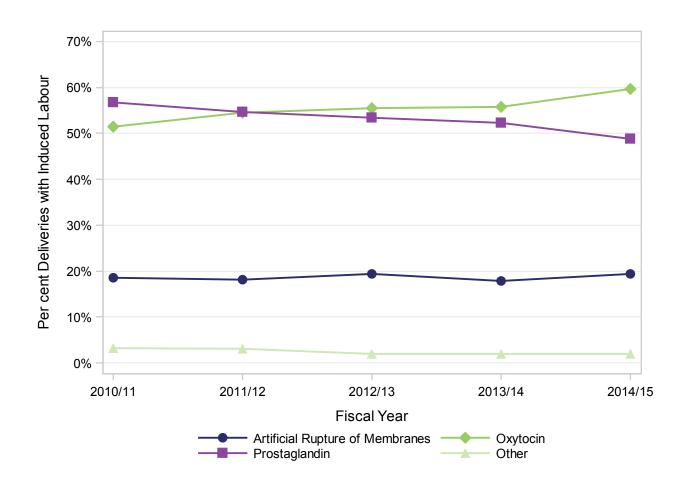
Deliveries in British Columbia: April 1, 2010 - March 31, 2015



	Fiscal Year						
	2010/11	2011/12	2012/13	2013/14	2014/15		
Labour Induction	21.2%	21.0%	20.2%	21.0%	21.1%		

Method of Labour Induction

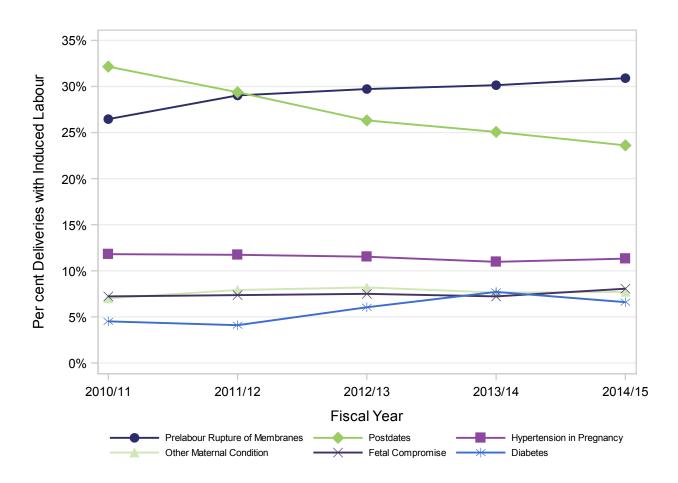
Deliveries in British Columbia: April 1, 2010 - March 31, 2015



	Fiscal Year						
Method of Labour Induction	2010/11	2011/12	2012/13	2013/14	2014/15		
Artificial Rupture of Membranes	18.6%	18.1%	19.4%	17.9%	19.4%		
Oxytocin	51.5%	54.5%	55.6%	55.7%	59.6%		
Prostaglandin	56.7%	54.7%	53.4%	52.3%	48.8%		
Other	3.2%	3.1%	2.0%	2.0%	2.0%		

Multiple methods may be used.

Primary Indication for Labour InductionDeliveries in British Columbia: April 1, 2010 - March 31, 2015

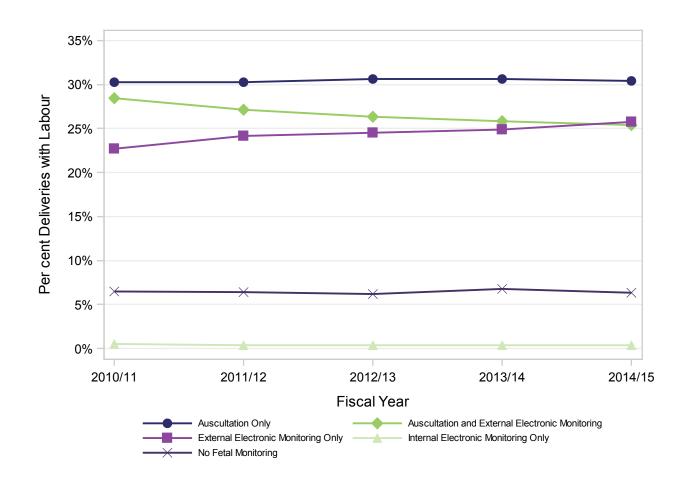


	Fiscal Year						
Primary Indication for Labour Induction	2010/11	2011/12	2012/13	2013/14	2014/15		
Prelabour Rupture of Membranes	26.4%	29.1%	29.7%	30.2%	30.9%		
Post Dates	32.2%	29.4%	26.3%	25.1%	23.6%		
Hypertension in Pregnancy	11.8%	11.7%	11.5%	11.0%	11.3%		
Other Maternal Condition	7.0%	7.9%	8.2%	7.7%	7.7%		
Fetal Compromise	7.2%	7.4%	7.5%	7.3%	8.0%		
Diabetes	4.5%	4.1%	6.1%	7.7%	6.6%		
Fetal Demise	1.2%	1.3%	0.9%	1.2%	1.3%		
Logistics	0.8%	0.9%	0.6%	0.7%	0.6%		
Antepartum Hemorrhage	0.3%	0.3%	0.1%	0.2%	0.3%		
Chorioamnionitis	0.1%	0.1%	NR	0.1%	0.1%		
Other	7.1%	6.9%	8.1%	8.1%	8.7%		
Unknown	1.4%	1.0%	1.0%	0.8%	0.7%		

Selected indications are included in the figure; all indications are included in the table.

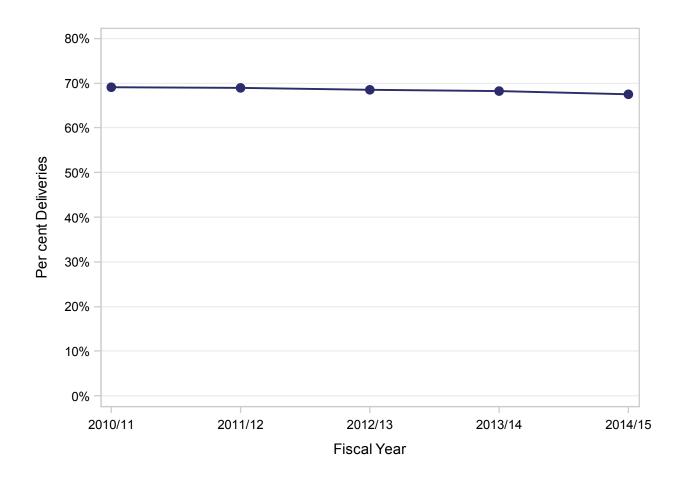
NR: Rates and per cents based on numerators of 1 to 4 are not reported.

Method of Fetal Surveillance During Labour Deliveries in British Columbia: April 1, 2010 - March 31, 2015



	Fiscal Year					
Method of Fetal Surveillance During Labour	2010/11	2011/12	2012/13	2013/14	2014/15	
Auscultation Only	30.3%	30.3%	30.6%	30.6%	30.4%	
Auscultation and External Electronic Monitoring	28.5%	27.2%	26.4%	25.8%	25.4%	
External Electronic Monitoring Only	22.7%	24.2%	24.5%	24.9%	25.8%	
Internal Electronic Monitoring Only	0.5%	0.4%	0.4%	0.3%	0.4%	
No Fetal Monitoring	6.5%	6.4%	6.2%	6.8%	6.3%	

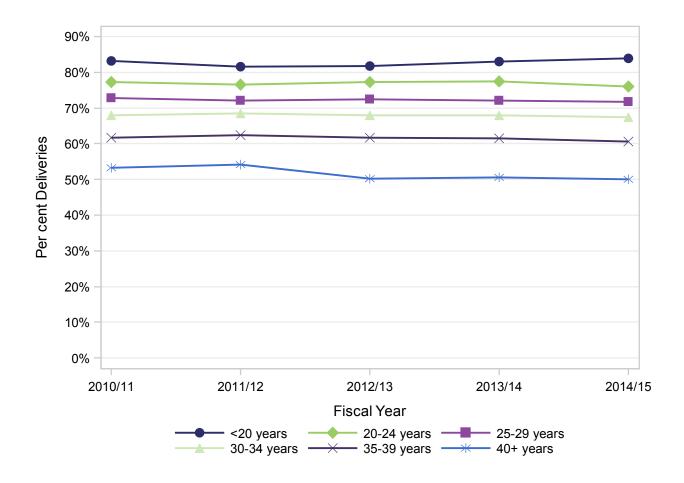
Vaginal DeliveryDeliveries in British Columbia: April 1, 2010 - March 31, 2015



	Fiscal Year						
	2010/11	2011/12	2012/13	2013/14	2014/15		
Vaginal Delivery	69.1%	69.0%	68.5%	68.3%	67.6%		

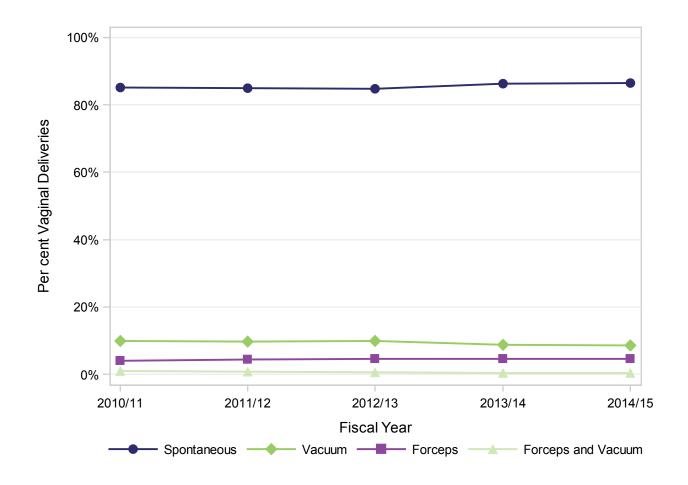
Vaginal Delivery

by Maternal AgeDeliveries in British Columbia: April 1, 2010 - March 31, 2015



	Fiscal Year					
Maternal Age	2010/11	2011/12	2012/13	2013/14	2014/15	
<20 years	83.2%	81.6%	81.7%	83.0%	83.9%	
20-24 years	77.2%	76.6%	77.3%	77.4%	76.0%	
25-29 years	72.8%	72.1%	72.3%	72.1%	71.6%	
30-34 years	67.9%	68.4%	68.0%	67.9%	67.4%	
35-39 years	61.6%	62.4%	61.6%	61.5%	60.7%	
40+ years	53.3%	54.2%	50.2%	50.6%	50.1%	

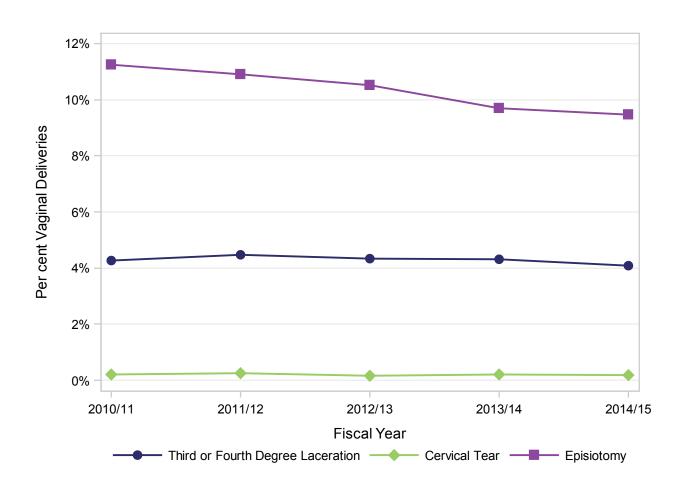
Type of Vaginal DeliveryDeliveries in British Columbia: April 1, 2010 - March 31, 2015



	Fiscal Year						
Type of Vaginal Delivery	2010/11	2011/12	2012/13	2013/14	2014/15		
Spontaneous	85.2%	85.0%	84.9%	86.2%	86.4%		
Vacuum	9.9%	9.8%	9.9%	8.8%	8.6%		
Forceps	4.0%	4.4%	4.6%	4.6%	4.6%		
Forceps and Vacuum	0.9%	0.8%	0.6%	0.4%	0.4%		

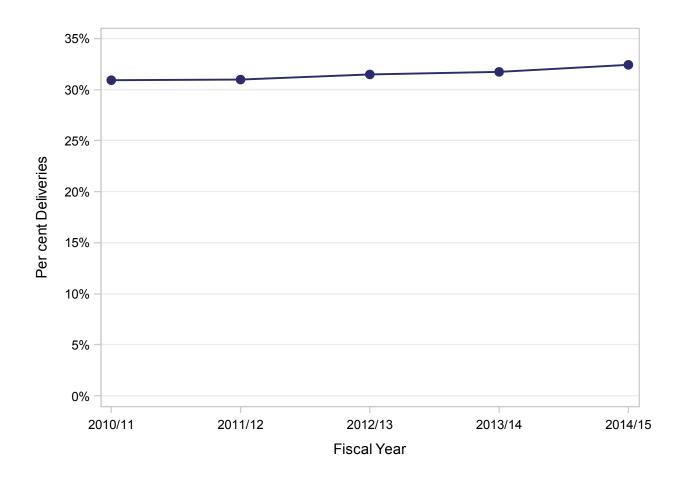
Perineal Trauma

Deliveries in British Columbia: April 1, 2010 - March 31, 2015



	Fiscal Year						
Perineal Trauma	2010/11	2011/12	2012/13	2013/14	2014/15		
Third or Fourth Degree Laceration	4.3%	4.5%	4.3%	4.3%	4.1%		
Cervical Tear	0.2%	0.3%	0.2%	0.2%	0.2%		
Episiotomy	11.2%	10.9%	10.5%	9.7%	9.5%		

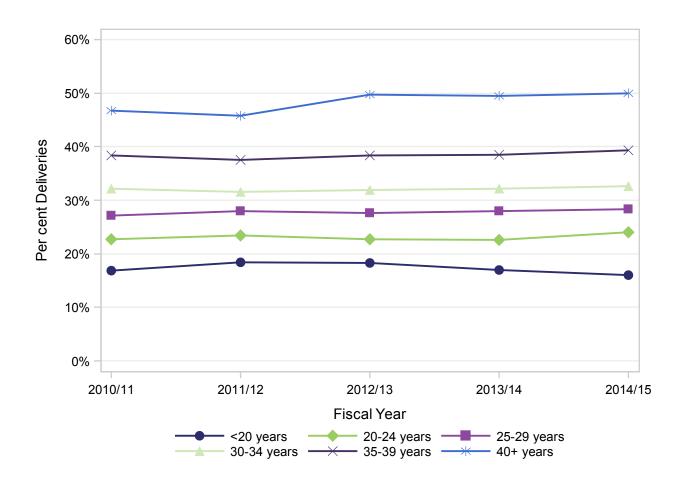
Cesarean DeliveryDeliveries in British Columbia: April 1, 2010 - March 31, 2015



	Fiscal Year						
	2010/11	2011/12	2012/13	2013/14	2014/15		
Cesarean Delivery	30.9%	31.0%	31.5%	31.7%	32.4%		

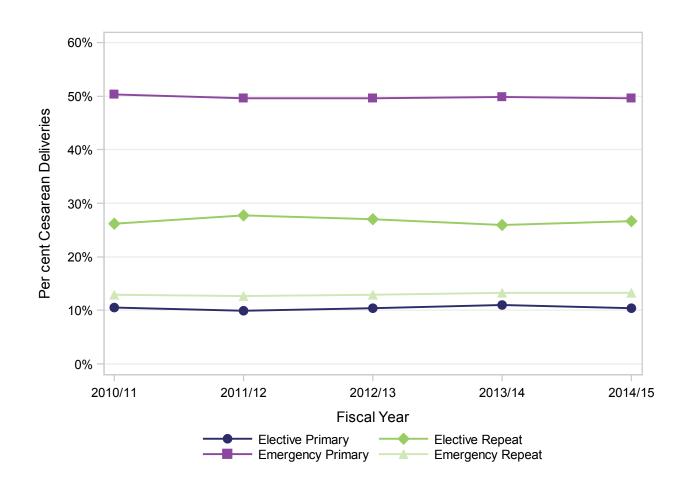
Cesarean Delivery

by Maternal AgeDeliveries in British Columbia: April 1, 2010 - March 31, 2015



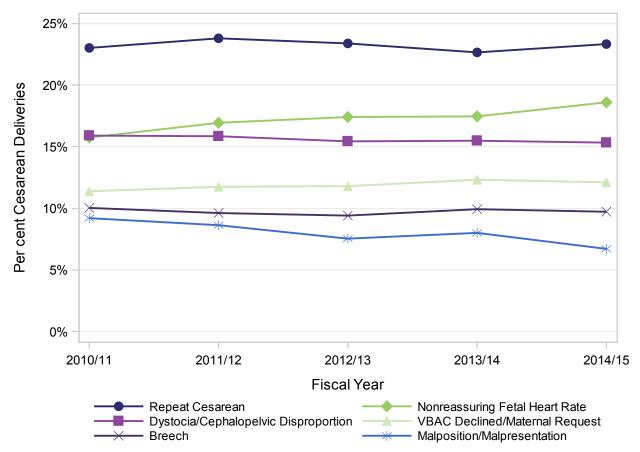
	Fiscal Year					
Maternal Age	2010/11	2011/12	2012/13	2013/14	2014/15	
<20 years	16.8%	18.4%	18.3%	17.0%	16.1%	
20-24 years	22.8%	23.4%	22.7%	22.6%	24.0%	
25-29 years	27.2%	27.9%	27.7%	27.9%	28.4%	
30-34 years	32.1%	31.6%	32.0%	32.1%	32.6%	
35-39 years	38.4%	37.6%	38.4%	38.5%	39.3%	
40+ years	46.7%	45.8%	49.8%	49.4%	49.9%	

Type of Cesarean DeliveryDeliveries in British Columbia: April 1, 2010 - March 31, 2015



	Fiscal Year					
Type of Cesarean Delivery	2010/11	2011/12	2012/13	2013/14	2014/15	
Elective Primary	10.6%	9.9%	10.5%	11.0%	10.4%	
Elective Repeat	26.1%	27.7%	27.0%	26.0%	26.7%	
Emergency Primary	50.3%	49.6%	49.6%	49.8%	49.6%	
Emergency Repeat	12.9%	12.7%	12.9%	13.2%	13.3%	

Primary Indication for Cesarean DeliveryDeliveries in British Columbia: April 1, 2010 - March 31, 2015



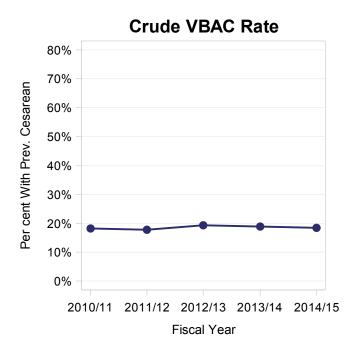
	Fiscal Year						
Primary Indication for Cesarean Delivery	2010/11	2011/12	2012/13	2013/14	2014/15		
Repeat Cesarean	23.0%	23.8%	23.4%	22.7%	23.3%		
Nonreassuring Fetal Heart Rate	15.7%	16.9%	17.4%	17.5%	18.6%		
Dystocia/Cephalopelvic Disproportion	15.9%	15.9%	15.4%	15.5%	15.3%		
VBAC Declined/Maternal Request	11.4%	11.8%	11.8%	12.3%	12.1%		
Breech	10.0%	9.6%	9.4%	9.9%	9.7%		
Malposition/Malpresentation	9.2%	8.7%	7.6%	8.0%	6.7%		
Placenta Previa	1.7%	1.7%	1.9%	1.9%	2.0%		
Abruptio Placenta	1.2%	0.9%	1.1%	1.0%	1.0%		
Active Herpes	0.3%	0.3%	0.3%	0.3%	0.2%		
Other	11.4%	10.4%	11.7%	10.9%	10.9%		
Unknown	0.0%	0.1%	0.1%	0.0%	NR		

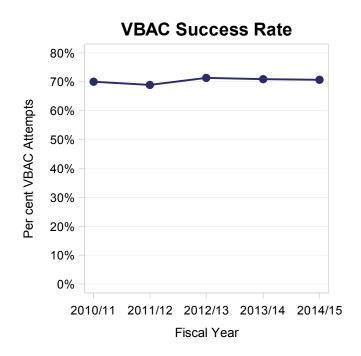
Selected indications are included in the figure; all indications are included in the table.

NR: Rates and per cents based on numerators of 1 to 4 are not reported.

