PérinatalNB

NB Perinatal Health Program
Report of Indicators| 2011–2016

List of Indicators

Introduction

Program Director's Message

Established in 2014, The New Brunswick Perinatal Health Program is a provincial program working directly with all New Brunswick healthcare providers to determine and promote excellence in the provision of perinatal care. The program assumes a leadership role for perinatal health care in the province, striving to implement Canadian perinatal health practices standards across the province, participating in quality improvement initiatives, and responding to the education and professional needs of care-providers across the province. The program also fosters the networking of perinatal stakeholders, including clinicians, administrators, information specialists, researchers and others.

With champions advocating relentlessly for the needs of such a program in the province, we have taken our first steps:

February 2014: Announcement of the creation of the Program in the Legislative Assembly.

February 2015: Hire of the Administrative Program Director, followed by support staff.

July 2015: Memorandum of understanding between the Public Health Agency of Canada and the NB Department of Health regarding the Canadian Congenital Anomalies Surveillance System.

October 2015: Approval of the 3M Health Data Management System Perinatal Chapter Privacy Impact Assessment.

January 2016: Launch of the revised provincial antenatal record.

July 2016: Completion of the perinatal data chapter implementation: All institutions providing obstetric care in the two regional health authorities will be collecting data in the perinatal chapter.

December 2016: Funding confirmation of the CIHR Team Grant: Pan-Canadian Perinatal Health Systems Improvement Initiative (G. Leblanc-Cormier and Dr. L. Murphy-Kaulbeck as co-applicants).

We are sincerely thankful to our leadership, our team members and to all healthcare providers that submit valuable data through the provincial antenatal record. We also appreciate the valuable work done by the Health Information Management Teams of each birthing hospital in the province. Thank you to all members of the Canadian Perinatal Program Coalition for their continued support.

Through information management, leadership, knowledge mobilization, and partnership, the Program aspires to fuel quality planning, quality improvement and quality control initiatives. As a first step, the Program is releasing its first report of perinatal indicators. We hope it will generate positive discussions and foster change that will contribute to our vision to strive for o*ptimal health outcomes across the continuum of care for expectant mothers, babies and their families in New Brunswick.*

Perinatal NB Program Director
Gaetane Leblanc-Cormier

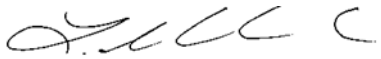
Medical Director's Message

This is the first report of perinatal indicators for The New Brunswick Perinatal Health Program and represents some of the work that the program has undertaken since the program's inception two years ago. I am very pleased to say that we are now capturing data on every birth in New Brunswick. Revision and update of clinical care forms such as the New Brunswick Prenatal record has been necessary but ensures we are collecting the highest quality data and using clinical record forms that are up to date and reflective of present day clinical practice.

With good quality provincial data, as a program, we can now move forward on other initiatives that are part of the long term plan: continuing education for clinicians, development of clinical standards and guidelines and audits and reviews. We also look forward to liaising with programs and departments across New Brunswick to find out what their needs are while continuing to partner with groups across Canada on national initiatives.

The mission of Perinatal NB is to provide leadership and advocacy as well as evidence informed policy and practice for excellence in maternal and newborn health in New Brunswick. From this first report, there are identified areas for improvement but the report also highlights the work of health care providers across the province to deliver excellence in care to women and newborns. As medical Director of Perinatal NB, I look forward to your feedback on the report and working with departments and programs to continue to improve on the delivery of care to women, children and families in New Brunswick.

Perinatal NB Medical Director
Dr. Lynn Murphy-Kaulbeck



Notes and Limitations

Data for this report was retrieved from the 3M Health Data Management System within Horizon Health Network and Réseau de Santé Vitalité for the fiscal years 2011/12 to 2015/16. Please see "Data Source" for each indicator for more information.

Each fiscal year begins April 1st and ends March 31st of the following year. In this report, data within each fiscal year is based on the mother's delivery date, newborn's birth date, and mother's hospital discharge date for termination of pregnancy.

The term "birth" is different from "delivery". A delivery is a maternal indicator which refers to a completed pregnancy, regardless of the number of infants born. A birth is a newborn indicator which refers to a live or stillborn infant.

The term "live births" excludes all stillbirths and any births resulting from a therapeutic abortion.

Gestational age of a fetus or newborn is determined by Last Menstrual Period (LMP) or by Early Ultrasound (US), depending on whether or not an early ultrasound was completed. Pre-term delivery is a newborn delivered prior to 37 weeks gestation, term is a newborn delivered between 37 and 42 weeks gestation and post-term is a newborn delivered after 42 weeks gestation.

Exclusive Breastfeeding at Discharge is defined as provided by the Breastfeeding Committee of Canada. This includes all newborns that received only breast milk from birth to hospital discharge, as well as any newborns that were supplemented for a medical reason.

Size for Gestational Age is defined according to the Canadian Perinatal Surveillance System Birth Weight growth chart published by the Public Health Agency of Canada (2001). Newborns are categorized as Intrauterine Growth Restriction (≤ 3%ile), Small for Gestational Age (≤ 10%ile), or Large for Gestational Age (≥ 90%ile, ≥ 97%ile) according to gestational age, sex and birth weight.

Low Birth Weight is defined as a birth weight at any gestational age under 2,500 grams, Normal Birth Weight is a birth weight at any gestational age between 2,500 grams and 4,500 grams, and High Birth Weight is a birth weight at any gestational age above 4,500 grams.

In New Brunswick, we currently do not have provincial designation of neonatal intensive care unit levels of care. While the term NICU is liberally used, differentiation is required for reporting purposes.

- *Neonatal Intensive Care Unit (NICU):* Three birthing hospitals in the province have MIS-designated NICU resulting in allocation of resources, including neonatologists: The Moncton Hospital, Dr Everett Chalmers Regional Hospital, and the St John Regional Hospital.
- *Special Care Unit (SCU*): Most birthing hospitals in the province have a unit where special care can be provided to a newborn, the only hospital that does not have a special care unit is Upper River Valley Hospital.

Please note that SCU admissions at the Dr. Georges-L. Dumont University Hospital Centre and the Miramichi Regional Hospital are not included in this report due to lack of data capture in the 3M Health Data Management System. As such, these hospitals are excluded from the RHA and provincial rates for NICU/SCU indicators.

Rates derived from fewer than six reported cases are not reportable and are thereby shown as "NR" in this report.

List of Acronyms

CIHI: Canadian Institute for Health Information
C-Section: Caesarean Section
MIS designated: Management Information System designated
NB: New Brunswick
NICU: Neonatal Intensive Care Unit
NR: Not reportable (due to ≤ 5 reported cases)
PHAC: Public Health Agency of Canada
RHA: Regional Health Authority
SCU: Special Care Unit
VBAC: Vaginal Birth after Caesarean Section

List of New Brunswick Birthing Hospitals

Campbellton: Campbellton Regional Hospital
CHU Dumont: Dr. Georges-L.-Dumont University Hospital Centre
Chaleur: Chaleur Regional Hospital
DECH: Dr. Everett Chalmers Regional Hospital
Edmundston: Edmundston Regional Hospital
Miramichi: Miramichi Regional Hospital
SJRH: Saint John Regional Hospital
TMH: The Moncton Hospital
URVH: Upper River Valley Hospital

Chapter 1: Maternal Health

Total Deliveries

The number of deliveries performed in New Brunswick has decreased steadily over the past five years, from 7014 to 6423 deliveries per year.

Definition
The total number of deliveries performed at each Regional Health Authority (RHA) and in New Brunswick. Multiple births are counted as one delivery.

Data Source
3M Health Data Management System, Horizon Health Network and Réseau de Santé Vitalité, 2011-2016. Data extracted January 10th, 2017.

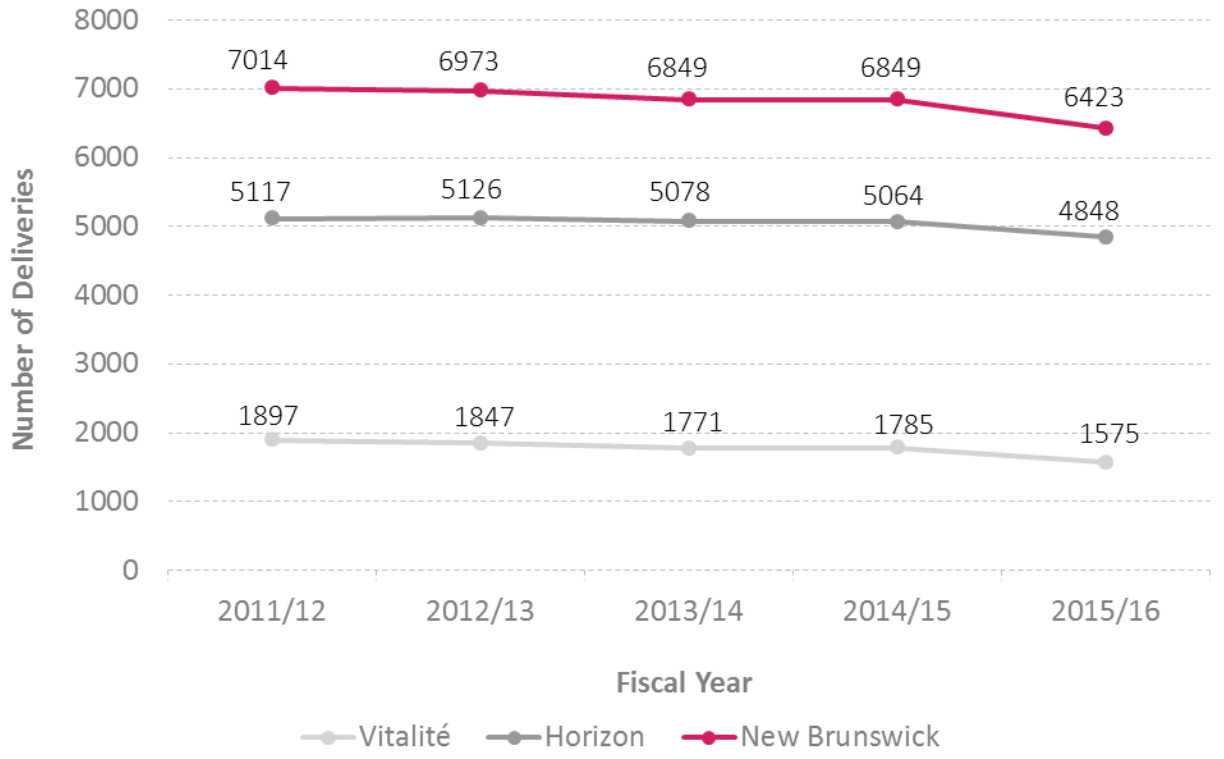


Figure 1.1: Number of deliveries, by Regional Health Authority, New Brunswick, 2011/12-2015/16

Total Deliveries by Birthing Hospital

In 2015/16, 75.5% of New Brunswick deliveries occurred in a Horizon Health Network birthing hospital and 29.4% of New Brunswick deliveries occurred in the Moncton area (Zone 1).

