

BRITISH COLUMBIA PERINATAL DATABASE REGISTRY

# Annual Report 2006



BRITISH COLUMBIA REPRODUCTIVE CARE PROGRAM

*Working to Optimize Maternal, Fetal and Infant Health in British Columbia*

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The BCRCP is pleased to present the 2006 British Columbia Perinatal Database Registry Annual Report and wishes to recognize all the above mentioned for their vision and dedication.

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## HIGHLIGHTS AND EXECUTIVE SUMMARY

The 2006 Annual Report includes perinatal data from five fiscal years (April 1 to March 31) 2001/2002, 2002/2003, 2003/2004, 2004/2005 and 2005/2006. For Neonatal/Perinatal/Infant Mortality reports, the years 2000/2001, 2001/2002, 2002/2003 and 2003/2004 are included. Complete information on infant mortality is not available until at least one year after the birth takes place. **Only singleton deliveries and births are included to allow for cleaner comparisons between subsets of data. The data provide evidence regarding issues pertaining to the care, treatment and outcomes of mothers and newborns in British Columbia. BC residents who delivered out of province are not captured in this report.** Refer to Appendix 1 for definitions of terms used throughout this report.

### Some of the key highlights included in this report are:

- Caesarean section rates have increased throughout the province from 2001/2002 to 2005/2006 with a provincial average of 29.2% reported in 2005/2006. In September 2006, the BCRCP established a Caesarean Birth Task Force to review trends in caesarean delivery rates, to describe clinical, demographic and organizational factors associated with caesarean deliveries and to provide recommendations to health facilities.
- Breastfeeding is an unequalled method of promoting optimum health in the growth and development of the newborn. The recently implemented definitions for collecting newborn feeding data are reflected in this report (i.e., exclusive breastfeeding, mixed feeding, breast milk substitutes). There has been an increase in exclusive breastfeeding in the Northern Health Authority and the Provincial Health Services Authority from 65.3% to 74.2% and 52.2% to 57.4% respectively from 2004/2005 to 2005/2006.
- The infant mortality rate and perinatal mortality rate decreased from 3.6 to 3.4 and 6.6 to 6.0 respectively from 2002/2003 to 2003/2004. The stillbirth rate in 2003/2004 was highest in the Northeast and Northern Interior Health Service Delivery Areas. The Perinatal Mortality Review Committee (PMR), consisting of representatives from the BCRCP and all Health Authorities will endeavour to review and analyze data on maternal and perinatal mortality and morbidity to identify provincial issues and recommend strategies to address concerns.
- Evidence shows that women are delaying childbirth until later in life. In BC, the average maternal age increased from 29.9 in 1999/2000 to 30.4 in 2005/2006 for both nulliparous and parity $\geq$ 1 mothers.
- Deliveries performed by registered midwives increased more than 1.5 times provincially from 3.4% in 2001/2002 to 5.4% in 2005/2006 while deliveries by family physicians decreased from 44.6% in 2001/2002 to 41.6% in 2005/2006 reflecting an apparent change in trend in the care of the mother during delivery.
- Teen births in British Columbia have steadily decreased with the Northern Health Authority showing the largest decline from 9.0% in 2001/2002 to 7.2% in 2005/2006 although still remaining higher than the provincial average of 3.3%.
- Although the data show that the rate of smoking during pregnancy has decreased in British Columbia over the past five years, the rate of smoking in younger mothers (<20 years of age) is considerably higher than in mothers >35 years of age (32.7% vs 9.6% respectively). With negative health consequences associated with smoking during pregnancy, promotion and endorsement of cessation programs for women during pregnancy and after delivery remains an important public health concern.
- Induction rates have shown a slight increase provincially from 2004/2005 to 2005/2006 with the greatest increase in the Vancouver Coastal Health Authority from 17.8% to 19.8%.
- Although the proportion of mothers receiving auscultation in labour is increasing in BC (18.8% in 2004/2005 to 20.5% in 2005/2006), the rate of electronic fetal monitoring is still high at 74.0%. The Society of Obstetrics and Gynaecology of Canada recommends intermittent auscultation as a preferred method of fetal surveillance in labour for healthy term pregnancies.
- The episiotomy rate in British Columbia has decreased steadily from 18.7% to 14.1% over the past five years with the lowest rates recorded in the Interior Health Authority and Vancouver Island Health Authority at 11.0%. Studies have suggested that there is a lack of evidence to support the routine use of episiotomies in vaginal deliveries.
- The postpartum length of stay following vaginal deliveries has decreased across the province with only 8.6% of mothers remaining in hospital for greater than 3 days post delivery in 2005/2006. The majority of mothers (71.1%) are discharged before 2 days post delivery. The postpartum length of stay following caesarean section deliveries has also decreased with 91.5% of mothers in the Fraser Health Authority discharged within 96 hours post delivery compared to the provincial average of 84.8%.

- Pregnant women who fall in the body mass index category of overweight or obese pre-pregnancy are at risk for numerous pregnancy, labour and neonatal conditions. The pre-pregnancy obesity rate has increased provincially from 10.6% (2001/2002) to 11.4% (2005/2006).
- In 2004/2005, postpartum readmission rate after caesarean section was 2.3% compared to only 1.7% after vaginal delivery. The most common diagnosis on readmission post caesarean section was surgical obstetrical wound infection while delayed and secondary postpartum

hemorrhage was the most common diagnosis on readmission for vaginal deliveries.

- In term newborns, the small-for-gestational age group has been stable from 2001/2002 to 2004/2005 at 7.0%. In preterm newborns, the average-for-gestational age group decreased from 78.1% in 2001/2002 to 76.8% in 2005/2006, while the large-for-gestational age group increased from 12.4% to 14.4% from 2001/2002 to 2005/2006.

Table 1 lists the category of perinatal data and the source of this data.

**Table 1 Sources of Perinatal Data**

Perinatal Data	BC Vital Statistics Agency	Discharge Abstract Database	BC Perinatal Database Registry
Miscarriages/Abortions	No	No, unless admitted to hospital	No
Therapeutic Abortions (<20 weeks gestational age)	No	Yes	No
Stillbirths	Yes	Yes	Yes
BC residents delivering out of province	No, but Stats Canada makes adjustments for these events	Yes, if in hospital in Canada (excluding Quebec)	No
Non-residents of BC delivering in BC hospitals	Yes	Yes	Yes
Fiscal/Calendar	Calendar	Fiscal	Fiscal
Home Births	Yes	No	Yes
Pregnancies vs Births (i.e., are multiple births identified separately as 1 or as 2, 3, 4, 5, etc.	Both	Both	Both

Source: BC Vital Statistics Agency, Canadian Institute for Health Information, BC Perinatal Database Registry



## BACKGROUND

The Ministry of Health and the British Columbia Medical Association (BCMA) initiated the British Columbia Reproductive Care Program (BCRCP) in June 1988. The BCRCP is overseen by a Provincial Perinatal Advisory Committee and has representation from the Ministry of Health Services (MOHS), the Provincial Health Services Authority (PHSA), Children's and Women's Health Centre of BC, health care providers, health authorities and academic organizations.

One of the mandates of the BCRCP is “the collection and analysis of data to evaluate perinatal outcomes, care processes and resources via a province-wide computerized database”. This mandate led to the development of the British Columbia Perinatal Database Registry (BCPDR), with its stated mission to collect, maintain, analyze and disseminate comprehensive, province-wide perinatal data for the purposes of monitoring and improving perinatal care. Rollout of the Registry began in 1994, with collection of data from a small number of hospital sites. Participation increased every year, resulting in full provincial data collection commencing April 1, 2000. The BCPDR is a relational database containing over 300 fields, and with complete provincial data, is a valuable source of perinatal information.

### Data Collection

The BCPDR consists of data collected from obstetrical facilities as well as births occurring at home attended by BC Registered Midwives. Participation in the registry is voluntary.

BC women who deliver in Alberta or in hospitals out of province are not captured in the BC Perinatal Database Registry. Therefore data from high outflow communities bordering Alberta will be under-reported.

The perinatal data presented in this report are collected from facilities throughout the province and imported into the central BC Perinatal Database Registry. Data from the Canadian Institute for Health Information (CIHI) and matched files from the British Columbia Vital Statistics Agency complement the data elements. The 2000/2001, 2001/2002, 2002/2003 and 2003/2004 deaths represented in this report consist of singleton pregnancy deaths identified by the BCPDR supplemented by deaths identified by Vital Statistics records, in order to provide complete mortality data for babies up to one year of age.

## INTRODUCTION

The 2006 BCPDR Annual Report describes the current state of perinatal health in British Columbia (BC). In the 2006 Annual Report, there are five years of data to monitor trends for the selected indicators. These indicators have been chosen by the Reports Development Committee because they are clinically relevant and lend themselves to analysis that may suggest changes in care delivery. It must be remembered that this report is only one source of data to monitor trends and guide policy and clinical practice.

Definitions for terms used throughout the report can be found in Appendix 1.

### Methodological Issues:

The 2006 Annual Report includes perinatal data from five fiscal years (April 1 to March 31) 2001/2002, 2002/2003, 2003/2004, 2004/2005 and 2005/2006. For the Neonatal/Perinatal/Infant Mortality reports, data from the fiscal years 2000/2001, 2001/2002, 2002/2003 and 2003/2004 are available. **Only singleton deliveries and births are included, as presented in Table 2. Late terminations are excluded.**

**Table 2 Total Births Per Fiscal Year**

Fiscal Year	Singleton Births		Multiple Births (includes twins and other multiple births)		Total Births
	#	%	#	%	#
2001/2002	39,283	97.3	1,076	2.7	40,359
2002/2003	39,150	96.9	1,253	3.1	40,403
2003/2004	39,202	97.0	1,203	3.0	40,405
2004/2005	39,407	97.1	1,190	2.9	40,597
2005/2006	39,646	96.8	1,300	3.2	40,946

Source: BC Perinatal Database Registry

Note: The numbers correspond to births, not pregnancies. Late terminations are excluded. Only linked mothers and newborns included.

The data presented in this report are categorized according to either place of delivery (i.e. where the birth occurs) or place of residence (i.e. where the mother lives). Data limitations or methodological issues concerning the data source are noted in the text that accompanies each indicator.

For the purposes of this report, the data contain only linked mothers and newborns for each fiscal year (<0.02% not reported). The linked mother-newborn is attributed to the health care facility reporting the delivery episode. The year in which the linked mother-newborn is contained is dependent on when the last individual is discharged (mother or baby). For example,

- if a woman delivers on March 28, 2002 and is discharged March 31, 2002 and the newborn is also discharged March 31, 2002, then their information is contained in the 2001/2002 fiscal year data.
- if a woman delivers on March 28, 2002 and is discharged March 31, 2002 and the newborn is discharged April 4, 2002, then the data for both mother and newborn will be contained in the fiscal year 2002/2003 data set, not the 2001/2002 data set.

The updated data for fiscal years 2001/2002, 2002/2003 and 2003/2004 have been incorporated in the 2006 Annual Report. Slight differences may, therefore, be noted from previous BCPDR Annual Reports and it is advisable that readers follow trends based on the current data rather than compare tables from earlier publications of the annual report.

Reference is made throughout the document to BCRCP resources for select indicators (e.g., clinical practice guidelines). These references can be accessed on the BCRCP web site at <<http://www.rcp.gov.bc.ca>>.

# SECTION I

## DEMOGRAPHICS AND TYPES OF CARE PROVIDER





## SECTION I – DEMOGRAPHICS AND TYPES OF CARE PROVIDER

The population of women between the ages of 15 and 54 in British Columbia increased over the past five calendar years. Table 3 illustrates this increase and also describes the distribution by age

group. Notably, the two age groups that have shown the largest decreases in population over the last five years are those women between the ages of 30 to 34 and 35 to 39 years.

**Table 3 Population of Women in BC Aged 15 – 54, 2001 to 2005**

Age	2001		2002		2003		2004		2005	
	#	%	#	%	#	%	#	%	#	%
15-19	135,396	11.2	136,805	11.3	136,418	11.2	135,918	11.0	136,227	11.0
20-24	131,632	10.9	135,660	11.2	139,774	11.4	144,512	11.7	147,770	11.9
25-29	134,100	11.1	133,479	11.0	133,403	10.9	135,401	11.0	138,299	11.1
30-34	151,954	12.6	151,532	12.5	150,165	12.3	147,938	12.0	145,869	11.7
35-39	171,069	14.2	166,355	13.7	161,411	13.2	158,309	12.9	158,364	12.7
40-44	176,337	14.6	177,046	14.6	178,353	14.6	179,745	14.6	179,216	14.4
45-49	162,915	13.5	167,404	13.8	171,346	14.0	174,436	14.2	177,082	14.2
50-54	145,268	12.0	147,541	12.1	150,764	12.3	155,197	12.6	159,965	12.9
Total	1,208,671	100.0	1,215,822	100.0	1,221,634	100.0	1,231,456	100.0	1,242,792	100.0

Source: Statistics Canada

Prepared by: BC Statistics Agency

Note: Population counts based on calendar year. All figures as of July 1st of the year stated.

### Average Maternal Age in BC, 1999/2000 to 2005/2006

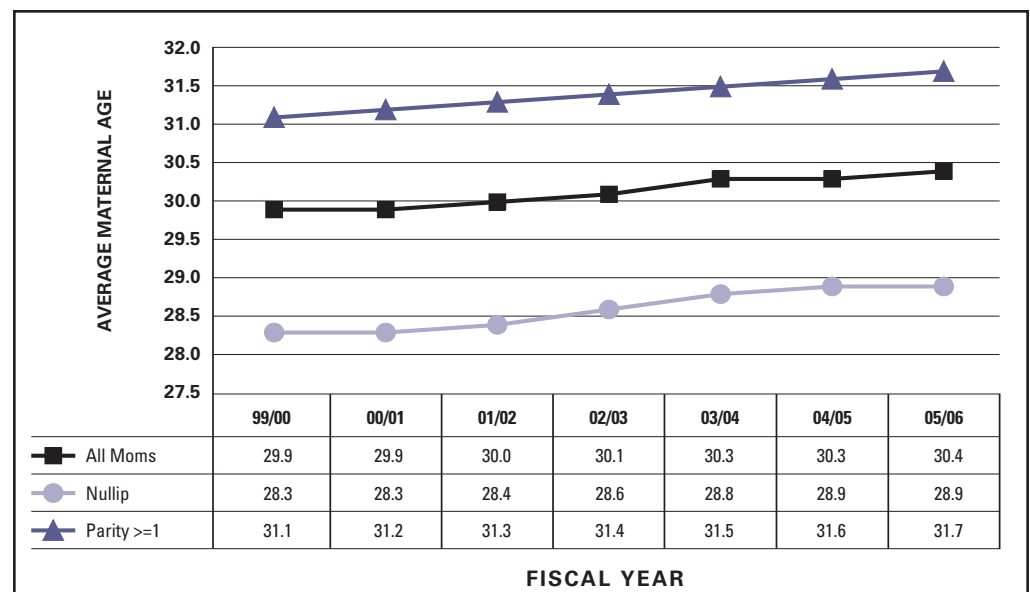
Across Canada the proportion of live births to mothers over the age of 30 has been increasing. In 1991, 34.1% of babies in Canada were born to mothers over the age of 30; by 2000, this proportion had increased to 41.9%.<sup>1</sup> Data from BC Vital Statistics shows that the proportion of live births to mothers over the age of 35 in British Columbia has more than doubled over the past eighteen years, from 8.2% in 1986 to 21.4% in 2004.<sup>2</sup>

age of mothers in Alberta increased from 28.7 years to 29.1 years.<sup>4</sup> The average age of nulliparous mothers in BC has remained relatively stable for the past two years (28.9 years), a slight increase from 1999/2000, when the average maternal age was 28.3. Mothers with parity >=1 in British Columbia have reached an average age at delivery of 31.7 years in 2005/2006, up from 31.1 years in 1999/2000.

Although the majority of mothers delaying childbirth beyond the age of 30 will deliver without major maternal or perinatal adverse outcome, there are some documented risks associated with delayed childbirth, including preterm delivery, congenital anomalies, gestational diabetes, placenta previa and caesarean delivery.<sup>3</sup>

In British Columbia, the average maternal age has increased over the past seven years. In 2005/2006, the average maternal age at delivery for all mothers was 30.4 years, up slightly from 29.9 years in 1999/2000. Over approximately the same time period, the average maternal

**Figure 1 Average Maternal Age in BC, 1999/2000 to 2005/2006**



Source: BC Perinatal Database Registry

Note: Fiscal Year 1999/2000 data is incomplete, reflecting approximately 89% of the births that occurred in BC.

## Care Provider Delivering Baby by Place of Delivery for Health Service Delivery Areas, Health Authorities and Province, 2001/2002 to 2005/2006

(Refer to Data Table 4A – APPENDIX 10)

The care provider delivering baby indicator identifies the one health care provider present at delivery who physically delivers the baby. This person may or may not be the primary care provider during the hospital admission. He or she may also differ from the care provider who completes the Notice of Birth for submission to the Vital Statistics Agency. For this report, the care provider delivering the baby was analyzed by place of delivery and includes only singleton deliveries. See Appendix 1 for an explanation of care provider delivering baby categories.

Obstetrical care usually involves multiple care providers, from the time of conception throughout prenatal care and into labour, delivery and postpartum care. A care provider can provide antenatal care and potentially transfer care to another provider any time during pregnancy, including during admission to hospital for delivery. As well, more than one type of care provider is usually involved in the delivery. While recognizing the potential for the involvement of multiple care providers throughout the pregnancy, this indicator describes the one care provider type in each pregnancy that physically delivers the baby.

A report published in 2004 by the Canadian Institute for Health Information (CIHI) shows that the proportion of deliveries performed by obstetricians continues to increase.<sup>5</sup> While the majority of family physicians in Canada continue to provide some form of maternity care in pregnancy (64% in 2001 compared to 53% in 1998), they are providing fewer intrapartum services (which include delivering babies) than in the past.<sup>5</sup> Results from the 2004 National Physician Survey show that in BC, 54% of family physicians responding to the survey provided maternity care as part of their practice, but only 18% provided intrapartum care.<sup>6</sup> There are also substantial differences between urban (12% of family physicians) and rural (27% of family physicians) settings, as well as between provinces, in terms of providing intrapartum services. Participation by fee-for-service family physicians in obstetrical care continues to steadily decrease from 1994 to 2003 (from 48.8% to 22.4%).<sup>7</sup>

Data from the British Columbia Perinatal Database Registry shows that in 2005/2006, **41.6%** of deliveries in British Columbia were by family physicians compared to **49.3%** by obstetricians (in 2001/2002, these proportions were **44.6%** and **47.8%**, respectively). There was variation in the proportion of deliveries by family physicians by Health Authority. For example, only **24.3%** of babies delivered in the Provincial Health Services Authority in 2005/2006 were by family physicians, whereas in the Northern Health Authority (NHA), **70.5%** of deliveries were by family physicians. Other Health Authorities exhibited different trends over the past five years; deliveries by obstetricians in the Interior Health Authority have steadily increased from **31.8%** in 2001/2002 to **35.8%** in 2005/2006. In the Vancouver Island Health Authority (VIHA) deliveries by obstetricians have increased from **44.2%** in 2001/2002 to **47.7%** in 2005/2006. All Health Authorities have seen an increase in deliveries by registered midwives with the most significant increase in the VIHA, from **6.0%** in 2001/2002 to **8.8%** in 2005/2006 (in 2005/2006, midwives delivered **5.4%** of all babies in BC). Deliveries by nurses are slowly declining across British Columbia, from **3.2%** in 2001/2002 to **2.6%** in 2005/2006.

Variation also existed by Health Service Delivery Area (HSDA), with family physicians delivering between **57.0%** and **86.1%** of babies in HSDAs within the NHA (2005/2006 data), and between **31.1%** and **58.8%** of babies in HSDAs within the Fraser Health Authority. Within the VIHA, the proportion of deliveries by midwives in 2005/2006 varied between **6.6%** (Central Vancouver Island) and **12.9%** (North Vancouver Island, the highest in BC).

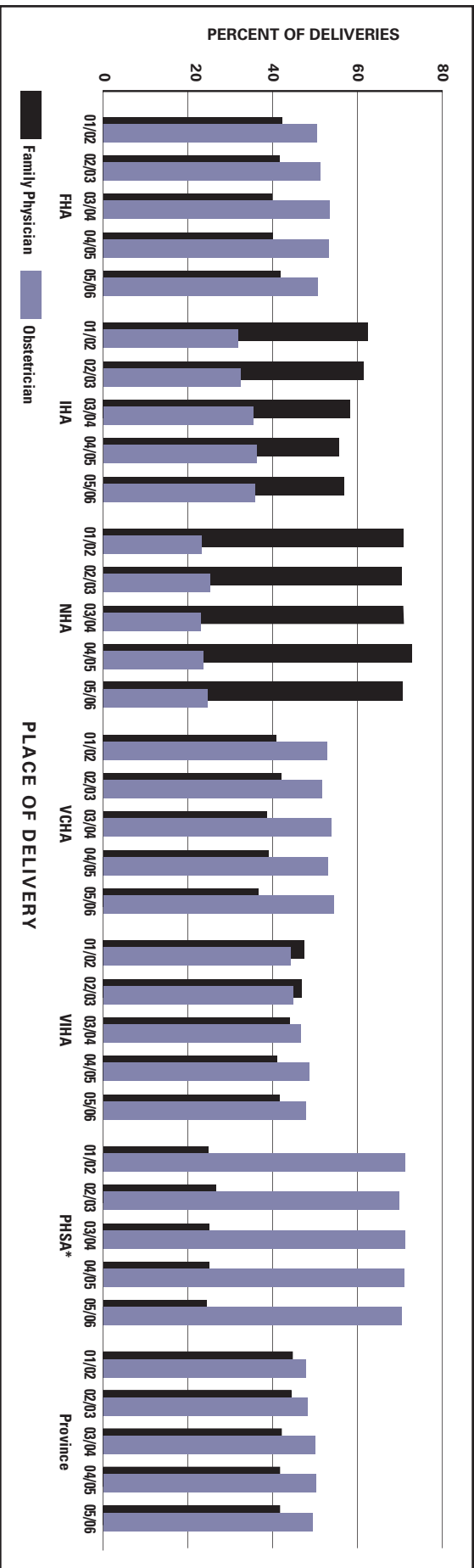
The provincial trend shows increasing deliveries by obstetricians and midwives, as well as a decline in the deliveries by family physicians. However, it is important to remember that this indicator only highlights one provider (of potentially many) involved in the care of each mother during her pregnancy. Increasing collaborative care between providers, increasing numbers of deliveries by midwives, and the variation exhibited across the province in terms of care provider availability and patient population will continue to provide a challenge in providing appropriate levels of care throughout BC.

**Table 4** Care Provider Delivering Baby by Place of Delivery for Health Service Delivery Areas, Health Authorities and Province, 2001/2002, 2002/2003, 2003/2004, 2004/2005, 2005/2006

	FHA			Total	IHA			Total	NHA			Total	VCHA			Total	VIHA			Total	PHSA*	HB	Province			
	FE %	FN %	FS %		EK %	KB %	OK %		TCS %	NE %	NI %		NW %	CST %	RICH %		VANC %	CVI %	NVI %					SVI %	PHSA* %	HB %
Obstetrician	01/02	29.7	44.0	65.7	50.4	16.0	30.0	38.9	27.4	31.8	16.2	26.2	24.7	23.2	35.4	55.3	69.2	52.8	56.8	47.8	34.6	44.2	71.2	0.0	47.8	
	02/03	31.3	46.6	64.3	51.2	15.5	36.9	39.6	27.0	32.3	19.4	25.0	30.5	25.1	34.3	51.8	71.0	51.5	55.4	45.5	37.8	44.7	69.7	0.0	46.2	
	03/04	33.5	48.5	66.5	53.3	22.7	22.7	41.8	34.1	34.1	35.3	10.6	26.1	30.0	23.0	34.7	56.9	72.9	53.7	58.9	51.5	37.2	46.5	71.2	0.0	50.0
	04/05	34.3	49.1	65.0	53.2	30.9	21.3	42.2	33.8	36.1	36.1	6.8	26.6	35.6	23.5	34.0	57.1	71.1	53.0	55.5	58.2	40.9	48.6	70.9	0.0	50.1
	05/06	32.2	48.3	61.2	50.6	26.0	25.0	42.3	33.2	35.8	35.8	10.7	24.9	38.8	24.6	35.1	59.5	71.0	54.3	55.2	51.4	41.6	47.7	70.4	0.0	49.3
	Family Physician	01/02	64.5	49.4	25.4	42.2	71.1	61.4	57.4	66.9	62.4	80.2	65.6	70.5	70.8	55.7	49.8	25.1	40.8	37.6	42.5	55.5	47.4	24.7	0.0	44.6
02/03	61.7	47.2	27.6	41.6	72.5	53.8	56.5	66.3	61.3	78.5	68.3	65.7	70.3	57.1	43.8	23.0	41.9	38.2	42.4	42.4	53.8	46.8	26.6	0.0	44.3	
03/04	60.0	45.2	25.6	39.7	64.6	68.2	54.3	58.6	58.2	84.2	65.8	65.8	70.7	54.5	39.3	19.9	38.5	33.9	36.0	52.5	43.9	41.0	25.0	0.0	42.0	
04/05	57.4	44.9	28.3	40.0	52.4	66.3	52.6	57.4	55.5	90.2	68.3	62.3	72.7	56.0	37.8	20.9	38.9	35.5	30.2	48.2	41.5	24.9	24.9	0.0	41.6	
05/06	58.8	44.7	31.1	41.7	55.6	63.6	54.7	57.7	56.7	86.1	68.8	57.0	70.5	53.2	33.4	21.4	36.6	35.3	34.3	47.9	41.5	24.3	24.3	0.0	41.6	
Midwife	01/02	1.0	2.6	1.6	1.9	1.9	5.5	0.6	0.0	1.0	0.0	1.3	0.0	0.6	3.1	0.1	4.6	2.7	2.1	8.0	7.8	6.0	1.6	0.0	3.4	
	02/03	1.2	2.8	1.6	1.9	2.3	6.8	1.1	0.0	1.4	0.0	2.2	0.0	1.0	3.0	0.1	4.4	2.7	3.6	10.1	6.6	6.2	1.9	0.0	3.7	
	03/04	2.2	2.9	1.7	2.2	5.5	7.6	1.9	0.1	2.2	0.0	2.7	0.0	1.2	5.3	0.0	6.4	4.4	3.7	10.6	8.2	7.2	2.2	0.0	4.4	
	04/05	2.9	2.6	1.8	2.3	9.0	11.9	2.2	0.0	3.2	0.1	2.3	0.2	1.2	4.8	0.3	7.0	4.5	6.5	9.8	9.1	8.4	2.3	0.0	4.9	
	05/06	3.5	2.6	2.2	2.6	10.6	10.3	1.3	0.3	2.9	0.0	3.7	0.1	1.8	5.7	1.0	6.8	4.9	6.6	12.9	9.0	8.8	3.8	0.0	5.4	
	Nurse	01/02	4.5	2.2	6.9	4.6	5.3	2.3	2.9	2.0	2.8	2.9	4.7	3.9	4.0	3.5	3.5	0.9	2.6	3.1	1.2	1.8	2.1	1.8	0.0	3.2
02/03		5.3	3.0	6.4	4.9	5.0	2.1	2.7	2.6	2.9	1.8	3.9	3.5	3.2	3.6	4.0	1.3	3.0	2.4	1.8	1.7	1.9	1.2	0.0	3.1	
03/04		4.1	3.1	5.9	4.5	4.5	1.8	0.8	1.8	3.9	4.5	4.8	3.3	4.3	2.8	3.5	0.4	2.1	3.1	1.3	1.7	2.1	1.1	0.0	2.9	
04/05		4.8	2.8	4.6	4.0	2.3	0.2	2.5	4.7	3.0	2.7	2.3	1.6	2.2	2.4	4.5	0.5	2.2	2.2	1.4	1.5	1.7	1.4	0.0	2.9	
05/06		4.7	2.5	5.2	4.1	2.4	0.4	1.4	4.3	2.4	2.4	2.1	3.6	2.5	2.7	5.5	0.5	2.6	2.5	2.5	1.2	1.3	0.9	0.0	2.7	

\*PHSA: Refers to BC Women's Hospital patients only  
 Note: Please refer to back flap for legend of the Health Authorities and Health Service Delivery Areas

**Figure 2** Care Provider (Obstetrician/Family Physician) Delivering Baby by Place of Delivery for Health Authorities and Province, 2001/2002, 2002/2003, 2003/2004, 2004/2005, 2005/2006



\*PHSA: Refers to BC Women's Hospital patients only  
 Note: Please refer to back flap for legend of the Health Authorities and Health Service Delivery Areas





# SECTION II

## MATERNAL INDICATORS



## SECTION II – MATERNAL INDICATORS

### Teen Birth Rate by Place of Residence for Health Service Delivery Areas, Health Authorities and Province, 2001/2002 to 2005/2006

(Refer to Data Table 5A – APPENDIX 10)

The teen birth rate is defined as the number of deliveries to mothers 19 years of age or younger at the time of delivery, at a given place and time and expressed as a proportion of the total number of mothers, of any age, who deliver during the same time and at the same place. For this report, teen birth rate was analyzed by place of residence and includes only singleton deliveries.

Results from studies that have investigated adverse maternal and perinatal outcomes in teenage mothers are sometimes contradictory. The most common adverse outcomes to young mothers cited in the literature include increased risk of perinatal mortality, premature delivery, low birth weight, maternal anemia, and maternal depressive disorders, although younger mothers have also been found to be less at risk to undergo operative or assisted vaginal delivery.<sup>8,9,10,11</sup> Contradictions in studies result from differences in sample sizes, comparison groups, and measured outcomes, making the results from these studies difficult to generalize to other populations.<sup>10</sup>

A common challenge in many studies is determining whether the outcomes are in fact attributable to age or if they are related to other factors (e.g. inadequate access to or use of prenatal care, income inequalities, lack of support from a partner, increased prevalence of smoking and other socioeconomic conditions).<sup>12,13</sup> Some studies have shown, after controlling for socioeconomic disadvantage, that younger mothers may be biologically most able to deliver a baby.<sup>10</sup> Some psychosocial outcomes for teenage mothers include school interruptions, limited work, delayed post-secondary opportunities, paternal separation (or absence), and repeat pregnancy.<sup>8</sup> In British Columbia in 2005/2006, 11.1% of teen mothers were parity >= 1.<sup>14</sup>

In 2001/2002, the proportion of births to mothers under the age of 20 was **4.5%** and in 2005/2006, this figure dropped to **3.3%**. Over the last five years, the Northern Health Authority (NHA) has shown the largest decline in the proportion of births to teenage mothers, from **9.0%** in 2001/2002 to **7.2%** in 2005/2006. However, the NHA continues to have the highest proportion of births to teenaged mothers, with a range across all Health Authorities of **1.5%** to **7.2%** in 2005/2006. The Health Service Delivery Areas within the Vancouver Coastal Health Authority (VCHA) consistently have the lowest proportion of births to teenage mothers, with Richmond having the lowest in 2005/2006, at **1.0%**. The NHA's Northwest Health Service Delivery Area has the highest proportion of births to teen mothers, **9.8%** in 2005/2006.

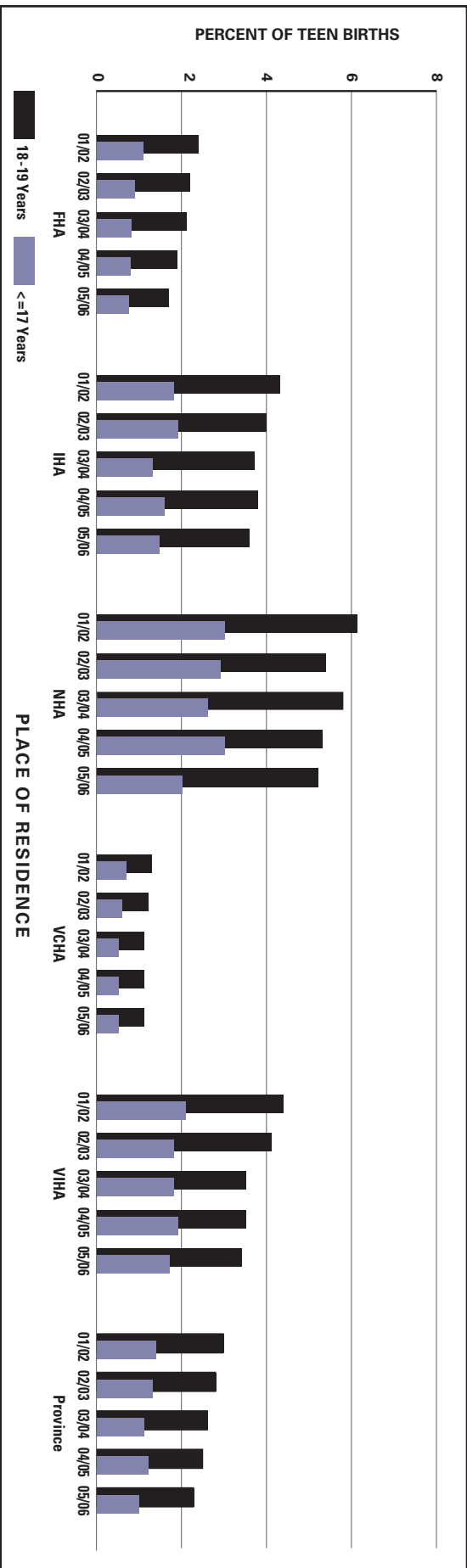
In the youngest mothers in British Columbia, those 17 years of age and under, the proportion of births has decreased from **1.4%** in 2001/2002 to **1.0%** in 2005/2006. Again, there was some variation by Health Authority, with a range in 2005/2006 from **0.5%** in the VCHA to **2.0%** in the NHA. The NHA has shown the largest decrease in births to mothers 17 years of age and younger, from **3.0%** in 2001/2002 to **2.0%** in 2005/2006. Richmond Health Service Delivery Area continues to have the lowest proportion of births to mothers 17 years of age and younger, at **0.3%** in 2005/2006.

**Table 5** Teen Births by Place of Residence for Health Service Delivery Areas, Health Authorities and Province, 2001/2002, 2002/2003, 2003/2004, 2004/2005, 2005/2006

	FHA			Total	IHA					Total	NHA				Total	VCHA			Total	VIHA			Total	BC Unspec	Non Res	Province
	FE %	FN %	FS %		EK %	KB %	OK %	TCS %	NE %		NI %	NW %	CST %	RICH %		VANC %	CVI %	NVI %		SVI %						
<= 17 years	01/02	2.0	0.8	1.0	1.1	3.6	1.4	1.2	2.2	1.8	2.3	2.5	4.3	3.0	1.1	0.3	0.7	0.7	0.7	3.2	2.9	1.1	2.1	1.6	1.7	1.4
	02/03	1.7	0.5	0.8	0.9	1.4	1.3	1.8	2.5	1.9	2.0	2.9	3.7	2.9	1.1	0.3	0.5	0.5	0.6	2.3	2.6	1.1	1.8	1.3	1.8	1.3
	03/04	1.5	0.5	0.7	0.8	1.5	0.7	1.2	1.6	1.3	3.1	2.0	3.0	3.0	0.7	0.4	0.4	0.5	0.5	2.1	2.9	1.2	1.8	0.9	1.2	1.1
	04/05	1.9	0.5	0.6	0.8	2.2	0.7	1.3	2.2	1.6	2.6	2.4	4.3	4.3	0.7	0.1	0.5	0.5	0.5	2.8	3.0	0.9	1.9	1.8	1.8	1.2
	05/06	1.5	0.6	0.6	0.8	0.6	0.8	1.7	1.6	1.5	2.0	1.3	3.4	3.4	2.0	0.3	0.4	0.4	0.5	1.8	3.7	1.0	1.7	0.5	0.7	1.0
18-19 Years	01/02	4.2	2.0	2.0	2.4	6.8	2.5	3.6	5.0	4.3	5.7	5.7	7.0	6.1	1.6	1.2	1.3	1.3	5.9	5.9	2.8	4.4	3.3	5.1	3.0	
	02/03	3.7	1.6	2.0	2.2	6.0	3.0	2.8	5.2	4.0	5.5	4.8	6.3	5.4	1.9	0.9	1.0	1.0	5.6	5.1	2.6	4.1	3.0	6.5	2.8	
	03/04	3.2	1.8	1.9	2.1	5.2	2.0	3.6	4.0	3.7	6.5	4.9	6.7	5.8	1.8	0.6	0.9	1.1	4.3	5.6	2.3	3.5	1.4	2.4	2.6	
	04/05	3.3	1.3	1.6	1.9	5.1	2.8	3.4	4.1	3.8	4.1	5.2	6.5	5.3	1.9	1.1	0.8	1.1	3.9	6.3	2.3	3.5	4.4	5.4	2.5	
	05/06	2.8	1.1	1.6	1.7	4.6	3.0	2.7	4.6	3.6	5.7	4.2	6.4	5.2	1.9	0.7	0.9	1.1	4.6	3.4	2.5	3.4	3.8	2.7	2.3	
Total Teen Moms	01/02	6.2	2.8	3.0	3.6	10.4	3.9	4.8	7.2	6.1	7.9	8.2	11.3	9.0	2.7	1.5	1.9	1.9	2.0	9.1	8.8	3.9	6.6	4.9	6.9	4.5
	02/03	5.4	2.2	2.9	3.1	7.4	4.3	4.6	7.7	5.9	7.4	7.8	9.9	8.3	3.0	1.2	1.5	1.5	1.8	7.9	7.7	3.7	5.9	4.2	8.3	4.0
	03/04	4.7	2.3	2.6	2.9	6.7	2.8	4.8	5.5	5.0	9.7	7.1	9.6	8.5	2.5	1.0	1.3	1.3	1.6	6.4	8.5	3.5	5.3	2.3	3.6	3.7
	04/05	5.2	1.8	2.2	2.7	7.3	3.5	4.7	6.2	4.6	6.7	7.6	10.8	8.2	2.6	1.2	1.3	1.3	1.6	6.6	9.3	3.2	5.4	6.2	5.4	3.6
	05/06	4.3	1.6	2.2	2.4	5.2	3.9	4.4	6.2	4.4	7.7	5.5	9.8	7.2	2.6	1.0	1.3	1.3	1.5	6.4	7.1	3.4	5.1	4.3	3.4	3.3

Note: Please refer to back flap for legend of the Health Authorities and Health Service Delivery Areas

**Figure 3** Teen Births by Place of Residence for Health Authorities and Province, 2001/2002, 2002/2003, 2003/2004, 2004/2005, 2005/2006



Note: Please refer to back flap for legend of the Health Authorities and Health Service Delivery Areas

## Maternal Smoking Rate by Place of Residence for Health Service Delivery Areas, Health Authorities and Province, 2001/2002 to 2005/2006

(Refer to Data Table 6A – APPENDIX 10)

The maternal smoking rate is defined as the number of pregnant women who smoked at any time in the current pregnancy expressed as a proportion of the total number of pregnant women at a given time and place. For this report, maternal smoking rates are reported by place of residence and include only singleton deliveries.

