







Perinatal Health Report

Deliveries in Provincial Health Services Authority 2014/15

Publication Information

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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 exlcluded (<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 93 and 94) Delivery Admission

- 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.

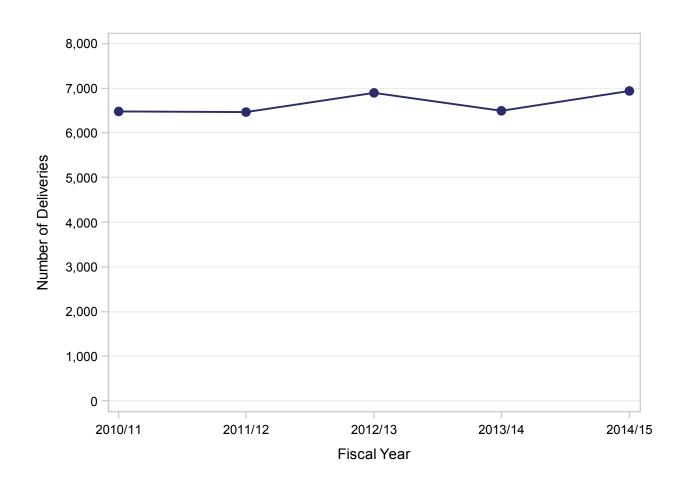
Post-Neonatal Admission

- 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 Provincial Health Services Authority

Section 1: Maternal Health

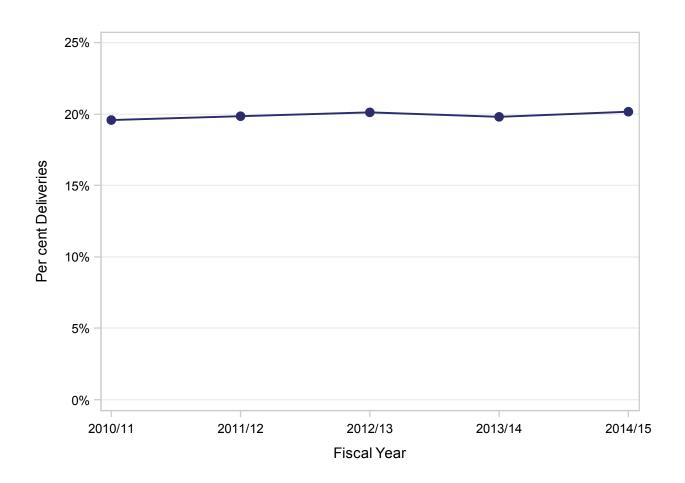
Total Deliveries Deliveries in Provincial Health Services Authority: April 1, 2010 - March 31, 2015



	Fiscal Year						
	2010/11	2011/12	2012/13	2013/14	2014/15		
Provincial Health Services Authority	6,482	6,459	6,892	6,488	6,934		

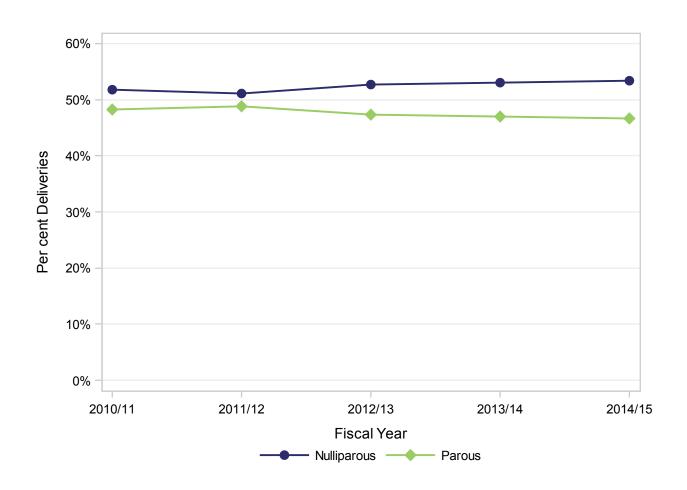
Deliveries to Residents of Other Health Authorities

Deliveries in Provincial Health Services Authority: April 1, 2010 - March 31, 2015



	Fiscal Year						
Health Authority	2010/11	2011/12	2012/13	2013/14	2014/15		
Provincial Health Services Authority	19.6%	19.8%	20.1%	19.8%	20.2%		

Deliveries by Parity Deliveries in Provincial Health Services Authority: April 1, 2010 - March 31, 2015

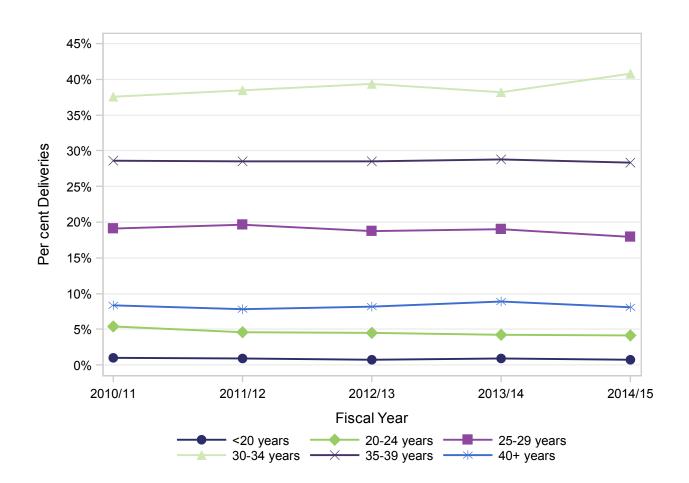


Average and Median Maternal Age at Delivery by Parity

	Fiscal Year									
	2010/11 201		2011	2011/12 2012/13		2013/14		2014/15		
Parity	Average	Median	Average	Median	Average	Median	Average	Median	Average	Median
All	33.1	33.4	33.1	33.2	33.2	33.2	33.3	33.4	33.3	33.3
Nulliparous	31.9	31.9	32.0	32.1	32.1	32.1	32.1	32.2	32.2	32.3
Parous	34.4	34.7	34.3	34.5	34.4	34.7	34.5	34.7	34.4	34.6

Definitions and specifications begin on Page 82 of this document.

Maternal Age at Delivery Deliveries in Provincial Health Services Authority: April 1, 2010 - March 31, 2015

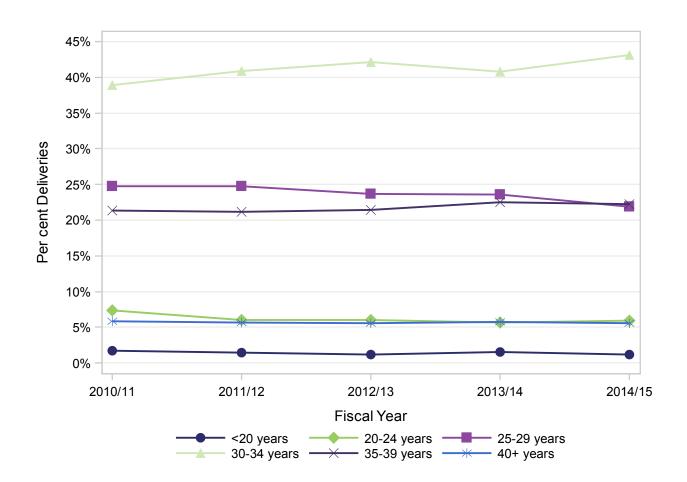


	Fiscal Year				
Maternal Age	2010/11	2011/12	2012/13	2013/14	2014/15
<20 years	1.0%	0.9%	0.7%	0.9%	0.7%
20-24 years	5.4%	4.6%	4.5%	4.3%	4.2%
25-29 years	19.1%	19.7%	18.7%	19.0%	17.9%
30-34 years	37.6%	38.4%	39.4%	38.2%	40.7%
35-39 years	28.6%	28.5%	28.5%	28.7%	28.4%
40+ years	8.4%	7.8%	8.2%	8.9%	8.1%

Definitions and specifications begin on Page 82 of this document.

Nulliparous Women Deliveries in Provincial Health Services Authority: April 1, 2010 - March 31, 2015

Maternal Age at Delivery

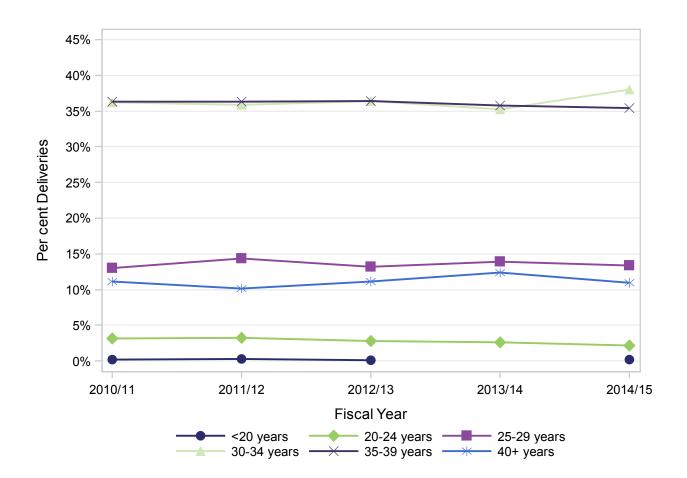


	Fiscal Year				
Maternal Age	2010/11	2011/12	2012/13	2013/14	2014/15
<20 years	1.8%	1.5%	1.2%	1.6%	1.2%
20-24 years	7.4%	6.0%	6.0%	5.7%	6.0%
25-29 years	24.8%	24.8%	23.7%	23.6%	21.9%
30-34 years	38.9%	40.9%	42.1%	40.8%	43.2%
35-39 years	21.4%	21.2%	21.4%	22.5%	22.2%
40+ years	5.8%	5.7%	5.6%	5.8%	5.6%

Definitions and specifications begin on Page 82 of this document.

Parous Women Deliveries in Provincial Health Services Authority: April 1, 2010 - March 31, 2015

Maternal Age at Delivery

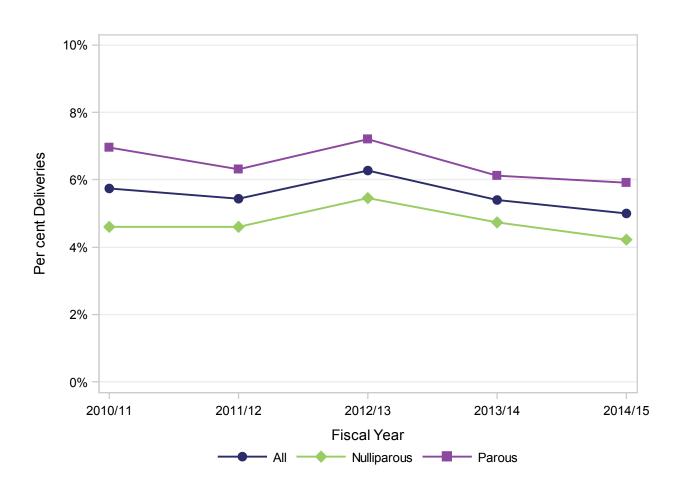


	Fiscal Year				
Maternal Age	2010/11	2011/12	2012/13	2013/14	2014/15
<20 years	0.2%	0.3%	0.2%	NR	0.2%
20-24 years	3.2%	3.2%	2.8%	2.7%	2.1%
25-29 years	13.0%	14.3%	13.2%	13.9%	13.3%
30-34 years	36.2%	35.8%	36.4%	35.2%	38.0%
35-39 years	36.3%	36.3%	36.4%	35.7%	35.4%
40+ years	11.1%	10.1%	11.1%	12.4%	11.0%

NR: Rates and per cents based on numerators of 1 to 4 are not reported. Definitions and specifications begin on Page 82 of this document.

Antenatal Care Visits

Deliveries in Provincial Health Services Authority: April 1, 2010 - March 31, 2015

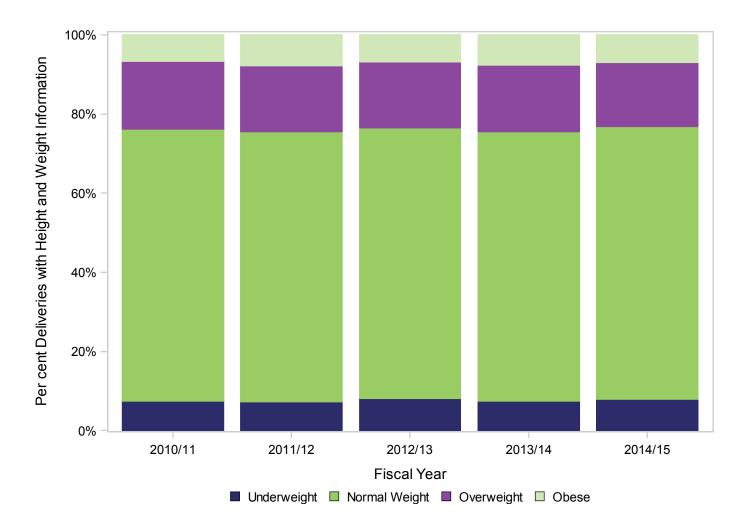


Deliveries with <5 Antenatal Care Visits by Parity

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	5.7%	5.4%	6.3%	5.4%	5.0%
Missing Visits	8.5%	10.5%	10.7%	15.4%	20.2%

Pre-Pregnancy Body Mass Index (BMI) Deliveries in Provincial Health Services Authority: April 1, 2010 - March 31, 2015

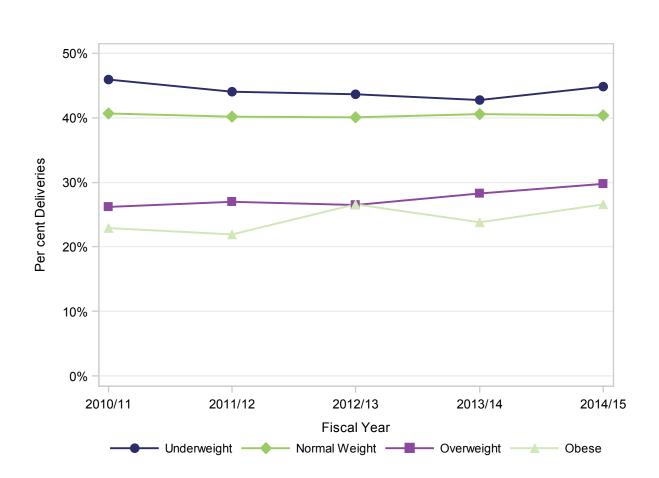


Distribution of Pre-Pregnancy BMI Among Deliveries With **Complete** Height and Weight

Distribution of Pre-Pregnancy BMI Among ALL Deliveries

	Fiscal Year				
BMI Category	2010/11	2011/12	2012/13	2013/14	2014/15
Underweight	5.1%	5.1%	5.9%	5.4%	6.1%
Normal Weight	47.3%	47.8%	49.5%	49.2%	52.6%
Overweight	11.7%	11.7%	12.0%	12.2%	12.5%
Obese	4.6%	5.4%	4.9%	5.5%	5.3%
BMI Missing	31.4%	30.0%	27.7%	27.8%	23.5%

Definitions and specifications begin on Page 82 of this document.



Appropriate* Weight Gain During Pregnancy

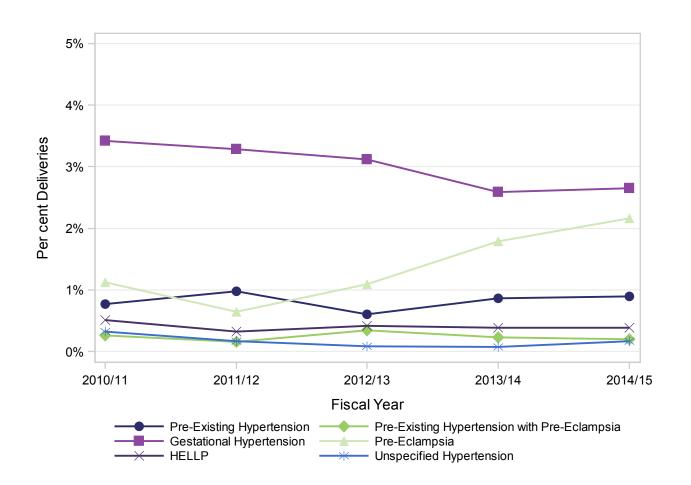
by Pre-Pregnancy Body Mass Index (BMI) Deliveries in Provincial Health Services Authority: April 1, 2010 - March 31, 2015

		Fiscal Year			
BMI Category	2010/11	2011/12	2012/13	2013/14	2014/15
Underweight	45.9%	44.1%	43.7%	42.8%	44.8%
Normal Weight	40.7%	40.1%	40.0%	40.5%	40.3%
Overweight	26.2%	27.0%	26.5%	28.3%	29.8%
Obese	22.9%	21.9%	26.6%	23.8%	26.6%

* As defined by the Institute of Medicine.

Data are limited to deliveries with complete height and weight information (44% of deliveries in 2014/15). Definitions and specifications begin on Page 82 of this document.