Definition
Number of deliveries performed at each birthing hospital / Total number of deliveries in New Brunswick.

Data Source
3M Health Data Management System, Horizon Health Network and Réseau de Santé Vitalité, 2015-2016. Data extracted January 30th, 2017.

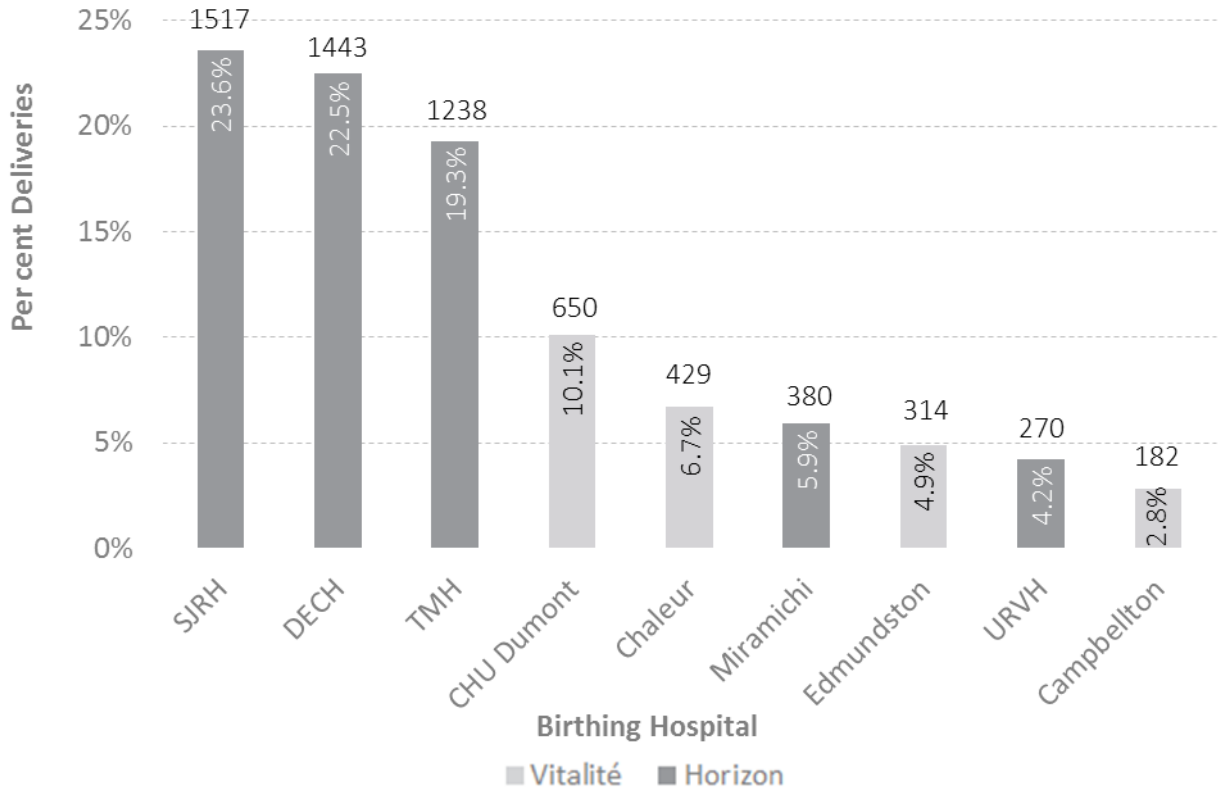


Figure 1.2: Number and per cent of deliveries, by birthing hospital, New Brunswick, 2015/16

Maternal Age at Delivery

The proportion of deliveries to older mothers (>35 years of age) increased slightly between 2011/12 and 2015/16 from 12.1% (95% CI: 11.4-12.9%) to 13.2% (95% CI: 12.4-14.0%), while the proportion of deliveries to younger mothers (<20 years of age) for the same time period decreased significantly from 6.7% (95% CI: 6.2-7.3%) to 4.3% (95% CI: 3.9-4.8%). Over 80% of mothers were between the ages of 20-34 at time of delivery.

Definition
Number of deliveries to women within each age category at time of delivery / Total number of deliveries.

Data Source
3M Health Data Management System, Horizon Health Network and Réseau de Santé Vitalité, 2011-2016. Data extracted January 10th, 2017.

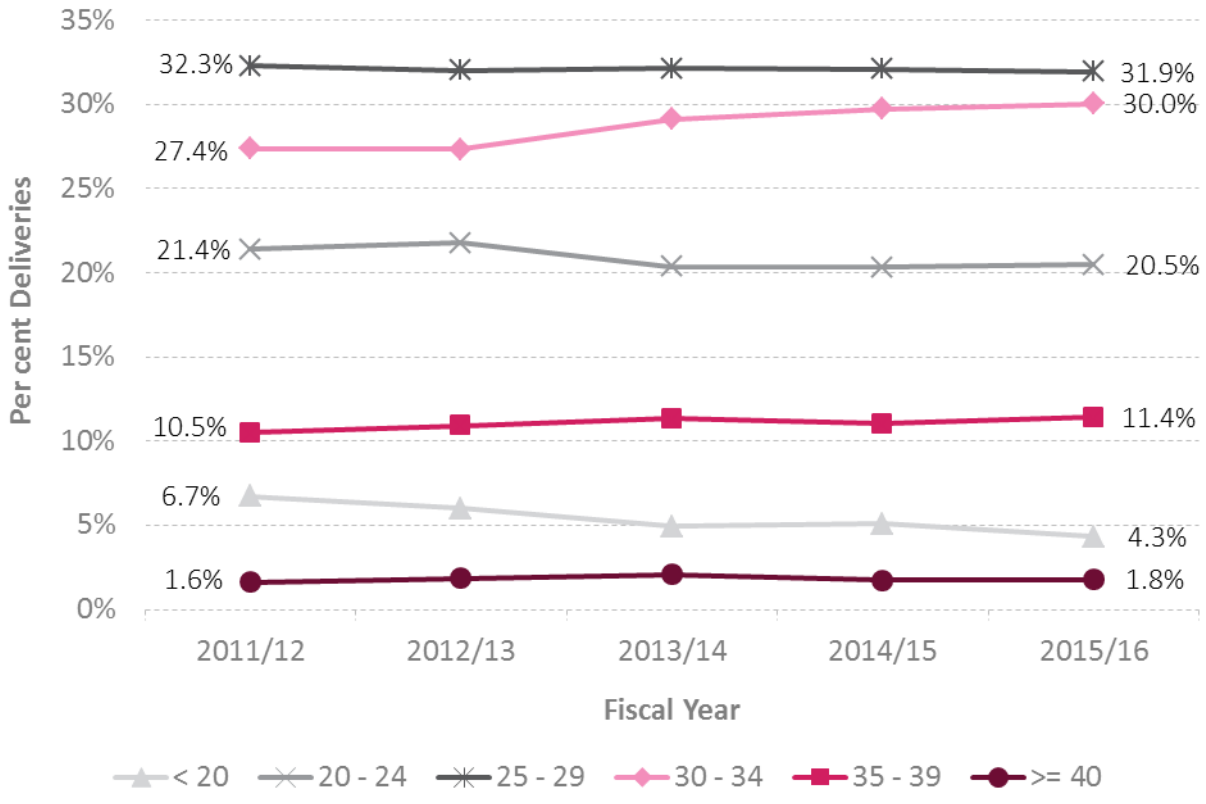


Figure 1.3: Maternal Age at Delivery, New Brunswick, 2011/12-2015/16

Diabetes Mellitus in Pregnancy

While the rate of pre-existing diabetes to delivering mothers has remained stable over the past five years, the rate of gestational diabetes has increased significantly from 3.97% (95% CI: 3.51-4.43%) in 2012/13 to 6.24% (95% CI: 5.65-6.83%) in 2015/16. This striking increase beginning in 2013/14 may be attributed to a change in the A1C screening protocol.

Infant syndrome of mother with gestational diabetes is one of the leading causes for SCU/NICU admission in New Brunswick, having been listed among the top six most responsible diagnoses for SCU/NICU admission for all three birthing hospitals with a MIS-designated NICU in 2015/16. Moreover, women with gestational diabetes have an increased risk of developing type 2 diabetes later in life, especially if the woman has other risk factors such as obesity and family history of type 2 diabetes.

Definition
Number of deliveries to women with pre-existing or gestational diabetes / Total number of deliveries.

Data Source
3M Health Data Management System, Horizon Health Network and Réseau de Santé Vitalité, 2011-2016. Data extracted January 10th, 2017.

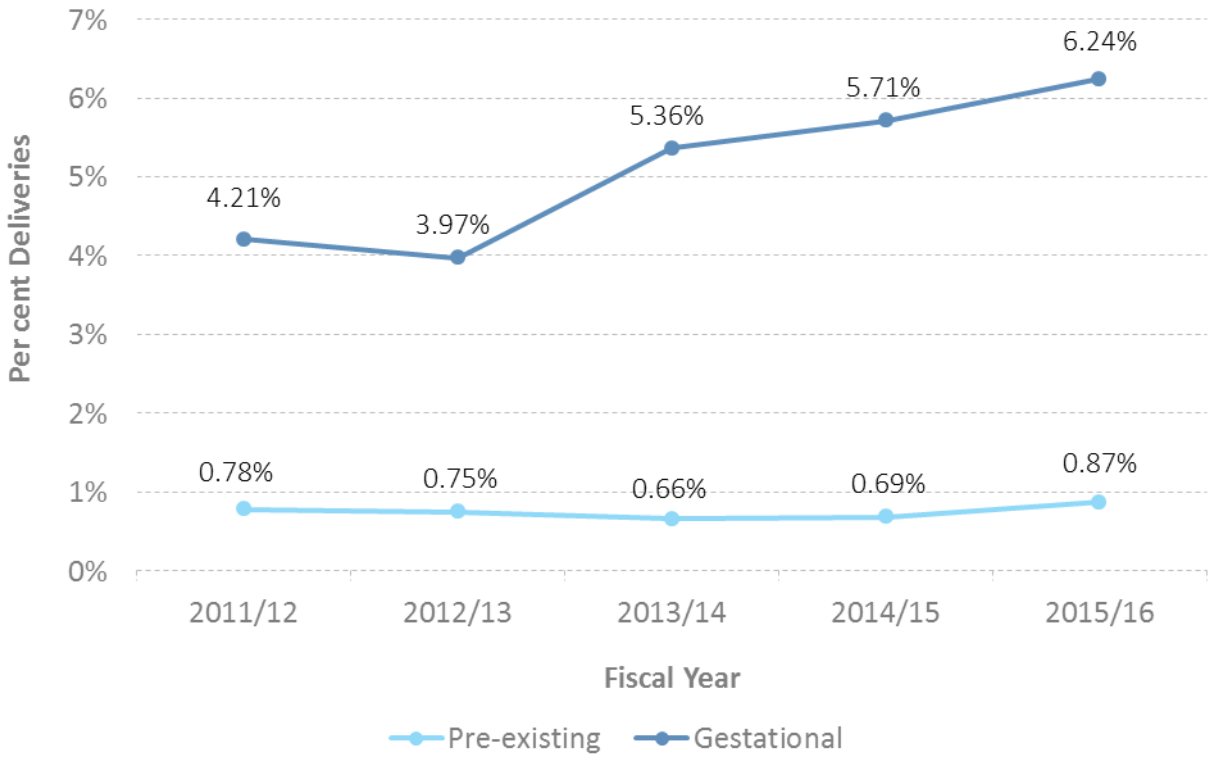


Figure 1.4: Per cent of mothers with gestational and pre-existing diabetes, New Brunswick, 2011/12-15/16

