

BRITISH COLUMBIA PERINATAL DATABASE REGISTRY

Annual Report 2007



BRITISH COLUMBIA PERINATAL HEALTH PROGRAM

Optimizing Neonatal, Maternal and Fetal Health

For further information contact:

BRITISH COLUMBIA PERINATAL HEALTH PROGRAM

Telephone: (604) 875-3737
Fax: (604) 875-3747
Website: <<http://www.bcphp.ca>>
Address: F502 – 4500 Oak Street
Vancouver, BC V6H 3N1

This publication can also be accessed electronically via the Internet at:

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

Suggested Citation: British Columbia Perinatal Health Program. *British Columbia Perinatal Database Registry Annual Report 2007*. Vancouver, BC.

ACKNOWLEDGEMENTS

The BCPHP is pleased to present the 2007 British Columbia Perinatal Database Registry Annual Report. This report was prepared and developed by Susan Barker, Romy McMaster and Lisa Miyazaki with clinical contribution and counsel from the following individuals:

- Ms. Karen Vida, Acting Program Director, BC Perinatal Health Program
- Ms. Sheryll Dale, Manager, BC Perinatal Database Registry
- Ms. Lucy Barney, Perinatal Nurse Consultant, BC Perinatal Health Program
- Ms. Lily Lee, Perinatal Nurse Consultant, BC Perinatal Health Program
- Ms. Barbara Selwood, Perinatal Nurse Consultant, BC Perinatal Health Program
- Dr. Leanne Dahlgren, Assistant Professor, Department of Obstetrics and Gynaecology, UBC;
Perinatologist, BC Women's Hospital
- Dr. Duncan Etches, Family Practice Consultant
- Dr. Duncan F. Farquharson, Medical Director, BC Perinatal Health Program; Medical Director,
Maternal Fetal Medicine, North Fraser Health Region; Head Obstetrics, Royal Columbian Hospital
- Dr. Patti Janssen, Associate Professor, Department of Health Care and Epidemiology, UBC
- Dr. Janusz Kaczorowski, Associate Professor, Department of Family Practice, UBC;
Director of Primary Care and Community Research, Child and Family Research Institute
- Dr. Robert Liston, Chairman, Provincial Perinatal Advisory Committee, BC Perinatal Health Program;
Department Head, UBC Obstetrics and Gynaecology
- Dr. Alfonso Solimano, Neonatal Consultant, BC Perinatal Health Program; Neonatal Medical Leader,
Provincial Specialized Perinatal Services (PSPS Program), BC Women's Hospital
- Dr. Anne Synnes, Clinical Associate Professor, Faculty of Medicine, UBC; Neonatologist,
Children's and Women's Health Centre of BC

The BCPHP gratefully acknowledges the assistance of health records staff at the participating hospitals, as well as the physicians and nurses who generated the records, in addition to the data analysts for their valuable work in the collection, extraction and analysis of data. The program also wishes to acknowledge the BC Ministry of Health Services and the BC Vital Statistics Agency for their ongoing support in data quality initiatives.

TABLE OF CONTENTS

PAGE

HIGHLIGHTS AND EXECUTIVE SUMMARY	1
BACKGROUND	2
INTRODUCTION	3
SECTION I	
Demographics	
• Demographics	6
SECTION II	
Maternal Indicators	
• Care Provider Delivering Baby by Place of Delivery for Health Service Delivery Areas, Health Authorities and Province, 2002/2003 to 2006/2007	10
• Teen Birth Rate by Place of Residence for Health Service Delivery Areas, Health Authorities and Province, 2002/2003 to 2006/2007	12
• Maternal Smoking Rate by Place of Residence for Health Service Delivery Areas, Health Authorities and Province, 2002/2003 to 2006/2007	14
• Induction of Labour Rate by Place of Delivery for Health Service Delivery Areas, Health Authorities and Province, 2002/2003 to 2006/2007	16
• Fetal Surveillance During Labour by Place of Delivery for Health Service Delivery Areas, Health Authorities and Province, 2004/2005 to 2006/2007	18
• Episiotomy Rate by Place of Delivery for Health Service Delivery Areas, Health Authorities and Province, 2002/2003 to 2006/2007	20
• Postpartum Length of Stay (Vaginal Deliveries) by Place of Delivery for Health Service Delivery Areas, Health Authorities and Province, 2002/2003 to 2006/2007	22
• Postpartum Length of Stay (Caesarean Section Deliveries) by Place of Delivery for Health Service Delivery Areas, Health Authorities and Province, 2002/2003 to 2006/2007	24
• Pre-pregnancy Body Mass Index (BMI) by Place of Residence for Health Service Delivery Areas, Health Authorities and Province, 2002/2003 to 2006/2007	26
• Maternal Postpartum Readmission to Hospital by Place of Delivery for Health Service Delivery Areas, Health Authorities and Province, 2002/2003 to 2005/2006	28
• Method of Delivery Rate (Vaginal vs Caesarean Section Deliveries) by Place of Delivery for Health Service Delivery Areas, Health Authorities and Province, 2002/2003 to 2006/2007	30
SECTION III	
Fetal and Newborn Indicators	
• Newborn Feeding by Place of Delivery for Health Service Delivery Areas, Health Authorities and Province, 2004/2005 to 2006/2007	34
• Changes in Birth Rate by Place of Residence for Health Service Delivery Areas, Health Authorities and Province, 2000/2001 to 2006/2007	36
• Birth Weight vs Gestational Age by Place of Residence for Health Service Delivery Areas, Health Authorities and Province, 2002/2003 to 2006/2007	38
SECTION IV	
Appendices and References	
Appendix 1 Definitions and Notes on Indicators	43
Appendix 2 British Columbia Perinatal Database – Information Resources	46
Appendix 3 Health Authorities, Health Service Delivery Areas and Institutions	47
Appendix 4 Birth Weight and Gestational Age Charts for British Columbia Population for Singleton Males (1981-2000)	49
Appendix 5 Birth Weight and Gestational Age Charts for British Columbia Population for Singleton Females (1981-2000)	50
Appendix 6 Live Births, Deaths, Marriages and Stillbirths – British Columbia, 1950 to 2005	51
Infant Mortality – British Columbia and Canada, 1965 to 2005	52
Total Fertility Rates – British Columbia, 1950 to 2005	53
Appendix 7 Map – Health Authorities and Health Service Delivery Areas	54
Appendix 8 Other Relevant Sources of Information	55
Appendix 9 BC Perinatal Database Registry Information Request Form	56
Appendix 10 Data Tables	57
References	72