Vaginal Birth After Cesarean (VBAC)

Deliveries in British Columbia: April 1, 2010 - March 31, 2015





Vaginal Birth After Cesarean (VBAC)

	Fiscal Year						
	2010/11	2011/12	2012/13	2013/14	2014/15		
Crude VBAC Rate	18.3%	17.8%	19.2%	18.9%	18.5%		
VBAC Eligible Rate	75.4%	81.0%	82.4%	81.3%	80.3%		
VBAC Attempted Rate	34.3%	31.8%	32.6%	32.7%	32.3%		
VBAC Success Rate	70.1%	68.9%	71.3%	70.9%	70.8%		

Crude VBAC Rate: Total number vaginal deliveries / Women with a previous cesarean

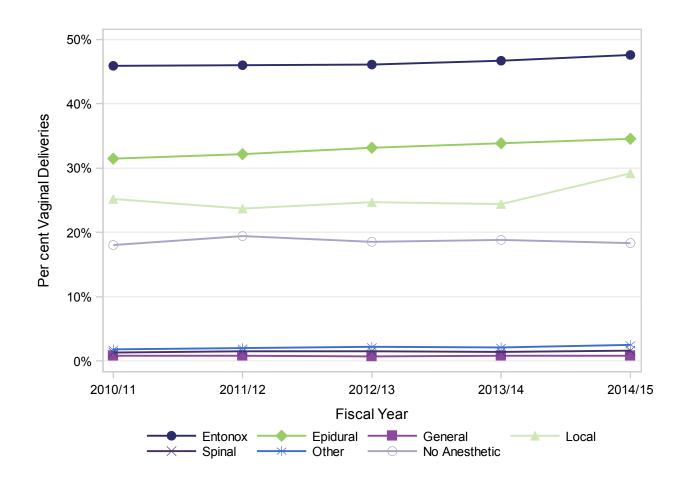
VBAC Eligible Rate: Women considered eligible for VBAC / Women with a previous cesarean

VBAC Attempted Rate: Women who attempted a VBAC / Women considered eligible for VBAC

VBAC Success Rate: Women with a vaginal delivery / Women who were eligible for and attempted VBAC

Anesthesia or Analgesia During Labour and Delivery Vaginal Deliveries

Deliveries in British Columbia: April 1, 2010 - March 31, 2015



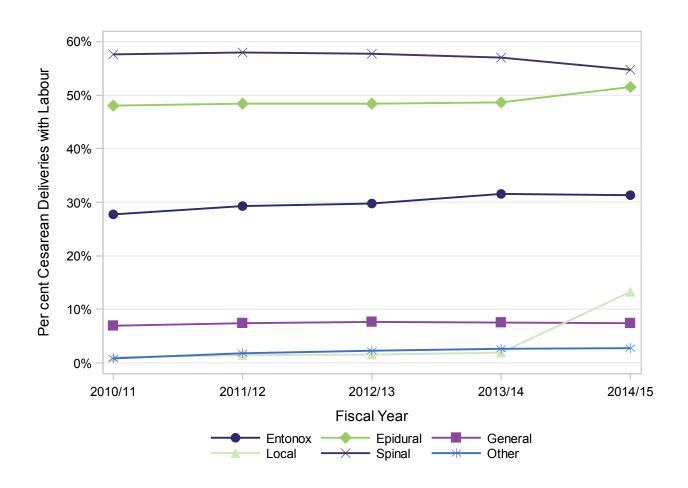
	Fiscal Year					
Anesthesia or Analgesia	2010/11	2011/12	2012/13	2013/14	2014/15	
Entonox	45.9%	46.0%	46.1%	46.7%	47.6%	
Epidural	31.5%	32.2%	33.2%	33.8%	34.6%	
General	0.8%	0.9%	0.7%	0.8%	0.9%	
Local	25.2%	23.7%	24.7%	24.5%	29.2%	
Spinal	1.3%	1.5%	1.6%	1.5%	1.6%	
Other	1.8%	2.0%	2.2%	2.1%	2.5%	
No Anesthetic	18.1%	19.4%	18.5%	18.8%	18.4%	

Effective March 2014, Island Health began coding local anesthesia administered prior to insertion of the catheter when epidural or spinal anesthesia is administered.

Multiple agents may be used.

Anesthesia or Analgesia During Labour and Delivery Cesarean Deliveries with Labour

Deliveries in British Columbia: April 1, 2010 - March 31, 2015

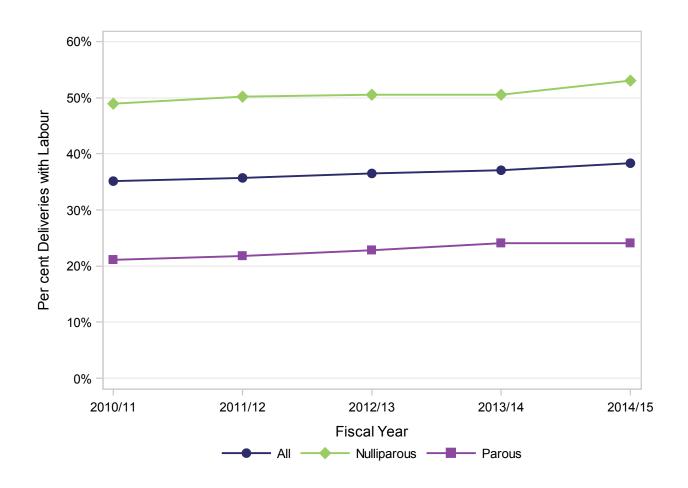


	Fiscal Year					
Anesthesia or Analgesia	2010/11	2011/12	2012/13	2013/14	2014/15	
Entonox	27.8%	29.3%	29.8%	31.5%	31.3%	
Epidural	48.1%	48.4%	48.4%	48.6%	51.5%	
General	6.9%	7.5%	7.7%	7.5%	7.4%	
Local	1.1%	1.5%	1.6%	2.0%	13.3%	
Spinal	57.6%	57.9%	57.7%	57.0%	54.8%	
Other	0.9%	1.8%	2.3%	2.6%	2.8%	

Effective March 2014, Island Health began coding local anesthesia administered prior to insertion of the catheter when epidural or spinal anesthesia is administered.

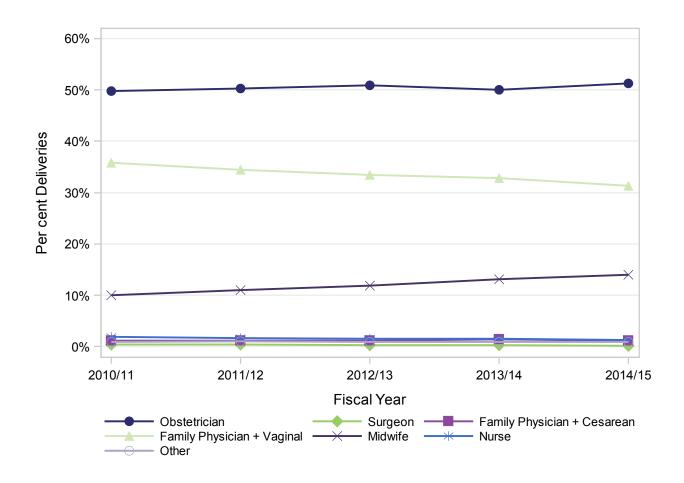
Multiple agents may be used.

Epidural Anesthesia or Analgesia During Labour and Delivery by ParityDeliveries in British Columbia: April 1, 2010 - March 31, 2015



	Fiscal Year						
Parity	2010/11	2011/12	2012/13	2013/14	2014/15		
All	35.1%	35.7%	36.5%	37.1%	38.4%		
Nulliparous	49.0%	50.1%	50.5%	50.5%	53.0%		
Parous	21.1%	21.7%	22.8%	24.1%	24.0%		

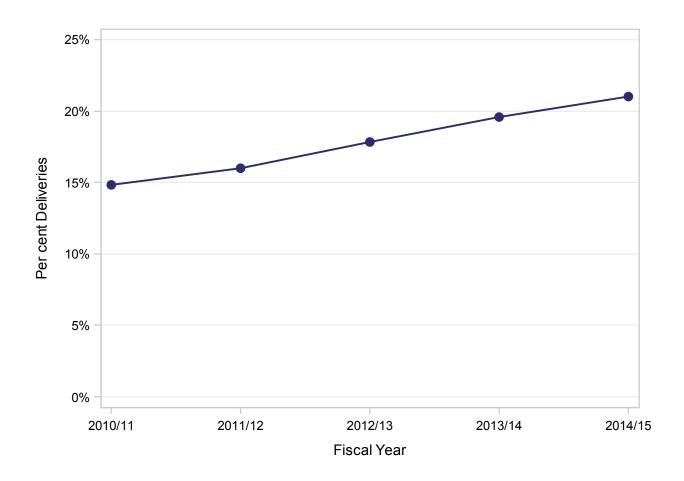
Delivery ProviderDeliveries in British Columbia: April 1, 2010 - March 31, 2015



	Fiscal Year					
Delivery Provider	2010/11	2011/12	2012/13	2013/14	2014/15	
Obstetrician	49.8%	50.3%	50.8%	50.0%	51.2%	
Surgeon	0.3%	0.3%	0.3%	0.2%	0.2%	
Family Physician + Cesarean	1.2%	1.2%	1.1%	1.3%	1.2%	
Family Physician + Vaginal	35.8%	34.5%	33.4%	32.8%	31.3%	
Midwife	10.0%	11.0%	11.9%	13.2%	14.0%	
Nurse	1.9%	1.7%	1.5%	1.5%	1.3%	
Other	0.9%	1.0%	0.9%	0.9%	0.9%	

Describes the training of the provider who delivered the baby. This may not be the same type of health care professional who provided antenatal care.

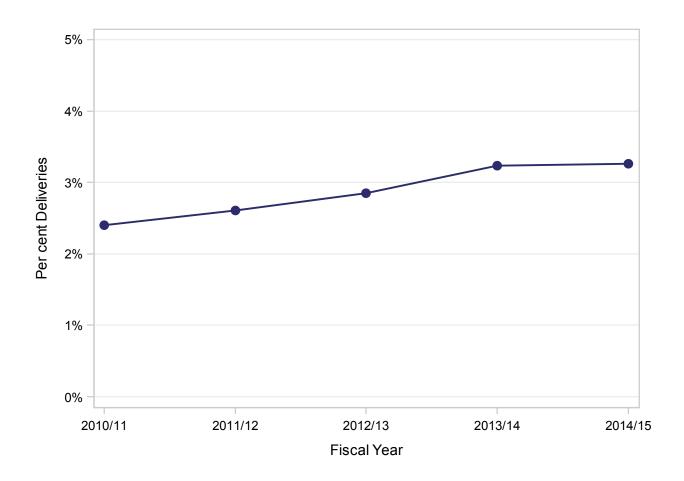
Any Care Provided by a Registered Midwife Deliveries in British Columbia: April 1, 2010 - March 31, 2015



	Fiscal Year								
	2010/11	2011/12	2012/13	2013/14	2014/15				
Any Care by a Registered Midwife	14.8%	16.0%	17.8%	19.6%	21.0%				

Indicates if a registered midwife was involved at any point in maternal or newborn care. May not be the provider who performs the delivery. Definitions and specifications begin on Page 86 of this document.

Deliveries at Home Attended by a Registered Midwife Deliveries in British Columbia: April 1, 2010 - March 31, 2015

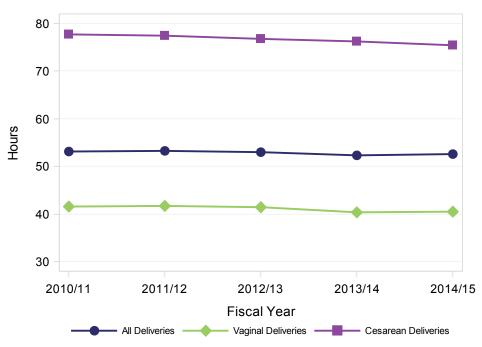


	Fiscal Year								
	2010/11	2011/12	2012/13	2013/14	2014/15				
Deliveries at Home	2.4%	2.6%	2.9%	3.2%	3.3%				

Includes deliveries at home where the woman was admitted to acute care within 24 hours. Definitions and specifications begin on Page 86 of this document.

Length of Stay for the Delivery Episode of Care by Mode of Delivery Deliveries in British Columbia: April 1, 2010 - March 31, 2015

Median Total Length of Stay (Hours)

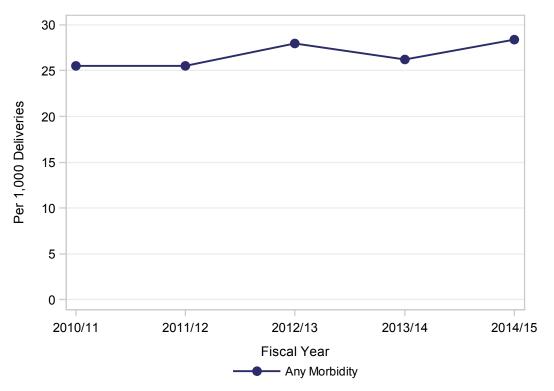


Median Antepartum, Postpartum, and Total Length of Stay for the Delivery Episode of Care

	A	Antepartum LOS (Hours)			Po	ostpartı	tum LOS (Hours)			Total LOS (Hours)					
	Fiscal Year Fiscal Year			Fiscal Year				Fiscal Year							
Mode of Delivery	10/11	11/12	12/13	13/14	14/15	10/11	11/12	12/13	13/14	14/15	10/11	11/12	12/13	13/14	14/15
All Deliveries	5.8	5.8	5.6	5.6	5.7	44.5	44.8	44.8	43.7	44.0	53.1	53.3	52.9	52.3	52.5
Vaginal Deliveries	5.9	5.8	5.7	5.6	5.7	34.6	34.6	34.4	33.4	33.6	41.6	41.7	41.5	40.3	40.5
Cesarean Deliveries	5.6	5.5	5.4	5.6	5.8	69.9	69.3	67.4	66.0	64.3	77.7	77.5	76.8	76.2	75.4

Deliveries outside acute care facilities are excluded.

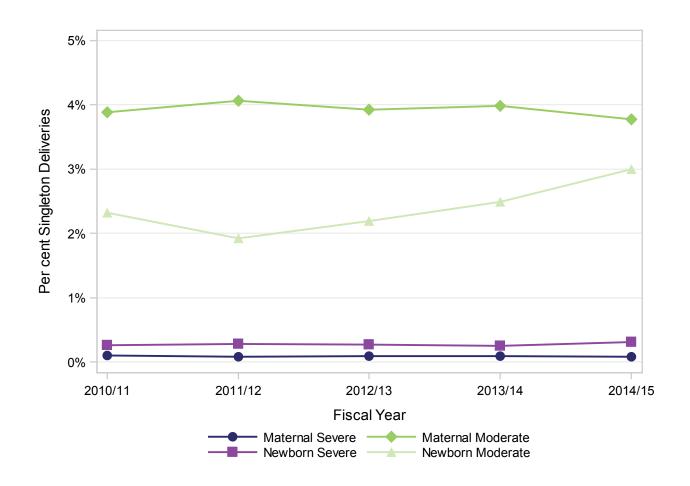
Maternal Morbidity
Deliveries in British Columbia: April 1, 2010 - March 31, 2015



Specific Maternal Morbidities

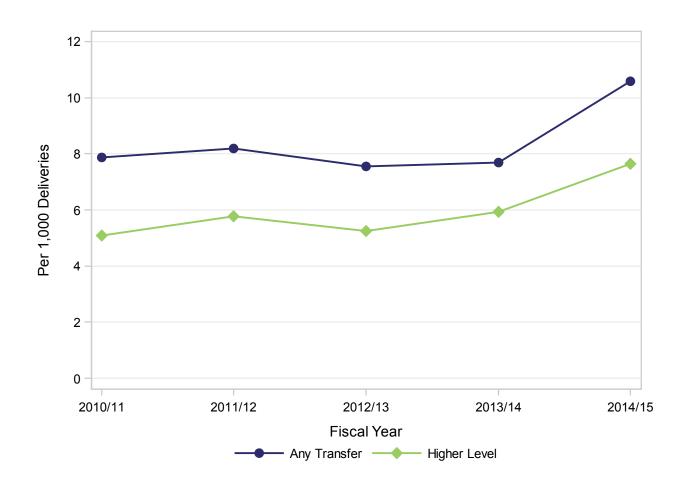
			Fiscal Year			
	2010/11	10/11 2011/12 2012/13		2013/14	2014/15	
Type of Morbidity	per 1,000	per 1,000	per 1,000	per 1,000	per 1,000	
Liver Complications	5.1	6.0	6.6	6.8	7.3	
Postpartum Hemorrhage with Transfusion	5.4	5.4	5.2	5.8	5.5	
Urinary Tract Infection	4.9	4.7	4.9	4.2	4.5	
Sepsis	4.0	4.0	4.5	4.5	5.6	
Wound Infection	4.5	4.2	4.1	3.5	4.0	
HELLP	2.8	2.8	3.4	3.6	3.1	
Anesthetic Complications	2.1	1.8	2.3	1.7	1.8	
Antepartum Hemorrhage with Transfusion	1.1	0.9	1.5	1.5	1.4	
Eclampsia	0.6	0.4	0.6	0.4	0.5	
Shock	0.3	0.3	0.4	0.4	0.3	
Pulmonary Embolism	0.3	0.3	0.4	0.3	0.3	
Postpartum Hemorrhage with Hysterectomy	0.4	0.4	0.4	0.3	0.5	
Stroke	0.4	0.3	0.4	0.3	0.3	

Adverse Outcome of Labour or Delivery Deliveries in British Columbia: April 1, 2010 - March 31, 2015



			Fiscal Year		
	2010/11	2011/12	2012/13	2013/14	2014/15
Any Adverse Outcome	6.4%	6.2%	6.4%	6.6%	7.0%
Maternal Severe Adverse Outcome	0.1%	0.1%	0.1%	0.1%	0.1%
Maternal Moderate Adverse Outcome	3.9%	4.1%	3.9%	4.0%	3.8%
Neonatal Severe Adverse Outcome	0.3%	0.3%	0.3%	0.2%	0.3%
Neonatal Moderate Adverse Outcome	2.3%	1.9%	2.2%	2.5%	3.0%

Maternal Hospital Transfers
Deliveries in British Columbia: April 1, 2010 - March 31, 2015

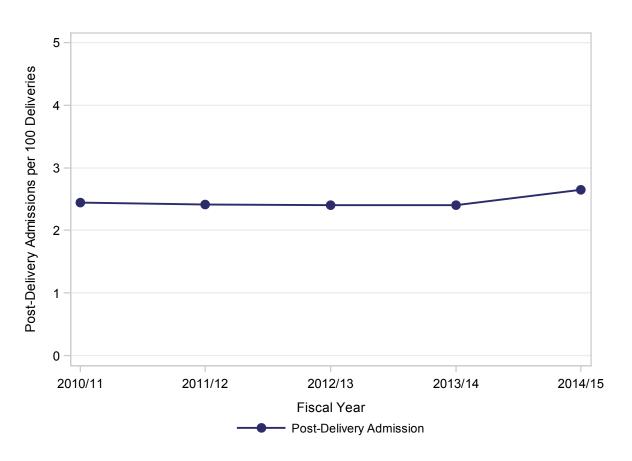


	Fiscal Year								
	2010/11	2011/12	2012/13	2013/14	2014/15				
Type of Transfer	per 1,000	per 1,000	per 1,000	per 1,000	per 1,000				
Any Transfer	7.9	8.2	7.5	7.7	10.6				
Higher Level	5.1	5.8	5.2	5.9	7.6				

Women may be transferred to another hospital for either maternal or neonatal indications.

Includes transfers from an inpatient Delivery Admission directly to another acute care facility. Effective 2014/15 may also include women transferred directly to acute care from a delivery at home.