The association between smoking in pregnancy and specific adverse outcomes in births has been well documented. These adverse outcomes begin in utero and continue on through infancy and childhood, and include increased risk of preterm birth, intrauterine growth restriction, low birth weight, placental abruption, sudden infant death syndrome, attention deficit disorder, and substance abuse outcomes in offspring, although some of the causal pathways between prenatal smoke exposure and childhood outcomes have been questioned.<sup>15,16</sup> Although the relationship between adverse outcomes and smoking in pregnancy remains pronounced even when certain maternal characteristics are controlled for (e.g. maternal age, level of education, etc), the likelihood of smoking in pregnancy has been reported to be higher in younger women.<sup>17</sup> In fact, data from the BC Perinatal Database Registry show that in 2005/2006, 32.7% of mothers under the age of 20 reported smoking during pregnancy, compared with 9.6% of mothers over the age of 35.<sup>14</sup>

Results from the Canadian Tobacco Use Monitoring Survey 2005 show that the prevalence of smoking among all Canadians (over the age of 15) has declined from an estimated 25% in 1999 to 19% in 2005.<sup>17</sup> For Canadian adult women, the prevalence has decreased from 23% in 1999 to 16% in 2005.<sup>11,17</sup> This same survey showed that prevalence of smoking in BC has also declined from an estimated 20% in 1999 to 15% in 2005. For all BC women, the prevalence of smoking in 2005 was 11% for those women over the age of 25 compared to 20% for those women aged 15 to 24.<sup>17</sup> In pregnant women in Canada, the prevalence of smoking in 2005 was 18% for women between the ages of 15 and 24 compared to only 8% over the age of 25.<sup>17</sup>

Data from the BC Perinatal Database Registry, which measures the reported prevalence of smoking anytime during the current pregnancy, reflect a similar trend of declining smoking rates in pregnancy. In 2005/2006, the provincial rate of smoking during pregnancy was **10.4%**, down from **12.3%** in 2001/2002. Residents of the Vancouver Coastal Health Authority have consistently reported the lowest rates of smoking in pregnancy (**5.2%** in 2001/2002 and **4.4%** in 2005/2006), while the Northern Health Authority (NHA) has reported the highest (**19.5%** in 2001/2002 and **18.0%** in 2005/2006). Over the past three years, the prevalence of smoking in pregnancy for residents of the NHA has decreased steadily, from a peak of **19.6%** in 2003/2004, whereas residents of the Vancouver Island Health Authority have reported a slight increase in the prevalence of smoking in pregnancy, from their lowest rate (in the past five years) in 2003/2004 of **15.3%** to **16.0%** in 2005/2006.

Variation exists by Health Service Delivery Area (HSDA) as well. Although the NHA had the highest prevalence of smoking in pregnancy of all the Health Authorities in 2005/2006, the Northwest HSDA had a lower rate of smoking in pregnancy (**13.6%**) than many other Health Service Delivery Areas in British Columbia, and was only slightly higher than the Fraser East HSDA (**13.0%**). Almost all of the HSDAs in British Columbia have shown a decrease in smoking in pregnancy rates. Northern Interior HSDA showed the only increase over this time period, from **18.8%** in 2001/2002 to **19.4%** in 2005/2006 and Coastal HSDA showed no change in prevalence (**6.8%** for 2001/2002 and 2005/2006). As well, the HSDAs within the Fraser Health Authority showed the greatest variation of reported prevalence of smoking in pregnancy in 2005/2006; as low as **5.9%** in Fraser North and as high as **13.0%** for residents of Fraser East.

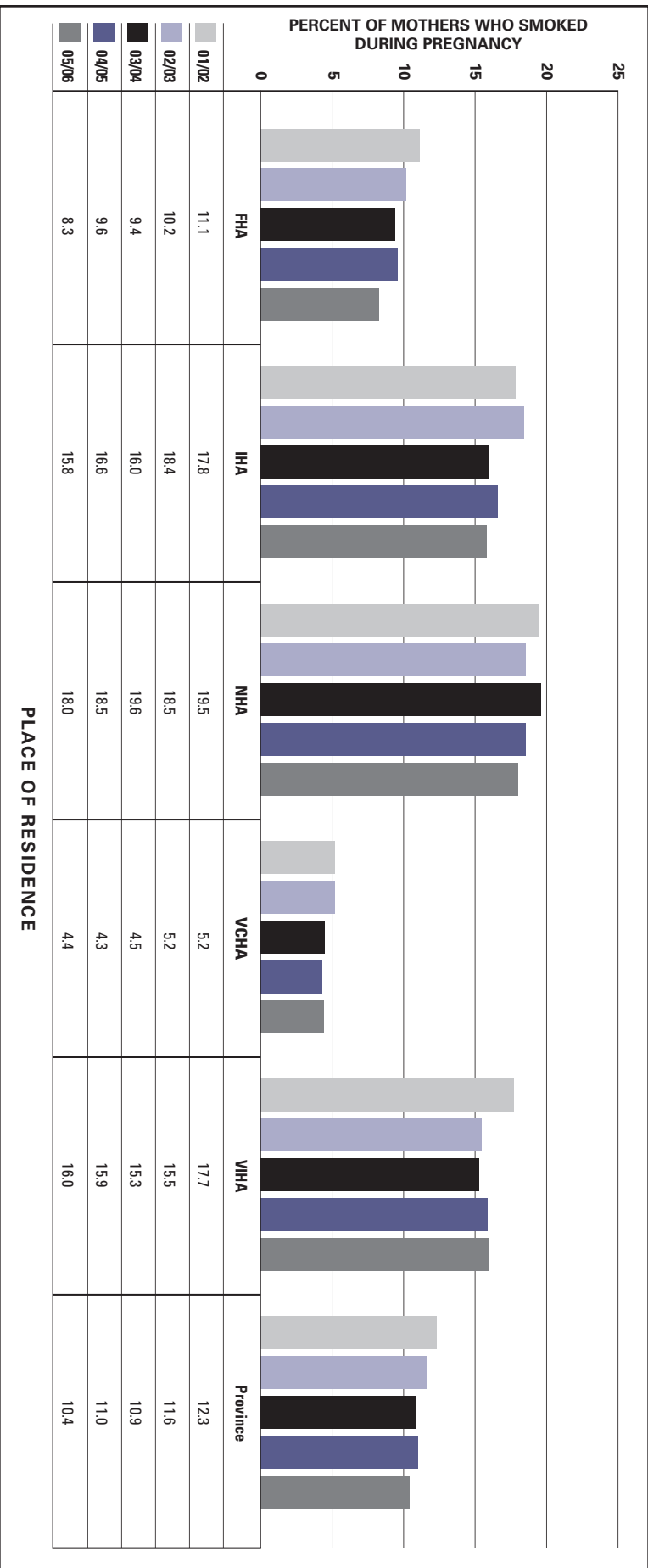
Although BC demonstrates a relatively low prevalence of smoking in women of childbearing years, the higher proportion of smoking during pregnancy in younger mothers lends support to direction of public health measures, such as smoking cessation programs, to this young subset of mothers.

**Table 6 Maternal Smoking During Pregnancy by Place of Residence for Health Service Delivery Areas, Health Authorities and Province, 2001/2002, 2002/2003, 2003/2004, 2004/2005, 2005/2006**

	FHA			IHA					NHA				VCHA			VIHA				BC Unspec %	Non Res %	Province %		
	FE %	FN %	FS %	Total %	EK %	KB %	OK %	TCS %	Total %	NE %	NI %	NW %	Total %	CST %	RICH %	VANC %	Total %	CVI %	NVI %	SVI %	Total %			
01/02	15.9	9.9	10.0	11.1	20.5	19.8	15.0	20.0	17.8	23.0	18.8	17.6	19.5	6.8	4.5	4.8	5.2	19.8	20.3	15.1	17.7	12.7	16.0	12.3
02/03	15.4	7.9	9.8	10.2	21.8	13.1	16.5	21.5	18.4	19.4	19.0	16.9	18.5	7.8	4.3	4.5	5.2	17.2	15.9	14.2	15.5	11.4	13.0	11.6
03/04	14.0	7.8	8.6	9.4	17.0	14.7	14.6	18.0	16.0	21.0	20.1	17.7	19.6	6.0	4.0	4.0	4.5	16.1	16.9	14.3	15.3	14.0	11.2	10.9
04/05	15.1	7.6	8.8	9.6	19.3	15.9	15.5	17.3	16.6	19.0	20.1	15.4	18.5	6.5	2.1	4.0	4.3	16.9	15.7	15.2	15.9	17.8	16.3	11.0
05/06	13.0	5.9	8.1	8.3	16.2	16.0	13.5	18.8	15.8	19.9	19.4	13.6	18.0	6.8	3.3	3.7	4.4	16.7	17.8	14.9	16.0	15.2	15.5	10.4

Note: Please refer to back flap for legend of the Health Authorities and Health Service Delivery Areas

**Figure 4 Maternal Smoking During Pregnancy by Place of Residence for Health Authorities and Province, 2001/2002, 2002/2003, 2003/2004, 2004/2005, 2005/2006**



Note: Please refer to back flap for legend of the Health Authorities and Health Service Delivery Areas

## Newborn Feeding by Place of Delivery for Health Service Delivery Areas, Health Authorities and Province, 2004/2005, 2005/2006

(Refer to Data Table 7A – APPENDIX 10)

Newborn feeding is defined as the number of singleton live born infants breastfed, either exclusively or supplemented with breast milk substitutes (formula) during the birth admission, expressed as a proportion of all singleton live born infants. For this report, newborn feeding was analyzed by place of delivery and includes only singleton births. See Appendix 1 for the BCPDR categorizations of newborn feeding.

Breastfeeding is an unequalled way of providing optimum nutritional, immunological and emotional benefits for the growth and development of infants.<sup>18</sup> Current evidence offers compelling corroboration that breastfeeding improves health outcomes and prevents chronic disease across the lifespan, significantly reducing health care costs. The WHO's *Global Strategy on Infant and Young Child Feeding* (2003) advocates that all health services protect, promote and support exclusive breastfeeding and timely and adequate complementary feeding with continued breastfeeding for up to two years and beyond.<sup>18</sup>

There is extensive literature documenting the benefits of breastfeeding on the health, growth and development of infants (including those born preterm) and on the health of mothers. Breastfeeding reduces the incidence of numerous illnesses in infants (or lessens their effects), including diarrhea, respiratory tract infections, otitis media and necrotizing enterocolitis.<sup>19,20,21</sup> Some studies suggest that breastfeeding also helps protect against sudden infant death syndrome, diabetes mellitus, lymphoma, leukemia, Hodgkin's disease, hypercholesterolemia, allergies, asthma and helps to promote a healthy weight.<sup>20,21,22,23</sup>

The protective effects of breastfeeding have been attributed to positive intellectual and cognitive development as well as a reduced risk of gross motor developmental delay.<sup>24,25,26,27</sup> These beneficial effects have been linked to the presence of long-chain polyunsaturated fatty acids, which are essential to brain and vision development and are found naturally in breast milk.<sup>28</sup> It has also been reported that exclusive breastfeeding for fifteen weeks is significantly linked to a reduction in the probability of respiratory tract infections during the early childhood period.<sup>29</sup> Benefits of breastfeeding for mother include more rapid uterine involution and conservation of maternal iron stores, reduced risk of inadvertent pregnancy, breast, ovarian and uterine cancer, and a protective effect on maternal bone mineral density.<sup>20,30</sup>

As of April 1, 2004 discharges, the BCRCP implemented data collection of newborn feeding during birth admission based on the Breastfeeding Committee for Canada (BCC) definitions.<sup>31</sup> These definitions have also been adopted by the Canadian Perinatal Program Coalition Committee as the definitions used by Perinatal Programs. Data in this report reflect a transition in newborn feeding definitions during birth admission (exclusive breastfeeding, mixed feeding, breast milk substitutes (formula)). As documentation of newborn feeding and collection of this data reflect the changes in definition, more detailed reporting of trends in breastfeeding practices in maternity facilities throughout the province will be feasible. Health Authorities throughout BC are in the process of pursuing best practices in infant feeding and working toward achieving 'Baby-Friendly' designation.<sup>31</sup> This has involved education for family and staff as well as a focus on documentation of feeding practices. Effects of these efforts are seen in the Northern Health Authority and Provincial Health Services Authority where exclusive breastfeeding has increased from **65.3%** to **74.2%** and **52.2%** to **57.4%** respectively from 2004/2005 to 2005/2006.

To gain more comprehensive information on the status of breastfeeding for newborns in the province, education regarding best practices in the promotion and support of breastfeeding continues throughout BC. These education initiatives include revision of postpartum clinical care pathways for mothers and infants and updating of clinical documentation tools. Evaluating the success of BC in achieving the goal of 'infants being exclusively breast fed to six months of age' will necessitate incorporation of breastfeeding duration data (using the BCC definitions) into provincial public health information systems.

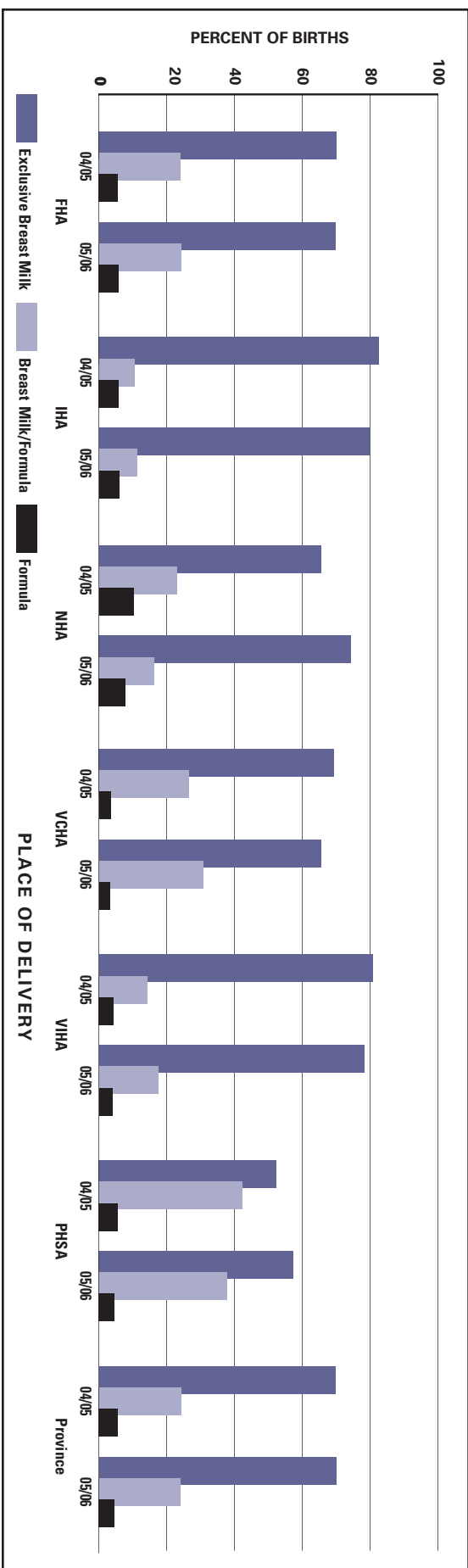
**Table 7 Newborn Feeding by Place of Delivery for Health Service Delivery Areas, Health Authorities and Province, 2004/2005, 2005/2006**

	FHA			IHA			NHA			VCHA			VIHA			PHSA*	Province						
	FE %	FN %	FS %	Total %	EK %	KB %	OK %	TCS %	Total %	NE %	NI %	NW %	Total %	CST %	RICH %			VANC %	Total %	CVI %	NVI %	SVI %	Total %
<b>Exclusive Breast Milk</b>	04/05 67.2	04/05 72.6	04/05 68.6	<b>69.8</b>	04/05 76.9	04/05 77.8	04/05 84.6	04/05 82.7	<b>82.4</b>	04/05 46.9	04/05 74.5	04/05 68.7	04/05 <b>65.3</b>	04/05 69.0	04/05 68.0	04/05 70.4	04/05 <b>69.2</b>	04/05 84.8	04/05 89.8	04/05 74.6	04/05 <b>80.5</b>	04/05 52.2	04/05 69.5
	05/06 67.8	05/06 70.8	05/06 69.4	<b>69.6</b>	05/06 68.4	05/06 86.0	05/06 79.4	05/06 82.4	<b>79.8</b>	05/06 69.7	05/06 76.9	05/06 73.6	05/06 <b>74.2</b>	05/06 66.0	05/06 63.2	05/06 66.6	05/06 <b>65.5</b>	05/06 79.0	05/06 86.1	05/06 75.0	05/06 <b>76.1</b>	05/06 57.4	05/06 69.9
<b>Breast Milk &amp; Formula</b>	04/05 25.0	04/05 22.8	04/05 24.4	<b>23.9</b>	04/05 16.6	04/05 19.3	04/05 9.1	04/05 7.5	<b>10.4</b>	04/05 42.3	04/05 11.8	04/05 21.4	04/05 <b>22.8</b>	04/05 27.8	04/05 25.9	04/05 25.3	04/05 <b>26.5</b>	04/05 8.5	04/05 4.7	04/05 21.2	04/05 <b>14.3</b>	04/05 42.2	04/05 24.2
	05/06 24.7	05/06 24.4	05/06 23.7	<b>24.2</b>	05/06 16.6	05/06 11.3	05/06 7.6	05/06 7.6	<b>11.2</b>	05/06 23.1	05/06 10.9	05/06 19.1	05/06 <b>16.2</b>	05/06 30.5	05/06 32.6	05/06 29.3	05/06 <b>30.6</b>	05/06 14.6	05/06 9.7	05/06 21.6	05/06 <b>17.4</b>	05/06 42.2	05/06 24.0
<b>Formula</b>	04/05 6.5	04/05 4.1	04/05 6.5	<b>5.6</b>	04/05 4.2	04/05 2.7	04/05 5.1	04/05 8.3	<b>5.8</b>	04/05 10.5	04/05 10.7	04/05 9.0	04/05 <b>10.2</b>	04/05 2.2	04/05 4.8	04/05 3.9	04/05 <b>3.4</b>	04/05 5.7	04/05 4.0	04/05 3.5	04/05 <b>4.3</b>	04/05 5.5	04/05 5.6
	05/06 7.2	05/06 4.4	05/06 6.6	<b>5.9</b>	05/06 5.6	05/06 5.1	05/06 4.9	05/06 7.9	<b>6.0</b>	05/06 7.0	05/06 9.5	05/06 5.8	05/06 <b>7.9</b>	05/06 2.6	05/06 3.6	05/06 3.5	05/06 <b>3.2</b>	05/06 5.2	05/06 3.8	05/06 3.3	05/06 <b>4.0</b>	05/06 4.6	05/06 5.2
<b>Unknown</b>	04/05 1.3	04/05 0.5	04/05 0.5	<b>0.7</b>	04/05 2.3	04/05 0.2	04/05 1.2	04/05 1.5	<b>1.3</b>	04/05 0.3	04/05 3.0	04/05 0.9	04/05 <b>1.7</b>	04/05 1.0	04/05 1.3	04/05 0.4	04/05 <b>0.9</b>	04/05 1.0	04/05 1.5	04/05 0.7	04/05 <b>0.9</b>	04/05 0.1	04/05 0.8
	05/06 0.3	05/06 0.4	05/06 0.3	<b>0.4</b>	05/06 2.1	05/06 0.4	05/06 4.3	05/06 2.1	<b>3.0</b>	05/06 0.2	05/06 2.6	05/06 1.5	05/06 <b>1.7</b>	05/06 0.9	05/06 0.6	05/06 0.6	05/06 <b>0.7</b>	05/06 1.2	05/06 0.4	05/06 0.1	05/06 <b>0.5</b>	05/06 0.2	05/06 0.9

\*PHSA: Refers to BC Women's Hospital patients only

Note: Please refer to back flap for legend of the Health Authorities and Health Service Delivery Areas

**Figure 5 Newborn Feeding by Place of Delivery for Health Authorities and Province, 2004/2005, 2005/2006**



Note: Please refer to back flap for legend of the Health Authorities and Health Service Delivery Areas

## Induction of Labour Rate by Place of Delivery for Health Service Delivery Areas, Health Authorities and Province, 2001/2002 to 2005/2006

(Refer to Data Table 8A – APPENDIX 10)

The induction of labour rate is defined as the number of mothers whose labour is artificially initiated by medical (oxytocin and/or prostaglandin) or surgical (artificial rupture of membranes) means prior to the onset of spontaneous labour, expressed as a proportion of the total number of mothers who delivered at the same time and place. For this report, labour induction rates are reported by place of delivery and include only singleton deliveries. See Appendix 1 for the BC Perinatal Database Registry definition of induction used in this report.

Labour induction becomes an option when continuing the pregnancy increases the risk to the mother and/or fetus. Most commonly, these risks include medical conditions such as pre-labour rupture of membranes, maternal hypertension, and gestational diabetes, although there are other medical and social reasons for induction. Induction may also be carried out when gestation is prolonged post term, which has been associated with increased risk of macrosomia, meconium, perinatal death, and chorioamnionitis.<sup>32,33</sup> Despite minimizing many of these adverse perinatal outcomes, labour induction is often associated with its own set of risks when compared to spontaneous vaginal delivery. These include an increased risk of operative vaginal delivery, caesarean section, uterine rupture, and abnormal fetal heart rate pattern,<sup>34,35,36,37</sup> although some of these associations have been challenged in the medical literature.<sup>38,39</sup> Ideally, induction is performed when the risks of continuing the pregnancy are outweighed by the risks of labour induction.

Induction can be performed either medically or surgically. In Canada, rates of medical induction of labour have been increasing from 12.9% in 1991/1992 to 19.7% in 2000/2001, with wide variation by province.<sup>1</sup> Surgical inductions have only increased slightly in the same time period, from 6.3% in 1991/1992 to 7.7% in 2000/2001.<sup>1</sup> In 2000/2001, British Columbia's medical and surgical induction rates were 16.2% and 3.4% respectively, and were significantly lower than the Canadian rates (19.7% medical induction rate and 7.7% surgical induction rate).<sup>1</sup>

Over the last five fiscal years, provincial induction rates have decreased slightly from **22.5%** in 2001/2002 to **21.0%** in 2005/2006. However, in the last year, all of the Health Authorities except the Interior Health Authority have shown an increase in induction rates (in 2004/2005, the provincial rate was **20.0%**). The largest increase in the last year was in the Vancouver Coastal Health Authority, where the labour induction rate increased from **17.8%** in 2004/2005 to **19.8%** in 2005/2006. The Provincial Health Services Authority continues to have the lowest induction rate in the province of all the Health Authorities (outside of home births), **17.9%** in 2005/2006, while facilities in the Fraser Health Authority continue to contribute to the highest induction rate in the province, **23.6%** (2005/2006). Home births have only shown a slight increase in the rate of labour induction, from **1.7%** in 2001/2002 to **2.5%** in 2005/2006.

There is variation in induction rates between Health Service Delivery Areas (HSDA). In 2005/2006, induction rates ranged from a low of **16.8%** in the Northern Interior HSDA to a high of **24.6%** in the Fraser North HSDA. This range has persisted since 2001/2002, when induction rates ranged from a low of **18.9%** in the Northern Interior HSDA to a high of **28.0%** in the South Vancouver Island HSDA.

A further investigation into the indications for induction as well as an analysis of trends in type of induction (medical or surgical) over the past five years may lend insight into the recent increase in induction rate from 2004/2005 to 2005/2006.



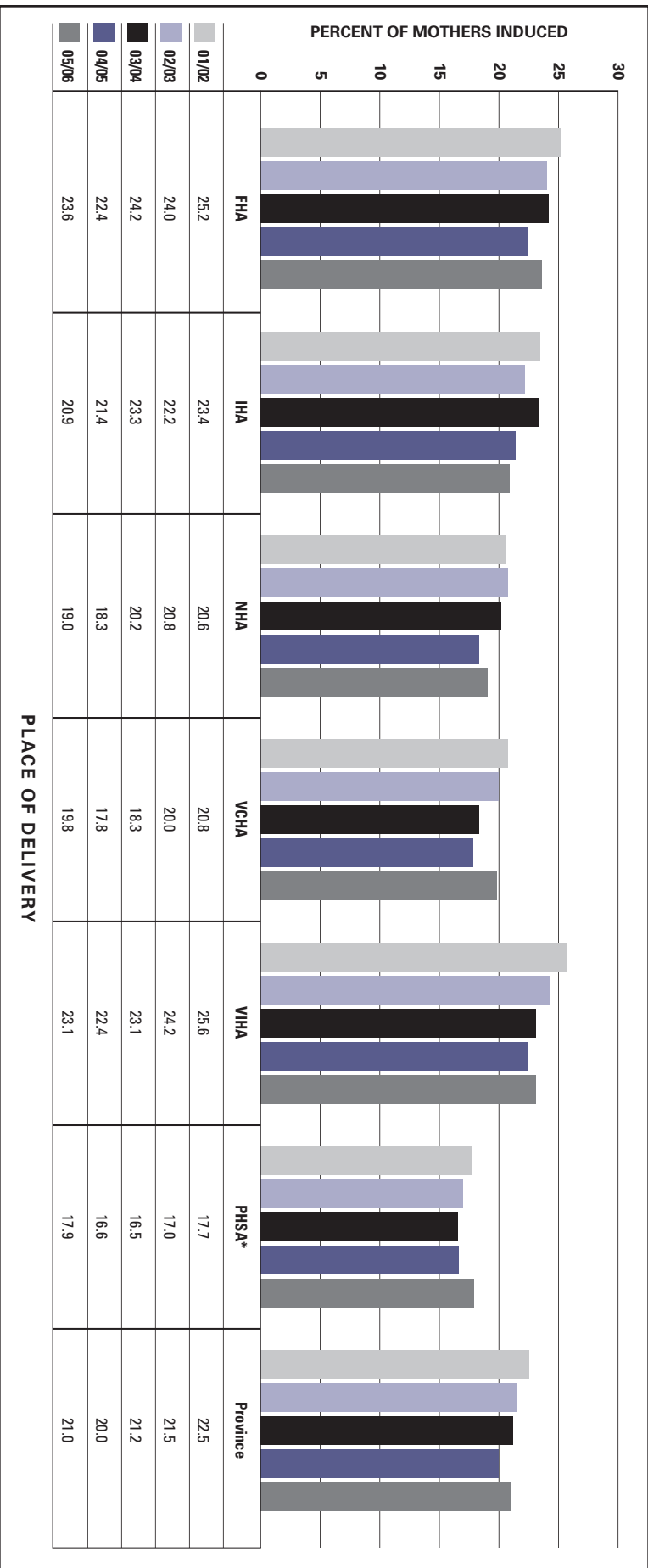
**Table 8 Induction of Labour by Place of Delivery for Health Service Delivery Areas, Health Authorities and Province, 2001/2002, 2002/2003, 2003/2004, 2004/2005, 2005/2006**

	FHA			IHA			NHA			VCHA			VIHA			PHSA*	HB	Province						
	FE %	FN %	FS %	Total %	EK %	KB %	OK %	TCS %	Total %	NE %	NI %	NW %	Total %	CST %	RICH %				VANC %	Total %	CVI %	NVI %	SVI %	Total %
01/02	24.8	25.2	25.3	25.2	25.8	25.1	24.9	19.9	23.4	24.2	18.9	20.1	20.6	20.2	20.7	21.5	20.8	24.6	20.4	28.0	25.6	17.7	1.7	22.5
02/03	24.5	23.3	24.2	24.0	20.2	25.2	23.9	19.8	22.2	20.9	18.9	23.8	20.8	20.7	17.1	21.6	20.0	23.0	16.7	27.5	24.2	17.0	3.2	21.5
03/04	23.9	25.6	23.1	24.2	19.1	24.9	26.0	20.5	23.3	23.7	18.5	19.5	20.2	17.7	18.9	18.6	18.3	23.5	20.2	23.8	23.1	16.5	3.3	21.2
04/05	23.3	23.0	21.5	22.4	18.7	23.9	23.6	18.7	21.4	18.4	17.0	20.4	18.3	17.5	18.2	17.9	17.8	22.0	21.0	23.0	22.4	16.6	1.7	20.0
05/06	22.3	24.6	23.3	23.6	21.7	21.9	20.6	20.8	20.9	19.4	16.8	22.8	19.0	19.2	19.8	20.5	19.8	23.7	21.6	23.2	23.1	17.9	2.5	21.0

\*PHSA: Refers to BC Women's Hospital patients only

Note: Please refer to back flap for legend of the Health Authorities and Health Service Delivery Areas

**Figure 6 Induction of Labour by Place of Delivery for Health Authorities and Province, 2001/2002, 2002/2003, 2003/2004, 2004/2005, 2005/2006**



\*PHSA: Refers to BC Women's Hospital patients only

Note: Please refer to back flap for legend of the Health Authorities and Health Service Delivery Areas

## Fetal Surveillance During Labour by Place of Delivery for Health Service Delivery Areas, Health Authorities and Province, 2004/2005, 2005/2006

(Refer to Data Table 9A – APPENDIX 10)

Fetal surveillance in labour is defined as the number of mothers receiving electronic fetal monitoring, intermittent auscultation, a combination of electronic fetal monitoring and intermittent auscultation, or no fetal surveillance during labour, expressed as a proportion of the total number of mothers who laboured and delivered at the same time and place. Prior to 2004/2005, reporting of fetal surveillance during labour was limited to describing whether the mother had electronic monitoring during labour or not. Intermittent auscultation was not collected in the BCPDR until 2004/2005. For this report, fetal surveillance during labour was analyzed by place of delivery and includes only singleton deliveries.

The Society of Obstetrics and Gynaecology of Canada recommends that intermittent auscultation, when following an established protocol, is the preferred method of fetal surveillance in labour for healthy term pregnancies.<sup>40</sup> A meta-analysis by Thacker et al (2001) showed that the only clinical benefit for electronic fetal monitoring was in the reduction of neonatal seizures; they also concluded that electronic fetal monitoring might increase the likelihood of operative and caesarean delivery.<sup>41</sup> Many studies reflect these trends and a recommendation commonly found in the literature is that the use of electronic fetal monitoring in low-risk pregnancies should only be used when obstetrical indications develop or intermittent auscultation becomes non-reassuring.<sup>41,42</sup> Despite this evidence, use of electronic fetal monitoring remains a common intervention in labour. This persistent prevalence has been related to insufficient nurse-to-patient staffing levels, habit, fear of liability, unavailability of other types of monitoring, and even pressure from patient expectation.<sup>43,44</sup>

The use of electronic fetal monitoring during labour continues to decrease in British Columbia. From 2000/2001 to 2003/2004, the provincial rate of electronic fetal monitoring decreased from 83.9% to 79.0%.<sup>71</sup> Collapsing the two newly expanded categories (electronic fetal monitoring and electronic fetal monitoring with intermittent auscultation) into one, the proportion of labouring mothers who had some form of electronic fetal monitoring was **75.7%** in 2004/2005 and **74.0%** in 2005/2006. The proportion of labouring mothers who had intermittent auscultation as the only method of fetal monitoring was **18.8%** in 2004/2005 and slightly higher in 2005/2006, at **20.5%**. Approximately 5% of labouring mothers over the past two years had no fetal surveillance during labour (**5.6%** in 2004/2005 and **5.4%** in 2005/2006). Prior to 2004/2005, data from the BCPDR could not identify mothers who only had intermittent auscultation during labour or those who had no fetal surveillance, precluding five-year comparisons of these categories.

Facilities in the Northern Health Authority showed the highest rates of electronic fetal monitoring only, with **52.2%** of labouring mothers receiving electronic fetal monitoring (without intermittent auscultation) in 2005/2006. In 2005/2006, the lowest rates of electronic fetal monitoring (only) were in the Vancouver Coastal Health Authority, at **19.9%** (excluding home births). The highest rates of intermittent auscultation in 2005/2006 were in the Vancouver Island Health Authority (**25.9%**) (excluding home births).

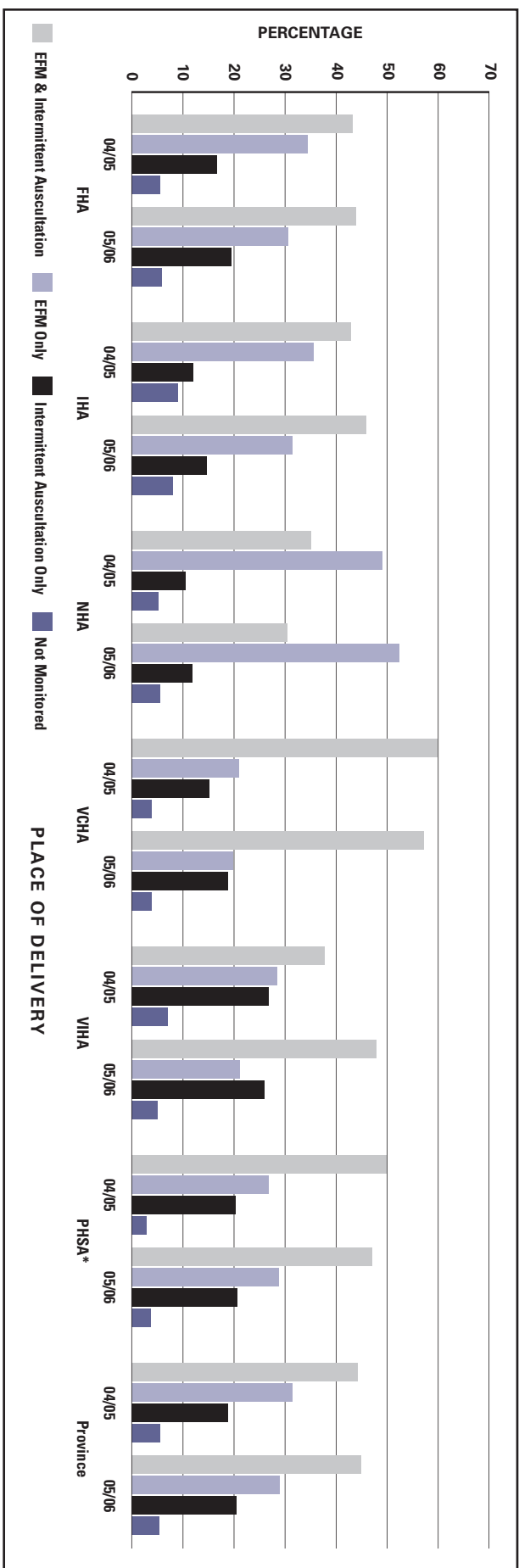
Differences in fetal surveillance during labour by Health Service Delivery Area (HSDA) also exist. In 2005/2006, the difference in the rate of intermittent auscultation only during labour, ranged from a low of **3.2%** in the Northeast HSDA to a high of **35.2%** in Northern Vancouver Island (excluding home births). Rates of electronic fetal monitoring without intermittent auscultation in 2005/2006 ranged from a low of **14.6%** in the Coastal HSDA (excluding home births) to a high of **71.2%** in the Northeast HSDA.