Hypertensive Disorders of Pregnancy Deliveries in Provincial Health Services Authority: April 1, 2010 - March 31, 2015

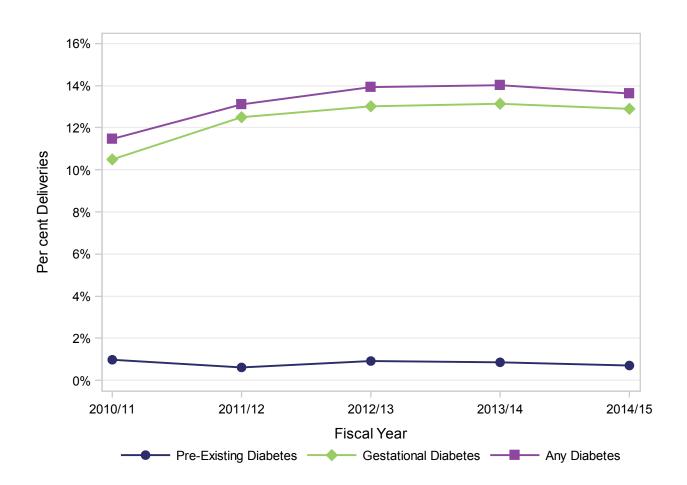


	Fiscal Year					
Type of Hypertension	2010/11	2011/12	2012/13	2013/14	2014/15	
No Hypertension	93.6%	94.4%	94.3%	94.1%	93.5%	
Pre-Existing Hypertension	0.8%	1.0%	0.6%	0.9%	0.9%	
Pre-Existing Hypertension with Pre-Eclampsia	0.3%	0.2%	0.3%	0.2%	0.2%	
Gestational Hypertension	3.4%	3.3%	3.1%	2.6%	2.7%	
Pre-Eclampsia	1.1%	0.7%	1.1%	1.8%	2.2%	
HELLP	0.5%	0.3%	0.4%	0.4%	0.4%	
Eclampsia	NR	NR	NR	NR	NR	
Unspecified Hypertension	0.3%	0.2%	0.1%	0.1%	0.2%	

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.

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

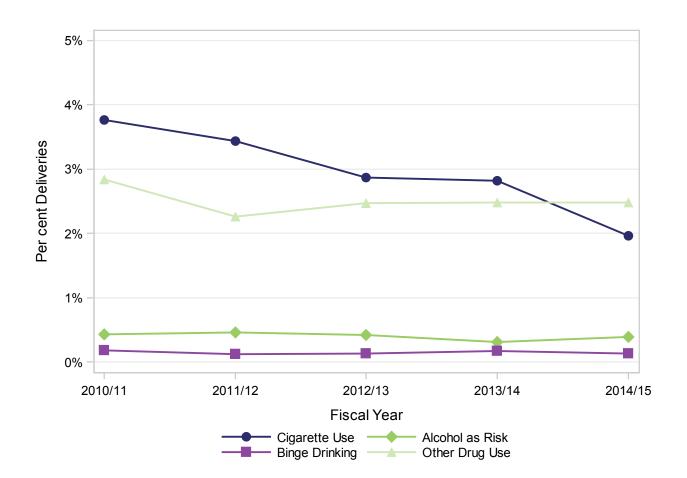
Diabetes Mellitus in Pregnancy Deliveries in Provincial Health Services Authority: April 1, 2010 - March 31, 2015



	Fiscal Year					
Type of Diabetes	2010/11	2011/12	2012/13	2013/14	2014/15	
Pre-Existing Diabetes	1.0%	0.6%	0.9%	0.9%	0.7%	
Gestational Diabetes	10.5%	12.5%	13.0%	13.1%	12.9%	
Any Diabetes	11.5%	13.1%	13.9%	14.0%	13.6%	

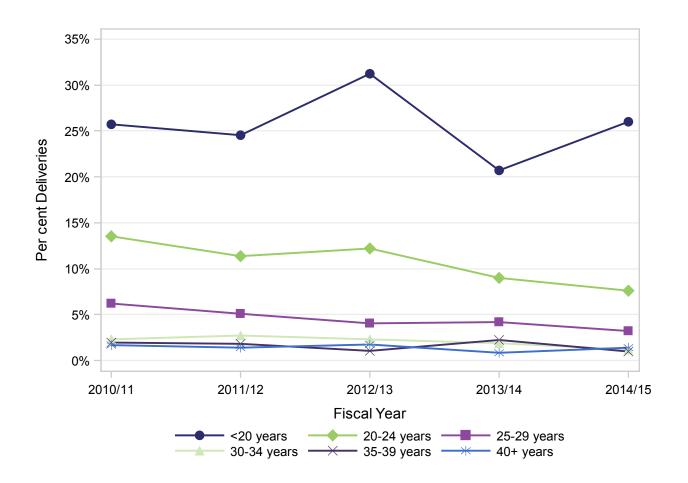
British Columbia adopted new diagnostic criteria for gestational diabetes in October 2010. This may cause a break in the trend for this diagnosis. Definitions and specifications begin on Page 82 of this document.

Substance Use During Pregnancy Deliveries in Provincial Health Services Authority: April 1, 2010 - March 31, 2015



	Fiscal Year					
Substance	2010/11	2011/12	2012/13	2013/14	2014/15	
Cigarette Use	3.8%	3.4%	2.9%	2.8%	2.0%	
Alcohol as Risk	0.4%	0.5%	0.4%	0.3%	0.4%	
Binge Drinking	0.2%	0.1%	0.1%	0.2%	0.1%	
Other Drug Use	2.8%	2.3%	2.5%	2.5%	2.5%	

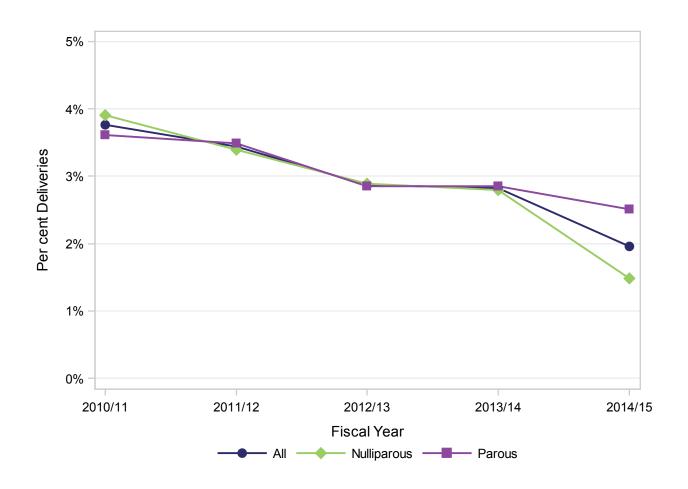
Cigarette Use at Any Time During Pregnancy by Maternal Age Deliveries in Provincial Health Services Authority: April 1, 2010 - March 31, 2015



	Fiscal Year				
Maternal Age	2010/11	2011/12	2012/13	2013/14	2014/15
<20 years	25.8%	24.6%	31.3%	20.7%	26.0%
20-24 years	13.5%	11.4%	12.2%	9.0%	7.6%
25-29 years	6.2%	5.1%	4.0%	4.2%	3.2%
30-34 years	2.3%	2.7%	2.3%	1.9%	1.2%
35-39 years	2.0%	1.8%	1.1%	2.3%	1.0%
40+ years	1.7%	1.4%	1.8%	0.9%	1.4%

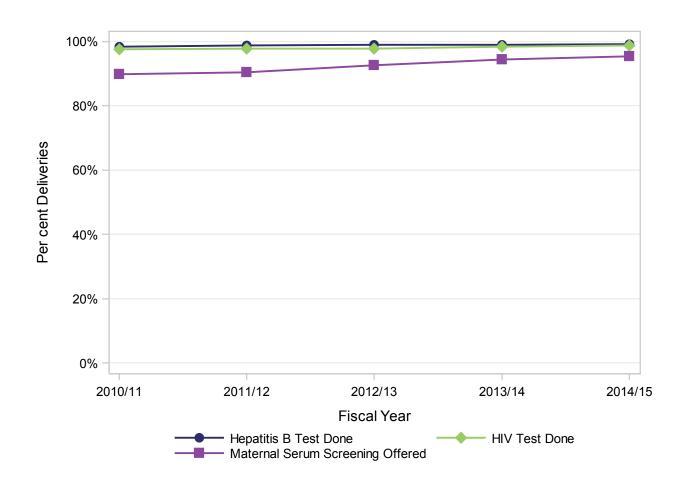
Definitions and specifications begin on Page 82 of this document.

Cigarette Use at Any Time During Pregnancy by Parity Deliveries in Provincial Health Services Authority: April 1, 2010 - March 31, 2015



	Fiscal Year					
Parity	2010/11	2011/12	2012/13	2013/14	2014/15	
All	3.8%	3.4%	2.9%	2.8%	2.0%	
Nulliparous	3.9%	3.4%	2.9%	2.8%	1.5%	
Parous	3.6%	3.5%	2.8%	2.9%	2.5%	

Maternal Screening Tests Deliveries in Provincial Health Services Authority: April 1, 2010 - March 31, 2015

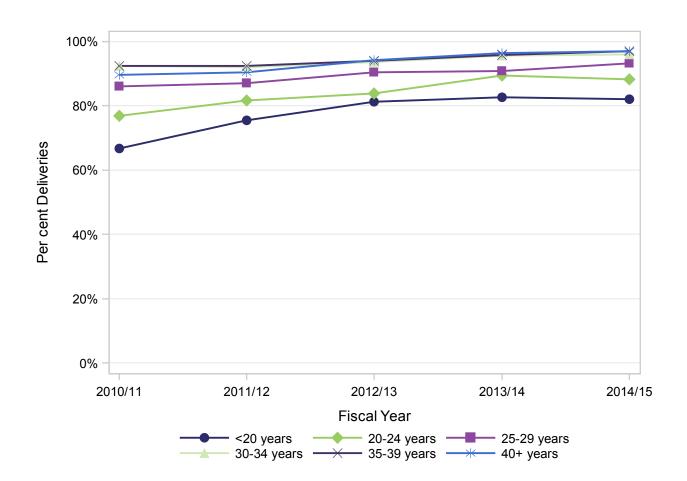


	Fiscal Year					
Type of Screening	2010/11	2011/12	2012/13	2013/14	2014/15	
Hepatitis B Test Done	98.5%	98.8%	98.9%	98.9%	99.3%	
HIV Test Done	97.5%	97.7%	97.8%	98.5%	98.7%	
Maternal Serum Screening Offered	89.9%	90.4%	92.6%	94.5%	95.4%	

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. Definitions and specifications begin on Page 82 of this document.

by Maternal Age Deliveries in Provincial Health Services Authority: April 1, 2010 - March 31, 2015

Offer of Maternal Serum Screening

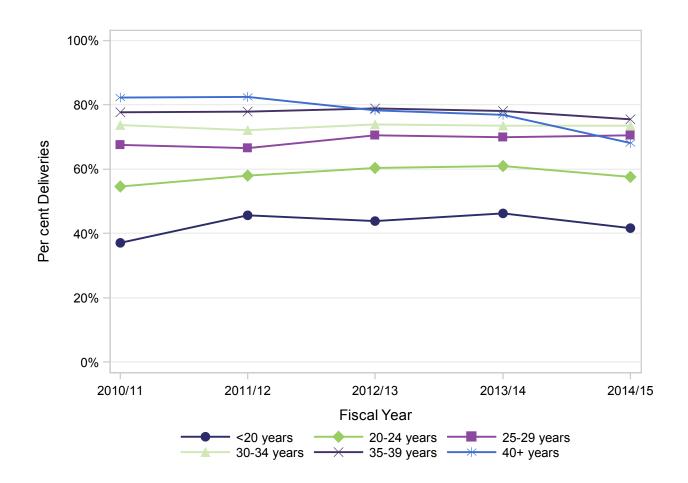


	Fiscal Year				
Maternal Age	2010/11	2011/12	2012/13	2013/14	2014/15
<20 years	66.7%	75.4%	81.3%	82.8%	82.0%
20-24 years	76.9%	81.6%	83.9%	89.5%	88.3%
25-29 years	86.1%	87.0%	90.5%	90.9%	93.3%
30-34 years	92.4%	92.0%	93.5%	95.6%	96.0%
35-39 years	92.5%	92.4%	94.0%	95.9%	96.9%
40+ years	89.7%	90.3%	94.2%	96.4%	97.0%

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. Definitions and specifications begin on Page 82 of this document.

Uptake of Prenatal Genetic Screening by Maternal Age

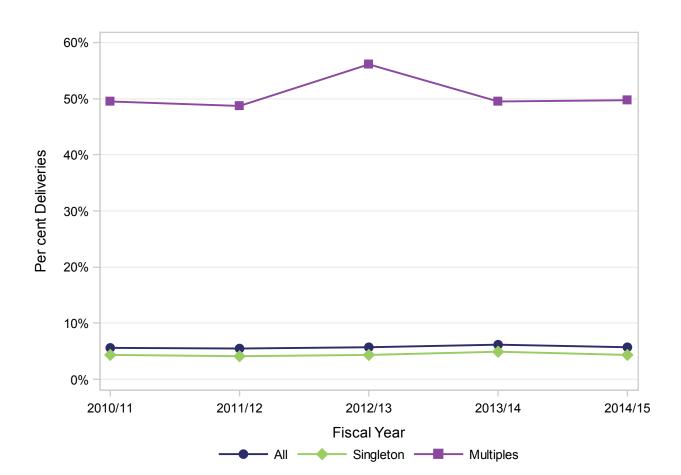
by Maternal Age Deliveries in Provincial Health Services Authority: April 1, 2010 - March 31, 2015



	Fiscal Year				
Maternal Age	2010/11	2011/12	2012/13	2013/14	2014/15
<20 years	37.1%	45.6%	43.8%	46.3%	41.7%
20-24 years	54.7%	58.1%	60.3%	61.0%	57.5%
25-29 years	67.6%	66.5%	70.5%	70.0%	70.4%
30-34 years	73.6%	72.2%	73.9%	73.6%	73.6%
35-39 years	77.7%	77.9%	79.0%	78.1%	75.5%
40+ years	82.2%	82.5%	78.2%	76.9%	68.1%

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

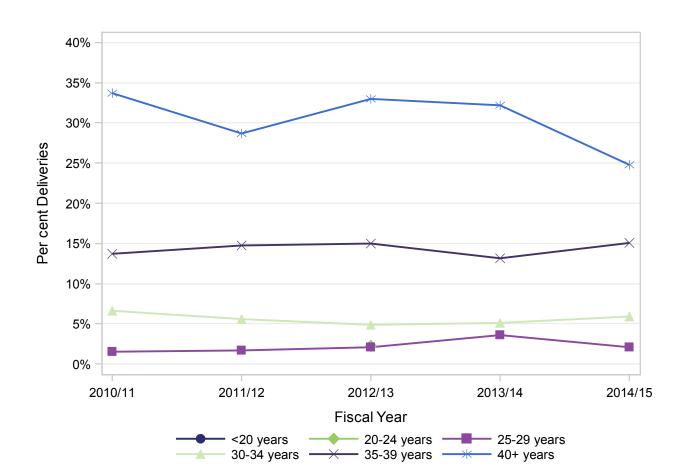
Click here for information on the BC Prenatal Genetic Screening Program. Definitions and specifications begin on Page 82 of this document.



Use of Artificial Reproductive Technology by Plurality Deliveries in Provincial Health Services Authority: April 1, 2010 - March 31, 2015

		Fiscal Year					
Plurality	2010/11	2011/12	2012/13	2013/14	2014/15		
All	5.6%	5.5%	5.8%	6.2%	5.7%		
Singleton	4.3%	4.1%	4.3%	5.0%	4.3%		
Multiples	49.5%	48.8%	56.1%	49.5%	49.8%		

Definitions and specifications begin on Page 82 of this document.



Use of Artificial Reproductive Technology Nulliparous Women by Age Deliveries in Provincial Health Services Authority: April 1, 2010 - March 31, 2015

	Fiscal Year					
Plurality	2010/11	2011/12	2012/13	2013/14	2014/15	
<20 years	NR	NR	NR	NR	NR	
20-24 years	NR	NR	2.3%	NR	NR	
25-29 years	1.6%	1.7%	2.1%	3.6%	2.1%	
30-34 years	6.6%	5.6%	4.9%	5.1%	5.9%	
35-39 years	13.7%	14.7%	14.9%	13.2%	15.1%	
40+ years	33.7%	28.7%	33.0%	32.2%	24.8%	

NR: Rates and per cents based on numerators of 1 to 4 are not reported. Definitions and specifications begin on Page 82 of this document.

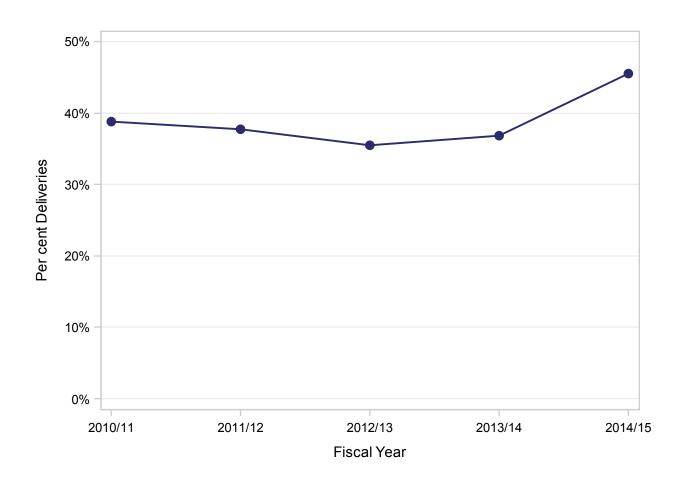
Perinatal Services BC, Perinatal Health Report 2010/11 to 2014/15.

Section 1: Maternal Health.