Chapter 2: Labour and Delivery

C-Section Rate by Birthing Hospital

The overall provincial C-section rate has remained stable over the past 5 years, ranging from 27.4% to 28.1% from 2011/12 to 2015/16. These rates are comparable to the national rate of 27.5% reported by the Canadian Institute for Health Information (CIHI) for 2014. Of note, the Saint John Regional Hospital had a consistently lower C-section rate than any other birthing hospital in the province over the past five years with a rate of 19.5% in 2015/16.

Definition
Number of C-section deliveries performed at each birthing hospital / Total number of deliveries performed at each birthing hospital.

Data Source
3M Health Data Management System, Horizon Health Network and Réseau de Santé Vitalité, 2015-2016. Data extracted January 30th, 2017.

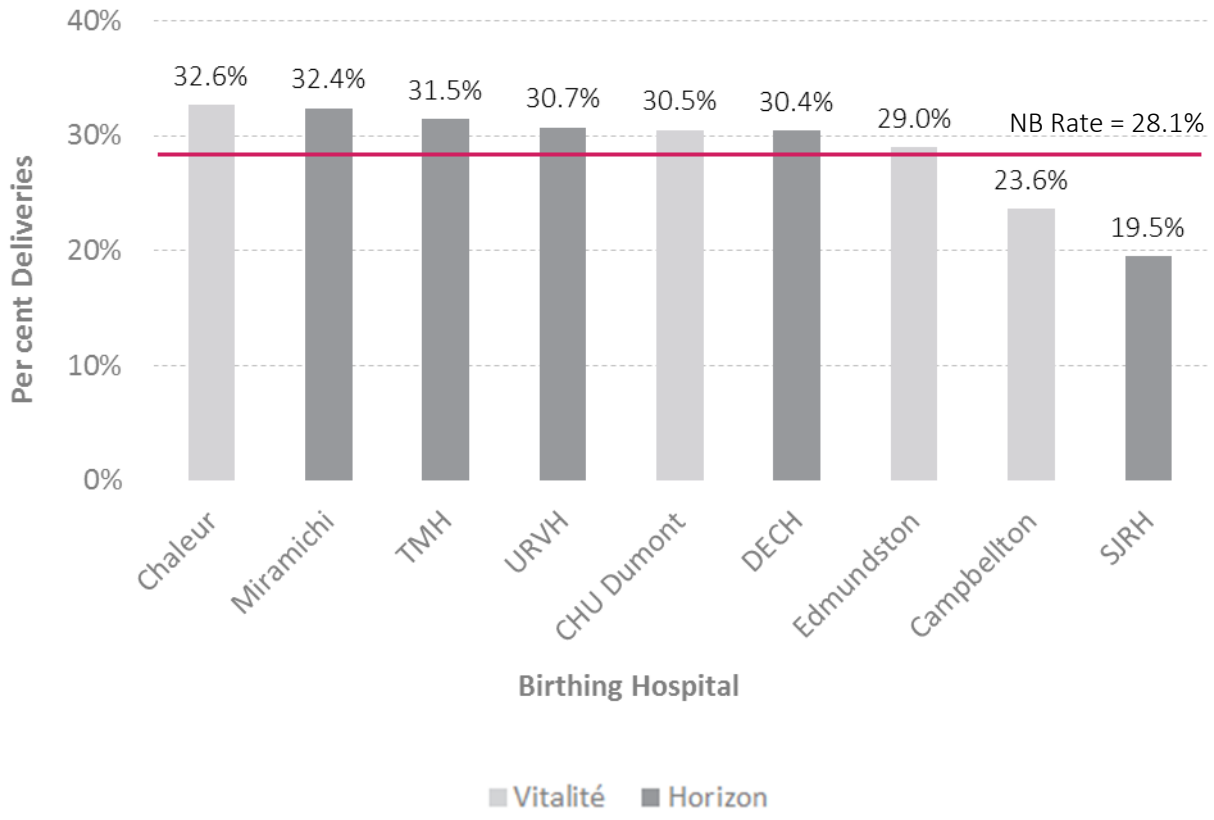


Figure 2.1: C-section Rate, by birthing hospital, New Brunswick, 2015/16

Table 2.1: C-section Rate, by birthing hospital and year, New Brunswick, 2011/12-2015/16

Birthing Facility	C-Section Rate				
	2011/12	2012/13	2013/14	2014/15	2015/16
Campbellton Regional Hospital	40.2%	32.8% ▼	31.9% ▼	30.6% ▼	23.6% ▼
Chaleur Regional Hospital	26.8%	28.8% ▲	37.7% ▲	33.3% ▼	32.6% ▼
Dr. Everett Chalmers Regional Hospital	30.1%	30.6% ▲	30.9% ▲	30.0% ▼	30.4% ▲
Dr. Georges-L.-Dumont University Hospital Centre	25.3%	29.3% ▲	25.9% ▼	30.1% ▲	30.5% ▲
Edmundston Regional Hospital	29.8%	31.1% ▲	27.3% ▼	24.0% ▼	29.0% ▲
Miramichi Regional Hospital	38.4%	40.0% ▲	35.6% ▼	34.3% ▼	32.4% ▼
The Moncton Hospital	29.7%	28.8% ▼	26.0% ▼	27.8% ▲	31.5% ▲
Saint John Regional Hospital	20.3%	20.3%	21.3% ▲	21.2% ▼	19.5% ▼
Upper River Valley Hospital	24.7%	26.1% ▲	27.6% ▲	23.1% ▼	30.7% ▲

Primary and Repeat C-Section Rate

Definition

Primary C-Section Rate: Number of primary C-sections / Number of deliveries to women who have not had a previous C-section.

Repeat C-section Rate: Number of repeat C-sections / Number of deliveries to women who have had at least one previous C-section.

Data Source

3M Health Data Management System, Horizon Health Network and Réseau de Santé Vitalité, 2011-2016. Data extracted March 27th, 2017.

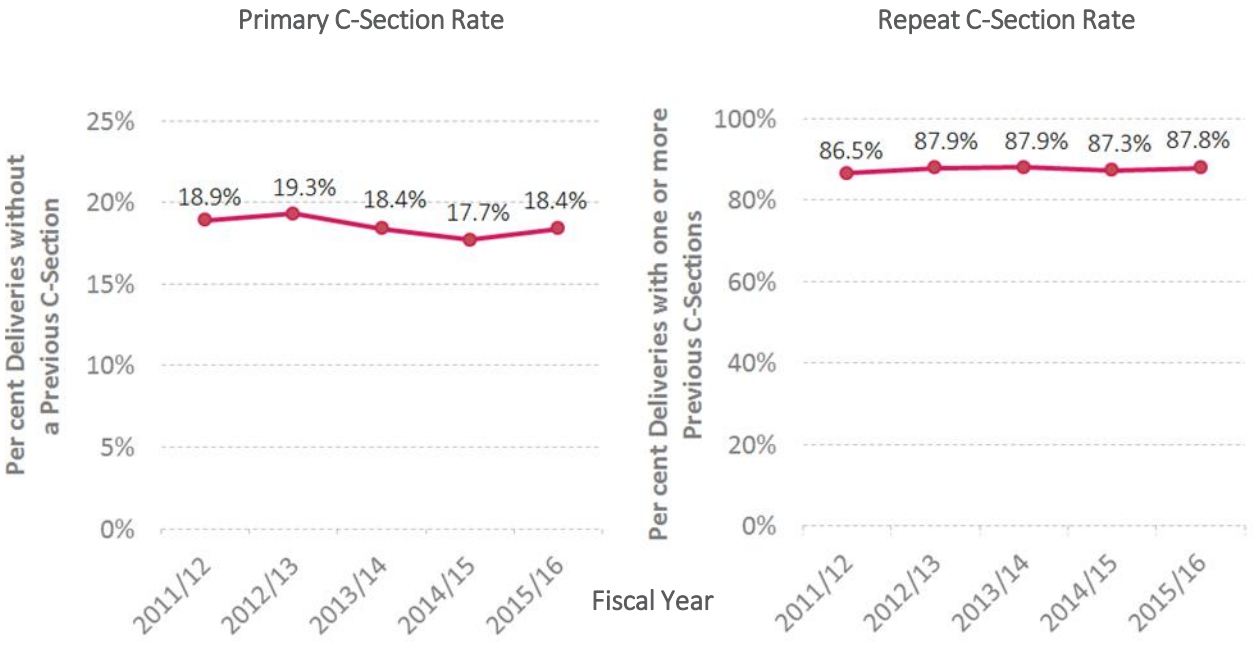


Figure 2.2: Primary C-section Rate and Repeat C-section Rate, New Brunswick, 2011/12-2015/16

Vaginal Birth after C-Section (VBAC)

The provincial VBAC Attempt rate increased from 15.7% in 2012/13 to 17.9% in 2015/16. Conversely, VBAC success rate decreased from 79.3% in 2011/12 to 68.1% in 2015/16. Due to limitations in data capture, we are unable to calculate VBAC rates out of the number of VBAC eligible women.

Definition

Crude VBAC Rate: Number of VBAC deliveries / Number of deliveries with a previous C-section.

Attempted VBAC Rate: Number of attempted (failed or successful) VBAC deliveries / Number of deliveries with a previous C-section.

VBAC Success Rate: Number of VBAC deliveries / Number of attempted VBAC deliveries.

Data Source

3M Health Data Management System, Horizon Health Network and Réseau de Santé Vitalité, 2011-2016. Data extracted January 10th, 2017.