**Table 9 Fetal Surveillance During Labour by Place of Delivery for Health Service Delivery Areas, Health Authorities and Province, 2004/2005, 2005/2006**

	FHA			IHA			NHA			VCHA			VIHA			PHSA*	HB	Province					
	FE %	FN %	FS %	Total %	EK %	KB %	OK %	Total %	NE %	NI %	NW %	Total %	CST %	RICH %	VANC %				Total %	CVI %	NVI %	SVI %	Total %
<b>EFM &amp; Intermittent Auscultation</b>	46.2	41.7	43.1	<b>43.2</b>	33.7	9.1	42.0	<b>43.1</b>	46.2	27.5	36.4	<b>35.1</b>	59.4	61.0	59.7	<b>59.9</b>	24.8	32.7	48.1	<b>37.8</b>	49.9	0.0	44.2
	48.0	41.5	44.2	<b>44.0</b>	28.7	23.7	46.9	<b>46.0</b>	21.2	28.6	43.9	<b>30.5</b>	58.5	55.1	57.4	<b>57.2</b>	41.7	38.2	55.3	<b>47.9</b>	47.0	0.0	44.9
<b>EFM Only</b>	25.6	45.0	29.9	<b>34.5</b>	34.1	53.5	44.4	<b>35.7</b>	43.5	56.8	41.9	<b>49.1</b>	17.6	21.9	23.8	<b>20.9</b>	40.0	22.7	22.4	<b>28.4</b>	25.8	0.0	31.5
	20.2	40.7	26.8	<b>30.6</b>	32.6	38.0	39.7	<b>31.5</b>	71.2	51.6	33.1	<b>52.2</b>	14.6	20.9	24.9	<b>19.9</b>	25.1	20.8	18.8	<b>21.2</b>	28.8	0.0	29.1
<b>Intermittent Auscultation only</b>	22.6	8.6	20.8	<b>16.7</b>	26.8	15.1	8.5	<b>11.3</b>	5.9	9.1	17.3	<b>10.4</b>	18.1	13.2	13.7	<b>15.3</b>	29.6	35.4	22.1	<b>26.8</b>	20.4	93.0	18.8
	27.0	12.0	22.6	<b>19.5</b>	34.7	27.0	9.7	<b>14.6</b>	3.2	13.0	18.8	<b>11.9</b>	21.3	20.4	15.3	<b>18.9</b>	28.9	35.2	20.7	<b>25.9</b>	20.6	93.0	20.5
<b>Not Monitored</b>	5.6	4.7	6.2	<b>5.5</b>	5.4	22.3	5.0	<b>9.0</b>	4.3	6.6	4.3	<b>5.3</b>	4.9	3.9	2.8	<b>3.9</b>	5.6	9.2	7.4	<b>7.1</b>	2.9	7.0	5.6
	4.8	5.8	6.4	<b>5.9</b>	4.0	13.3	3.7	<b>7.9</b>	4.4	6.7	4.2	<b>5.5</b>	5.6	3.6	2.5	<b>3.9</b>	4.3	5.8	5.2	<b>5.0</b>	3.6	7.0	5.4

\*PHSA: Refers to BC Women's Hospital patients only  
 Note: Please refer to back flap for legend of the Health Authorities and Health Service Delivery Areas  
 EFM = Electronic Fetal Monitoring

**Figure 7 Fetal Surveillance During Labour by Place of Delivery for Health Authorities and Province, 2004/2005, 2005/2006**



\*PHSA: Refers to BC Women's Hospital patients only  
 Note: Please refer to back flap for legend of the Health Authorities and Health Service Delivery Areas  
 EFM = Electronic Fetal Monitoring

## Episiotomy Rate by Place of Delivery for Health Service Delivery Areas, Health Authorities and Province, 2001/2002 to 2005/2006

(Refer to Data Table 10A – APPENDIX 10)

The episiotomy rate is defined as the number of mothers having an episiotomy during vaginal delivery expressed as a proportion of the total mothers delivering vaginally during the same time and within the same place. For this report, episiotomy rates were analyzed by place of delivery and include only singleton deliveries.

Episiotomy as an intervention during vaginal delivery has decreased dramatically over the last twenty years. While it may have once been viewed as a routine process of vaginal delivery, with perceived benefits including minimization of pelvic floor damage (laceration) and fetal intracranial hemorrhage, strong evidence against the use of routine episiotomy now predominates the medical literature, with negative consequences of episiotomy including increased risk of dyspareunia, urinary incontinence and perineal trauma.<sup>45,46,47</sup> Despite the overall decrease in rates, variation by factors such as geography, culture, care provider and race still exist and may speak to the lack of uptake of evidence against episiotomy as well as the persistence of individual care provider beliefs and practices.<sup>48,49,50</sup> Moreover, non-routine episiotomy may be justified in some clinical situations; however, identification of these situations or establishment of an acceptable rate is difficult to accomplish.

The use of episiotomies in vaginal delivery has been steadily decreasing in British Columbia. The provincial rate has declined from **18.7%** in 2001/2002 to **14.1%** in 2005/2006. Although the provincial episiotomy rate has decreased over the last five years, the rate of third or fourth degree perineal laceration without episiotomy in vaginal deliveries has been increasing, from 2.0% in 2001/2002 to 2.5% in 2005/2006.<sup>8</sup> The most dramatic decrease in episiotomy rate over the last five years was in the Provincial Health Services Authority (from **25.5%** in 2001/2002 to **17.4%** in 2005/2006), although its rate remains higher than the provincial rate in 2005/2006, along with Vancouver Coastal Health Authority (**15.0%**), and Fraser Health Authority (**16.0%**). The Northern Health Authority, with an episiotomy rate of **11.2%** in 2005/2006, is lower than the provincial rate, but has increased its rate from 2004/2005 (**9.8%**). The Vancouver Island Health Authority and the Interior Health Authority have the lowest episiotomy rate in 2005/2006, at **11.0%** (excluding home births).

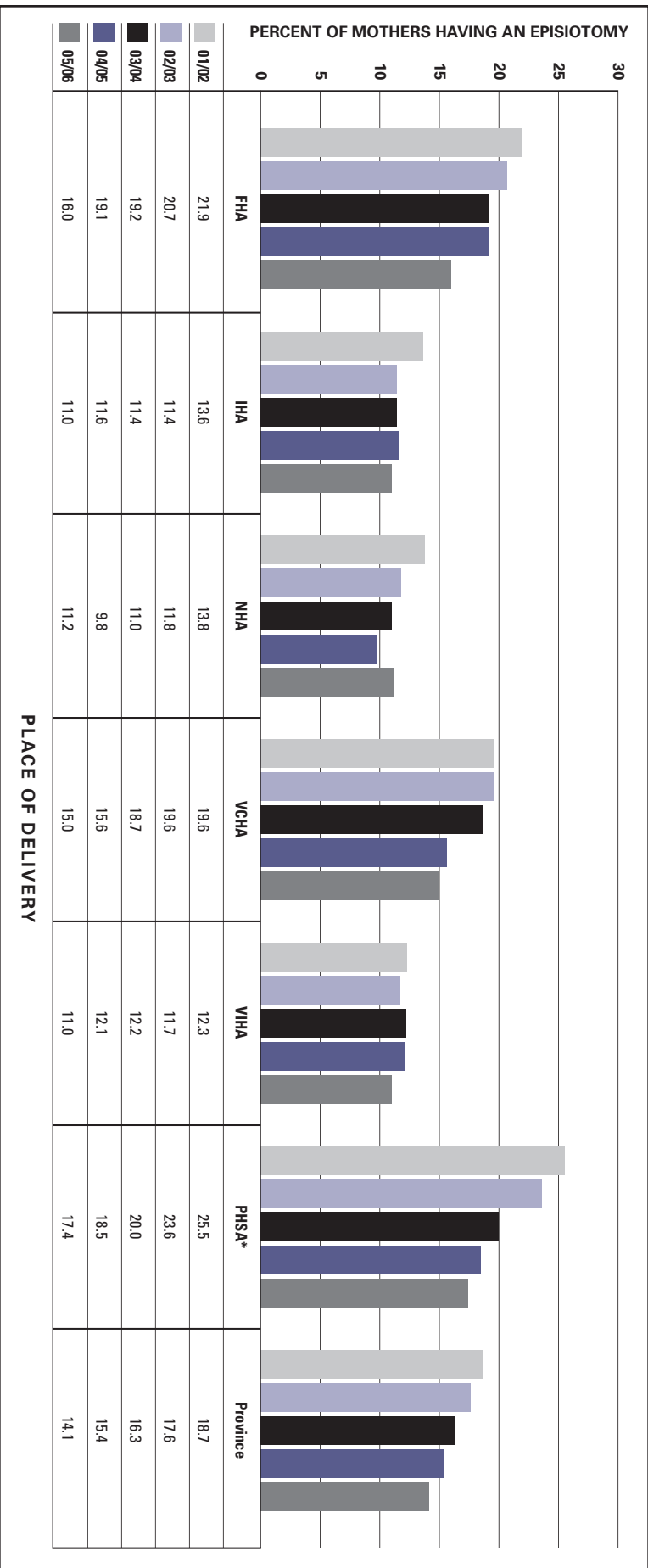
**Table 10** Episiotomies by Place of Delivery for Health Service Delivery Areas, Health Authorities and Province, 2001/2002, 2002/2003, 2003/2004, 2004/2005, 2005/2006

	FHA			IHA					NHA			VCHA			VIHA			PHSA*	HB	Province				
	FE %	FN %	FS %	Total %	EK %	KB %	OK %	TCS %	Total %	NE %	NI %	NW %	Total %	CST %	RICH %	VANC %	Total %				CVI %	NVI %	SVI %	Total %
01/02	21.4	17.8	26.0	21.9	13.7	14.7	14.7	11.5	13.6	19.1	11.9	11.8	13.8	19.6	23.2	16.6	19.6	15.8	12.4	9.9	12.3	25.5	0.2	18.7
02/03	17.2	18.4	24.3	20.7	15.7	10.8	12.6	8.4	11.4	15.6	10.9	9.5	11.8	17.7	23.1	19.2	19.6	13.9	10.6	10.7	11.7	23.6	1.2	17.6
03/04	14.8	18.5	21.9	19.2	14.3	9.0	13.4	8.3	11.4	15.0	9.6	9.3	11.0	14.2	27.5	17.8	18.7	13.7	10.6	11.7	12.2	20.0	0.6	16.3
04/05	16.7	16.6	22.3	19.1	9.3	11.4	14.3	8.6	11.6	16.0	8.6	5.1	9.8	11.6	23.5	14.6	15.6	13.7	10.0	11.6	12.1	18.5	0.7	15.4
05/06	12.7	14.8	18.8	16.0	9.9	6.6	14.7	7.7	11.0	16.6	9.1	9.1	11.2	11.6	22.2	13.8	15.0	11.7	8.8	11.3	11.0	17.4	1.0	14.1

\*PHSA: Refers to BC Women's Hospital patients only

Note: Please refer to back flap for legend of the Health Authorities and Health Service Delivery Areas

**Figure 8** Episiotomies by Place of Delivery for Health Authorities and Province, 2001/2002, 2002/2003, 2003/2004, 2004/2005, 2005/2006



\*PHSA: Refers to BC Women's Hospital patients only

Note: Please refer to back flap for legend of the Health Authorities and Health Service Delivery Areas

## Method of Delivery Rate (Vaginal vs. Caesarean Section) by Place of Delivery for Health Service Delivery Areas, Health Authorities and Province, 2001/2002 to 2005/2006

(Refer to Data Table 11A – APPENDIX 10)

The method of delivery is defined as the type of delivery (vaginal or caesarean section) the mother had. For this report, method of delivery was analyzed by place of delivery and includes only singleton deliveries.

Delivery by caesarean section is associated with various risks and benefits. Risks include longer recovery times, increased risk of wound infections, maternal postpartum readmission, and difficulties in future pregnancies (e.g. increased risk of placenta previa, abruption and unexplained stillbirths).<sup>66,51,52</sup> Benefits of caesarean section may include maintaining pelvic floor integrity, and facilitation of delivery when either the health of mother or fetus is compromised (e.g. maternal hypertension, or non-reassuring fetal heart rate).<sup>53,54</sup> Caesarean rates have been increasing across various populations and over time.<sup>55,56</sup> The hypothesized reasons for these increased caesarean section rates are well documented and include changes in obstetric practice, decreases in vaginal births after caesarean delivery, as well as increased maternal age (and conditions compounded by maternal age such as diabetes and hypertension), increased maternal body mass index and increase in birth weight.<sup>57,58</sup> Data from BC Vital Statistics shows that caesarean section rates have been steadily increasing in British Columbia. Over the last twenty years, rates have increased from 21.0% in 1986 to 29.7% in 2004.<sup>2</sup>

Using data from the BC Perinatal Database Registry, the provincial rate of caesarean sections has increased from **26.2%** in 2001/2002 to **29.2%** in 2005/2006. Conversely, the vaginal delivery rate has decreased from **73.8%** in 2001/2002 to **70.8%** in 2005/2006, and although not tabulated in this report, the assisted vaginal delivery has decreased as well, from 11.7% of singleton deliveries in 2001/2002 to 10.4% in 2005/2006.<sup>8</sup>

Although most Health Authorities have demonstrated a steady increase in caesarean section rates over the past five years, the Vancouver Coastal Health Authority showed an increase of 3.9% in the last year alone (**28.0%** in 2004/2005 to **31.9%** in 2005/2006). There is a wide range in caesarean section rates across Health Service Delivery Areas. For example, in 2005/2006, caesarean section rates were as low as **21.1%** in Kootenay Boundary and as high as **35.9%** in South Vancouver Island. South Vancouver Island has had the highest caesarean section rate in the province for the last two years (**35.0%** in 2004/2005 and **35.9%** in 2005/2006). The most dramatic increase in caesarean section rates over the last five years occurred in East Kootenay Health Service Delivery Area, where rates increased from **18.1%** in 2001/2002 (103 caesarean sections out of 570 total deliveries) to **31.5%** in 2005/2006 (196 caesarean sections out of 622 total deliveries).

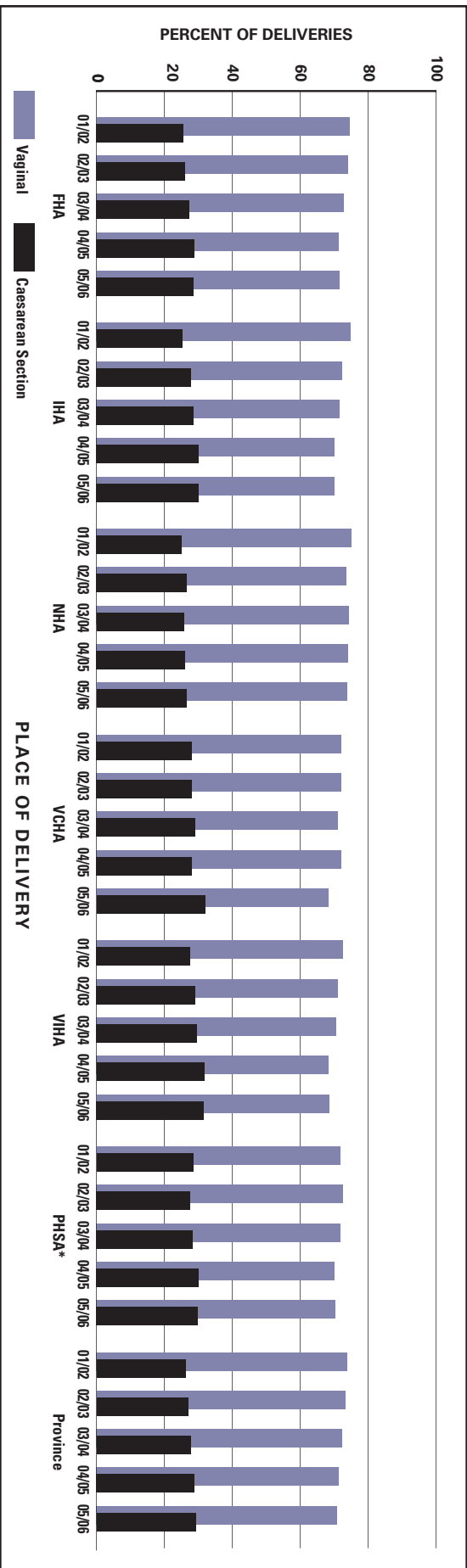
The dramatic rise in caesarean section rates has prompted many perinatal programs, researchers and health planners to more closely analyze the cause and effect of the increasing caesarean section rates. At the British Columbia Reproductive Care Program, a Caesarean Birth Task Force was established in September 2006 to review trends in caesarean rates, to describe clinical, demographic and organizational factors associated with caesarean deliveries, as well as to further inform in the development of guidelines, education initiatives, research and performance related to caesarean deliveries. A report from this Task Force will be forthcoming.

**Table 11 Method of Delivery by Place of Delivery for Health Service Delivery Areas, Health Authorities and Province, 2001/2002, 2002/2003, 2003/2004, 2004/2005, 2005/2006**

	FHA			IHA			NHA			VCHA			VIHA			PHSA*	HB	Province							
	FE %	FN %	FS %	Total %	EK %	KB %	OK %	TCS %	Total %	NE %	NI %	NW %	Total %	CST %	RICH %				VANC %	Total %	CVI %	NVI %	SVI %	Total %	
<b>Caesarean Section</b>	01/02	23.6	25.6	26.6	25.6	18.1	22.2	24.3	29.6	25.2	21.1	26.5	26.0	25.0	26.3	28.9	28.9	28.0	26.6	23.7	29.3	27.5	28.4	0.0	26.2
	02/03	25.2	25.5	26.7	26.0	27.2	28.0	26.4	29.9	27.8	24.6	25.5	29.8	26.5	24.9	29.3	30.4	28.0	26.0	25.3	32.3	29.0	27.5	0.0	26.9
	03/04	25.8	27.1	28.1	27.3	29.4	22.5	27.2	31.5	28.5	24.1	25.8	26.9	25.7	27.4	29.1	31.1	29.1	28.4	26.0	31.2	29.5	28.3	0.0	27.7
	04/05	28.1	28.0	29.8	28.8	34.5	22.8	29.6	31.2	30.0	24.5	26.8	26.2	26.0	27.4	26.1	29.9	28.0	27.1	30.5	35.0	31.7	30.1	0.0	28.8
	05/06	26.2	27.5	30.6	28.6	31.5	21.1	30.0	32.0	30.0	24.9	28.0	25.0	26.4	29.7	31.6	34.3	31.9	28.0	25.7	35.9	31.6	29.8	0.0	29.2
	<b>Total</b>	<b>73.8</b>	<b>72.5</b>	<b>69.4</b>	<b>71.4</b>	<b>68.5</b>	<b>78.9</b>	<b>70.0</b>	<b>68.0</b>	<b>70.0</b>	<b>75.1</b>	<b>72.0</b>	<b>75.0</b>	<b>73.6</b>	<b>70.3</b>	<b>68.4</b>	<b>65.7</b>	<b>68.1</b>	<b>72.0</b>	<b>72.0</b>	<b>74.3</b>	<b>64.1</b>	<b>68.4</b>	<b>70.2</b>	<b>100.0</b>
<b>Vaginal</b>	01/02	76.4	74.4	73.4	74.4	81.9	77.8	75.7	70.4	74.8	78.9	73.5	74.0	75.0	73.7	71.1	71.1	72.0	73.4	76.3	70.7	72.5	71.6	100.0	73.8
	02/03	74.8	74.5	73.3	74.0	72.8	72.0	73.6	70.1	72.2	75.4	74.5	70.2	73.5	75.1	70.7	69.6	72.0	74.0	74.7	67.7	71.0	72.5	100.0	73.1
	03/04	74.2	72.9	71.9	72.7	70.6	77.5	72.8	68.5	71.5	75.9	74.2	73.1	74.3	72.6	70.9	68.9	70.9	71.6	74.0	68.8	70.5	71.7	100.0	72.3
	04/05	71.9	72.0	70.2	71.2	65.5	77.2	70.4	68.8	70.0	75.5	73.2	73.8	74.0	72.6	73.9	70.1	72.0	72.9	69.5	65.0	68.3	69.9	100.0	71.2
	05/06	73.8	72.5	69.4	71.4	68.5	78.9	70.0	68.0	70.0	75.1	72.0	75.0	73.6	70.3	68.4	65.7	68.1	72.0	74.3	64.1	68.4	70.2	100.0	70.8
	<b>Total</b>	<b>73.8</b>	<b>72.5</b>	<b>69.4</b>	<b>71.4</b>	<b>68.5</b>	<b>78.9</b>	<b>70.0</b>	<b>68.0</b>	<b>70.0</b>	<b>75.1</b>	<b>72.0</b>	<b>75.0</b>	<b>73.6</b>	<b>70.3</b>	<b>68.4</b>	<b>65.7</b>	<b>68.1</b>	<b>72.0</b>	<b>72.0</b>	<b>74.3</b>	<b>64.1</b>	<b>68.4</b>	<b>70.2</b>	<b>100.0</b>

\*PHSA: Refers to BC Women's Hospital patients only  
 Note: Please refer to back flap for legend of the Health Authorities and Health Service Delivery Areas

**Figure 9 Method of Delivery by Place of Delivery for Health Authorities and Province, 2001/2002, 2002/2003, 2003/2004, 2004/2005, 2005/2006**



\*PHSA: Refers to BC Women's Hospital patients only  
 Note: Please refer to back flap for legend of the Health Authorities and Health Service Delivery Areas

## Postpartum Length of Stay (Vaginal Deliveries) by Place of Delivery for Health Service Delivery Areas, Health Authorities and Province, 2001/2002 to 2005/2006

(Refer to Data Table 12A – APPENDIX 10)

Postpartum length of stay is defined as the amount of time, in hours, from delivery of the infant to discharge from the hospital. For this report, postpartum length of stay was grouped into time ranges and the number of mothers in each range was expressed as a proportion of the total number of women delivering. Postpartum length of stay was analyzed by place of delivery and reported separately for vaginal and for caesarean deliveries. Only deliveries occurring in hospital facilities were included in the length of stay analysis.

Postpartum length of stay after vaginal delivery is slowly decreasing across the province. In 2005/2006, only **8.6%** of women stayed longer than 72 hours (3 days) after having a vaginal delivery, while in 2001/2002 **10.4%** stayed longer than 72 hours post-vaginal delivery. While the majority of women stay in hospital for less than 48 hours after vaginal delivery (**71.1%** in 2005/2006, up from **63.8%** in 2001/2002), **20.3%** have a postpartum length of stay after vaginal delivery between 48 and 72 hours, down from **25.9%** in 2001/2002. Further analysis from the BC Perinatal Database Registry (data not tabulated) showed that the average postpartum length of stay after vaginal delivery in British Columbia has decreased from 44.9 hours

in 2001/2002 to 42.5 hours in 2005/2006.<sup>14</sup> For nulliparous mothers, the average postpartum length of stay after vaginal delivery has decreased from 53.2 hours in 2001/2002 to 50.0 hours in 2005/2006.<sup>14</sup> For mothers with parity  $\geq 1$ , the average postpartum length of stay after vaginal delivery has decreased from 38.7 hours in 2001/2002 to 36.3 hours in 2005/2006.<sup>14</sup>

The proportion of women populating the shortest length of stay category (<48 hours after vaginal delivery) has increased in all Health Authorities over the last five years, with the most dramatic increase in the Northern Health Authority (NHA). Over the past five years, the proportion of mothers who remain in hospital less than 48 hours post-vaginal delivery in the NHA has increased from **53.0%** in 2001/2002 to **63.7%** in 2005/2006. Conversely, deliveries at facilities within the Kootenay Boundary Health Service Delivery Area (HSDA) result in the largest proportion of mothers staying longer than 72 hours post-vaginal delivery (**23.0%** in 2005/2006, the highest for that HSDA in the last five years).

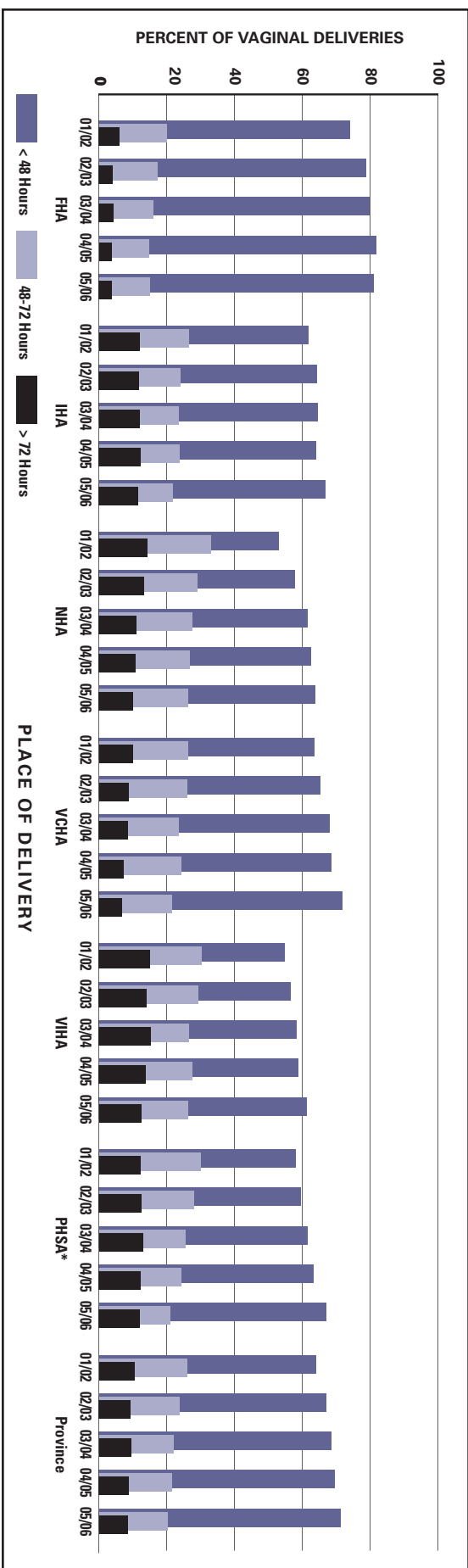


**Table 12 Postpartum Length of Stay (Vaginal Deliveries) by Place of Delivery for Health Service Delivery Areas, Health Authorities and Province, 2001/2002, 2002/2003, 2003/2004, 2004/2005, 2005/2006**

	FHA			IHA						NHA			VCHA			VIHA			PHSA*	HB	Province					
	FE %	FN %	FS %	Total %	EK %	KB %	OK %	TCS %	Total %	NE %	NI %	NW %	Total %	CST %	RICH %	VANC %	Total %	CVI %				NVI %	SVI %	Total %		
<b>&lt; 48 Hours</b>	01/02	71.4	67.1	81.6	74.0	59.9	41.0	63.3	66.2	61.6	48.4	53.5	56.7	53.0	60.1	72.9	59.6	63.6	56.5	59.3	52.0	54.8	57.8	0.0	63.8	
	02/03	78.3	69.1	87.0	78.6	61.2	45.0	65.8	69.0	64.5	54.4	62.4	53.5	57.7	61.3	73.3	63.1	65.1	57.9	59.6	54.5	56.5	59.5	0.0	66.9	
	03/04	80.1	69.6	88.3	79.8	60.3	51.1	63.9	70.9	64.3	54.1	66.1	61.2	61.4	66.9	73.4	65.6	68.0	59.3	62.3	56.2	58.3	61.4	0.0	68.5	
	04/05	85.7	71.3	88.3	81.6	67.3	49.1	64.4	67.3	64.0	60.6	65.8	59.0	62.5	63.1	75.2	69.9	68.5	60.2	63.8	55.8	58.7	63.3	63.3	0.0	69.6
	05/06	85.3	71.4	87.4	81.0	69.9	47.2	66.7	72.0	66.6	63.1	67.1	58.3	63.7	64.9	80.5	73.2	71.8	62.5	67.4	58.1	61.3	66.9	63.3	0.0	71.1
<b>48-72 hours</b>	01/02	22.3	24.6	14.7	20.0	27.6	36.9	25.3	24.6	26.5	32.2	34.3	31.3	32.9	25.7	23.0	29.8	26.3	27.1	30.3	32.2	30.2	30.0	30.0	0.0	25.9
	02/03	17.8	24.5	10.9	17.3	27.3	33.8	22.4	21.9	23.9	30.0	28.4	28.7	28.9	27.1	23.7	26.7	26.1	27.4	27.6	31.1	29.3	28.0	28.0	0.0	23.8
	03/04	15.2	23.6	9.8	15.9	27.6	31.7	22.7	21.0	23.6	33.1	24.9	25.9	27.4	23.2	23.4	23.6	23.4	23.0	23.1	29.7	26.4	25.6	25.6	0.0	22.0
	04/05	10.6	23.0	9.5	14.7	21.7	30.7	22.9	23.0	23.7	29.8	24.8	27.1	26.8	28.0	21.0	22.0	24.2	24.3	26.0	30.2	27.4	24.4	24.4	0.0	21.6
	05/06	11.3	22.3	10.5	15.1	23.5	29.8	21.0	19.7	21.8	27.1	26.1	25.4	26.2	24.8	17.4	20.3	21.4	24.0	21.0	29.8	26.2	21.0	21.0	0.0	20.3
<b>&gt; 72 hours</b>	01/02	6.2	8.3	3.8	6.0	12.5	22.1	11.4	9.2	11.9	19.4	12.3	12.0	14.2	14.3	4.1	10.6	10.1	16.5	10.3	15.7	15.0	12.2	12.2	0.0	10.4
	02/03	3.9	6.4	2.1	4.1	11.5	21.2	11.9	9.1	11.8	15.6	9.3	17.7	13.4	11.5	3.1	10.2	8.8	14.7	12.8	14.4	14.2	12.5	12.5	0.0	9.3
	03/04	4.6	6.8	1.9	4.3	12.1	17.2	13.3	8.1	11.9	12.8	9.1	12.9	11.1	9.9	3.2	10.8	8.6	17.6	14.6	14.1	15.3	13.0	13.0	0.0	9.5
	04/05	3.7	5.7	2.2	3.7	11.0	20.2	12.6	9.7	12.3	9.5	9.4	13.9	10.7	8.8	3.8	8.1	7.3	15.5	10.2	14.0	13.8	12.3	12.3	0.0	8.8
	05/06	3.4	6.3	2.1	3.9	6.6	23.0	12.3	8.4	11.6	9.8	6.8	16.3	10.0	10.3	2.0	6.4	6.9	13.5	11.7	12.1	12.5	12.1	12.1	0.0	8.6

\*PHSA: Refers to BC Women's Hospital patients only  
 Note: Please refer to back flap for legend of the Health Authorities and Health Service Delivery Areas

**Figure 10 Postpartum Length of Stay (Vaginal Deliveries) by Place of Delivery for Health Authorities and Province, 2001/2002, 2002/2003, 2003/2004, 2004/2005, 2005/2006**



\*PHSA: Refers to BC Women's Hospital patients only  
 Note: Please refer to back flap for legend of the Health Authorities and Health Service Delivery Areas

## Postpartum Length of Stay (Caesarean Section Deliveries) by Place of Delivery for Health Service Delivery Areas, Health Authorities and Province, 2001/2002 to 2005/2006

(Refer to Data Table 13A – APPENDIX 10)

Postpartum length of stay is defined as the amount of time, in hours, from delivery of the infant to discharge from the hospital. For this report, postpartum length of stay was grouped into time ranges and the number of mothers in each range was expressed as a proportion of the total number of women delivering. Postpartum length of stay was analyzed by place of delivery and reported separately for vaginal and for caesarean deliveries. Only deliveries occurring in hospital facilities were included in the length of stay analysis.

Postpartum length of stay after caesarean section delivery is decreasing provincially. In 2001/2002, the proportion of women who remained in hospital for longer than 96 hours (four days) after a caesarean section delivery was **22.3%**; in 2005/2006 only **15.2%** of women stayed for at least 96 hours after a caesarean section delivery. Further analysis from the BC Perinatal Database Registry (data not tabulated) showed that the average postpartum length of stay (in hours) for mothers having a caesarean section in BC has decreased from

84.4 hours in 2001/2002 to 79.1 hours in 2005/2006.<sup>14</sup> For nulliparous mothers, the average postpartum length of stay after caesarean has decreased from 86.9 hours in 2001/2002 to 82.0 hours in 2005/2006.<sup>14</sup> For mothers with parity  $\geq 1$ , the average postpartum length of stay after caesarean section delivery has decreased from 79.7 hours in 2001/2002 to 74.3 hours in 2005/2006.<sup>14</sup>

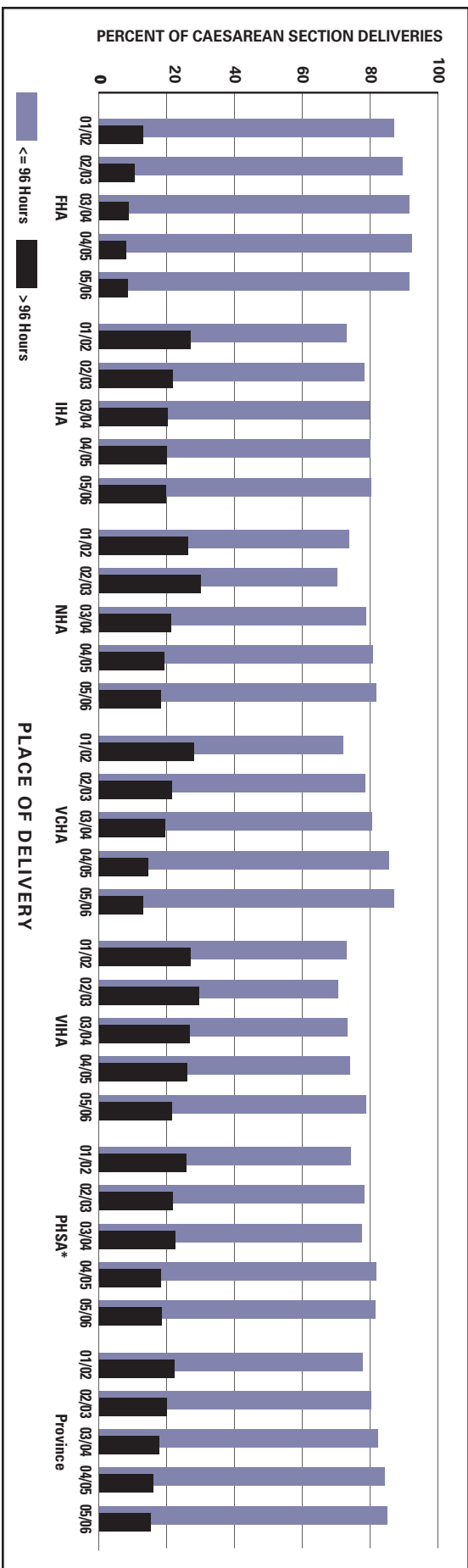
Fraser Health Authority consistently has the lowest proportion of mothers with an extended postpartum length of stay after caesarean delivery. Only **8.5%** of mothers delivering at a facility in the Fraser Health Authority in 2005/2006 stayed over 96 hours post-caesarean. With the second highest caesarean section rate in the province in 2005/2006 (**31.6%**), the Vancouver Island Health Authority has the highest proportion of mothers staying over 96 hours post-caesarean in the province; in 2005/2006, **21.4%** of mothers delivering by caesarean section fit this category.

**Table 13 Postpartum Length of Stay (Caesarean Section Deliveries) by Place of Delivery for Health Service Delivery Areas, Health Authorities and Province, 2001/2002, 2002/2003, 2003/2004, 2004/2005, 2005/2006**

	FHA			IHA					NHA			VCHA			VIHA			PHSA*	HB	Province					
	FE %	FN %	FS %	Total %	EK %	KB %	OK %	TCS %	Total %	NE %	NI %	NW %	Total %	CST %	RICH %	VANC %	Total %				CVI %	NVI %	SVI %	Total %	
<=96 Hours	01/02	86.0	83.3	90.3	86.9	64.2	52.7	74.5	77.3	73.0	68.3	78.4	70.1	73.7	67.1	78.8	71.2	72.1	69.1	74.0	74.9	72.9	74.2	0.0	77.7
	02/03	93.2	84.8	91.8	89.5	83.3	56.8	77.8	83.1	78.2	75.3	76.0	57.7	70.1	77.0	88.5	72.0	78.5	69.7	70.5	70.7	70.4	78.3	0.0	80.1
	03/04	94.3	86.4	94.0	91.3	81.5	58.1	76.9	86.9	79.8	79.5	83.5	70.5	78.8	78.5	92.7	74.7	80.5	73.0	74.0	73.3	73.3	77.5	0.0	82.2
	04/05	95.9	89.7	92.3	92.1	81.3	53.2	79.6	85.2	79.9	87.5	80.8	74.0	80.8	84.2	92.6	82.4	85.5	73.1	75.8	73.9	74.0	81.8	0.0	84.1
	05/06	93.8	89.1	92.5	91.5	87.3	63.6	79.4	82.1	80.2	88.3	84.7	68.2	81.8	82.7	92.8	87.0	86.9	78.5	83.1	77.7	78.6	81.5	0.0	84.8
	Total	86.0	83.3	90.3	86.9	64.2	52.7	74.5	77.3	73.0	68.3	78.4	70.1	73.7	67.1	78.8	71.2	72.1	69.1	74.0	74.9	72.9	74.2	0.0	77.7
>96 Hours	01/02	14.0	16.7	9.7	13.1	35.8	47.3	25.5	22.7	27.0	31.7	21.6	29.9	26.3	32.9	21.2	28.8	27.9	30.9	26.0	25.1	27.1	25.8	0.0	22.3
	02/03	6.8	15.2	8.2	10.5	16.7	43.2	22.2	16.9	21.8	24.7	24.0	42.3	29.9	23.0	11.5	28.0	21.5	30.3	29.5	29.3	29.6	21.7	0.0	19.9
	03/04	5.7	13.6	6.0	8.7	18.5	41.9	23.1	13.1	20.2	20.5	16.5	29.5	21.2	21.5	7.3	25.3	19.5	27.0	26.0	26.7	26.7	22.5	0.0	17.8
	04/05	4.1	10.3	7.7	7.9	18.8	46.8	20.4	14.8	20.1	12.5	19.2	26.0	19.2	15.8	7.4	17.6	14.5	26.9	24.2	26.1	26.0	18.2	0.0	15.9
	05/06	6.2	10.9	7.5	8.5	12.7	36.4	20.6	17.9	19.8	11.7	15.3	31.8	18.2	17.3	7.2	13.0	13.1	21.5	16.9	22.3	21.4	18.5	0.0	15.2
	Total	14.0	16.7	9.7	13.1	35.8	47.3	25.5	22.7	27.0	31.7	21.6	29.9	26.3	32.9	21.2	28.8	27.9	30.9	26.0	25.1	27.1	25.8	0.0	22.3

\*PHSA: Refers to BC Women's Hospital patients only  
 Note: Please refer to back flap for legend of the Health Authorities and Health Service Delivery Areas

**Figure 11 Postpartum Length of Stay (Caesarean Section Deliveries) by Place of Delivery for Health Authorities and Province, 2001/2002, 2002/2003, 2003/2004, 2004/2005, 2005/2006**



\*PHSA: Refers to BC Women's Hospital patients only  
 Note: Please refer to back flap for legend of the Health Authorities and Health Service Delivery Areas

## Pre-pregnancy Body Mass Index (BMI) by Place of Residence for Health Service Delivery Areas, Health Authorities and Province, 2001/2002 to 2005/2006

(Refer to Data Table 14A – APPENDIX 10)

Pre-pregnancy body mass index (BMI) is defined as the ratio of a woman's weight to height, as measured pre-pregnancy, or up to 12 weeks gestation. It is calculated using the formula:<sup>59</sup>  $BMI = \text{weight (kg)}/\text{height (m)}^2$ . For this

report BMI was calculated and grouped according to the classification scheme described below. Body mass index was reported by place of residence and includes only singleton deliveries.