Perinatal Health Report 2010/11 to 2014/15 Deliveries in Provincial Health Services Authority

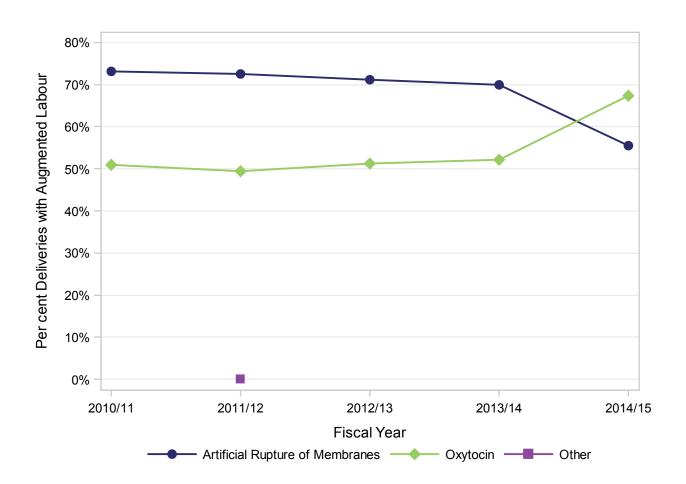
Section 2: Labour and Delivery

Labour Augmentation Deliveries in Provincial Health Services Authority: April 1, 2010 - March 31, 2015



	Fiscal Year						
	2010/11 2011/12 2012/13						
Labour Augmentation	38.8%	37.7%	35.5%	36.8%	45.6%		

Method of Labour Augmentation Deliveries in Provincial Health Services Authority: April 1, 2010 - March 31, 2015

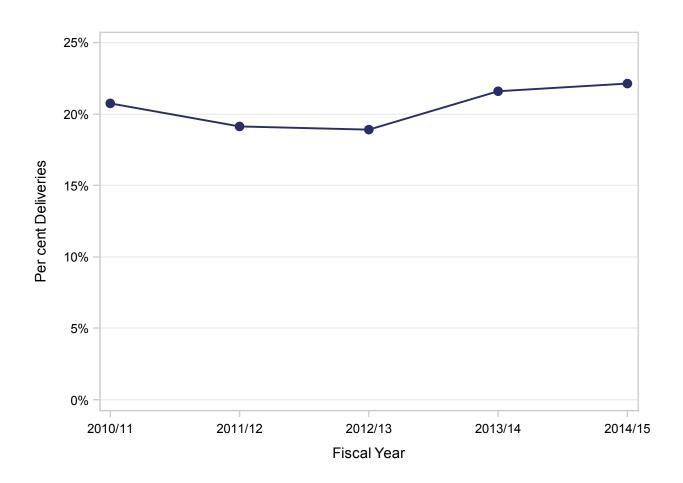


	Fiscal Year					
Method of Labour Augmentation	2010/11	2011/12	2012/13	2013/14	2014/15	
Artificial Rupture of Membranes	73.2%	72.6%	71.1%	69.9%	55.5%	
Oxytocin	51.0%	49.4%	51.3%	52.2%	67.4%	
Other	NR	0.0%	NR	NR	NR	

Multiple methods may be used.

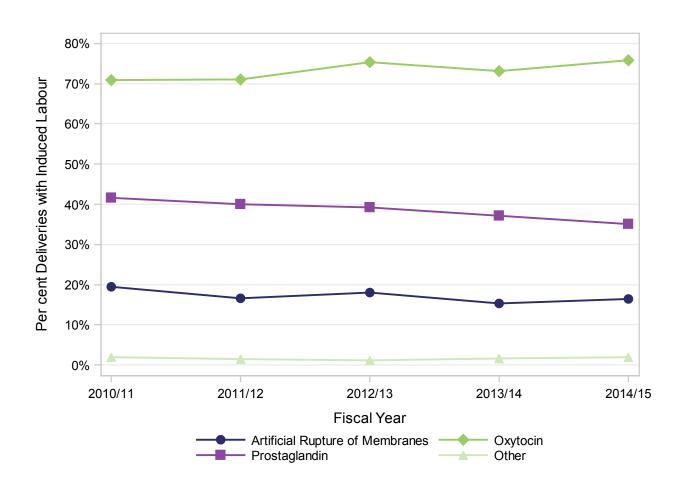
NR: Rates and per cents based on numerators of 1 to 4 are not reported. Definitions and specifications begin on Page 82 of this document.

Labour Induction Deliveries in Provincial Health Services Authority: April 1, 2010 - March 31, 2015



	Fiscal Year						
	2010/11	2011/12	2012/13	2013/14	2014/15		
Labour Induction	20.7%	19.1%	18.9%	21.6%	22.1%		

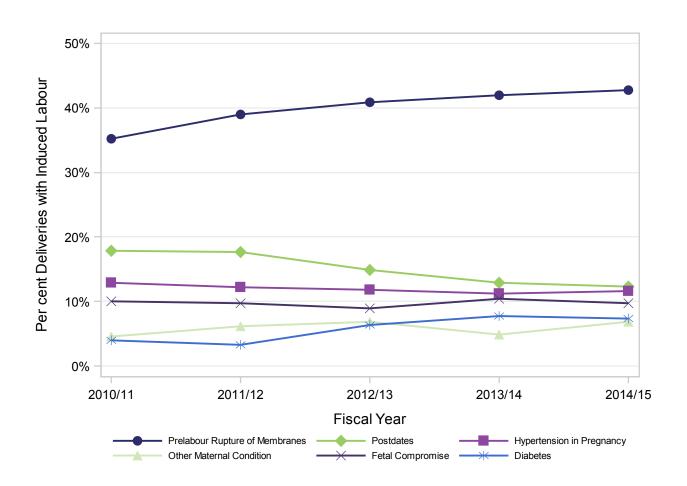
Method of Labour Induction Deliveries in Provincial Health Services Authority: April 1, 2010 - March 31, 2015



	Fiscal Year					
Method of Labour Induction	2010/11	2011/12	2012/13	2013/14	2014/15	
Artificial Rupture of Membranes	19.5%	16.6%	18.0%	15.3%	16.4%	
Oxytocin	70.8%	71.1%	75.3%	73.1%	75.8%	
Prostaglandin	41.7%	40.0%	39.3%	37.2%	35.0%	
Other	1.9%	1.5%	1.2%	1.6%	1.9%	

Multiple methods may be used. Definitions and specifications begin on Page 82 of this document.

Primary Indication for Labour Induction Deliveries in Provincial Health Services Authority: April 1, 2010 - March 31, 2015



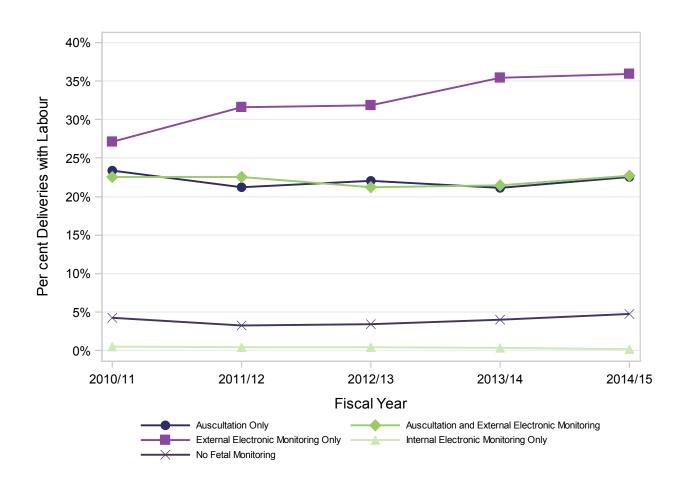
	Fiscal Year					
Primary Indication for Labour Induction	2010/11	2011/12	2012/13	2013/14	2014/15	
Prelabour Rupture of Membranes	35.3%	39.0%	40.9%	42.0%	42.8%	
Post Dates	17.9%	17.6%	14.9%	12.9%	12.3%	
Hypertension in Pregnancy	12.9%	12.2%	11.8%	11.2%	11.6%	
Other Maternal Condition	4.6%	6.1%	6.8%	4.9%	6.8%	
Fetal Compromise	10.0%	9.7%	9.0%	10.4%	9.8%	
Diabetes	3.9%	3.3%	6.4%	7.8%	7.4%	
Fetal Demise	1.5%	1.5%	0.9%	1.4%	1.5%	
Logistics	0.6%	NR	NR	0.6%	NR	
Antepartum Hemorrhage	0.5%	NR	NR	NR	0.4%	
Chorioamnionitis	NR	NR	NR	NR	NR	
Other	12.6%	9.4%	8.9%	8.2%	6.8%	
Unknown	NR	NR	NR	NR	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.

Definitions and specifications begin on Page 82 of this document.

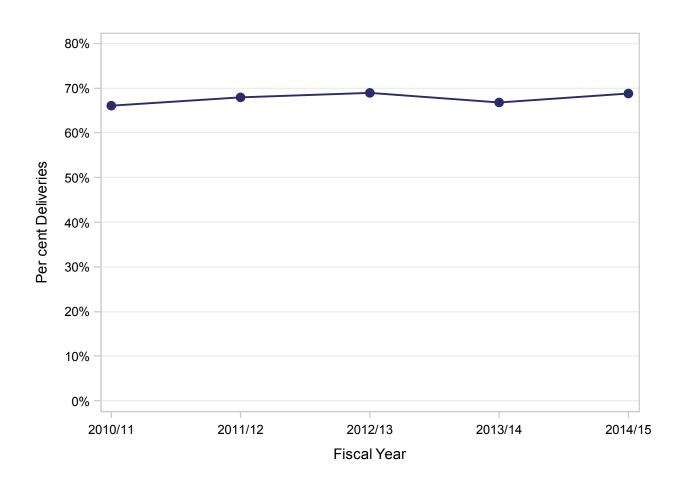
Method of Fetal Surveillance During Labour Deliveries in Provincial Health Services Authority: April 1, 2010 - March 31, 2015



	Fiscal Year					
Method of Fetal Surveillance During Labour	2010/11	2011/12	2012/13	2013/14	2014/15	
Auscultation Only	23.4%	21.2%	22.1%	21.1%	22.5%	
Auscultation and External Electronic Monitoring	22.5%	22.6%	21.2%	21.4%	22.7%	
External Electronic Monitoring Only	27.1%	31.6%	31.8%	35.5%	35.9%	
Internal Electronic Monitoring Only	0.5%	0.4%	0.5%	0.3%	0.2%	
No Fetal Monitoring	4.3%	3.3%	3.4%	4.0%	4.8%	

Definitions and specifications begin on Page 82 of this document.

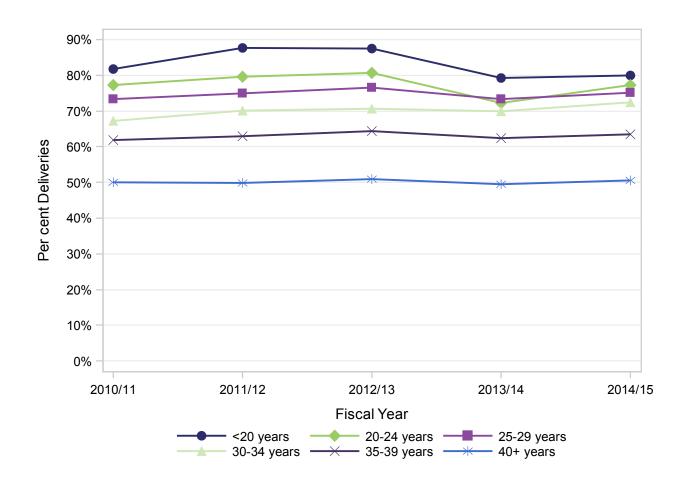
Vaginal Delivery Deliveries in Provincial Health Services Authority: April 1, 2010 - March 31, 2015



	Fiscal Year						
	2010/11	2011/12	2012/13	2013/14	2014/15		
Vaginal Delivery	66.1%	68.0%	68.9%	66.8%	68.9%		

by Maternal Age Deliveries in Provincial Health Services Authority: April 1, 2010 - March 31, 2015

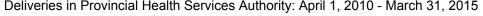
Vaginal Delivery

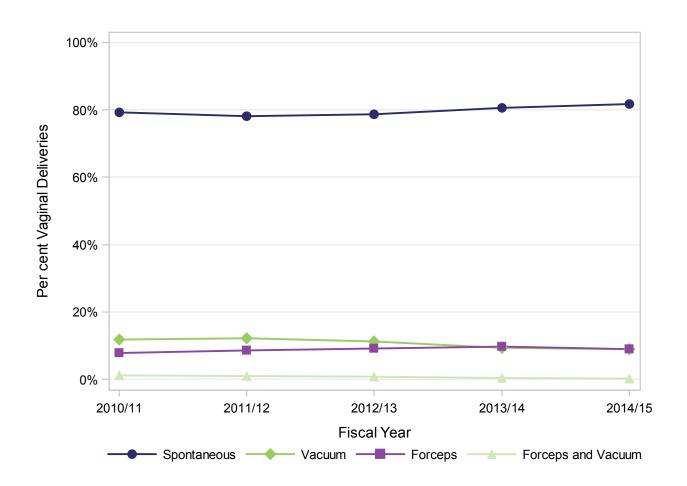


	Fiscal Year					
Maternal Age	2010/11	2011/12	2012/13	2013/14	2014/15	
<20 years	81.8%	87.7%	87.5%	79.3%	80.0%	
20-24 years	77.2%	79.6%	80.7%	72.2%	77.2%	
25-29 years	73.3%	74.9%	76.5%	73.3%	75.2%	
30-34 years	67.2%	70.1%	70.6%	69.9%	72.4%	
35-39 years	61.9%	63.0%	64.3%	62.5%	63.5%	
40+ years	50.1%	49.9%	50.9%	49.6%	50.6%	

Definitions and specifications begin on Page 82 of this document.

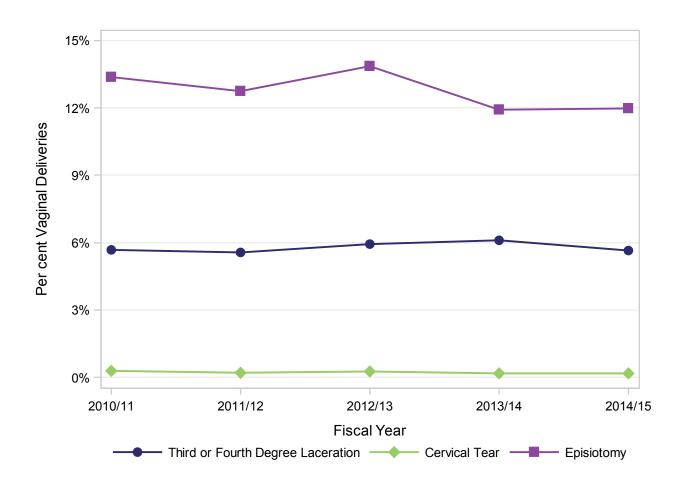
Type of Vaginal Delivery Deliveries in Provincial Health Services Authority: April 1, 2010 - March 31, 2015





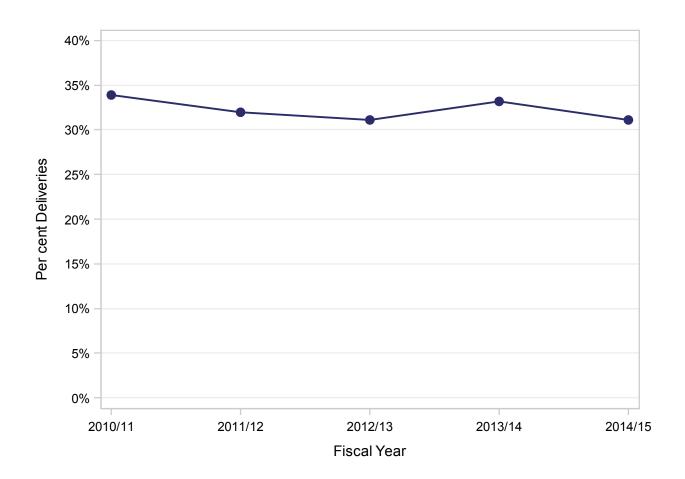
	Fiscal Year					
Type of Vaginal Delivery	2010/11	2011/12	2012/13	2013/14	2014/15	
Spontaneous	79.4%	78.2%	78.7%	80.5%	81.8%	
Vacuum	11.7%	12.2%	11.3%	9.4%	8.9%	
Forceps	7.8%	8.7%	9.2%	9.7%	9.0%	
Forceps and Vacuum	1.1%	0.9%	0.8%	0.4%	0.3%	

Perineal Trauma Deliveries in Provincial Health Services Authority: April 1, 2010 - March 31, 2015



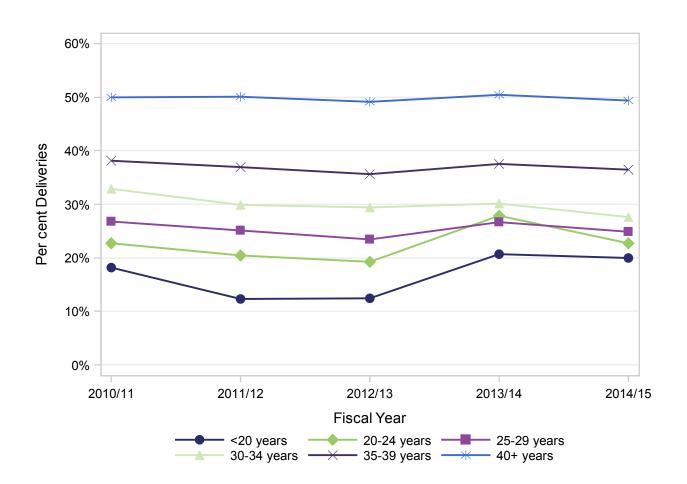
	Fiscal Year				
Perineal Trauma	2010/11	2011/12	2012/13	2013/14	2014/15
Third or Fourth Degree Laceration	5.7%	5.6%	5.9%	6.1%	5.7%
Cervical Tear	0.3%	0.2%	0.3%	0.2%	0.2%
Episiotomy	13.4%	12.7%	13.9%	11.9%	12.0%

Cesarean Delivery Deliveries in Provincial Health Services Authority: April 1, 2010 - March 31, 2015