LIST OF TABLES

PAGE

Table 1	Introduction	Sources of Perinatal Data	3
Table 2	Section I	Total Births Per Fiscal Year	6
Table 3	Section I	Population of Women in BC Aged 15-54, 2002 to 2006	7
Table 4	Section II	Care Provider Delivering Baby by Place of Delivery for Health Service Delivery Areas, Health Authorities and Province 2002/2003 to 2006/2007	11
Table 5	Section II	Teen Births by Place of Residence for Health Service Delivery Areas, Health Authorities and Province, 2002/2003 to 2006/2007	13
Table 6	Section II	Maternal Smoking During Pregnancy by Place of Residence for Health Service Delivery Areas, Health Authorities and Province, 2002/2003 to 2006/2007	15
Table 7	Section II	Induction of Labour by Place of Delivery for Health Service Delivery Areas, Health Authorities and Province 2002/2003 to 2006/2007	17
Table 8	Section II	Fetal Surveillance During Labour by Place of Delivery for Health Service Delivery Areas, Health Authorities and Province 2004/2005 to 2006/2007	19
Table 9	Section II	Episiotomies by Place of Delivery for Health Service Delivery Areas, Health Authorities and Province, 2002/2003 to 2006/2007	21
Table 10	Section II	Postpartum Length of Stay (Vaginal Deliveries) by Place of Delivery for Health Service Delivery Areas, Health Authorities and Province, 2002/2003 to 2006/2007	23
Table 11	Section II	Postpartum Length of Stay (Caesarean Section Deliveries) by Place of Delivery for Health Service Delivery Areas, Health Authorities and Province, 2002/2003 to 2006/2007	25
Table 12	Section II	Health Risk Classification According to Body Mass Index (BMI)	26
Table 13	Section II	Maternal Postpartum Readmission by Place of Delivery for Health Service Delivery Areas, Health Authorities and Province, 2002/2003 to 2005/2006	29
Table 14	Section II	Method of Delivery by Place of Delivery for Health Service Delivery Areas, Health Authorities and Province, 2002/2003 to 2006/2007	31
Table 15	Section II	Spontaneous Vaginal vs Operative Deliveries by Place of Delivery for Health Service Delivery Areas, Health Authorities and Province, 2002/2003 to 2006/2007	32
Table 16	Section III	Newborn Feeding by Place of Delivery for Health Service Delivery Areas, Health Authorities and Province, 2004/2005 to 2006/2007	35
Table 17	Section III	Changes in Birth Rate by Place of Residence for Health Service Delivery Areas, Health Authorities and Province, 2001/2002 to 2006/2007 (Year-to-Year Comparison)	37
Table 18	Section III	Birth Weight vs Gestational Age (Term Births) by Place of Residence for Health Service Delivery Areas, Health Authorities and Province, 2002/2003 to 2006/2007	39
Table 19	Section III	Birth Weight vs Gestational Age (Preterm Births) by Place of Residence for Health Service Delivery Areas, Health Authorities and Province, 2002/2003 to 2006/2007	40
Data Table 4A	Appendix 10	Care Provider Delivering Baby by Place of Delivery for Health Service Delivery Areas, Health Authorities and Province, 2002/2003 to 2006/2007	57
Data Table 5A	Appendix 10	Teen Births by Place of Residence for Health Service Delivery Areas, Health Authorities and Province, 2002/2003 to 2006/2007	58
Data Table 6A	Appendix 10	Maternal Smoking During Pregnancy by Place of Residence for Health Service Delivery Areas, Health Authorities and Province 2002/2003 to 2006/2007	59
Data Table 7A	Appendix 10	Induction of Labour by Place of Delivery for Health Service Delivery Areas, Health Authorities and Province 2002/2003 to 2006/2007	60
Data Table 8A	Appendix 10	Fetal Surveillance During Labour by Place of Delivery for Health Service Delivery Areas, Health Authorities and Province, 2004/2005 to 2006/2007	61
Data Table 9A	Appendix 10	Episiotomies by Place of Delivery for Health Service Delivery Areas, Health Authorities and Province, 2002/2003 to 2006/2007	62
Data Table 10A	Appendix 10	Postpartum Length of Stay (Vaginal Deliveries) by Place of Delivery for Health Service Delivery Areas, Health Authorities and Province 2002/2003 to 2006/2007	63
Data Table 11A	Appendix 10	Postpartum Length of Stay (Caesarean Section Deliveries) by Place of Delivery for Health Service Delivery Areas, Health Authorities and Province, 2002/2003 to 2006/2007	64
Data Table 12A	Appendix 10	Body Mass Index (BMI) by Place of Residence for Health Service Delivery Areas, Health Authorities and Province, 2002/2003 to 2006/2007	65
Data Table 13A	Appendix 10	Maternal Postpartum Readmission by Place of Delivery for Health Service Delivery Areas, Health Authorities and Province, 2002/2003 to 2005/2006	66

LIST OF TABLES (CONT'D)**PAGE**

Data Table 14A	Appendix 10	Method of Delivery by Place of Delivery for Health Service Delivery Areas, Health Authorities and Province, 2002/2003 to 2006/2007	67
Data Table 15A	Appendix 10	Spontaneous Vaginal vs Operative Deliveries by Place of Delivery for Health Service Delivery Areas, Health Authorities and Province, 2002/2003 to 2006/2007	68
Data Table 16A	Appendix 10	Newborn Feeding by Place of Delivery for Health Service Delivery Areas, Health Authorities and Province 2004/2005 to 2006/2007	69
Data Table 18A	Appendix 10	Birth Weight vs Gestational Age (Term Births) by Place of Residence for Health Service Delivery Areas, Health Authorities and Province, 2002/2003 to 2006/2007	70
Data Table 19A	Appendix 10	Birth Weight vs Gestational Age (Preterm Births) by Place of Residence for Health Service Delivery Areas, Health Authorities and Province, 2002/2003 to 2006/2007	71

LIST OF FIGURES**PAGE**

Figure 1	Section I	Age-Specific Fertility Rates	7
Figure 2	Section II	Care Provider (Obstetrician/Family Physician) Delivering Baby by Place of Delivery for Health Authorities and Province, 2002/2003 to 2006/2007	11
Figure 3	Section II	Teen Births by Place of Residence for Health Authorities and Province, 2002/2003 to 2006/2007	13
Figure 4	Section II	Maternal Smoking During Pregnancy by Place of Residence for Health Authorities and Province, 2002/2003 to 2006/2007	15
Figure 5	Section II	Induction of Labour by Place of Delivery for Health Authorities and Province, 2002/2003 to 2006/2007	17
Figure 6	Section II	Fetal Surveillance During Labour by Place of Delivery for Health Authorities and Province, 2004/2005 to 2006/2007	19
Figure 7	Section II	Episiotomies by Place of Delivery for Health Authorities and Province, 2002/2003 to 2006/2007	21
Figure 8	Section II	Postpartum Length of Stay (Vaginal Deliveries) by Place of Delivery for Health Authorities and Province, 2002/2003 to 2006/2007	23
Figure 9	Section II	Postpartum Length of Stay (Caesarean Section Deliveries) by Place of Delivery for Health Authorities and Province, 2002/2003 to 2006/2007	25
Figure 10	Section II	Body Mass Index by Place of Residence for Health Authorities and Province, 2002/2003 to 2006/2007	27
Figure 11	Section II	Maternal Postpartum Readmission by Place of Delivery for Health Authorities and Province, 2002/2003 to 2005/2006	29
Figure 12	Section II	Method of Delivery by Place of Delivery for Health Authorities and Province, 2002/2003 to 2006/2007	31
Figure 13	Section II	Spontaneous Vaginal vs Operative Deliveries by Place of Delivery for Health Authorities and Province, 2002/2003 to 2006/2007	32
Figure 14	Section III	Newborn Feeding by Place of Delivery for Health Authorities and Province, 2004/2005 to 2006/2007	35
Figure 15	Section III	Changes in Birth Rate by Place of Residence for Health Authorities and Province, 2000/2001 to 2006/2007 (Overall Comparison)	37
Figure 16	Section III	Birth Weight vs Gestational Age (Term Births) by Place of Residence for Health Authorities and Province, 2002/2003 to 2006/2007	39
Figure 17	Section III	Birth Weight vs Gestational Age (Preterm Births) by Place of Residence for Health Authorities and Province, 2002/2003 to 2006/2007	40

HIGHLIGHTS AND EXECUTIVE SUMMARY

The 2007 Annual Report includes perinatal data from five fiscal years (April 1 to March 31) 2002/2003, 2003/2004, 2004/2005, 2005/2006 and 2006/2007. **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 page 43 Appendix 1 for definitions of terms used throughout this report.

Some of the key highlights from this report are:

Mothers

Close to half (46.6%) of the women delivering in BC in 2006/2007 were first time mothers.

The average age of women at the time of delivery continues to increase: in 2006/2007, women were, on average, 30.4 years old at the time of delivery. Women having their first baby were, on average, 28.7 years old in 2006/2007, while women having twins or multiples were, on average, 32.5 years old.

Fertility rates are slowly increasing for women in their 30's, while for other age groups, the fertility rates are stabilizing or slowly declining.

Less than 4% of births in the province are to teenage women. In the Northern Health Authority (HA), however, close to 10% of births are to teenage women. In the last fiscal year, the proportion of births to teenage women in the Northern HA increased 32% (from 7.1% to 9.4%).

Slightly more than 10% of all pregnant women in BC smoked during their current pregnancy. In the last fiscal year, rates of smoking in pregnancy increased in every HA except the Vancouver Coastal HA.

The majority of women delivering in BC are of normal weight pre-pregnancy. Rates of pre-pregnancy overweight and obesity are slowly increasing in BC, and together represent approximately 32% of all delivering women with known pre-pregnancy Body Mass Index (BMI). Unknown BMI continues to be an issue: approximately one-third of delivered mothers in BC do not have sufficient information recorded to calculate pre-pregnancy BMI.