**Table 14 Health Risk Classification According to Body Mass Index (BMI)**

Classification	BMI Category (kg/m <sup>2</sup> )	Description
Underweight	< 18.5	May be associated with some health problems
Normal Weight	18.5 - 24.9	Good weight for most people
Overweight	25.0 - 29.9	Increasing risk of developing health problems
Obese	≥ 30.0	High risk of developing health problems
Unclassified	blank	Unable to calculate body mass index

Source: Health Canada, Ottawa, 2003.

The prevalence of obesity in all adult Canadians (men and women over the age of 18) has been estimated to be 23.1% in 2004, up from 13.8% in 1978/1979.<sup>60</sup> The same report, which used data based on directly measured height and weight from a sample of Canadians, estimated that the prevalence of overweight and obesity ( $BMI \geq 25.0$ ) was 59.1% for all adult Canadians in 2004. Among adult Canadian women, the prevalence of overweight and obesity was estimated at 53.4% in 2004, while the prevalence of obesity alone for Canadian women in 2004 was 23.2%. For adult women living in British Columbia in 2004, the obesity rate was estimated to be slightly lower than the Canadian rate, at 20.3%.<sup>61</sup>

Many studies have shown a health impact on pregnancy by body mass index. Women who are underweight pre-pregnancy may have increased risk of infertility and small-for-gestational age babies.<sup>62</sup> Pre-pregnancy overweight and obesity has been associated with a number of pregnancy, labour and neonatal conditions, including pre-eclampsia, gestational diabetes, antepartum stillbirth, instrumental vaginal delivery, caesarean delivery, fetal distress, shoulder dystocia, and large-for-gestational age babies.<sup>63,64,65,62</sup>

Of the women who had complete information<sup>i</sup> available to calculate BMI over the past five years, there have been no considerable changes in the variation of body mass index groups. The majority of mothers populate the 'Normal Weight' category (62.2% in 2005/2006 compared to 62.5% in 2001/2002). Obesity pre-pregnancy has slightly increased from 10.6% in 2001/2002 to 11.4% in 2005/2006, and overweight pre-pregnancy has stabilized at 19.9% in 2005/2006 (compared to 19.7% in 2001/2002). The distribution of body mass index groups across Health

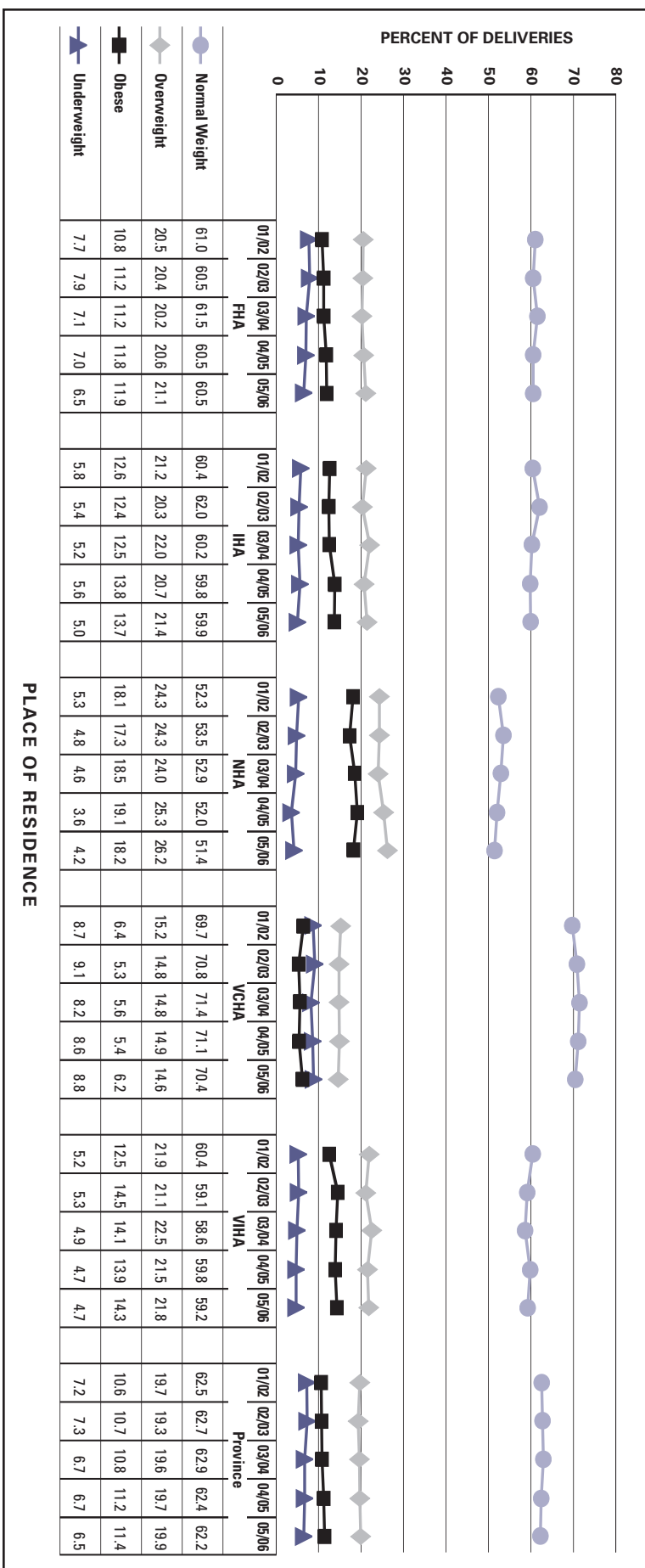
Authorities has retained the same pattern over the last five years. The highest levels of obesity (18.2% in 2005/2006) are among mothers residing in the Northern Health Authority, while the highest levels of underweight (8.8% in 2005/2006) are among mothers residing in the Vancouver Coastal Health Authority.

The proportion of pregnant women in BC who have complete height and pre-pregnancy weight data is slowly improving, but remains an issue. In 2005/2006, the proportion of pregnant women in BC who had missing information (therefore could not calculate BMI) was 30.1%, down from a high of 32.5% in 2003/2004. The variation of incomplete information across the province was remarkable; in 2005/2006, 47.5% of mothers residing in the Northern Health Authority did not have enough information to calculate BMI value, compared to 25.6% in the Fraser Health Authority. Incomplete height and weight data continues to be an obstacle in the monitoring of overweight and obesity and consequent pregnancy outcomes among women in BC.

The persistence or increase of obesity prevalence in a population of pregnant women and in those who may become pregnant is an important issue. Given the numerous adverse health outcomes that are associated with increasing weight pre-pregnancy, completion of this data element in the patient record and in the Perinatal Database Registry are essential. A calculation tool and a field to record body mass index will be added to the antenatal forms, which will be revised by Spring 2007. In conjunction with revision of the forms, education surrounding complete and accurate documentation of these health indicators on the antenatal records will be undertaken.

<sup>i</sup> 'Complete information' denotes the presence of a recorded pre-pregnancy weight and height on the maternal record. Women with one or both of these values missing were grouped into the 'unclassified' BMI category.

**Figure 12** Body Mass Index by Place of Residence for Health Authorities and Province, 2001/2002, 2002/2003, 2003/2004, 2004/2005, 2005/2006



**Note:** Please refer to back flap for legend of Health Authorities and Health Service Delivery Areas  
Excluded from analysis is the "Unclassified" BMI group for which either the height and/or weight information is missing. Detailed data tables are available in the Annual Report 2006 section of the BCRCP website ([www.rcp.gov.bc.ca](http://www.rcp.gov.bc.ca)).

## Maternal Postpartum Readmission to Hospital by Place of Delivery for Health Service Delivery Areas, Health Authorities and Province, 2001/2002 to 2004/2005

(Refer to Data Table 15A – APPENDIX 10)

Postpartum readmission to hospital is defined as any mother who is readmitted to hospital, as an inpatient or surgical day care patient, within 42 days of delivery. Readmissions for routine follow-up care have been excluded. For this report, postpartum readmission was analyzed by place of delivery and method of delivery, and includes only singleton deliveries.<sup>ii</sup>

Postpartum readmission is an indicator that can be used to measure maternal morbidity, maternal mortality and quality of obstetrical and community care. Readmission within the postpartum period can be related to delivery admission length of stay, method of delivery, or other conditions that develop either during the delivery admission or after discharge home. Many studies have examined the association between method of delivery and the development of maternal postpartum conditions and have found that rates are generally higher after caesarean section or operative delivery, when compared to spontaneous vaginal delivery.<sup>66,67,68</sup> In an environment where postpartum length of stay is decreasing and rates of operative delivery (including caesarean sections) are increasing, the potential for increased maternal morbidity may be increased. Relating readmission rates to delivery length of stay may also provide useful information for health care planners and public health systems.

Rates of maternal readmissions after caesarean delivery were consistently higher than those for vaginal delivery over the four fiscal years reported. In 2004/2005, 2.3% of women delivering singletons via caesarean section were readmitted within the postpartum period, compared to only 1.7% of women who delivered vaginally. Both vaginal and caesarean postpartum readmission rates were slightly higher in 2004/2005 than in any of the previous three fiscal years.

Rates of maternal postpartum readmission vary by Health Authority. In 2004/2005, both caesarean and vaginal readmission rates are highest in the Interior Health Authority, reaching 2.9% and 2.3%, respectively. Vancouver Island Health Authority's readmission rates after vaginal delivery have been fairly consistent over the last three fiscal years (1.7%), but its readmission rate after caesarean delivery have steadily increased, from 1.7% in 2001/2002 to 2.7% in 2004/2005 (second highest in the province). A similar trend of increasing readmission rates after caesarean delivery is also true in the Vancouver Coastal Health Authority, with an increase from 1.6% in 2001/2002 to 2.6% in 2004/2005.

Variation by Health Service Delivery Areas demonstrates a range in readmission rates, from 0.8% in Kootenay Boundary to 3.7% in Northeast after caesarean delivery, and from 0.8% of home births to 3.0% in East Kootenay after vaginal delivery (2004/2005).

A further analysis of reason for readmission (using the most responsible diagnosis code) showed that the most common diagnoses upon readmission after caesarean delivery over the last four years were infection of surgical obstetrical wound (18.2% of total readmissions after caesarean delivery), puerperal sepsis (15.3%), and delayed and secondary postpartum hemorrhage (12.9%). For vaginal delivery, the most common diagnoses upon readmission were delayed and secondary postpartum hemorrhage (37.4% of total readmissions after vaginal delivery), puerperal sepsis (10.9%), and retained placenta without hemorrhage (3.2%).<sup>71</sup>

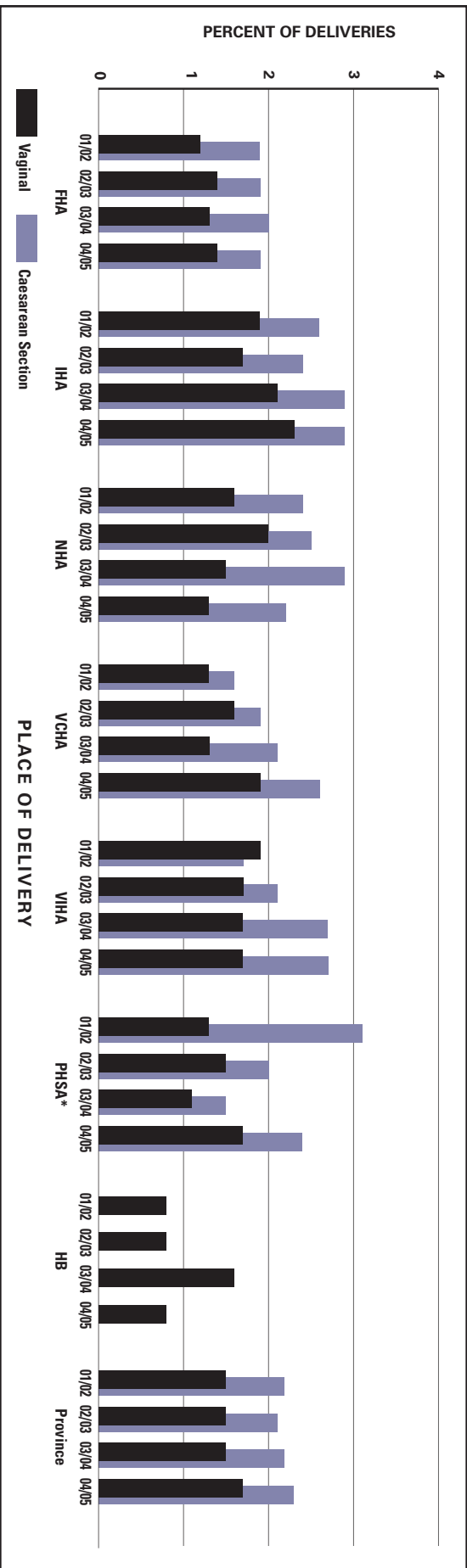
<sup>ii</sup> Women with singleton deliveries (excluding terminations) who were discharged from care in British Columbia between April 1, 2001 and March 31, 2005 were linked to the Ministry of Health – Canadian Institute for Health Information – Discharge Abstracts Database file to obtain data on mothers readmitted to a BC hospital, for any reason, within 42 days of delivery.

**Table 15 Maternal Postpartum Readmission by Method of Delivery for Health Service Delivery Areas, Health Authorities and Province, 2001/2002, 2002/2003, 2003/2004, 2004/2005**

	FHA				IHA				NHA				VCHA				VIHA				PHSA*	HB	Province		
	FE %	FN %	FS %	Total %	EK %	KB %	OK %	TCS %	Total %	NE %	NI %	NW %	Total %	CST %	RICH %	VANC %	Total %	CVI %	NVI %	SVI %				Total %	
Caesarean Section	01/02	2.2	1.7	1.9	1.9	1.0	0.9	2.6	3.3	2.6	1.7	1.7	4.1	2.4	1.7	1.2	2.0	1.6	1.7	1.3	1.9	1.7	3.1	0.0	2.2
	02/03	1.7	1.7	2.1	1.9	1.2	2.1	2.8	2.3	2.4	1.4	3.3	2.5	2.5	0.8	1.8	3.0	1.9	1.6	2.5	2.3	2.1	2.0	0.0	2.1
	03/04	2.5	2.3	1.6	2.0	2.9	4.6	2.7	2.7	2.9	2.9	3.7	1.7	2.9	1.1	1.8	3.2	2.1	1.8	2.6	3.3	2.7	1.5	0.0	2.2
	04/05	2.3	2.0	1.6	1.9	1.9	0.8	3.3	3.1	2.9	3.7	1.3	2.2	2.2	2.2	2.0	3.4	2.6	1.9	2.9	3.1	2.7	2.4	0.0	2.3
	Total	1.4	1.4	1.3	1.4	3.0	1.7	2.4	2.1	2.3	1.5	1.4	0.8	1.3	1.9	1.7	2.1	1.9	2.1	0.9	1.6	1.7	1.7	0.8	1.7
Vaginal	01/02	1.5	1.1	1.2	1.2	1.3	1.5	1.9	2.3	1.9	1.6	1.8	1.1	1.6	1.4	0.9	1.6	1.3	2.4	1.2	1.8	1.9	1.3	0.8	1.5
	02/03	1.8	1.2	1.3	1.4	2.5	0.8	1.8	1.7	1.7	2.5	1.2	2.7	2.0	1.9	0.8	1.6	1.6	2.0	1.7	1.6	1.7	1.5	0.8	1.5
	03/04	1.3	1.2	1.4	1.3	3.1	2.1	2.1	1.7	2.1	2.1	1.5	1.1	1.5	0.9	1.0	2.1	1.3	1.8	1.2	1.8	1.7	1.1	1.6	1.5
	04/05	1.8	1.4	1.3	1.4	3.0	1.7	2.4	2.1	2.3	1.5	1.4	0.8	1.3	1.9	1.7	2.1	1.9	2.1	0.9	1.6	1.7	1.7	0.8	1.7
	Total	1.4	1.4	1.3	1.4	3.0	1.7	2.4	2.1	2.3	1.5	1.4	0.8	1.3	1.9	1.7	2.1	1.9	2.1	0.9	1.6	1.7	1.7	0.8	1.7

\*PHSA: Refers to BC Women's Hospital patients only  
 Note: Please refer to back flap for legend of the Health Authorities and Health Service Delivery Areas

**Figure 13 Maternal Postpartum Readmission by Method of Delivery for Health Authorities and Province, 2001/2002, 2002/2003, 2003/2004, 2004/2005**



\*PHSA: Refers to BC Women's Hospital patients only  
 Note: Please refer to back flap for legend of the Health Authorities and Health Service Delivery Areas





# SECTION III

## FETAL AND NEWBORN INDICATORS



## SECTION III – FETAL AND NEWBORN INDICATORS

### Birth Weight vs Gestational Age by Place of Residence for Health Service Delivery Areas, Health Authorities and Province, 2001/2002 to 2005/2006

(Refer to Data Tables 16A and 17A – APPENDIX 10)

Birth weight by gestational age groups were created by categorizing the gender and gestational age according to birth weight percentiles (Refer to Appendix 4 and 5 for birth weight and gestational age charts). Newborns were categorized as small-for-gestational age if they were under the 10<sup>th</sup> percentile for their gender and gestational age, large-for-gestational age if they were greater than the 90<sup>th</sup> percentile, and average-for-gestational age if they were between the 10<sup>th</sup> and 90<sup>th</sup> percentiles. Rates of these birth weight by gestational age groups were analyzed by place of residence for both term and preterm newborns and include only singleton deliveries.

Prenatal monitoring of fetal growth during pregnancy and careful management of maternal and fetal risk factors are important in improving positive outcomes for both mother and newborn. When a baby is too small or too large for gestational age, certain adverse perinatal outcomes can result. Low birth weight, often associated with preterm birth, has been attributed to developmental delay, risk of mortality, longer lengths of stay in hospital, and other long-term sequelae.<sup>69,70,71</sup> With changes in both preterm birth rates and mean birth weight, it becomes important to study the predictors and outcomes of birth size by gestational age.

In term newborns (infants born after 37 weeks gestation), small-for-gestational age has been stable over the past five years at **7.0%**. Comparatively, the average-for-gestational age group has only increased from **79.5%** in 2001/2002 to **80.2%** in 2005/2006, and the large-for-gestational age group has decreased slightly from **13.5%** in 2001/2002 to **12.9%** in 2005/2006. In preterm newborns (infants born after 20 and before 37 weeks gestation) a slightly different picture appears. The average-for-gestational age group in preterm newborns has slightly decreased, from **78.1%** in 2001/2002 to **76.8%** in 2005/2006, while the large-for-gestational preterm group has increased from **12.4%** in 2001/2002 to **14.4%** in

2005/2006. These rates are similar to preterm birth rates that are increasing in BC (from 6.7% in 2000/2001 to 7.6% of singletons in 2003/2004), while low birth weight rates remain relatively stable at approximately 4%.<sup>71</sup>

Differences are demonstrated by Health Authority, as the Northern Health Authority (NHA) and Vancouver Island Health Authority (VIHA) have the largest proportions of large-for-gestational age term newborns (**15.0%** and **16.0%** respectively, in 2005/2006). Even among the preterm births, the NHA and VIHA have the largest proportions of large-for-gestational age newborns (**18.4%** and **16.8%** respectively, in 2005/2006). Many preterm births for residents in the NHA also result in small-for-gestational age newborns (**9.0%** in 2005/2006, the second highest in the province). In 2005/2006, Fraser Health Authority had the highest proportion of small-for-gestational age newborns for preterm births (**10.1%**), while its small-for-gestational age rate in term births showed an increase, from **7.0%** in 2001/2002 to **7.6%** in 2005/2006. Vancouver Coastal Health Authority has the highest proportion of small-for-gestational age newborns in term births (**8.0%**) in 2005/2006.

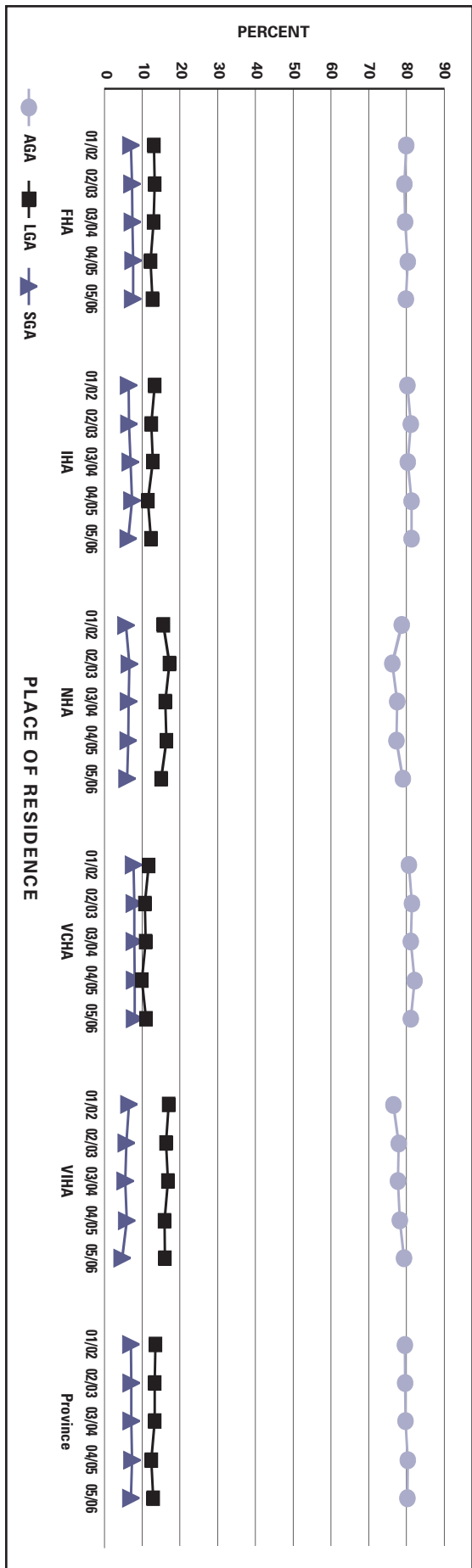
This analysis provides a preliminary examination of trends in birth weight and gestational age categories for newborns in BC. Further analysis into the predictors and outcomes associated with large or small-for-gestational age births would likely provide more insight. These analyses could include an examination of variation in extremely preterm or near-term infants, or study of maternal factors that may be contributing to both large and small babies (e.g. increased body mass index, decreased prevalence of smoking, older maternal age and maternal nutrition).

**Table 16 Birth Weight vs Gestational Age (Term Births) by Place of Residence for Health Service Delivery Areas, Health Authorities and Province, 2001/2002, 2002/2003, 2003/2004, 2004/2005, 2005/2006**

	FHA			IHA			NHA			VCHA			VIHA			BC Unspec	Non Res	Province							
	FE %	FN %	FS %	Total %	EK %	KB %	OK %	TCS %	Total %	NE %	NI %	NW %	Total %	CST %	RICH %				VANC %	Total %	CVI %	NVI %	SVI %	Total %	
AGA	01/02	77.7	81.0	79.9	79.9	78.2	81.7	81.1	79.2	80.2	80.9	78.4	77.2	78.7	79.2	80.7	81.1	80.6	76.1	76.3	77.0	76.5	82.1	75.7	79.5
	02/03	79.1	80.2	78.9	79.4	81.2	81.2	81.5	80.6	81.1	76.9	77.8	73.2	76.2	81.7	80.9	81.4	81.4	76.3	78.5	78.8	77.9	81.1	74.6	79.6
	03/04	78.7	80.4	79.4	79.6	81.8	80.7	80.4	79.4	80.3	80.4	77.2	75.0	77.5	79.8	80.1	82.0	82.1	76.2	77.8	78.8	77.7	84.9	82.4	79.7
	04/05	79.6	80.3	80.6	80.3	82.1	82.6	80.7	81.4	81.3	79.4	77.6	74.4	77.3	82.8	80.5	82.3	82.1	79.2	76.8	78.0	78.2	75.1	73.8	80.3
	05/06	78.3	80.3	79.9	79.8	82.0	80.1	82.0	80.6	81.3	81.1	80.9	73.2	79.0	80.6	80.2	81.5	81.1	80.7	78.8	78.4	79.3	79.9	77.5	80.2
	01/02	15.0	12.5	12.7	13.1	13.9	11.1	12.8	14.6	13.3	12.5	15.1	19.1	15.6	15.6	10.8	10.3	11.7	17.1	17.9	16.6	17.0	10.3	9.2	13.5
LGA	02/03	15.0	12.8	12.9	13.3	11.1	13.3	11.9	13.3	12.4	15.7	15.1	21.6	17.2	13.3	9.9	9.9	10.7	17.7	16.5	15.2	16.3	13.4	12.7	13.3
	03/04	14.6	12.7	12.6	13.0	10.7	11.8	12.9	13.7	12.8	12.3	15.4	21.0	16.1	14.5	11.3	9.3	10.9	18.5	16.3	15.9	16.8	10.6	9.9	13.3
	04/05	13.8	12.2	11.5	12.2	11.7	10.1	11.6	11.6	11.5	14.1	15.2	21.0	16.4	12.2	10.8	8.7	9.9	15.3	16.5	16.1	15.9	10.9	15.0	12.4
	05/06	15.6	12.1	11.9	12.7	11.2	11.5	12.3	13.1	12.3	12.9	12.9	21.4	15.0	13.4	10.7	10.1	11.0	15.8	15.6	16.3	16.0	10.1	16.3	12.9
	01/02	7.3	6.4	7.4	7.0	7.9	7.2	6.1	6.2	6.4	6.5	6.5	3.7	5.7	5.2	8.5	8.5	7.7	6.8	5.8	6.4	6.5	7.6	15.1	7.0
	02/03	5.9	6.9	8.2	7.3	7.7	5.6	6.6	6.1	6.5	7.4	7.1	5.2	6.6	5.1	9.1	8.7	7.9	6.0	4.9	6.0	5.8	5.5	12.7	7.1
03/04	6.7	6.9	8.1	7.4	7.5	7.6	6.7	6.9	6.9	7.2	7.4	4.0	6.4	5.7	8.6	8.7	7.9	5.3	5.9	5.4	5.5	4.5	7.7	7.1	
04/05	6.6	7.6	7.9	7.6	6.2	7.4	7.7	7.0	7.3	6.5	7.1	4.6	6.3	5.0	8.7	9.0	8.0	5.5	6.7	5.8	5.9	14.0	11.2	7.3	
05/06	6.1	7.5	8.2	7.6	6.8	8.4	5.7	6.4	6.3	6.0	6.3	5.5	6.0	6.1	9.1	8.4	8.0	3.5	5.5	5.3	4.7	10.1	6.2	7.0	

Note: Please refer to back flap for legend of the Health Authorities and Health Service Delivery Areas  
 AGA: Average-for-gestational age  
 LGA: Large-for-gestational age  
 SGA: Small-for-gestational age

**Figure 14 Birth Weight vs Gestational Age (Term Births) by Place of Residence for Health Authorities and Province, 2001/2002, 2002/2003, 2003/2004, 2004/2005, 2005/2006**



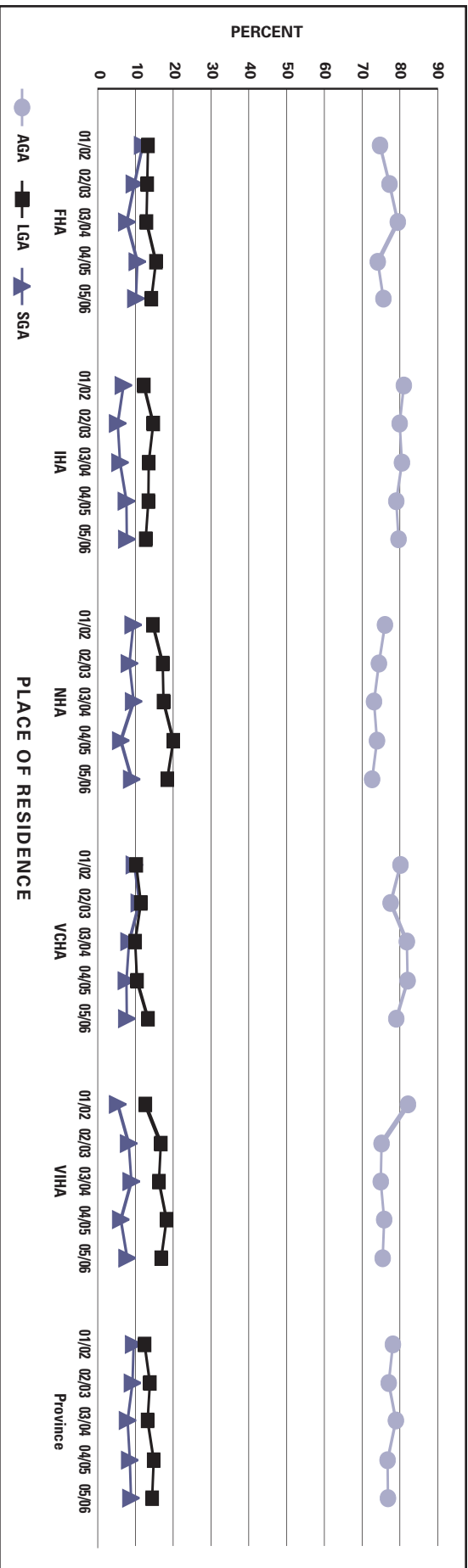
Note: Please refer to back flap for legend of the Health Authorities and Health Service Delivery Areas

**Table 17 Birth Weight vs Gestational Age (Preterm Births) by Place of Residence for Health Service Delivery Areas, Health Authorities and Province, 2001/2002, 2002/2003, 2003/2004, 2004/2005, 2005/2006**

	FHA			IHA			NHA			VCHA			VIHA			BC Unspec %	Non Res %	Province %							
	FE %	FN %	FS %	Total %	EK %	KB %	OK %	TCS %	Total %	NE %	NI %	NW %	Total %	CST %	RICH %				VANC %	Total %	CVI %	NVI %	SVI %	Total %	
AGA	01/02	72.0	77.4	73.7	74.7	86.1	87.5	80.0	79.4	81.0	89.5	72.5	73.0	76.0	75.7	76.7	82.4	80.1	78.5	80.9	85.2	82.1	70.6	69.6	78.1
	02/03	77.9	78.4	75.9	77.2	75.8	82.2	82.7	76.9	79.9	73.8	77.6	69.6	74.4	79.3	83.5	75.6	77.5	73.2	78.3	75.2	75.1	70.6	69.2	77.0
	03/04	78.6	82.9	76.8	79.4	87.5	71.4	83.2	78.0	80.5	87.2	75.4	63.0	73.1	79.0	79.3	83.4	81.8	73.6	74.4	76.0	74.9	68.2	87.5	78.9
	04/05	72.3	76.9	72.5	74.1	88.6	82.8	78.9	75.0	79.0	70.2	73.7	76.2	73.9	79.2	80.4	83.3	82.0	73.5	73.5	78.1	75.8	56.7	71.4	76.7
	05/06	80.6	74.4	74.6	75.6	82.6	80.0	77.7	81.4	79.6	66.7	79.8	67.1	72.6	71.2	73.0	82.6	79.0	72.8	67.8	80.4	75.4	71.4	83.3	76.8
	Total	74.7	78.4	75.9	77.2	86.1	87.5	80.0	79.4	81.0	89.5	72.5	73.0	76.0	75.7	76.7	82.4	80.1	78.5	80.9	85.2	82.1	70.6	69.6	78.1
LGA	01/02	16.0	11.1	14.0	13.3	8.3	6.3	14.2	11.9	12.2	7.9	17.6	14.3	14.6	13.6	15.5	7.8	10.2	14.8	14.7	10.2	12.6	11.8	13.0	12.4
	02/03	12.6	12.7	13.7	13.1	18.2	11.1	12.7	17.5	14.7	16.7	12.9	24.6	17.2	17.1	3.1	11.2	11.4	22.0	13.3	14.2	16.7	10.5	11.5	13.8
	03/04	14.1	9.7	15.1	12.9	7.5	26.2	12.0	13.4	13.5	5.1	13.9	28.4	17.4	12.7	11.7	8.5	9.9	16.6	15.9	16.0	16.2	22.7	4.2	13.2
	04/05	17.6	12.5	16.8	15.4	6.8	12.1	13.4	15.8	13.4	23.4	18.2	20.2	20.0	13.9	11.8	8.9	10.4	20.0	17.6	17.0	18.2	33.3	9.5	14.8
	05/06	11.2	14.7	15.1	14.2	6.5	11.1	12.1	15.9	12.7	17.8	14.4	23.5	18.4	21.8	18.0	9.8	13.3	17.3	21.8	14.5	16.8	7.1	14.4	
	Total	12.0	11.4	12.3	11.9	5.6	6.3	5.8	8.7	6.8	2.6	9.9	12.7	9.4	10.7	7.8	9.9	9.7	6.7	4.4	4.6	5.3	17.6	17.4	9.5
SGA	01/02	9.5	8.9	10.4	9.7	6.1	6.7	4.6	5.6	5.3	9.5	9.5	5.8	8.4	3.7	13.4	13.2	11.0	4.9	8.4	10.6	8.2	15.8	19.2	9.2
	02/03	7.3	7.4	8.1	7.7	5.0	2.4	4.7	8.5	5.9	7.7	10.7	8.6	9.5	8.3	9.0	8.1	8.3	9.8	9.8	8.0	8.9	9.1	8.3	7.9
	03/04	10.1	10.6	10.6	10.5	4.5	5.2	7.7	9.2	7.6	6.4	8.1	3.6	6.1	6.9	7.8	7.8	7.6	6.5	8.8	4.9	6.1	10.0	19.0	8.5
	04/05	8.2	10.9	10.3	10.1	10.9	8.9	10.2	2.8	7.7	15.6	5.8	9.4	9.0	7.1	9.0	7.6	7.7	9.9	10.3	5.1	7.8	21.4	16.7	8.8
	05/06	11.9	9.7	11.9	11.9	5.6	6.3	5.8	8.7	6.8	2.6	9.9	12.7	9.4	10.7	7.8	9.9	9.7	6.7	4.4	4.6	5.3	17.6	17.4	9.5
	Total	9.5	8.9	10.4	9.7	6.1	6.7	4.6	5.6	5.3	9.5	9.5	5.8	8.4	3.7	13.4	13.2	11.0	4.9	8.4	10.6	8.2	15.8	19.2	9.2

Note: Please refer to back flap for legend of the Health Authorities and Health Service Delivery Areas  
 AGA: Average-for-gestational age  
 LGA: Large-for-gestational age  
 SGA: Small-for-gestational age

**Figure 15 Birth Weight vs Gestational Age (Preterm Births) by Place of Residence for Health Authorities and Province, 2001/2002, 2002/2003, 2003/2004, 2004/2005, 2005/2006**



Note: Please refer to back flap for legend of the Health Authorities and Health Service Delivery Areas

## Neonatal/Perinatal/Infant Mortality

The British Columbia Reproductive Care Program Perinatal Advisory Committee is responsible for the Perinatal Mortality Review Committee (PMR). The PMR Committee, consisting of members from the BCRCP and all Health Authorities, has been designated in British Columbia under the Evidence Act Regulation 363/95, paragraph (c) of 51(1) for quality assurance purposes. The purpose of the PMR Committee is to study and investigate maternal and perinatal mortality and morbidity to identify provincial issues and recommend strategies to address these concerns. The PMR committee will endeavour to review, collate and analyze data and report on the quality of perinatal care in BC in an effort to better understand causation and work towards prevention.

Infant mortality is often used as a measure of the health and well being of a population both across and within countries. Mortality rates at various gestational ages and into the first year of life may indicate the presence of modifiable risk factors that could be addressed during prenatal or early newborn care. For this report, late terminations were excluded from analysis. Reported rates are per 1000 total births.

Death during the period of time from twenty weeks gestation (or after attaining a weight of at least 500g) until one year of life can be categorized as outlined in Figure 16.

### Stillbirths

The Vital Statistics Act<sup>2</sup> has defined a stillbirth as:

*‘The complete expulsion or extraction from its mother after at least 20 weeks of pregnancy, or after attaining a weight of at least 500 grams, of a product of conception in which, after the expulsion or extraction, there is no breathing, beating of the heart, pulsation of the umbilical cord, or unmistakable movement of voluntary muscle.’*

The stillbirth rate is calculated as the total number of stillbirths per 1000 total births (live births+ still births).

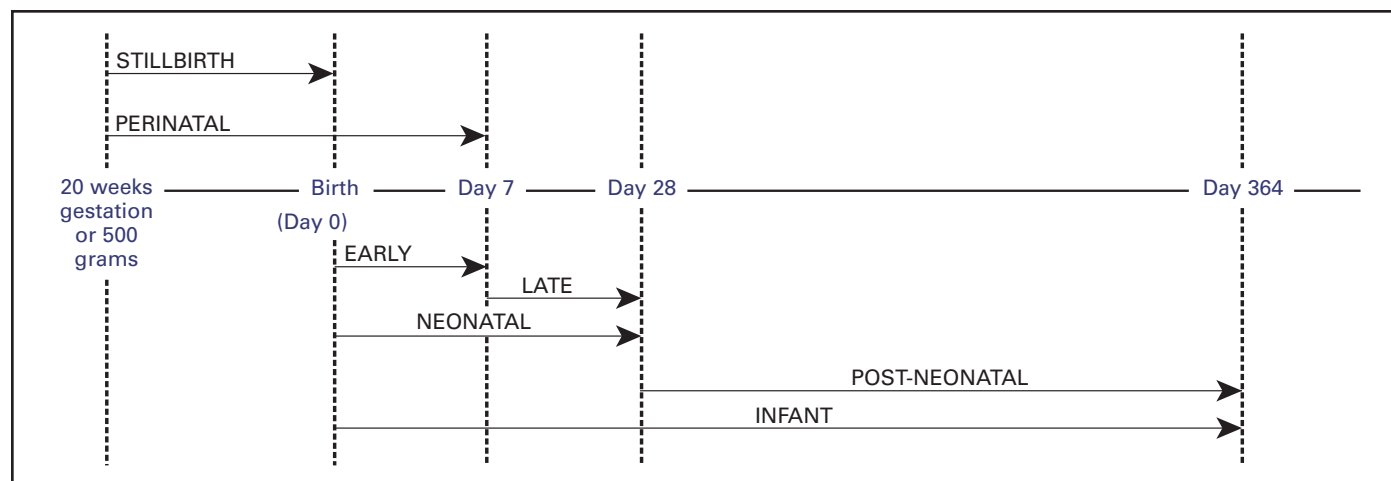
### Perinatal Mortality

The perinatal mortality rate is calculated as the total number of stillbirths and early neonatal deaths (deaths from 0 up to 7 days of age) per 1000 total births (live births + still births).