		Fiscal Year					
	2010/11	2011/12	2012/13	2013/14	2014/15		
Cesarean Delivery	33.9%	32.0%	31.1%	33.2%	31.1%		

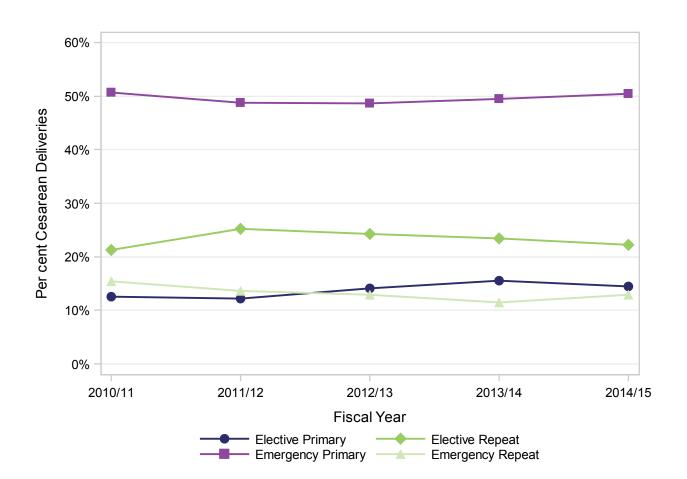
Cesarean Delivery by Maternal Age Deliveries in Provincial Health Services Authority: April 1, 2010 - March 31, 2015



	Fiscal Year				
Maternal Age	2010/11	2011/12	2012/13	2013/14	2014/15
<20 years	18.2%	12.3%	12.5%	20.7%	20.0%
20-24 years	22.8%	20.4%	19.3%	27.8%	22.8%
25-29 years	26.7%	25.1%	23.5%	26.7%	24.8%
30-34 years	32.8%	29.9%	29.4%	30.1%	27.6%
35-39 years	38.1%	37.0%	35.7%	37.5%	36.5%
40+ years	49.9%	50.1%	49.1%	50.4%	49.4%

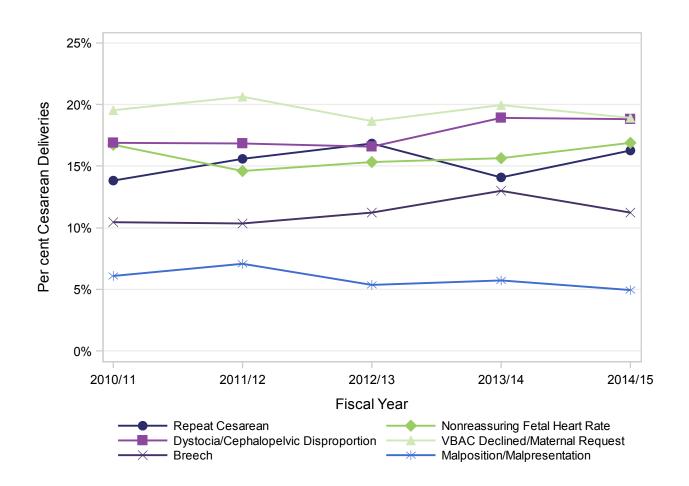
Definitions and specifications begin on Page 82 of this document.

Type of Cesarean Delivery Deliveries in Provincial Health Services Authority: April 1, 2010 - March 31, 2015



	Fiscal Year					
Type of Cesarean Delivery	2010/11	2011/12	2012/13	2013/14	2014/15	
Elective Primary	12.6%	12.2%	14.1%	15.6%	14.5%	
Elective Repeat	21.3%	25.3%	24.3%	23.4%	22.2%	
Emergency Primary	50.7%	48.8%	48.6%	49.5%	50.4%	
Emergency Repeat	15.5%	13.7%	13.0%	11.5%	12.9%	

Primary Indication for Cesarean Delivery Deliveries in Provincial Health Services Authority: 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	13.8%	15.6%	16.8%	14.1%	16.3%	
Nonreassuring Fetal Heart Rate	16.7%	14.6%	15.3%	15.6%	16.9%	
Dystocia/Cephalopelvic Disproportion	16.9%	16.8%	16.6%	18.9%	18.8%	
VBAC Declined/Maternal Request	19.6%	20.6%	18.7%	20.0%	18.9%	
Breech	10.5%	10.4%	11.2%	13.0%	11.2%	
Malposition/Malpresentation	6.1%	7.1%	5.4%	5.7%	5.0%	
Placenta Previa	2.3%	2.2%	2.8%	2.6%	2.8%	
Abruptio Placenta	0.8%	NR	0.5%	0.8%	0.8%	
Active Herpes	NR	NR	NR	NR	NR	
Other	13.1%	12.3%	12.5%	9.2%	9.2%	
Unknown	NR	NR	NR	NR	NR	

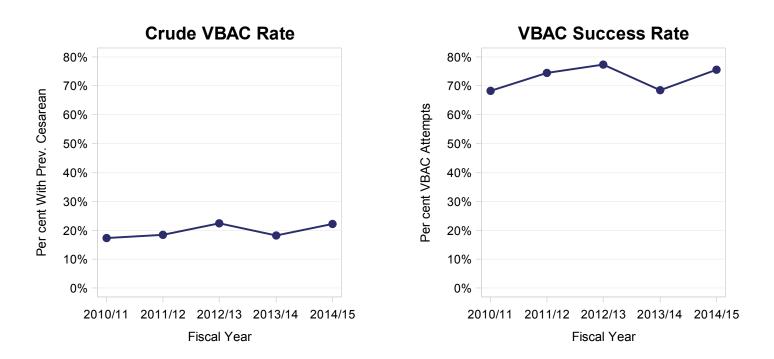
Selected indications are included in the figure; all indications are included in the table.

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

Definitions and specifications begin on Page 82 of this document.

Vaginal Birth After Cesarean (VBAC)

Deliveries in Provincial Health Services Authority: April 1, 2010 - March 31, 2015

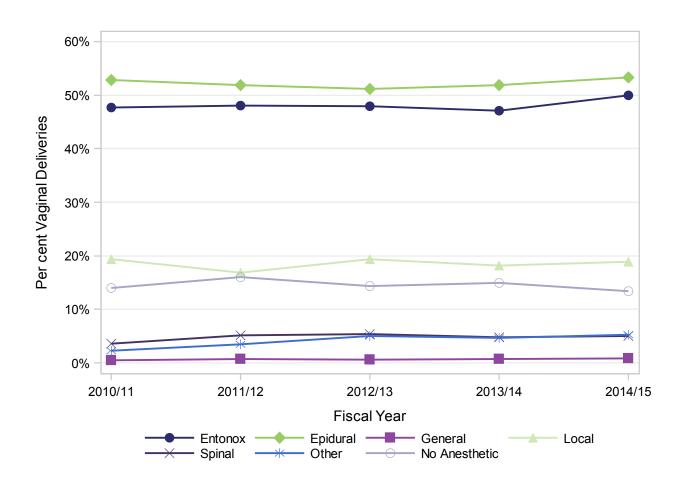


Vaginal Birth After Cesarean (VBAC)

	Fiscal Year						
	2010/11	2011/12	2012/13	2013/14	2014/15		
Crude VBAC Rate	17.2%	18.4%	22.5%	18.3%	22.2%		
VBAC Eligible Rate	84.8%	86.9%	86.6%	89.1%	86.2%		
VBAC Attempted Rate	29.6%	28.4%	33.1%	29.9%	33.9%		
VBAC Success Rate	68.2%	74.5%	77.4%	68.6%	75.4%		

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 Provincial Health Services Authority: April 1, 2010 - March 31, 2015



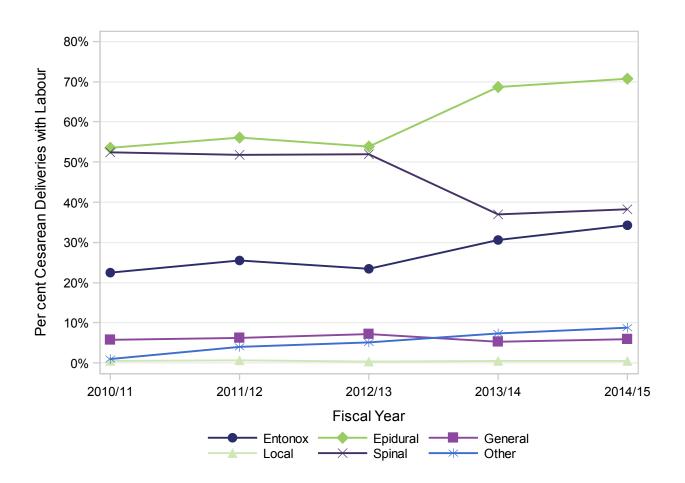
	Fiscal Year				
Anesthesia or Analgesia	2010/11	2011/12	2012/13	2013/14	2014/15
Entonox	47.6%	48.0%	47.9%	47.1%	50.0%
Epidural	52.8%	51.8%	51.1%	51.9%	53.3%
General	0.6%	0.7%	0.6%	0.8%	0.8%
Local	19.4%	16.9%	19.3%	18.2%	18.9%
Spinal	3.6%	5.2%	5.5%	4.8%	5.0%
Other	2.3%	3.5%	5.0%	4.7%	5.3%
No Anesthetic	14.0%	16.1%	14.3%	15.0%	13.5%

Multiple agents may be used.

Definitions and specifications begin on Page 82 of this document.

Anesthesia or Analgesia During Labour and Delivery Cesarean Deliveries with Labour

Deliveries in Provincial Health Services Authority: April 1, 2010 - March 31, 2015

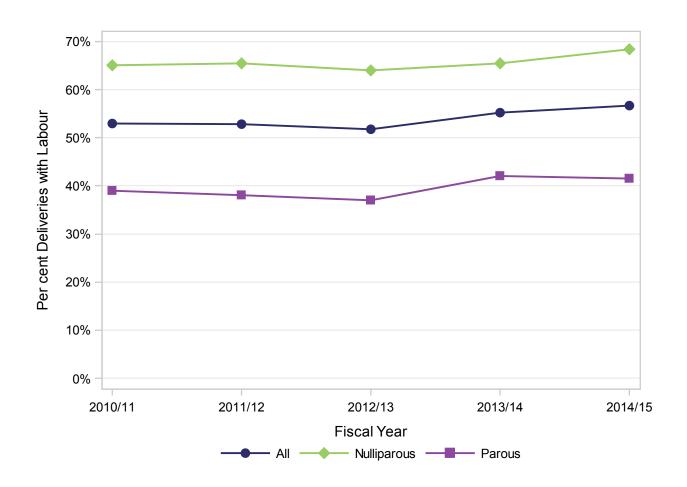


	Fiscal Year				
Anesthesia or Analgesia	2010/11	2011/12	2012/13	2013/14	2014/15
Entonox	22.4%	25.5%	23.5%	30.6%	34.2%
Epidural	53.5%	56.1%	53.8%	68.7%	70.7%
General	5.7%	6.2%	7.2%	5.4%	5.9%
Local	0.4%	0.6%	0.4%	0.5%	0.5%
Spinal	52.4%	51.7%	52.0%	37.0%	38.3%
Other	1.0%	4.0%	5.1%	7.4%	8.8%

Multiple agents may be used.

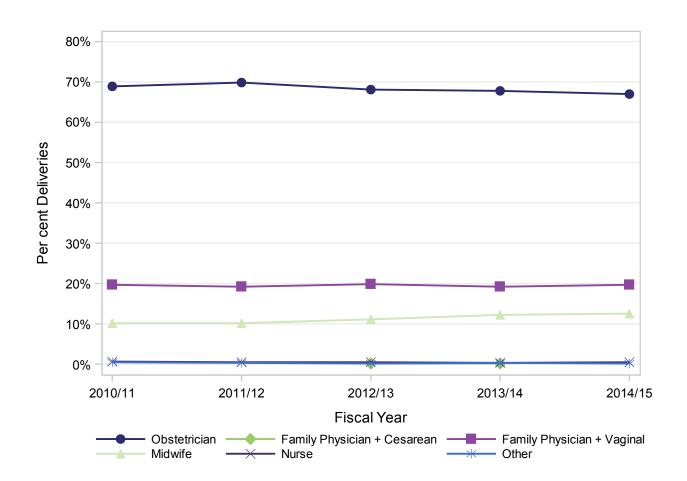
Definitions and specifications begin on Page 82 of this document.

Epidural Anesthesia or Analgesia During Labour and Delivery **by Parity** Deliveries in Provincial Health Services Authority: April 1, 2010 - March 31, 2015



	Fiscal Year					
Parity	2010/11	2011/12	2012/13	2013/14	2014/15	
All	53.0%	52.8%	51.7%	55.3%	56.7%	
Nulliparous	65.0%	65.5%	64.0%	65.5%	68.4%	
Parous	38.9%	38.1%	37.1%	42.0%	41.5%	

Delivery Provider Deliveries in Provincial Health Services Authority: April 1, 2010 - March 31, 2015

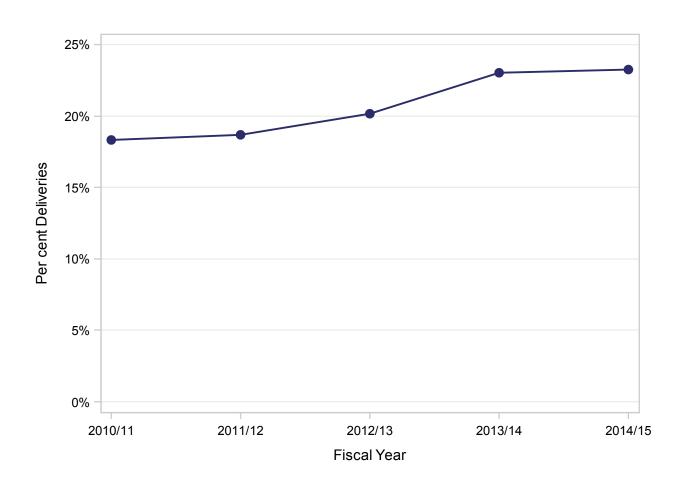


	Fiscal Year				
Delivery Provider	2010/11	2011/12	2012/13	2013/14	2014/15
Obstetrician	68.9%	69.8%	68.1%	67.7%	67.0%
Surgeon	NR	NR	NR	NR	NR
Family Physician + Cesarean	NR	NR	0.1%	0.2%	NR
Family Physician + Vaginal	19.7%	19.2%	19.8%	19.2%	19.7%
Midwife	10.2%	10.2%	11.1%	12.2%	12.6%
Nurse	0.6%	0.4%	0.6%	0.3%	0.4%
Other	0.5%	0.4%	0.2%	0.3%	0.3%

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.

NR: Rates and per cents based on numerators of 1 to 4 are not reported. Definitions and specifications begin on Page 82 of this document.

Any Care Provided by a Registered Midwife Deliveries in Provincial Health Services Authority: April 1, 2010 - March 31, 2015

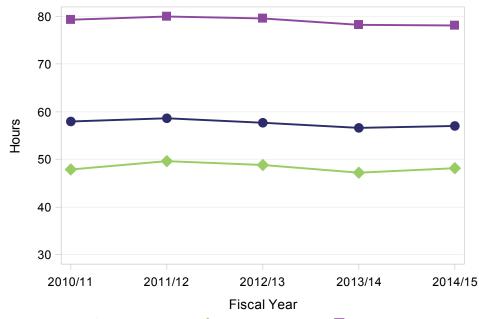


	Fiscal Year					
	2010/11	2011/12	2012/13	2013/14	2014/15	
Any Care by a Registered Midwife	18.3%	18.7%	20.2%	23.0%	23.2%	

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 82 of this document.

Length of Stay for the Delivery Episode of Care **by Mode of Delivery** Deliveries in Provincial Health Services Authority: April 1, 2010 - March 31, 2015

Median Total Length of Stay (Hours)



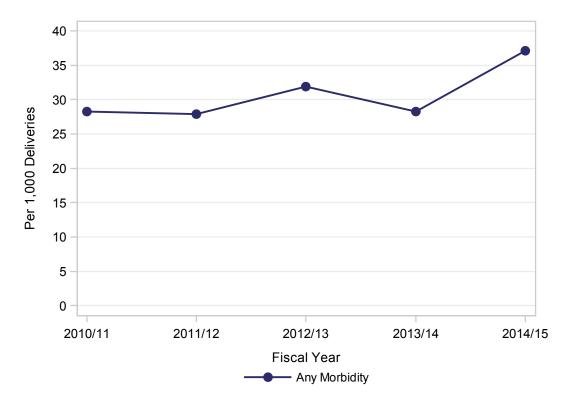
All Deliveries Vaginal Deliveries Cesarean Deliveries

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

	A	Antepartum LOS (Hours)		Postpartum LOS (Hours)			Total LOS (Hours)								
	Fiscal Year			Fiscal Year				Fi	scal Ye	ar					
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	6.6	6.5	6.2	6.2	6.6	50.9	51.0	50.8	49.9	49.8	58.0	58.6	57.8	56.6	57.1
Vaginal Deliveries	7.1	7.0	6.7	6.6	7.1	39.8	40.4	40.5	38.9	39.4	47.9	49.6	48.8	47.2	48.1
Cesarean Deliveries	5.0	4.7	4.6	4.7	5.1	72.5	73.0	73.2	70.8	71.3	79.3	80.0	79.6	78.2	78.2

Deliveries outside acute care facilities are excluded.