Post-Delivery AdmissionsDeliveries in British Columbia: April 1, 2010 - March 31, 2015



Leading Diagnoses Associated with Post-Delivery Admissions Per cent Post-Delivery Admissions

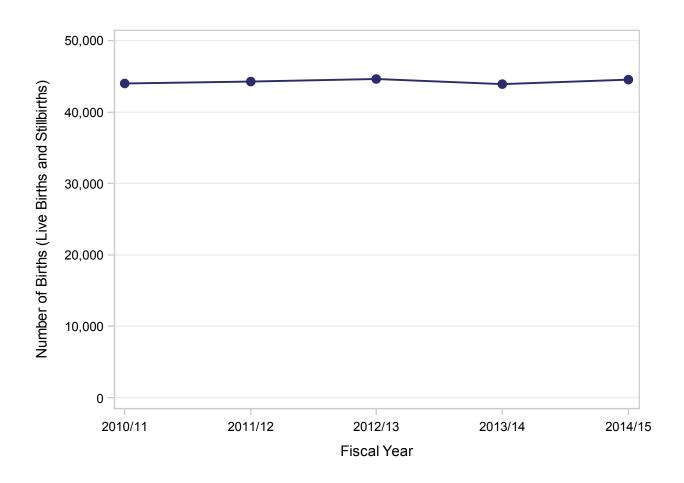
	Fiscal Year								
Most Responsible Diagnosis	2010/11	2011/12	2012/13	2013/14	2014/15				
Routine Postpartum Care	23.1%	23.2%	24.3%	22.3%	27.4%				
Postpartum Infection	18.6%	18.3%	19.3%	17.8%	18.8%				
Postpartum Hemorrhage	21.4%	18.5%	19.7%	17.1%	16.0%				
Other Diseases Complicating Pregnancy	10.6%	10.4%	9.8%	9.6%	9.0%				
Hypertension or Eclampsia	5.5%	5.6%	5.9%	7.9%	6.3%				
Other Wound Issues	5.5%	5.1%	7.1%	6.4%	6.2%				
Complications of Anesthesia	1.4%	1.2%	1.7%	2.5%	2.6%				
Retained Placenta Without Hemorrhage	1.7%	2.6%	2.3%	2.1%	2.1%				
Care of Breasts	1.7%	3.2%	1.7%	2.6%	1.5%				
Pregnancy-Associated Mental Health	1.3%	0.9%	0.9%	1.3%	1.0%				

Post-Delivery Admissions include inter-hospital transfers and readmissions from home. Definitions and specifications begin on Page 86 of this document.

Perinatal Health Report 2010/11 to 2014/15 Births in British Columbia

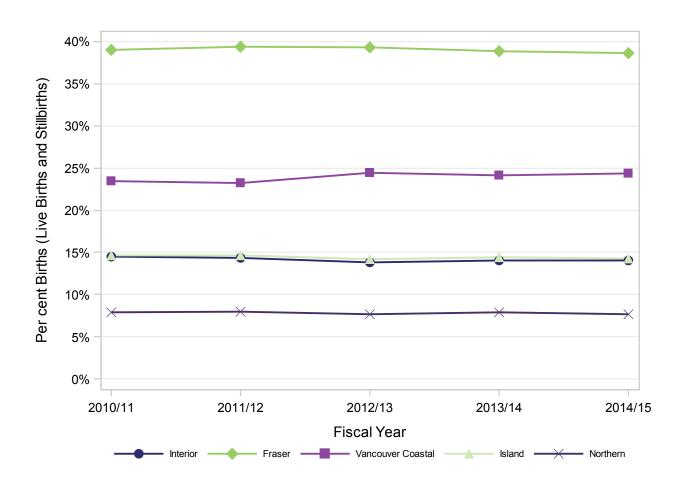
Section 3: Newborn Health

Total BirthsBirths in British Columbia: April 1, 2010 - March 31, 2015



	Fiscal Year								
	2010/11 2011/12 2012/13 2013/14 2								
British Columbia	43,952	44,277	44,578	43,887	44,572				

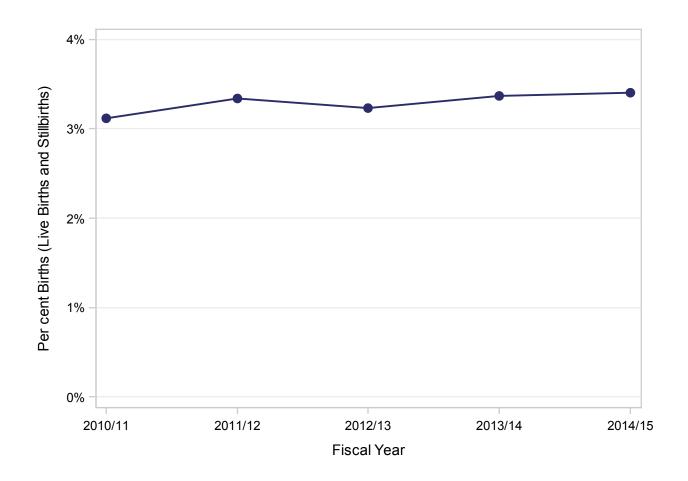
Total Births by Resident Health AuthorityBirths in British Columbia: April 1, 2010 - March 31, 2015



					Fisca	al Year					
	201	0/11	201	2011/12		2012/13		2013/14		2014/15	
Health Authority	Count	Per cent									
Interior	6,390	14.5%	6,353	14.3%	6,176	13.9%	6,159	14.0%	6,246	14.0%	
Fraser	17,139	39.0%	17,429	39.4%	17,515	39.3%	17,039	38.8%	17,233	38.7%	
Vancouver Coastal	10,321	23.5%	10,281	23.2%	10,895	24.4%	10,577	24.1%	10,857	24.4%	
Island	6,428	14.6%	6,488	14.7%	6,317	14.2%	6,332	14.4%	6,356	14.3%	
Northern	3,490	7.9%	3,535	8.0%	3,416	7.7%	3,485	7.9%	3,427	7.7%	

Only births with known British Columbia Health Authority of residence are shown. Resident Health Authority was determined from the mother's delivery record.

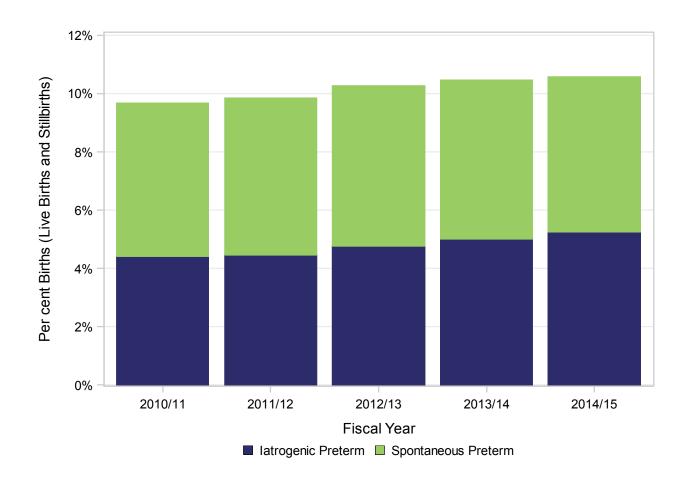
Births Part of a Multiple GestationBirths in British Columbia: April 1, 2010 - March 31, 2015



	Fiscal Year								
	2010/11	2011/12	2012/13	2013/14	2014/15				
Multiple Gestation	3.1%	3.3%	3.2%	3.4%	3.4%				

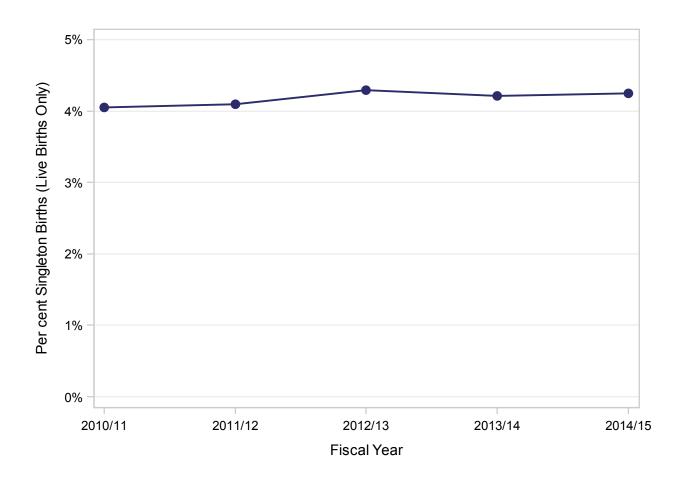
Preterm Birth

Births in British Columbia: April 1, 2010 - March 31, 2015



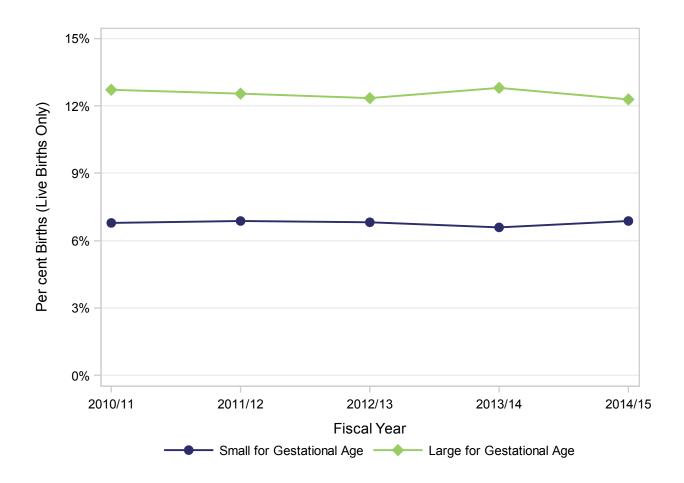
		Fiscal Year								
	2010/11	2011/12	2012/13	2013/14	2014/15					
latrogenic Preterm	4.4%	4.5%	4.8%	5.0%	5.3%					
Spontaneous Preterm	5.2%	5.4%	5.5%	5.4%	5.3%					
Total Preterm	9.7%	9.8%	10.3%	10.5%	10.6%					

Low Birthweight SingletonsBirths in British Columbia: April 1, 2010 - March 31, 2015



	Fiscal Year								
	2010/11 2011/12 2012/13 2013/14 2								
Low Birthweight	4.1%	4.1%	4.3%	4.2%	4.2%				

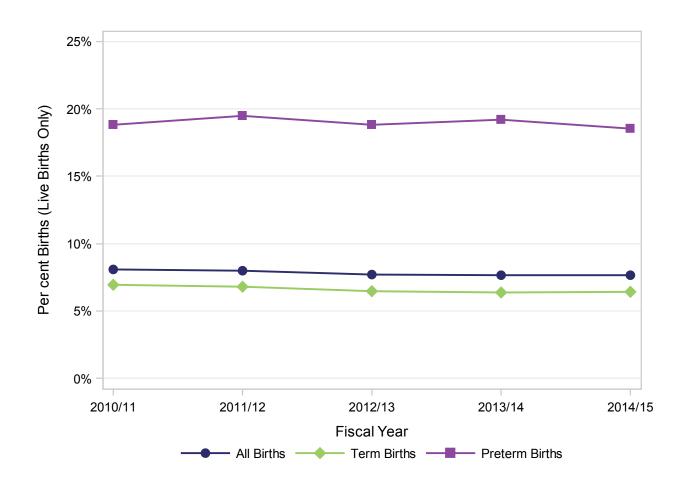
Weight for Gestational Age Births in British Columbia: April 1, 2010 - March 31, 2015



	Fiscal Year							
	2010/11	2011/12	2012/13	2013/14	2014/15			
Small for Gestational Age	6.8%	6.9%	6.8%	6.6%	6.9%			
Large for Gestational Age	12.7%	12.5%	12.3%	12.8%	12.3%			

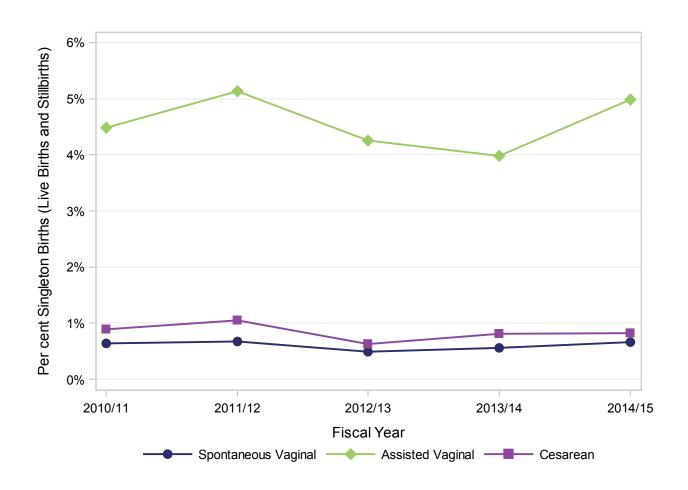
Newborn Resuscitation by Gestational Age

by Gestational AgeBirths in British Columbia: April 1, 2010 - March 31, 2015



	Fiscal Year						
Gestational Age	2010/11	2011/12	2012/13	2013/14	2014/15		
All Births	8.0%	7.9%	7.6%	7.6%	7.6%		
Term Births	7.0%	6.8%	6.4%	6.4%	6.4%		
Preterm Births	18.7%	19.2%	18.6%	18.8%	18.2%		

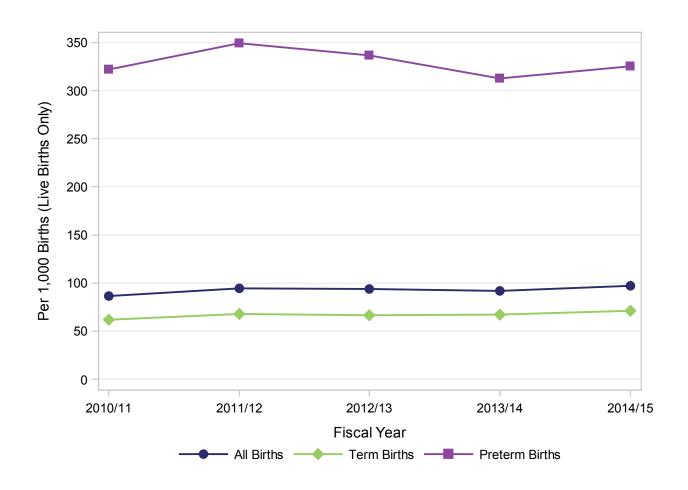
Birth Injury by Mode of Delivery Births in British Columbia: April 1, 2010 - March 31, 2015



	Fiscal Year						
Mode of Delivery	2010/11	2011/12	2012/13	2013/14	2014/15		
Spontaneous Vaginal	0.6%	0.7%	0.5%	0.6%	0.7%		
Assisted Vaginal	4.5%	5.1%	4.3%	4.0%	5.0%		
Cesarean	0.9%	1.1%	0.6%	0.8%	0.8%		

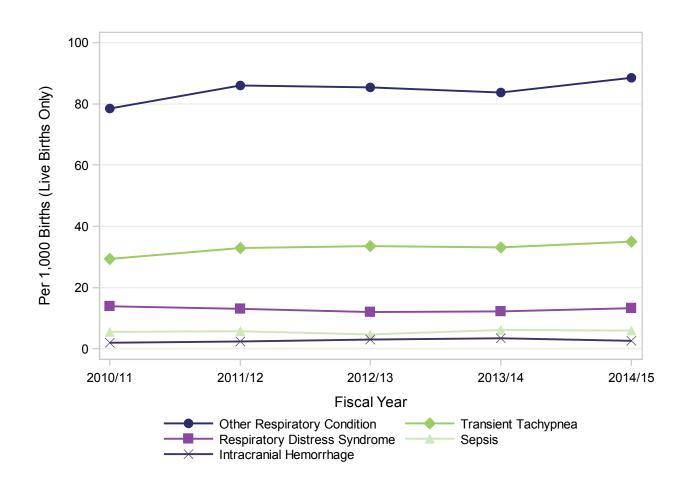
Neonatal Morbidity

by Gestational AgeBirths in British Columbia: April 1, 2010 - March 31, 2015



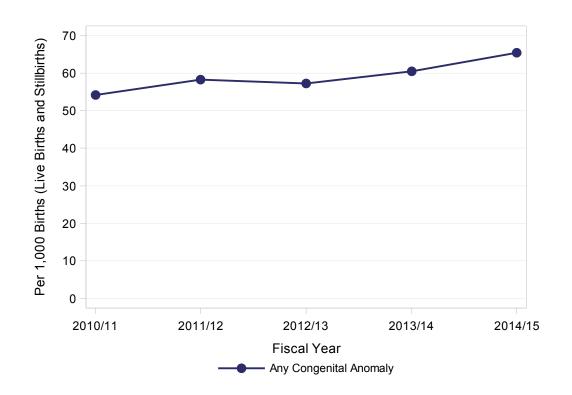
	Fiscal Year						
	2010/11 2011/12 20		2012/13	2013/14	2014/15		
Gestational Age	per 1,000	per 1,000	per 1,000	per 1,000	per 1,000		
All Births	86.3	94.6	93.7	91.9	97.4		
Term Births	61.9	67.8	66.6	67.1	71.4		
Preterm Births	322.2	349.4	336.6	312.5	325.4		

Type of Neonatal MorbidityBirths in British Columbia: April 1, 2010 - March 31, 2015



	Fiscal Year						
	2010/11	2011/12	2012/13	2013/14	2014/15		
Type of Morbidity	per 1,000	per 1,000	per 1,000	per 1,000	per 1,000		
Other Respiratory Condition	78.4	85.9	85.4	83.8	88.5		
Transient Tachypnea	29.2	33.0	33.6	33.0	34.9		
Respiratory Distress Syndrome	13.8	13.0	12.0	12.1	13.2		
Sepsis	5.5	5.7	4.6	6.1	5.9		
Intracranial Hemorrhage	1.8	2.4	2.9	3.3	2.6		

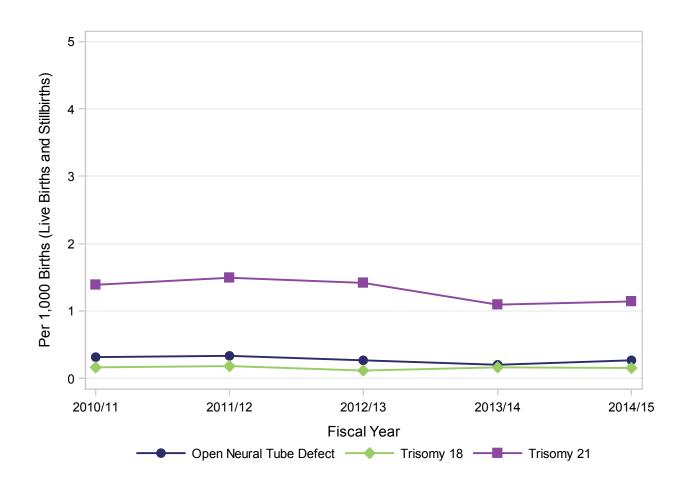
Congenital AnomaliesBirths in British Columbia: April 1, 2010 - March 31, 2015



Specific Congenital Anomalies Per 1,000 Live Births and Stillbirths

	Fiscal Year						
	2010/11	2011/12	2012/13	2013/14	2014/15		
Type of Congenital Anomaly	per 1,000	per 1,000	per 1,000	per 1,000	per 1,000		
Chromosomal	2.2	2.2	2.1	2.1	2.1		
Circulatory System	11.2	12.0	12.6	13.3	13.1		
Cleft Lip or Palate	1.7	1.2	2.0	1.8	1.5		
Digestive System	9.5	11.1	10.8	11.3	13.7		
Eye, Ear, Face, or Neck	2.5	2.8	2.4	2.9	2.7		
Genital Organs	8.1	7.6	7.4	7.1	7.8		
Musculoskeletal System	14.2	13.4	14.6	15.6	17.2		
Nervous System	2.5	3.3	3.0	3.4	3.6		
Respiratory System	1.3	1.9	1.3	1.8	2.0		
Urinary System	4.4	4.2	5.4	6.5	6.8		
Other Specific Anomaly	5.3	8.5	4.6	5.1	5.1		

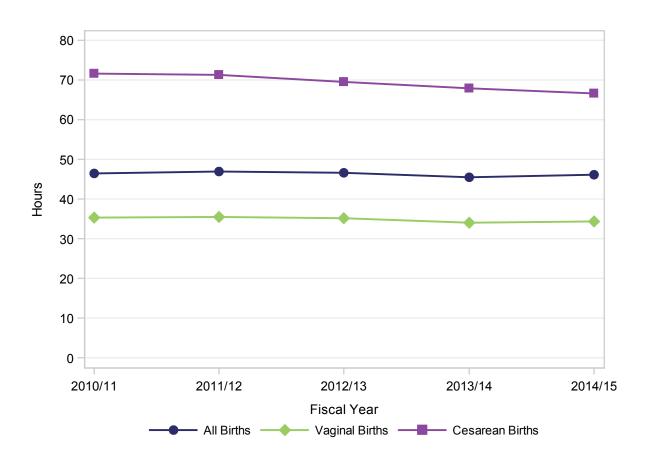
Open Neural Tube Defects and Selected Aneuploidies Births in British Columbia: April 1, 2010 - March 31, 2015



	Fiscal Year						
	2010/11	2014/15					
Type of Anomaly	per 1,000	per 1,000	per 1,000	per 1,000	per 1,000		
Open Neural Tube Defect	0.3	0.3	0.3	0.2	0.3		
Trisomy 18	0.2	0.2	0.1	0.2	0.2		
Trisomy 21	1.4	1.5	1.4	1.1	1.1		

Data reflect Open Neural Tube Defects and aneuploidies recorded during the Birth Admission. Definitions and specifications begin on Page 86 of this document.