### Infant Mortality

The infant mortality rate is the total number of deaths of live born infants up to 365 days (one year) of life per 1000 live births. Infant mortality can be further divided into two component rates: neonatal (0 up to 28 days of age) and post-neonatal (from 28 days to one year of age) mortality rates.

**Figure 16 Timeline of Fetal and Infant Mortality**



Source: Canadian Perinatal Health Report 2003

## Neonatal/Perinatal/Infant Mortality Rates by Place of Residence for Health Service Delivery Areas, Health Authorities and Province, 2000/2001 to 2003/2004

(Refer to Tables 18 and 19)

### ***Stillbirths***

In 2003/2004, the stillbirth rate for singletons in British Columbia was **4.3**, with a total of **168** stillbirths. Stillbirth rates were the highest in the Northeast and Northern Interior Health Service Delivery Areas, at **7.0** and **7.3**, respectively. Using the last four fiscal years combined as a comparison, the provincial stillbirth rate for singletons was **4.7**, with a range in the Health Service Delivery Areas between **3.2** in East Kootenay to **6.7** in Northern Interior. In Alberta, the stillbirth rate for singletons was reported at 6.0 in 2003 and 6.7 in 2004.<sup>4</sup>

### ***Perinatal Mortality***

From 2000/2001 to 2003/2004, there were **1,045** perinatal singleton deaths in BC, with a corresponding rate of **6.7**. The perinatal mortality rate for singletons in 2003/2004 was **6.0**, accounting for **235** perinatal deaths in BC. This is a slight

decrease from 2002/2003, when the perinatal mortality rate for singletons in BC was 6.6.<sup>71</sup> The perinatal mortality rate for singletons shows a wide range across Health Service Delivery Areas in BC, with a low of **3.9** in the Coastal HSDA to a high of **11.6** in the Northeast HSDA in 2003/2004.

### ***Infant Mortality***

The infant mortality rate in BC singletons in 2003/2004 was **3.4**, down from 3.6 in 2002/2003.<sup>71</sup> Over the last four fiscal years, the infant mortality rate for BC singletons was **3.6**. Differences across the province showed a range in infant mortality rate from a low of **1.7** in East Kootenay Health Service Delivery Area to a high of **7.3** in the Northern Interior HSDA. South Vancouver Island was the only HSDA in BC with a higher infant mortality rate (**6.5**) than its perinatal mortality rate (**5.8**) in 2003/2004.

**Table 18 Neonatal/Perinatal/Infant Mortality by Place of Residence for Health Service Delivery Areas, Health Authorities and Province, 2000/2001, 2001/2002, 2002/2003, 2003/2004**

HA	HSDA	2000/2001, 2001/2002, 2002/2003, 2003/2004												
		Total Birth	Total Stillbirth	Total Death	Total Live Birth	Stillbirth Rate	END	LND	TND	PND	NMR	PMR	IMR	NSR
FHA	FE	11495	47	33	11448	4.1	12	7	19	14	1.7	5.1	2.9	998.3
	FN	21801	113	54	21688	5.2	27	12	39	15	1.8	6.4	2.5	998.2
	FS	27013	151	94	26862	5.6	53	12	65	29	2.4	7.6	3.5	997.6
<b>Total</b>		<b>60309</b>	<b>311</b>	<b>181</b>	<b>59998</b>	<b>5.2</b>	<b>92</b>	<b>31</b>	<b>123</b>	<b>58</b>	<b>2.1</b>	<b>6.7</b>	<b>3.0</b>	<b>997.9</b>
IHA	EK	2509	8	6	2501	3.2	2	0	2	4	0.8	4.0	2.4	999.2
	KB	2295	11	11	2284	4.8	7	2	9	2	3.9	7.8	4.8	996.1
	OK	9841	41	30	9800	4.2	16	4	20	10	2.0	5.8	3.1	998.0
	TCS	7152	25	32	7127	3.5	18	2	20	12	2.8	6.0	4.5	997.2
<b>Total</b>		<b>21797</b>	<b>85</b>	<b>79</b>	<b>21712</b>	<b>3.9</b>	<b>43</b>	<b>8</b>	<b>51</b>	<b>28</b>	<b>2.3</b>	<b>5.9</b>	<b>3.6</b>	<b>997.7</b>
NHA	NE	3383	22	12	3361	6.5	8	3	11	1	3.3	8.9	3.6	996.7
	NI	6161	41	31	6120	6.7	15	3	18	13	2.9	9.1	5.1	997.1
	NW	3916	25	19	3891	6.4	11	4	15	4	3.9	9.2	4.9	996.1
<b>Total</b>		<b>13460</b>	<b>88</b>	<b>62</b>	<b>13372</b>	<b>6.5</b>	<b>34</b>	<b>10</b>	<b>44</b>	<b>18</b>	<b>3.3</b>	<b>9.1</b>	<b>4.6</b>	<b>996.7</b>
VCHA	CST	9117	34	28	9083	3.7	17	5	22	6	2.4	5.6	3.1	997.6
	RICH	6000	26	21	5974	4.3	17	1	18	3	3.0	7.2	3.5	997.0
	VANC	22644	96	62	22548	4.2	43	6	49	13	2.2	6.1	2.7	997.8
<b>Total</b>		<b>37761</b>	<b>156</b>	<b>111</b>	<b>37605</b>	<b>4.1</b>	<b>77</b>	<b>12</b>	<b>89</b>	<b>22</b>	<b>2.4</b>	<b>6.2</b>	<b>3.0</b>	<b>997.6</b>
VIHA	CVI	7607	35	35	7572	4.6	15	6	21	14	2.8	6.6	4.6	997.2
	NVI	3942	17	27	3925	4.3	17	4	21	6	5.4	8.6	6.9	994.6
	SVI	10701	35	49	10666	3.3	22	4	26	23	2.4	5.3	4.6	997.6
<b>Total</b>		<b>22250</b>	<b>87</b>	<b>111</b>	<b>22163</b>	<b>3.9</b>	<b>54</b>	<b>14</b>	<b>68</b>	<b>43</b>	<b>3.1</b>	<b>6.3</b>	<b>5.0</b>	<b>996.9</b>
<b>BC UNSPEC</b>		<b>828</b>	<b>5</b>	<b>8</b>	<b>823</b>	<b>6.0</b>	<b>2</b>	<b>3</b>	<b>5</b>	<b>3</b>	<b>6.1</b>	<b>8.5</b>	<b>9.7</b>	<b>993.9</b>
<b>NON RES</b>		<b>641</b>	<b>8</b>	<b>3</b>	<b>633</b>	<b>12.5</b>	<b>3</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>4.7</b>	<b>17.2</b>	<b>4.7</b>	<b>995.3</b>
<b>Total</b>		<b>157046</b>	<b>740</b>	<b>555</b>	<b>156306</b>	<b>4.7</b>	<b>305</b>	<b>78</b>	<b>383</b>	<b>172</b>	<b>2.5</b>	<b>6.7</b>	<b>3.6</b>	<b>997.5</b>

**Table 19 Neonatal/Perinatal/Infant Mortality by Place of Residence for Health Service Delivery Areas, Health Authorities and Province, 2003/2004**

HA	HSDA	2003/2004												
		Total Birth	Total Stillbirth	Total Death	Total Live Birth	Stillbirth Rate	END	LND	TND	PND	NMR	PMR	IMR	NSR
FHA	FE	2983	13	6	2970	4.4	3	0	3	3	1.0	5.4	2.0	999.0
	FN	5455	23	10	5432	4.2	5	2	7	3	1.3	5.1	1.8	998.7
	FS	6778	32	18	6746	4.7	11	0	11	7	1.6	6.3	2.7	998.4
<b>Total</b>		<b>15216</b>	<b>68</b>	<b>34</b>	<b>15148</b>	<b>4.5</b>	<b>19</b>	<b>2</b>	<b>21</b>	<b>13</b>	<b>1.4</b>	<b>5.7</b>	<b>2.2</b>	<b>998.6</b>
IHA	EK	610	4	1	606	6.6	0	0	0	1	0.0	6.6	1.7	1000.0
	KB	544	0	3	544	0.0	3	0	3	0	5.5	5.5	5.5	994.5
	OK	2387	8	6	2379	3.4	2	2	4	2	1.7	4.2	2.5	998.3
	TCS	1770	8	7	1762	4.5	5	0	5	2	2.8	7.3	4.0	997.2
<b>Total</b>		<b>5311</b>	<b>20</b>	<b>17</b>	<b>5291</b>	<b>3.8</b>	<b>10</b>	<b>2</b>	<b>12</b>	<b>5</b>	<b>2.3</b>	<b>5.6</b>	<b>3.2</b>	<b>997.7</b>
NHA	NE	859	6	5	853	7.0	4	1	5	0	5.9	11.6	5.9	994.1
	NI	1516	11	11	1505	7.3	6	1	7	4	4.7	11.2	7.3	995.3
	NW	914	4	3	910	4.4	0	1	1	2	1.1	4.4	3.3	998.9
<b>Total</b>		<b>3289</b>	<b>21</b>	<b>19</b>	<b>3268</b>	<b>6.4</b>	<b>10</b>	<b>3</b>	<b>13</b>	<b>6</b>	<b>4.0</b>	<b>9.4</b>	<b>5.8</b>	<b>996.0</b>
VCHA	CST	2289	6	8	2283	2.6	3	1	4	4	1.8	3.9	3.5	998.2
	RICH	1424	5	4	1419	3.5	2	1	3	1	2.1	4.9	2.8	997.9
	VANC	5677	21	11	5656	3.7	6	1	7	4	1.2	4.8	1.9	998.8
<b>Total</b>		<b>9390</b>	<b>32</b>	<b>23</b>	<b>9358</b>	<b>3.4</b>	<b>11</b>	<b>3</b>	<b>14</b>	<b>9</b>	<b>1.5</b>	<b>4.6</b>	<b>2.5</b>	<b>998.5</b>
VIHA	CVI	1893	6	11	1887	3.2	5	0	5	6	2.6	5.8	5.8	997.4
	NVI	930	6	6	924	6.5	3	1	4	2	4.3	9.7	6.5	995.7
	SVI	2782	9	18	2773	3.2	7	0	7	11	2.5	5.8	6.5	997.5
<b>Total</b>		<b>5605</b>	<b>21</b>	<b>35</b>	<b>5584</b>	<b>3.7</b>	<b>15</b>	<b>1</b>	<b>16</b>	<b>19</b>	<b>2.9</b>	<b>6.4</b>	<b>6.3</b>	<b>997.1</b>
<b>BC UNSPEC</b>		<b>222</b>	<b>2</b>	<b>2</b>	<b>220</b>	<b>9.0</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>0</b>	<b>9.1</b>	<b>13.5</b>	<b>9.1</b>	<b>990.9</b>
<b>NON RES</b>		<b>169</b>	<b>4</b>	<b>1</b>	<b>165</b>	<b>23.7</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>6.1</b>	<b>29.6</b>	<b>6.1</b>	<b>993.9</b>
<b>Total</b>		<b>39202</b>	<b>168</b>	<b>131</b>	<b>39034</b>	<b>4.3</b>	<b>67</b>	<b>12</b>	<b>79</b>	<b>52</b>	<b>2.0</b>	<b>6.0</b>	<b>3.4</b>	<b>998.0</b>

\*Note: Please refer to back flap for legend of Health Authorities and Health Service Delivery Areas  
Late Terminations are excluded. Death information is supplemented by BC Vital Statistics Agency

**END** – Early Neonatal Deaths (< 7 days)

**LND** – Late Neonatal Deaths (7-27 days)

**TND** – Total Neonatal Deaths (< 28 days)

**PND** – Post Neonatal Deaths (28-364 days)

**NMR** – Neonatal Mortality Rate

**PMR** – Perinatal Mortality Rate

**IMR** – Infant Mortality Rate

**NSR** – Neonatal Survival Rate

**Stillbirth Rate** = (Total Stillbirths / Total Births) X 1000

**Neonatal Mortality Rate** = (Total Neonatal Deaths / Live Births) X 1000

**Perinatal Mortality Rate** = ((Total Stillbirths + Total Early Neonatal Deaths) / Total Births) X 1000

**Infant Mortality Rate** = ((Total Neonatal Deaths + Post Neonatal Deaths) / Total Live Births) X 1000

**Neonatal Survival Rate** = ((Total Live Births – Total Neonatal Deaths) / Total Live Births) X 1000

## Neonatal/Perinatal/Infant Mortality Rates by Maternal Age, 2000/2001 to 2003/2004

### Stillbirths

In 2003/2004, stillbirth rates varied slightly with maternal age, with the highest singleton stillbirth rate (6.8) in those mothers between 40 and 44 years of age. Over the last four fiscal years, this age group (40-44 year old) had a singleton stillbirth rate of 6.6. Younger mothers also have higher rates of stillbirths; as high as 6.1 in 15-19 year olds (2000 to 2004 data), and 20.4 in <15 year-olds for the same time period, although there were a small number of births to this youngest subset of mothers.

### Perinatal Mortality

Perinatal mortality rates follow the same trend as stillbirth rates, in that they are lowest in mothers between the ages of 30 and 34, and generally increase in both younger and older

mothers. In 2003/2004, the perinatal mortality rate for singletons was lowest at 4.3 in 30 to 34 year-old mothers, and highest at 11.3 in 40 to 44 year-old mothers.

### Infant Mortality

Infant mortality rates are highest in the youngest mothers. In 2003/2004, for mothers between the ages of 15 to 19, the infant mortality rate for singletons was 11.2. These rates are approximately three times higher than the infant mortality rates across all the age groups, which was 3.4 in 2003/2004.

**Table 20 Neonatal/Perinatal/Infant Mortality by Maternal Age, 2000/2001, 2001/2002, 2002/2003, 2003/2004**

Age	2000/2001, 2001/2002, 2002/2003, 2003/2004												
	Total Birth	Total Stillbirth	Total Death	Total Live Birth	Stillbirth Rate	END	LND	TND	PND	NMR	PMR	IMR	NSR
<15	49	1	2	48	20.4	1	1	2	0	41.7	40.8	41.7	958.3
15-19	6557	40	51	6517	6.1	28	1	29	22	4.4	10.4	7.8	995.6
20-24	24476	119	102	24357	4.9	55	8	63	39	2.6	7.1	4.2	997.4
25-29	44835	204	143	44631	4.6	77	22	99	44	2.2	6.3	3.2	997.8
30-34	50254	208	157	50046	4.1	79	27	106	51	2.1	5.7	3.1	997.9
35-39	25708	134	78	25574	5.2	49	14	63	15	2.5	7.1	3.0	997.5
40-44	4992	33	21	4959	6.6	15	5	20	1	4.0	9.6	4.2	996.0
45-49	171	1	1	170	5.8	1	0	1	0	5.9	11.7	5.9	994.1
>=50	4	0	0	4	0.0	0	0	0	0	0.0	0.0	0.0	1000.0
<b>Total</b>	<b>157046</b>	<b>740</b>	<b>555</b>	<b>156306</b>	<b>4.7</b>	<b>305</b>	<b>78</b>	<b>383</b>	<b>172</b>	<b>2.5</b>	<b>6.7</b>	<b>3.6</b>	<b>997.5</b>

**Table 21 Neonatal/Perinatal/Infant Mortality by Maternal Age, 2003/2004**

Age	2003/2004												
	Total Birth	Total Stillbirth	Total Death	Total Live Birth	Stillbirth Rate	END	LND	TND	PND	NMR	PMR	IMR	NSR
<15	10	0	0	10	0.0	0	0	0	0	0.0	0.0	0.0	1000.0
15-19	1429	4	16	1425	2.8	7	0	7	9	4.9	7.7	11.2	995.1
20-24	6020	35	23	5985	5.8	15	0	15	8	2.5	8.3	3.8	997.5
25-29	10921	56	27	10865	5.1	10	5	15	12	1.4	6.0	2.5	998.6
30-34	12875	38	37	12837	3.0	18	2	20	17	1.6	4.3	2.9	998.4
35-39	6558	26	20	6532	4.0	11	3	14	6	2.1	5.6	3.1	997.9
40-44	1329	9	8	1320	6.8	6	2	8	0	6.1	11.3	6.1	993.9
45-49	60	0	0	60	0.0	0	0	0	0	0.0	0.0	0.0	1000.0
>=50	0	0	0	0	0.0	0	0	0	0	0.0	0.0	NA	NA
<b>Total</b>	<b>39202</b>	<b>168</b>	<b>131</b>	<b>39034</b>	<b>4.3</b>	<b>67</b>	<b>12</b>	<b>79</b>	<b>52</b>	<b>2.0</b>	<b>6.0</b>	<b>3.4</b>	<b>998.0</b>

Note: Late Terminations are excluded. Death information is supplemented by BC Vital Statistics Agency

**END** – Early Neonatal Deaths (< 7 days)

**LND** – Late Neonatal Deaths (7-27 days)

**TND** – Total Neonatal Deaths (< 28 days)

**PND** – Post Neonatal Deaths (28-364 days)

**NMR** – Neonatal Mortality Rate

**PMR** – Perinatal Mortality Rate

**IMR** – Infant Mortality Rate

**NSR** – Neonatal Survival Rate

**Stillbirth Rate** = (Total Stillbirths / Total Births) X 1000

**Neonatal Mortality Rate** = (Total Neonatal Deaths / Live Births) X 1000

**Perinatal Mortality Rate** = ((Total Stillbirths + Total Early Neonatal Deaths) / Total Births) X 1000

**Infant Mortality Rate** = ((Total Neonatal Deaths + Post Neonatal Deaths) / Total Live Births) X 1000

**Neonatal Survival Rate** = ((Total Live Births – Total Neonatal Deaths) / Total Live Births) X 1000



## Neonatal/Perinatal/Infant Mortality Rates by Birth Weight, 2000/2001 to 2003/2004

### Stillbirths

Stillbirth rates (stillbirths per 1000 total births) are highest in those babies with the lowest birth weights. In 2003/2004, the singleton stillbirth rate was highest at **625** in those babies with birth weights less than 500 grams. As birth weight increases, the stillbirth rate drops sharply. Over the last four fiscal years, the singleton stillbirth rate of babies between 3500 and 4499 grams was **0.8**.

### Perinatal Mortality

From 2000/2001 to 2003/2004, the perinatal mortality rate for singletons was **6.7**, although the rate by birth weight group ranged from a high of **975.0** in the less than 500-gram birth weight group to a low of **1.1** in the 3500 to 4499 birth weight

group. In 2003/2004, the perinatal mortality rate was **6.0**, with a wide range by birth weight group.

### Infant Mortality

Similar to stillbirths and perinatal mortality, the babies born into the lowest birth weight categories have the highest infant mortality rates. In 2003/2004, no babies with a birth weight of less than 500 grams survived the first year of life. In the four years of combined data (Table 22), however, there were five babies born into the lowest birth weight group who survived the first year of life (data was further verified with hospitals in these cases). As birth weight increases, the infant mortality rate drops significantly, to a low of **1.2** in babies with a birth weight of at least 4500 grams.

**Table 22 Neonatal/Perinatal/Infant Mortality by Birth Weight, 2000/2001, 2001/2002, 2002/2003, 2003/2004**

Birth Weight	2000/2001, 2001/2002, 2002/2003, 2003/2004												
	Total Birth	Total Stillbirth	Total Death	Total Live Birth	Stillbirth Rate	END	LND	TND	PND	NMR	PMR	IMR	NSR
<500	200	115	80	85	575.0	80	0	80	0	941.2	975.0	941.2	58.8
500-999	491	114	118	377	232.2	93	15	108	10	286.5	421.6	313.0	713.5
1000-1499	571	60	32	511	105.1	22	2	24	8	47.0	143.6	62.6	953.0
1500-2499	5289	124	76	5165	23.4	31	17	48	28	9.3	29.3	14.7	990.7
2500-3499	76168	128	141	76040	1.7	40	23	63	78	0.8	2.2	1.9	999.2
3500-4499	70372	59	84	70313	0.8	20	18	38	46	0.5	1.1	1.2	999.5
>=4500	3787	5	7	3782	1.3	2	3	5	2	1.3	1.8	1.9	998.7
Unknown*	168	135	17	33	803.6	17	0	17	0	515.2	904.8	515.2	484.8
<b>Total</b>	<b>157046</b>	<b>740</b>	<b>555</b>	<b>156306</b>	<b>4.7</b>	<b>305</b>	<b>78</b>	<b>383</b>	<b>172</b>	<b>2.5</b>	<b>6.7</b>	<b>3.6</b>	<b>997.5</b>

**Table 23 Neonatal/Perinatal/Infant Mortality by Birth Weight, 2003/2004**

Birth Weight	2003/2004												
	Total Birth	Total Stillbirth	Total Death	Total Live Birth	Stillbirth Rate	END	LND	TND	PND	NMR	PMR	IMR	NSR
<500	32	20	12	12	625.0	12	0	12	0	1000.0	1000.0	1000.0	0.0
500-999	124	33	24	91	266.1	18	3	21	3	230.8	411.3	263.7	769.2
1000-1499	154	17	9	137	110.4	6	0	6	3	43.8	149.4	65.7	956.2
1500-2499	1330	27	23	1303	20.3	11	3	14	9	10.7	28.6	17.7	989.3
2500-3499	19346	28	33	19318	1.4	10	2	12	21	0.6	2.0	1.7	999.4
3500-4499	17334	17	26	17317	1.0	7	3	10	16	0.6	1.4	1.5	999.4
>=4500	846	0	1	846	0.0	0	1	1	0	1.2	0.0	1.2	998.8
Unknown*	36	26	3	10	722.2	3	0	3	0	300.0	805.6	300.0	700.0
<b>Total</b>	<b>39202</b>	<b>168</b>	<b>131</b>	<b>39034</b>	<b>4.3</b>	<b>67</b>	<b>12</b>	<b>79</b>	<b>52</b>	<b>2.0</b>	<b>6.0</b>	<b>3.4</b>	<b>998.0</b>

\*Unknown – unrecorded birth weights or birth weights between 0 and 300 grams

Note: Late Terminations are excluded. Death information is supplemented by BC Vital Statistics Agency

**END** – Early Neonatal Deaths (< 7 days)

**LND** – Late Neonatal Deaths (7-27 days)

**TND** – Total Neonatal Deaths (< 28 days)

**PND** – Post Neonatal Deaths (28-364 days)

**NMR** – Neonatal Mortality Rate

**PMR** – Perinatal Mortality Rate

**IMR** – Infant Mortality Rate

**NSR** – Neonatal Survival Rate

**Stillbirth Rate** = (Total Stillbirths / Total Births) X 1000

**Neonatal Mortality Rate** = (Total Neonatal Deaths / Live Births) X 1000

**Perinatal Mortality Rate** = ((Total Stillbirths + Total Early Neonatal Deaths) / Total Births) X 1000

**Infant Mortality Rate** = ((Total Neonatal Deaths + Post Neonatal Deaths) / Total Live Births) X 1000

**Neonatal Survival Rate** = ((Total Live Births – Total Neonatal Deaths) / Total Live Births) X 1000

## Neonatal/Perinatal/Infant Mortality Rates by Gestational Age, 2000/2001 to 2003/2004

### ***Stillbirths***

Stillbirth rates decrease fairly steadily as gestational age increases. Over the fiscal years 2000/2001 to 2003/2004, from 20 until 30 weeks gestation, there was a fairly sharp decline in stillbirth rates, from **677.1** to **65.7**. At 31 weeks gestation the stillbirth rate increased slightly to **96.3** and then decreased again to a low of **1.5** at 42 weeks. The increase in stillbirth rate at 31 weeks gestation (the number of stillbirths occurring over 2000/2001 to 2003/2004 was **14** at 30 weeks and **31** at 31 weeks) warrants further investigation.

### ***Perinatal Mortality***

Perinatal mortality rates include stillbirths and early neonatal deaths. Perinatal mortality shows a decline as gestational age increases and, similar to stillbirth rates by gestational age,

shows a slight increase at 31 weeks. For example, in singletons from 2000/2001 to 2003/2004, the perinatal mortality rate was **98.6** at 30 weeks, **108.7** at 31 weeks, and then dropped to **64.5** at 32 weeks gestation.

### ***Infant Mortality***

Newborns born at lower gestational ages have higher rates of infant mortality. Until 22 weeks gestation, the risk of infant mortality is very high (**914.9** to **1000.0** from 2000/2001 to 2003/2004). After 22 weeks, the infant mortality rates decrease significantly and infants born at or after 31 weeks gestation have very high rates of survival in the first year of life.

**Table 24 Neonatal/Perinatal/Infant Mortality by Gestational Age, 2000/2001, 2001/2002, 2002/2003, 2003/2004**

Gestational Age	2000/2001, 2001/2002, 2002/2003, 2003/2004												
	Total Birth	Total Stillbirth	Total Death	Total Live Birth	Stillbirth Rate	END	LND	TND	PND	NMR	PMR	IMR	NSR
<20 weeks	10	1	9	9	100.0	9	0	9	0	1000.0	1000.0	1000.0	0.0
20 weeks	95	65	30	30	684.2	30	0	30	0	1000.0	1000.0	1000.0	0.0
21 weeks	94	60	34	34	638.3	34	0	34	0	1000.0	1000.0	1000.0	0.0
22 weeks	90	50	40	40	531.9	36	4	40	0	1000.0	955.6	1000.0	0.0
23 weeks	100	42	38	58	420.0	31	2	33	5	569.0	730.0	655.2	431.0
24 weeks	93	27	27	66	290.3	24	2	26	1	393.9	548.4	409.1	606.1
25 weeks	119	25	19	94	210.1	11	4	15	4	159.6	302.5	202.1	840.4
26 weeks	99	14	16	85	141.4	11	2	13	3	152.9	252.5	188.2	847.1
27 weeks	122	20	12	102	163.9	9	0	9	3	88.2	237.7	117.6	911.8
28 weeks	135	16	9	119	118.5	5	2	7	2	58.8	155.6	75.6	941.2
29 weeks	185	19	5	166	102.7	2	3	5	0	30.1	113.5	30.1	969.9
30 weeks	213	14	8	199	65.7	7	0	7	1	35.2	98.6	40.2	964.8
31 weeks	322	31	5	291	96.3	4	0	4	1	13.7	108.7	17.2	986.3
32 weeks	403	19	10	384	47.1	7	2	9	1	23.4	64.5	26.0	976.6
33 weeks	718	26	7	692	36.2	4	1	5	2	7.2	41.8	10.1	992.8
34 weeks	1325	20	17	1305	15.1	7	3	10	7	7.7	20.4	13.0	992.3
35 weeks	2392	27	12	2365	11.3	7	1	8	4	3.4	14.2	5.1	996.6
36 weeks	5013	37	20	4976	7.4	10	4	14	6	2.8	9.4	4.0	997.2
37 weeks	12940	45	35	12895	3.5	10	10	20	15	1.6	4.3	2.7	998.4
38 weeks	29392	37	65	29355	1.3	9	10	19	46	0.6	1.6	2.2	999.4
39 weeks	39961	54	45	39907	1.4	8	12	20	25	0.5	1.6	1.1	999.5
40 weeks	39521	42	66	39479	1.1	21	11	32	34	0.8	1.6	1.7	999.2
41 weeks	20653	26	16	20627	1.3	4	3	7	9	0.3	1.5	0.8	999.7
42 weeks	2678	4	8	2674	1.5	3	2	5	3	1.9	2.6	3.0	998.1
43 weeks	84	1	0	83	11.9	0	0	0	0	0.0	11.9	0.0	1000.0
44 weeks	2	0	0	2	0.0	0	0	0	0	0.0	0.0	0.0	1000.0
Unknown	287	18	2	269	62.7	2	0	2	0	7.4	69.7	7.4	992.6
<b>Total</b>	<b>157046</b>	<b>740</b>	<b>555</b>	<b>156306</b>	<b>4.7</b>	<b>305</b>	<b>78</b>	<b>383</b>	<b>172</b>	<b>2.5</b>	<b>6.7</b>	<b>3.6</b>	<b>997.5</b>

\*Unknown – unrecorded birth weights or birth weights between 0 and 300 grams

Note: Late Terminations are excluded. Death information is supplemented by BC Vital Statistics Agency

**END** – Early Neonatal Deaths (< 7 days)

**LND** – Late Neonatal Deaths (7-27 days)

**TND** – Total Neonatal Deaths (< 28 days)

**PND** – Post Neonatal Deaths (28-364 days)

**NMR** – Neonatal Mortality Rate

**PMR** – Perinatal Mortality Rate

**IMR** – Infant Mortality Rate

**NSR** – Neonatal Survival Rate

**Stillbirth Rate** = (Total Stillbirths / Total Births) X 1000

**Neonatal Mortality Rate** = (Total Neonatal Deaths / Live Births) X 1000

**Perinatal Mortality Rate** = ((Total Stillbirths + Total Early Neonatal Deaths) / Total Births) X 1000

**Infant Mortality Rate** = ((Total Neonatal Deaths + Post Neonatal Deaths) / Total Live Births) X 1000

**Neonatal Survival Rate** = ((Total Live Births – Total Neonatal Deaths) / Total Live Births) X 1000



**SECTION IV**  
**APPENDICES AND**  
**REFERENCES**





## APPENDIX 1 – DEFINITIONS AND NOTES ON INDICATORS

### **Age**

Age on date of event/age at last birth date preceding the event.

### **Antepartum**

Occurring before birth.

### **BC Unspecified (Place of Residence)**

The postal code is unknown but it is known that the person is a resident of BC.

### **Birth weight**

First weight of the fetus or newborn obtained after birth, expressed in grams. Low birth weight (LBW) birth weight is less than 2,500 grams. Very low birth weight (VLBW) – birth weight is less than 1,500 grams. (Excludes newborns with weight between 0 – 300 grams).

### **Care Provider for Delivery**

Person who provides the actual, hands-on care for the delivery of the baby. The categories are: OB/GYN – includes obstetricians (or fellow) and obstetrical residents; Family physician – includes general practitioners, and family practice residents; Midwife – includes registered midwife and midwife trainee; Nurse – includes nurses; Other/Unknown – includes surgeons, family members, ambulance attendants, medical student intern (MSI), if there was no one in attendance or if there was no documentation.

### **Count of cases**

The most basic measure is a simple count of cases or conditions of interest and is often expressed as a variable. Such figures are important for strategic planning in health care systems, especially in terms of resource allocation. Counts of cases provide an idea of the number of people who will require a specific treatment, intervention or service. The definition of a variable is any attribute, phenomenon or event that can have different values but is expressed as a single data element:

- Yes, no, not applicable
- A number, e.g. age

### **Caesarean Section (C/Section) Method of Delivery**

A delivery involving the surgical incision of the abdomen and uterine walls.

### **Electronic Fetal Monitoring (EFM)**

Mother received external or internal electronic fetal heart monitoring during 1st or 2nd stage of labour. Mothers that did not go into labour are classified as “Not Applicable”.

### **Episiotomy**

A surgical incision into the perineum and vagina at the time of birth. If it is unknown if mother received an episiotomy, this case would be included in the category “No”.

### **Frequency**

Number of events or cases in a category.

### **Gestational Age**

The number of weeks a fetus has developed since the beginning of the pregnancy (gestation).

#### **SGA – Small for Gestational Age**

Term used to describe babies who are born with birth weights below the 10th percentile of a population specific weight versus gestational age plot.

#### **AGA – Average for Gestational Age**

Term used to describe babies who are born with birth weights between the 10th and 90th percentile of a population specific weight versus gestational age plot.

#### **LGA – Large for Gestational Age**

Term used to describe babies who are born with birth weights greater than the 90th percentile of a population specific weight versus gestational age plot.

### **Health Authority (HA) / Health Service Delivery Areas (HSDA) – Delivery**

Refers to the Health Authority or Health Service Delivery Area in which the patient delivered. The BC Ministry of Health has defined six macro level administrative boundaries called health authorities, which govern the manner in which health care services are delivered within the province of BC. Health Authorities are further divided into sixteen Health Service Delivery areas. HSDAs are micro level geographic boundaries. There may be more than one institution in a HA or HSDA.

### **Health Authority (HA) / Health Service Delivery Areas (HSDA) – Residence**

Refers to the Health Authority or Health Service Delivery Area in which the patient resided at the time of delivery. Statistics relating to the client's residence are determined via the Translation Master File (TMF). The TMF file is a comprehensive demographic mapping file, which consists of valid BC postal codes and their associated Health Service Delivery Areas (HSDA) and Health Authorities (HA). The geographic area to which a postal code belongs seldom changes over time but in cases where the postal code has changed, appropriate amendments have been made to reflect that postal code's associated HSDA for that particular year.

### **Home Birth**

Birth that occurred at home and mother was not admitted to an inpatient facility within 24 hours of the birth. The primary care provider was a BC registered midwife.

## APPENDIX 1 – DEFINITIONS AND NOTES ON INDICATORS (CONT'D)

**Induction of Labour**

Patient who received instrumental or pharmacological assistance to promote labour, prior to the onset of first stage of labour. A patient may be induced by any of the following methods: artificial rupture of membranes (ARM), oxytocin, prostaglandin or other methodology. A failed medical induction is classified as an induction. Induction is categorized as “unknown” if it is unknown how the patient’s labour was initiated.

Inductions performed prior to a delivery admission (e.g., as an antepartum admission or an outpatient visit) that have resulted in labour with subsequent admission are also classified as an induction.

**Intermittent Auscultation (IA)**

A systematic method of listening to fetal heart tones with an acoustical device (fetoscope) or a hand-held ultrasound (doptone), paying attention to rate, rhythm and variability for at least one full minute, most usually following a uterine contraction (UC), and timing with a watch or clock with a sweep second hand.

**Intrapartum**

The period between the onset of the first stage of labour and the delivery of the placenta.

**Late Termination**

The medical termination of a pregnancy beyond 20 weeks of gestation. Gestation is measured in weeks and estimated from the first day of the last normal menstrual period.

**Live Birth**

The complete expulsion or extraction from the mother, irrespective of the duration of the pregnancy, of a fetus in which there is breathing, beating of the heart, pulsation of the umbilical cord or unmistakable movement of voluntary muscle, whether or not the umbilical cord has been cut or the placenta is attached.

**Maternal Smoking**

There is documentation that the patient smoked during the current pregnancy. If a patient smoked at any time during pregnancy, even if she quit during the pregnancy, she is categorized as a smoker in the current pregnancy.

**Multiple Birth**

Birth in which more than one infant is born, including live births and stillbirths.

**Multiple Pregnancy**

A pregnancy with more than one fetus.

**Newborn Feeding**

Breastfeeding definitions in the PDR have been updated to include the WHO/UNICEF recommendations.

**Exclusive breastfeeding:**

No food or liquid other than breast milk, not even water, is given to the infant from birth by the mother, health care provider or family member/ supporter with the exception of undiluted drops of syrups consisting of vitamin or mineral supplements or medicines (BCC adapted from WHO/UNICEF, 2004).

**Breast milk and Formula (Partial Breast milk):**

Infant receives both breast milk and supplementation (such as formula, water, glucose water) with the exception of undiluted drops and syrups consisting of vitamins or mineral supplements or medicines during the hospital period.

**No Breast milk:**

The infant/child receives no breast milk.

**Not Applicable:**

The baby was immediately transferred to another hospital or was a stillbirth or neonatal death.

**Non-resident**

The woman delivers in British Columbia but is not a resident of British Columbia. She may be from out of province or out of country.

**Nullipara**

A woman who has never delivered a baby (500 grams birth weight or 20 weeks gestation) in a previous pregnancy.

**Parity >= 1**

The condition of having carried a previous pregnancy to a point of viability (500 grams birth weight or 20 weeks gestation) regardless of outcome.

**Postpartum LOS – Vaginal/ Caesarean Section**

Length of hospital stay calculated from delivery date/time to discharge date/time of mother, stratified into vaginal and caesarean births. This category excludes those who delivered at home with a Registered Midwife in attendance.

**Preterm Birth**

Birth after 20 and before 37 weeks completed weeks of gestation.

**Proportion**

A proportion is a measure of the number of persons having a specific condition or intervention at a designated time. It is defined as the number of existing cases divided by total population from which those arose. It is reported as a percent, for example, the percent of women giving birth in a specific health region, of all women in the region.