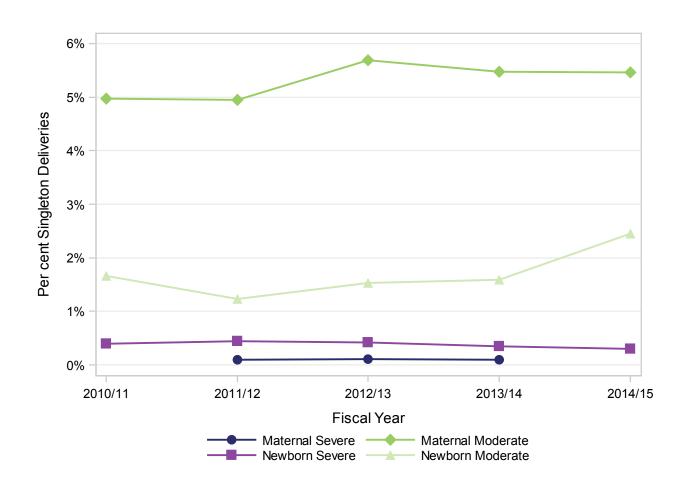
Maternal Morbidity Deliveries in Provincial Health Services Authority: April 1, 2010 - March 31, 2015



			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
Liver Complications	4.3	5.1	6.2	4.6	8.5
Postpartum Hemorrhage with Transfusion	6.3	6.7	7.7	6.8	9.5
Urinary Tract Infection	5.1	3.7	3.5	6.0	4.5
Sepsis	5.4	6.2	5.9	5.4	7.9
Wound Infection	4.2	5.1	4.1	4.8	4.0
HELLP	5.1	3.3	4.2	3.9	3.9
Anesthetic Complications	3.4	2.2	4.6	1.5	3.0
Antepartum Hemorrhage with Transfusion	2.9	1.4	4.1	2.8	3.2
Eclampsia	NR	NR	0.0	0.0	NR
Shock	NR	0.8	NR	NR	NR
Pulmonary Embolism	NR	0.0	NR	NR	NR
Postpartum Hemorrhage with Hysterectomy	0.8	NR	NR	NR	NR
Stroke	1.4	NR	NR	NR	NR

NR: Rates and per cents based on numerators of 1 to 4 are not reported. Definitions and specifications begin on Page 82 of this document. Perinatal Services BC, Perinatal Health Report 2010/11 to 2014/15.

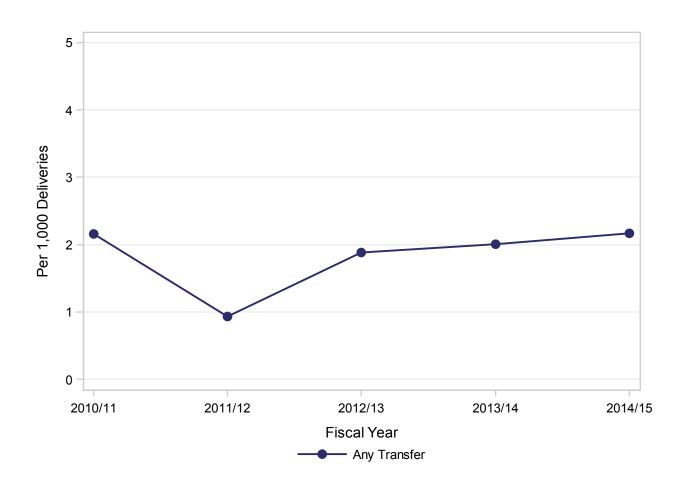
Adverse Outcome of Labour or Delivery Deliveries in Provincial Health Services Authority: April 1, 2010 - March 31, 2015



	Fiscal Year							
	2010/11	2011/12	2012/13	2013/14	2014/15			
Any Adverse Outcome	7.0%	6.7%	7.6%	7.3%	8.1%			
Maternal Severe Adverse Outcome	NR	0.1%	0.1%	0.1%	NR			
Maternal Moderate Adverse Outcome	5.0%	5.0%	5.7%	5.5%	5.5%			
Neonatal Severe Adverse Outcome	0.4%	0.4%	0.4%	0.3%	0.3%			
Neonatal Moderate Adverse Outcome	1.7%	1.2%	1.5%	1.6%	2.5%			

NR: Rates and per cents based on numerators of 1 to 4 are not reported. Definitions and specifications begin on Page 82 of this document.

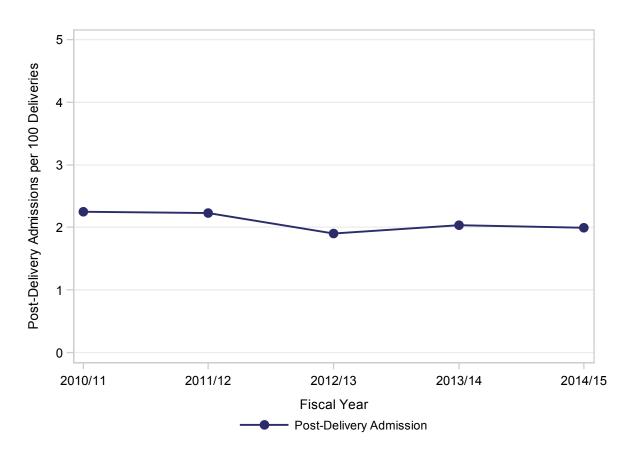
Maternal Hospital Transfers Deliveries in Provincial Health Services Authority: April 1, 2010 - March 31, 2015



	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	2.2 0.9 1.9 2.0 2.							

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. Definitions and specifications begin on Page 82 of this document.

Post-Delivery Admissions Deliveries in Provincial Health Services Authority: April 1, 2010 - March 31, 2015



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

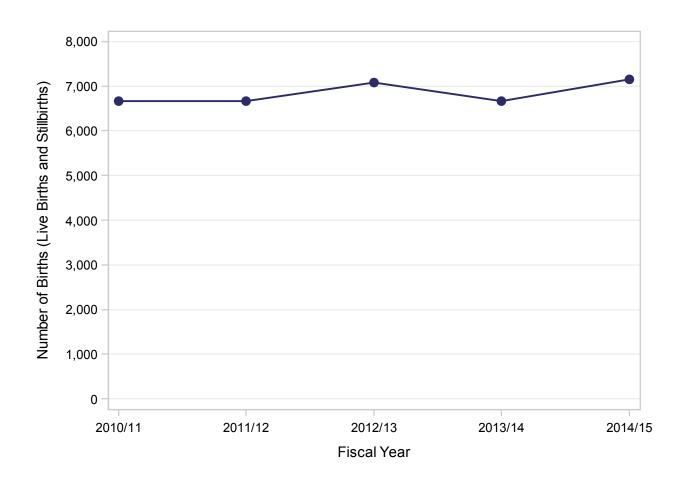
	Fiscal Year						
Most Responsible Diagnosis	2010/11	2011/12	2012/13	2013/14	2014/15		
Postpartum Infection	28.8%	20.1%	25.2%	14.4%	20.3%		
Other Diseases Complicating Pregnancy	11.6%	16.7%	13.7%	12.1%	20.3%		
Postpartum Hemorrhage	21.9%	20.8%	20.6%	22.7%	13.8%		
Hypertension or Eclampsia	8.2%	11.8%	7.6%	8.3%	13.8%		
Other Wound Issues	4.8%	7.6%	10.7%	11.4%	7.2%		
Complications of Anesthesia	5.5%	NR	NR	5.3%	6.5%		
Pregnancy-Associated Mental Health	0.0%	NR	NR	NR	0.0%		
Routine Postpartum Care	NR	5.6%	6.9%	8.3%	NR		
Retained Placenta Without Hemorrhage	4.8%	3.5%	NR	NR	NR		
Care of Breasts	3.4%	4.9%	3.8%	3.8%	NR		

Post-Delivery Admissions include inter-hospital transfers and readmissions from home. NR: Rates and per cents based on numerators of 1 to 4 are not reported.

Perinatal Health Report 2010/11 to 2014/15 Births in Provincial Health Services Authority

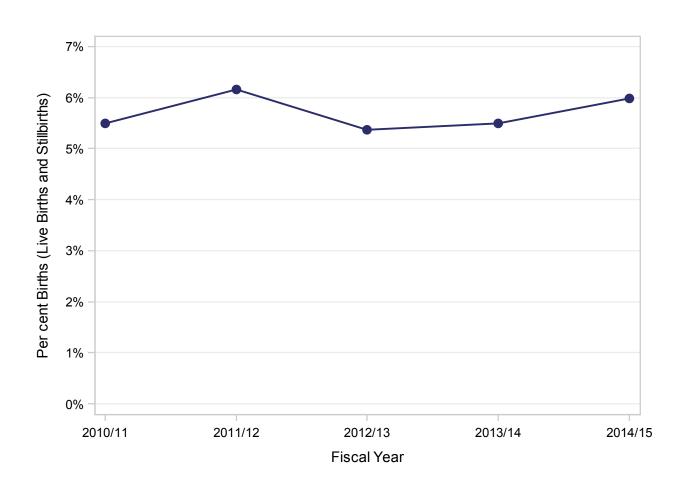
Section 3: Newborn Health

Total Births Births in Provincial Health Services Authority: April 1, 2010 - March 31, 2015



	Fiscal Year						
	2010/11 2011/12 2012/13 2013/14 2014						
Provincial Health Services Authority	6,666 6,669 7,083 6,673 7,1						

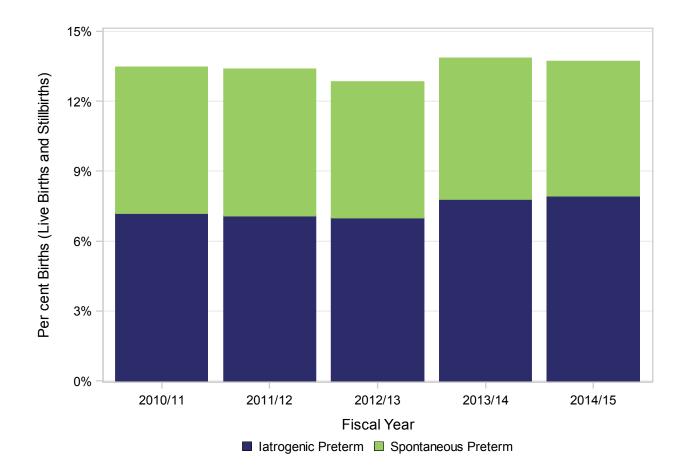
Births Part of a Multiple Gestation Births in Provincial Health Services Authority: April 1, 2010 - March 31, 2015



			Fiscal Year		
	2010/11	2011/12	2012/13	2013/14	2014/15
Multiple Gestation	5.5%	6.2%	5.4%	5.5%	6.0%

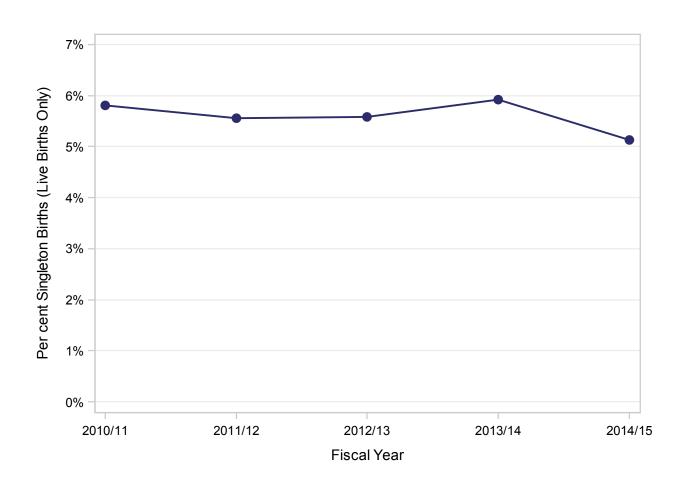
Includes twin, triplet, and quadruplet births.

Preterm Birth Births in Provincial Health Services Authority: April 1, 2010 - March 31, 2015



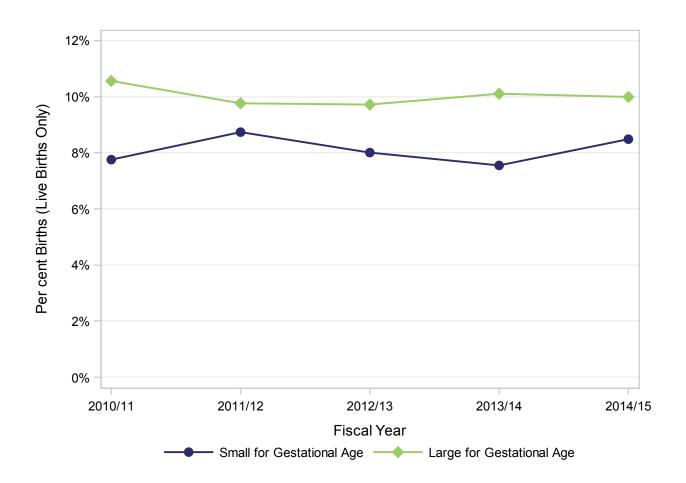
		Fiscal Year								
	2010/11	2011/12	2012/13	2013/14	2014/15					
latrogenic Preterm	7.2%	7.1%	7.0%	7.8%	7.9%					
Spontaneous Preterm	6.3%	6.3%	5.8%	6.0%	5.8%					
Total Preterm	13.5%	13.4%	12.8%	13.8%	13.7%					

Low Birthweight Singletons Births in Provincial Health Services Authority: April 1, 2010 - March 31, 2015



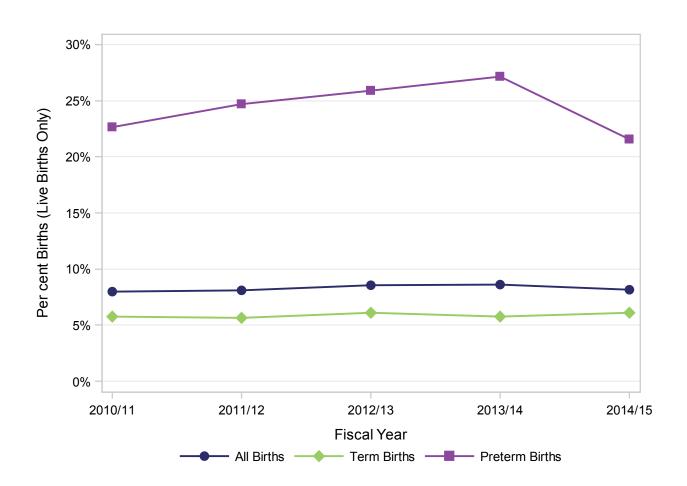
			Fiscal Year		
	2010/11	2011/12	2012/13	2013/14	2014/15
Low Birthweight	5.8%	5.6%	5.6%	5.9%	5.1%

Weight for Gestational Age Births in Provincial Health Services Authority: April 1, 2010 - March 31, 2015



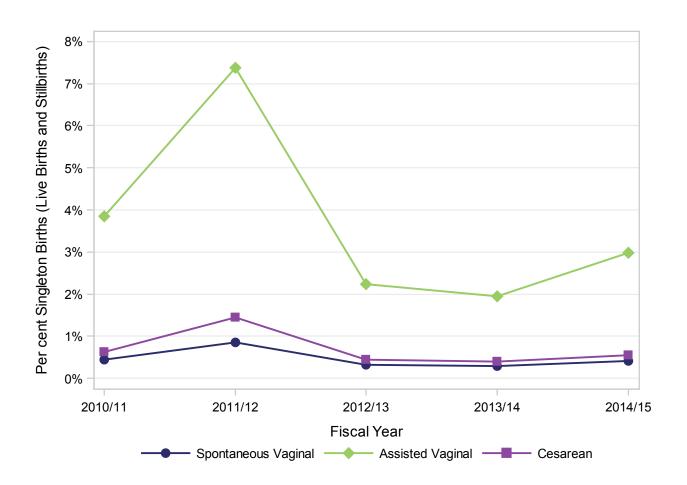
		Fiscal Year							
	2010/11	2011/12	2012/13	2013/14	2014/15				
Small for Gestational Age	7.8%	8.7%	8.0%	7.5%	8.5%				
Large for Gestational Age	10.6%	9.8%	9.7%	10.1%	10.0%				

Newborn Resuscitation by Gestational Age Births in Provincial Health Services Authority: April 1, 2010 - March 31, 2015



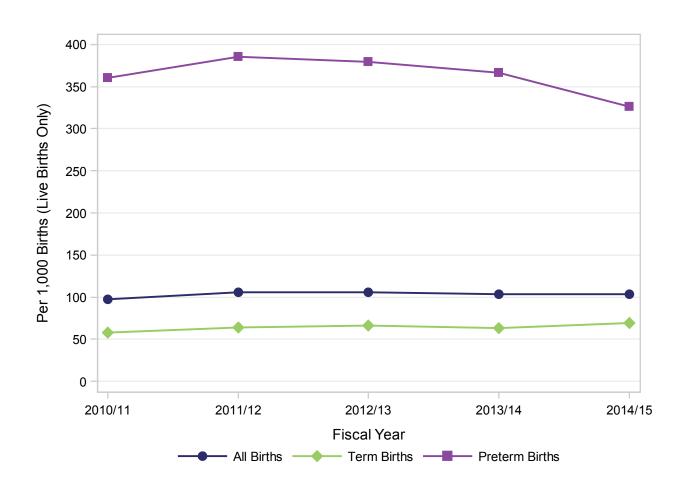
		Fiscal Year						
Gestational Age	2010/11	2011/12	2012/13	2013/14	2014/15			
All Births	7.8%	7.8%	8.4%	8.4%	8.0%			
Term Births	5.7%	5.5%	6.0%	5.8%	6.1%			
Preterm Births	21.7%	23.5%	25.2%	26.1%	21.1%			

Birth Injury by Mode of Delivery Births in Provincial Health Services Authority: April 1, 2010 - March 31, 2015