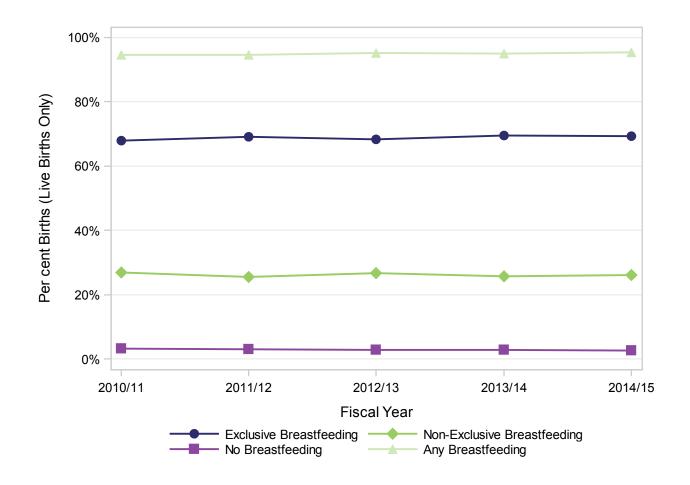
Median Length of Stay (Hours) for the Birth Episode of Care Live Births by Mode of Delivery Births in British Columbia: April 1, 2010 - March 31, 2015



	Fiscal Year							
	2010/11	2011/12	2012/13	2013/14	2014/15			
All Births	46.4	46.9	46.7	45.5	46.2			
Vaginal Births	35.4	35.5	35.2	34.1	34.4			
Cesarean Births	71.7	71.2	69.6	68.0	66.5			

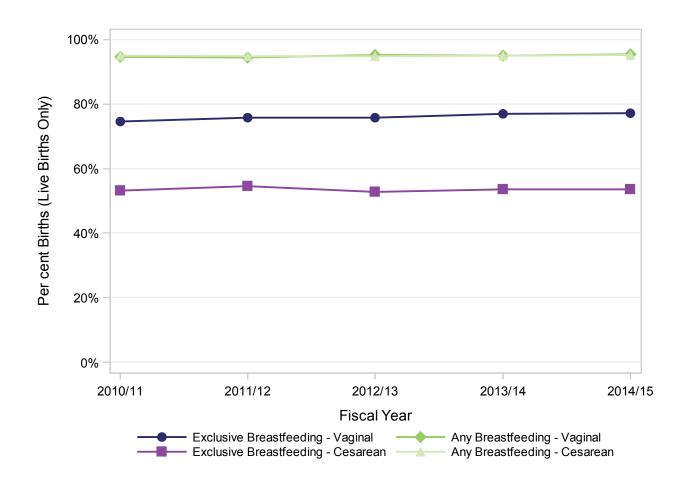
Delivery method is based on maternal information. Multifetal pregnancies where any newborn was born by cesarean are included in the Cesarean Births category.

Breastfeeding During the Birth AdmissionBirths in British Columbia: April 1, 2010 - March 31, 2015



	Fiscal Year						
	2010/11	2011/12	2012/13	2013/14	2014/15		
Exclusive Breastfeeding	67.8%	69.1%	68.4%	69.4%	69.3%		
Non-Exclusive Breastfeeding	26.9%	25.5%	26.7%	25.6%	26.1%		
No Breastfeeding	3.2%	3.0%	2.9%	2.8%	2.6%		
Any Breastfeeding	94.7%	94.5%	95.1%	95.1%	95.4%		

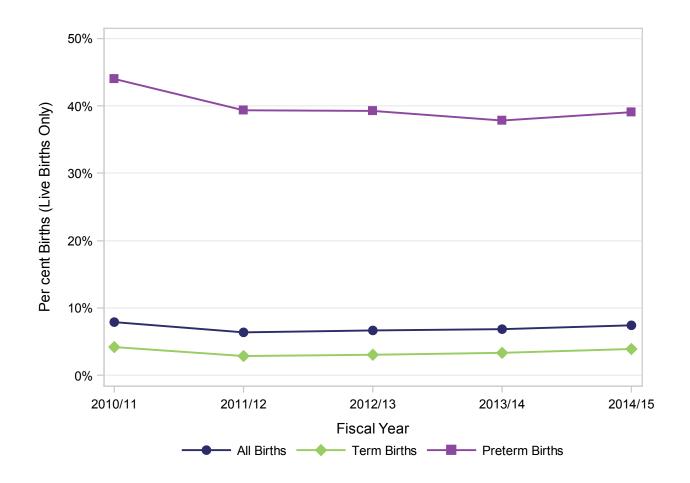
Breastfeeding During the Birth Admission by Mode of DeliveryBirths in British Columbia: April 1, 2010 - March 31, 2015



	Fiscal Year					
	2010/11	2011/12	2012/13	2013/14	2014/15	
Exclusive Breastfeeding - Vaginal	74.6%	75.8%	75.8%	77.0%	77.1%	
Any Breastfeeding - Vaginal	94.6%	94.4%	95.2%	95.1%	95.4%	
Exclusive Breastfeeding - Cesarean	53.2%	54.5%	52.8%	53.6%	53.6%	
Any Breastfeeding - Cesarean	95.0%	94.8%	94.8%	95.0%	95.2%	

Neonatal Intensive Care Use During Birth Episode of Care by Gestational Age

Births in British Columbia: April 1, 2010 - March 31, 2015



Median Length of Stay (Days) in Neonatal Intensive Care During Birth Episode of Care by Gestational Age

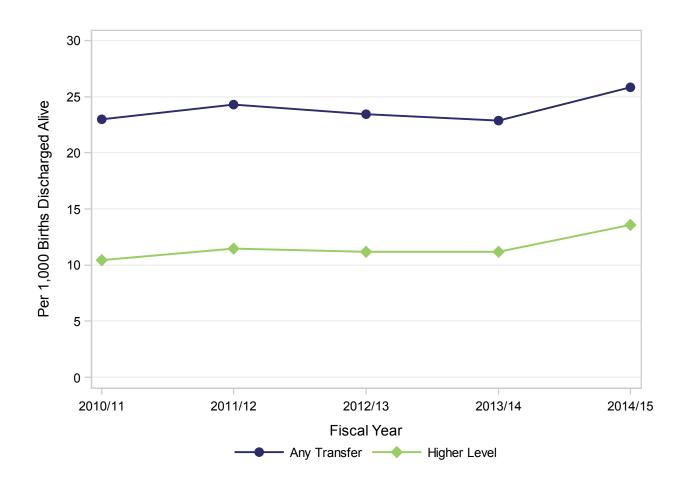
	Fiscal Year							
	2010/11	2011/12	2012/13	2013/14	2014/15			
All Births	17.0	13.0	15.0	17.0	14.0			
Term Births	7.0	4.0	5.0	6.0	5.0			
Preterm Births	27.0	22.0	22.0	28.0	26.0			

NICU days are assigned based on baby's needs as defined by PSBC Neonatal Daily Classification Tool.

Click here to access resources on the Neonatal Daily Classification Tool.

Definitions and specifications begin on Page 86 of this document.

Transfer to Another Hospital from the Birth AdmissionBirths in British Columbia: April 1, 2010 - March 31, 2015



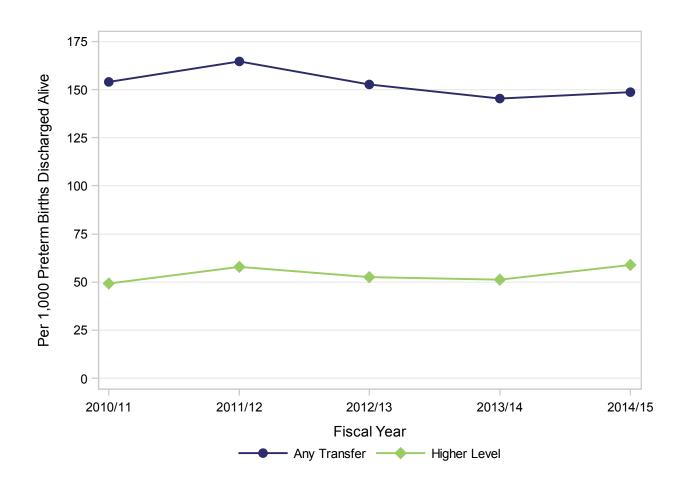
	Fiscal Year									
	2010/11	2011/12	2012/13	2013/14	2014/15					
	per 1,000	per 1,000	per 1,000	per 1,000	per 1,000					
Any Transfer	23.0	24.3	23.4	22.9	25.8					
Higher Level	10.4	11.5	11.2	11.2	13.6					

Neonates may be transferred to another hospital for either maternal or neonatal indications.

Includes transfers from an inpatient Birth Admission directly to another acute care facility. Effective 2014/15 may also include neonates transferred directly to acute care from a birth at home.

Transfer to Another Hospital from the Birth Admission Preterm Births

Births in British Columbia: April 1, 2010 - March 31, 2015



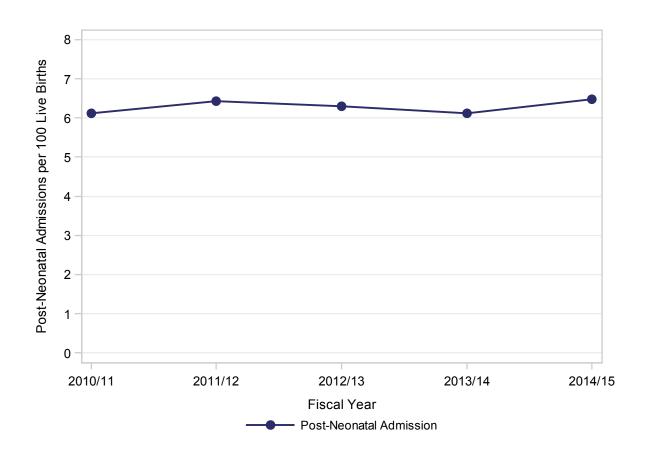
	Fiscal Year									
	2010/11	2010/11 2011/12		2013/14	2014/15					
	per 1,000	per 1,000	per 1,000	per 1,000	per 1,000					
Any Transfer	154.0	164.6	152.5	145.4	148.8					
Higher Level	49.3	57.9	52.7	51.3	58.8					

Neonates may be transferred to another hospital for either maternal or neonatal indications.

Includes transfers from an inpatient Birth Admission directly to another acute care facility. Effective 2014/15 may also include neonates transferred directly to acute care from a birth at home.

Post-Neonatal Admissions

Births in British Columbia: April 1, 2010 - March 31, 2015



Leading Diagnoses Associated with Post-Neonatal Admissions
Per cent Post-Neonatal Admissions

			Fiscal Year		
Most Responsible Diagnosis	2010/11	2011/12	2012/13	2013/14	2014/15
Jaundice	29.9%	30.3%	28.5%	27.4%	28.1%
Low Birth Weight or Preterm Birth	21.5%	20.8%	21.7%	20.8%	20.4%
Congenital Anomalies	8.1%	7.6%	8.2%	7.3%	7.6%
Feeding Problems	5.9%	5.8%	5.9%	6.2%	6.1%
Respiratory Infections	4.4%	4.7%	4.9%	4.3%	5.0%
Respiratory Distress	3.9%	4.8%	4.4%	4.4%	4.3%
Other Infections	3.6%	3.5%	3.3%	4.0%	3.9%
Apnea	1.5%	2.4%	1.9%	1.8%	1.9%
Isoimmunization	1.9%	1.7%	1.5%	1.6%	1.4%
Urinary Tract Infections	1.4%	1.2%	1.6%	2.1%	1.2%

Post-Neonatal Admissions include inter-hospital transfers and readmissions from home. Definitions and specifications begin on Page 86 of this document.

In-Hospital Perinatal Mortality

Births in British Columbia: April 1, 2010 - March 31, 2015

	Fiscal Year						
	2010/11	2011/12	2012/13	2013/14	2014/15		
In-Hospital Perinatal Mortality	per 1,000	per 1,000	per 1,000	per 1,000	per 1,000		
Crude Stillbirth Rate = Total Stillbirths / (Live Births + Stillbirths)	10.9	10.6	10.2	11.3	12.3		
Stillbirth Rate = Stillbirths >=500g / (Live Births + Stillbirths >=500g)	2.4	2.1	2.0	2.1	2.5		
Early Neonatal Mortality Rate = Early Neonatal Deaths / Live Births	1.9	2.3	1.9	1.8	1.9		
Perinatal Mortality Rate = Perinatal Deaths / (Live Births + Stillbirths >=500g)	4.4	4.3	3.9	3.9	4.5		
Late Neonatal Mortality Rate = Late Neonatal Deaths / Live Births	0.3	0.2	0.3	0.3	0.4		
Total Neonatal Mortality Rate = Total Neonatal Deaths / Live Births	2.2	2.5	2.2	2.1	2.3		
Post-Neonatal Mortality Rate = Post-Neonatal Deaths / Live Births	0.2	0.3	0.3	0.3	NR		
Infant Mortality Rate = Infant Deaths / Live Births	2.4	2.8	2.5	2.4	2.4		

DEFINITIONS:

Crude Stillbirths: Infant born deceased at any birthweight. Includes late pregnancy terminations. **Stillbirths >=500g:** Infant born deceased weighing >=500g. Excludes late pregnancy terminations.

Early Neonatal Deaths: Infant born alive died in hospital between 0 and 6 days after birth.

Perinatal Deaths: Stillbirths >=500g + early neonatal deaths.

Late Neonatal Deaths: Infant born alive died in hospital between 7 and 27 days after birth.

Total Neonatal Deaths: Early neonatal deaths + late neonatal deaths.

Post-Neonatal Deaths: Infant born alive died in hospital between 28 and 364 days after birth.

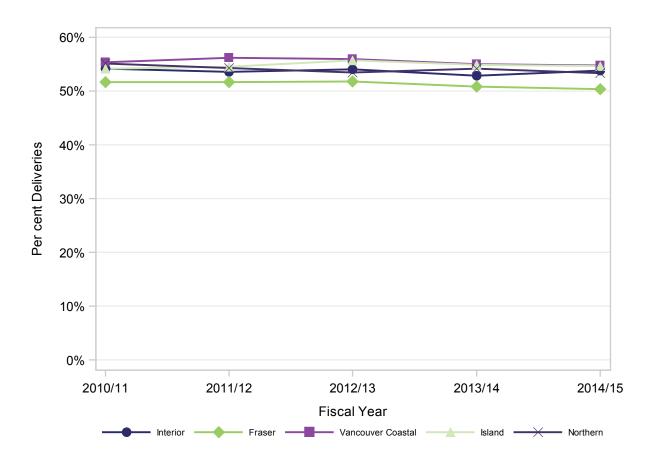
Infant Deaths: Total neonatal death + post-neonatal deaths.

Section 3: Newborn Health.

Perinatal Health Report 2010/11 to 2014/15 Deliveries in British Columbia

Section 4: 'Normal Labour'

Deliveries with 'Normal Labour' by Resident Health AuthorityDeliveries in British Columbia: April 1, 2010 - March 31, 2015



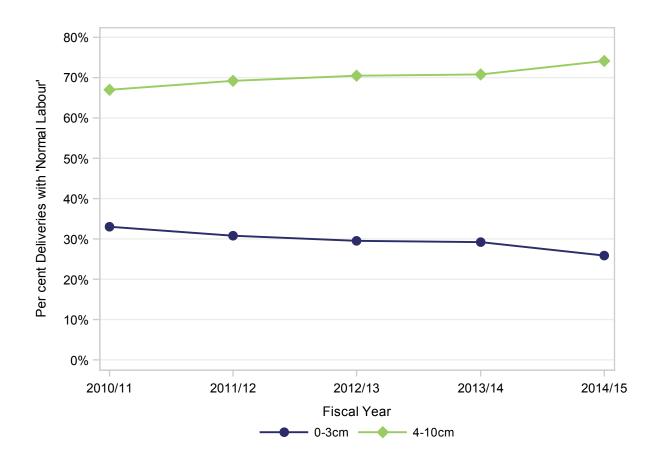
	Fiscal Year									
Health Authority	2010/11	2011/12	2012/13	2013/14	2014/15					
Interior	54.2%	53.6%	54.1%	52.8%	53.8%					
Fraser	51.7%	51.6%	51.8%	50.8%	50.3%					
Vancouver Coastal	55.4%	56.2%	55.9%	55.0%	54.8%					
Island	54.1%	54.6%	55.7%	54.9%	54.6%					
Northern	55.1%	54.3%	53.5%	54.2%	53.3%					

Deliveries with 'Normal Labour' are those where the woman has no history of cesarean delivery and delivers a singleton infant with the head as the presenting part between 37 and 41 estimated weeks' gestation after spontaneous onset of labour.

Cervical Dilation at Admission

Deliveries with 'Normal Labour'

Deliveries in British Columbia: April 1, 2010 - March 31, 2015



	Fiscal Year									
Cervical Dilation at Admission	2010/11	2011/12	2012/13	2013/14	2014/15					
0-3cm	33.0%	30.8%	29.5%	29.3%	25.9%					
4-10cm	67.0%	69.2%	70.5%	70.7%	74.1%					
Missing	19.7%	22.7%	24.9%	25.8%	27.0%					

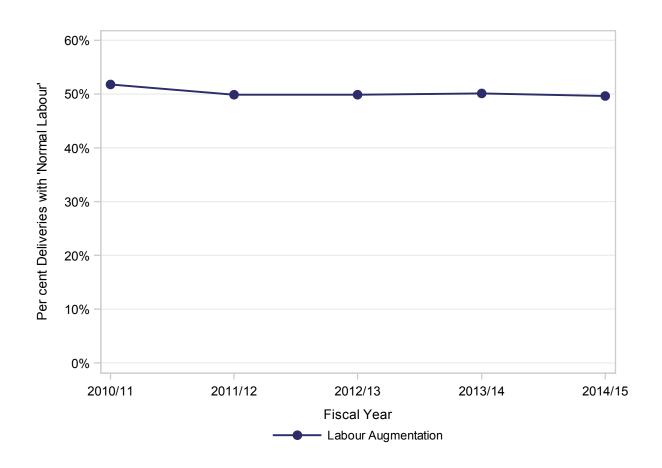
Deliveries with 'Normal Labour' are those where the woman has no history of cesarean delivery and delivers a singleton infant with the head as the presenting part between 37 and 41 estimated weeks' gestation after spontaneous onset of labour.

The proportion of women dilated 0-3 or 4-10cm is based on women with non-missing dilation at admission. Definitions and specifications begin on Page 86 of this document.

Labour Augmentation

Deliveries with 'Normal Labour'

Deliveries in British Columbia: April 1, 2010 - March 31, 2015



Labour Augmentation by Mode of Delivery Deliveries with 'Normal Labour'

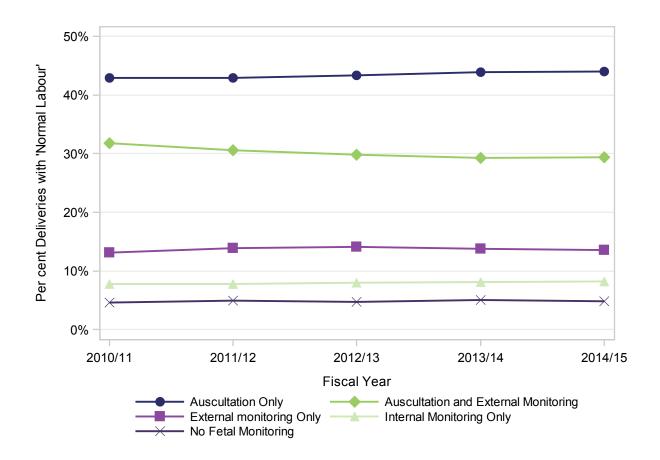
	Fiscal Year									
Mode of Delivery	2010/11	2011/12	2012/13	2013/14	2014/15					
Spontaneous Vaginal	46.5%	44.4%	44.5%	45.0%	44.2%					
Assisted Vaginal	67.8%	67.0%	66.6%	65.3%	65.9%					
Cesarean	70.3%	68.3%	68.0%	68.6%	69.9%					

Deliveries with 'Normal Labour' are those where the woman has no history of cesarean delivery and delivers a singleton infant with the head as the presenting part between 37 and 41 estimated weeks' gestation after spontaneous onset of labour.