Labour & Delivery

Approximately 1 in 5 women had their labour induced in 2006/2007. Women delivering in the Interior Health Authority had their labour induced more often in 2006/2007 than in any of the previous four fiscal years. The Provincial Health Services Authority continues to have the lowest induction rates in the province (excluding births at home attended by registered midwives).

The most common method of fetal surveillance in labour is a combination of intermittent auscultation and electronic fetal

monitoring, although rates of (exclusive) intermittent auscultation are slowly increasing across the province and rates of (exclusive) electronic fetal monitoring are slowly decreasing.

Less than 15% of women had an episiotomy during vaginal delivery in the last fiscal year. There is variation throughout the province, with the highest rates of episiotomy in the Fraser HA at 17%.

Only 60% of women in BC in 2006/2007 had a spontaneous vaginal delivery. The next most common method of delivery was emergent caesarean section (approximately 20%), followed by elective caesarean delivery (slightly more than 11%) and operative vaginal delivery (slightly fewer than 11%). Rates of caesarean section delivery continue to increase, while operative and spontaneous vaginal deliveries continue to decrease.

Newborns

The number of all births (singletons, twins and multiples) in BC increased from 40,407 in 2002/2003 to 42,198 in 2006/2007. Approximately 3% of births were twins or multiples. The Northeast Health Service Delivery Area (HSDA) experienced the largest increase in the number of singleton births in the last fiscal year (12.4% increase), while the Northern Interior HSDA had the largest decrease in the last fiscal year (-3.9%).

The average birth weight for term singletons in BC was 3460 grams in 2006/2007 (decreased from 3482 in 2002/2003). The majority of both term and preterm singletons are average-for-gestational age. Fewer than 10% of term and preterm singletons are small-for-gestational age.

Just under half of singleton births in BC were delivered by obstetricians, followed closely by family physicians (41.6% in 2006/2007). The remaining births were delivered by registered midwives (close to 6%) and nurses (less than 3%). Close to 10% of births in hospitals within the Vancouver Island Health Authority were delivered by registered midwives.

The majority of singletons born in BC received exclusive breast milk and approximately 5% were formula fed (received no breast milk) during the birth admission.

Postpartum

Postpartum lengths of stay continue to decrease across BC, after both vaginal and caesarean section delivery. The majority of women stay fewer than two days after a vaginal delivery or fewer than four days after a caesarean delivery.

In 2006/2007, less than 3% of women having caesarean delivery and 2% of women having vaginal delivery were readmitted to hospital (inpatient or same-day surgery) within 42 days of delivery for reasons other than routine follow-up. These rates have increased slightly from the previous year.

BACKGROUND

The Ministry of Health and the British Columbia Medical Association (BCMA) initiated the British Columbia Reproductive Care Program (BCRCP) in June 1988. A small, but dedicated group of individuals committed to ensuring that information on perinatal health was made available to a wide audience of professionals and planners, founded the British Columbia Perinatal Database Registry (BCPDR) in 1993. Notably, these individuals included Dr. Sidney Effer, Dr. William J. Ehman, Dr. Margaret Pendray, Mr. Peter Hayles and Dr. Alan Thomson with the support of the BC Ministry of Health. The BCRCP became part of the Provincial Health Services Authority (PHSA) in 2001 when the government of British Columbia introduced five geographically based health authorities and one provincial health service authority. In 2007, a new organizational structure – the BC Perinatal Health Program (BCPHP) – was created to coordinate both the BCRCP and the Provincial Specialized Perinatal Services (PSPS). The BCPHP continues to work towards optimizing neonatal, maternal and fetal health in the province through educational support to care providers, outcome analysis and multidisciplinary perinatal guidelines.

The BCPHP 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 Authorities, health care providers and academic organizations.

One of the mandates of the BCPHP 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 now 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 with records for over 400,000 births currently in the provincial database.

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. Mortality data normally reported in the BCPDR Annual Report consists 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. Due to unavailability of current mortality information, this section has not been included in the Annual Report 2007. Please refer to the Annual Report 2006 for mortality information.

INTRODUCTION

The 2007 BCPDR Annual Report describes the current state of perinatal health in British Columbia (BC). In the 2007 Annual Report, there are five years of data to monitor trends for the selected indicators. The Reports Development Committee has chosen these indicators because they are clinically relevant and lend themselves to analysis that may inform changes in policy or 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 2007 Annual Report includes perinatal data from five fiscal years (April 1 to March 31) 2002/2003, 2003/2004, 2004/2005, 2005/2006 and 2006/2007. Where possible, data for all fiscal years are reported. **Section I includes all deliveries and births, while Sections II and III include only singleton deliveries and births. Late terminations are excluded from the entire report.**

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 gives birth March 28, 2003 and is discharged March 31, 2003 and the newborn is also discharged March 31, 2003, then their information is contained in the 2002/2003 fiscal year data.
- if a woman gives birth March 28, 2003 and is discharged March 31, 2003 and the newborn is discharged April 4, 2003, then the data for both mother and newborn will be contained in the fiscal year 2003/2004 data set, not the 2002/2003 data set.

The updated data for fiscal years 2002/2003, 2003/2004, 2004/2005 and 2005/2006 have been incorporated in the 2007 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 BCPHP resources for select indicators (e.g., clinical practice guidelines). These references can be accessed on the BCPHP web site at <<http://www.bcphp.ca>>.

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	No	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

SECTION I
DEMOGRAPHICS



SECTION I – DEMOGRAPHICS

Births

In 2006/2007, 42,198 babies were born in British Columbia, an increase from 2002/2003 when 40,407 babies were born. This increasing trend in the number of births, along with the

distribution of these births between singleton and multiple births is illustrated in Table 2. Of the births in 2006/2007, 51.5% were male; in 2002/2003, 51.4% were male.

Table 2 Total Births Per Fiscal Year

Fiscal Year	Singleton Births		Multiple Births (includes twins and other multiple births)		Total Births
	#	%	#	%	#
2002/2003	39,150	96.9	1,257	3.1	40,407
2003/2004	39,202	97.0	1,201	3.0	40,403
2004/2005	39,407	97.1	1,191	2.9	40,598
2005/2006	39,692	96.8	1,303	3.2	40,995
2006/2007	40,878	96.9	1,320	3.1	42,198

Source: BC Perinatal Database Registry

Note: The numbers correspond to births, not pregnancies. Late terminations are excluded. Only linked mothers and newborns included. Fiscal Year is dependent on when the last individual is discharged (mother or baby).

Birth Weight

In 2006/2007, the average birth weight of newborns in BC was 3460 grams for term singletons and 2800 grams for term twins or multiples. Average birth weights have decreased slightly from 2002/2003, when the average birth weight was 3482 grams for singletons and 2830 grams for twins or multiples.

Parity

Of women delivering in BC in 2006/2007, 46.6% were first-time mothers, an increase from 2002/2003, when 44.9% were nulliparous.

Maternal Age

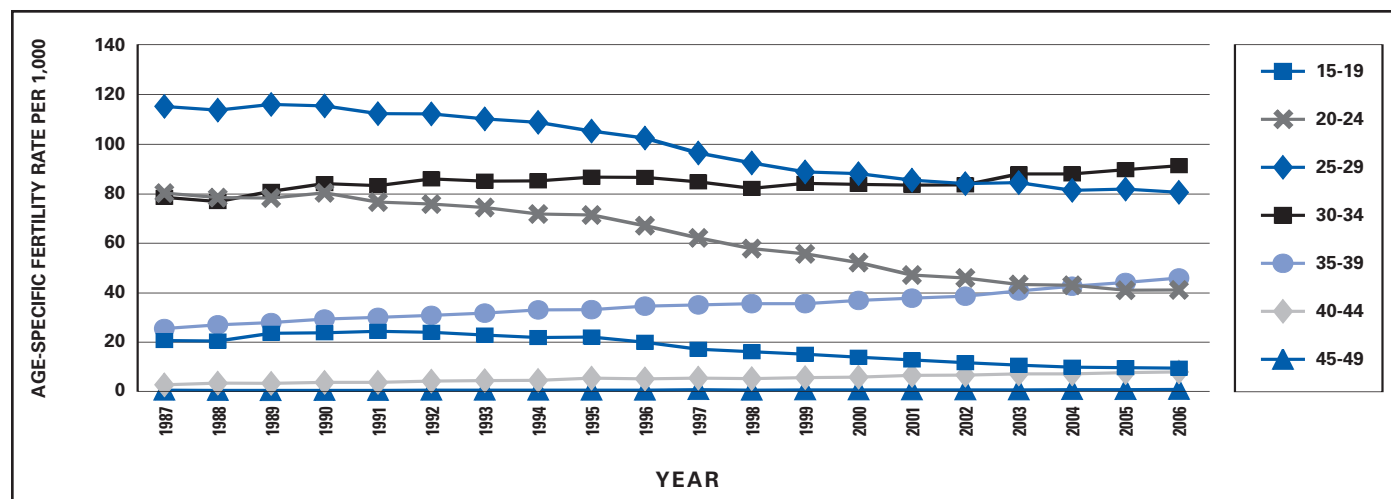
The average age of mothers in British Columbia in 2006/2007 at the time of delivery was 30.4 years, an increase from 2002/2003, when the average age was 30.1 years. The average age of first-time mothers in BC increased from 28.6 years in 2002/2003 to 28.7 years in 2006/2007. The average age of mothers delivering twins or multiples increased from 31.5 years in 2002/2003 to 32.5 years in 2006/2007.