References

1. Perinatal Services BC (October 2014). *Perinatal Health Report 2008-09 to 2012-13:* British Columbia, Vancouver, BC.

Table 2.2: Crude VBAC Rate, VBAC Attempt Rate and VBAC Success Rate, New Brunswick, 2011/12-2015/16

Location	VBAC Deliveries				
	2011/12	2012/13	2013/14	2014/15	2015/16
Crude VBAC Rate	13.5%	12.1% ▼	12.1%	12.7% ▲	12.2% ▼
VBAC Attempt Rate	17.0%	15.4% ▼	16.1% ▲	16.9% ▲	17.9% ▲
VBAC Success Rate	79.3%	78.8% ▼	75.2% ▼	75.3% ▲	68.1% ▼

Table 2.3: Crude VBAC Rate, VBAC Attempt Rate and VBAC Success Rate, by birthing hospital, New Brunswick, 2015/16

Location	VBAC Deliveries by Birthing Hospital		
	Crude VBAC Rate	VBAC Attempt Rate	VBAC Success Rate
Campbellton	0.0%	0.0%	NA
Chaleur	NR	10.0%	NR
DECH	11.4%	16.9%	67.5%
CHU Dumont	11.3%	16.9%	66.7%
Edmundston	19.6`%	26.1%	75.0%
Miramichi	NR	12.8%	NR
TMH	7.7%	11.6%	66.7%
SJRH	26.4%	35.0%	75.4%
URVH	NR	NR	NR

Low-Risk Term Repeat C-Sections Between 37 and 39 Weeks Gestation

This indicator evaluates the percent of low-risk elective repeat C-sections delivered at term, but prior to 39 weeks. 'Low-risk' is defined as singleton deliveries to mothers without any obstetrical or maternal complications in pregnancy, including placenta praevia, malpresentation of fetus or abnormal lie, hypertension, pre-eclampsia, eclampsia, diabetes mellitus, disproportion or abnormality of maternal pelvic organs, fetal abnormalities or problems, and decreased fetal movements.

Definition

Number of low-risk elected repeat C-sections delivered between 37 and 39 weeks gestation (37+0 to 38+6) / Total number of low-risk elected repeat C-sections delivered at term (>=37 weeks gestation). This excludes any deliveries with obstetrical or maternal complications.

Data Source

3M Health Data Management System, Horizon Health Network and Réseau de Santé Vitalité, 2011-2016. Data extracted January 10th, 2017.

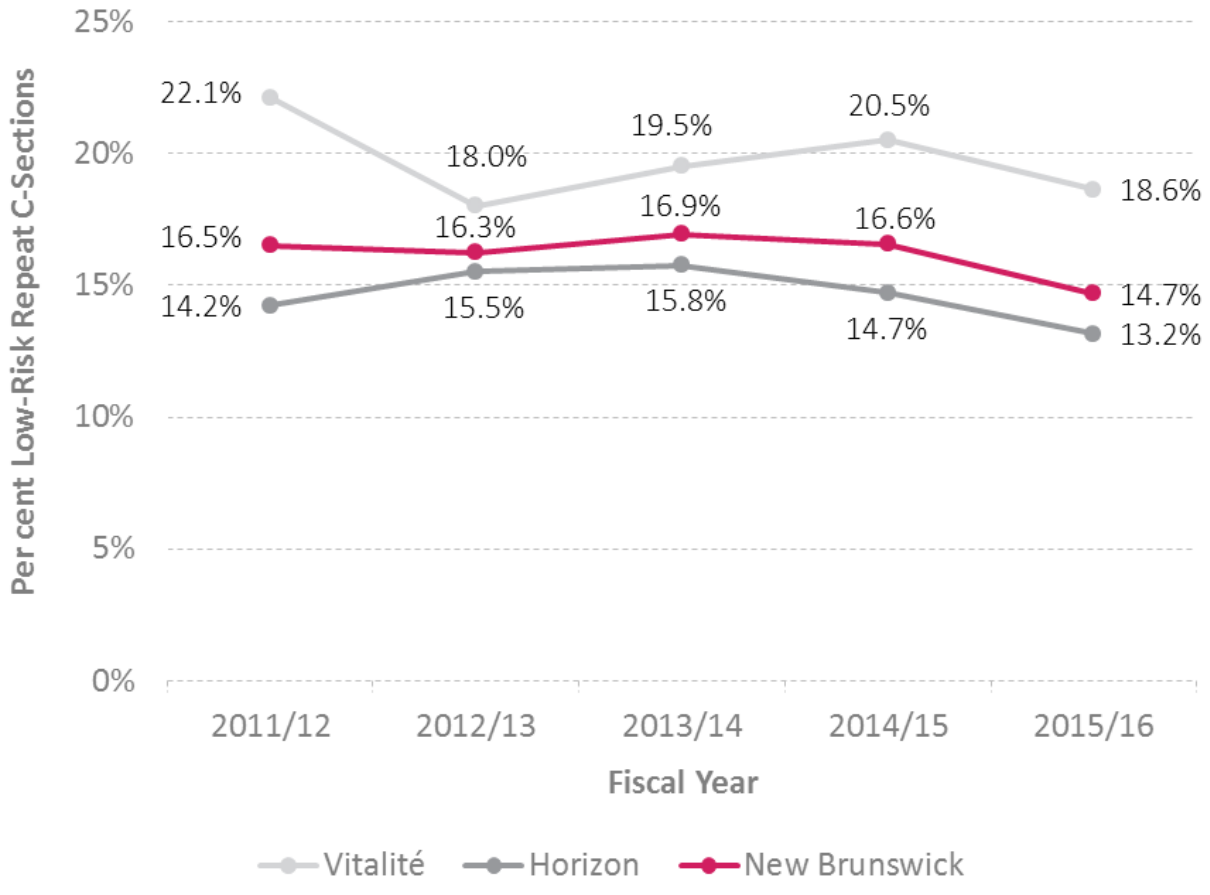


Figure 2.3: Per cent of term low-risk repeat C-sections delivered between 37 and 39 weeks gestation, by Regional Health Authority, New Brunswick, 2011/12-2015/16

Low-Risk Term Repeat C-Sections Between 37 and 39 Weeks Gestation by Birthing Hospital

Table 2.4 Per cent of term low-risk repeat C-sections delivered between 37 and 39 weeks gestation, by birthing hospital, New Brunswick, 2011/12-2015/16

Birthing Facility	Low-Risk Term Repeat C-Sections 37-39 Weeks				
	2011/12	2012/13	2013/14	2014/15	2015/16
Campbellton Regional Hospital	41.2%	12.8% ▼	13.7% ▲	29.0% ▲	20.8% ▼
Chaleur Regional Hospital	16.4%	10.8% ▼	14.0% ▲	17.2% ▲	23.1% ▲
Dr. Everett Chalmers Regional Hospital	14.0%	11.1% ▼	15.4% ▲	13.9% ▼	12.2% ▼
Dr. Georges-L.-Dumont University Hospital Centre	21.4%	20.8% ▼	19.2% ▼	19.6% ▲	18.4% ▼
Edmundston Regional Hospital	16.0%	25.4% ▲	31.9% ▲	23.2% ▼	11.5% ▼
Miramichi Regional Hospital	24.4%	28.6% ▲	35.5% ▲	32.6% ▼	28.0% ▼
The Moncton Hospital	21.4%	21.9% ▲	16.1% ▼	16.7% ▲	17.5% ▲
Saint John Regional Hospital	4.0%	8.5% ▲	9.3% ▲	4.3% ▼	7.6% ▲
Upper River Valley Hospital	NR	15.0% ▲	11.0% ▼	12.9% ▲	NR

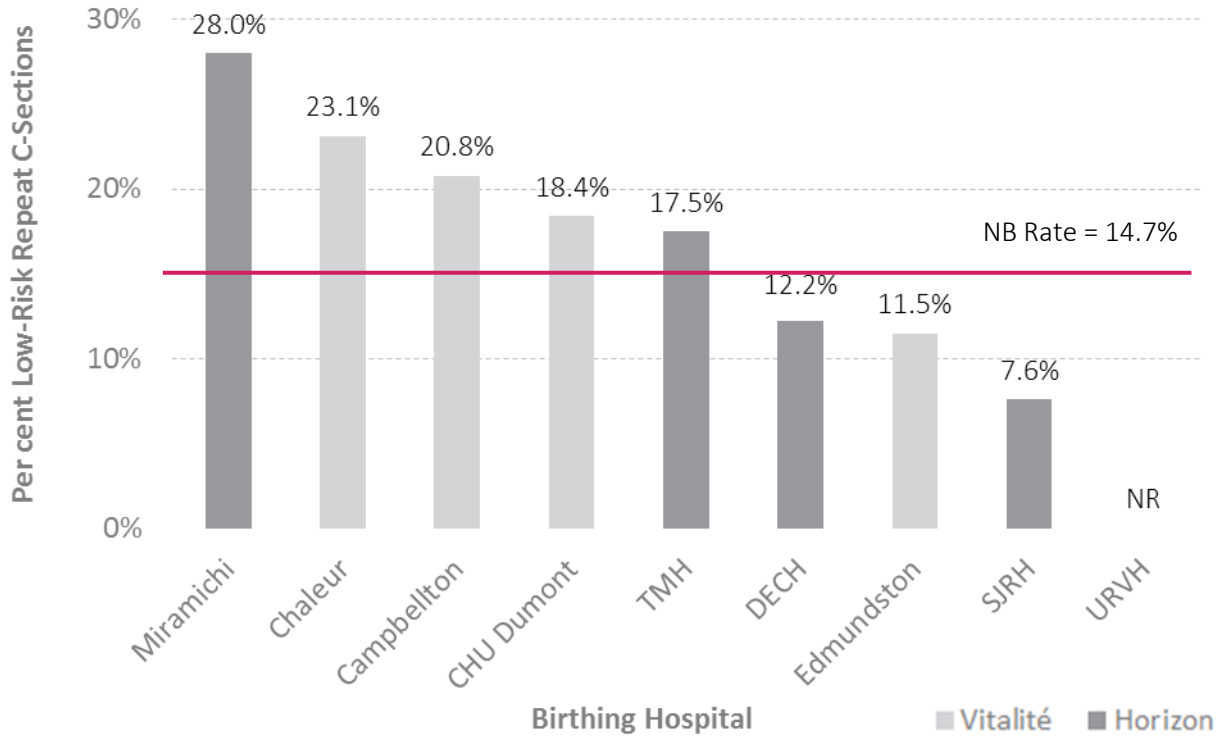


Figure 2.4: Per cent of term low-risk repeat C-sections delivered between 37 and 39 weeks gestation, by birthing hospital, New Brunswick, 2015/16

Episiotomy Rate in Singleton Vaginal Deliveries

The provincial rate of episiotomy has remained relatively stable in the past 5 years. An episiotomy is an incision made in the perineum during childbirth. Research has shown that there is no evidence supporting routine use of episiotomy[1]. For the purpose of comparison, PHAC reported an episiotomy rate for New Brunswick of 26.9% in 2000/01[2] and 19.7% in 2004/05[3]. They also reported a national rate of 49.1% in 1991[2].