Method of Fetal Surveillance During Labour

Deliveries with 'Normal Labour'

Deliveries in British Columbia: April 1, 2010 - March 31, 2015



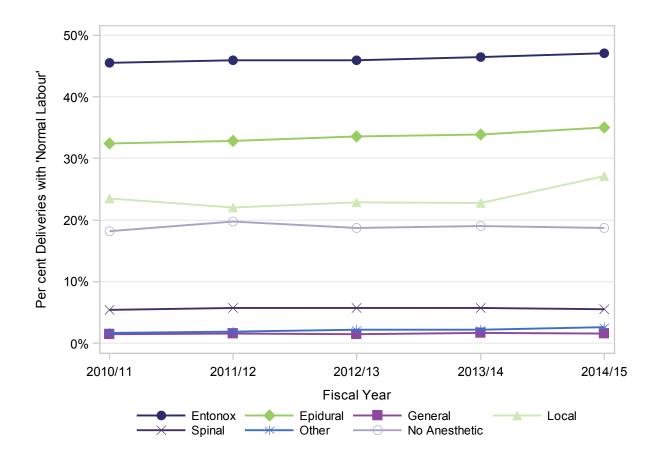
	Fiscal Year									
Method of Fetal Surveillance	2010/11	2011/12	2012/13	2013/14	2014/15					
Auscultation Only	42.9%	42.9%	43.3%	43.8%	44.0%					
Auscultation and External Monitoring	31.7%	30.6%	29.8%	29.3%	29.4%					
External Monitoring Only	13.1%	13.9%	14.1%	13.8%	13.5%					
Internal Monitoring Only	7.7%	7.7%	8.0%	8.0%	8.2%					
No Fetal Monitoring	4.6%	4.9%	4.8%	5.0%	4.9%					

Deliveries with 'Normal Labour' are those where the woman has no history of cesarean delivery and delivers a singleton infant with the head as the presenting part between 37 and 41 estimated weeks' gestation after spontaneous onset of labour.

Anesthesia and Analgesia During Labour and Delivery

Deliveries with 'Normal Labour'

Deliveries in British Columbia: April 1, 2010 - March 31, 2015



			Fiscal Year		
Anesthesia or Analgesia	2010/11	2011/12	2012/13	2013/14	2014/15
Entonox	45.5%	45.9%	45.9%	46.5%	47.1%
Epidural	32.4%	32.9%	33.6%	33.9%	35.0%
General	1.5%	1.6%	1.5%	1.7%	1.6%
Local	23.5%	22.0%	22.9%	22.8%	27.2%
Spinal	5.4%	5.7%	5.7%	5.7%	5.5%
Other	1.7%	1.9%	2.2%	2.2%	2.6%
No Anesthetic	18.2%	19.7%	18.7%	19.1%	18.7%

Deliveries with 'Normal Labour' are those where the woman has no history of cesarean delivery and delivers a singleton infant with the head as the presenting part between 37 and 41 estimated weeks' gestation after spontaneous onset of labour.

Effective March 2014, Island Health began coding local anesthesia administered prior to insertion of the catheter when epidural or spinal anesthesia is administered.

Multiple agents may be used.

Median Length of Labour Stages (Hours) by Mode of Delivery

Deliveries with 'Normal Labour'

Deliveries in British Columbia: April 1, 2010 - March 31, 2015

	First Stage (Hours)						Second	Stage	(Hours)	
Mode of Delivery	10/11	11/12	12/13	13/14	14/15	10/11	11/12	12/13	13/14	14/15
Spontaneous Vaginal	5.1	4.9	4.8	4.7	4.6	0.4	0.4	0.4	0.4	0.4
Assisted Vaginal	8.5	8.4	8.1	8.0	7.9	1.9	1.9	2.0	1.8	2.0
Cesarean	10.3	9.8	10.1	10.3	10.3	3.6	3.7	3.7	3.8	3.8

Median Length of Stay (Hours) in Acute Care for Delivery Episode of Care by Mode of Delivery

Deliveries with 'Normal Labour'

Deliveries in British Columbia: April 1, 2010 - March 31, 2015

	Antepartum LOS (Hours)			P	Postpartum LOS (Hours)				Total LOS (Hours)						
Mode of Delivery	10/11	11/12	12/13	13/14	14/15	10/11	11/12	12/13	13/14	14/15	10/11	11/12	12/13	13/14	14/15
Spontaneous Vaginal	4.0	3.9	3.8	3.8	3.8	32.0	31.8	31.7	30.9	30.9	36.8	36.6	36.4	35.6	35.7
Assisted Vaginal	9.3	9.2	9.3	8.8	9.0	41.9	41.7	43.0	41.9	41.9	52.7	52.9	53.4	52.1	52.7
Cesarean	12.4	11.8	11.8	11.8	11.9	70.7	70.2	69.1	68.1	67.0	83.1	83.3	81.9	81.4	79.7

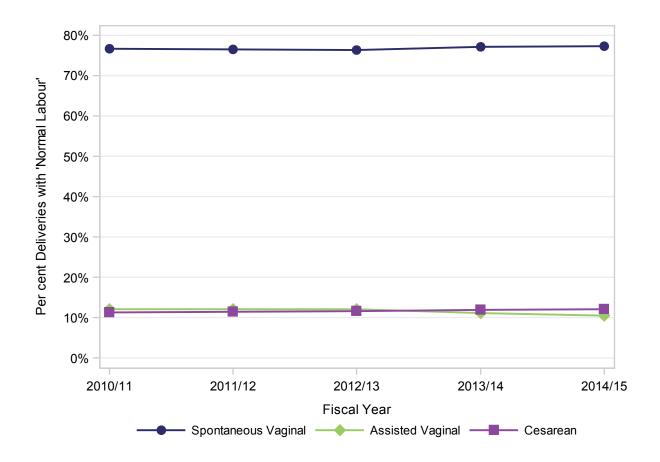
Deliveries with 'Normal Labour' are those where the woman has no history of cesarean delivery and delivers a singleton infant with the head as the presenting part between 37 and 41 estimated weeks' gestation after spontaneous onset of labour.

Deliveries outside acute care facilities are excluded.

Mode of Delivery

Deliveries with 'Normal Labour'

Deliveries in British Columbia: April 1, 2010 - March 31, 2015



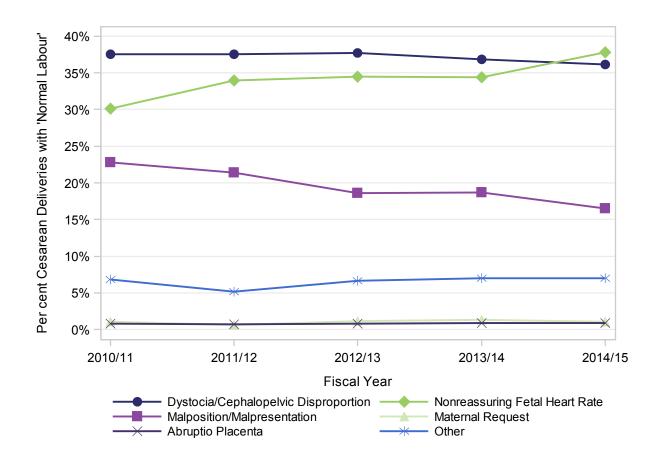
	Fiscal Year								
Mode of Delivery	2010/11	2011/12	2012/13	2013/14	2014/15				
Spontaneous Vaginal	76.6%	76.6%	76.3%	77.1%	77.3%				
Assisted Vaginal	12.1%	12.0%	12.1%	11.1%	10.6%				
Cesarean	11.3%	11.4%	11.5%	11.9%	12.1%				

Deliveries with 'Normal Labour' are those where the woman has no history of cesarean delivery and delivers a singleton infant with the head as the presenting part between 37 and 41 estimated weeks' gestation after spontaneous onset of labour.

Primary Indication for Cesarean Delivery

Deliveries with 'Normal Labour'

Deliveries in British Columbia: April 1, 2010 - March 31, 2015



	Fiscal Year				
Primary Indication for Cesarean Delivery	2010/11	2011/12	2012/13	2013/14	2014/15
Dystocia/Cephalopelvic Disproportion	37.6%	37.6%	37.7%	36.9%	36.1%
Nonreassuring Fetal Heart Rate	30.1%	34.0%	34.5%	34.4%	37.8%
Malposition/Malpresentation	22.8%	21.4%	18.6%	18.7%	16.5%
Maternal Request	1.1%	0.7%	1.2%	1.4%	1.1%
Abruptio Placenta	0.8%	0.7%	0.8%	0.9%	0.9%
Placenta Previa	0.2%	NR	0.3%	0.3%	0.3%
Active Herpes	0.5%	0.3%	0.4%	0.4%	0.2%
Other	6.8%	5.1%	6.6%	7.0%	7.0%

Deliveries with 'Normal Labour' are those where the woman has no history of cesarean delivery and delivers a singleton infant with the head as the presenting part between 37 and 41 estimated weeks' gestation after spontaneous onset of labour.

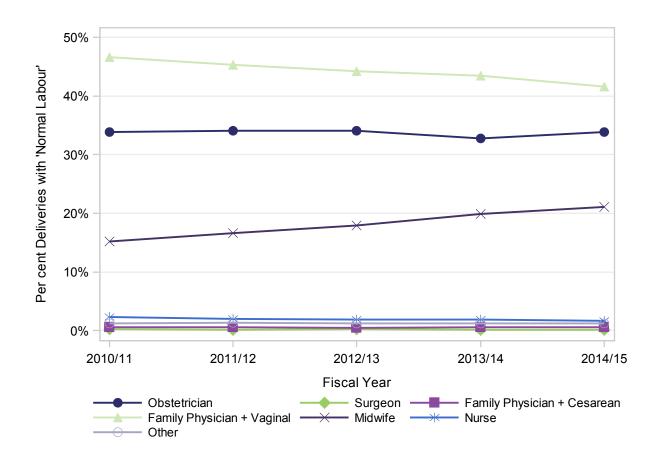
Selected indications are included in the figure; all indications are included in the table.

NR: Rates and per cents based on numerators of 1 to 4 are not reported.

Delivery Provider

Deliveries with 'Normal Labour'

Deliveries in British Columbia: April 1, 2010 - March 31, 2015



	Fiscal Year				
Delivery Provider	2010/11	2011/12	2012/13	2013/14	2014/15
Obstetrician	33.8%	34.1%	34.0%	32.7%	33.8%
Surgeon	0.3%	0.2%	0.2%	0.2%	0.1%
Family Physician + Cesarean	0.6%	0.5%	0.5%	0.6%	0.6%
Family Physician + Vaginal	46.6%	45.3%	44.2%	43.5%	41.5%
Midwife	15.2%	16.6%	17.9%	19.9%	21.1%
Nurse	2.3%	2.0%	1.9%	1.9%	1.6%
Other	1.2%	1.4%	1.2%	1.3%	1.3%

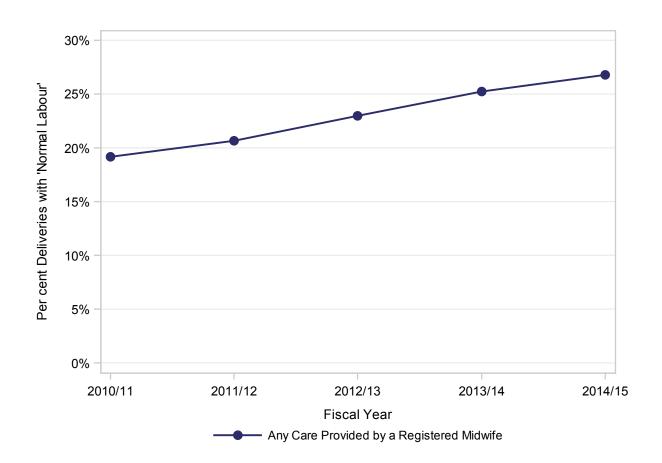
Deliveries with 'Normal Labour' are those where the woman has no history of cesarean delivery and delivers a singleton infant with the head as the presenting part between 37 and 41 estimated weeks' gestation after spontaneous onset of labour.

Describes the training level of the provider who delivered the baby. This may not be the same type of health care professional who provided antenatal care.

Any Care Provided by a Registered Midwife

Deliveries with 'Normal Labour'

Deliveries in British Columbia: April 1, 2010 - March 31, 2015



Any Care Provided by a Registered Midwife by Mode of Delivery Deliveries with 'Normal Labour'

	Fiscal Year				
	2010/11	2011/12	2012/13	2013/14	2014/15
Spontaneous Vaginal	20.9%	22.7%	24.8%	27.3%	29.0%
Assisted Vaginal	12.4%	13.2%	15.7%	16.4%	16.4%
Cesarean	14.6%	15.0%	18.6%	19.7%	21.6%

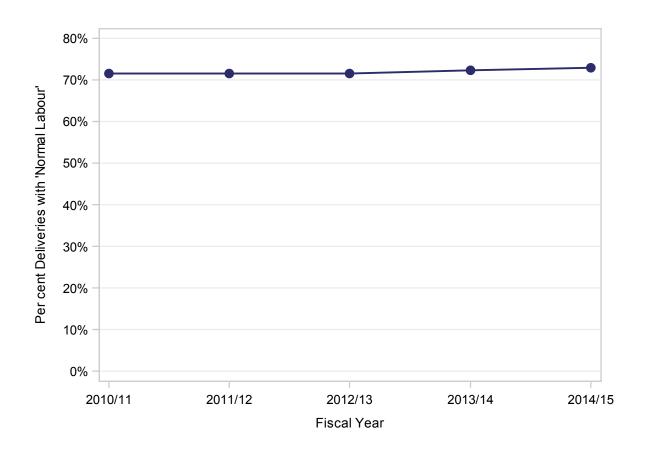
Deliveries with 'Normal Labour' are those where the woman has no history of cesarean delivery and delivers a singleton infant with the head as the presenting part between 37 and 41 estimated weeks' gestation after spontaneous onset of labour.

Indicates if a registered midwife was involved at any point during prenatal care or the delivery episode. May not be the provider who performs the delivery.

Deliveries with 'Normal Childbirth'

Deliveries with 'Normal Labour'

Deliveries in British Columbia: April 1, 2010 - March 31, 2015



	Fiscal Year				
	2010/11	2011/12	2012/13	2013/14	2014/15
'Normal Childbirth'	71.5%	71.5%	71.5%	72.2%	72.8%

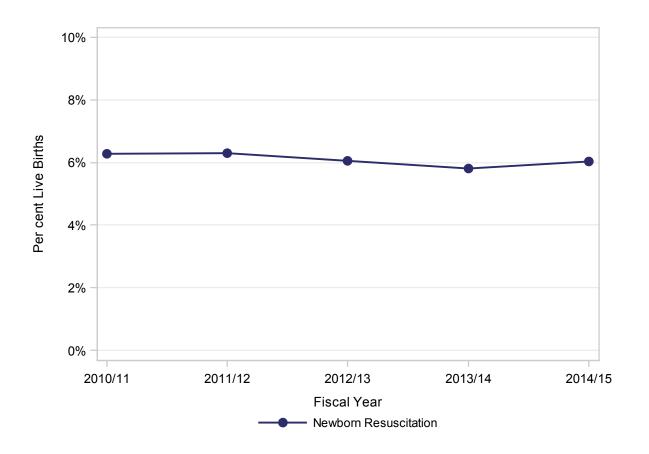
Deliveries with 'Normal Labour' are those where the woman has no history of cesarean delivery and delivers a singleton infant with the head as the presenting part between 37 and 41 estimated weeks' gestation after spontaneous onset of labour.

'Normal Childbirth' excludes the following: spinal anaesthesia, general anaesthesia, vacuum-assisted delivery, forceps-assited delivery, cesarean delivery, or episiotomy.

Newborn Resuscitation

Babies Born from Deliveries with 'Normal Labour'

Deliveries in British Columbia: April 1, 2010 - March 31, 2015



Newborn Resuscitation by Mode of Delivery Babies Born from Deliveries with 'Normal Labour'

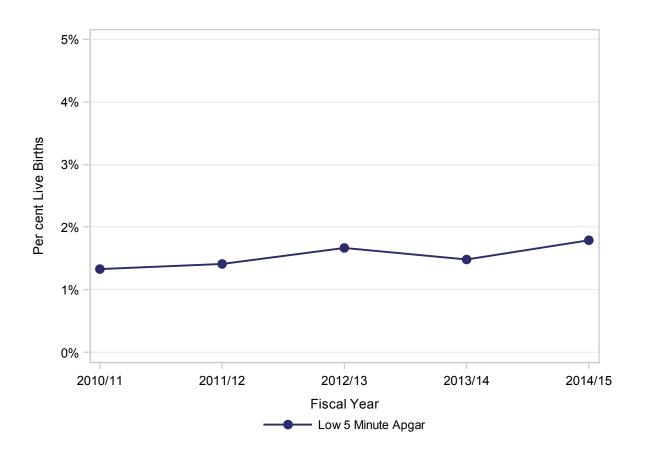
		Fiscal Year			
Mode of Delivery	2010/11	2011/12	2012/13	2013/14	2014/15
Spontaneous Vaginal	5.0%	4.9%	4.4%	4.4%	4.5%
Assisted Vaginal	9.7%	9.0%	10.5%	10.0%	10.4%
Cesarean	11.1%	12.5%	12.6%	11.1%	12.2%

Deliveries with 'Normal Labour' are those where the woman has no history of cesarean delivery and delivers a singleton infant with the head as the presenting part between 37 and 41 estimated weeks' gestation after spontaneous onset of labour.

Low 5 Minute Apgar Score

Babies Born from Deliveries with 'Normal Labour'

Deliveries in British Columbia: April 1, 2010 - March 31, 2015



Low 5 Minute Apgar Score by Mode of Delivery Babies Born from Deliveries with 'Normal Labour'

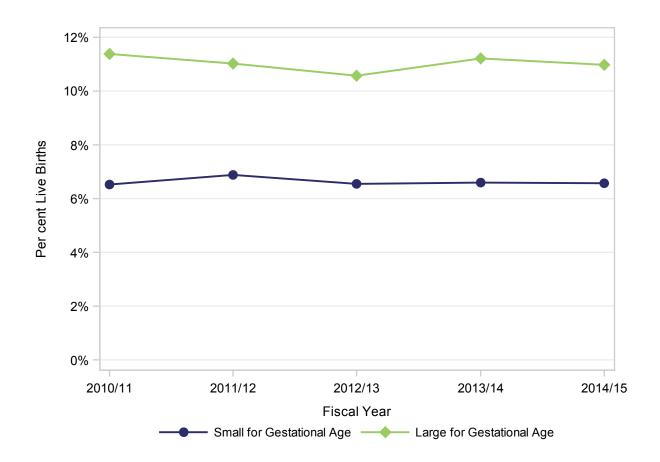
		Fiscal Year			
Mode of Delivery	2010/11	2011/12	2012/13	2013/14	2014/15
Spontaneous Vaginal	1.1%	1.2%	1.3%	1.1%	1.3%
Assisted Vaginal	2.3%	2.1%	2.6%	3.1%	3.2%
Cesarean	2.1%	2.4%	3.1%	2.5%	3.6%

Deliveries with 'Normal Labour' are those where the woman has no history of cesarean delivery and delivers a singleton infant with the head as the presenting part between 37 and 41 estimated weeks' gestation after spontaneous onset of labour.

Weight for Gestational Age

Babies Born from Deliveries with 'Normal Labour'

Deliveries in British Columbia: April 1, 2010 - March 31, 2015



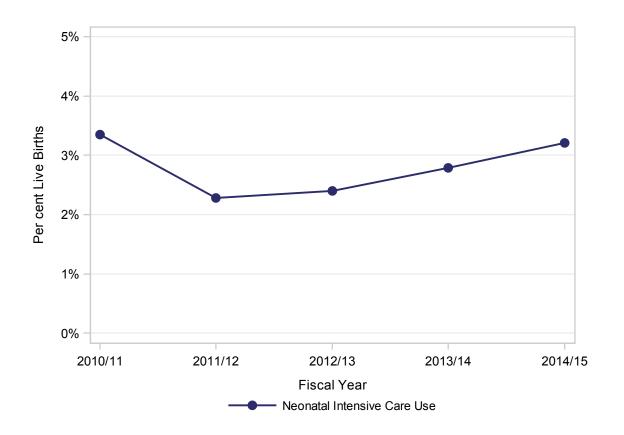
	Fiscal Year				
	2010/11	2011/12	2012/13	2013/14	2014/15
Small for Gestational Age	6.5%	6.9%	6.6%	6.6%	6.6%
Large for Gestational Age	11.4%	11.0%	10.6%	11.2%	11.0%

Deliveries with 'Normal Labour' are those where the woman has no history of cesarean delivery and delivers a singleton infant with the head as the presenting part between 37 and 41 estimated weeks' gestation after spontaneous onset of labour.