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% [1]. 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 8.1% in 1986 to 21.5% in 2005 [2].

Age-Specific Fertility

When looking at the age-specific fertility rates in British Columbia, it can be seen that fewer 20-29 year-olds are delivering, while the proportion of women over the age of 30 is increasing, particularly in the 35 to 39 year-olds.

Figure 1 Age-Specific Fertility Rates



Source: Fertility Rates and Population – BC STATS, Victoria, BC

BC Female Population

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. The proportion of women in BC between the ages of 15-19 and 30-44 continues to decrease.

Table 3 Population of Women in BC Aged 15 – 54, 2002 to 2006

Age	2002		2003		2004		2005		2006	
	#	%	#	%	#	%	#	%	#	%
15-19	136,805	11.3	136,440	11.2	135,975	11.0	136,341	11.0	137,302	10.9
20-24	135,660	11.2	139,824	11.4	144,637	11.7	147,974	11.9	150,381	12.0
25-29	133,479	11.0	133,475	10.9	135,551	11.0	138,736	11.1	142,277	11.3
30-34	151,532	12.5	150,210	12.3	148,028	12.0	146,207	11.7	144,471	11.5
35-39	166,355	13.7	161,447	13.2	158,394	12.9	158,659	12.7	160,643	12.8
40-44	177,046	14.6	178,385	14.6	179,818	14.6	179,429	14.4	177,555	14.1
45-49	167,404	13.8	171,365	14.0	174,514	14.2	177,305	14.2	180,124	14.3
50-54	147,541	12.1	150,776	12.3	155,213	12.6	160,102	12.9	165,349	13.1
Total	1,215,822	100.0	1,221,922	100.0	1,232,130	100.0	1,244,753	100.0	1,258,102	100.0

Source: Demography Division, Statistics Canada, Ottawa

Prepared by: BC Stats, Service BC, Ministry of Labour and Citizens' Services, Victoria

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

SECTION II

MATERNAL INDICATORS



SECTION II – MATERNAL INDICATORS

Care Provider Delivering Baby by Place of Delivery for Health Service Delivery Areas, Health Authorities and Province, 2002/2003 to 2006/2007

(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.

The 2007 National Physician Survey (NPS) shows that while 61.1% of family physicians provide some form of maternity care in pregnancy, only 11.1% provide intrapartum care [3]. Of those family physicians providing intrapartum care, 55.9% attend 50 or fewer births per year [3]. While increases in deliveries by registered midwives may help to explain this decline, the sustained increase in deliveries by obstetricians may also be a contributing factor. With an aging workforce (the average age of physicians responding to the 2007 NPS was 50.1 years [3]), human resources planning in maternity care will become increasingly more important. Many health planners and professional organizations, including the Society of Obstetricians and Gynaecologists of Canada [4], are developing health human resource strategies to plan for anticipated shortages.

Over the past five years, there have been slight increases in BC in the proportion of deliveries by obstetricians (49.9% in 2006/2007 compared to 48.2% in 2002/2003) and a larger decrease in the proportion of deliveries by family physicians (41.6% in 2006/2007 compared to 44.3% in 2002/2003), which have been largely offset by an increase in the proportion of deliveries by registered midwives (5.8% in 2006/2007 compared to 3.7% in 2002/2003).

In the past five fiscal years, there has been a large increase in singleton deliveries by obstetricians in the Interior Health Authority (32.3% to 37.3%), Vancouver Coastal Health Authority (51.5% to 57.0%) and Vancouver Island Health Authority (44.7% to 48.5%). During the same period, deliveries by obstetricians within the Provincial Health Services Authority (PHSA) have decreased slightly, from 69.7% to 67.6%, although this health authority still has the highest proportion of deliveries by obstetricians than any other health authority or health service delivery area in BC. Kootenay Boundary Health Service Delivery Area (HSDA) had the lowest proportion of deliveries by obstetricians in 2006/2007 at 18.8%; in 2002/2003, 36.9% of deliveries in this HSDA were by obstetricians.

Deliveries by registered midwives (at home or in hospital) in BC continue to increase. In 2002/2003, 3.7% of singleton deliveries were by midwives; in 2006/2007, this proportion increased to 5.8%. This represents a 56.8% increase since 2000/2001, when midwives delivered 2.7% of singletons in BC [5]. In 2006/2007, the largest proportion of hospital deliveries by midwives were in the North Vancouver Island HSDA (increased from 10.1% to 16.0% over the past five fiscal years) and within the Kootenay Boundary HSDA (increased from 6.8% to 13.6%).

Although hospital deliveries by nurses continue to decrease provincially (2.8% in 2006/2007), in the Fraser Health Authority, nurses delivered more than midwives. For example, in 2006/2007, nurses delivered 4.5% of singletons in the Fraser Health Authority (606 newborns), compared to 2.7% delivered by midwives (363 newborns).

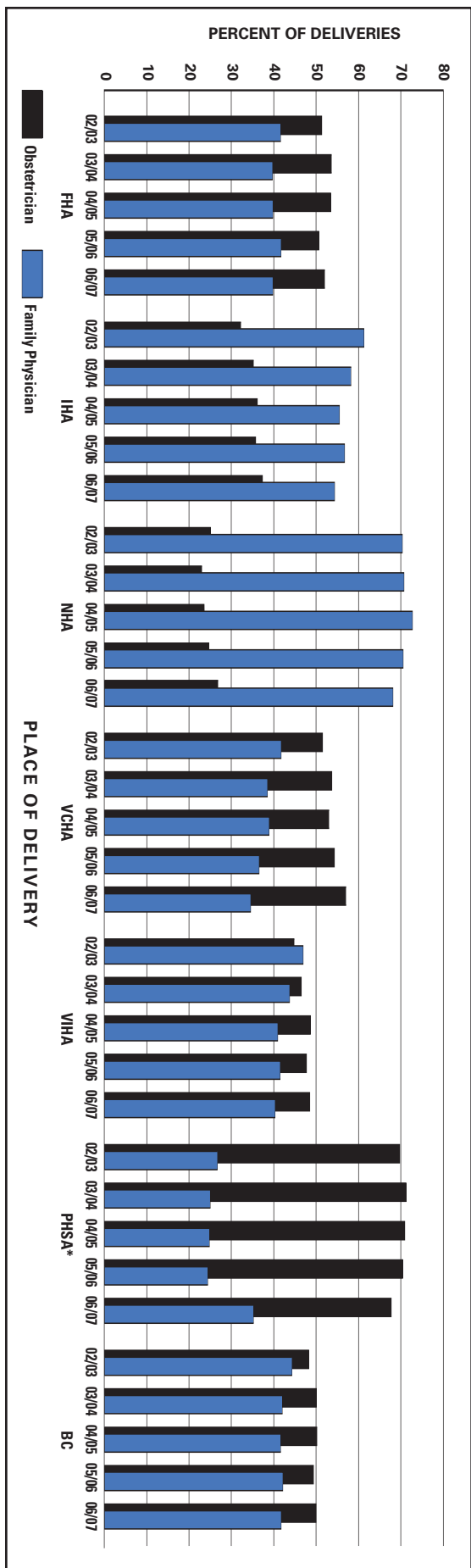
As many data sources, both nationally and provincially, cannot measure the involvement of every care provider type in the care of the patient or referral patterns from antenatal care to admission for delivery, the prevalence and influence of these care providers may be underreported.