**Rate**

“A rate is a measure of the frequency of occurrence of a phenomenon. In epidemiology, demography and vital statistics, a rate is an expression of the frequency with which an event occurs in a defined population; the use of rates rather than raw numbers is essential for comparison of experience between populations at different times, different places or among different classes of persons. The components of a rate are the numerator, the denominator, the specified time in which events occur and usually a multiplier, a power of 10, which converts the rate from an awkward fraction to a decimal or whole number”. (A Dictionary of Epidemiology, 3rd Edition. John M. Last, Oxford University Press, 1995)

**Early Neonatal Mortality Rate**

May be expressed mathematically as the formula:

$$= \frac{\text{Number of deaths among infants less than 7 days during a given period} \times 1000}{\text{Total live births during that period}}$$

**Infant Mortality Rate**

May be expressed mathematically as the formula:

$$= \frac{\text{Number of deaths among infants under 1 year during a given period} \times 1000}{\text{Total live births during that period}}$$

**Late Neonatal Mortality Rate**

May be expressed mathematically as the formula:

$$= \frac{\text{Number of deaths among infants between 7-27 days during a given period} \times 1000}{\text{Total live births during that period}}$$

**Neonatal Mortality Rate**

May be expressed mathematically as the formula:

$$= \frac{\text{Number of deaths among infants less than 28 days during a given period} \times 1000}{\text{Total live births during that period}}$$

**Neonatal Survival Rate**

May be expressed mathematically as the formula:

$$= \frac{\text{Number of total live births} - \text{total neonatal deaths} \times 1000}{\text{Total live births during that period}}$$

**Perinatal Mortality Rate**

May be expressed mathematically as the formula:

$$= \frac{\text{Total stillbirths} + \text{total early neonatal deaths during a given period} \times 1000}{\text{Total births during that period}}$$

**Post Neonatal Mortality Rate**

May be expressed mathematically as the formula:

$$= \frac{\text{Number of deaths among infants between 28 days to 1 year during a given period} \times 1000}{\text{Total live births during that period}}$$

**Stillbirth Rate**

May be expressed mathematically as the formula:

$$= \frac{\text{Number of stillbirths during a given period} \times 1000}{\text{Total births during that period}}$$

**APPENDIX 1 – DEFINITIONS AND NOTES ON INDICATORS (CONT'D)*****Stillbirth***

The complete expulsion or extraction from the maternal body after at least 20 weeks of gestation or after attaining a weight of at least 500 grams of a fetus in which at birth, there is no breathing, beating heart, pulsation of the umbilical cord or unmistakable movement of voluntary muscle.

***Term Birth***

Birth after 37 completed weeks of gestation.

***Total Births***

All live births and stillbirths in the province of British Columbia for the given year.

***Vaginal Method of Delivery***

The complete separation of an infant from the maternal body via the vaginal canal.

## APPENDIX 2 – BRITISH COLUMBIA PERINATAL DATABASE INFORMATION RESOURCES

Multiple reports can be accessed and various methods can be used to obtain BCPDR data in order to conduct analysis on perinatal processes and outcomes in British Columbia:

- **Hospital Reports** – these are hospital-specific, pre-programmed reports, which can be run at all locations where the database is installed. Other participating sites, where the database is not installed, may obtain their specific hospital reports from the BCPDR central office.
- **Ad hoc Reports** – the database can be used to answer specific requests through user-defined queries. These queries can be developed and run at the hospital installation sites or at the BCPDR central office.
- **BC Facility Comparison Reports** – these reports are created annually and allow the individual facility to compare and benchmark selected maternal and newborn events and outcomes with provincial and similar sized sites.
- **Perinatal Database Reporting Tool** The Perinatal Reporting Tool is an interactive CD, which has been designed to allow health care providers, administrators and data analysts access to summarized data sets extracted from the BC Perinatal Database Registry and is updated yearly. The PRT can be used for analysis of population based and comparative reporting between institutions, Health Authorities and against provincial totals for some of the most common and/or important practices and health outcomes related to perinatal care.
- **Specific Requests for Data** – clients, health care professionals, researchers etc., may request specific data at <<http://www.bcrp.ca>> (See Appendix 9)

## APPENDIX 3 – HEALTH AUTHORITIES, HEALTH SERVICE DELIVERY AREAS AND INSTITUTIONS\*

Health Authority	Health Service Delivery Area	Institution Name
Fraser	Fraser East	Chilliwack General Hospital Fraser Canyon Hospital (Hope) Matsqui-Sumas-Abbotsford General Hospital Mission Memorial Hospital
	Fraser North	Burnaby Hospital Eagle Ridge Hospital & Health Care Centre (Port Moody) Ridge Meadows Hospital & Health Care Centre Royal Columbian Hospital (New Westminster)
	Fraser South	Delta Hospital Langley Memorial Hospital Peace Arch District Hospital (White Rock) Surrey Memorial Hospital
Interior	East Kootenay	Creston Valley Hospital East Kootenay Regional Hospital (Cranbrook) Elk Valley Hospital (Fernie) Golden and District General Hospital Invermere and District Hospital Kimberley and District Hospital Sparwood Health Centre
	Kootenay Boundary	Arrow Lakes Hospital (Nakusp) Boundary Hospital (Grand Forks) Castlegar and District Community Health Centre Kootenay Boundary Regional Hospital (Trail) Kootenay Lake Hospital (Nelson) Slocan Community Health Centre Victorian Community Health Centre of Kaslo
	Okanagan	Enderby & District Memorial Hospital Kelowna General Hospital Penticton Regional Hospital Princeton General Hospital South Okanagan General Hospital (Oliver) Summerland Health Centre Vernon Jubilee Hospital
	Thompson Cariboo Shuswap	100 Mile District General Hospital Ashcroft and District General Hospital Cariboo Memorial Hospital (Williams Lake) Dr. Helmcken Memorial Hospital (Clearwater) Lillooet Hospital and Health Centre Nicola Valley Health Centre (Merritt) Queen Victoria Hospital (Revelstoke) Royal Inland Hospital (Kamloops) Shuswap Lake General Hospital (Salmon Arm) St. Bartholomew's Hospital (Lytton)

Health Authority	Health Service Delivery Area	Institution Name
Northern Health	Northeast	Chetwynd General Hospital Dawson Creek and District Hospital Fort Nelson General Hospital Fort St. John General Hospital
	Northern Interior	G.R. Baker Memorial Hospital (Quesnel) Lakes District Hospital and Health Centre (Burns Lake) MacKenzie and District Hospital McBride and District Hospital Prince George Regional Hospital St. John Hospital (Vanderhoof) Stuart Lake Hospital (Fort St. James)
	Northwest	Bulkley Valley District Hospital (Smithers) Kitimat General Hospital Mills Memorial Hospital (Terrace) Prince Rupert Regional Hospital Queen Charlotte Islands General Hospital (Queen Charlotte City) Stewart General Hospital Wrinch Memorial Hospital (Hazelton)
Vancouver Coastal	Coastal	Bella Coola General Hospital Lions Gate Hospital (North Vancouver) Powell River General Hospital R.W. Large Memorial Hospital (Waglisla) Squamish General Hospital St. Mary's Hospital (Sechelt)
	Richmond	The Richmond Hospital
	Vancouver	Mount Saint Joseph Hospital St. Paul's Hospital Vancouver General Hospital
Vancouver Island	Central Vancouver Island	Cowichan District Hospital (Duncan) Ladysmith and District General Hospital Nanaimo Regional General Hospital Tofino General Hospital West Coast General Hospital (Port Alberni)
	North Vancouver Island	Campbell River and District General Hospital Port Alice Hospital Port Hardy Hospital Port McNeill and District Hospital Cormorant Island Community Health Centre (Alert Bay) St. Joseph's General Hospital (Comox)
	South Vancouver Island	The Lady Minto Gulf Islands Hospital Saanich Peninsula Hospital Victoria General Hospital
PHSA	Provincial Health Services Authority	BC Women's Hospital

\*For a list of the level of services provided at BC hospitals, refer to the BCRCP website at <http://www.rcp.gov.bc.ca>  
Refer to document: BC Deliveries By Maternal Residence & Delivery Hospital Highest Level Of Service

## APPENDIX 4

### Birth Weight and Gestational Age Charts for British Columbia Population for Singleton Males (1981-2000)

Descriptive Statistics for Singleton Males													
Weeks of Gestation	Number of Cases	Lower 95% Conf. Limit	Mean	Upper 95% Conf. Limit	Standard Deviation	Skewness	Percentile Ranks						
							3rd	5th	10th	Median	90th	95th	97th
20	57	383.9	423.12	462.35	147.84	1.97	265	275	290	380	590	800	885
21	81	411.37	478.27	545.17	302.54	7.39	320	340	360	430	550	620	650
22	137	509.98	535.01	560.05	148.18	2.39	360	375	400	520	675	757	800
23	162	584.24	604.34	624.44	129.55	1.44	380	400	460	600	710	800	900
24	231	710.61	735.53	760.44	192.19	2.94	500	520	590	710	870	1,000	1,310
25	237	793.79	812.41	831.02	145.49	1.95	580	600	640	810	937	1,020	1,060
26	313	909.42	933.16	956.9	213.46	1.17	550	620	700	920	1,150	1,295	1,370
27	326	1,035.57	1,061.80	1,088.02	240.67	2.12	630	700	809	1,045	1,300	1,375	1,492
28	457	1,212.63	1,244.87	1,277.11	350.73	2.24	680	780	930	1,200	1,540	1,790	2,009
29	479	1,373.65	1,407.64	1,441.62	378.57	3.52	850	925	1,049	1,380	1,690	1,910	2,100
30	671	1,591.72	1,631.47	1,671.22	524.42	1.97	880	990	1,160	1,550	2,060	2,905	3,260
31	737	1,733.17	1,765.98	1,798.80	453.79	1.98	1,040	1,135	1,300	1,730	2,130	2,380	2,975
32	1,323	1,951.36	1,974.07	1,996.78	421.03	0.93	1,235	1,340	1,520	1,950	2,410	2,669	2,940
33	1,642	2,159.62	2,179.57	2,199.53	412.28	0.78	1,450	1,559	1,700	2,160	2,630	2,880	3,077
34	3,143	2,396.59	2,411.70	2,426.81	431.98	0.58	1,637	1,760	1,900	2,381	2,900	3,160	3,335
35	4,721	2,603.65	2,616.22	2,628.78	440.41	0.44	1,835	1,944	2,116	2,600	3,155	3,375	3,515
36	11,433	2,879.96	2,888.48	2,897.00	464.78	0.36	2,060	2,180	2,340	2,863	3,480	3,690	3,835
37	21,134	3,096.64	3,102.82	3,108.99	457.83	0.2	2,280	2,390	2,560	3,085	3,680	3,870	4,010
38	57,855	3,327.10	3,330.75	3,334.39	447.69	0.21	2,525	2,637	2,790	3,311	3,900	4,090	4,220
39	87,266	3,484.89	3,487.82	3,490.75	441.36	0.2	2,696	2,800	2,948	3,470	4,050	4,231	4,360
40	157,563	3,631.98	3,634.20	3,636.43	450.37	0.19	2,830	2,928	3,080	3,620	4,215	4,400	4,520
41	67,662	3,768.60	3,772.06	3,775.51	458.34	0.15	2,948	3,046	3,201	3,760	4,360	4,540	4,670
42	22,931	3,818.51	3,824.70	3,830.88	477.55	0.1	2,948	3,060	3,232	3,813	4,440	4,621	4,750
43	2,032	3,841.95	3,863.08	3,884.21	485.75	0.12	2,977	3,090	3,260	3,856	4,480	4,677	4,800
44	255	3,747.81	3,812.22	3,876.62	522.26	0.11	2,807	2,948	3,175	3,770	4,550	4,734	4,904

Source: BC Vital Statistics Agency

## APPENDIX 5

## Birth Weight and Gestational Age Charts for British Columbia Population for Singleton Females (1981-2000)

Descriptive Statistics for Singleton Females													
Weeks of Gestation	Number of Cases	Lower 95% Conf. Limit	Mean	Upper 95% Conf. Limit	Standard Deviation	Skewness	Percentile Ranks						
							3rd	5th	10th	Median	90th	95th	97th
20	37	357.88	461.3	564.71	310.17	2.79	200	200	260	380	850	1,500	1,500
21	83	415.74	444.61	473.49	132.25	1.92	280	300	320	420	570	728	810
22	98	478.67	497.56	516.46	94.25	0.29	310	360	400	495	630	670	700
23	139	551.05	567.79	584.53	99.83	0.31	415	440	454	560	700	765	800
24	183	652.76	682.59	712.42	204.52	4.81	410	490	520	655	840	907	975
25	171	767.54	804.52	841.5	244.97	2.82	454	540	600	780	964	1,070	1,389
26	276	873.74	911.11	948.48	315.37	4.5	540	570	685	873	1,100	1,260	1,370
27	278	988.27	1,014.61	1,040.95	223.1	0.63	555	660	740	1,010	1,260	1,370	1,480
28	369	1,168.98	1,215.36	1,261.74	453.08	3.05	705	755	850	1,160	1,500	1,860	2,800
29	353	1,281.94	1,325.32	1,368.70	414.39	2.4	700	770	930	1,295	1,640	1,830	2,320
30	494	1,579.02	1,628.96	1,678.89	564.89	1.87	880	940	1,150	1,520	2,280	3,005	3,340
31	560	1,641.78	1,680.63	1,719.48	468.03	1.91	980	1,083	1,235	1,645	2,046	2,517	2,880
32	1,055	1,862.63	1,890.12	1,917.60	455.02	1.06	1,110	1,247	1,401	1,843	2,381	2,693	2,980
33	1,325	2,087.82	2,111.82	2,135.83	445.38	0.72	1,315	1,440	1,620	2,080	2,600	2,900	3,180
34	2,377	2,308.51	2,326.38	2,344.26	444.53	0.66	1,570	1,670	1,820	2,300	2,852	3,130	3,374
35	3,824	2,527.88	2,541.97	2,556.07	444.59	0.39	1,740	1,885	2,020	2,521	3,090	3,317	3,487
36	9,450	2,782.68	2,792.06	2,801.43	464.9	0.3	1,950	2,075	2,250	2,770	3,400	3,600	3,750
37	18,260	2,988.23	2,994.70	3,001.16	445.44	0.29	2,183	2,305	2,460	2,977	3,550	3,750	3,895
38	51,757	3,206.86	3,210.61	3,214.36	435.07	0.25	2,435	2,530	2,680	3,193	3,770	3,941	4,080
39	82,769	3,351.27	3,354.16	3,357.05	424.44	0.23	2,600	2,695	2,835	3,340	3,900	4,080	4,196
40	155,547	3,483.26	3,485.41	3,487.55	432.38	0.2	2,720	2,807	2,950	3,470	4,040	4,220	4,337
41	66,228	3,606.69	3,610.06	3,613.43	442.37	0.22	2,815	2,920	3,062	3,600	4,180	4,350	4,480
42	21,306	3,652.96	3,659.10	3,665.24	457.18	0.19	2,840	2,940	3,090	3,650	4,245	4,430	4,545
43	1,853	3,681.13	3,703.54	3,725.94	491.73	0.17	2,800	2,892	3,090	3,710	4,330	4,540	4,650
44	153	3,610.57	3,692.87	3,775.17	515.26	0.18	2,736	2,863	3,025	3,660	4,309	4,706	4,763

Source: BC Vital Statistics Agency

## APPENDIX 6

## Live Births, Deaths, Marriages, and Stillbirths – British Columbia, 1950 to 2004

Year	Mid-Year Population	Live Births		Deaths		Marriages		Stillbirths	
		Number	Rate	Number	Rate	Number	Rate	Number	Rate
1950	1,137,000	27,116	23.85	11,581	10.19	11,110	9.77	369	13.43
1951	1,165,210	28,077	24.10	11,638	9.99	11,272	9.67	365	12.83
1952	1,205,000	29,827	24.75	12,080	10.02	11,081	9.20	375	12.42
1953	1,248,000	31,746	25.44	12,218	9.79	11,298	9.05	375	11.67
1954	1,295,000	32,946	25.44	12,414	9.59	10,991	8.49	373	11.19
1955	1,342,000	34,138	25.44	12,816	9.55	11,011	8.20	381	11.04
1956	1,398,464	36,241	25.91	13,415	9.59	11,950	8.55	413	11.27
1957	1,482,000	38,744	26.14	13,711	9.25	12,620	8.52	422	10.77
1958	1,538,000	39,577	25.73	13,741	8.93	12,094	7.86	414	10.35
1959	1,567,000	39,971	25.51	14,336	9.15	11,910	7.60	404	10.01
1960	1,602,000	40,116	25.04	14,696	9.17	11,203	6.99	437	10.78
1961	1,629,100	38,591	23.69	14,403	8.84	10,935	6.71	410	10.51
1962	1,660,000	38,128	22.97	14,912	8.98	11,196	6.74	377	9.79
1963	1,699,000	37,478	22.06	15,029	8.85	11,677	6.87	476	12.54
1964	1,745,000	35,897	20.57	16,051	9.20	12,158	6.97	485	13.33
1965	1,797,000	33,669	18.74	15,784	8.78	13,639	7.59	447	13.10
1966	1,873,674	32,502	17.35	16,290	8.69	14,682	7.84	409	12.43
1967	1,945,000	32,899	16.91	16,170	8.31	16,026	8.24	422	12.66
1968	2,003,000	33,687	16.82	16,828	8.40	16,914	8.44	433	12.69
1969	2,060,000	35,383	17.18	17,377	8.44	18,284	8.88	468	13.05
1970	2,128,000	36,861	17.32	17,020	8.00	20,020	9.41	407	10.92
1971	2,184,620	34,852	15.95	17,783	8.14	20,389	9.33	442	12.52
1972	2,241,400	34,563	15.42	18,021	8.04	20,659	9.22	356	10.20
1973	2,302,400	34,352	14.92	18,095	7.86	21,303	9.25	339	9.77
1974	2,375,700	35,450	14.92	19,177	8.07	21,734	9.15	364	10.16
1975	2,433,200	36,281	14.91	19,151	7.87	21,824	8.97	414	11.28
1976	2,466,610	35,848	14.53	18,788	7.62	21,536	8.73	361	9.97
1977	2,493,800	36,691	14.71	18,021	7.23	21,156	8.48	330	8.91
1978	2,530,100	37,231	14.72	19,057	7.53	21,388	8.45	331	8.81
1979	2,571,200	38,432	14.95	19,204	7.47	22,087	8.59	313	8.08
1980	2,640,100	40,104	15.19	19,371	7.34	23,830	9.03	316	7.82
1981	2,744,470	41,679	15.19	19,857	7.24	24,694	9.00	371	8.82
1982	2,787,700	42,942	15.40	20,704	7.43	23,831	8.55	317	7.33
1983	2,813,800	43,047	15.30	19,895	7.07	23,692	8.42	310	7.15
1984	2,847,700	44,040	15.47	20,781	7.30	23,394	8.22	303	6.83
1985	2,990,000	42,989	14.38	21,131	7.07	22,270	7.45	333	7.69
1986	3,003,601	41,713	13.89	21,007	6.99	21,843	7.27	308	7.33
1987	3,049,618	41,609	13.64	21,619	7.09	23,417	7.68	291	6.95
1988	3,114,765	42,852	13.76	22,357	7.18	24,514	7.87	295	6.84
1989	3,197,222	43,589	13.63	22,786	7.13	25,177	7.87	324	7.38
1990	3,290,814	45,341	13.78	23,415	7.12	25,226	7.67	298	6.53
1991	3,373,464	45,339	13.44	23,819	7.06	23,665	7.02	298	6.53
1992	3,468,445	46,023	13.27	24,463	7.05	23,762	6.85	297	6.41
1993	3,567,406	45,953	12.88	25,602	7.18	23,478	6.58	292	6.31
1994	3,675,699	46,828	12.74	25,830	7.03	23,772	6.47	311	6.60
1995	3,777,004	46,690	12.36	26,224	6.94	23,632	6.26	350	7.44
1996	3,874,276	45,952	11.86	27,390	7.07	22,882	5.91	292	6.31
1997	3,948,544	44,393	11.24	27,258	6.90	21,883	5.54	335	7.49
1998	3,983,077	42,862	10.76	27,806	6.98	21,778	5.47	278	6.44
1999	4,011,342	41,746	10.41	27,864	6.95	21,628	5.39	312	7.42
2000	4,039,198	40,483	10.02	27,314	6.76	22,099	5.47	309	7.58
2001	4,078,447	40,391	9.90	28,232	6.92	20,571	5.04	286	7.03
2002	4,115,413	39,897	9.69	28,709	6.98	21,261	5.17	310	7.71
2003	4,152,289	40,287	9.70	29,138	7.02	21,978	5.29	306	7.54
2004	4,196,383	40,318	9.61	29,652	7.07	22,073	5.26	280	6.90

Source: BC Vital Statistics Agency

Note: Rates shown for live births, deaths and marriages are crude rates per 1,000 population. Stillbirth rate is per 1,000 total births (live births plus stillbirths). The definition of a stillbirth was revised in 1963 and 1986 (see glossary). Population information from BC STATS, Ministry of Management Services. Above information includes late registrations and amendments. Gender unknown included. Non-residents are excluded from all data except marriages.



## Infant Mortality – British Columbia and Canada, 1965 to 2004

Year	British Columbia							Total		Canada
	Age at Death (in Days)									
	0-6 Days		0-27 Days		28-364 Days		N.S.	Number	Rate	
	Number	Rate	Number	Rate	Number	Rate				
1965	415	12.33	453	13.45	227	6.74	3	683	20.29	24.0
1966	435	13.38	494	15.20	263	8.09	4	761	23.41	23.1
1967	429	13.04	470	14.29	218	6.63	1	689	20.94	22.0
1968	375	11.13	438	13.00	214	6.35	4	656	19.47	21.0
1969	329	9.30	374	10.57	199	5.62	–	573	16.19	19.0
1970	369	10.01	416	11.29	193	5.24	2	611	16.58	19.0
1971	409	11.74	450	12.91	185	5.31	–	635	18.22	17.5
1972	322	9.32	373	10.79	195	5.64	1	569	16.46	17.0
1973	317	9.23	363	10.57	185	5.39	3	551	16.04	16.0
1974	310	8.74	348	9.82	196	5.53	2	546	15.40	15.0
1975	278	7.66	321	8.85	169	4.66	1	491	13.53	14.3
1976	292	8.15	324	9.04	152	4.24	2	478	13.33	13.5
1977	246	6.70	276	7.52	200	5.45	–	476	12.97	12.4
1978	245	6.58	286	7.68	178	4.78	–	464	12.46	12.0
1979	196	5.10	239	6.22	167	4.35	–	406	10.56	10.9
1980	188	4.69	235	5.86	186	4.64	–	421	10.50	10.4
1981	232	5.57	259	6.21	140	3.36	3	402	9.65	9.6
1982	217	5.05	251	5.85	150	3.49	–	401	9.34	9.1
1983	193	4.48	212	4.92	145	3.37	2	359	8.34	8.5
1984	184	4.18	205	4.65	150	3.41	1	356	8.08	8.1
1985	180	4.19	198	4.61	133	3.09	–	331	7.70	8.0
1986	164	3.93	195	4.67	147	3.52	–	342	8.20	7.9
1987	159	3.82	195	4.69	160	3.85	–	355	8.53	7.3
1988	191	4.46	220	5.13	136	3.17	–	356	8.31	7.2
1989	186	4.27	215	4.93	138	3.17	–	353	8.10	7.3
1990	183	4.04	221	4.87	112	2.47	–	333	7.34	6.8
1991	140	3.09	164	3.62	126	2.78	–	290	6.40	6.4
1992	153	3.32	173	3.76	104	2.26	–	277	6.02	6.1
1993	121	2.63	139	3.02	110	2.39	–	249	5.42	6.3
1994	175	3.74	198	4.23	90	1.92	–	288	6.15	6.3
1995	158	3.38	181	3.88	94	2.01	–	275	5.89	6.1
1996	133	2.89	160	3.48	68	1.48	–	228	4.96	5.6
1997	125	2.82	146	3.29	56	1.26	–	202	4.55	5.5
1998	94	2.19	114	2.66	60	1.40	–	174	4.06	5.3
1999	87	2.08	108	2.59	51	1.22	–	159	3.81	5.3
2000	84	2.07	105	2.59	45	1.11	–	150	3.71	5.3
2001	103	2.55	126	3.12	36	0.89	–	162	4.01	5.2
2002	98	2.46	125	3.13	54	1.35	–	179	4.49	5.4
2003	103	2.56	119	2.95	47	1.17	–	166	4.12	*
2004	108	2.68	122	3.03	46	1.14	–	168	4.17	*

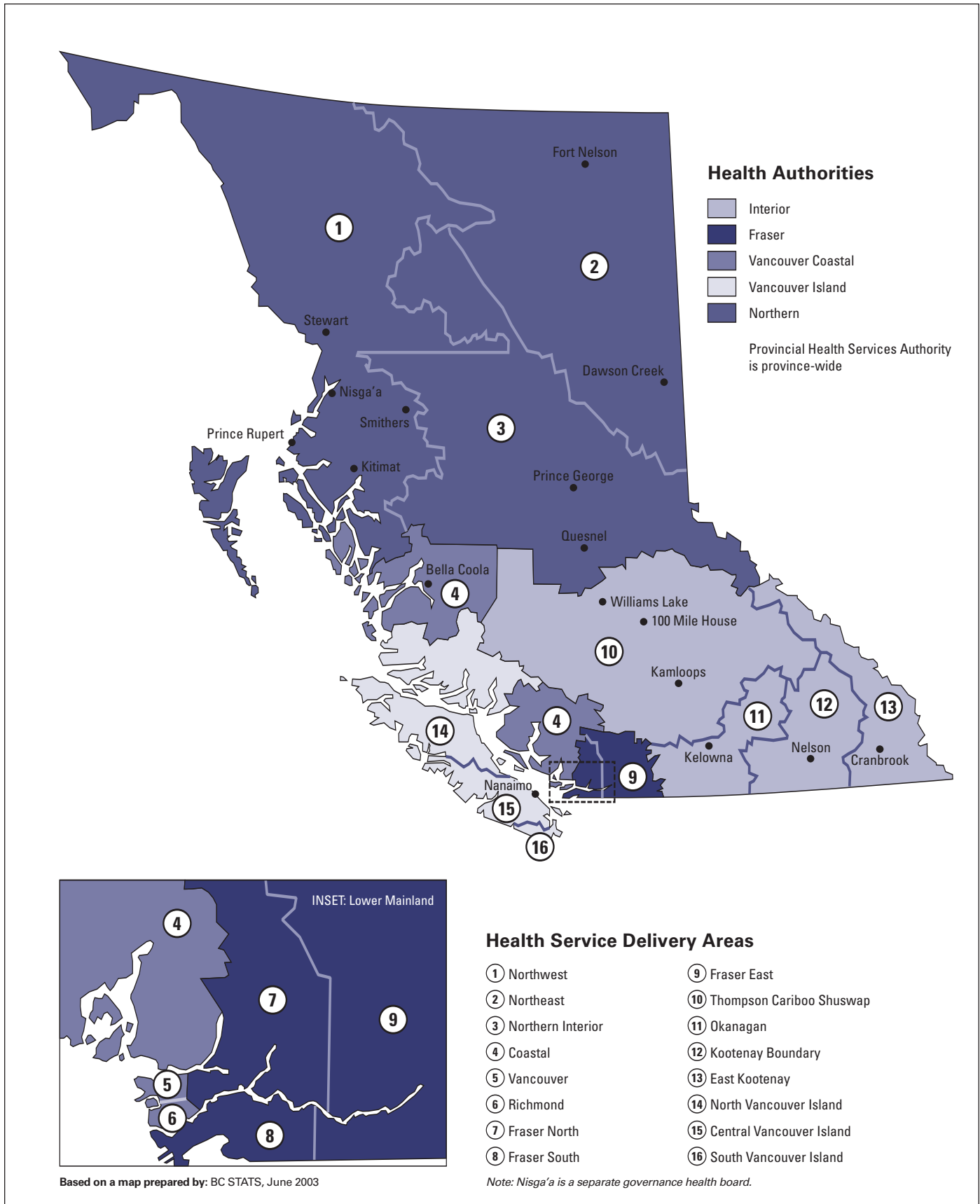
Source: BC Vital Statistics Agency

Note: Rates per 1,000 live births in the specified year.

N.S. – Not stated. Above information includes late registrations and amendments.

Canadian rates from Statistics Canada. \*Rates were not available. Non-residents are excluded.

# APPENDIX 7 – HEALTH AUTHORITIES AND HEALTH SERVICE DELIVERY AREAS



## APPENDIX 8 – OTHER RELEVANT SOURCES OF INFORMATION

Below is a list of sources and web sites where other relevant information on perinatal health information and statistics at the provincial, national and international level can be located.

### **Provincial**

Alberta Perinatal Health Program:

<http://www.aphp.ca/>

BC Ministry of Health Services:

[www.gov.bc.ca](http://www.gov.bc.ca)

BC Vital Statistics Agency:

<http://www.vs.gov.bc.ca/stats>

Niday Perinatal Database (Eastern Ontario):

<http://www.pppeso.on.ca/>

Office of the Provincial Health Officer:

<http://www.healthservices.gov.bc.ca/pho/>

PEI Reproductive Care Perinatal Database Report

*InfoPEI: PEI Reproductive Care Program*

Healthideas Summary Report

<http://www.healthideas.hnet.bc.ca>

Reproductive Care Program of Nova Scotia:

[http://rcp.nshealth.ca/rcp\\_3029.html](http://rcp.nshealth.ca/rcp_3029.html)

The Northern & Central Alberta Perinatal Outreach Program:

<http://www.aphp.ca/>

### **National**

Breastfeeding Committee of Canada:

<http://www.breastfeedingcanada.ca/>

Canadian Institute for Health Information:

<http://www.cihi.ca/>

Canadian Institute of Child Health:

<http://www.cich.ca>

Canadian Paediatric Society:

<http://www.cps.ca/english/>

Canadian Perinatal Surveillance System:

<http://www.phac-aspc.gc.ca/rhs-ssg/>

Canadian Public Health Association:

<http://www.cpha.ca/>

Canadian Women's Health Network:

<http://www.cwhn.ca>

Health Canada:

<http://www.hc-sc.gc.ca/>

Public Health Agency of Canada:

[http://www.phac-aspc.gc.ca/new\\_e.html](http://www.phac-aspc.gc.ca/new_e.html)

Statistics Canada:

<http://www.statcan.gc.ca/>

The Society of Obstetricians and Gynaecologists of Canada:

[http://sogc.medical.org/index\\_e.asp](http://sogc.medical.org/index_e.asp)

Vital Statistics (Can):

<http://www.statcan.ca/>

### **International**

American Academy of Pediatrics:

<http://www.aap.org/>

Association of Women's Health, Obstetric and Neonatal Nurses (AWHONN):

<http://www.awhonn.org/>

Medline Plus – Health Information:

<http://www.medlineplus.gov/>

National Institute of Child Health & Human Development (US):

<http://www.nichd.nih.gov/>

National Perinatal Association (US):

<http://www.nationalperinatal.org/>

National Perinatal Epidemiology Unit (NPEU):

<http://www.npeu.ox.ac.uk>

The Academy of Breastfeeding Medicine:

<http://www.bfmed.org/>

The Cochrane Library:

<http://www.nelh.nhs.uk/cochrane.asp>

Vermont Oxford Network:

<http://www.vtoxford.org>

World Health Organization (WHO):

<http://www.who.int>

National Centre for Health Statistics (NCHS) Data 2010...  
the Healthy People 2010 Database:

<http://www.cdc.gov/nchs>

## APPENDIX 9 – BRITISH COLUMBIA PERINATAL DATABASE REGISTRY INFORMATION REQUEST FORM

Fields marked with \* are required

### Requester Information

Request#:

* Name:	<input type="text"/>	
* Profession:	--- Please Select --- <input type="button" value="v"/>	<input type="text"/>
* Health Authority:	--- Please Select --- <input type="button" value="v"/>	<input type="text"/>
Organization:	<input type="text"/>	
Address:	<input type="text"/>	
* Telephone #:	<input type="text"/> - <input type="text"/> - <input type="text"/> Local <input type="text"/>	Fax #: <input type="text"/> - <input type="text"/> - <input type="text"/>
* Email Address:	<input type="text"/>	

### Data Request

* Purpose: (Briefly describe the purpose for which the data is being requested. How will this information be used?)	
<input type="text"/>	
* Data: (Describe the data requirements. Include fields, selection requirements, exclusion criteria as required. A list of data fields is available at the BCRCP website)	
<input type="text"/>	
* Time Period:	From: <input type="text"/> Day <input type="button" value="v"/> - <input type="text"/> Month <input type="button" value="v"/> - <input type="text"/> Year <input type="button" value="v"/> To: <input type="text"/> Day <input type="button" value="v"/> - <input type="text"/> Month <input type="button" value="v"/> - <input type="text"/> Year <input type="button" value="v"/>
* Frequency of data request:	
<input checked="" type="radio"/> One time Only <input type="radio"/> Annually <input type="radio"/> Other <input type="text"/>	
* Date required by:	<input type="text"/> Day <input type="button" value="v"/> - <input type="text"/> Month <input type="button" value="v"/> - <input type="text"/> Year <input type="button" value="v"/>
* Format of output:	-- Please Select -- <input type="button" value="v"/> <input type="text"/>
Special Instructions:	
<input type="text"/>	

Submit

Clear All

Cancel

The website for the BC Perinatal Database Registry Information For Request form is <http://www.bcrpc.ca/>

APPENDIX 10 -  
DATA TABLES

DATA TABLE 4A

Care Provider Delivering Baby by Place of Delivery for Health Service Delivery Areas,  
Health Authorities and Province, 2001/2002, 2002/2003, 2003/2004, 2004/2005, 2005/2006

HA	2001/2002						2002/2003						2003/2004						2004/2005						2005/2006					
	Obstetrician		Family Physician		Midwife		Obstetrician		Family Physician		Midwife		Obstetrician		Family Physician		Midwife		Obstetrician		Family Physician		Midwife		Obstetrician		Family Physician		Midwife	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
FHA	747	29.7	1620	64.5	26	1.0	809	31.3	1595	61.7	32	1.2	881	33.5	1575	60.0	57	2.2	891	34.3	1490	57.4	76	2.9	825	32.2	1510	58.8	90	3.5
FE	2211	44.0	2481	49.4	131	2.6	2260	46.6	2286	47.2	134	2.8	2293	48.5	2137	45.2	136	2.9	2314	49.1	2114	44.9	123	2.6	2281	48.3	2114	44.7	124	2.6
FN	3600	65.7	1391	25.4	86	1.6	3631	64.3	1556	27.6	88	1.6	3771	66.5	1453	25.6	94	1.7	3749	65.0	1630	28.3	104	1.8	3386	61.2	1721	31.1	123	2.2
FS	6558	50.4	5492	42.2	243	1.9	6700	51.2	5437	41.6	254	1.9	6945	53.3	5165	39.7	287	2.2	6954	53.2	5234	40.0	303	2.3	6492	50.6	5345	41.7	337	2.6
Total	91	16.0	405	71.1	11	1.9	95	15.5	445	72.5	14	2.3	135	22.7	385	64.6	33	5.5	189	30.9	320	52.4	55	9.0	162	26.0	346	55.6	66	10.6
IHA	158	30.0	323	61.4	29	5.5	190	36.9	277	53.8	35	6.8	110	22.7	331	68.2	37	7.6	111	21.3	346	66.3	62	11.9	134	25.0	340	63.6	55	10.3
KB	985	38.9	1455	57.4	15	0.6	947	39.6	1353	56.5	26	1.1	1007	41.8	1308	54.3	46	1.9	1031	42.2	1287	52.6	54	2.2	1067	42.3	1380	54.7	34	1.3
OK	498	27.4	1214	66.9	0	0.0	471	27.0	1155	66.3	0	0.0	609	34.1	1046	58.6	2	0.1	621	33.8	1053	57.4	0	0.0	598	33.2	1040	57.7	6	0.3
TCS	1732	31.8	3397	62.4	55	1.0	1703	32.3	3230	61.3	75	1.4	1861	35.3	3070	58.2	118	2.2	1952	36.1	3006	55.5	171	3.2	1961	35.8	3106	56.7	161	2.9
Total	139	16.2	688	80.2	0	0.0	173	19.4	699	78.5	0	0.0	91	10.6	726	84.2	0	0.0	60	6.8	801	90.2	1	0.1	94	10.7	754	86.1	0	0.0
NHA	398	26.2	996	65.6	19	1.3	362	25.0	989	68.3	32	2.2	383	26.1	966	65.8	39	2.7	387	26.6	995	68.3	34	2.3	390	24.9	1079	68.8	58	3.7
NI	232	24.7	663	70.5	0	0.0	287	30.5	618	65.7	0	0.0	269	30.0	590	65.8	0	0.0	309	35.6	541	62.3	2	0.2	317	38.8	466	57.0	1	0.1
NW	769	23.2	2347	70.8	19	0.6	822	25.1	2306	70.3	32	1.0	743	23.0	2282	70.7	39	1.2	756	23.5	2337	72.7	37	1.2	801	24.6	2299	70.5	59	1.8
Total	649	35.4	1020	55.7	57	3.1	658	34.3	1096	57.1	57	3.0	664	34.7	1042	54.5	102	5.3	631	34.0	1040	56.0	90	4.8	616	35.1	934	53.2	101	5.7
VCHA	798	55.3	589	40.8	1	0.1	696	51.8	588	43.8	1	0.1	655	56.9	453	39.3	0	0.0	654	57.1	433	37.8	3	0.3	683	59.5	383	33.4	11	1.0
RICH	1198	69.2	434	25.1	79	4.6	1179	71.0	381	23.0	73	4.4	1235	72.9	337	19.9	109	6.4	1205	71.1	355	20.9	118	7.0	1187	71.0	358	21.4	113	6.8
VANC	2645	52.8	2043	40.8	137	2.7	2533	51.5	2065	41.9	131	2.7	2554	53.7	1832	38.5	211	4.4	2490	53.0	1828	38.9	211	4.5	2486	54.3	1675	36.6	225	4.9
Total	1021	56.8	676	37.6	38	2.1	946	55.4	652	38.2	61	3.6	1029	58.9	592	33.9	64	3.7	993	55.5	635	35.5	117	6.5	1017	55.2	651	35.3	121	6.6
VIHA	459	47.8	408	42.5	77	8.0	424	45.5	395	42.4	94	10.1	458	51.5	320	36.0	94	10.6	534	58.2	277	30.2	90	9.8	469	51.4	313	34.3	118	12.9
NVI	956	34.6	1533	55.5	214	7.8	1025	37.8	1460	53.8	178	6.6	1049	37.2	1480	52.5	232	8.2	1128	40.9	1327	48.2	250	9.1	1175	41.6	1351	47.9	253	9.0
SVI	2436	44.2	2617	47.4	329	6.0	2395	44.7	2507	46.8	333	6.2	2536	46.5	2392	43.9	390	7.2	2655	48.6	2239	41.0	457	8.4	2661	47.7	2315	41.5	492	8.8
Total	4640	71.2	1612	24.7	103	1.6	4710	69.7	1798	26.6	130	1.9	4943	71.2	1738	25.0	150	2.2	4925	70.9	1730	24.9	163	2.3	5175	70.4	1789	24.3	282	3.8
PHSA*	0	0.0	0	0.0	467	98.9	0	0.0	0	0.0	489	99.2	0	0.0	0	0.0	511	99.2	0	0.0	0	0.0	578	96.5	0	0.0	0	0.0	592	96.9
HB	18780	47.8	17508	44.6	1353	3.4	18863	48.2	17343	44.3	1444	3.7	19582	50.0	16479	42.0	1706	4.4	19732	50.1	16374	41.6	1920	4.9	19576	49.3	16529	41.6	2148	5.4
Province																														