Neonatal Intensive Care Use During Birth Episode of Care

Babies Born from Deliveries with 'Normal Labour'

Deliveries in British Columbia: April 1, 2010 - March 31, 2015



Neonatal Intensive Care Use During Birth Episode by Mode of Delivery Babies Born from Deliveries with 'Normal Labour'

		Fiscal Year			
Mode of Delivery	2010/11	2011/12	2012/13	2013/14	2014/15
Spontaneous Vaginal	2.4%	1.6%	1.6%	1.8%	2.1%
Assisted Vaginal	5.2%	3.7%	4.1%	5.3%	6.0%
Cesarean	8.0%	5.5%	5.9%	6.5%	7.8%

Deliveries with 'Normal Labour' are those where the woman has no history of cesarean delivery and delivers a singleton infant with the head as the presenting part between 37 and 41 estimated weeks' gestation after spontaneous onset of labour.

NICU days are assigned based on baby's needs as defined by PSBC Neonatal Daily Classification Tool. Click here to access resources on the Neonatal Daily Classification Tool.

Definitions

Section 1: Maternal Health

Delivery Within Home Health Authority

- Woman delivered in the Health Authority in which she lives.
 - Deliveries at home with a registered midwife are always considered within the home Health Authority.
 - Residents of Vancouver Coastal who deliver at BC Women's Hospital & Health Centre deliver within their home Health Authority.

Parity

 Indicates whether a woman delivered a previous pregnancy ≥20 weeks gestation or ≥500g. For nulliparous women, this is the first pregnancy meeting these criteria. Parous women have had at least one previous pregnancy meeting these criteria.

Maternal Age at Delivery

Maternal age, in completed years, at delivery.

Antenatal Care Visits

- <u>Low Antenatal Care</u> Women with fewer than five antenatal care visits documented in the PDR.
- <u>Missing</u> Women with no information documented about the number of antenatal care visits.

Pre-Pregnancy Body Mass Index (BMI)

Calculated only where pre-pregnancy weight and height are complete.

- Pre-pregnancy weight (kg)/(height (in cm))²
- Underweight BMI <18.5.
- Normal Weight BMI between 18.5 and 24.9.
- Overweight BMI between 25.0 and 29.9.
- Obese BMI ≥ 30.0.
- <u>BMI Missing</u> pre-pregnancy weight and/or height are not documented.

Appropriate Weight Gain During Pregnancy

Calculated only where pre-pregnancy weight, admission weight, and height are complete.

 Categorizes weight gain during pregnancy into low, appropriate, or high according to quidelines published by the Institute of Medicine.

Hypertensive Disorders of Pregnancy

Reflects only the most severe form of hypertension according to the hierarchy below. Women may have more than one type of hypertension diagnosed.

- 1. <u>Eclampsia</u> mother had eclampsia diagnosed during pregnancy. Mother may have had pre-existing or gestational hypertension.
- 2. <u>HELLP</u> mother had HELLP syndrome (<u>H</u>emolysis, <u>E</u>levated <u>L</u>iver enzymes, and <u>L</u>ow <u>P</u>latelet count) diagnosed during pregnancy.
- 3. <u>Pre-Existing Hypertension with Pre-Eclampsia</u> mother had a documented hypertensive disorder before pregnancy and also had pre-eclampsia diagnosed in pregnancy.

- 4. <u>Pre-Eclampsia</u> mother had pre-eclampsia diagnosed during pregnancy. Mother may also have had gestational hypertension.
- 5. <u>Pre-Existing Hypertension</u> mother had a documented hypertensive disorder before pregnancy. Mother may also have had gestational hypertension.
- 6. Gestational Hypertension mother had hypertension diagnosed during pregnancy.
- 7. Unspecified Hypertension mother had hypertension diagnosed during pregnancy, but the specific type is not recorded.
- 8. No Hypertension no hypertensive conditions were documented by a care provider.
 - NOTE: diagnosis codes for gestational hypertension and pre-eclampsia changed significantly effective April 1, 2012 discharges.

Diabetes Mellitus in Pregnancy

- <u>Pre-Existing Diabetes</u> mother had a diagnosis of diabetes mellitus type 1 or 2 documented by care provider before pregnancy.
- <u>Gestational Diabetes</u> mother had gestational diabetes documented by care provider during pregnancy.
 - NOTE: British Columbia adopted the International Association of Diabetes and Pregnancy Study Group's <u>guidelines</u> for diagnosis of gestational diabetes in October 2010.

Substance Use During Pregnancy

- <u>Cigarette Use</u> care provider documented mother reports smoking cigarettes at any time during the pregnancy. Includes women who stopped or reduced smoking during pregnancy.
- <u>Alcohol as Risk</u> care provider documents alcohol as a risk in the pregnancy. Alcohol use prior to the woman knowing she was pregnant is not included.
- <u>Binge Drinking</u> care provider documents mother consumed ≥ 4 alcoholic drinks at one time during the current pregnancy.
- Other Drug Use care provider documented that mother reports use of drugs (heroin/opiates, methadone, cannabinoids, stimulants, or solvents) at any time during the pregnancy OR care provider lists use of prescription, 'other,' or unknown other drug as a risk to the pregnancy. Drug use prior to the woman knowing she was pregnant may be included.

Maternal Screening Tests

- Hepatitis B Test Done mother was screened for the Hepatitis B virus (Hepatitis B surface antigen, or HBsAg) during pregnancy.
- <u>HIV Test Done</u> mother was screened for the Human Immunodeficiency Virus (HIV) during pregnancy.
- <u>Maternal Serum Screening Offered</u> mother was offered blood test(s) to screen for fetal abnormalities (extra chromosomes or neural tube defects). Refers to screening offered through the <u>BC Prenatal Genetic Screening Program</u> and to privately paid screening tests.

Prenatal Genetic Screening Program Uptake

- Indicates whether the woman had sufficient biological markers tested to complete screening for at least one of the following conditions: open neural tube defect, trisomy, 18, or trisomy 21.
- Includes women with any of the following combinations of samples on prenatal genetic screening or diagnostic tests: Integrated Prenatal Screen (IPS), Serum Integrated

Prenatal Screen (SIPS), Quad screen (QUAD), nuchal translucency (NT) ultrasound plus QUAD, NT plus pregnancy-associated plasma protein A (PAPP-A), NT ultrasound, Alpha-fetoprotein (AFP), amniocentesis, or chorionic villus sampling during pregnancy as offered by the BC Prenatal Genetic Screening Program.

Women who exclusively undergo privately paid screening tests are not included.

Use of Artificial Reproductive Technology

 Use of in vitro fertilization or other artificial reproductive technology (e.g. ovulation induction, intracytoplasmic sperm injection [ICSI], embryo transfer) to conceive the current pregnancy.

Section 2: Labour and Delivery

Labour Augmentation

Labour for the current delivery was augmented by a care provider. Any of the following methods may be used:

- Artificial Rupture of Membranes
- Oxytocin woman received oxytocin, pitocin, or syntocinon to augment labour.
- Other a method not specified above was used to augment labour.

Labour Induction

Labour for the current delivery was induced by a care provider. Any of the following methods may be used:

- Artificial Rupture of Membranes
- Oxytocin woman received oxytocin, pitocin, or syntocinon to initiate labour.
- Prostaglandin woman received a prostaglandin to initiate labour.
- Other a method not specified above was used to initiate labour.

Primary Indication for Labour Induction

Primary reason noted in the maternal chart for labour induction. In the case of multiples, the reason noted for the first baby is assigned to the entire delivery.

- <u>Prelabour Rupture of Membranes</u> rupture of membranes before the onset of uterine contractions at term.
- <u>Post Dates</u> the pregnancy has continued past the due date (41 completed weeks gestation).
- <u>Hypertension in Pregnancy</u> woman had high blood pressure, including pre-existing or gestational hypertension.
- Other Maternal Condition woman had a condition other than those specified above.
- Fetal Compromise medical concern about the health of the fetus.
- Diabetes woman had diabetes of any type (gestational, type 1, or type 2).
- Fetal Demise
- Logistics inability for woman to access supportive health care in reasonable time.
- Antepartum Hemorrhage woman had bleeding after 20 weeks' gestation but before labour.
- Chorioamnionitis woman had a cervicovaginal infection.
- Other other reason not captured above.
- Unknown reason for induction is unclear, unknown, or not documented.

Fetal Surveillance During Labour

- Auscultation Only fetal surveillance was conducted only using intermittent auscultation.
- <u>Auscultation and External Electronic Monitoring</u> fetal surveillance was conducted using intermittent auscultation and external electronic fetal monitoring.
- External Electronic Monitoring Only fetal surveillance was conducted only using external electronic fetal monitoring.
- <u>Internal Electronic Monitoring Only</u> fetal surveillance was conducted only using internal electronic fetal monitoring.
- No Fetal Monitoring no fetal monitoring was conducted during labour.

Mode of Delivery

- <u>Vaginal</u>
 - Spontaneous the baby was delivered vaginally without assistance of vacuum or forceps extractors.
 - Assisted Vaginal the newborn was delivered vaginally with the assistance of vacuum and/or forceps extraction.
 - <u>Vacuum</u> the baby was delivered vaginally with the assistance of a vacuum extractor.
 - <u>Forceps</u> the baby was delivered vaginally with the assistance of forceps.
 - Forceps and Vacuum the baby was delivered vaginally with the assistance of vacuum and forceps extractors.
- Cesarean the baby was delivered by an incision in the mother's abdomen.
 - <u>Elective Primary</u> woman without a previous cesarean had a cesarean delivery with elective timing.
 - <u>Elective Repeat</u> woman with a history of cesarean delivery had a cesarean delivery with elective timing.
 - Emergency Primary woman without a previous cesarean needed a cesarean delivery with urgent or emergent timing.
 - Emergency Repeat woman with a history of cesarean delivery needed a cesarean delivery with urgent or emergent timing.

Perineal Trauma

- <u>Third or Fourth Degree Laceration</u> the woman experienced a significant perineal tear during delivery.
- Cervical Tear the woman experienced a cervical tear during delivery.
- Episiotomy an episiotomy was performed during delivery.

Primary Indication for Cesarean Delivery

Primary reason noted in the maternal chart for cesarean delivery. For multifetal pregnancies, this reflects the reason the first baby was delivered by cesarean. This may not be the first baby delivered (e.g. if the first baby was delivered vaginally and the second baby by cesarean).

- Repeat Cesarean woman with a history of cesarean is not a VBAC candidate and has a medical indication for repeat cesarean delivery.
- <u>Nonreassuring Fetal Heart Rate</u> increased or decreased fetal heart rate (tachycardia or bradycardia), especially during and after uterine contractions.
- <u>Dystocia/Cephalopelvic Disproportion</u> abnormal of difficult labour. Includes failure to progress, incoordinate uterine activity, and cephalopelvic disproportion (large baby for maternal pelvis).

- <u>VBAC Declined/Maternal Request</u> woman was eligible for a vaginal birth after previous cesarean (VBAC) but declines, OR woman with or without a previous cesarean requests a cesarean delivery.
- <u>Breech</u> the fetus' buttocks were the presenting part.
- <u>Malposition/Malpresentation</u> the orientation of the fetal head and or body to the maternal pelvis is not favourable for a vaginal delivery (e.g. occipitoposterior position or transverse lie). Excludes breech presentation.
- <u>Placenta Previa</u> the placenta is low in the uterus, partially or completely covering the cervix.
- Abruptio Placenta premature separation of the placenta from the uterus.
- <u>Active Herpes</u> mother had an active herpes outbreak that could be transmitted to the infant during vaginal delivery.
- Other other reason not captured.
- <u>Unknown</u> reason for cesarean is unclear, unknown, or not documented.

Vaginal Birth after Cesarean

- <u>VBAC Eligible</u> woman was either noted by a care provider as being eligible for VBAC
 in this pregnancy, OR whose eligibility was unknown and had a singleton pregnancy with
 the head as the presenting part.
- <u>VBAC Attempted</u> women was were either noted by a care provider as having attempted a VBAC, OR whose attempt at VBAC was unknown but whose labour was either augmented or induced.
- <u>VBAC Success</u> women who were eligible for and attempted a VBAC and delivered vaginally.

Anesthetic/Analgesic Use During Labour and Delivery

- Entonox the mother received entonox (nitrous oxide gas) for pain management.
- <u>Epidural</u> the mother received anesthesia in the epidural space of the spine for pain management.
- General the mother received general anesthesia for pain management.
- <u>Local</u> the mother received localized anesthetic agents for pain management.
- <u>Spinal</u> the mother received anesthesia in the subarachnoid space of the spine for pain management.
- Other mother received another type of anesthetic or analgesic agent including pudendal anesthesia not specified above.
- No Anesthetic no analgesic or anesthetic agents were used for pain management.

Health Care Providers

- <u>Delivery Provider</u> describes the training level of the individual who delivered the baby. May not be the same type of care provider as a woman used for her antenatal care. In the case of multifetal pregnancies, the highest training level of any delivering provider is assigned to the delivery.
 - o <u>Family Physician + Vaginal</u> a family physician performed a vaginal delivery.
 - <u>Family Physician + Cesarean</u> a family physician performed a cesarean delivery.
- Any Care Provided by a Registered Midwife a registered midwife was involved at any
 point in maternal or newborn care. A registered midwife may not have been the delivery
 provider.

Deliveries at Home

• Woman delivered at home under the care of a registered midwife

Length of Stay for Delivery Episode of Care

- <u>Antepartum Length of Stay</u> hours between when a woman is admitted to an acute care facility and when she delivers a baby.
- <u>Postpartum Length of Stay</u> hours between when a woman delivers a baby in an acute care facility and her discharge from the Delivery Episode of Care.
- <u>Total Length of Stay</u> hours between when a woman is admitted to an acute care facility for delivery and her discharge from the Delivery Episode of Care.

Maternal Morbidity

Morbidity may be documented during any Maternal Admission.

- <u>Liver Complications</u> mother had confirmed or suspected cholestatis, acute fatty liver, or liver hematoma.
- <u>Postpartum Hemorrhage with Transfusion</u> mother had a postpartum bleed and received blood products via transfusion.
- Urinary Tract Infection
- Sepsis mother had confirmed or suspected sepsis, including puerperal sepsis.
- Wound Infection mother had confirmed or suspected infection or disruption of an obstetric or surgical wound.
- <u>HELLP</u> mother had confirmed or suspected HELLP syndrome (Hemolysis, Elevated Liver enzymes, and Low Platelet count).
- Anesthetic Complications mother had a confirmed or suspected complication related to the anesthetic administered during the delivery episode. Spinal or epidural headache and unspecified complications are excluded.
- Antepartum Hemorrhage with Transfusion mother had an antepartum (≥20 weeks' gestation) or intrapartum bleed and received blood products via transfusion during the delivery episode.
- Eclampsia mother had confirmed or suspected eclampsia.
- Shock mother had confirmed or suspected obstetric shock.
- Pulmonary Embolism mother had a confirmed or suspected blood clot in the lungs.
- <u>Postpartum Hemorrhage with Hysterectomy</u> mother had a postpartum bleed and underwent a complete or subtotal (partial) hysterectomy.
- <u>Stroke</u> mother had a confirmed or suspected stroke.

Adverse Outcome of Labour or Delivery

Maternal adverse events are included during the Delivery Admission. Among singleton deliveries.

- <u>Maternal Severe Adverse Event</u> woman experienced uterine rupture during labour, assisted ventilation or resuscitation, or in-hospital death.
- <u>Maternal Moderate Adverse Event</u> woman experienced third or fourth degree perineal tear; blood transfusion; or unanticipated operative procedure
- Newborn Severe Adverse Event singleton baby was stillborn or died in-hospital
- Newborn Moderate Adverse Event
 - Singleton baby ≥2,000 grams at birth experienced birth trauma, OR
 - Singleton baby at term ≥2,500 grams at birth without a congenital anomaly or hydrops was born at a facility without a NICU and transferred to a facility with a

NICU within 24 hours, admitted to NICU ≥ 2 days, or had an Apgar at 5 minutes <7.

Maternal Transfer to Another Hospital

- Women may be transferred to another hospital for either maternal or neonatal indicatons.
 - NOTE: Effective April 1, 2014, women transferred directly to acute care from a delivery at home may be included in these transfer indicators. See page vi for more information.
- <u>Any Transfer</u> woman was transferred from the Delivery Admission to a(n) (different) acute care facility.
- <u>Higher Level</u> woman was transferred directly from the location at which she delivered to a facility that is capable of providing a higher intensity of care.
 - Third tier facilities BC Women's Hospital & Health Centre, St. Paul's Hospital Royal Columbian Hospital, and Victoria General Hospital.
 - Second tier facilities Surrey Memorial Hospital (effective April 1, 2013 discharges), Kelowna General Hospital, Nanaimo Regional General Hospital, Royal Inland Hospital, and University Hospital of Northern British Columbia.

Post-Delivery Admissions

- Total number of eligible inter-hospital transfers or readmissions among women who
 delivered a baby. A woman can have more than one Post-Delivery Admission. Ratio of
 Post-Delivery Admissions per 100 deliveries.
 - Admissions with a most responsible diagnosis of Z76.3 (Healthy person accompanying sick person) are excluded.
- <u>Diagnosis associated with Post-Delivery Admission</u> the diagnosis that accounted for the majority of time the woman stayed in hospital. May not be the reason for admission. Per 100 Post-Delivery Admissions.
 - The following account for 80 per cent of diagnoses associated with Post-Delivery Admissions for 2010/11 to 2014/15, inclusive:
 - Routine Postpartum Care —care and examination immediately after delivery or routine postpartum follow-up, including change or removal of drains and planned wound closure.
 - <u>Postpartum Infection</u> includes sepsis, obstetric wound infection, urinary tract infection, or post-procedural infection.
 - Postpartum Hemorrhage
 - Other Diseases Complicating Pregnancy Diseases of organ systems that complicate or are aggravated by pregnancy.
 - Other Wound Issues includes care of perineal or vaginal tears, uterine rupture or dehiscence, disruption or hematoma of surgical wound, or cardiac surgical complications.
 - Hypertension or Eclampsia includes essential hypertension, gestational hypertension, pre-eclampsia, eclampsia, or HELLP.
 - Retained Placenta Without Hemorrhage
 - <u>Care of Breasts</u> includes breast infection, lactation problems, or supervision of lactation mother.
 - <u>Complications of Anesthesia</u> reactions to or complications of anesthesia.
 - <u>Pregnancy-Associated Mental Health</u> includes postpartum depression and puerperal psychosis.

Section 3: Newborn Health

Birth Type

Defined in accordance with BC Vital Stats.

- <u>Live Birth</u> baby displayed signs of life (breating, heart beat, pulsation of umbilical cord, or movement of voluntary muscle) at birth.
- <u>Stillbirth</u> baby born at ≥20 weeks' estimated gestation or ≥500 grams birthweight does not display any of the above signs. Fetal death may have occurred <20 weeks' gestation.

Multiple Gestation

• There was more than one fetus in the pregnancy (twin, triplet, or quadruplet).

Gestational Age

- Term baby was delivered at or after 37 completed weeks' estimated gestation.
- Preterm baby was delivered before 37 completed weeks' estimated gestation.
 - <u>latrogenic Preterm</u> baby was delivered following induced labour or by cesarean delivery without labour, before 37 completed weeks' estimated gestation.
 - Spontaneous Preterm baby was delivered following onset of spontaneous labour before 37 completed weeks' estimated gestation.

Weight for Gestational Age

- <u>Small for Gestational Age</u> babies born weighing less than the 10th percentile of weight for their sex and gestational age. Based on BC-specific growth curves available <u>here</u>.
- <u>Large for Gestational Age</u> babies born weighing more than the 90th percentile of weight for their sex and gestational age. Based on BC-specific growth curves available <u>here</u>.

Low Birthweight Singletons

• <u>Singleton</u> babies born weighing less than 2,500 grams. Includes both preterm and term babies.

Newborn Resuscitation

- Baby received resuscitation by intermittent positive pressure, chest compressions, or drugs. Captures interventions up to 60 minutes of age or until admission to neonatal intensive care, whichever came first.
 - o NOTE: Drugs may be given for either resuscitation or stabilization.

Birth Injury

 Baby sustained a confirmed or suspected injury to the skeleton, organs, or nerves during birth.

Neonatal Morbidity

Morbidity may be documented during any Baby Admission.

- Other Respiratory Condition baby had a confirmed or suspected respiratory condition (other than respiratory distress syndrome or transient tachypnea).
- Transient Tachypnea baby had confirmed or suspected transient tachypnea.
- <u>Respiratory Distress Syndrome</u> baby had confirmed or suspected respiratory distress syndrome.
- Sepsis baby had confirmed or suspected sepsis.

• Intracranial Hemorrhage – baby had a confirmed or suspected brain bleed.

Congenital Anomalies

Anomaly may be diagnosed during any Baby Admission.