Table 4 Care Provider Delivering Baby by Place of Delivery for Health Service Delivery Areas, Health Authorities and Province, 2002/2003 to 2006/2007

	FHA			Total	IHA			Total	NHA			Total	VCHA			Total	VIHA			PHSA*	HB	BC			
	FE	FN	FS		EK	KB	OK		TCS	NE	NI		NW	CST	RICH		VANC	CVI	NVI				SVI	PHSA*	HB
	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%				
Obstetrician	02/03	31.3	46.6	64.3	51.2	15.5	36.9	39.6	27.0	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	48.2	
	03/04	33.5	48.5	66.5	53.3	22.7	41.8	41.8	34.1	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	34.1	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	25.2	25.0	42.3	32.3	10.7	24.9	38.8	24.6	35.1	59.5	71.0	54.3	55.2	51.3	41.6	47.7	70.4	0.0	49.3	
06/07	30.1	52.2	61.0	51.8	29.1	18.8	45.9	33.2	18.9	26.3	37.0	26.7	37.6	62.5	75.1	57.0	54.8	53.6	42.5	48.5	67.6	0.0	49.9		
Family Physician	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	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	61.3	84.2	65.8	65.8	70.7	54.5	39.3	19.9	38.5	33.9	36.0	52.5	43.9	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	41.0	24.9	0.0	41.6
	05/06	58.8	44.7	31.1	41.7	56.1	63.6	54.7	58.6	57.0	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	0.0	41.7
06/07	60.0	40.5	31.3	40.2	51.7	67.2	50.2	57.9	54.5	77.7	66.3	59.6	68.1	51.4	31.5	18.4	34.8	35.6	29.5	47.1	40.3	25.3	0.0	41.6	
Midwife	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	0.1	4.4	2.7	3.6	10.1	6.6	6.2	1.9	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	99.2
	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	96.5
	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	97.2
06/07	2.6	3.2	2.3	2.7	11.8	13.6	1.7	0.0	3.4	0.0	3.9	0.1	1.8	4.9	1.5	5.3	4.2	6.9	16.0	9.1	9.5	5.3	0.0	97.5	
Nurse	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	1.8	0.8	1.8	3.9	2.4	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	2.7
	05/06	4.7	2.5	5.2	4.1	2.4	0.4	1.4	4.3	2.4	2.4	2.1	3.5	2.5	2.7	5.5	0.5	2.6	2.5	1.2	1.3	1.7	0.9	0.0	2.6
06/07	6.8	2.6	5.1	4.5	2.9	0.2	1.9	4.3	2.6	2.9	2.5	3.6	2.6	2.8	4.1	0.8	2.4	2.4	0.8	0.9	1.4	1.3	0.0	2.8	

*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, 2002/2003 to 2006/2007



*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

Teen Birth Rate by Place of Residence for Health Service Delivery Areas, Health Authorities and Province, 2002/2003 to 2006/2007

(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.

Despite an overall decrease in the proportion of births to teens over the past five years, the proportion of singleton births to mothers aged 19 and younger (at the time of delivery) increased from **3.3%** in 2005/2006 to **3.6%** in 2006/2007. In the years prior to 2006/2007, the proportion of all teen births in BC decreased from **4.0%** in 2002/2003 to **3.6%** in 2006/2007. The largest increase in teen births over the last five fiscal years was in the Northern Health Authority (NHA), where the proportion of births to mothers between the ages of 18 and 19 years increased from **5.4%** in 2002/2003 to **6.8%** in 2006/2007.

In the younger subset of teenaged mothers (≤ 17 years), the proportion of births decreased from **1.3%** in 2002/2003 to **1.1%** in 2006/2007. The NHA, however, has a large proportion of births in this group. Specifically, in the Northwest Health Service Delivery Area (HSDA) **3.8%** of deliveries in 2006/2007

were to women in this younger age group. Conversely, only **0.3%** of deliveries to residents of Richmond HSDA were to women ≤ 17 years of age in 2006/2007. In fact, the Northwest HSDA has the largest proportion of births to teens (**11.5%** in 2006/2007), followed by the Northeast HSDA with **9.3%** and the Northern Interior HSDA with **8.3%**.

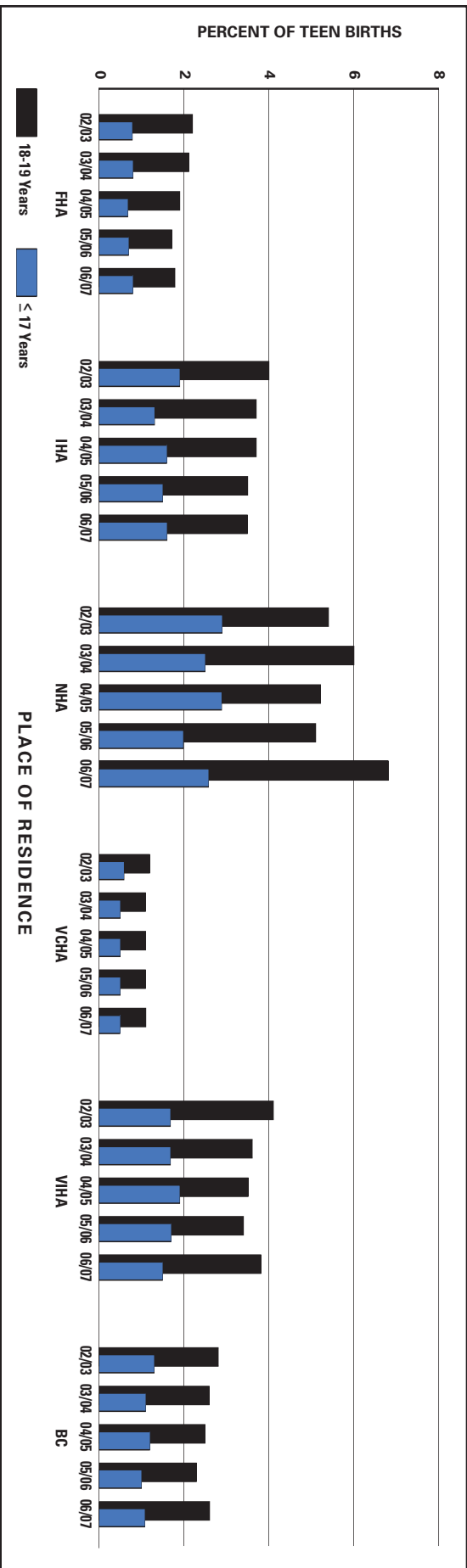
As teenage mothers have been associated, in the literature, with health indicators such as smoking and repeat pregnancy and their births have been associated with outcomes such as low birth weight, spontaneous vaginal delivery rates, and preterm delivery [6-8], further analysis was completed. In BC in 2006/2007, the prevalence of smoking in pregnancy was 34.0% in teenage mothers compared to 9.8% in non-teenage mothers [9]. Of the teens who delivered in BC in 2006/2007, 11.5% were parity ≥ 1 [9], consistent with 2005/2006 at 11.1% [10]. The average birth weight of term singletons born to teenage mothers in BC in 2006/2007 was 3475.1 grams compared to 3491.8 grams in non-teenage mothers [9]. Preterm birth rates among teenaged mothers in BC in 2006/2007, were 10.1%, compared to 8.1% in non-teenaged mothers [9]. Rates of spontaneous vaginal delivery of singletons for teenage mothers were 71.0% in BC in 2006/2007 compared to 59.5% of non-teenaged mothers [9].