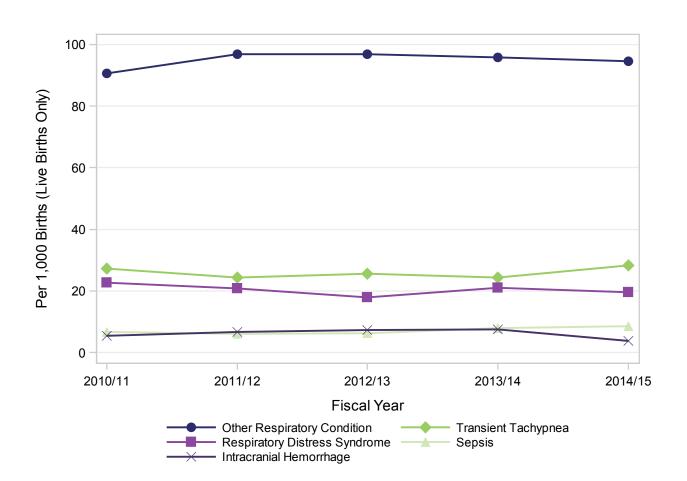
	Fiscal Year					
Mode of Delivery	2010/11	2011/12	2012/13	2013/14	2014/15	
Spontaneous Vaginal	0.4%	0.9%	0.3%	0.3%	0.4%	
Assisted Vaginal	3.8%	7.4%	2.2%	2.0%	3.0%	
Cesarean	0.6%	1.5%	0.4%	0.4%	0.5%	

Neonatal Morbidity by Gestational Age Births in Provincial Health Services Authority: April 1, 2010 - March 31, 2015



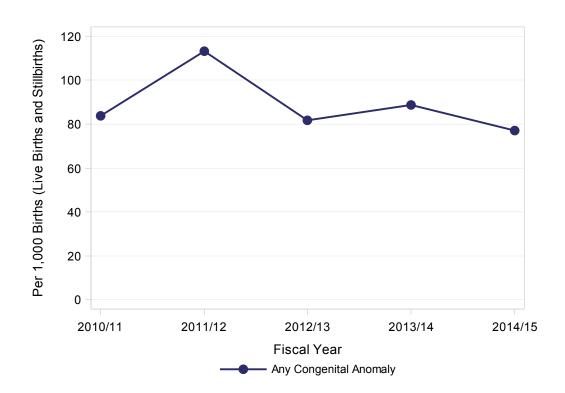
	Fiscal Year					
	2010/11 2011/12 2012/13			2013/14	2014/15	
Gestational Age	per 1,000	per 1,000	per 1,000	per 1,000	per 1,000	
All Births	97.5	105.7	105.4	103.5	103.5	
Term Births	57.9	64.1	66.0	63.0	69.7	
Preterm Births	360.2	385.3	379.7	366.5	325.9	

Type of Neonatal Morbidity Births in Provincial Health Services Authority: 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	90.6	96.8	96.9	95.8	94.5		
Transient Tachypnea	27.3	24.4	25.7	24.4	28.2		
Respiratory Distress Syndrome	22.6	20.8	17.9	21.0	19.5		
Sepsis	6.6	6.0	6.4	8.0	8.5		
Intracranial Hemorrhage	5.4	6.8	7.4	7.5	3.8		

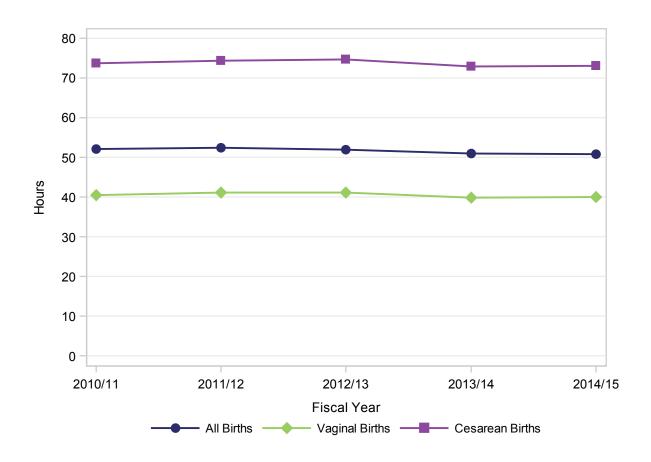
Congenital Anomalies Births in Provincial Health Services Authority: April 1, 2010 - March 31, 2015



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	2.9	3.7	3.1	4.5	2.9		
Circulatory System	27.2	31.3	30.4	30.7	23.8		
Cleft Lip or Palate	1.7	1.8	2.1	1.6	2.5		
Digestive System	9.9	16.6	11.9	11.4	12.7		
Eye, Ear, Face, or Neck	5.7	7.6	3.1	4.2	3.2		
Genital Organs	11.7	13.0	9.5	8.8	7.1		
Musculoskeletal System	22.4	19.9	22.2	23.2	21.4		
Nervous System	3.5	4.9	3.2	2.8	3.9		
Respiratory System	2.6	4.2	1.8	3.4	3.5		
Urinary System	5.7	7.5	6.8	10.6	7.1		
Other Specific Anomaly	9.9	31.0	7.2	7.5	6.3		

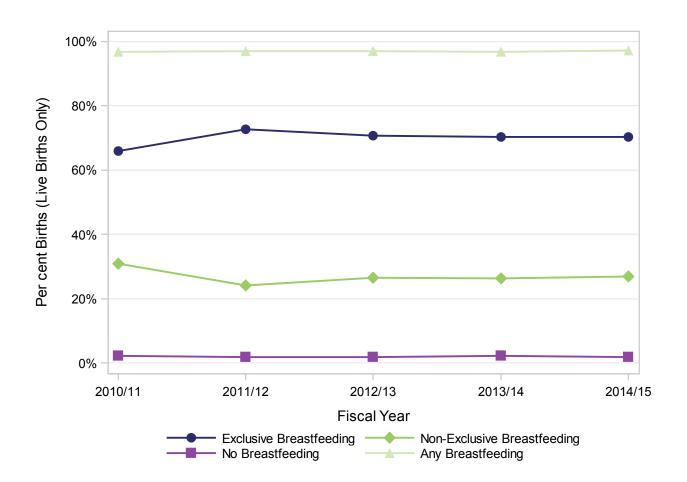




	Fiscal Year						
	2010/11	2011/12	2012/13	2013/14	2014/15		
All Births	52.2	52.4	51.9	51.0	50.7		
Vaginal Births	40.4	41.2	41.2	39.8	40.1		
Cesarean Births	73.7	74.4	74.7	72.8	73.0		

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 Admission Births in Provincial Health Services Authority: April 1, 2010 - March 31, 2015



	Fiscal Year						
	2010/11	2011/12	2012/13	2013/14	2014/15		
Exclusive Breastfeeding	66.0%	72.8%	70.6%	70.3%	70.3%		
Non-Exclusive Breastfeeding	30.8%	24.2%	26.4%	26.4%	26.9%		
No Breastfeeding	2.2%	1.8%	1.8%	2.2%	1.8%		
Any Breastfeeding	96.8%	97.0%	97.0%	96.7%	97.2%		

100% Per cent Births (Live Births Only) 80% 60% 40% 20% 0% 2012/13 2010/11 2011/12 2013/14 2014/15 **Fiscal Year** - Exclusive Breastfeeding - Vaginal • Any Breastfeeding - Vaginal - Exclusive Breastfeeding - Cesarean -Any Breastfeeding - Cesarean

Breastfeeding During the Birth Admission
by Mode of Delivery

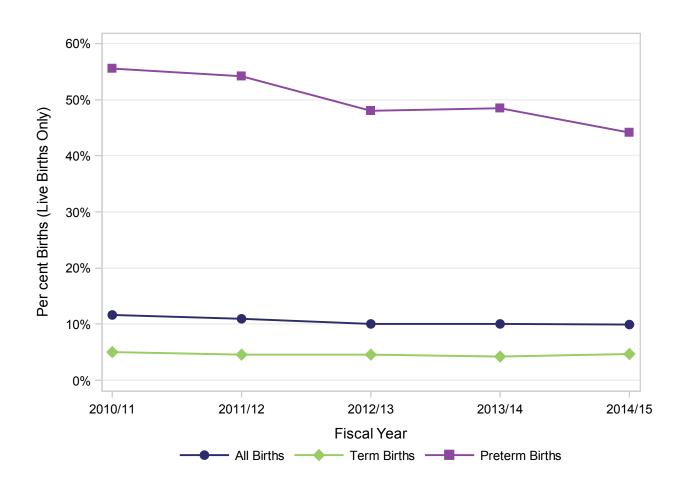
Births in Provincial Health Services Authority: April 1, 2010 - March 31, 2015

	Fiscal Year						
	2010/11	2011/12	2012/13	2013/14	2014/15		
Exclusive Breastfeeding - Vaginal	73.7%	78.3%	77.2%	77.7%	77.1%		
Any Breastfeeding - Vaginal	97.0%	97.4%	97.3%	96.9%	97.6%		
Exclusive Breastfeeding - Cesarean	51.7%	61.7%	56.8%	56.2%	56.0%		
Any Breastfeeding - Cesarean	96.5%	96.2%	96.4%	96.3%	96.5%		

-

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

Births in Provincial Health Services Authority: April 1, 2010 - March 31, 2015



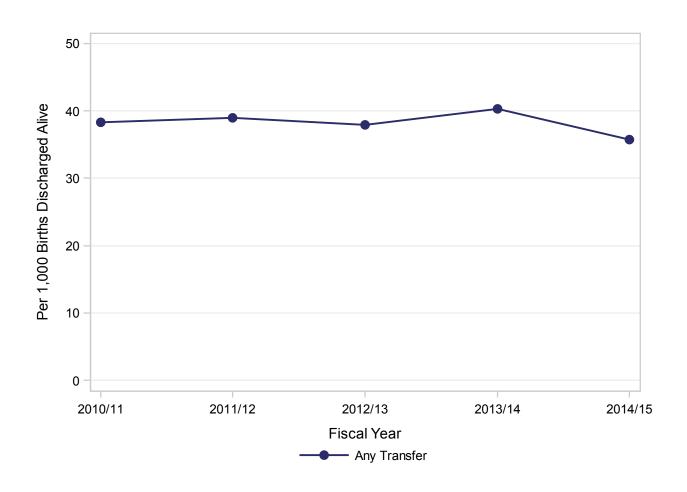
Median Length of Stay (Days) in Neonatal Intensive Care During Birth Episode of Care by Gestational Age

	Fiscal Year					
	2010/11	2011/12	2012/13	2013/14	2014/15	
All Births	32.0	25.0	29.0	28.5	28.0	
Term Births	12.0	7.5	9.5	9.0	6.0	
Preterm Births	38.0	29.0	31.0	33.0	34.0	

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 82 of this document.

Transfer to Another Hospital from the Birth Admission Births in Provincial Health Services Authority: April 1, 2010 - March 31, 2015

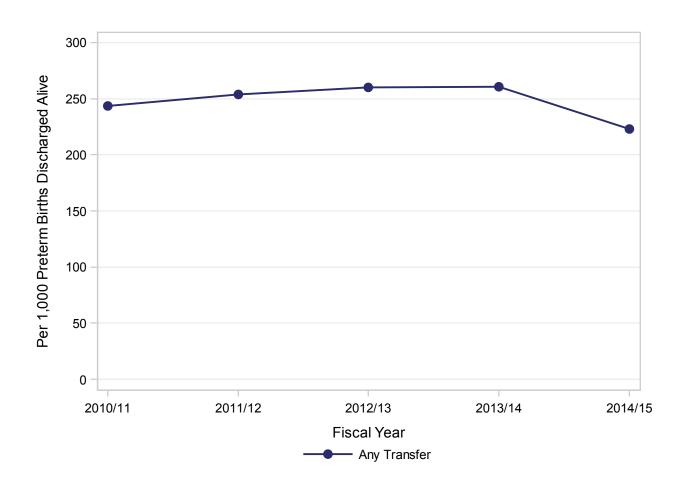


	Fiscal Year						
	2010/11	2011/12	2012/13	2013/14	2014/15		
	per 1,000	per 1,000	per 1,000	per 1,000	per 1,000		
Any Transfer	38.3	39.0	37.9	40.3	35.7		

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. Definitions and specifications begin on Page 82 of this document.

Transfer to Another Hospital from the Birth Admission Preterm Births

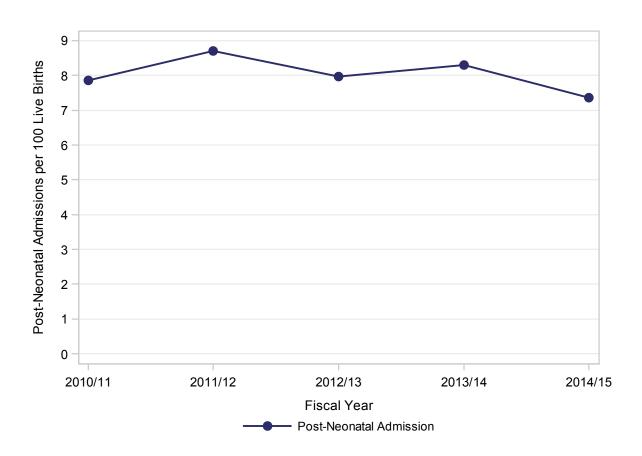
Births in Provincial Health Services Authority: April 1, 2010 - March 31, 2015



	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	243.5	253.9	259.9	260.6	223.2		

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. Definitions and specifications begin on Page 82 of this document.

Post-Neonatal Admissions Births in Provincial Health Services Authority: 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			
Low Birth Weight or Preterm Birth	34.6%	31.0%	31.7%	35.5%	34.4%			
Jaundice	24.0%	27.4%	22.2%	22.0%	23.0%			
Congenital Anomalies	12.7%	12.7%	14.4%	8.4%	10.2%			
Respiratory Infections	3.5%	4.2%	3.0%	4.5%	5.2%			
Feeding Problems	5.8%	4.0%	4.8%	7.6%	4.6%			
Other Infections	2.9%	2.4%	2.3%	2.7%	3.6%			
Apnea	1.7%	3.1%	1.4%	1.3%	3.1%			
Urinary Tract Infections	1.3%	1.0%	3.0%	1.8%	1.3%			
Respiratory Distress	NR	NR	NR	NR	NR			
Isoimmunization	2.5%	2.8%	2.8%	1.1%	NR			

Post-Neonatal Admissions include inter-hospital transfers and readmissions from home.

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

In-Hospital Perinatal Mortality

Births in Provincial Health Services Authority: 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)	41.4	40.0	42.8	44.1	46.2	
Stillbirth Rate = Stillbirths >=500g / (Live Births + Stillbirths >=500g)	4.2	3.2	2.8	3.6	5.2	
Early Neonatal Mortality Rate = Early Neonatal Deaths / Live Births	3.0	4.7	3.4	3.6	4.1	
Perinatal Mortality Rate = Perinatal Deaths / (Live Births + Stillbirths >=500g)	7.2	7.8	6.2	7.2	9.3	
Late Neonatal Mortality Rate = Late Neonatal Deaths / Live Births		0.8	1.0	0.9	1.0	
Total Neonatal Mortality Rate = Total Neonatal Deaths / Live Births		5.4	4.4	4.5	5.1	
Post-Neonatal Mortality Rate = Post-Neonatal Deaths / Live Births		1.2	1.0	1.4	NR	
Infant Mortality Rate = Infant Deaths / Live Births	4.2	6.6	5.4	5.9	5.2	

DEFINITIONS:

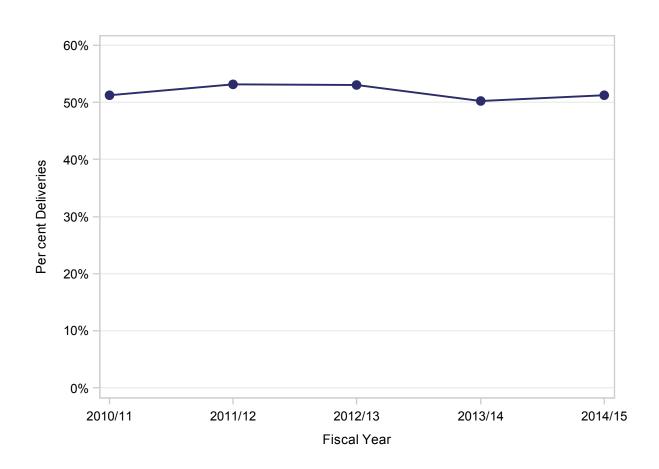
Crude Stillbirths: Infant born deceased at any birthweight. Includes late pregnancy terminations. Stillbirths >=500g: Infant born deceased weighing >=500g. Excludes late pregnancy terminations. Early Neonatal Deaths: Infant born alive died in hospital between 0 and 6 days after birth. Perinatal Deaths: 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.