Definition

Number of singleton vaginal deliveries that received an episiotomy / Total number of singleton vaginal deliveries.

Data Source

3M Health Data Management System, Horizon Health Network and Réseau de Santé Vitalité, 2011-2016. Data extracted February 28th, 2017.

References

1. SOGC joint policy statement on normal childbirth, 2008; Carroli G, Mignini L. *Episiotomy for vaginal birth.* Cohrane Database Syst Rev 2009; (1): CD000081
2. Public Health Agency of Canada. Perinatal Health Report, 2003 edition. Ottawa, 2003.
3. Public Health Agency of Canada. Perinatal Health Report, 2008 edition. Ottawa, 2008.

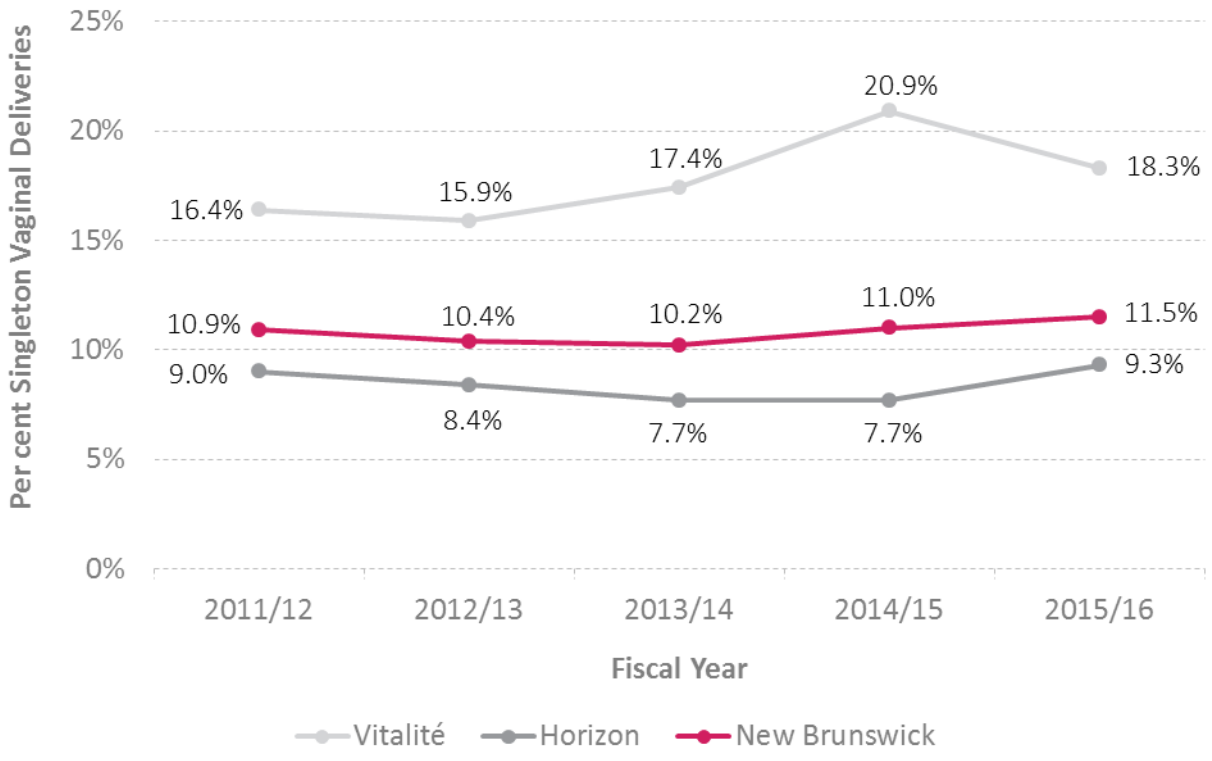


Figure 2.5: Episiotomy Rate for singleton vaginal deliveries, by Regional Health Authority, New Brunswick, 2011/12-2015/16

Episiotomy Rate in Singleton Vaginal Deliveries by Birthing Hospital

Table 2.5: Episiotomy Rate for singleton vaginal deliveries, by birthing hospital, New Brunswick, 2011/12-2015/16

Birthing Facility	Episiotomy				
	2011/12	2012/13	2013/14	2014/15	2015/16
Campbellton Regional Hospital	55.5%	52.7% ▼	49.6% ▼	55.2% ▲	51.1% ▼
Chaleur Regional Hospital	9.0%	9.6% ▲	14.4% ▲	22.8% ▲	20.4% ▼
Dr. Everett Chalmers Regional Hospital	9.2%	9.4% ▲	8.0% ▼	6.9% ▼	9.8% ▲
Dr. Georges-L.-Dumont University Hospital Centre	4.1%	5.5% ▲	6.0% ▲	6.6% ▲	6.0% ▼
Edmundston Regional Hospital	35.4%	31.0% ▼	27.0% ▼	27.3% ▲	20.2% ▼
Miramichi Regional Hospital	21.6%	11.1% ▼	12.4% ▲	17.5% ▲	17.3% ▼
The Moncton Hospital	8.5%	8.7% ▲	7.1% ▼	9.0% ▲	11.7% ▲
Saint John Regional Hospital	8.2%	8.2%	8.1% ▼	6.6% ▼	6.9% ▲
Upper River Valley Hospital	NR	NR	NR	NR	NR

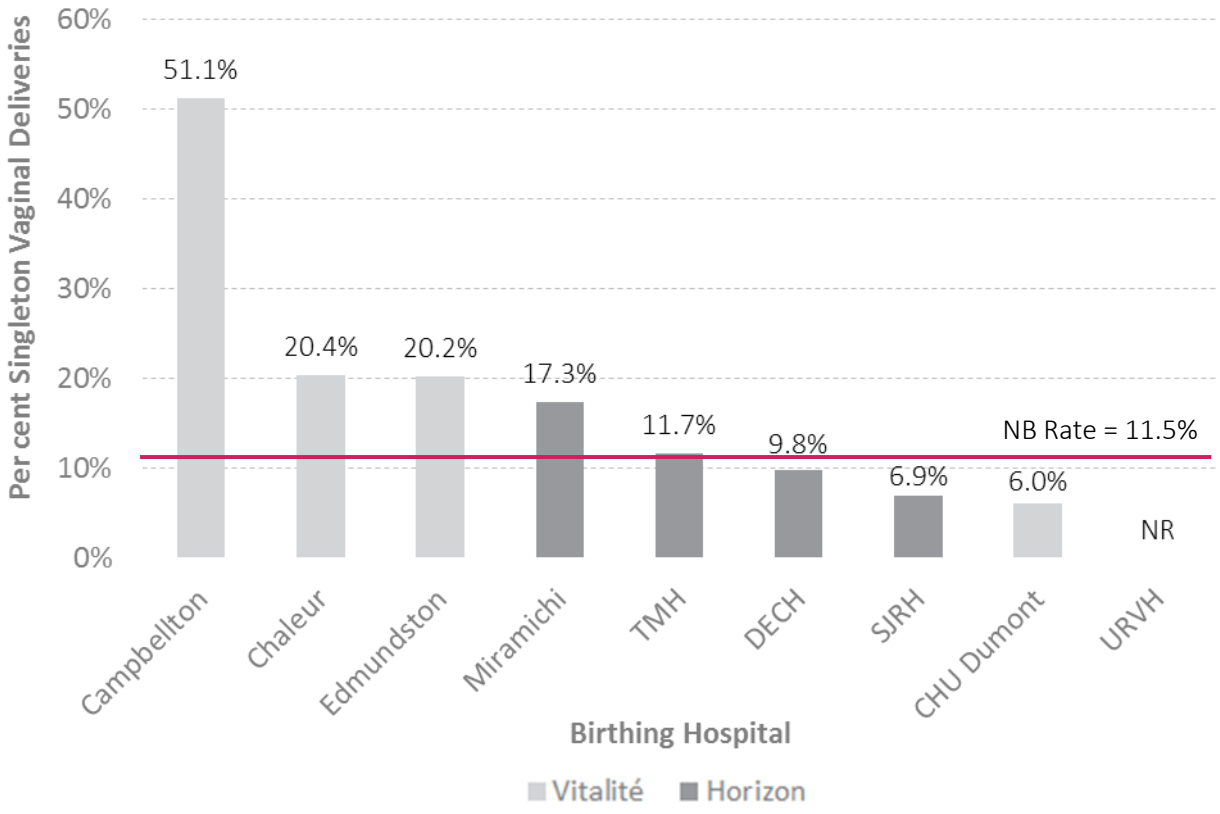


Figure 2.6: Episiotomy Rate for singleton vaginal deliveries, by birthing hospital, New Brunswick, 2015/16

Chapter 3: Newborn Health

Total Births

In accordance with the number of deliveries, the total number of live births has decreased over the past five years, from 7078 to 6506. Statistics Canada projects that the proportion of the population aged 65 and over in 2038 will be 31% for New Brunswick, much higher than the national projected rate of 24%[1]. In 2013, New Brunswick had the second-highest median age in the country, following Newfoundland and Labrador[1]. This will cause a decrease in fertility rate. Thus, it is expected this decreasing trend will be maintained. The number of stillbirths has fluctuated over the past five years and refers to deliveries equal or greater than 20 weeks gestation without signs of life.

Definition

The total number of live births and stillbirths in New Brunswick. Please note this excludes any live or still births resulting from a therapeutic abortion.

Data Source

3M Health Data Management System, Horizon Health Network and Réseau de Santé Vitalité, 2011-2016. Data extracted January 10th, 2017.

References

1. Statistics Canada. Population Projections for Canada (2013-2063), Provinces and Territories (2013-2038). Statistics Canada. Catalogue no.91-520-x. Ottawa Ontario. Minister of Industry. May 2015 (Accessed March 31, 2017).