- Baby has a confirmed or suspected congenital anomaly noted by a care provider.
 - <u>Chromosomal</u> includes Trisomy 13, 18, and 21; sex chromosome abnormalities (i.e. Turner's syndrome, Kleinfelter's syndrome); and other monosomies, deletions, and chromosomal reattangements.
 - <u>Circulatory System</u> includes malformations of the heart chambers, septa, valves, veins and arteries.
 - o Cleft Lip or Palate
 - <u>Digestive System</u> includes malformation of the tongue, mouth, pharynx, esophagus, stomach, intestines, liver, gallbladder, bild ducts, and pancreas.
 - Eye, Ear, Face, or Neck includes malformations of the eye and its structures, tear ducts, internal and external ear, neck, and lips.
 - Genital Organs includes malformations of male or female genitals, and indeterminate sex or hermaphroditism.
 - Musculoskeletal System includes malformations of hip, feet, fingers, limbs, skull, spine, diaphragmatic hernia, and other malformations of the abdominal wall (including gastroschisis).
 - <u>Nervous System</u> includes anencephaly, microcephaly, hydrocephalus, spina bifida, and other malformations of the brain and spinal cord.
 - Respiratory System includes malformation of the nose, larynx, trachea, bronchus, and lung.
 - <u>Urinary System</u> includes malformation of the kidneys, bladder, and ureter.
 - Other Specific Anomaly includes disorders of the skin, breast, hair, nails, syndromes affecting multiple systems, malformations due to outside causes (including alcohol and drugs), and all malformations not otherwise classified.
 - Trisomy 18 (Edwards' syndrome)
 - Trisomy 21 (Down Syndrome)
 - o Open Neural Tube Defect includes anencephaly and spina bifida

Length of Stay for the Birth Episode of Care

• Hours between a baby's birth at an acute care facility and his/her discharge from the Birth Episode of Care.

Breastfeeding

Reflects feeding during the Birth Admission only, including at time of discharge.

- <u>Exclusive Breastfeeding</u> baby received only breast milk (via the breast, a bottle, or other feeding method).
- No Breastfeeding baby received only breast milk substitute.
- Non-Exclusive Breastfeeding baby received both breast milk and breast milk substitute.
- Any Breastfeeding baby received breast milk (via the breast, a bottle, or other feeding method) at any time during the Birth Admission. Baby may also have received breast milk substitute.

Neonatal Intensive Care Use During Birth Episode of Care

- During the Birth Episode of Care, baby required Level 2a, 2b, 3a, OR 3b care (as defined by the PSBC Neonatal Daily Classification Tool) for at least one day.
 - Length of stay in days is calculated as (discharge date admission date). If admission and discharge are on the same date, length of stay is one day.
 - Click here to access resources on the PSBC Neonatal Daily Classification Tool.

Transfer to Another Hospital

- Babies may be transferred to another hospital for either maternal or neonatal indicatons.
 - NOTE: Effective April 1, 2014, babies transferred directly to acute care from a birth at home may be included in these transfer indicators. See page vii for more information.
- Any Transfer baby was transferred from the Birth Admission to a different acute care facility.
- <u>Higher Level</u> baby was transferred directly from the facility of birth to a facility that is capable of providing a higher intensity of care. Baby was transferred from any site without a neonatal intensive care unit (NICU) to one with a NICU, or from a site with a Level II NICU to a site with a Level III NICU.
 - <u>Facilities with a Level III NICU</u> BC Women's Hospital & Health Centre, Royal Columbian Hospital, Surrey Memorial Hospital, and Victoria General Hospital.
 - <u>Facilities with a Level II NICU</u> Abbotsford Regional Hospital & Cancer Centre, Burnaby Hospital, Kelowna General Hospital, Lions Gate Hospital, Nanaimo Regional General Hospital, Richmond Hospital, Royal Inland Hospital, St. Paul's Hospital, and University Hospital of Northern British Columbia.
- <u>Same or Lower Level</u> baby was transferred directly from the facility of birth to a facility that provides a similar or lower intensity of care.

Post-Neonatal Admissions

- <u>Post-Neonatal Admission</u> total number of baby transfer or readmission episodes. A
 baby can have more than one Post-Neonatal Admission. Ratio of Post-Neonatal
 Admissions per 100 live births.
 - Admissions with a most responsible diagnosis of Health supervision and care of other healthy infant and child, Healthy person accompanying sick person, or Other boarder in health-care facility (Z76.2, Z76.4, or Z76.4) are excluded.
- <u>Diagnosis Associated with Post-Neonatal Admission</u> the diagnosis that accounted for the majority of time the baby stayed in hospital. May not be the reason for admission. Per 100 Post-Neonatal Admissions.
 - The following account for 80 per cent of diagnoses associated with Post-Neonatal Admissions for 2010/11 to 2014/15, inclusive:
 - Jaundice
 - Low Birth Weight or Preterm Birth
 - <u>Congenital Anomalies</u> includes all congenital malformations, deformations, and chromosomal abnormalities.
 - <u>Feeding Problems</u> includes reflux, feeding difficulties, abnormal weight loss, and dehydration.
 - Respiratory Infections includes whooping cough, pneumonias, and upper and lower respiratory tract infections.
 - Respiratory Distress
 - Other Infections major inclusions are bacterial and viral infections, sepsis, external and middle ear infections, select abscesses, impetigo,

cellulitis, osteomyelitis, congenital infections, and post-procedural infection.

- Apnea obstructed sleep apnea or apnea of the newborn.
- Urinary Tract Infections
- Isoimmunization

Perinatal Mortality

Death occurred during any Baby Admission. Includes only deaths that occurred at an acute care facility. Complete pregnancy terminations are included only in the Crude Stillbirth Rate.

- <u>Crude Stillbirths</u> baby was born deceased.
 - o Crude Stillbirth Rate = stillbirths / (live births + stillbirths) x 1,000.
- <u>Stillbirths >=500g</u> baby weighing ≥500g was born deceased.
 - o Stillbirth Rate = stillbirths ≥500g / (live births + stillbirths ≥500g) x 1,000.
- Early Neonatal Death baby born alive died in hospital between 0 and 6 days after birth.
 - Early Neonatal Mortality Rate = early neonatal death / live births x 1,000.
- <u>Perinatal Death</u> stillbirth ≥500g OR baby born alive died in hospital between 0 and 6 days after birth.
 - Perinatal Mortality Rate = (stillbirths ≥500g + early neonatal deaths) / (live births + stillbirths ≥500g) x 1,000.
- <u>Late Neonatal Death</u> baby born alive died in hospital between 7 and 27 days after birth
 - Late Neonatal Mortality Rate = late neonatal death / live births x 1,000.
- Post Neonatal Death baby born alive died in hospital between 28 and 364 days after birth.
 - Post Neonatal Mortality Rate = post neonatal death / live births x 1,000.
- Infant Death baby born alive died in hospital before 365 days after birth.
 - Infant Mortality Rate = (early neonatal + late neonatal + post-neonatal deaths) / live births x 1.000.

Section 4: 'Normal Labour'

Women with 'Normal Labour' are identified in accordance with the <u>Joint Policy Statement on Normal Childbirth</u>. Women with 'Normal Labour' deliver a singleton infant with the head as the presenting part between 37 and 41 estimated weeks' gestation after spontaneous onset of labour. Women with 'Normal Labour' do not have a history of cesarean delivery.

Cervical Dilation at Admission

 Dilation, in centimetres, of the cervix at the time the woman was admitted to acute care for delivery.

Duration of Labour Stages

- <u>Length of First Stage of Labour</u> hours between the onset of regular contractions and complete cervical dilation (10cm).
- <u>Length of Second Stage of Labour</u> hours between complete cervical dilation and the delivery of the baby.

'Normal Childbirth'

• According to the <u>Joint Policy Statement on Normal Childbirth</u>, 'Normal Childbirth' excludes the following: spinal anesthesia, general anesthesia, vacuum-assisted delivery, forceps-assited delivery, cesarean delivery, or episiotomy.

Low 5 Minute Apgar Score

• Babies whose Apgar score – a composite of five criteria that assesses an infant's need for medical attention – is below 7 out of 10 at five minutes after birth.

Episodes Included in the Perinatal Health Report This report is based on delivery admissions meeting the following minimum criteria:

Delivery Admission

Include:	
Delivery	MOTHER_ADMISSION.screen_source = "DL" AND
·	April 1, 2010 ≤ discharge_date ≤ March 31, 2015
Linked maternal-newborn records	BABY_ADMISSION.screen_source = "NB" AND BABY_ADMISSION.mother_id is not null
Exclude from all but Crude Stillbirth	
Rate:	
Complete termination of pregnancy	(DIAGNOSES.diagnosis_cd begins with O04 (Mother) or
	(PROCEDURES_PERFORMED.procedure_code begins with 5CA88 OR 5CA89
	(Mother) and woman delivered a singleton pregnancy))
	OR
	DIAGNOSES.diagnosis_cd begins with P96.4 (Baby) for all babies linked to mother

Other Maternal Admissions

Admission t	ype	Criteria
Maternal Adn	<u>nission</u>	MOTHER_ADMISSION.screen_source = "DL" or "PP"
		For any woman whose Delivery Admission meets the inclusion criteria, above.
Post-Delivery	<u>Admission</u>	MOTHER_ADMISSION.screen_source = "PP" or (MOTHER_ADMISSION.screen_source =
		"DL" and actual_place_of_delivery=2)
		AND
		most responsible diagnosis is not Z76.3
		Thost responsible diagnosis is not 27 0.0
		For any woman whose Delivery Admission meets the inclusion criteria, above.
Delivery	Episode start	MOTHER_ADMISSION.screen_source = "DL" and April 1, 2010 ≤ discharge_date ≤ March
Episode of	Epicodo otare	31, 2015
<u>Care</u>	Include all admissions	MOTHER_ADMISSION.screen_source = "PP" and 101 ≤ institution_to <973
	linked to the delivery where:	
	Episode end	(MOTHER_ADMISSION.screen_source = "DL" or "PP") and institution_to <101
		For any woman whose Delivery Admission meets the inclusion criteria, above.

Baby Admissions

Admission t	ype	Criteria
Birth Admiss	<u>ion</u>	BABY_ADMISSION.screen_source = "NB"
		For any baby linked to a woman whose Delivery Admission meets the inclusion criteria, above.
Newborn Adr	<u>mission</u>	BABY_ADMISSION.screen_source = "NB" or "XF"
		For any baby linked to a mother whose Delivery Admission meets the inclusion criteria, above.
Post-Neonata	al Admission	(BABY_ADMISSION.screen_source = "NB" and MOTHER.actual_place_of_delivery=2) or BABY_ADMISSION.screen_source = "XF" AND
		most responsible diagnosis is not Z76.2, Z76.3, or Z76.4
		For any baby linked to a mother whose Delivery Admission meets the inclusion criteria, above.
<u>Birth</u>	Episode start	BABY_ADMISSION.screen_source = "NB"
Episode of	Include all admissions	BABY_ADMISSION.screen_source = "XF" and
<u>Care</u>	linked to the birth where:	discharge_to = "O" and
		101 ≤ institution_to <973
	Episode end	BABY_ADMISSION.screen_source = "NB" or "XF" AND
	·	(discharge_to ≠ "O" or institution_to = 973 or 974)
		For any baby linked to a mother whose Delivery Admission meets the inclusion criteria, above.

Detailed Specifications for Selected Variables

	PDR variables	CIHI Codes
Fiscal year		
2010/11	screen_source = "DL" AND April 1, 2010 ≤ MOTHER_ADMISSION.discharge_date ≤ March 31, 2011	
2011/12	screen_source = "DL" AND April 1, 2011 ≤ MOTHER_ADMISSION.discharge_date ≤ March 31, 2012	
2012/13	screen_source = "DL" AND April 1, 2012 ≤ MOTHER_ADMISSION.discharge_date ≤ March 31, 2013	
2013/14	screen_source = "DL" AND April 1, 2013 ≤ MOTHER_ADMISSION.discharge_date ≤ March 31, 2014	
2014/15	screen_source = "DL" AND April 1, 2014 ≤ MOTHER_ADMISSION.discharge_date ≤ March 31, 2015	
Parity		
Nulliparous	(term = 0 and premature = 0 and prev_cesarian_deliv = 0 and prev_vaginal_deliv = 0) OR (term = null and premature = null and prev_cesarian_deliv = null and prev_vaginal_deliv = null and living = 0) OR (any of term, premature, prev_cesarian_deliv, or prev_vaginal_deliv = null and gravida = 1)	
Parous	(term ≥ 1 or premature ≥1 or prev_cesarian_deliv ≥1 or prev_vaginal_deliv ≥1) OR (term = null and premature = null and prev_cesarian_deliv = null and prev_vaginal_deliv = null and living ≥1)	

	PDR variables		CIHI Codes
Hypertensive Disorders of Pregnancy			
(hierarchy)			
Eclampsia			diagnosis_code begins with O15
HELLP syndrome	pp_hellp = "Y"		
	discharge_date ≥ April 1, 2012	AND	diagnosis_code begins with O142
Pre-Existing Hypertension with Pre-Eclampsia	·		diagnosis_code begins with O11
Pre-Eclampsia	discharge_date < April 1, 2012 AND pp_hellp ≠ "Y"	AND	diagnosis_code begins with O14
	discharge_date ≥ April 1, 2012 AND pp_hellp ≠ "Y"	AND	diagnosis_code begins with O140, O141, or O149
Pre-Existing Hypertension			diagnosis_code begins with O10
Gestational Hypertension			diagnosis_code begins with O13
(includes mild pre-eclampsia for discharges before April 1, 2012)			
Unspecified Hypertension			diagnosis_code begins with O16
Diabetes Mellitus in Pregnancy			
Gestational Diabetes	risk_code = 13 or 14	OR	diagnosis_code begins with O248
Pre-Existing Diabetes	risk_code = 15 or 16	OR	diagnosis_code begins with O245, O246, or O247
Artificial Reproductive Technology	ivf = "Y"	OR	diagnosis_code for mother = Z37xx1 or baby = Z38xx1
Augmentation of Labour	labour_aug_flg = "Y"		
Induction of Labour	labour_ind_flg = "Y"		
Method of Fetal Surveillance During Labour			
Auscultation Only	auscultation = "Y" and		
	elec_fetal_monitor_external ≠ "Y" and		
	elec_fetal_monitor_internal ≠ "Y" and		
	no_fetal_monitoring ≠ "Y"		
Auscultation and External Electronic	auscultation = "Y" and		
Monitoring	elec_fetal_monitor_external = "Y" and		
	elec_fetal_monitor_internal ≠ "Y" and		
	no_fetal_monitoring ≠ "Y"		
External Electronic Monitoring Only	auscultation ≠ "Y" and		
	elec_fetal_monitor_external = "Y" and		
	elec_fetal_monitor_internal ≠ "Y" and		
1. 15	no_fetal_monitoring ≠ "Y"		
Internal Electronic Monitoring Only	auscultation ≠ "Y" and		
	elec_fetal_monitor_external ≠ "Y" and elec_fetal_monitor_internal = "Y" and		
	no_fetal_monitoring ≠ "Y"		
No Fetal Monitoring	(auscultation ≠ "Y" and		
	elec_fetal_monitor_internal ≠ "Y" and		
	elec_fetal_monitor_external ≠ "Y" and		
	no_fetal_monitoring= "Y")		
	OR		

	PDR variables		CIHI Codes
	(auscultation ≠ "Y" and		
	elec_fetal_monitor_internal ≠ "Y" and		
	elec_fetal_monitor_external ≠ "Y" and		
	no_fetal_monitoring ≠ "Y")		
Delivery Provider			
Obstetrician	delivered_by = 2 or 6 for any infant		
Surgeon	else if delivered_by = 12		
Family Practice + Cesarean	else if delivered_by = 1 or 8	AND	procedure_code begins with 5MD60 (cesarean delivery)
Family Practice + Vaginal	else if delivered_by = 1 or 8	AND	procedure_code does not begin with 5MD60
Midwife	else if delivered_by = 3 or 7		
Nurse	else if delivered_by = 4		
Other	else if <u>delivered_by</u> = 5, 9, 10, or 11		
Any Care Provided by a Registered Midwife	institution_id = 976 or 977 or	OR	doctor_service = 11004
	midwife_case = "Y" or		on DOCTORS or PROCEDURES_PERFORMED for mother
	delivered by = 3 or 7 for any infant or		or baby record
	actual_place_of_delivery = 1 or 2		
Delivery at Home	institution_id = 976 or 977 or		
	actual_place_of_delivery = 2		
Anesthesia or Analgesia	·		
Entonox	entonox_flg = "Y"		
Epidural	epidural_flg = "Y"	OR	<pre>anesthetic_type = 3 for a procedure_code beginning with 5MD</pre>
General	general_flg = "Y"	OR	<pre>anesthetic_type = 1 or 4 for a procedure_code beginning with 5MD</pre>
Local	local_flg = "Y"	OR	<pre>anesthetic_type = 7 for a procedure_code beginning with 5MD</pre>
Narcotic	narcotic_flg = "Y"		
Spinal	spinal_flg = "Y"	OR	<pre>anesthetic_type = 2 for a procedure_code beginning with 5MD</pre>
Other	other_flg = "Y" or pudendal_flg = " Y"		
No Anesthetic	none_flg = "Y"		
Perineal Trauma			
Third or Fourth Degree Laceration	laceration_flg = "Y" AND	OR	diagnosis_code begins with O702 or O703
	laceration_degree = 3 or 4		
Episiotomy	episiotomy_flg = "Y"		
Cervical Tear	cervical_tear_flg = "Y"	OR	diagnosis_code begins with O713
Mode of Delivery			
Spontaneous Vaginal			procedure_code begins with 5MD50, 5MD51, 5MD52, 5MD56AA, 5MD56NL, 5MD56NP, 5MD56NU, 5MD56NM, 5MD56NQ, 5MD56NV, 5MD56GH, 5MD56PA, 5MD56PD, 5MD56PG, 5MD56PB, 5MD56PE, or 5MD56PH

	PDR variables		CIHI Codes
Assisted Vaginal			procedure_code begins with 5MD53, 5MD54, 5MD55,
			5MD56NN, 5MD56NR, 5MD56NW, 5MD56PC, 5MD56PF, or
Vacuum			5MD56PJ procedure_code begins with 5MD54
Forceps			procedure_code begins with 5MD53, 5MD56NN, 5MD56NR,
•			5MD56NW, 5MD56PC, 5MD56PF, or 5MD56PJ
Forceps and Vacuum			procedure_code begins with 5MD55
			procedure_code begins with 5MD54
			AND
			any of the following procedure codes is also on the abstract:
			5MD53, 5MD55, 5MD56NN, 5MD56NR, 5MD56NW,
0			5MD56PC, 5MD56PF, or 5MD56PJ
Cesarean		ANID	procedure_code begins with 5MD60
Farancia Delas and	csection_type = 1, 2, 3, or 4	AND	no procedure code begins with 5MD5 or 5MD60
Emergency Primary	csection_type = 2	AND	procedure_code begins with 5MD60
Emergency Repeat	csection_type = 4	AND	procedure_code begins with 5MD60
Elective Primary	csection_type = 1	AND	procedure_code begins with 5MD60
Elective Repeat	csection_type = 3	AND	procedure_code begins with 5MD60
Vaginal Birth After Cesarean (VBAC)	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
VBAC Eligible	(vbac_eligible = "Y" and		
	prev_cesarian_deliv ≥1)		
	OR		
	(vbac_eligible = "U" or " " and		
	baby_presentation_delivery = 6 and prev_cesarian_deliv ≥1 and		
	Maximum(baby_sequence) = 1)		
	(vbac_eligible = "U" or " " and	AND	procedure_code begins with 5MD5
	baby_presentation_delivery = 9 and	AND	procedure_code begins with sixips
	gestational age ≥ 37 and		
	prev_cesarian_deliv ≥1 and		
	Maximum(baby_sequence) = 1)		
VBAC Attempted	(vbac_attempted = "Y" and		
V B/10 / ttomptod	prev_cesarian_deliv is ≥1)		
	OR		
	(vbac_attempted = "U", "A", or " " and		
	prev_cesarian_deliv ≥1 and		
	((labour_ind_flg = "Y") or (labour_spont_flg = "Y"		
	and labour_aug_flg = "Y")))		
VBAC Success	Woman VBAC Eligible and VBAC Attempted	AND	procedure_code begins with 5MD5
	(above)		
Maternal Morbidity			
Liver Complications (updated 2016)	pp_fatty_liver = "Y" or pp_liver_hematoma = "Y"	OR	diagnosis_code begins with K760, O266, or O904
Urinary Tract Infection (updated 2016)	pp_uti = "CY", "PY", "OT", "UN"	OR	diagnosis_code begins with N10, N11, N12, N15, N30, N34,