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

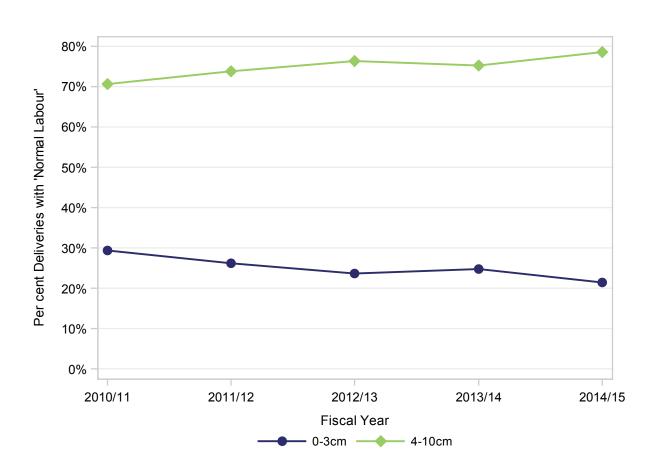
Perinatal Health Report 2010/11 to 2014/15 Deliveries in Provincial Health Services Authority

Section 4: 'Normal Labour'





	Fiscal Year							
Health Authority	2010/11	2011/12	2012/13	2013/14	2014/15			
Provincial Health Services Authority	51.2%	53.2%	53.0%	50.2%	51.3%			

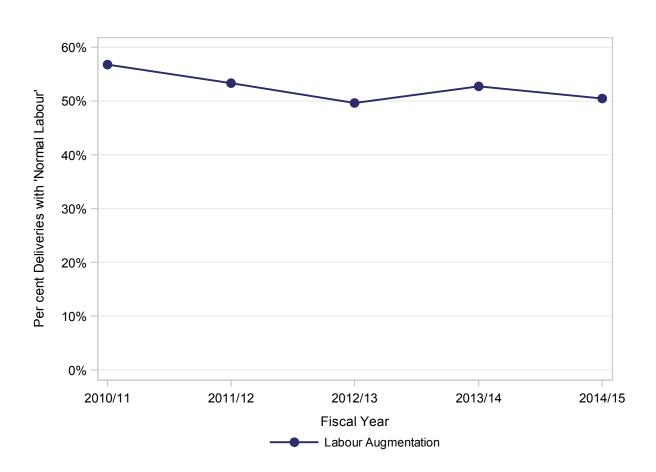


Cervical Dilation at Admission Deliveries with 'Normal Labour' Deliveries in Provincial Health Services Authority: April 1, 2010 - March 31, 2015

	Fiscal Year								
Cervical Dilation at Admission	2010/11	2011/12	2012/13	2013/14	2014/15				
0-3cm	29.4%	26.2%	23.7%	24.8%	21.5%				
4-10cm	70.6%	73.8%	76.3%	75.2%	78.5%				
Missing	24.0%	30.8%	27.5%	24.0%	20.0%				

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 82 of this document.



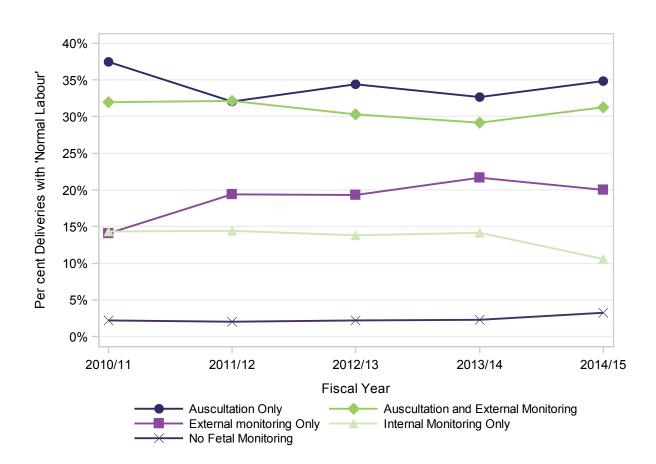
Labour Augmentation Deliveries with 'Normal Labour' Deliveries in Provincial Health Services Authority: April 1, 2010 - March 31, 2015

Labour Augmentation by Mode of Delivery

Deliveries	with	'Normal	Labour'
		11011101	Laboar

	Fiscal Year								
Mode of Delivery	2010/11	2011/12	2012/13	2013/14	2014/15				
Spontaneous Vaginal	49.9%	46.5%	41.5%	46.3%	43.4%				
Assisted Vaginal	73.6%	67.0%	68.0%	66.8%	69.5%				
Cesarean	73.7%	74.0%	73.6%	73.1%	72.8%				

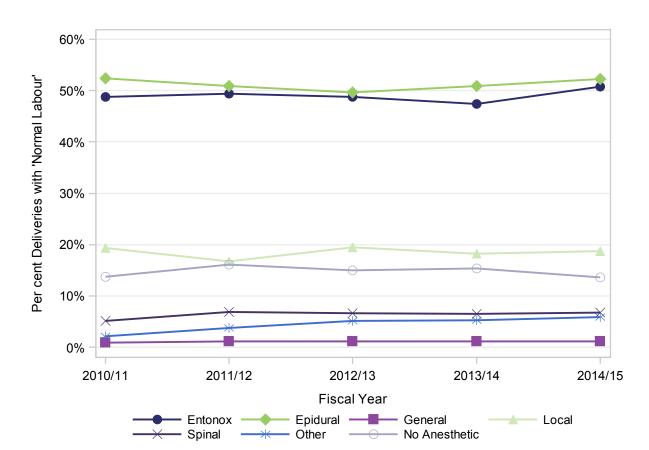
Deliveries with 'Normal Labour' are those where the woman has no history of cesarean delivery and delivers a singleton infant with the head as the presenting part between 37 and 41 estimated weeks' gestation after spontaneous onset of labour.



Method of Fetal Surveillance During Labour Deliveries with 'Normal Labour' Deliveries in Provincial Health Services Authority: April 1, 2010 - March 31, 2015

	Fiscal Year							
Method of Fetal Surveillance	2010/11	2011/12	2012/13	2013/14	2014/15			
Auscultation Only	37.4%	32.0%	34.4%	32.7%	34.8%			
Auscultation and External Monitoring	31.9%	32.1%	30.3%	29.1%	31.3%			
External Monitoring Only	14.1%	19.4%	19.3%	21.7%	20.0%			
Internal Monitoring Only	14.3%	14.4%	13.8%	14.2%	10.6%			
No Fetal Monitoring	2.2%	2.0%	2.2%	2.3%	3.3%			

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.



Anesthesia and Analgesia During Labour and Delivery Deliveries with 'Normal Labour' Deliveries in Provincial Health Services Authority: April 1, 2010 - March 31, 2015

	Fiscal Year							
Anesthesia or Analgesia	2010/11	2011/12	2012/13	2013/14	2014/15			
Entonox	48.8%	49.4%	48.8%	47.4%	50.8%			
Epidural	52.3%	50.9%	49.7%	50.9%	52.2%			
General	0.9%	1.2%	1.2%	1.2%	1.1%			
Local	19.3%	16.7%	19.4%	18.2%	18.7%			
Spinal	5.2%	6.8%	6.6%	6.5%	6.8%			
Other	2.2%	3.8%	5.1%	5.2%	5.9%			
No Anesthetic	13.8%	16.2%	14.9%	15.4%	13.6%			

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.

Multiple agents may be used.

Median Length of Labour Stages (Hours) by Mode of Delivery Deliveries with 'Normal Labour'

Deliveries in Provincial Health Services Authority: 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	6.2	6.0	5.7	5.7	5.7	0.5	0.5	0.5	0.5	0.5
Assisted Vaginal	10.1	10.2	9.3	9.0	9.2	2.5	2.4	2.6	2.1	2.8
Cesarean	11.7	12.7	11.3	10.8	10.7	4.3	4.4	4.3	4.3	4.3

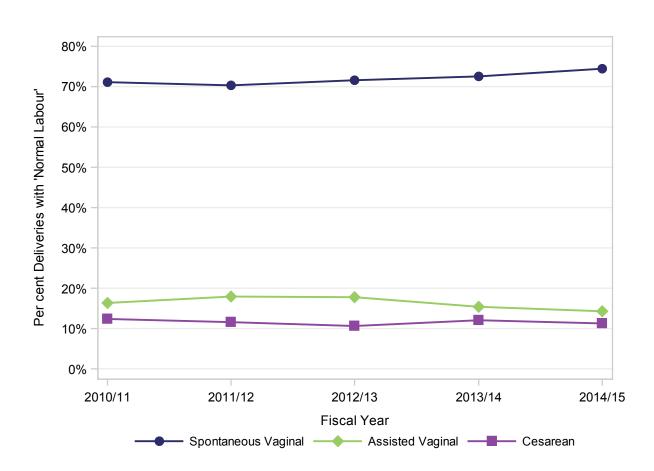
Median Length of Stay (Hours) in Acute Care for Delivery Episode of Care by Mode of Delivery Deliveries with 'Normal Labour'

Deliveries in Provincial Health Services Authority: 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	4.6	4.6	4.3	4.3	4.4	34.7	35.8	35.6	34.4	35.0	39.9	40.8	39.9	39.1	39.5
Assisted Vaginal	10.4	10.4	10.4	9.0	10.5	48.1	48.6	51.7	46.7	50.4	59.9	59.6	62.5	57.2	61.5
Cesarean	12.9	12.1	12.3	11.6	12.7	72.4	72.1	74.8	71.4	71.5	84.4	84.9	86.8	83.9	83.1

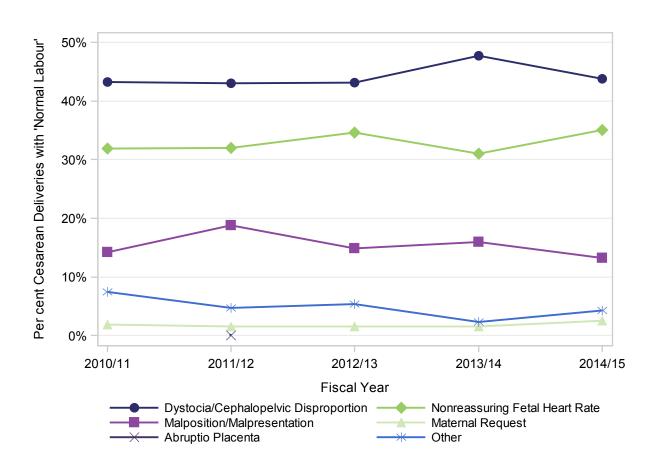
Deliveries with 'Normal Labour' are those where the woman has no history of cesarean delivery and delivers a singleton infant with the head as the presenting part between 37 and 41 estimated weeks' gestation after spontaneous onset of labour.

Deliveries outside acute care facilities are excluded.



Mode of Delivery Deliveries with 'Normal Labour' Deliveries in Provincial Health Services Authority: April 1, 2010 - March 31, 2015

	Fiscal Year							
Mode of Delivery	2010/11	2011/12	2012/13	2013/14	2014/15			
Spontaneous Vaginal	71.1%	70.3%	71.5%	72.5%	74.4%			
Assisted Vaginal	16.4%	18.0%	17.8%	15.4%	14.3%			
Cesarean	12.5%	11.6%	10.7%	12.1%	11.2%			

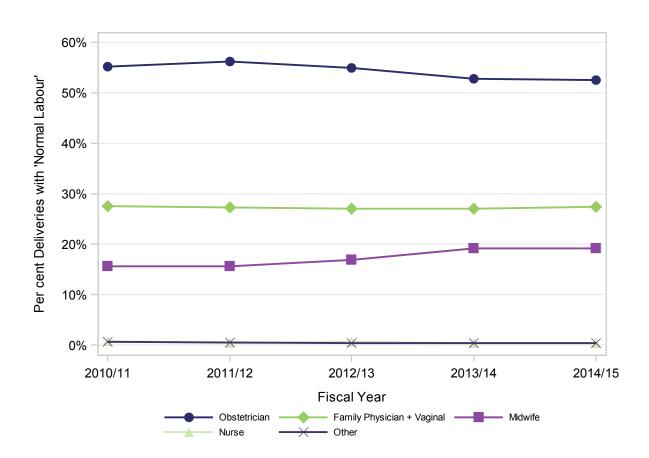


Primary Indication for Cesarean Delivery Deliveries with 'Normal Labour' Deliveries in Provincial Health Services Authority: April 1, 2010 - March 31, 2015

	Fiscal Year						
Primary Indication for Cesarean Delivery	2010/11	2011/12	2012/13	2013/14	2014/15		
Dystocia/Cephalopelvic Disproportion	43.2%	43.0%	43.1%	47.7%	43.8%		
Nonreassuring Fetal Heart Rate	31.9%	32.0%	34.6%	31.0%	35.0%		
Malposition/Malpresentation	14.3%	18.8%	14.9%	16.0%	13.3%		
Maternal Request	1.9%	1.5%	1.5%	1.5%	2.5%		
Abruptio Placenta	NR	0.0%	NR	NR	NR		
Placenta Previa	NR	0.0%	NR	NR	NR		
Active Herpes	NR	0.0%	0.0%	0.0%	0.0%		
Other	7.5%	4.8%	5.4%	2.3%	4.3%		

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. Definitions and specifications begin on Page 82 of this document.

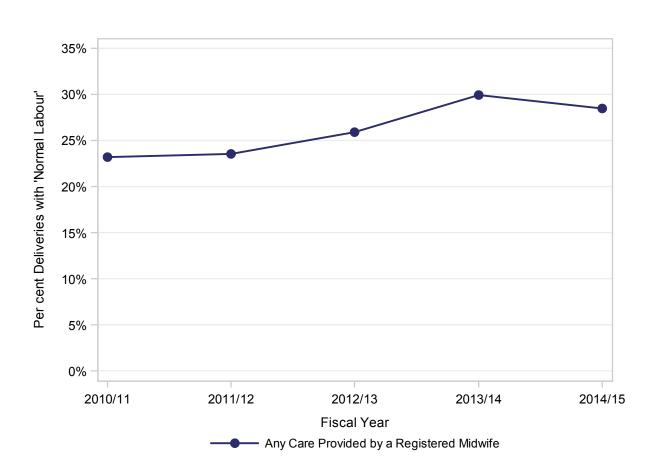
Delivery Provider Deliveries with 'Normal Labour' Deliveries in Provincial Health Services Authority: April 1, 2010 - March 31, 2015



	Fiscal Year							
Delivery Provider	2010/11	2011/12	2012/13	2013/14	2014/15			
Obstetrician	55.2%	56.1%	55.0%	52.7%	52.6%			
Surgeon	NR	NR	NR	NR	NR			
Family Physician + Cesarean	NR	NR	NR	NR	NR			
Family Physician + Vaginal	27.6%	27.2%	27.1%	27.1%	27.4%			
Midwife	15.7%	15.7%	16.9%	19.2%	19.2%			
Nurse	0.8%	0.4%	0.7%	0.4%	0.4%			
Other	0.7%	0.5%	0.4%	0.5%	0.4%			

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.

NR: Rates and per cents based on numerators of 1 to 4 are not reported. Definitions and specifications begin on Page 82 of this document.



Any Care Provided by a Registered Midwife Deliveries with 'Normal Labour' Deliveries in Provincial Health Services Authority: 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	24.0%	23.9%	26.0%	30.3%	28.7%					
Assisted Vaginal	19.4%	22.6%	23.8%	28.6%	25.1%					
Cesarean	23.7%	22.5%	28.7%	28.9%	31.3%					

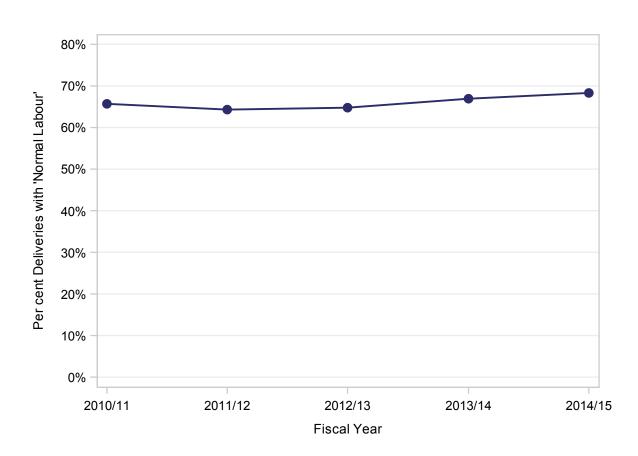
Deliveries with 'Normal Labour' are those where the woman has no history of cesarean delivery and delivers a singleton infant with the head as the presenting part between 37 and 41 estimated weeks' gestation after spontaneous onset of labour.

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.

Definitions and specifications begin on Page 82 of this document.

Perinatal Services BC, Perinatal Health Report 2010/11 to 2014/15.

Section 4: 'Normal Labour'.



Deliveries with 'Normal Childbirth' Deliveries with 'Normal Labour' Deliveries in Provincial Health Services Authority: April 1, 2010 - March 31, 2015

	Fiscal Year 2010/11 2011/12 2012/13 2013/14 2014/15					
'Normal Childbirth'	65.7%	64.4%	64.7%	66.9%	68.2%	

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.

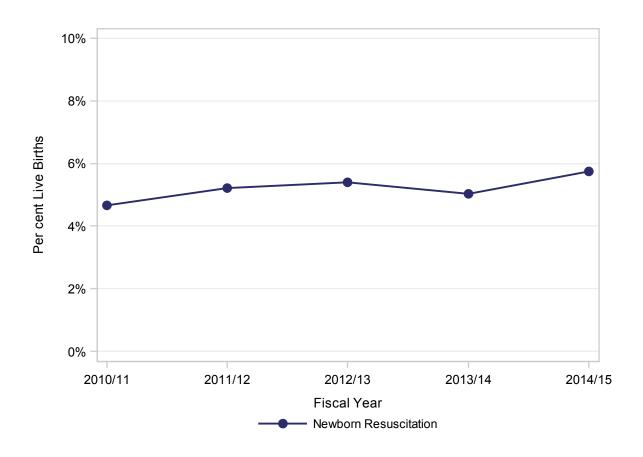
'Normal Childbirth' excludes the following: spinal anaesthesia, general anaesthesia, vacuum-assisted delivery, forceps-assited delivery, cesarean delivery, or episiotomy.

Definitions and specifications begin on Page 82 of this document.

Perinatal Services BC, Perinatal Health Report 2010/11 to 2014/15.

Section 4: 'Normal Labour'.