Table 5 Teen Births by Place of Residence for Health Service Delivery Areas, Health Authorities and Province, 2002/2003 to 2006/2007

	FHA			IHA			NHA			VCHA			VIHA			BC Unspec %	Non Res %	BC %						
	FE %	FN %	FS %	Total %	EK %	KB %	OK %	Total %	NE %	NI %	NW %	Total %	CST %	RICH %	VANC %				Total %	CVI %	NVI %	SVI %	Total %	
≤ 17 years	02/03	1.7	0.5	0.8	0.8	1.4	1.3	1.8	2.4	2.0	2.9	3.5	2.9	1.1	0.3	0.5	0.6	2.2	2.5	1.1	1.7	1.9	0.7	1.3
	03/04	1.5	0.5	0.7	0.8	1.5	0.7	1.2	1.6	3.1	2.0	2.7	2.5	0.7	0.4	0.4	0.5	2.1	2.9	1.1	1.7	1.6	0.0	1.1
	04/05	1.9	0.5	0.5	0.8	2.2	0.7	1.3	2.2	1.6	2.6	2.3	4.3	0.6	0.1	0.5	0.5	2.7	2.9	0.9	1.9	1.8	0.0	1.2
	05/06	1.5	0.6	0.6	0.7	0.6	0.8	1.7	1.6	1.5	2.0	1.3	3.4	1.0	0.3	0.4	0.5	1.8	3.7	0.9	1.7	0.6	0.7	1.0
	06/07	1.2	0.5	0.8	0.8	2.2	1.2	1.3	1.9	1.6	1.9	3.8	2.6	1.0	0.3	0.4	0.5	2.6	1.7	0.7	1.5	1.9	0.0	1.1
	Total	1.2	0.5	0.8	0.8	2.2	1.2	1.3	1.9	1.6	1.9	3.8	2.6	1.0	0.3	0.4	0.5	2.6	1.7	0.7	1.5	1.9	0.0	1.1
18-19 Years	02/03	3.8	1.6	2.0	2.2	6.0	3.0	2.8	5.2	5.5	4.8	6.4	5.4	1.9	0.9	1.0	1.2	5.7	5.1	2.6	4.1	3.8	5.7	2.8
	03/04	3.1	1.8	1.9	2.1	5.2	2.0	3.5	4.0	6.5	5.1	6.9	6.0	1.9	0.6	0.9	1.1	4.3	5.6	2.4	3.6	1.6	2.2	2.6
	04/05	3.3	1.3	1.6	1.9	5.1	2.8	3.4	3.9	4.0	5.3	6.4	5.2	1.9	1.1	0.8	1.1	3.9	6.4	2.3	3.5	4.4	5.4	2.5
	05/06	2.8	1.1	1.6	1.7	4.4	3.0	2.7	4.6	5.6	4.1	6.2	5.1	1.9	0.7	0.9	1.1	4.6	3.3	2.5	3.4	3.9	2.7	2.3
	06/07	3.4	1.0	1.7	1.8	3.9	2.4	3.0	4.5	3.5	7.4	7.6	6.8	1.8	0.6	1.0	1.1	4.3	5.7	2.6	3.8	5.2	3.3	2.6
	Total	3.4	1.4	1.7	1.8	4.4	2.4	3.0	4.5	3.5	7.4	7.6	6.8	1.8	0.6	1.0	1.1	4.3	5.7	2.6	3.8	5.2	3.3	2.6
Total Teen Moms	02/03	5.4	2.2	2.9	3.1	7.4	4.3	4.6	7.7	5.9	7.4	9.9	8.3	3.0	1.2	1.5	1.8	7.9	7.6	3.7	5.8	5.7	6.4	4.0
	03/04	4.6	2.3	2.6	2.9	6.7	2.8	4.7	5.5	5.0	9.7	9.6	8.5	2.5	1.0	1.3	1.6	6.4	8.5	3.5	5.3	3.1	2.2	3.7
	04/05	5.2	1.8	2.2	2.7	7.3	3.5	4.7	6.1	5.3	7.6	10.7	8.2	2.5	1.2	1.3	1.6	6.6	9.3	3.2	5.4	4.4	5.4	3.7
	05/06	4.3	1.6	2.2	2.4	5.0	3.9	4.4	6.2	5.0	7.6	9.6	7.1	2.6	1.0	1.3	1.5	6.4	7.0	3.4	5.0	4.4	3.4	3.3
	06/07	4.6	1.5	2.5	2.6	6.1	3.6	4.3	6.4	4.4	8.3	11.5	9.4	2.8	0.9	1.4	1.6	6.9	7.4	3.3	5.3	7.1	3.3	3.6
	Total	4.6	1.5	2.5	2.6	6.1	3.6	4.3	6.4	4.4	8.3	11.5	9.4	2.8	0.9	1.4	1.6	6.9	7.4	3.3	5.3	7.1	3.3	3.6

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, 2002/2003 to 2006/2007



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, 2002/2003 to 2006/2007

(Refer to Data Table 6A – APPENDIX 10)

The maternal smoking rate is defined as the number of pregnant women who were reported to have 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.

Smoking in pregnancy and exposure to second hand smoke during pregnancy has been associated with specific adverse outcomes in the fetus and newborn as well as increased risk of pregnancy related complications. Increased risk of preterm births, stillbirths, low birthweight, and placental abruption are a few of these adverse outcomes [11]. Although many women attempt to quit smoking after learning of her pregnancy, these women may cycle through cessation attempts and relapses throughout pregnancy, making it difficult to monitor these fluctuations [12]. The longer a pregnant woman smokes during pregnancy, the greater the risk to her fetus. It has been shown, however, that cessation of smoking at any time during pregnancy is beneficial [13]. Women who smoke in pregnancy, therefore, should be encouraged to quit smoking at the start of her pregnancy as well as throughout the pregnancy and have access to adequate and appropriate smoking cessation material.

The BC government announced the ActNow BC initiative in 2005 to be achieved by 2010. For pregnant women, this initiative encourages healthy choices during pregnancy including healthy eating, increased physical activity, reduction in tobacco use, reduction in overweight and obesity and increased awareness of fetal alcohol spectrum disorder [*Act Now BC – Welcome*].

There are large differences in the rates of smoking in pregnancy in BC. While the provincial prevalence of smoking in pregnancy has been relatively stable for the past five fiscal years (**10.7%** in 2006/2007), rates are persistently high in certain parts of the province. Specifically, the Northern Health Authority (NHA) had the highest smoking in pregnancy rates in the province for the last five fiscal years, with a rate of **18.7%** in 2006/2007, followed by the IHA at **16.4%** and the VIHA at **16.2%**. Conversely, rates of smoking in pregnancy in the Vancouver Coastal Health Authority have remained the lowest in the province for the last five years, at **5.2%** in 2002/2003 and **4.0%** in 2006/2007.

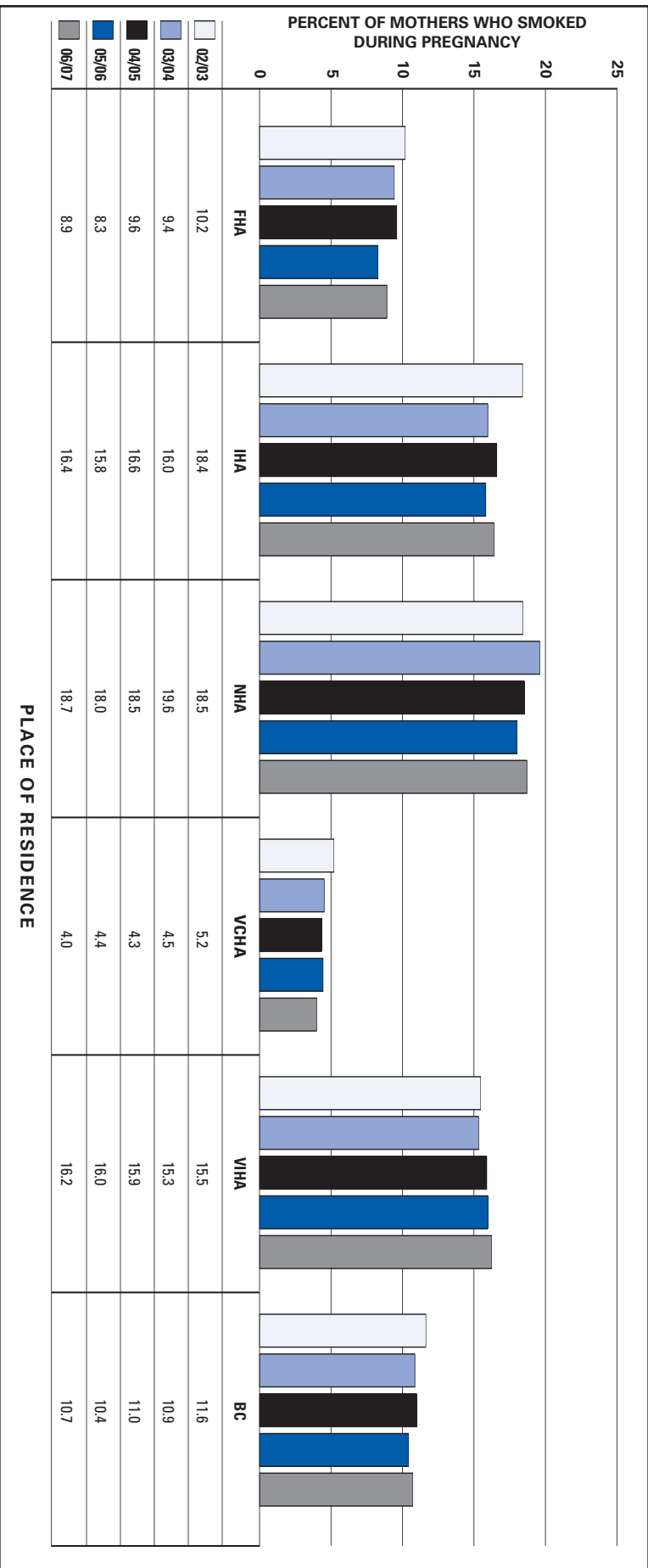
The highest rates of smoking in pregnancy in any Health Service Delivery Area in BC in 2006/2007 was in the Northern Interior, where approximately 1 in 5 women smoked in the current pregnancy (**20.6%**). Richmond Health Service Delivery Area had the lowest rate of smoking in pregnancy in 2006/2007, at **3.0%**. While smoking in pregnancy rates are generally decreasing across the province, the majority of the Health Service Delivery Areas within the Vancouver Island Health Authority and the Northern Health Authority have seen increasing rates from 2002/2003 to 2006/2007.