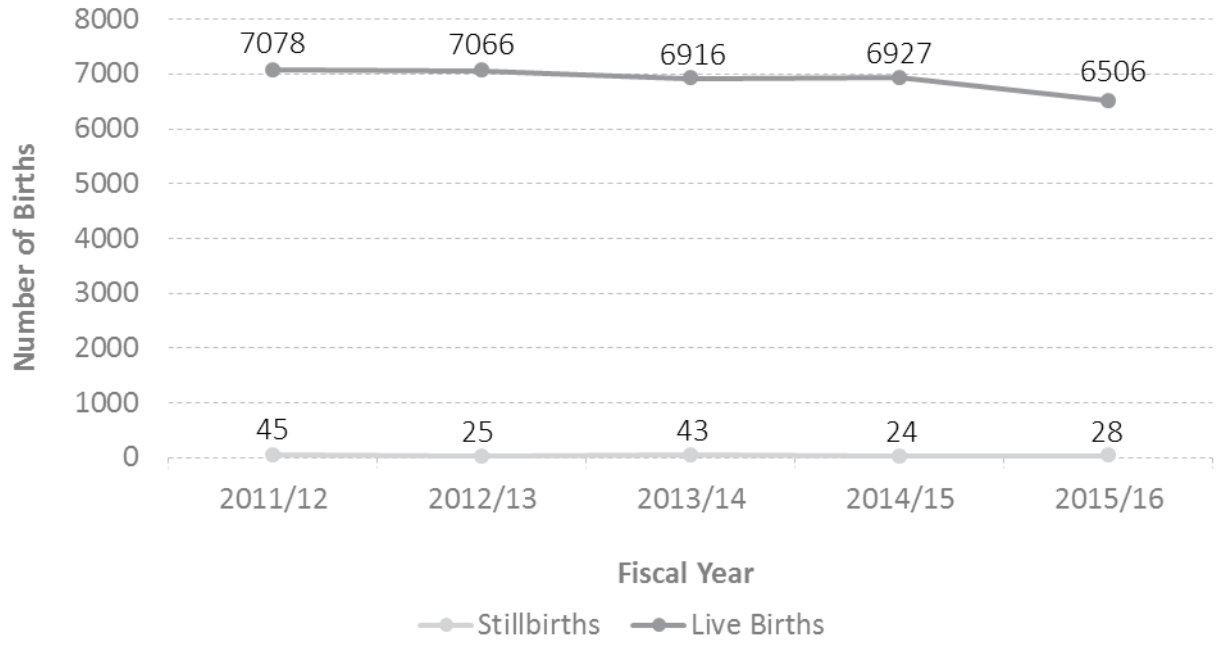


Figure 3.1: Total number of live births and stillbirths, New Brunswick, 2011/12-2015/16

Pre-Term Birth Rate

The pre-term birth rate has remained relatively stable in the past 5 years, sitting at 7.4% for 2015/16, but increased in 2013/14, to 8.1%. The provincial rate is in keeping with the national rate, reported at 7.8% for 2014/15.

Definition
Number of live births that were born pre-term (prior to 32 and 37 weeks gestation) / Total number of live births.

Data Source
3M Health Data Management System, Horizon Health Network and Réseau de Santé Vitalité, 2011-2016. Data extracted January 10th, 2017.

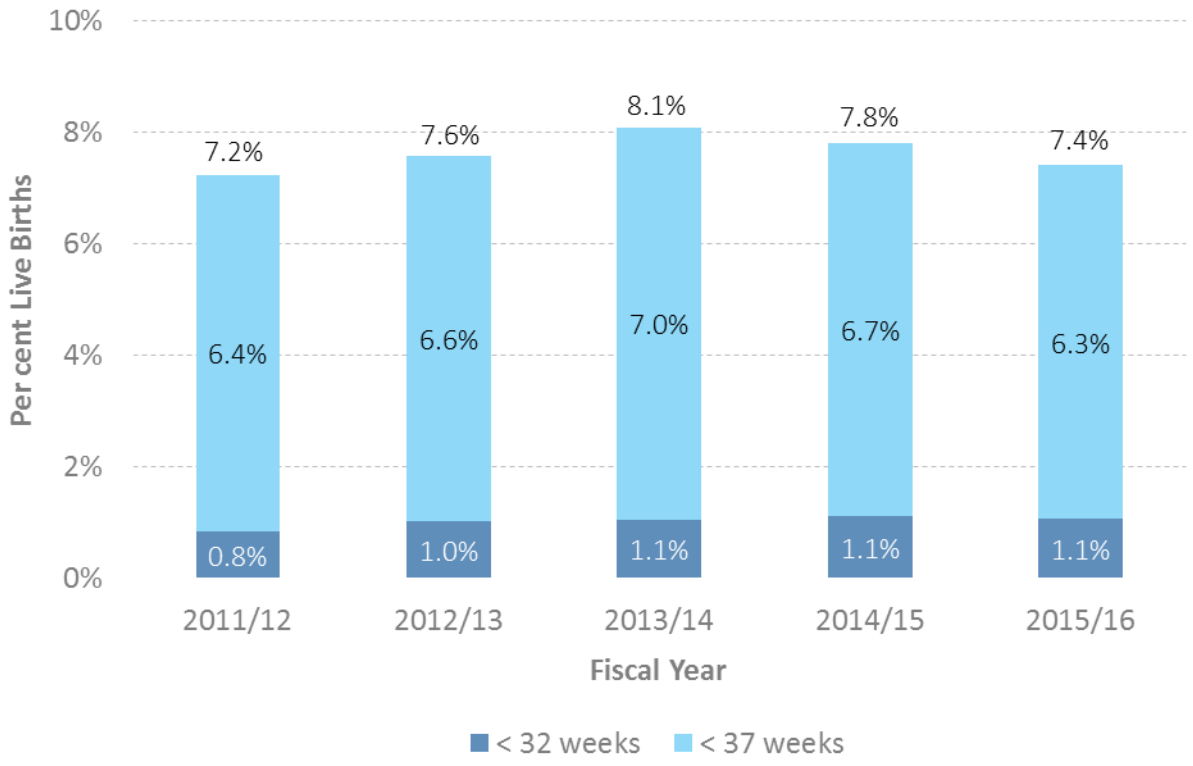


Figure 3.2: Pre-term birth rate, by length of gestation, New Brunswick, 2011/12-2015/16

Birth Weight Percentile for Gestational Age

Infants born in the 90th percentile are considered to be large for gestational age. In 2015/16, 11.5% of infants born in New Brunswick were considered large for gestational age, while 8.1% of infants were small for gestational age (birth weight in the 10th percentile). These proportions have remained relatively stable over the last 5 years. It is of note that PHAC reported a Canadian National Rate of 10.4% of babies born in the 90th percentile in 2010, following a nine year decreasing trend[1].

Definition

Number of births in the 3rd, 10th, 90th, and 97th percentiles for sex and birth weight (according to the Canadian Perinatal Surveillance System Birth Weight growth chart[2]) / Total number of live births.

Data Source

3M Health Data Management System, Horizon Health Network and Réseau de Santé Vitalité, 2011-2016. Data extracted January 10th, 2017.

References

1. Public Health Agency of Canada. Perinatal Health Report, 2013 edition. Ottawa, 2013.
2. Public Health Agency of Canada, 2001. *Birth Weight for Gestational Age.* Retrieved from http://www.phac-aspc.gc.ca/rhs-ssg/bwga-pnag/pdf/bwga-pnag_e.pdf (accessed September 29th, 2016.).

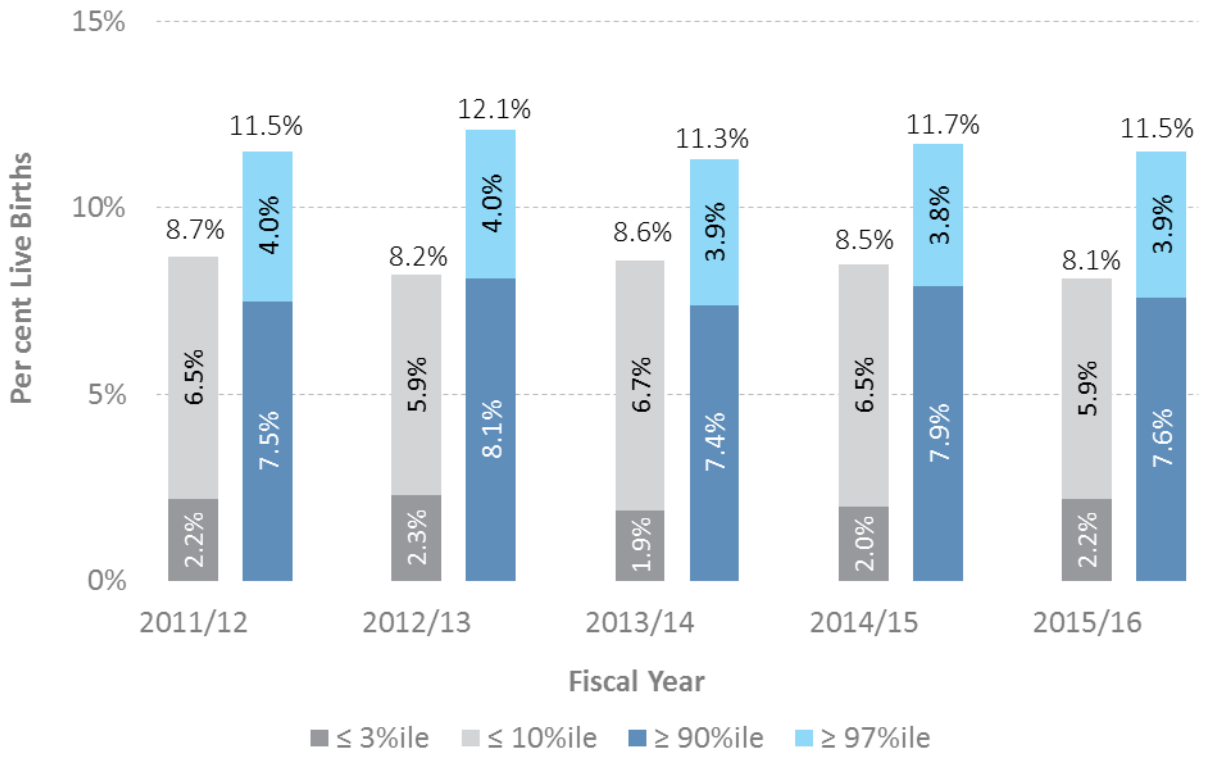


Figure 3.3: Per cent of singleton infants, by birth weight for gestational age, New Brunswick, 2011/12-2015/16

Primary SCU/NICU Admissions by Regional Health Authority

The number of SCU/NICU admissions was counted differently at the provincial, RHA and hospital level. The provincial rate counted each infant as one SCU/NICU admission regardless of the number of transfers, and is therefore the true rate of SCU/NICU admissions per live births in New Brunswick. At the RHA level, SCU/NICU admissions were counted only once if the infant was transferred within the same RHA, however they were counted once per RHA if they were transferred between Horizon and Vitalité.

Please note that Special Care Unit (SCU) admissions at the Dr. Georges-L. Dumont University Hospital Centre and the Miramichi Regional Hospital are not included in reported rates for Vitalité, Horizon and New Brunswick due to lack of data capture in the 3M Health Data Management System. The denominator of 'total live births' was also adjusted to exclude any births occurring at these two hospitals. Please see "Notes and Limitations" (page 4) for definitions of SCU and NICU.