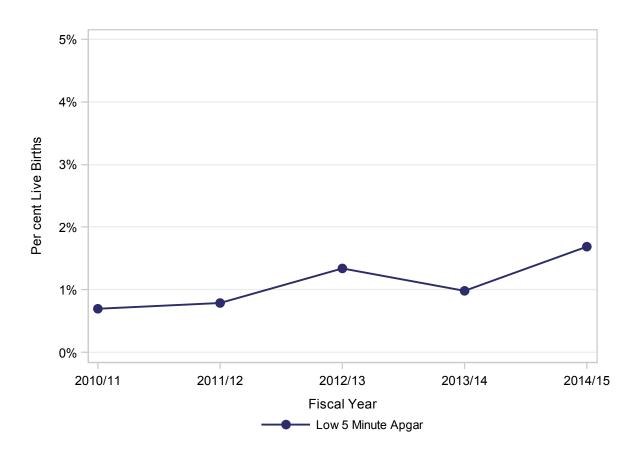


Newborn Resuscitation by Mode of Delivery Babies Born from Deliveries with 'Normal Labour'

	Fiscal Year						
Mode of Delivery	2010/11 2011/12 2012/13 2013/14						
Spontaneous Vaginal	3.5%	3.4%	3.1%	3.3%	3.5%		
Assisted Vaginal	7.5%	8.6%	10.6%	9.0%	11.0%		
Cesarean	7.5%	11.3%	12.3%	10.4%	13.8%		

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.



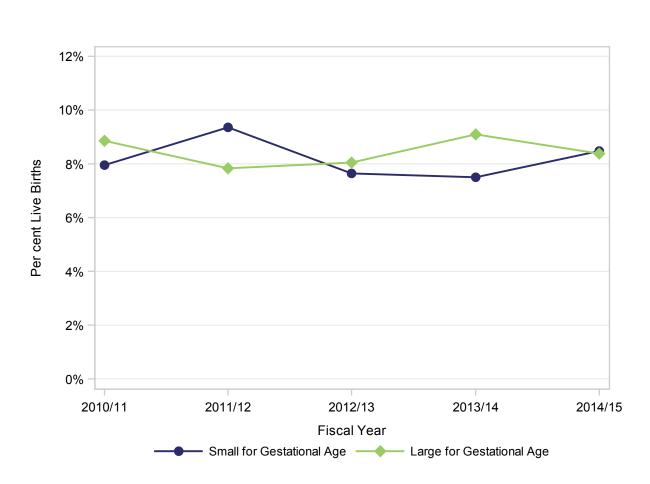


Low 5 Minute Apgar Score by Mode of Delivery Babies Born from Deliveries with 'Normal Labour'

		Fiscal Year						
Mode of Delivery	2010/11	2011/12	2012/13	2013/14	2014/15			
Spontaneous Vaginal	0.6%	0.6%	0.9%	0.6%	1.1%			
Assisted Vaginal	1.1%	1.0%	2.3%	2.4%	1.8%			
Cesarean	NR	1.8%	2.8%	1.3%	5.3%			

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.

NR: Rates and per cents based on numerators of 1 to 4 are not reported. Definitions and specifications begin on Page 82 of this document.

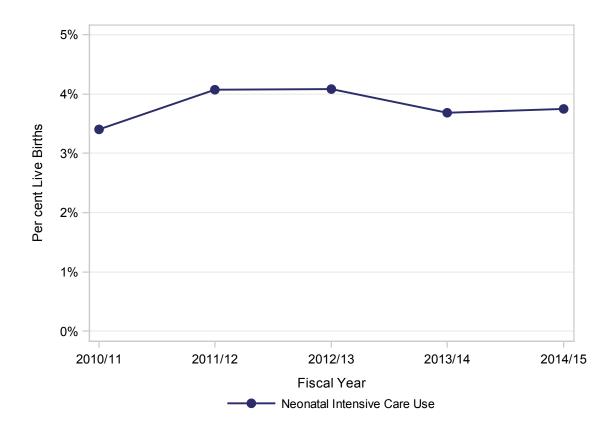


Weight for Gestational Age
Babies Born from Deliveries with 'Normal Labour'
Deliveries in Provincial Health Services Authority: April 1 2010 - March 31 2015

	Fiscal Year					
	2010/11	2013/14	2014/15			
Small for Gestational Age	8.0%	9.3%	7.6%	7.5%	8.5%	
Large for Gestational Age	8.9%	7.8%	8.0%	9.1%	8.4%	

Neonatal Intensive Care Use During Birth Episode of Care

Babies Born from Deliveries with 'Normal Labour' Deliveries in Provincial Health Services Authority: 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	2.8%	2.6%	2.6%	2.8%	2.6%		
Assisted Vaginal	4.4%	5.8%	6.8%	4.6%	5.1%		
Cesarean	5.8%	10.3%	9.2%	7.9%	9.5%		

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 and specifications begin on Page 82 of this document.

Perinatal Services BC, Perinatal Health Report 2010/11 to 2014/15.

Section 4: 'Normal Labour'.

Definitions

Section 1: Maternal Health

Deliveries to Residents of Other Health Authorities

- Deliveries to women who reside in a different Health Authority.
 - Deliveries at home with a registered midwife are always considered within the home Health Authority.
 - For deliveries in the Provincial Health Services Authority, this represents women who are not residents of Vancouver Coastal.

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

- Low Antenatal Care Women with fewer than five antenatal care visits documented in the PDR.
- Missing 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
- <u>Underweight</u> BMI <18.5.
- Normal Weight BMI between 18.5 and 24.9.
- Overweight BMI between 25.0 and 29.9.
- <u>Obese</u> 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 <u>guidelines</u> 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>Hemolysis</u>, <u>Elevated Liver enzymes</u>, and <u>Low</u> <u>Platelet count</u>) 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. <u>Gestational Hypertension</u> mother had hypertension diagnosed during pregnancy.
- 7. Unspecified Hypertension mother had hypertension diagnosed during pregnancy, but the specific type is not recorded.
- 8. <u>No Hypertension</u> no hypertensive conditions were documented by a care provider.
 - <u>NOTE</u>: 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.
 - <u>NOTE</u>: 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

- <u>Hepatitis B Test Done</u> 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 <u>BC Prenatal Genetic Screening Program</u>.

• 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.
- <u>Other</u> 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:

- <u>Artificial Rupture of Membranes</u>
- <u>Oxytocin</u> woman received oxytocin, pitocin, or syntocinon to initiate labour.
- <u>Prostaglandin</u> woman received a prostaglandin to initiate labour.
- <u>Other</u> 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.
- <u>Fetal Compromise</u> medical concern about the health of the fetus.
- <u>Diabetes</u> woman had diabetes of any type (gestational, type 1, or type 2).
- Fetal Demise
- <u>Logistics</u> inability for woman to access supportive health care in reasonable time.
- <u>Antepartum Hemorrhage</u> woman had bleeding after 20 weeks' gestation but before labour.
- <u>Chorioamnionitis</u> woman had a cervicovaginal infection.
- <u>Other</u> other reason not captured above.
- <u>Unknown</u> reason for induction is unclear, unknown, or not documented.

Fetal Surveillance During Labour

- <u>Auscultation Only</u> 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.
- <u>External Electronic Monitoring Only</u> 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.
- <u>No Fetal Monitoring</u> no fetal monitoring was conducted during labour.

Mode of Delivery

- <u>Vaginal</u>
 - <u>Spontaneous</u> the baby was delivered vaginally without assistance of vacuum or forceps extractors.
 - <u>Assisted Vaginal</u> 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.
 - <u>Forceps and Vacuum</u> the baby was delivered vaginally with the assistance of vacuum and forceps extractors.
- <u>Cesarean</u> 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.
 - <u>Emergency Primary</u> woman without a previous cesarean needed a cesarean delivery with urgent or emergent timing.
 - <u>Emergency Repeat</u> 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.
- <u>Cervical Tear</u> the woman experienced a cervical tear during delivery.
- <u>Episiotomy</u> 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).

- <u>Repeat Cesarean</u> 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.
- <u>Abruptio Placenta</u> 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.
- <u>Other</u> 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

- <u>Entonox</u> 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.
- <u>General</u> 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.
- <u>Other</u> mother received another type of anesthetic or analgesic agent including pudendal anesthesia not specified above.
- <u>No Anesthetic</u> 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.
 - Family Physician + Vaginal a family physician performed a vaginal delivery.
 - <u>Family Physician + Cesarean</u> a family physician performed a cesarean delivery.
- <u>Any Care Provided by a Registered Midwife</u> a registered midwife was involved at any point in maternal or newborn care. A registered midwife may not have been the delivery provider.

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
- <u>Sepsis</u> mother had confirmed or suspected sepsis, including puerperal sepsis.
- <u>Wound Infection</u> 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).
- <u>Anesthetic Complications</u> 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.
- <u>Antepartum Hemorrhage with Transfusion</u> 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.
- <u>Shock</u> mother had confirmed or suspected obstetric shock.
- <u>Pulmonary Embolism</u> 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
- <u>Newborn Severe Adverse Event</u> singleton baby was stillborn or died in-hospital
- Newborn Moderate Adverse Event
 - o 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.

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:
 - <u>Routine Postpartum Care</u> –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
 - <u>Other Diseases Complicating Pregnancy</u> Diseases of organ systems that complicate or are aggravated by pregnancy.
 - <u>Other Wound Issues</u> includes care of perineal or vaginal tears, uterine rupture or dehiscence, disruption or hematoma of surgical wound, or cardiac surgical complications.
 - <u>Hypertension or Eclampsia</u> includes essential hypertension, gestational hypertension, pre-eclampsia, eclampsia, or HELLP.
 - <u>Retained Placenta Without Hemorrhage</u>
 - <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.
 - <u>Spontaneous Preterm</u> 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

• Singleton 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.
 - 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.

- <u>Other Respiratory Condition</u> baby had a confirmed or suspected respiratory condition (other than respiratory distress syndrome or transient tachypnea).
- <u>Transient Tachypnea</u> baby had confirmed or suspected transient tachypnea.
- <u>Respiratory Distress Syndrome</u> baby had confirmed or suspected respiratory distress syndrome.
- <u>Sepsis</u> 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.
- <u>Eye, Ear, Face, or Neck</u> includes malformations of the eye and its structures, tear ducts, internal and external ear, neck, and lips.
- <u>Genital Organs</u> includes malformations of male or female genitals, and indeterminate sex or hermaphroditism.
- <u>Musculoskeletal System</u> 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 an encephaly, microcephaly, hydrocephalus, spina bifida, and other malformations of the brain and spinal cord.
- <u>Respiratory System</u> includes malformation of the nose, larynx, trachea, bronchus, and lung.
- <u>Urinary System</u> includes malformation of the kidneys, bladder, and ureter.
- <u>Other Specific Anomaly</u> 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.

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).
- <u>No Breastfeeding</u> baby received only breast milk substitute.
- <u>Non-Exclusive Breastfeeding</u> baby received both breast milk and breast milk substitute.
- <u>Any Breastfeeding</u> 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.
 - o <u>Click here</u> 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.
- <u>Any Transfer</u> baby was transferred from the Birth Admission to a different acute care facility.

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.
 - <u>Respiratory Infections</u> includes whooping cough, pneumonias, and upper and lower respiratory tract infections.
 - <u>Respiratory Distress</u>
 - <u>Other Infections</u> 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.
 - <u>Crude Stillbirth Rate</u> = stillbirths / (live births + stillbirths) x 1,000.
- <u>Stillbirths >=500g</u> baby weighing \geq 500g was born deceased.
 - <u>Stillbirth Rate</u> = stillbirths \geq 500g / (live births + stillbirths \geq 500g) x 1,000.
- Early Neonatal Death baby born alive died in hospital between 0 and 6 days after birth.
 - <u>Early Neonatal Mortality Rate</u> = 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.
 - <u>Perinatal Mortality Rate</u> = (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.
 - <u>Late Neonatal Mortality Rate</u> = late neonatal death / live births x 1,000.
- <u>Post Neonatal Death</u> baby born alive died in hospital between 28 and 364 days after birth.
 - <u>Post Neonatal Mortality Rate</u> = 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</u> on <u>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).
- Length of Second Stage of Labour 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 \leq discharge_date \leq 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	уре	Criteria
Maternal Admission		MOTHER_ADMISSION.screen_source = "DL" or "PP"
		For any woman whose Delivery Admission meets the inclusion criteria, above.
Post-Delivery	Admission	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
		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		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	уре	Criteria
Birth Admissi	<u>on</u>	BABY_ADMISSION.screen_source = "NB"
		For any baby linked to a woman whose Delivery Admission meets the inclusion criteria,
		above.
Newborn Adr	<u>nission</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.
Birth	Episode start	BABY_ADMISSION.screen_source = "NB"
Episode of	Include all admissions	BABY_ADMISSION.screen_source = "XF" and
Care	linked to the birth where:	discharge_to = "O" and
		$101 \leq institution_to < 973$
	Episode end	BABY_ADMISSION.screen_source = "NB" or "XF" AND
		(discharge_to \neq "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 \geq 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 (includes mild pre-eclampsia for discharges before April 1, 2012)			diagnosis_code begins with O13
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	<pre>elec_fetal_monitor_external = "Y" and elec_fetal_monitor_internal ≠ "Y" and no_fetal_monitoring ≠ "Y"</pre>		
External Electronic Monitoring Only	auscultation ≠ "Y" and elec_fetal_monitor_external = "Y" and elec_fetal_monitor_internal ≠ "Y" and 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 delivered by = 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
	delivered_by = $3 \text{ or } 7$ for any infant or		mother 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	anesthetic_type = 3 for a procedure_code beginning with 5MD
General	general_flg = "Y"	OR	anesthetic_type = 1 or 4 for a procedure_code beginning
Conoral	gonorai_ng = 1	ÖN	with 5MD
Local	local_flg = "Y"	OR	anesthetic_type = 7 for a procedure_code beginning with 5MD
Narcotic	narcotic_flg = "Y"		
Spinal	spinal_flg = "Y"	OR	anesthetic_type = 2 for a procedure_code beginning with
		OR	5MD
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 5MD56PJ
Vacuum			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, 5MD56PC, 5MD56PF, or 5MD56PJ
Cesarean			procedure_code begins with 5MD60
	csection_type = $1, 2, 3, \text{ or } 4$	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)			
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 baby_presentation_delivery = 9 and gestational age ≥ 37 and prev_cesarian_deliv ≥1 and Maximum(baby_sequence) = 1)	AND	procedure_code begins with 5MD5
VBAC Attempted	(vbac_attempted = "Y" and 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 (above)	AND	procedure_code begins with 5MD5
Maternal Morbidity			
Liver Complications (updated 2016)	pp_fatty_liver = "Y" or pp_liver_hematoma = "Y"	OR	diagnosis_code begins with K760, O266, or O904

	PDR variables		CIHI Codes
Urinary Tract Infection (updated 2016)	pp_uti = "CY", "PY", "OT", "UN"	OR	diagnosis_code begins with N10, N11, N12, N15, N30, N34, 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
Anton output line and a security Taxa fusion			procedure_code beginning with 1PL74, 1RS74, or 1RS80)
Antepartum Hemorrhage with Transfusion	blood_transfusion_flg = "Y" and risk_code = 8 blood_transfusion_flg = "Y"	AND	diagnosis_code begins with O441, O45, O46, O67, or O694
Eclampsia			diagnosis_code begins with O15
HELLP	pp_hellp = "Y"		
	discharge_date ≥ April 1, 2012	AND	diagnosis_code begins with O142
Anesthetic Complications			diagnosis_code begins with O29, O740, O741, O742, O743, 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 =	AND	diagnosis_code does not begin with P832 or Q

	PDR variables		CIHI Codes
	104, 202, 109, 116, 703, 609, 501, 401, 302, 130, 115, 112, or 102) OR (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 $\ge 2,500$ 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,		

	PDR variables		CIHI Codes
	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		
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, 010, 011, 013, 014, 015, or 016
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		
In-Hospital Perinatal Mortality			
Crude Stillbirths (includes complete late pregnancy terminations)	stillbirth = "A", "P", or "U"		
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

	PDR variables		CIHI Codes
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
Congenital Anomalies	0 ≤ apgar_5_minutes <7	AND	diagnosis_code begins with P285
			diagnosis and baging with Q. C001, or P202
Any Congenital Anomaly Chromosomal			diagnosis_code begins with Q, G901, or P293 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 Eye, Ear, Face, or Neck			diagnosis_code begins with Q38-Q45 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
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
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		

	PDR variables		CIHI Codes
	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		
	$5 \leq admission_weight < 2500$ 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		
	$cesarean_type = 1, 2, 3, or 4$		
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		
Resuscitation After Birth	ippv_mask_flg = "Y" or		
	ippv_ett_flg = "Y" or		
	chest_compress_flg = "Y" or		
	drugs = "Y"		

	PDR variables		CIHI Codes
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, 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, 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	AND	diagnosis_type = "M" and diagnosis_cd begins with A (except 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, P283, P284, or R068
Urinary Tract Infections	Post-Neonatal Admission	AND	<pre>diagnosis_type = "M" and diagnosis_cd begins with N390 or P393</pre>
Isoimmunization			diagnosis_type = "M" and diagnosis_cd begins with P55
"Normal Labour"	labour_spont_flg = "Y" and 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 spinal_flg ≠ "Y" and episiotomy_flg ≠ "Y"	AND	procedure_code does not begin with 5MD53, 5MD54, 5MD55, 5MD56NN, 5MD56NR, 5MD56NW, 5MD56PC, 5MD56PF, 5MD56PJ, or 5MD60 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)		

	PDR variables	CIHI Codes
	where	
	second_stage_date ≠ null and	
	labour_none_flg ≠ "Y"	
Low Apgar Score	$0 \le apgar_5_minutes < 7$	

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.