Table 6 Maternal Smoking During Pregnancy by Place of Residence for Health Service Delivery Areas, Health Authorities and Province, 2002/2003 to 2006/2007

	FHA			IHA					NHA				VCHA			VIHA			BC Unspec %	Non Res %	BC %			
	FE %	FN %	FS %	Total %	EK %	KB %	OK %	TCS %	Total %	NE %	NI %	NW %	Total %	CST %	RICH %	VANC %	Total %	CVI %				NVI %	SVI %	Total %
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	13.3	9.9	11.6
02/03	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	16.0	6.7	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	16.6	17.8	14.9	16.0	15.5	15.5	10.4
06/07	13.8	6.1	9.0	8.9	18.8	12.0	15.6	18.1	16.4	19.6	20.6	14.2	18.7	6.8	3.0	3.2	4.0	17.6	17.8	14.5	16.2	19.5	11.3	10.7

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, 2002/2003 to 2006/2007



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, 2002/2003 to 2006/2007

(Refer to Data Table 7A – 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.

Approximately 1 in 5 pregnant women in British Columbia had labour induced by artificial (medical or surgical) means in 2006/2007. As a method of initiation of labour, in addition to spontaneous labour or caesarean section before labour commences, inducing labour is an option that can be undertaken for a number of reasons. These include post-term pregnancy, maternal conditions (such as gestational diabetes or hypertension), pre-labour rupture of membranes, evidence of fetal compromise, fetal death, or other logistical or geographical constraints. In fact, in 2006/2007 the most common primary indication for induction of labour in singleton pregnancies was post-term pregnancy (36.7% of all inductions); this has remained the most common primary indication for induction since 2000/2001 [14].

Although labour induction can be beneficial in certain situations, it is also associated with a number of risks to both mother and baby. Current BCPHP Guidelines recommend that induction of labour should only be undertaken after discussing the known risks with the mother and her partner and that elective induction of labour without clearly identified medical or clinical indication should be avoided [15].

Induction of labour has been associated with many conditions including increased risk of caesarean delivery, longer labour, fetal compromise and uterine hyperstimulation [16]. The significance of these risk factors and the potential success (or failure) of labour induction can vary with such factors as the condition of the cervix, maternal age, parity, maternal body mass index and timing of induction (e.g. pre-term vs. post-term induction) [17, 18]. Induction should only occur after consideration for these factors, accurate assessment of gestational age, and after analysis of risks of continuing the pregnancy without induction. Labour induction in pregnant women with a history of previous caesarean section should be cautiously considered, as the risk of uterine rupture associated with labour induction in this subset of women, while remote, has severe consequences [19].

In BC, labour induction rates have been stable for the past five fiscal years, at **21.5%** in 2002/2003 and **21.2%** in 2006/2007, and a low of **20.0%** in 2004/2005. The PHSA, followed by the Northern Health Authority had the lowest labour induction rate in 2006/2007, at **16.4%** and **19.9%** respectively, excluding home births. The Interior Health Authority had the highest labour induction rate, at **24.5%**.

Pregnant women delivering in the Fraser North and Kootenay Boundary Health Service Delivery Areas (HSDA) had the highest rates of labour induction in 2006/2007, at **26.7%**, with deliveries occurring in the East Kootenay HSDA following closely behind at **24.7%**. Births at home consistently have the lowest rates of labour induction; among facility-based deliveries, those occurring in Northern Interior had the lowest rates of labour induction in 2006/2007, at **18.1%**. South Vancouver Island has shown the largest decrease in induction rates from **27.5%** in 2002/2003 to **22.5%** in 2006/2007, while all the Health Service Delivery Areas in the Interior Health Authority continue to show a trend of increasing labour induction rates.

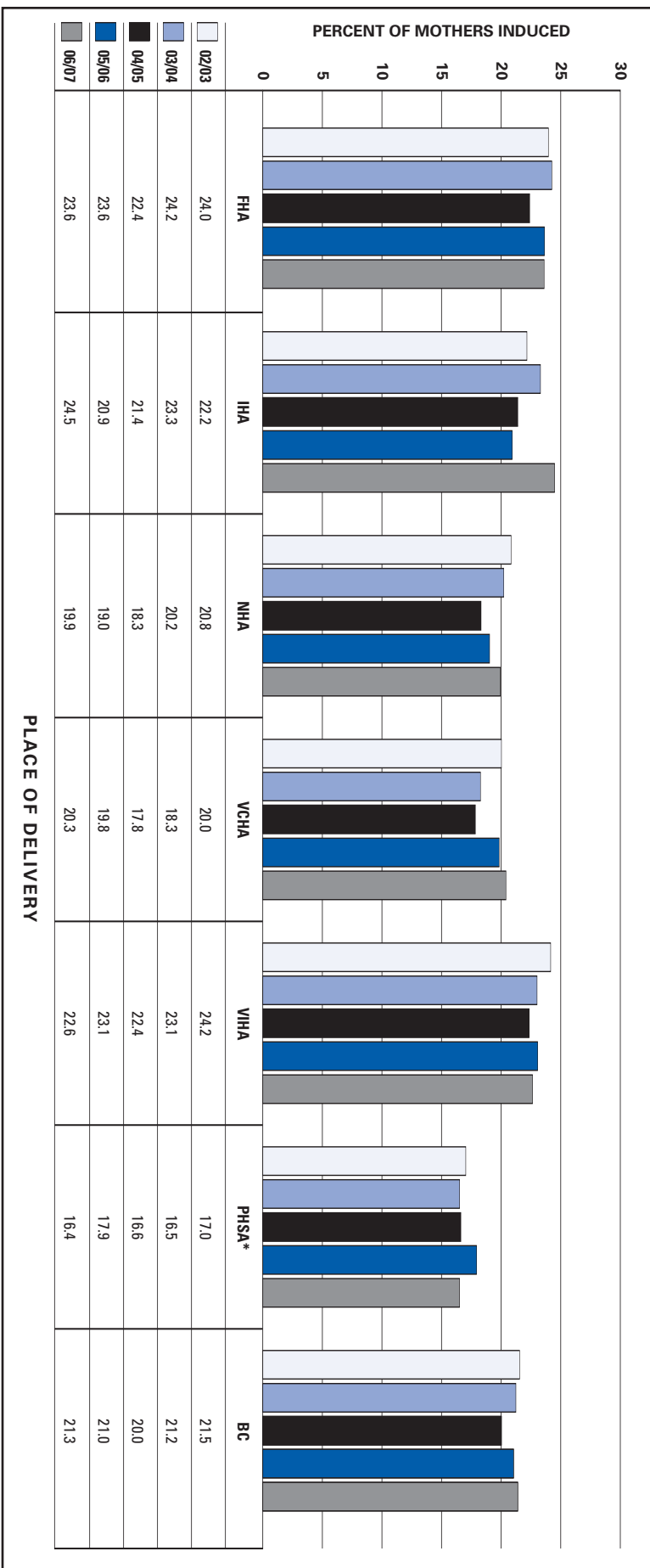
Table 7 Induction of Labour by Place of Delivery for Health Service Delivery Areas, Health Authorities and Province, 2002/2003 to 2006/2007