Definition

Number of infants equal or less than 28 days of age with at least one SCU/NICU admission / Total number of live births. This includes all hospital births and any admissions to pediatrics, an SCU or a NICU.

Data Source

3M Health Data Management System, Horizon Health Network and Réseau de Santé Vitalité, 2011-2016. Data extracted September 29th, 2016.

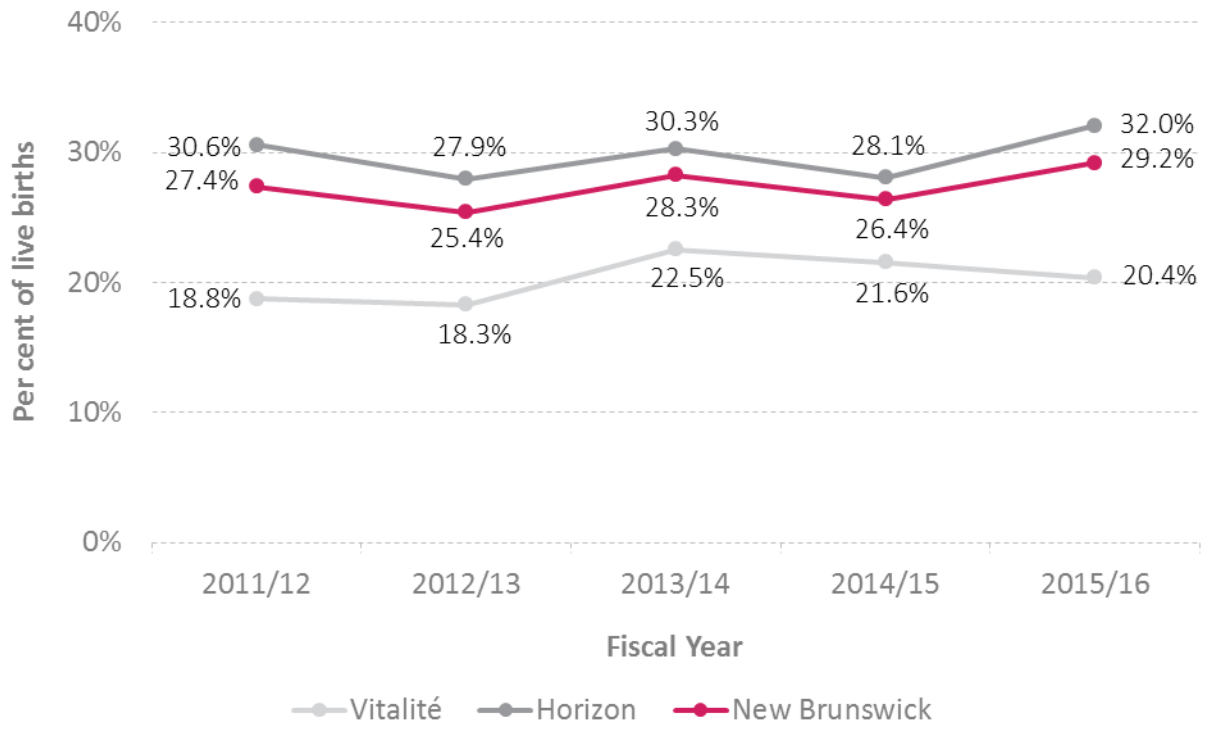


Figure 3.4: Per cent of infants admitted to SCU/NICU within the first 28 days of life, by Regional Health Authority, New Brunswick, 2011/12-2015/16

Primary SCU/NICU Admissions by Birthing Hospital

SCU/NICU admissions were counted once per hospital, including transfers. As such, we would expect the rate of SCU/NICU admissions to be higher at hospitals with MIS designated NICUs to which infants would be transferred from other hospitals (* denotes MIS designated NICU). Please note that babies born at the Upper River Valley Hospital requiring special care are transferred to the Dr. Everett Chalmers Regional Hospital NICU. Taking this practice into consideration, the DECH rates include the total number of live births occurring at the Upper River Valley Hospital.

Definition
Number of infants equal or less than 28 days of age with at least one SCU/NICU admission / Total number of live births.

Data Source
3M Health Data Management System, Horizon Health Network and Réseau de Santé Vitalité, 2011-2016. Data extracted September 29th, 2016.

Table 3.1: Per cent of infants admitted to SCU/NICU within the first 28 days of life, by birthing hospital, New Brunswick, 2011/12-2015/16

Birthing Facility	Primary Special Care Nursery/NICU Admission				
	2011/12	2012/13	2013/14	2014/15	2015/16
Campbellton Regional Hospital	54.3%	49.7% ▼	45.8% ▼	29.2% ▼	19.6% ▼
Chaleur Regional Hospital	36.7%	36.0% ▼	48.6% ▲	49.8% ▲	53.7% ▲
Edmundston Regional Hospital	14.6%	16.0% ▲	18.3% ▲	19.8% ▲	16.3% ▼
The Moncton Hospital*	38.5%	31.5% ▼	34.6% ▲	32.8% ▼	35.4% ▲
Saint John Regional Hospital*	31.8%	32.4% ▲	33.5% ▲	28.1% ▼	29.4% ▲
Dr. Everett Chalmers Regional Hospital* & Upper River Valley Hospital	29.9%	27.3% ▼	30.9% ▲	30.5% ▼	38.4% ▲

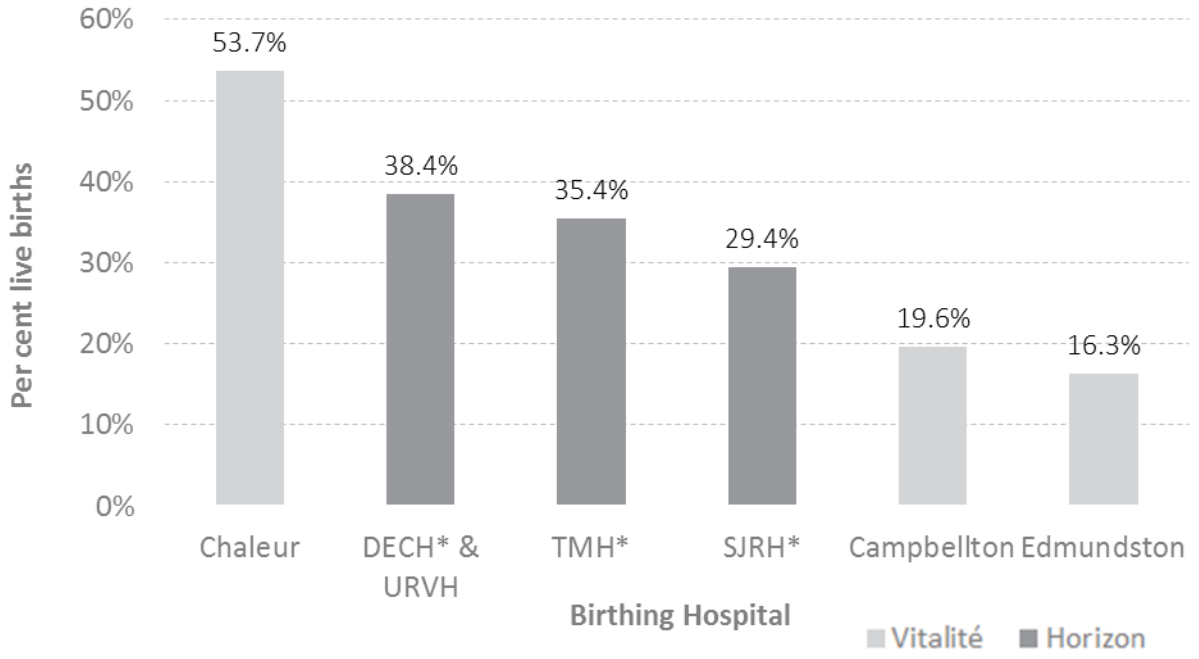


Figure 3.5: Per cent of infants admitted to SCU/NICU within the first 28 days of life, by birthing hospital, New Brunswick, 2015/16

Most Responsible Diagnosis for SCU/NICU Admission

These diagnoses relate to specific ICD10 codes in the 3M Health Data Management System and are not intended to capture rates of neonatal health conditions in New Brunswick. These codes are reflective of the practices of New Brunswick hospitals and what health professionals record as a reason for SCU/NICU admission. Please note that this list includes only the top 15 most frequently used "most responsible diagnosis" codes out of 153 codes used in 2015/16.

These numbers do not include any Special Care Unit (SCU) admissions at the Dr. Georges-L. Dumont University Hospital Centre and the Miramichi Regional Hospital.

Definition
Count of each primary diagnosis for SCU/NICU admission / Number of infants equal or less than 28 days of age with at least one SCU/NICU admission.

Data Source
3M Health Data Management System, Horizon Health Network and Réseau de Santé Vitalité, 2011-2016. Data extracted September 29th, 2016.

Table 3.2: The top 15 most responsible diagnoses (defined by specific ICD-10 codes) for SCU/NICU admission, New Brunswick, 2015/16

Most Responsible Diagnosis for SCU/NICU Admission			
Rank	Diagnosis	Number	Rate
1	Other low birth weight	260	13.5%
2	Other preterm infants	197	10.2%
3	Syndrome of infant of mother with gestational diabetes	150	7.8%
4	Fetus and newborn affected by premature rupture of membranes	116	6.0%
5	Respiratory distress of newborn, unspecified	109	5.6%
6	Transient tachypnoea of newborn	103	5.3%
7	Examination and observation for other specified reasons	102	5.3%
8	Fetus and newborn affected by maternal infectious and parasitic diseases	76	3.9%
9	Observation for other suspected diseases and conditions	75	3.9%
10	Condition originating in the perinatal period, unspecified	67	3.5%
11	Other neonatal hypoglycaemia	60	3.1%
12	Singleton, born in hospital, product of spontaneous ovulation and conception	47	2.4%
13	Exceptionally large baby	44	2.3%
14	Other heavy for gestational age infants	38	2.0%
15	Neonatal jaundice, unspecified	35	1.8%

Primary SCU/NICU Admissions in Term and Pre-Term Newborns

Definition	Data Source
Number of pre-term or term infants equal or less than 28 days of age with at least one SCU/NICU admission / Total number of pre-term (<37 weeks) or term (>= 37 weeks) live births.	3M Health Data Management System, Horizon Health Network and Réseau de Santé Vitalité, 2011-2016. Data extracted September 29th, 2016.