\*PHSA: Refers to BC Women's Hospital patients only  
 Note: Please refer to back flap for legend of the Health Authorities and Health Service Delivery Areas  
 Detailed data tables are available in the Annual Report 2006 section of the BCRCP website ([www.rcp.gov.bc.ca](http://www.rcp.gov.bc.ca))

APPENDIX 10 –  
DATA TABLES (CONT'D)

DATA TABLE 5A

Teen Births by Place of Residence for Health Service Delivery Areas, Health Authorities and Province,  
2001/2002, 2002/2003, 2003/2004, 2004/2005, 2005/2006

	2001/2002			2002/2003			2003/2004			2004/2005			2005/2006																		
	<= 17	18-19	Total Teen Mothers	<= 17	18-19	Total Teen Mothers	<= 17	18-19	Total Teen Mothers	<= 17	18-19	Total Teen Mothers	<= 17	18-19	Total Teen Mothers																
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%															
HA	58	2.0	119	4.2	177	6.2	50	1.7	109	3.7	159	5.4	46	1.5	94	3.2	140	4.7	57	1.9	99	3.3	156	5.2	45	1.5	82	2.8	127	4.3	
FHA	43	0.8	109	2.0	152	2.8	28	0.5	89	1.6	117	2.2	25	0.5	98	1.8	123	2.3	28	0.5	72	1.3	100	1.8	30	0.6	57	1.1	87	1.6	
FN	66	1.0	136	2.0	202	3.0	58	0.8	138	2.0	196	2.9	47	0.7	129	1.9	176	2.6	39	0.6	113	1.6	152	2.2	39	0.6	112	1.6	151	2.2	
FS	167	1.1	364	2.4	531	3.6	136	0.9	336	2.2	472	3.1	118	0.8	321	2.1	439	2.9	124	0.8	284	1.9	408	2.7	114	0.8	251	1.7	365	2.4	
Total	22	3.6	41	6.8	63	10.4	9	1.4	39	6.0	48	7.4	9	1.5	32	5.2	41	6.7	14	2.2	32	5.1	46	7.3	4	0.6	29	4.6	33	5.2	
IHA	8	1.4	15	2.5	23	3.9	7	1.3	17	3.0	24	4.3	4	0.7	11	2.0	15	2.8	4	0.7	16	2.8	20	3.5	5	0.8	18	3.0	23	3.9	
KB	31	1.2	90	3.6	121	4.8	43	1.8	67	2.8	110	4.6	29	1.2	85	3.6	114	4.8	32	1.3	85	3.4	117	4.7	43	1.7	68	2.7	111	4.4	
OK	40	2.2	89	5.0	129	7.2	43	2.5	90	5.2	133	7.7	28	1.6	70	4.0	98	5.5	39	2.2	74	4.1	113	6.2	29	1.6	84	4.6	113	6.2	
TCS	101	1.8	235	4.3	336	6.1	102	1.9	213	4.0	315	5.9	70	1.3	198	3.7	268	5.0	89	1.6	207	3.8	250	4.6	81	1.5	199	3.6	247	4.4	
Total	19	2.3	48	5.7	67	7.9	17	2.0	47	5.5	64	7.4	27	3.1	56	6.5	83	9.7	23	2.6	36	4.1	59	6.7	17	2.0	50	5.7	67	7.7	
NHA	39	2.5	89	5.7	128	8.2	44	2.9	72	4.8	116	7.8	32	2.1	75	4.9	107	7.1	36	2.4	78	5.2	114	7.6	21	1.3	66	4.2	87	5.5	
NI	42	4.3	69	7.0	111	11.3	36	3.7	62	6.3	98	9.9	27	3.0	61	6.7	88	9.6	38	4.3	58	6.5	96	10.8	29	3.4	55	6.4	84	9.8	
NW	100	3.0	206	6.1	306	9.0	97	2.9	181	5.4	278	8.3	86	2.6	192	5.8	278	8.5	97	3.0	172	5.3	269	8.2	67	2.0	171	5.2	238	7.2	
Total	24	1.1	35	1.6	59	2.7	26	1.1	42	1.9	68	3.0	16	0.7	42	1.8	58	2.5	15	0.7	43	1.9	58	2.6	16	0.7	40	1.9	56	2.6	
VCHA	5	0.3	18	1.2	23	1.5	4	0.3	14	0.9	18	1.2	6	0.4	8	0.6	14	1.0	2	0.1	16	1.1	18	1.2	5	0.3	10	0.7	15	1.0	
RICH	37	0.7	71	1.3	108	1.9	28	0.5	58	1.0	86	1.5	22	0.4	53	0.9	75	1.3	30	0.5	45	0.8	75	1.3	25	0.4	51	0.9	76	1.3	
VANC	66	0.7	124	1.3	190	2.0	58	0.6	114	1.2	172	1.8	44	0.5	103	1.1	147	1.6	47	0.5	104	1.1	151	1.6	46	0.5	101	1.1	147	1.5	
Total	62	3.2	115	5.9	177	9.1	43	2.3	106	5.6	149	7.9	40	2.1	81	4.3	121	6.4	53	2.8	75	3.9	128	6.6	36	1.8	94	4.6	130	6.4	
VIHA	29	2.9	59	5.9	88	8.8	26	2.6	51	5.1	77	7.7	27	2.9	52	5.6	79	8.5	29	3.0	61	6.3	90	9.3	35	3.7	32	3.4	67	7.1	
NVI	29	1.1	75	2.8	104	3.9	28	1.1	69	2.6	97	3.7	32	1.2	64	2.3	96	3.5	26	0.9	62	2.3	88	3.2	27	1.0	69	2.5	96	3.4	
SVI	120	2.1	249	4.4	369	6.6	97	1.8	226	4.1	323	5.9	99	1.8	197	3.5	296	5.3	108	1.9	198	3.5	306	5.4	98	1.7	195	3.4	293	5.1	
Total	5	1.6	10	3.3	15	4.9	3	1.3	7	3.0	10	4.2	2	0.9	3	1.4	5	2.3	4	1.8	10	4.4	14	6.2	1	0.5	7	3.8	8	4.3	
BC UNSPEC	3	1.7	9	5.1	12	6.9	3	1.8	11	6.5	14	8.3	2	1.2	4	2.4	6	3.6	0	0.0	7	5.4	7	5.4	1	0.7	4	2.7	5	3.4	
NON RES	562	1.4	1197	3.0	1759	4.5	496	1.3	1088	2.8	1584	4.0	421	1.1	1018	2.6	1439	3.7	469	1.2	982	2.5	1405	3.6	408	1.0	928	2.3	1303	3.3	
Province																															

Note: Please refer to back flap for legend of the Health Authorities and Health Service Delivery Areas  
Detailed data tables are available in the Annual Report 2006 section of the BCRCP website ([www.rcp.gov.bc.ca](http://www.rcp.gov.bc.ca))

## DATA TABLE 6A

**Maternal Smoking During Pregnancy by Place of Residence for Health Service Delivery Areas, Health Authorities and Province, 2001/2002, 2002/2003, 2003/2004, 2004/2005, 2005/2006**

HA	HSDA	2001/2002			2002/2003			2003/2004			2004/2005			2005/2006							
		#	%	No	#	%	No	#	%	No	#	%	No	#	%	No					
FHA	FE	452	15.9	2397	84.1	451	15.4	2478	84.6	419	14.0	2564	86.0	452	15.1	2541	84.9	386	13.0	2577	87.0
	FN	540	9.9	4899	90.1	432	7.9	5009	92.1	423	7.8	5032	92.2	410	7.6	4996	92.4	313	5.9	5034	94.1
	FS	666	10.0	5995	90.0	669	9.8	6171	90.2	586	8.6	6192	91.4	611	8.8	6332	91.2	556	8.1	6328	91.9
<b>Total</b>		<b>1658</b>	<b>11.1</b>	<b>13291</b>	<b>88.9</b>	<b>1552</b>	<b>10.2</b>	<b>13658</b>	<b>89.8</b>	<b>1428</b>	<b>9.4</b>	<b>13788</b>	<b>90.6</b>	<b>1473</b>	<b>9.6</b>	<b>13869</b>	<b>90.4</b>	<b>1255</b>	<b>8.3</b>	<b>13939</b>	<b>91.7</b>
IHA	EK	124	20.5	481	79.5	141	21.8	505	78.2	104	17.0	506	83.0	121	19.3	506	80.7	103	16.2	533	83.8
	KB	117	19.8	475	80.2	73	13.1	485	86.9	80	14.7	464	85.3	91	15.9	483	84.1	95	16.0	498	84.0
	OK	376	15.0	2130	85.0	394	16.5	1995	83.5	348	14.6	2039	85.4	383	15.5	2082	84.5	339	13.5	2177	86.5
	TCS	360	20.0	1437	80.0	373	21.5	1361	78.5	319	18.0	1451	82.0	314	17.3	1499	82.7	340	18.8	1471	81.2
<b>Total</b>		<b>977</b>	<b>17.8</b>	<b>4523</b>	<b>82.2</b>	<b>981</b>	<b>18.4</b>	<b>4346</b>	<b>81.6</b>	<b>851</b>	<b>16.0</b>	<b>4460</b>	<b>84.0</b>	<b>909</b>	<b>16.6</b>	<b>4570</b>	<b>83.4</b>	<b>877</b>	<b>15.8</b>	<b>4679</b>	<b>84.2</b>
NHA	NE	194	23.0	650	77.0	167	19.4	695	80.6	180	21.0	679	79.0	168	19.0	715	81.0	173	19.9	698	80.1
	NI	293	18.8	1267	81.2	283	19.0	1209	81.0	304	20.1	1212	79.9	299	20.1	1192	79.9	306	19.4	1268	80.6
	NW	173	17.6	810	82.4	167	16.9	819	83.1	162	17.7	752	82.3	137	15.4	753	84.6	117	13.6	741	86.4
<b>Total</b>		<b>660</b>	<b>19.5</b>	<b>2727</b>	<b>80.5</b>	<b>617</b>	<b>18.5</b>	<b>2723</b>	<b>81.5</b>	<b>646</b>	<b>19.6</b>	<b>2643</b>	<b>80.4</b>	<b>604</b>	<b>18.5</b>	<b>2660</b>	<b>81.5</b>	<b>596</b>	<b>18.0</b>	<b>2707</b>	<b>82.0</b>
VCHA	CST	150	6.8	2040	93.2	177	7.8	2084	92.2	138	6.0	2151	94.0	147	6.5	2103	93.5	146	6.8	2010	93.2
	RICH	69	4.5	1466	95.5	64	4.3	1425	95.7	57	4.0	1367	96.0	32	2.1	1491	97.9	50	3.3	1455	96.7
	VANC	267	4.8	5342	95.2	250	4.5	5362	95.5	229	4.0	5448	96.0	223	4.0	5337	96.0	220	3.7	5653	96.3
<b>Total</b>		<b>486</b>	<b>5.2</b>	<b>8848</b>	<b>94.8</b>	<b>491</b>	<b>5.2</b>	<b>8871</b>	<b>94.8</b>	<b>424</b>	<b>4.5</b>	<b>8966</b>	<b>95.5</b>	<b>402</b>	<b>4.3</b>	<b>8931</b>	<b>95.7</b>	<b>416</b>	<b>4.4</b>	<b>9118</b>	<b>95.6</b>
VIHA	CVI	386	19.8	1562	80.2	324	17.2	1556	82.8	304	16.1	1589	83.9	326	16.9	1601	83.1	341	16.7	1703	83.3
	NVI	202	20.3	794	79.7	159	15.9	840	84.1	157	16.9	773	83.1	152	15.7	814	84.3	167	17.8	771	82.2
	SVI	407	15.1	2280	84.9	372	14.2	2255	85.8	398	14.3	2384	85.7	417	15.2	2325	84.8	415	14.9	2368	85.1
<b>Total</b>		<b>995</b>	<b>17.7</b>	<b>4636</b>	<b>82.3</b>	<b>855</b>	<b>15.5</b>	<b>4651</b>	<b>84.5</b>	<b>859</b>	<b>15.3</b>	<b>4746</b>	<b>84.7</b>	<b>895</b>	<b>15.9</b>	<b>4740</b>	<b>84.1</b>	<b>923</b>	<b>16.0</b>	<b>4842</b>	<b>84.0</b>
BC UNSPEC		39	12.7	268	87.3	27	11.4	209	88.6	31	14.0	191	86.0	40	17.8	185	82.2	28	15.2	156	84.8
NON RES		28	16.0	147	84.0	22	13.0	147	87.0	19	11.2	150	88.8	21	16.3	108	83.7	23	15.5	125	84.5
Province		4843	12.3	34440	87.7	4545	11.6	34605	88.4	4258	10.9	34944	89.1	4344	11.0	35063	89.0	4118	10.4	35566	89.6

Note: Please refer to back flap for legend of the Health Authorities and Health Service Delivery Areas

Detailed data tables are available in the Annual Report 2006 section of the BCRCP website ([www.rhcp.gov.bc.ca](http://www.rhcp.gov.bc.ca))





## DATA TABLE 8A

**Induction of Labour by Place of Delivery for Health Service Delivery Areas, Health Authorities and Province,  
2001/2002, 2002/2003, 2003/2004, 2004/2005, 2005/2006**

HA	2001/2002			2002/2003			2003/2004			2004/2005			2005/2006		
	#	%	No	#	%	No	#	%	No	#	%	No	#	%	No
FHA	623	24.8	1890	632	24.5	1951	629	23.9	1998	604	23.3	1992	572	22.3	1994
FE	1266	25.2	3757	1131	23.3	3715	1210	25.6	3518	1083	23.0	3630	1162	24.6	3564
FN	1387	25.3	4089	1369	24.2	4278	1312	23.1	4358	1238	21.5	4531	1291	23.3	4243
FS	3276	25.2	9736	3132	24.0	9944	3151	24.2	9874	2925	22.4	10153	3025	23.6	9801
<b>Total</b>															
IHA	147	25.8	423	124	20.2	490	114	19.1	482	114	18.7	497	135	21.7	487
EK	132	25.1	394	130	25.2	385	121	24.9	364	125	23.9	397	117	21.9	418
KB	632	24.9	1902	572	23.9	1822	626	26.0	1785	577	23.6	1869	519	20.6	2005
OK	361	19.9	1455	345	19.8	1398	367	20.5	1419	344	18.7	1491	375	20.8	1426
TCS	1272	23.4	4174	1171	22.2	4095	1228	23.3	4050	1160	21.4	4254	1146	20.9	4336
<b>Total</b>															
NHA	208	24.2	650	186	20.9	704	204	23.7	658	163	18.4	725	170	19.4	706
NE	287	18.9	1232	273	18.9	1196	272	18.5	1196	248	17.0	1209	263	16.8	1305
NI	189	20.1	751	224	23.8	1174	175	19.5	721	177	20.4	692	186	22.8	631
NW	684	20.6	2633	683	20.8	2595	651	20.2	2575	588	18.3	2626	619	19.0	2642
<b>Total</b>															
VCHA	370	20.2	1462	398	20.7	1522	338	17.7	1573	325	17.5	1531	338	19.2	1419
CST	298	20.7	1144	230	17.1	1113	218	18.9	934	208	18.2	937	227	19.8	920
RICH	373	21.5	1358	359	21.6	1301	315	18.6	1379	303	17.9	1392	342	20.5	1330
VANC	1041	20.8	3964	987	20.0	3936	871	18.3	3886	836	17.8	3860	907	19.8	3669
<b>Total</b>															
VIHA	442	24.6	1354	393	23.0	1314	410	23.5	1337	393	22.0	1395	437	23.7	1407
CVI	196	20.4	765	156	16.7	776	180	20.2	710	193	21.0	724	197	21.6	716
NVI	773	28.0	1987	746	27.5	1968	670	23.8	2147	635	23.0	2120	654	23.2	2168
SVI	1411	25.6	4106	1295	24.2	4058	1260	23.1	4194	1221	22.4	4239	1288	23.1	4291
<b>Total</b>															
PHSA*	1154	17.7	5360	1150	17.0	5611	1147	16.5	5800	1153	16.6	5793	1314	17.9	6035
HB	8	1.7	464	16	3.2	477	17	3.3	498	10	1.7	589	15	2.5	596
Province	8846	22.5	30437	8434	21.5	30716	8325	21.2	30877	7893	20.0	31514	8314	21.0	31370

\*PHSA: Refers to BC Women's Hospital patients only

Note: Please refer to back flap for legend of the Health Authorities and Health Service Delivery Areas

Detailed data tables are available in the Annual Report 2006 section of the BCRCP website ([www.rcp.gov.bc.ca](http://www.rcp.gov.bc.ca))

APPENDIX 10 –  
DATA TABLES (CONT'D)

DATA TABLE 9A

Fetal Surveillance During Labour by Place of Delivery for Health Service Delivery Areas,  
Health Authorities and Province, 2004/2005, 2005/2006

HA	HSDA	2004/2005												2005/2006											
		EFM & Intermittent Auscultation			EFM Only			Intermittent Auscultation Only			Not Monitored			Moms Labourled			NA			Total Moms					
		#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%		
FHA	FE	1044	46.2	578	25.6	512	22.6	127	5.6	2261	100.0	335	2596	1082	48.0	454	20.2	609	27.0	108	4.8	2253	100.0	313	2566
	FN	1721	41.7	1859	45.0	357	8.6	193	4.7	4130	100.0	583	4713	1711	41.5	1678	40.7	493	12.0	241	5.8	4123	100.0	603	4726
	FS	2146	43.1	1492	29.9	1035	20.8	309	6.2	4982	100.0	787	5769	2096	44.2	1268	26.8	1070	22.6	303	6.4	4737	100.0	797	5534
<b>Total</b>		<b>4911</b>	<b>43.2</b>	<b>3929</b>	<b>34.5</b>	<b>1904</b>	<b>16.7</b>	<b>629</b>	<b>5.5</b>	<b>11373</b>	<b>100.0</b>	<b>1705</b>	<b>13078</b>	<b>4889</b>	<b>44.0</b>	<b>3400</b>	<b>30.6</b>	<b>2172</b>	<b>19.5</b>	<b>652</b>	<b>5.9</b>	<b>11113</b>	<b>100.0</b>	<b>1713</b>	<b>12826</b>
IHA	EK	176	33.7	178	34.1	140	26.8	28	5.4	522	100.0	89	611	149	28.7	169	32.6	180	34.7	21	4.0	519	100.0	103	622
	KB	43	9.1	252	53.5	71	15.1	105	22.3	471	100.0	51	522	114	23.7	173	36.0	130	27.0	64	13.3	481	100.0	54	535
	OK	893	42.0	944	44.4	181	8.5	107	5.0	2125	100.0	321	2446	1019	46.9	864	39.7	211	9.7	81	3.7	2175	100.0	349	2524
	TCS	921	57.8	307	19.3	180	11.3	186	11.7	1594	100.0	241	1835	888	57.4	280	18.1	170	11.0	209	13.5	1547	100.0	254	1801
<b>Total</b>		<b>2033</b>	<b>43.1</b>	<b>1681</b>	<b>35.7</b>	<b>572</b>	<b>12.1</b>	<b>426</b>	<b>9.0</b>	<b>4712</b>	<b>100.0</b>	<b>702</b>	<b>5414</b>	<b>2170</b>	<b>46.0</b>	<b>1486</b>	<b>31.5</b>	<b>691</b>	<b>14.6</b>	<b>375</b>	<b>7.9</b>	<b>4722</b>	<b>100.0</b>	<b>760</b>	<b>5482</b>
NHA	NE	365	46.2	344	43.5	47	5.9	34	4.3	790	100.0	98	888	163	21.2	548	71.2	25	3.2	34	4.4	770	100.0	106	876
	NI	352	27.5	726	56.8	116	9.1	84	6.6	1278	100.0	179	1457	391	28.6	705	51.6	178	13.0	92	6.7	1386	100.0	202	1568
	NW	278	36.4	320	41.9	132	17.3	33	4.3	763	100.0	106	869	317	43.9	239	33.1	136	18.8	30	4.2	722	100.0	95	817
<b>Total</b>		<b>995</b>	<b>35.1</b>	<b>1390</b>	<b>49.1</b>	<b>295</b>	<b>10.4</b>	<b>151</b>	<b>5.3</b>	<b>2831</b>	<b>100.0</b>	<b>383</b>	<b>3214</b>	<b>871</b>	<b>30.5</b>	<b>1492</b>	<b>52.2</b>	<b>339</b>	<b>11.9</b>	<b>156</b>	<b>5.5</b>	<b>2858</b>	<b>100.0</b>	<b>403</b>	<b>3261</b>
VCHA	CST	952	59.4	282	17.6	291	18.1	79	4.9	1604	100.0	252	1856	872	58.5	218	14.6	318	21.3	83	5.6	1491	100.0	266	1757
	RICH	609	61.0	219	21.9	132	13.2	39	3.9	999	100.0	146	1145	536	55.1	203	20.9	198	20.4	35	3.6	972	100.0	175	1147
	VANC	875	59.7	349	23.8	201	13.7	41	2.8	1466	100.0	229	1695	817	57.4	354	24.9	218	15.3	35	2.5	1424	100.0	248	1672
<b>Total</b>		<b>2436</b>	<b>59.9</b>	<b>850</b>	<b>20.9</b>	<b>624</b>	<b>15.3</b>	<b>159</b>	<b>3.9</b>	<b>4069</b>	<b>100.0</b>	<b>627</b>	<b>4696</b>	<b>2225</b>	<b>57.2</b>	<b>775</b>	<b>19.9</b>	<b>734</b>	<b>18.9</b>	<b>153</b>	<b>3.9</b>	<b>3887</b>	<b>100.0</b>	<b>689</b>	<b>4576</b>
VHA	CVI	387	24.8	625	40.0	462	29.6	87	5.6	1561	100.0	227	1788	657	41.7	396	25.1	456	28.9	68	4.3	1577	100.0	267	1844
	NVI	256	32.7	178	22.7	277	35.4	72	9.2	783	100.0	134	917	307	38.2	167	20.8	283	35.2	47	5.8	804	100.0	109	913
	SVI	1125	48.1	525	22.4	516	22.1	173	7.4	2339	100.0	416	2755	1304	55.3	442	18.8	487	20.7	123	5.2	2356	100.0	466	2822
<b>Total</b>		<b>1768</b>	<b>37.8</b>	<b>1328</b>	<b>28.4</b>	<b>1255</b>	<b>26.8</b>	<b>332</b>	<b>7.1</b>	<b>4683</b>	<b>100.0</b>	<b>777</b>	<b>5460</b>	<b>2268</b>	<b>47.9</b>	<b>1005</b>	<b>21.2</b>	<b>1226</b>	<b>25.9</b>	<b>238</b>	<b>5.0</b>	<b>4737</b>	<b>100.0</b>	<b>842</b>	<b>5579</b>
PHSA*		2964	49.9	1589	26.8	1211	20.4	172	2.9	5936	100.0	1010	6946	2929	47.0	1797	28.8	1282	20.6	222	3.6	6230	100.0	1119	7349
HB		0	0.0	0	0.0	557	93.0	42	7.0	599	100.0	0	599	0	0.0	0	0.0	588	93.0	43	7.0	611	100.0	0	611
<b>Province</b>		<b>15107</b>	<b>44.2</b>	<b>10767</b>	<b>31.5</b>	<b>6418</b>	<b>18.8</b>	<b>1911</b>	<b>5.6</b>	<b>34203</b>	<b>100.0</b>	<b>5204</b>	<b>39407</b>	<b>15352</b>	<b>44.9</b>	<b>9955</b>	<b>29.1</b>	<b>7012</b>	<b>20.5</b>	<b>1839</b>	<b>5.4</b>	<b>34158</b>	<b>100.0</b>	<b>5526</b>	<b>39684</b>

\*PHSA: Refers to BC Women's Hospital patients only  
EFM = Electronic Fetal Monitoring  
NA: Not Applicable refers to mothers not in labour  
Note: Please refer to back flap for legend of the Health Authorities and Health Service Delivery Areas

## DATA TABLE 10A

**Episiotomies by Place of Delivery for Health Service Delivery Areas, Health Authorities and Province, 2001/2002, 2002/2003, 2003/2004, 2004/2005, 2005/2006**

HA	2001/2002			2002/2003			2003/2004			2004/2005			2005/2006		
	#	%	No	#	%	No	#	%	No	#	%	No	#	%	No
FHA	412	21.4	1509	332	17.2	1599	289	14.8	1661	311	16.7	1556	240	12.7	1654
FE	664	17.8	3071	666	18.4	2944	638	18.5	2810	565	16.6	2830	507	14.8	2921
FN	1046	26.0	2973	1005	24.3	3134	891	21.9	3184	901	22.3	3148	721	18.8	3117
FS	2122	21.9	7553	2003	20.7	7677	1818	19.2	7655	1777	19.1	7534	1468	16.0	7692
<b>Total</b>															
IHA	64	13.7	403	70	15.7	377	60	14.3	361	37	9.3	363	42	9.9	384
EK	60	14.7	349	40	10.8	331	34	9.0	342	46	11.4	357	28	6.6	394
KB	281	14.7	1637	222	12.6	1539	235	13.4	1521	247	14.3	1475	259	14.7	1508
OK	147	11.5	1131	103	8.4	1119	101	8.3	1122	108	8.6	1155	94	7.7	1131
TCS	552	13.6	3520	435	11.4	3366	430	11.4	3346	438	11.6	3350	423	11.0	3417
<b>Total</b>															
NHA	129	19.1	548	105	15.6	566	98	15.0	556	107	16.0	563	109	16.6	549
NE	133	11.9	983	117	10.9	961	105	9.6	984	92	8.6	975	103	9.1	1026
NI	82	11.8	614	63	9.5	598	61	9.3	594	33	5.1	608	56	9.1	557
NW	344	13.8	2145	285	11.8	2125	264	11.0	2134	232	9.8	2146	268	11.2	2132
<b>Total</b>															
VCHA	264	19.6	1086	255	17.7	1186	197	14.2	1191	156	11.6	1191	143	11.6	1093
CST	238	23.2	787	219	23.1	730	225	27.5	592	199	23.5	647	174	22.2	610
RICH	204	16.6	1026	222	19.2	934	208	17.8	959	174	14.6	1015	151	13.8	947
VANC	706	19.6	2899	696	19.6	2850	630	18.7	2742	529	15.6	2853	468	15.0	2650
<b>Total</b>															
VIHA	208	15.8	1111	176	13.9	1088	172	13.7	1079	178	13.7	1125	156	11.7	1172
CVI	91	12.4	642	74	10.6	622	70	10.6	589	64	10.0	573	60	8.8	618
NVI	193	9.9	1757	196	10.7	1642	227	11.7	1710	208	11.6	1582	204	11.3	1604
SVI	492	12.3	3510	446	11.7	3352	469	12.2	3378	450	12.1	3280	420	11.0	3394
<b>Total</b>															
PHSA*	1190	25.5	3474	1155	23.6	3744	998	20.0	3980	900	18.5	3954	895	17.4	4261
HB	1	0.2	471	6	1.2	487	3	0.6	512	4	0.7	595	6	1.0	605
Province	5407	18.7	23572	5026	17.6	23601	4612	16.3	23747	4330	15.4	23712	3948	14.1	24151

\*PHSA: Refers to BC Women's Hospital patients only

Note: Please refer to back flap for legend of the Health Authorities and Health Service Delivery Areas

Detailed data tables are available in the Annual Report 2006 section of the BCRCP website ([www.rcp.gov.bc.ca](http://www.rcp.gov.bc.ca))

APPENDIX 10 –  
DATA TABLES (CONT'D)

## DATA TABLE 11A

Method of Delivery by Place of Delivery for Health Service Delivery Areas, Health Authorities and Province,  
2001/2002, 2002/2003, 2003/2004, 2004/2005, 2005/2006

HA	2001/2002			2002/2003			2003/2004			2004/2005			2005/2006							
	C/Section #	%	Vaginal # %	C/Section #	%	Vaginal # %	C/Section #	%	Vaginal # %	C/Section #	%	Vaginal # %	C/Section #	%	Vaginal # %					
FHA	592	23.6	1921	76.4	652	25.2	1931	74.8	677	25.8	1950	74.2	729	28.1	1867	71.9	672	26.2	1894	73.8
FE	1288	25.6	3735	74.4	1236	25.5	3610	74.5	1280	27.1	3448	72.9	1318	28.0	3395	72.0	1298	27.5	3428	72.5
FN	1457	26.6	4019	73.4	1508	26.7	4139	73.3	1595	28.1	4075	71.9	1720	29.8	4049	70.2	1696	30.6	3838	69.4
FS	3337	25.6	9675	74.4	3396	26.0	9680	74.0	3552	27.3	9473	72.7	3767	28.8	9311	71.2	3666	28.6	9160	71.4
Total	103	18.1	467	81.9	167	27.2	447	72.8	175	29.4	421	70.6	211	34.5	400	65.5	196	31.5	426	68.5
IHA	117	22.2	409	77.8	144	28.0	371	72.0	109	22.5	376	77.5	119	22.8	403	77.2	113	21.1	422	78.9
KB	616	24.3	1918	75.7	633	26.4	1761	73.6	655	27.2	1756	72.8	724	29.6	1722	70.4	757	30.0	1767	70.0
OK	538	29.6	1278	70.4	521	29.9	1222	70.1	563	31.5	1223	68.5	572	31.2	1263	68.8	576	32.0	1225	68.0
TCS	1374	25.2	4072	74.8	1465	27.8	3801	72.2	1502	28.5	3776	71.5	1626	30.0	3788	70.0	1642	30.0	3840	70.0
Total	181	21.1	677	78.9	219	24.6	671	75.4	208	24.1	654	75.9	218	24.5	670	75.5	218	24.9	658	75.1
NHA	403	26.5	1116	73.5	369	25.5	1078	74.5	379	25.8	1089	74.2	390	26.8	1067	73.2	439	28.0	1129	72.0
NI	244	26.0	696	74.0	280	29.8	661	70.2	241	26.9	655	73.1	228	26.2	641	73.8	204	25.0	613	75.0
NW	828	25.0	2489	75.0	868	26.5	2410	73.5	828	25.7	2398	74.3	836	26.0	2378	74.0	861	26.4	2400	73.6
Total	482	26.3	1350	73.7	479	24.9	1441	75.1	523	27.4	1388	72.6	509	27.4	1347	72.6	521	29.7	1236	70.3
VCHA	417	28.9	1025	71.1	394	29.3	949	70.7	335	29.1	817	70.9	299	26.1	846	73.9	363	31.6	784	68.4
RICH	501	28.9	1230	71.1	504	30.4	1156	69.6	527	31.1	1167	68.9	506	29.9	1189	70.1	574	34.3	1098	65.7
VANC	1400	28.0	3605	72.0	1377	28.0	3546	72.0	1385	29.1	3372	70.9	1314	28.0	3382	72.0	1458	31.9	3118	68.1
Total	477	26.6	1319	73.4	443	26.0	1264	74.0	496	28.4	1251	71.6	485	27.1	1303	72.9	516	28.0	1328	72.0
VIHA	228	23.7	733	76.3	236	25.3	696	74.7	231	26.0	659	74.0	280	30.5	637	69.5	235	25.7	678	74.3
CVI	810	29.3	1950	70.7	876	32.3	1838	67.7	880	31.2	1937	68.8	965	35.0	1790	65.0	1014	35.9	1808	64.1
NVI	1515	27.5	4002	72.5	1555	29.0	3798	71.0	1607	29.5	3847	70.5	1730	31.7	3730	68.3	1765	31.6	3814	68.4
SVI	1850	28.4	4664	71.6	1862	27.5	4899	72.5	1969	28.3	4978	71.7	2092	30.1	4854	69.9	2193	29.8	5156	70.2
Total	0	0.0	472	100.0	0	0.0	493	100.0	0	0.0	515	100.0	0	0.0	599	100.0	0	0.0	611	100.0
PHSA*	10304	26.2	28979	73.8	10523	26.9	28627	73.1	10843	27.7	28359	72.3	11365	28.8	28042	71.2	11585	29.2	28099	70.8
HB																				
Province																				

\*PHSA: Refers to BC Women's Hospital patients only

Note: Please refer to back flap for legend of the Health Authorities and Health Service Delivery Areas  
Detailed data tables are available in the Annual Report 2006 section of the BCRCP website ([www.rcp.gov.bc.ca](http://www.rcp.gov.bc.ca))

DATA TABLE 12A

**Postpartum Length of Stay (Vaginal Deliveries) by Place of Delivery for Health Service Delivery Areas, Health Authorities and Province, 2001/2002, 2002/2003, 2003/2004, 2004/2005, 2005/2006**

HA	2001/2002						2002/2003						2003/2004						2004/2005						2005/2006						
	<48 Hours	48-72 Hours	>72 Hours	#	%	#	<48 Hours	48-72 Hours	>72 Hours	#	%	#	<48 Hours	48-72 Hours	>72 Hours	#	%	#	<48 Hours	48-72 Hours	>72 Hours	#	%	#	<48 Hours	48-72 Hours	>72 Hours	#	%	#	%
FHA	1341	71.4	419	22.3	117	6.2	1492	78.3	340	17.8	74	3.9	1555	80.1	296	15.2	90	4.6	1591	85.7	197	10.6	68	3.7	1598	85.3	212	11.3	63	3.4	
FE	2493	67.1	914	24.6	309	8.3	2483	69.1	881	24.5	231	6.4	2384	69.6	807	23.6	234	6.8	2410	71.3	778	23.0	191	5.7	2429	71.4	758	22.3	214	6.3	
FN	3264	81.6	586	14.7	150	3.8	3586	87.0	448	10.9	87	2.1	3583	88.3	397	9.8	79	1.9	3555	88.3	383	9.5	87	2.2	3339	87.4	401	10.5	80	2.1	
FS	7098	74.0	1919	20.0	576	6.0	7561	78.6	1669	17.3	392	4.1	7522	79.8	1500	15.9	403	4.3	7556	81.6	1358	14.7	346	3.7	7366	81.0	1371	15.1	357	3.9	
Total	269	59.9	124	27.6	56	12.5	265	61.2	118	27.3	50	11.5	245	60.3	112	27.6	49	12.1	263	67.3	85	21.7	43	11.0	286	69.9	96	23.5	27	6.6	
IHA	161	41.0	145	36.9	87	22.1	161	45.0	121	33.8	76	21.2	187	51.1	116	31.7	63	17.2	195	49.1	122	30.7	80	20.2	193	47.2	122	29.8	94	23.0	
KB	1207	63.3	483	25.3	218	11.4	1152	65.8	392	22.4	208	11.9	1113	63.9	396	22.7	232	13.3	1102	64.4	392	22.9	216	12.6	1170	66.7	368	21.0	215	12.3	
OK	831	66.2	309	24.6	116	9.2	831	69.0	264	21.9	109	9.1	855	70.9	253	21.0	98	8.1	832	67.3	285	23.0	120	9.7	860	72.0	235	19.7	100	8.4	
TCS	2468	61.6	1061	26.5	477	11.9	2409	64.3	895	23.9	443	11.8	2400	64.5	877	23.6	442	11.9	2392	64.0	884	23.7	459	12.3	2509	66.6	821	21.8	436	11.6	
Total	325	48.4	216	32.2	130	19.4	362	54.4	200	30.0	104	15.6	350	54.1	214	33.1	83	12.8	400	60.6	197	29.8	63	9.5	407	63.1	175	27.1	63	9.8	
NHA	579	53.5	371	34.3	133	12.3	653	62.4	297	28.4	97	9.3	699	66.1	263	24.9	96	9.1	686	65.8	258	24.8	98	9.4	737	67.1	287	26.1	75	6.8	
NI	383	56.7	211	31.3	81	12.0	347	53.5	186	28.7	115	17.7	385	61.2	163	25.9	81	12.9	368	59.0	169	27.1	87	13.9	347	58.3	151	25.4	97	16.3	
NW	1287	53.0	798	32.9	344	14.2	1362	57.7	683	28.9	316	13.4	1434	61.4	640	27.4	260	11.1	1454	62.5	624	26.8	248	10.7	1491	63.7	613	26.2	235	10.0	
Total	803	60.1	343	25.7	191	14.3	868	61.3	384	27.1	163	11.5	913	66.9	317	23.2	135	9.9	842	63.1	374	28.0	118	8.8	794	64.9	303	24.8	126	10.3	
VCHA	745	72.9	235	23.0	42	4.1	693	73.3	224	23.7	29	3.1	596	73.4	190	23.4	26	3.2	633	75.2	177	21.0	32	3.8	629	80.5	136	17.4	16	2.0	
RICH	730	59.6	365	29.8	130	10.6	727	63.1	308	26.7	117	10.2	760	65.6	273	23.6	125	10.8	823	69.9	259	22.0	96	8.1	795	73.2	221	20.3	70	6.4	
VANC	2278	63.6	943	26.3	363	10.1	2288	65.1	916	26.1	309	8.8	2269	68.0	780	23.4	286	8.6	2298	68.5	810	24.2	246	7.3	2218	71.8	660	21.4	212	6.9	
Total	734	56.5	352	27.1	214	16.5	718	57.9	340	27.4	182	14.7	734	59.3	285	23.0	218	17.6	774	60.2	312	24.3	199	15.5	814	62.5	313	24.0	176	13.5	
VIHA	419	59.3	214	30.3	73	10.3	404	59.6	187	27.6	87	12.8	405	62.3	150	23.1	95	14.6	402	63.8	164	26.0	64	10.2	450	67.4	140	21.0	78	11.7	
CVI	1005	52.0	622	32.2	304	15.7	994	54.5	568	31.1	263	14.4	1082	56.2	572	29.7	271	14.1	991	55.8	537	30.2	248	14.0	1044	58.1	536	29.8	217	12.1	
NVI	2158	54.8	1188	30.2	591	15.0	2116	56.5	1095	29.3	532	14.2	2221	58.3	1007	26.4	584	15.3	2167	58.7	1013	27.4	511	13.8	2308	61.3	989	26.2	471	12.5	
SVI	2682	57.8	1390	30.0	567	12.2	2898	59.5	1363	28.0	608	12.5	3038	61.4	1268	25.6	641	13.0	3054	63.3	1179	24.4	594	12.3	3431	66.9	1078	21.0	622	12.1	
Total	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	
PHSA*	17971	63.8	7299	25.9	2918	10.4	18634	66.9	6621	23.8	2600	9.3	18884	68.5	6072	22.0	2616	9.5	18921	69.6	5868	21.6	2404	8.8	19323	71.1	5532	20.3	2333	8.6	
HB																															
Province																															