	PDR variables		CIHI Codes
			N390, O23, O861, O862, or O863
Sepsis (updated 2016)	pp_pos_blood_culture = "Y"	OR	diagnosis_code begins with A40, A41, O753, or O85
Wound Infection	pp_wound_infection = "Y"	OR	diagnosis_code begins with O860 or T814
Postpartum Hemorrhage with Transfusion	blood_transfusion_flg = "Y"	AND	diagnosis_code begins with O72
Postpartum Hemorrhage with Hysterectomy			diagnosis_code begins with O72 AND (procedure_code begins with 5MD60CB, 5MD60KE, 5MD60RC, or 5MD60RD; OR procedure_code begins with 1RM87LAGX and extent = SU; OR procedure_code begins with 1RM89 AND there is no procedure_code beginning with 1PL74, 1RS74, or 1RS80)
Antepartum Hemorrhage with Transfusion	blood_transfusion_flg = "Y" and risk_code = 8		procedure_code beginning with 11 E74, 11(374, or 11(300)
Antepartum Hemormage with Hallstusion	blood_transfusion_flg = "Y"	AND	diagnosis_code begins with O441, O45, O46, O67, or O694
Eclampsia	blood_transitusion_lig = 1	AND	diagnosis_code begins with O15
HELLP	pp_hellp = "Y"		diagnosis_code begins with O15
	discharge_date ≥ April 1, 2012	AND	diagnosis_code begins with O142
Anasthatia Complications	discharge_date ≥ April 1, 2012	AND	diagnosis_code begins with O29, O740, O741, O742, O743,
Anesthetic Complications			O744, O747, O748, O749, O89, or T885
Shock			diagnosis_code begins with O751
Stroke			diagnosis_code begins with G459, I6, or I7
Pulmonary Embolism			diagnosis_code begins with O88
Adverse Outcome of Labour or Delivery			
Moderate Maternal Adverse Outcome	screen_source = "DL" AND blood_transfusion_flg = "Y" OR (laceration_flg = "Y" AND laceration_degree = 3 or 4)	OR	diagnosis_code begins with O702 or O703 OR procedure_code begins with 5PC73JT, 5PC80JM, 5PC91GA, or 5PC91GC OR (diagnosis_code begins with O722 AND procedure_code begins with 1KT51, 1RM13, 1RM87LAGX, 1RM89, 5MD60CB, 5MD60KE, 5MD60RC, 5MD60RD, 5PC91HT, or 5PC91LA)
Moderate Neonatal Adverse Outcome	screen_source = "NB" and admission_weight ≥ 2,500 and gestational age ≥ 37 and ((nicu_ii+nicu_iii ≥ 2) OR (Length of stay <24 hours and institution_to = 104, 202, 109, 116, 703, 609, 501, 401, 302, 130, 115, 112, or 102) OR	AND	diagnosis_code does not begin with P832 or Q

	PDR variables		CIHI Codes
	(0 ≤ apgar_5 minutes <7))		
Severe Maternal Adverse Outcome	screen_source = "DL"	AND	diagnosis_code begins with O7118, O95 or O97 OR procedure_code begins with 1GZ30CJ, 1GZ30JH, 1GZ31CAND, 1GZ31CBND, 1GZ31CRND, 1GZ31GPND, 1GZ38JAND, 1GZ38JANE, 1GJ50CANG, or 1GJ50CATS
Severe Neonatal Adverse Outcome	screen_source = "NB" and admission_weight ≥ 2,500 and gestational age ≥ 37 and (discharge_to = "D" or stillbirth = "A")	AND	diagnosis_code does not begin with P832 or Q
	screen_source = "NB" and admission_weight ≥ 2,000	AND	diagnosis_code begins with P100, P101, P104, P108, P109, P113, P114, P115, P122, P13 (excluding P134), P140, P141, P142, P143, P148, or P149
Maternal Length of Stay			
Antepartum Length of Stay	For the Delivery Episode of Care, hours between (delivery_date delivery_time – admission_date admission_time) where institution_id for the Delivery Admission ≠ 976 or 977		
Postpartum Length of Stay	For the Delivery Episode of Care, hours between (discharge_date discharge_time – delivery_date delivery_time) where institution_id for the Delivery Admission ≠ 976 or 977		
Total Length of Stay	For the Delivery Episode of Care, hours between (discharge_date discharge_time – admission_date admission_time) where institution_id for the Delivery Admission ≠ 976 or 977		
Maternal Transfers			
Transferred to Acute Care	screen_source= "DL" and institution_to = 101, 102, 104, 105, 106, 107, 109, 111, 112, 113, 115, 116, 121, 123, 128, 130, 131, 134, 135, 136, 201, 202, 203, 204, 206, 217, 301, 302, 303, 305, 309, 401, 402, 403, 404, 405, 406, 408, 409, 417, 419, 501, 502, 507, 508, 510, 511, 601, 602, 603, 604, 606, 609, 651, 654, 655, 701, 702, 703, 704, 705, 707, 708, 713, 714, 715, 716, 717, 752, 753, 754, 755, 756, 801, 803, 804, 851, 854, 859, 901, 902, 903, 904, 906, 907, 912, 917,		

	PDR variables		CIHI Codes
	918, 929, 973, or 974		
Transfer to a Higher Level of Care	screen_source = "DL" AND discharge_date < April 1, 2013 AND (institution_id ≠ 104, 109, 202, 102, 302, 401, 703, or 501 AND institution_to = 104, 105, 109, 202, 102, 302, 401, 703, or 501) OR (institution_id ≠ 104, 109, 202, or 102 AND institution_to =104, 105, 109, 202, or 102) screen_source = "DL" AND discharge_date ≥ April		
	1, 2013 AND (institution_id ≠ 104, 109, 202, 102, 116, 302, 401, 703, or 501 AND institution_to = 104, 105,109,116, 202, 102, 302, 401, 703, or 501)		
	OR (institution_id ≠104, 109, 202, or 102		
	AND institution_to = 104, 105, 109, 202, or 102)		
Post-Delivery Admission Diagnoses			
Routine Postpartum Care (updated 2016)	Post-Delivery Admission	AND	diagnosis_type = "M" and diagnosis_cd begins with Z390, Z392, or Z488
Postpartum Hemorrhage	Post-Delivery Admission	AND	diagnosis_type = "M" and diagnosis_cd begins with O72
Postpartum Infection (updated 2016)	Post-Delivery Admission	AND	diagnosis_type = "M" and diagnosis_cd begins with A40, A41, N10, N11, N12, N15, N30, N34, N390, O753, O85, O86, or T814
Other Diseases Complicating Pregnancy	Post-Delivery Admission	AND	diagnosis_type = "M" and diagnosis_cd begins with O99
Hypertension or Eclampsia (updated 2016)	Post-Delivery Admission	AND	diagnosis_type = "M" and diagnosis_cd begins with I100, O10, O11, O13, O14, O15, or O16
Other Wound Issues	Post-Delivery Admission	AND	diagnosis_type = "M" and diagnosis_cd begins with O70, O71, O75404, O900, O901, O902, or T813
Care of Breasts	Post-Delivery Admission	AND	diagnosis_type = "M" and diagnosis_cd begins with O91, O92, or Z391
Retained Placenta Without Hemorrhage	Post-Delivery Admission	AND	diagnosis_type = "M" and diagnosis_cd begins with O73
Pregnancy-Associated Mental Health	Post-Delivery Admission	AND	diagnosis_type = "M" and diagnosis_cd begins with F53
Complications of Anesthesia	Post-Delivery Admission	AND	diagnosis_type = "M" and diagnosis_cd begins with O74, O89, or T885
Multiple Gestation	multiple_birth_count >1		

	PDR variables		CIHI Codes
In-Hospital Perinatal Mortality			
Crude Stillbirths (includes complete late	stillbirth = "A", "P", or "U"		
pregnancy terminations)			
Stillbirth >=500g	stillbirth = "A", "P", or "U" and		
	admission_weight ≥ 500		
Early Neonatal Death	stillbirth = "N" and		
	discharge_to = "D" and		
	(discharge_date - date_of_birth) <7 days		
Late Neonatal Death	stillbirth = "N" and		
	discharge_to = "D" and		
	7 days ≤ (discharge_date – date_of_birth) ≤ 27		
	days		
Post Neonatal Death	stillbirth = "N" and		
	discharge_to = "D" and		
	28 days ≤ (discharge_date – date_of_birth) ≤ 364		
	days		
Birth Injury			diagnosis_code begins with P100, P101, P104, P108, P109,
			P11, P12, P13, P14, or P15
Neonatal Morbidity			
Sepsis	baby_pos_blood_culture = "Y"	OR	diagnosis_code begins with A40, A41, or P36
Intracranial Hemorrhage			diagnosis_code begins with P10 or P52
Respiratory Distress Syndrome			diagnosis_code begins with P220
Transient Tachypnea			diagnosis_code begins with P221
Other Respiratory Condition			diagnosis_code begins with A481, J, P228, P229, P23-P27,
			P280, P281, P282, P283, P284, P288, P289, Q30-Q34,
			Q791, R091, or Z902
	0 ≤ apgar_5_minutes <7	AND	diagnosis_code begins with P285
Any Neonatal Morbidity			diagnosis_code begins with A40, A41, A481, J, P10, P220,
			P221, P228, P229, P23-P27, P36, P280, P281, P282, P283,
			P284, P288, P289, P52, Q30-Q34, Q791, R091, or Z902
	0 ≤ apgar_5_minutes <7	AND	diagnosis_code begins with P285
Congenital Anomalies			
Any Congenital Anomaly			diagnosis_code begins with Q, G901, or P293
Chromosomal			diagnosis_code begins with Q90-Q99
Circulatory System			diagnosis_code begins with Q20-Q28 or P293
Cleft Lip or Palate			diagnosis_code begins with Q35-Q37
Digestive System			diagnosis_code begins with Q38-Q45
Eye, Ear, Face, or Neck			diagnosis_code begins with Q10-Q18
Genital Organs			diagnosis_code begins with Q50-Q56
Musculoskeletal System			diagnosis_code begins with Q65-Q79
Nervous System			diagnosis_code begins with Q00-Q07 or G901

	PDR variables		CIHI Codes
Respiratory System			diagnosis_code begins with Q30-Q34
Urinary System			diagnosis_code begins with Q60-Q64
Other Specific Anomaly			diagnosis code begins with Q80-Q89
Trisomy 18			diagnosis_code = Q91.0-Q91.3
Trisomy 21			diagnosis code begins with Q90
Open Neural Tube Defect			diagnosis_code begins with Q00 or Q05
Newborn Length of Stay	For the Birth Episode of Care, hours between (discharge_date discharge_time – admission_date admission_time) where institution_id for the Birth Admission ≠ 976 or 977		
Newborn Feeding			
Exclusive Breastfeeding	newborn_feeding = "BR"		
Non-Exclusive Breastfeeding	newborn_feeding = "BF"		
No Breastfeeding	newborn_feeding = "FR"		
Any Breastfeeding	newborn_feeding = "BR" or "BF"		
Weight for Gestational Age			
Small for Gestational Age	Baby's weight is below the 10 th percentile for gestational age and sex Based on gestational age, sex, multiple_birth_count, and admission_weight where screen_source = "NB" and sex = "M" or "F"		
Large for Gestational Age	Baby's weight is above the 90 th percentile for gestational age and sex Based on gestational age, sex, multiple_birth_count, and admission_weight where screen_source = "NB" and sex = "M" or "F"		
Low Birthweight Singletons	screen_source = "NB" and 5 ≤ admission_weight < 2500 and stillbirth = "N" and multiple_birth_count = 1		
Premature Birth			
Spontaneous Preterm	gestational age <37 and labour_spont_flg = "Y"		
·	gestational age <37 and labour_none_flg = "Y" and (cesarean_type = 0	OR	Mother does not have a procedure_code beginning with 5MD60)
latrogenic Preterm	gestational age <37 and labour_ind_flg = "Y"		
	gestational age <37 and labour_none_flg = "Y" and		

	PDR variables	CIHI Codes
	cesarean_type = 1, 2, 3, or 4	
Neonatal Intensive Care Use	nicu_ii > 0 or nicu_iii > 0 for the Birth Episode of	
	Care	
Neonatal Transfer		
Transferred to Acute Care	screen_source= "NB" and	
	discharge_to= "O" and	
	institution_to = 101, 102, 104, 105, 106, 107, 109,	
	111, 112, 113, 115, 116, 121, 123, 128, 130,	
	131, 134, 135, 136, 201, 202, 203, 204, 206,	
	217, 301, 302, 303, 305, 309, 401, 402, 403,	
	404, 405, 406, 408, 409, 417, 419, 501, 502,	
	507, 508, 510, 511, 601, 602, 603, 604, 606,	
	609, 651, 654, 655, 701, 702, 703, 704, 705,	
	707, 708, 713, 714, 715, 716, 717, 752, 753,	
	754, 755, 756, 801, 803, 804, 851, 854, 859,	
	901, 902, 903, 904, 906, 907, 912, 917, 918,	
	929, 973, or 974	
Transfer to Higher Level of Care	screen_source = "NB" and	
	institution_id ≠ 102, 104, 109, 112, 116, 121, 130,	
	202, 302, 401, 501, 609, or 703 and	
	discharge_to = "O" and	
	instititution_to = 102, 104, 105, 109, 112, 116,	
	121, 130, 202, 302, 401, 501, 609, or 703	
	screen_source = "NB" and	
	discharge_to = "O" and	
	institution_id ≠ 104, 109, 116, or 202 and	
T ((A (O E)))	institution_to = 104, 105, 109, 116, or 202	
Transfer to Acute Care Facility with Equal or	screen_source = "NB" and	
Lower Level of Care	discharge_to = "O" and institution_id = 104, 109, 116, or 202 and	
	_ , , , ,	
	institution_to = 101, 102, 104, 105, 106, 107, 109, 111, 112, 113, 115, 116, 121, 123, 128, 130,	
	131, 134, 135, 136, 201, 202, 203, 204, 206,	
	217, 301, 302, 303, 305, 309, 401, 402, 403,	
	404, 405, 406, 408, 409, 417, 419, 501, 502,	
	507, 508, 510, 511, 601, 602, 603, 604, 606,	
	609, 651, 654, 655, 701, 702, 703, 704, 705,	
	707, 708, 713, 714, 715, 716, 717, 752, 753,	
	754, 755, 756, 801, 803, 804, 851, 854, 859,	
	901, 902, 903, 904, 906, 907, 912, 917, 918, or 929	
	screen_source= "NB" and	
	discharge_to = "O" and	

	PDR variables		CIHI Codes
	institution_id = 102, 112, 121, 130, 302, 401, 501,		
	609, or 703 and		
	institution_to = 101, 102, 106, 107, 111, 112, 113,		
	115, 121, 123, 128, 130, 131, 134, 135, 136,		
	201, 203, 204, 206, 217, 301, 302, 303, 305,		
	309, 401, 402, 403, 404, 405, 406, 408, 409,		
	417, 419, 501, 502, 507, 508, 510, 511, 601,		
	602, 603, 604, 606, 609, 651, 654, 655, 701,		
	702, 703, 704, 705, 707, 708, 713, 714, 715,		
	716, 717, 752, 753, 754, 755, 756, 801, 803,		
	804, 851, 854, 859, 901, 902, 903, 904, 906,		
	907, 912, 917, 918, or 929		
Resuscitation After Birth	ippv_mask_flg = "Y" or		
	ippv_ett_flg = "Y" or		
	chest_compress_flg = "Y" or		
	drugs = "Y"		
Post-Neonatal Admission Diagnoses			
Jaundice	Post-Neonatal Admission	AND	diagnosis_type = "M" and diagnosis_cd begins with P58,
			P59, or R17
Low Birth Weight or Preterm Birth	Post-Neonatal Admission	AND	diagnosis_type = "M" and diagnosis_cd begins with P07
Congenital Anomalies	Post-Neonatal Admission	AND	diagnosis_type = "M" and diagnosis_cd begins with G901,
Fooding Dockloss	Doct None stal Adminstration	AND	P293, or Q
Feeding Problems	Post-Neonatal Admission	AND	diagnosis_type = "M" and diagnosis_cd begins with K21, P741, P7881, P92, R633, or R634
Respiratory Infections	Post-Neonatal Admission	AND	diagnosis_type = "M" and diagnosis_cd begins with A37,
Respiratory injections	Post-Neonatal Aumission	AND	J00-J06, J12-J18, J20-J22, or P23
Respiratory Distress	Post-Neonatal Admission	AND	diagnosis_type = "M" and diagnosis_cd begins with P22
Other Infections	Post-Neonatal Admission Post-Neonatal Admission	AND	diagnosis_type = IM and diagnosis_cd begins with P22 diagnosis_type = IM and diagnosis_cd begins with A (except
Other injections	Post-Neonatal Admission	AND	A37), B, H60-H66, K61, L0, M86, P027, P35-P38, P39
			(except P393), P77, R572, T802, T814, T827, or T835
Apnea	Post-Neonatal Admission	AND	diagnosis_type = "M" and diagnosis_cd begins with G4730,
Арпеа	1 OSCINEONALAI AUMISSION	AND	P283, P284, or R068
Urinary Tract Infections	Post-Neonatal Admission	AND	diagnosis type = "M" and diagnosis cd begins with N390 or
Officery fract fractions	1 ost Neoriatai / tarrission	/ (140	P393
Isoimmunization			diagnosis_type = "M" and diagnosis_cd begins with P55
"Normal Labour"	labour_spont_flg = "Y" and		<u> </u>
	prev_cesarian_deliv = 0 and		
	multiple_birth_count = 1 and		
	baby_presentation_delivery = 6 and		
	gestational age is between 37 and 41		
"Normal Childbirth"	general_flg ≠ "Y" and	AND	procedure_code does not begin with 5MD53, 5MD54,
	spinal_flg ≠ "Y" and		5MD55, 5MD56NN, 5MD56NR, 5MD56NW, 5MD56PC,
	episiotomy_flg ≠ "Y"		5MD56PF, 5MD56PJ, or 5MD60

	PDR variables	CIHI Codes
		AND anesthetic_type ≠ 1, 2, or 4 for a procedure_code beginning with 5MD
Cervical Dilation on Admission		
0-3cm	0 ≤ cervical_dilation_on_admis < 4	
4-10cm	cervical_dilation_on_admis ≥ 4	
Unknown	cervical_dilation_on_admis = null	
Duration of Labour Stages		
Duration of First Stage	hours between (second_stage_date second_stage_time - first_stage_date first_stage_time) where first_stage_date and second_stage_date ≠ null and labour_none_flg ≠ "Y"	
Duration of Second Stage	hours between (delivery_date delivery_time – second_stage_date second_stage_time) where second_stage_date ≠ null and labour_none_flg ≠ "Y"	
Low Apgar Score	0 ≤ apgar_5_minutes <7	

Gestational Age Algorithm

Gestational age at delivery is calculated using an algorithm consistent with that recommended by the Society of Obstetricians and Gynaecologists of Canada. The algorithm takes into account the last menstrual period (LMP), early ultrasound (EUS) before 20 weeks, newborn clinical exam, and chart documented estimate of gestational age. Accurate documentation of each of these on patient charts, including the estimated weeks and days gestation at early ultrasound, permits the most accurate calculation by PSBC.

Gestational age in completed weeks§ based on LMP and EUS is calculated as follows:

- 1. If LMP* is recorded and there is no EUS, use GA from LMP.
- 2. If LMP is recorded, there is no EUS^, but clinical exam of baby gives a GA at least 3 weeks different than LMP, use GA from newborn clinical exam.
- 3. If LMP is recorded and equal to GA in weeks from EUS at <14 weeks, use GA from LMP. If estimates are not equal, use GA from EUS.
- 4. If LMP is recorded and within 1 week of GA from EUS at 14-20 weeks, use GA from LMP. If difference is more than 1 week, use GA from EUS.
- 5. If LMP is not recorded but GA from EUS <20 weeks is recorded, use GA from EUS.
- 6. If LMP and EUS are not recorded, use GA from newborn clinical exam.
- 7. If LMP, EUS, and newborn clinical exam are not recorded, use GA from chart documentation.
- 8. If all are missing or out of range, GA is missing.

[§] Completed weeks of gestation is a term used in the estimated age of the fetus calculated from the first day of the LMP or US. A completed week increments at 7-day intervals. For instance 37 completed weeks includes the time span from 37 weeks and 0 days to 37 weeks and 6 days.

^{*} only LMP estimates of 15-45 weeks are considered. All others are treated as missing.

[^] only GA estimates of 17-43 weeks from EUS are considered. All others are treated as missing.