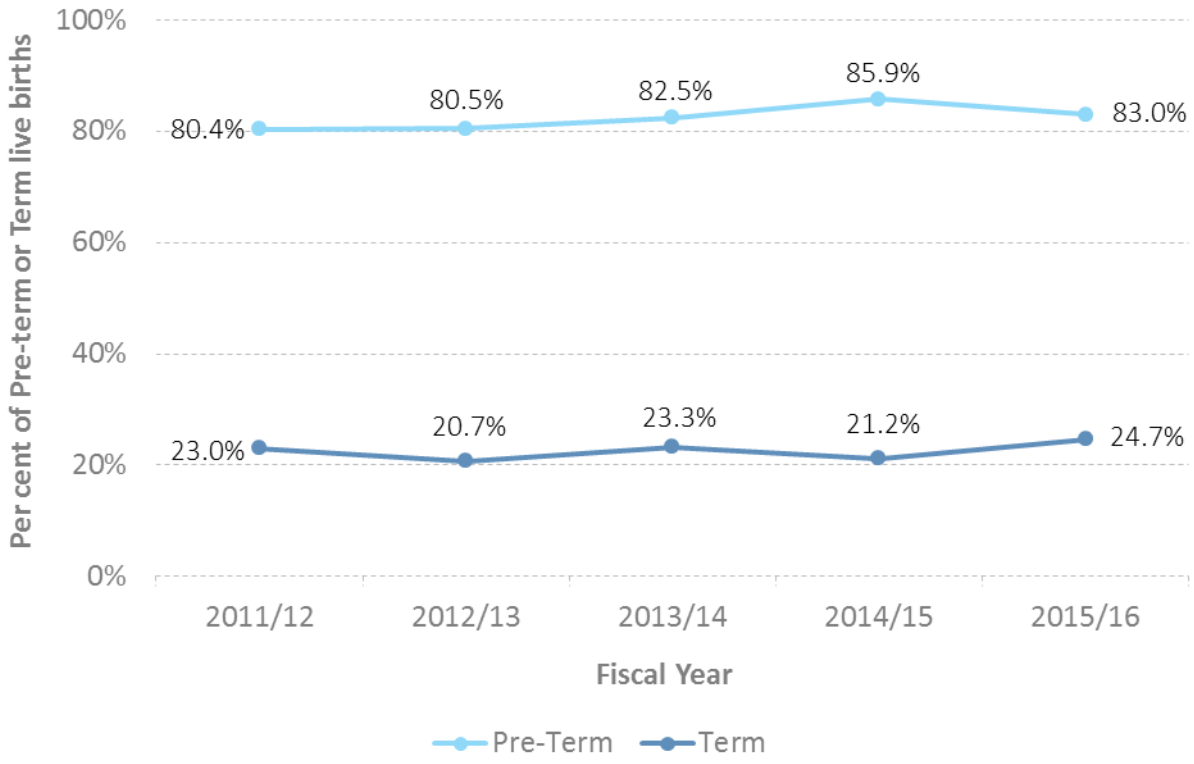


Figure 3.6: Per cent of infants admitted to SCU/NICU within the first 28 days of life, by length of gestation, New Brunswick, 2011/12-2015/16

Neonatal Mortality Rate

Please note that these rates do not include any infant deaths that occur outside of a hospital.

Definition
Number of live-born infant deaths within the first 28 days of life / Total number of live births. This includes all hospital births and any admissions to pediatrics, an SCU or a NICU.

Data Source
3M Health Data Management System, Horizon Health Network and Réseau de Santé Vitalité, 2011-2016. Data extracted January 10th, 2017.

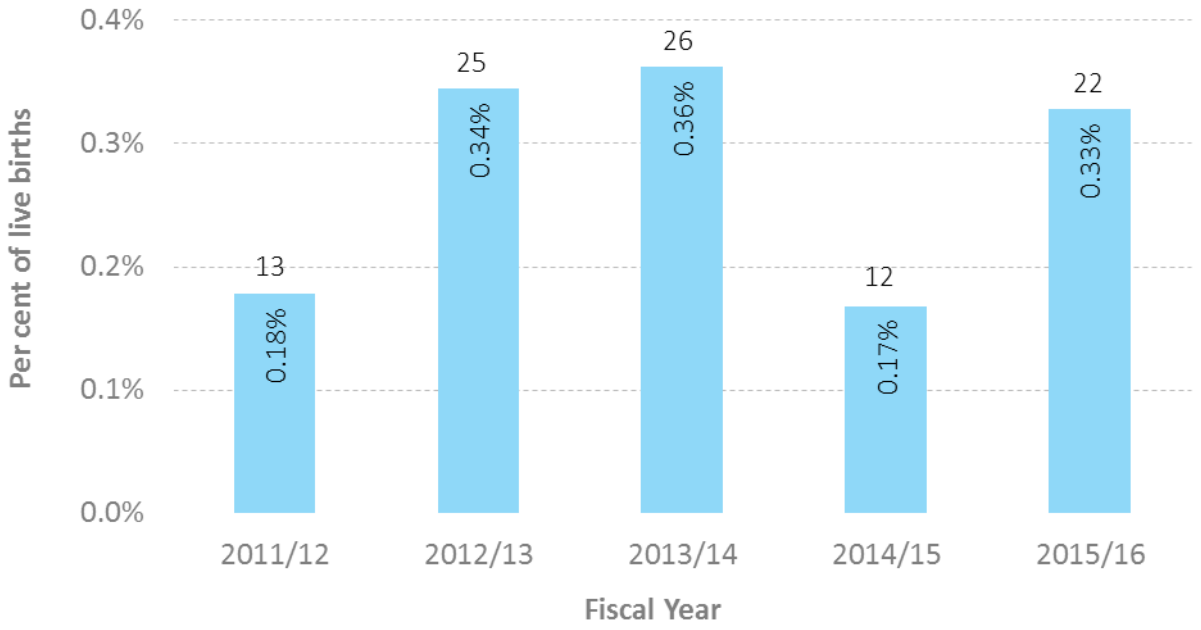


Figure 3.7: Number and per cent of neonatal deaths, New Brunswick, 2011/12-2015/16

Exclusive Breastfeeding Rate at Discharge

The Office of the Chief Medical Officer of Health implemented a breastfeeding data collection form in 2006, with revision in 2012 and 2014. Prior to 2012, the data is considered non-reportable due to data quality and form completion issues. While some hospital rate remained relatively stable, a decreasing trend is noted for others. The government of New Brunswick has adopted the Baby-Friendly Initiative as a strategy to protect, promote and support breastfeeding. This strategy includes the designation of birthing hospital as baby-friendly. One of the outcome indicators considered in the designation process is the exclusive breastfeed rate at discharge. This rate must be 75% or greater in order for a birthing hospital to achieve designation.

Definition
Number of infants that were exclusively breastfed or were supplemented for a medical reason at time of discharge / Total number of live births.

Data Source
3M Health Data Management System, Horizon Health Network and Réseau de Santé Vitalité, 2011-2016. Data extracted January 10th, 2017.

Table 3.3: Exclusive Breastfeeding Rate, by birthing hospital, New Brunswick, 2013/14-2015/16

Birthing Facility	Exclusive Breastfeeding Rate		
	2013/14	2014/15	2015/16
Campbellton Regional Hospital	54.9%	57.2% ▲	53.0% ▼
Chaleur Regional Hospital	58.7%	55.0% ▼	58.4% ▲
Dr. Everett Chalmers Regional Hospital	59.2%	60.2% ▲	59.5% ▼
Dr. Georges-L.-Dumont University Hospital Centre	75.3%	73.4% ▼	60.9% ▼
Edmundston Regional Hospital	56.2%	52.0% ▼	45.5% ▼
Miramichi Regional Hospital	48.7%	53.1% ▲	46.9% ▼
The Moncton Hospital	59.9%	55.7% ▼	52.6% ▼
Saint John Regional Hospital	59.4%	59.1% ▼	60.2% ▲
Upper River Valley Hospital	56.6%	58.8% ▲	57.8% ▼

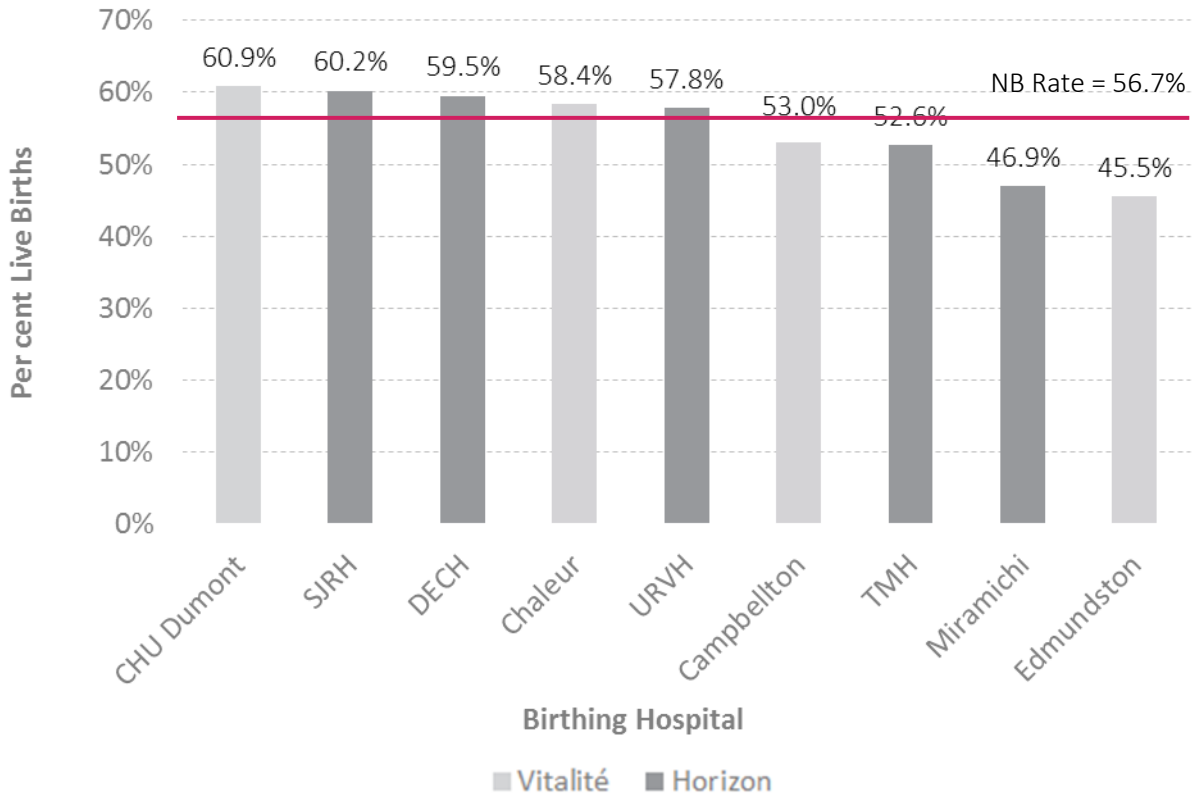


Figure 3.8: Exclusive Breastfeeding Rate, by birthing hospital, New Brunswick, 2015/16