\*PHSA: Refers to BC Women's Hospital patients only  
 Note: Please refer to back flap for legend of the Health Authorities and Health Service Delivery Areas  
 Detailed data tables are available in the Annual Report 2006 section of the BCRCP website ([www.rcp.gov.bc.ca](http://www.rcp.gov.bc.ca))

APPENDIX 10 –  
DATA TABLES (CONT'D)

## DATA TABLE 13A

**Postpartum Length of Stay (Caesarean Section Deliveries) by Place of Delivery for Health Service Delivery Areas, Health Authorities and Province, 2001/2002, 2002/2003, 2003/2004, 2004/2005, 2005/2006**

HA	2001/2002			2002/2003			2003/2004			2004/2005			2005/2006					
	<=96 Hours #	%	>96 Hours #	<=96 Hours #	%	>96 Hours #	<=96 Hours #	%	>96 Hours #	<=96 Hours #	%	>96 Hours #	<=96 Hours #	%	>96 Hours #			
FHA	480	86.0	78	14.0	43	6.8	631	94.3	38	5.7	694	95.9	30	4.1	625	93.8	41	6.2
FN	1070	83.3	214	16.7	187	15.2	1102	86.4	173	13.6	1181	89.7	136	10.3	1151	89.1	141	10.9
FS	1313	90.3	141	9.7	1382	91.8	1494	94.0	95	6.0	1579	92.3	132	7.7	1553	92.5	126	7.5
<b>Total</b>	<b>2863</b>	<b>86.9</b>	<b>433</b>	<b>13.1</b>	<b>3014</b>	<b>89.5</b>	<b>3227</b>	<b>91.3</b>	<b>306</b>	<b>8.7</b>	<b>3454</b>	<b>92.1</b>	<b>298</b>	<b>7.9</b>	<b>3329</b>	<b>91.5</b>	<b>308</b>	<b>8.5</b>
IHA	61	64.2	34	35.8	130	83.3	132	81.5	30	18.5	156	81.3	36	18.8	158	87.3	23	12.7
KB	58	52.7	52	47.3	79	56.8	61	58.1	44	41.9	58	53.2	51	46.8	68	63.6	39	36.4
OK	455	74.5	156	25.5	490	77.8	499	76.9	150	23.1	572	79.6	147	20.4	599	79.4	155	20.6
TCS	401	77.3	118	22.7	417	83.1	477	86.9	72	13.1	468	85.2	81	14.8	464	82.1	101	17.9
<b>Total</b>	<b>975</b>	<b>73.0</b>	<b>360</b>	<b>27.0</b>	<b>1116</b>	<b>78.2</b>	<b>1169</b>	<b>79.8</b>	<b>296</b>	<b>20.2</b>	<b>1254</b>	<b>79.9</b>	<b>315</b>	<b>20.1</b>	<b>1289</b>	<b>80.2</b>	<b>318</b>	<b>19.8</b>
NHA	123	68.3	57	31.7	165	75.3	163	79.5	42	20.5	189	87.5	27	12.5	188	88.3	25	11.7
NI	304	78.4	84	21.6	272	76.0	304	83.5	60	16.5	308	80.8	73	19.2	365	84.7	66	15.3
NW	162	70.1	69	29.9	153	57.7	158	70.5	66	29.5	159	74.0	56	26.0	133	68.2	62	31.8
<b>Total</b>	<b>589</b>	<b>73.7</b>	<b>210</b>	<b>26.3</b>	<b>590</b>	<b>70.1</b>	<b>625</b>	<b>78.8</b>	<b>168</b>	<b>21.2</b>	<b>656</b>	<b>80.8</b>	<b>156</b>	<b>19.2</b>	<b>686</b>	<b>81.8</b>	<b>153</b>	<b>18.2</b>
VCHA	316	67.1	155	32.9	359	77.0	398	78.5	109	21.5	422	84.2	79	15.8	426	82.7	89	17.3
RICH	328	78.8	88	21.2	347	88.5	306	92.7	24	7.3	275	92.6	22	7.4	333	92.8	26	7.2
VANC	353	71.2	143	28.8	358	72.0	389	74.7	132	25.3	413	82.4	88	17.6	495	87.0	74	13.0
<b>Total</b>	<b>997</b>	<b>72.1</b>	<b>386</b>	<b>27.9</b>	<b>1064</b>	<b>78.5</b>	<b>1093</b>	<b>80.5</b>	<b>265</b>	<b>19.5</b>	<b>1110</b>	<b>85.5</b>	<b>189</b>	<b>14.5</b>	<b>1254</b>	<b>86.9</b>	<b>189</b>	<b>13.1</b>
VIHA	322	69.1	144	30.9	302	69.7	349	73.0	129	27.0	345	73.1	127	26.9	398	78.5	109	21.5
NVI	159	74.0	56	26.0	160	70.5	168	74.0	59	26.0	207	75.8	66	24.2	192	83.1	39	16.9
SVI	599	74.9	201	25.1	616	70.7	643	73.3	234	26.7	712	73.9	251	26.1	786	77.7	226	22.3
<b>Total</b>	<b>1080</b>	<b>72.9</b>	<b>401</b>	<b>27.1</b>	<b>1078</b>	<b>70.4</b>	<b>1160</b>	<b>73.3</b>	<b>422</b>	<b>26.7</b>	<b>1264</b>	<b>74.0</b>	<b>444</b>	<b>26.0</b>	<b>1376</b>	<b>78.6</b>	<b>374</b>	<b>21.4</b>
PHSA*	1370	74.2	476	25.8	1452	78.3	1521	77.5	442	22.5	1704	81.8	379	18.2	1780	81.5	404	18.5
HB	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
<b>Province</b>	<b>7874</b>	<b>77.7</b>	<b>2266</b>	<b>22.3</b>	<b>8314</b>	<b>80.1</b>	<b>8795</b>	<b>82.2</b>	<b>1899</b>	<b>17.8</b>	<b>9442</b>	<b>84.1</b>	<b>1781</b>	<b>15.9</b>	<b>9714</b>	<b>84.8</b>	<b>1746</b>	<b>15.2</b>

\*PHSA: Refers to BC Women's Hospital patients only

Note: Please refer to back flap for legend of the Health Authorities and Health Service Delivery Areas

Detailed data tables are available in the Annual Report 2006 section of the BCRCP website ([www.rcp.gov.bc.ca](http://www.rcp.gov.bc.ca))

DATA TABLE 14A

**Body Mass Index (BMI) by Place of Residence for Health Service Delivery Areas, Health Authorities and Province, 2001/2002, 2002/2003, 2003/2004, 2004/2005, 2005/2006**

HA	HSDA	2001/2002												2002/2003												2003/2004												2004/2005												2005/2006											
		Normal Weight				Over-weight				Obese				Under-weight				Normal Weight				Over-weight				Obese				Under-weight				Normal Weight				Over-weight				Obese				Under-weight															
		#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%																
FHA	FE	1062	59.2	371	20.7	219	12.2	143	8.0	955	59.5	334	20.8	220	13.7	95	5.9	645	58.8	221	20.1	171	15.6	60	5.5	706	57.5	269	21.9	196	16.0	57	4.6	723	57.2	288	22.8	198	15.7	54	4.3																				
	FN	2766	62.2	898	20.2	467	10.5	313	7.0	2653	61.6	837	19.4	494	11.2	334	7.8	2590	63.2	802	19.6	434	10.6	275	6.7	2635	62.5	845	20.0	450	10.7	287	6.8	2506	61.0	844	20.5	479	11.7	280	6.8																				
	FS	3459	60.5	1187	20.8	605	10.6	463	8.1	3582	60.0	1252	21.0	629	10.5	510	8.5	3400	60.7	1159	20.7	607	10.8	433	7.7	3580	59.8	1247	20.8	700	11.7	462	7.7	3804	60.8	1254	21.2	666	11.2	405	6.8																				
	<b>Total</b>	<b>7287</b>	<b>61.0</b>	<b>2456</b>	<b>20.5</b>	<b>1291</b>	<b>10.8</b>	<b>919</b>	<b>7.7</b>	<b>7190</b>	<b>60.5</b>	<b>2423</b>	<b>20.4</b>	<b>1333</b>	<b>11.2</b>	<b>939</b>	<b>7.9</b>	<b>6635</b>	<b>61.5</b>	<b>2182</b>	<b>20.2</b>	<b>1212</b>	<b>11.2</b>	<b>768</b>	<b>7.1</b>	<b>6921</b>	<b>60.5</b>	<b>2361</b>	<b>20.6</b>	<b>1346</b>	<b>11.8</b>	<b>806</b>	<b>7.0</b>	<b>6833</b>	<b>60.5</b>	<b>2386</b>	<b>21.1</b>	<b>1343</b>	<b>11.9</b>	<b>739</b>	<b>6.5</b>																				
IHA	EK	195	59.5	70	21.3	45	13.7	18	5.5	202	62.3	64	19.8	40	12.3	18	5.6	146	61.1	48	20.1	34	14.2	11	4.6	148	55.2	58	21.6	53	19.8	9	3.4	167	58.0	54	18.8	15	17.7	16	5.6																				
	KB	206	60.9	64	18.9	47	13.9	21	6.2	217	66.0	70	21.3	30	9.1	12	3.6	205	64.3	61	19.1	33	10.3	20	6.3	239	67.5	54	15.3	35	9.9	244	70.5	59	17.1	28	8.1	15	4.3																						
	OK	1113	63.0	346	19.6	204	11.5	105	5.9	990	61.7	330	20.6	190	11.8	94	5.9	915	61.1	334	22.3	177	11.8	72	4.8	981	60.2	344	21.1	204	12.5	101	6.2	1082	62.1	356	20.4	215	12.3	88	5.1																				
	TUS	629	56.5	271	24.3	151	13.6	62	5.6	662	61.0	215	19.8	153	14.1	56	5.2	525	57.3	212	23.1	129	14.1	51	5.6	564	57.7	214	21.9	155	15.8	45	4.6	479	52.3	234	25.6	156	17.0	46	5.0																				
	<b>Total</b>	<b>2143</b>	<b>60.4</b>	<b>751</b>	<b>21.2</b>	<b>447</b>	<b>12.6</b>	<b>206</b>	<b>5.8</b>	<b>2071</b>	<b>62.0</b>	<b>679</b>	<b>20.3</b>	<b>413</b>	<b>12.4</b>	<b>180</b>	<b>5.4</b>	<b>1791</b>	<b>60.2</b>	<b>655</b>	<b>22.0</b>	<b>373</b>	<b>12.5</b>	<b>194</b>	<b>5.2</b>	<b>1932</b>	<b>59.8</b>	<b>670</b>	<b>20.7</b>	<b>447</b>	<b>13.8</b>	<b>181</b>	<b>5.6</b>	<b>1972</b>	<b>59.9</b>	<b>703</b>	<b>21.4</b>	<b>490</b>	<b>13.7</b>	<b>165</b>	<b>5.0</b>																				
NHA	NE	273	50.6	130	24.1	110	20.4	27	5.0	268	51.5	126	24.2	103	19.8	23	4.4	297	54.2	136	24.8	90	16.4	25	4.6	278	50.0	145	26.1	110	19.8	23	4.1	309	56.3	125	22.8	97	17.7	18	3.3																				
	NI	456	54.7	198	23.7	133	15.9	47	5.6	503	54.9	224	24.4	141	15.4	49	5.3	506	53.3	225	23.7	175	18.4	44	4.6	488	56.1	211	24.3	138	15.9	33	3.8	465	50.1	253	27.3	163	17.6	47	5.1																				
	NW	137	48.6	75	26.6	57	20.2	13	4.6	139	52.7	64	24.2	51	19.3	10	3.8	78	46.4	39	23.2	44	26.2	7	4.2	122	43.1	77	27.2	78	27.6	6	2.1	118	45.9	76	29.6	56	21.8	7	2.7																				
	<b>Total</b>	<b>866</b>	<b>52.3</b>	<b>403</b>	<b>24.3</b>	<b>300</b>	<b>18.1</b>	<b>87</b>	<b>5.3</b>	<b>910</b>	<b>53.5</b>	<b>414</b>	<b>24.3</b>	<b>295</b>	<b>17.3</b>	<b>82</b>	<b>4.8</b>	<b>881</b>	<b>52.9</b>	<b>400</b>	<b>24.0</b>	<b>309</b>	<b>18.5</b>	<b>76</b>	<b>4.6</b>	<b>888</b>	<b>52.0</b>	<b>433</b>	<b>25.3</b>	<b>326</b>	<b>19.1</b>	<b>62</b>	<b>3.6</b>	<b>892</b>	<b>51.4</b>	<b>454</b>	<b>26.2</b>	<b>316</b>	<b>18.2</b>	<b>72</b>	<b>4.2</b>																				
VCHA	CST	1114	70.2	266	16.8	119	7.5	88	5.5	1105	69.0	280	17.5	109	6.8	107	6.7	1075	70.1	272	17.7	98	6.4	88	5.7	1066	70.2	271	17.9	106	7.0	75	4.9	1010	70.8	240	16.8	106	7.4	70	4.9																				
	RICH	850	68.5	193	15.6	80	6.5	117	9.4	837	70.3	177	14.9	65	5.5	112	9.4	777	66.8	200	17.2	86	7.4	100	8.6	802	68.8	186	16.0	60	5.2	117	10.0	741	65.0	182	16.0	79	6.9	138	12.1																				
	VANC	2990	69.9	620	14.5	254	5.9	415	9.7	3017	71.6	582	13.8	194	4.6	419	9.9	3005	73.2	534	13.0	197	4.8	371	9.0	2882	72.0	542	13.5	193	4.8	384	9.6	3130	71.7	592	13.6	242	5.5	400	9.2																				
	<b>Total</b>	<b>4954</b>	<b>69.7</b>	<b>1079</b>	<b>15.2</b>	<b>453</b>	<b>6.4</b>	<b>620</b>	<b>8.7</b>	<b>4959</b>	<b>70.8</b>	<b>1039</b>	<b>14.8</b>	<b>368</b>	<b>5.3</b>	<b>638</b>	<b>9.1</b>	<b>4857</b>	<b>71.4</b>	<b>1006</b>	<b>14.8</b>	<b>381</b>	<b>5.6</b>	<b>559</b>	<b>8.2</b>	<b>4750</b>	<b>71.1</b>	<b>999</b>	<b>14.9</b>	<b>359</b>	<b>5.4</b>	<b>4881</b>	<b>70.4</b>	<b>1014</b>	<b>14.6</b>	<b>427</b>	<b>6.2</b>	<b>608</b>	<b>8.8</b>																						
VIHA	CVI	755	57.3	294	22.3	197	15.0	71	5.4	670	56.3	244	20.5	204	17.2	71	6.0	584	55.6	242	23.0	164	15.6	60	5.7	624	58.9	227	21.4	162	15.3	47	4.4	643	56.5	262	23.0	167	14.7	66	5.8																				
	NVI	335	60.9	123	22.4	71	12.9	21	3.8	328	57.2	125	21.8	88	15.4	32	5.6	291	57.5	110	21.7	80	15.8	25	4.9	319	59.8	113	21.2	76	14.3	25	4.7	315	58.9	114	21.3	87	16.3	19	3.6																				
	SVI	1509	62.0	525	21.6	271	11.1	130	5.3	1423	61.0	495	21.2	300	12.9	116	5.0	1467	60.1	546	22.4	318	13.0	110	4.5	1526	60.2	549	21.7	337	13.3	122	4.8	1578	60.4	557	21.3	360	13.8	118	4.6																				
	<b>Total</b>	<b>2599</b>	<b>60.4</b>	<b>942</b>	<b>21.9</b>	<b>539</b>	<b>12.5</b>	<b>222</b>	<b>5.2</b>	<b>2421</b>	<b>59.1</b>	<b>864</b>	<b>21.1</b>	<b>592</b>	<b>14.5</b>	<b>219</b>	<b>5.3</b>	<b>2342</b>	<b>58.6</b>	<b>898</b>	<b>22.5</b>	<b>562</b>	<b>14.1</b>	<b>195</b>	<b>4.9</b>	<b>2469</b>	<b>59.8</b>	<b>889</b>	<b>21.5</b>	<b>575</b>	<b>13.9</b>	<b>194</b>	<b>4.7</b>	<b>2536</b>	<b>59.2</b>	<b>933</b>	<b>21.8</b>	<b>614</b>	<b>14.3</b>	<b>203</b>	<b>4.7</b>																				
BC UNSPEC		159	65.4	43	17.7	27	11.1	14	5.8	126	68.9	24	13.1	24	13.1	9	4.9	95	67.4	26	18.4	14	9.9	6	4.3	100	63.3	29	18.4	19	12.0	10	6.3	83	64.3	23	17.8	15	11.6	8	6.2																				
NON RES		65	66.3	12	12.2	9	9.2	12	12.2	68	64.2	17	16.0	9	8.5	12	11.3	50	60.2	13	15.7	11	13.3	9	10.8	42	62.7	12	17.9	5	7.5	8	11.9	46	70.8	10	15.4	4	6.2	5	7.7																				
Province		18073	62.5	5686	19.7	3066	10.6	2080	7.2	17745	62.7	5460	19.3	3034	10.7	2079	7.3	16651	62.9	5180	19.6	2862	10.8	1767	6.7	17102	62.4	5393	19.7	3077	11.2	1837	6.7	17243	62.2	5523	19.9	3169	11.4	1800	6.5																				

Note: Underweight = BMI < 18.5  
 Normal Weight = BMI between 18.5 and 24.9  
 Overweight = BMI between 25.0 and 29.9  
 Obese = BMI ≥ 30.0

Note: Please refer to back flap for legend of the Health Authorities and Health Service Delivery Areas

Note: Excluded from analysis is the "Unclassified" BMI group for which either the height and/or weight information is missing. Detailed data tables are available in the Annual Report 2006 section of the BCRCP website (www.rcp.gov.bc.ca).

APPENDIX 10 –  
DATA TABLES (CONT'D)

DATA TABLE 15A

Maternal Postpartum Readmission by Place of Delivery for Health Service Delivery Areas,  
Health Authorities and Province, 2001/2002, 2002/2003, 2003/2004, 2004/2005

	2001/2002						2002/2003						2003/2004						2004/2005					
	CS			Vaginal			CS			Vaginal			CS			Vaginal			CS			Vaginal		
	Readmits #	%	Total #	Readmits #	%	Total #	Readmits #	%	Total #	Readmits #	%	Total #	Readmits #	%	Total #	Readmits #	%	Total #	Readmits #	%	Total #	Readmits #	%	Total #
HA	13	2.2	592	28	1.5	1921	11	1.7	652	34	1.8	1931	17	2.5	677	25	1.3	1950	17	2.3	729	33	1.8	1867
FHA	22	1.7	1288	42	1.1	3735	21	1.7	1236	44	1.2	3610	29	2.3	1280	42	1.2	3448	27	2.0	1318	46	1.4	3395
FN	27	1.9	1457	48	1.2	4019	32	2.1	1508	53	1.3	4139	26	1.6	1595	58	1.4	4075	27	1.6	1720	54	1.3	4049
FS	62	1.9	3337	118	1.2	9675	64	1.9	3396	131	1.4	9680	72	2.0	3552	125	1.3	9473	71	1.9	3767	133	1.4	9311
Total	1	1.0	103	6	1.3	467	2	1.2	167	11	2.5	447	5	2.9	175	13	3.1	421	4	1.9	211	12	3.0	400
IHA	1	0.9	117	6	1.5	409	3	2.1	144	3	0.8	371	5	4.6	109	8	2.1	376	1	0.8	119	7	1.7	403
KB	16	2.6	616	37	1.9	1918	18	2.8	633	31	1.8	1761	18	2.7	655	37	2.1	1756	24	3.3	724	42	2.4	1722
OK	18	3.3	538	29	2.3	1278	12	2.3	521	21	1.7	1222	15	2.7	563	21	1.7	1223	18	3.1	572	27	2.1	1263
TCS	36	2.6	1374	78	1.9	4072	35	2.4	1465	66	1.7	3801	43	2.9	1502	79	2.1	3776	47	2.9	1626	88	2.3	3788
Total	3	1.7	181	11	1.6	677	3	1.4	219	17	2.5	671	6	2.9	208	14	2.1	654	8	3.7	218	10	1.5	670
MHA	7	1.7	403	20	1.8	1116	12	3.3	369	13	1.2	1078	14	3.7	379	16	1.5	1089	5	1.3	390	15	1.4	1067
NI	10	4.1	244	8	1.1	696	7	2.5	280	18	2.7	661	4	1.7	241	7	1.1	655	5	2.2	228	5	0.8	641
NW	20	2.4	828	39	1.6	2489	22	2.5	868	48	2.0	2410	24	2.9	828	37	1.5	2398	18	2.2	836	30	1.3	2378
Total	8	1.7	482	19	1.4	1350	4	0.8	479	28	1.9	1441	6	1.1	523	13	0.9	1388	11	2.2	509	25	1.9	1347
VCHA	5	1.2	417	9	0.9	1025	7	1.8	394	8	0.8	949	6	1.8	335	8	1.0	817	6	2.0	299	14	1.7	846
RICH	10	2.0	501	20	1.6	1230	15	3.0	504	19	1.6	1156	17	3.2	527	24	2.1	1167	17	3.4	506	25	2.1	1189
VANC	23	1.6	1400	48	1.3	3605	26	1.9	1377	55	1.6	3546	29	2.1	1385	45	1.3	3372	34	2.6	1314	64	1.9	3382
Total	8	1.7	477	31	2.4	1319	7	1.6	443	25	2.0	1264	9	1.8	496	23	1.8	1251	9	1.9	485	28	2.1	1303
VIHA	3	1.3	228	9	1.2	733	6	2.5	236	12	1.7	696	6	2.6	231	8	1.2	659	8	2.9	280	6	0.9	637
CVI	15	1.9	810	35	1.8	1950	20	2.3	876	29	1.6	1838	29	3.3	880	35	1.8	1937	30	3.1	965	29	1.6	1790
SVI	26	1.7	1515	75	1.9	4002	33	2.1	1555	66	1.7	3798	44	2.7	1607	66	1.7	3847	47	2.7	1730	63	1.7	3730
Total	57	3.1	1850	62	1.3	4664	38	2.0	1862	72	1.5	4899	30	1.5	1969	57	1.1	4978	50	2.4	2092	81	1.7	4854
PHSA*	0	0.0	0	4	0.8	472	0	0.0	0	4	0.8	493	0	0.0	0	8	1.6	515	0	0.0	0	5	0.8	599
HB	224	2.2	10304	424	1.5	28979	218	2.1	10523	442	1.5	28627	242	2.2	10843	417	1.5	28359	267	2.3	11365	464	1.7	28042
Province																								

\*PHSA: Refers to BC Women's Hospital patients only  
Note: Please refer to back flap for legend of the Health Authorities and Health Service Delivery Areas



DATA TABLE 16A

**Birth Weight vs Gestational Age (Term Births) by Place of Residence for Health Service Delivery Areas, Health Authorities and Province, 2001/2002, 2002/2003, 2003/2004, 2004/2005, 2005/2006**

HA	2001/2002						2002/2003						2003/2004						2004/2005						2005/2006						
	AGA #	%	LGA #	%	SGA #	%	AGA #	%	LGA #	%	SGA #	%	AGA #	%	LGA #	%	SGA #	%	AGA #	%	LGA #	%	SGA #	%	AGA #	%	LGA #	%	SGA #	%	
FHA	2070	77.7	400	15.0	195	7.3	2155	79.1	409	15.0	161	5.9	2150	78.7	400	14.6	182	6.7	2185	79.6	379	13.8	182	6.6	2129	78.3	423	15.6	166	6.1	
FE	4114	81.0	635	12.5	327	6.4	4023	80.2	644	12.8	348	6.9	4036	80.4	639	12.7	345	6.9	3991	80.3	605	12.2	377	7.6	3937	80.3	595	12.1	369	7.5	
FN	4947	79.9	785	12.7	458	7.4	5014	78.9	820	12.9	519	8.2	4992	79.4	791	12.6	507	8.1	5172	80.6	738	11.5	509	7.9	5050	79.9	750	11.9	518	8.2	
FS	11131	79.9	1820	13.1	980	7.0	11192	79.4	1873	13.3	1028	7.3	11178	79.6	1830	13.0	1034	7.4	11348	80.3	1722	12.2	1068	7.6	11116	79.8	1768	12.7	1053	7.6	
Total	445	78.2	79	13.9	45	7.9	498	81.2	68	11.1	47	7.7	466	81.8	61	10.7	43	7.5	478	82.1	68	11.7	36	6.2	483	82.0	66	11.2	40	6.8	
IHA	456	81.7	62	11.1	40	7.2	409	81.2	67	13.3	28	5.6	405	80.7	59	11.8	38	7.6	426	82.6	52	10.1	38	7.4	438	80.1	63	11.5	46	8.4	
KB	1873	81.1	296	12.8	141	6.1	1801	81.5	264	11.9	146	6.6	1765	80.4	283	12.9	146	6.7	1825	80.7	263	11.6	174	7.7	1887	82.0	283	12.3	130	5.7	
OK	1319	79.2	243	14.6	103	6.2	1276	80.6	210	13.3	97	6.1	1273	79.4	219	13.7	111	6.9	1351	81.4	192	11.6	117	7.0	1339	80.6	217	13.1	106	6.4	
TCS	4093	80.2	680	13.3	329	6.4	3984	81.1	609	12.4	318	6.5	3909	80.3	622	12.8	338	6.9	4080	81.3	575	11.5	365	7.3	4147	81.3	629	12.3	322	6.3	
Total	645	80.9	100	12.5	52	6.5	626	76.9	128	15.7	60	7.4	658	80.4	101	12.3	59	7.2	658	79.4	117	14.1	54	6.5	667	81.1	106	12.9	49	6.0	
NHA	1146	78.4	220	15.1	95	6.5	1068	77.8	207	15.1	98	7.1	1071	77.2	214	15.4	102	7.4	1077	77.6	211	15.2	99	7.1	1183	80.9	188	12.9	92	6.3	
NI	707	77.2	175	19.1	34	3.7	666	73.2	197	21.6	47	5.2	618	75.0	173	21.0	33	4.0	596	74.4	168	21.0	37	4.6	562	73.2	164	21.4	42	5.5	
NW	2498	78.7	495	15.6	181	5.7	2360	76.2	532	17.2	205	6.6	2347	77.5	488	16.1	194	6.4	2331	77.3	496	16.4	190	6.3	2412	79.0	458	15.0	183	6.0	
Total	1623	79.2	320	15.6	106	5.2	1710	81.7	278	13.3	106	5.1	1699	79.8	309	14.5	121	5.7	1717	82.8	253	12.2	103	5.0	1609	80.6	267	13.4	121	6.1	
VCHA	1155	80.7	154	10.8	122	8.5	1126	80.9	138	9.9	127	9.1	1052	80.1	148	11.3	113	8.6	1141	80.5	153	10.8	123	8.7	1115	80.2	149	10.7	127	9.1	
RICH	4203	81.1	536	10.3	443	8.5	4203	81.4	509	9.9	451	8.7	4278	82.0	488	9.3	454	8.7	4180	82.3	444	8.7	457	9.0	4350	81.5	541	10.1	448	8.4	
VANC	6981	80.6	1010	11.7	671	7.7	7039	81.4	925	10.7	684	7.9	7029	81.1	945	10.9	688	7.9	7038	82.1	850	9.9	683	8.0	7074	81.1	957	11.0	696	8.0	
Total	1361	76.1	306	17.1	122	6.8	1300	76.3	301	17.7	103	6.0	1312	76.2	318	18.5	92	5.3	1390	79.2	269	15.3	97	5.5	1481	80.7	290	15.8	64	3.5	
VIHA	705	76.3	165	17.9	54	5.8	717	78.5	151	16.5	45	4.9	659	77.8	138	16.3	50	5.9	687	76.8	148	16.5	60	6.7	670	78.8	133	15.6	47	5.5	
CVI	1912	77.0	412	16.6	160	6.4	1889	78.8	365	15.2	143	6.0	2007	78.8	404	15.9	137	5.4	1965	78.0	406	16.1	147	5.8	1996	78.4	415	16.3	136	5.3	
NVI	3978	76.5	883	17.0	336	6.5	3906	77.9	817	16.3	291	5.8	3978	77.7	860	16.8	279	5.5	4042	78.2	823	15.9	304	5.9	4147	79.3	838	16.0	247	4.7	
SVI	238	82.1	30	10.3	22	7.6	176	81.1	29	13.4	12	5.5	169	84.9	21	10.6	9	4.5	145	75.1	21	10.9	27	14.0	135	79.9	17	10.1	17	10.1	
BC UNSPEC	115	75.7	14	9.2	23	15.1	106	74.6	18	12.7	18	12.7	117	82.4	14	9.9	11	7.7	79	73.8	16	15.0	12	11.2	100	77.5	21	16.3	8	6.2	
NON RES	29034	79.5	4932	13.5	2542	7.0	28763	79.6	4803	13.3	2556	7.1	28727	79.7	4780	13.3	2553	7.1	29063	80.3	4503	12.4	2649	7.3	29131	80.2	4688	12.9	2526	7.0	
Province																															

Note: Please refer to back flap for legend of the Health Authorities and Health Service Delivery Areas  
 AGA: Average-for-gestational age  
 LGA: Large-for-gestational age  
 SGA: Small-for-gestational age

APPENDIX 10 –  
DATA TABLES (CONT'D)

DATA TABLE 17A

**Birth Weight vs Gestational Age (Preterm Births) by Place of Residence for Health Service Delivery Areas, Health Authorities and Province, 2001/2002, 2002/2003, 2003/2004, 2004/2005, 2005/2006**

HA	2001/2002						2002/2003						2003/2004						2004/2005						2005/2006						
	AGA		LGA		SGA		AGA		LGA		SGA		AGA		LGA		SGA		AGA		LGA		SGA		AGA		LGA		SGA		
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	
FHA	126	72.0	28	16.0	21	12.0	148	77.9	24	12.6	18	9.5	195	78.6	35	14.1	18	7.3	172	72.3	42	17.6	24	10.1	187	80.6	26	11.2	19	8.2	
FE	278	77.4	40	11.4	334	78.4	54	12.7	38	8.9	358	82.9	42	9.7	327	76.9	53	12.5	327	76.9	53	12.5	45	10.6	329	74.4	65	14.7	48	10.9	
FN	341	73.7	65	14.0	57	12.3	366	75.9	66	13.7	371	76.8	73	15.1	39	8.1	375	72.5	87	16.8	87	16.8	55	10.6	419	74.6	85	15.1	58	10.3	
FS	745	74.7	133	13.3	119	11.9	848	77.2	144	13.1	106	9.7	924	79.4	150	12.9	89	7.7	874	74.1	182	15.4	124	10.5	935	75.6	176	14.2	125	10.1	
Total	31	86.1	3	8.3	2	5.6	25	75.8	6	18.2	2	6.1	35	87.5	3	7.5	2	5.0	39	88.6	3	6.8	2	4.5	38	82.6	3	6.5	5	10.9	
IHA	28	87.5	2	6.3	2	6.3	37	82.2	5	11.1	3	6.7	30	71.4	1	2.4	1	2.4	48	82.8	7	12.1	3	5.2	36	80.0	5	11.1	4	8.9	
KB	152	80.0	27	14.2	11	5.8	143	82.7	22	12.7	8	4.6	159	83.2	23	12.0	9	4.7	153	78.9	26	13.4	15	7.7	160	77.7	25	12.1	21	10.2	
OK	100	79.4	15	11.9	1	8.7	110	76.9	25	17.5	8	5.6	128	78.0	22	13.4	14	8.5	114	75.0	24	15.8	14	9.2	118	81.4	23	15.9	4	2.8	
TCS	311	81.0	47	12.2	26	6.8	315	79.9	58	14.7	21	5.3	352	80.5	59	13.5	26	5.9	354	79.0	60	13.4	34	7.6	352	79.6	56	12.7	34	7.7	
Total	34	89.5	3	7.9	1	2.6	31	73.8	7	16.7	4	9.5	34	87.2	2	5.1	3	7.7	33	70.2	11	23.4	3	6.4	30	66.7	8	17.8	7	15.6	
NHA	66	72.5	16	17.6	9	9.9	90	77.6	15	12.9	11	9.5	92	75.4	17	13.9	13	10.7	73	73.7	18	18.2	8	8.1	83	79.8	15	14.4	6	5.8	
NI	46	73.0	9	14.3	8	12.7	48	69.6	17	24.6	4	5.8	51	63.0	23	28.4	7	8.6	64	76.2	17	20.2	3	3.6	57	67.1	20	23.5	8	9.4	
NW	146	76.0	28	14.6	18	9.4	169	74.4	39	17.2	19	8.4	177	73.1	42	17.4	23	9.5	170	73.9	46	20.0	14	6.1	170	72.6	43	18.4	21	9.0	
Total	106	75.7	19	13.6	15	10.7	130	79.3	28	17.1	6	3.7	124	79.0	20	12.7	13	8.3	137	79.2	24	13.9	12	6.9	111	71.2	34	21.8	11	7.1	
VCHA	79	76.7	16	15.5	8	7.8	81	83.5	3	3.1	13	13.4	88	79.3	13	11.7	10	9.0	82	80.4	12	11.8	8	7.8	81	73.0	20	18.0	10	9.0	
RICH	350	82.4	33	7.8	42	9.9	338	75.6	50	11.2	59	13.2	372	83.4	38	8.5	36	8.1	385	83.3	41	8.9	36	7.8	437	82.6	52	9.8	40	7.6	
VANC	535	80.1	68	10.2	65	9.7	549	77.5	81	11.4	78	11.0	584	81.8	71	9.9	59	8.3	604	82.0	77	10.4	56	7.6	629	79.0	106	13.3	61	7.7	
Total	117	78.5	22	14.8	10	6.7	120	73.2	36	22.0	8	4.9	120	73.6	27	16.6	16	9.8	125	73.5	34	20.0	11	6.5	147	72.8	35	17.3	20	9.9	
VIHA	55	80.9	10	14.7	3	4.4	65	78.3	11	13.3	7	8.4	61	74.4	13	15.9	8	9.8	50	73.5	12	17.6	6	8.8	59	67.8	19	21.8	9	10.3	
CVI	167	85.2	20	10.2	9	4.6	170	75.2	32	14.2	24	10.6	171	76.0	36	16.0	18	8.0	175	78.1	38	17.0	11	4.9	189	80.4	34	14.5	12	5.1	
NVI	339	82.1	52	12.6	22	5.3	355	75.1	79	16.7	39	8.2	352	74.9	76	16.2	42	8.9	350	75.8	84	18.2	28	6.1	395	75.4	88	16.8	41	7.8	
SVI	12	70.6	2	11.8	3	17.6	14	73.7	2	10.5	3	15.8	15	68.2	5	22.7	2	9.1	17	56.7	10	33.3	3	10.0	10	71.4	1	7.1	3	21.4	
BC UNSPEC	16	69.6	3	13.0	4	17.4	18	69.2	3	11.5	5	19.2	21	87.5	1	4.2	2	8.3	15	71.4	2	9.5	4	19.0	15	83.3	0	0.0	3	16.7	
NON RES	2104	78.1	333	12.4	257	9.5	2268	77.0	406	13.8	271	9.2	2425	78.9	404	13.2	243	7.9	2384	76.7	461	14.8	263	8.5	2506	76.8	470	14.4	288	8.8	
Province																															

Note: Please refer to back flap for legend of the Health Authorities and Health Service Delivery Areas  
 AGA: Average-for-gestational age  
 LGA: Large-for-gestational age  
 SGA: Small-for-gestational age

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## LEGEND

### Health Authority (HA)

<b>FHA</b>	Fraser HA
<b>IHA</b>	Interior HA
<b>NHA</b>	Northern HA
<b>VCHA</b>	Vancouver Coastal HA
<b>VIHA</b>	Vancouver Island HA
<b>PHSA</b>	Provincial Health Services Authority
<b>BC UNSPEC</b>	Resident of BC – Postal Code Unknown
<b>NON RES</b>	Non-Resident of BC
<b>HB</b>	Home Birth

### Health Service Delivery Area (HSDA)

<b>FE</b>	Fraser East
<b>FN</b>	Fraser North
<b>FS</b>	Fraser South
<b>EK</b>	East Kootenay
<b>KB</b>	Kootenay Boundary
<b>OK</b>	Okanagan
<b>TCS</b>	Thompson Cariboo Shuswap
<b>NE</b>	Northeast
<b>NI</b>	Northern Interior
<b>NW</b>	Northwest
<b>CST</b>	Coastal
<b>RICH</b>	Richmond
<b>VANC</b>	Vancouver
<b>CVI</b>	Central Vancouver Island
<b>NVI</b>	North Vancouver Island
<b>SVI</b>	South Vancouver Island