	FHA			IHA			NHA			VCHA			VIHA			PHSA*	HB	BC						
	FE %	FN %	FS %	Total %	EK %	KB %	OK %	TCS %	Total %	NE %	NI %	NW %	Total %	CST %	RICH %				VANC %	Total %	CVI %	NVI %	SVI %	Total %
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	19.9	23.7	21.6	23.2	23.1	17.9	2.4	21.0
06/07	21.5	26.7	21.9	23.6	24.7	26.7	24.1	24.2	24.5	20.9	18.1	22.0	19.9	19.8	18.6	22.1	20.3	24.4	19.3	22.5	22.6	16.4	1.1	21.2

*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 Induction of Labour by Place of Delivery for Health Authorities and Province, 2002/2003 to 2006/2007



*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 to 2006/2007

(Refer to Data Table 8A – APPENDIX 10)

Fetal surveillance during 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.

A recently (2007) revised guideline, jointly developed by the BCPHP and the Society of Obstetricians and Gynaecologists of Canada, recommends intermittent auscultation in labour for healthy term women in spontaneous labour in the absence of risk factors for adverse perinatal outcome, as opposed to electronic fetal monitoring [20]. Many studies and meta-analyses have shown that electronic fetal monitoring should be used in low-risk pregnancies only if adverse risk factors develop or intermittent auscultation becomes non-reassuring [21, 22].

In British Columbia, use of intermittent auscultation during labour increased, from **18.8%** in 2004/2005 to **22.8%** in 2006/2007, while the use of electronic fetal monitoring in labour decreased, from **31.5%** in 2004/2005 to **26.6%** in 2006/2007. In BC, almost 6% of women are not monitored in labour. Vancouver Island Health Authority had the highest rate of intermittent auscultation (**27.2%**) and the lowest rate of electronic fetal monitoring (**19.0%**), while **47.0%** of women in labour had a mix of electronic fetal monitoring and intermittent auscultation (2006/2007). The highest rate of electronic fetal monitoring in 2006/2007 was in the Northern Health Authority, at **38.6%**, although this was a dramatic decrease from **52.2%** in 2005/2006. Deliveries occurring at home have consistently had the highest rates of intermittent auscultation (**93.0%** in 2004/2005 and **93.7%** in 2006/2007).

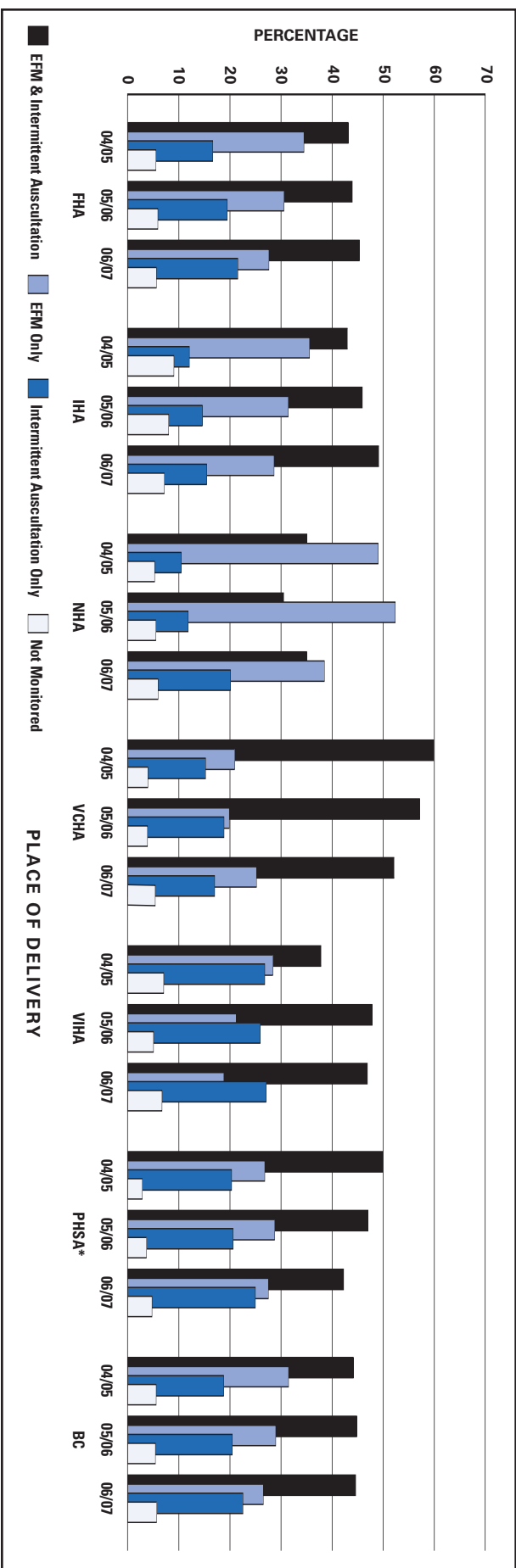
North Vancouver Island Health Service Delivery Area (HSDA) had the highest rate of intermittent auscultation in 2006/2007, excluding home births at **37.5%**, followed closely by East Kootenay HSDA at **36.7%**. While the Northern Interior HSDA and the Northeast HSDA had the highest rates of exclusive electronic fetal monitoring in 2006/2007 at **44.4%** and **41.1%** respectively, these HSDAs both demonstrated declines in rates since 2004/2005. Simultaneously, the Northeast HSDA increased its intermittent auscultation rate from **3.2%** in 2005/2006 to **23.3%** in 2006/2007.

Table 8 Fetal Surveillance During Labour by Place of Delivery for Health Service Delivery Areas, Health Authorities and Province, 2004/2005 to 2006/2007

	FHA			IHA			NHA			VCHA			VIHA			PHSA*	HB	BC							
	FE %	FN %	FS %	Total %	EK %	KB %	OK %	TCS %	Total %	NE %	NI %	NW %	Total %	CST %	RICH %				VANC %	Total %	CVI %	NVI %	SVI %	Total %	
EFM & Intermittent Auscultation	04/05	46.2	41.7	43.1	43.2	33.7	9.1	42.0	57.8	43.1	46.2	27.5	36.4	35.1	58.4	61.0	59.7	59.9	25.3	32.7	48.1	38.0	48.9	0.0	44.2
	05/06	48.0	41.5	44.2	44.0	28.7	23.7	46.9	57.3	45.9	21.2	28.6	43.9	30.5	58.5	55.1	57.4	57.2	41.7	38.2	55.3	47.9	47.0	0.3	44.9
	06/07	48.1	42.1	46.9	45.4	33.5	33.3	49.2	58.8	49.0	30.8	32.7	44.8	35.1	57.4	49.4	48.4	52.2	38.7	39.0	55.8	47.0	42.4	0.2	44.7
EFM Only	04/05	25.6	45.0	29.9	34.5	34.1	53.5	44.4	19.3	35.7	43.5	56.8	41.9	49.1	17.6	21.9	23.8	20.9	40.8	22.7	22.4	28.5	28.8	0.0	31.5
	05/06	20.1	40.7	26.8	30.6	32.6	36.0	39.7	18.1	31.5	71.2	51.6	33.3	52.2	14.6	20.9	24.8	19.9	25.1	20.7	18.8	21.2	28.8	0.2	29.1
	06/07	15.7	36.8	25.1	27.5	23.5	27.8	36.4	19.3	28.6	41.1	44.4	24.8	38.6	15.5	23.5	37.0	25.1	24.6	18.2	15.2	19.0	27.6	0.0	26.6
Intermittent Auscultation only	04/05	22.6	8.6	20.8	16.7	26.8	15.1	8.5	11.3	12.1	5.9	9.1	17.3	10.4	18.1	13.2	13.7	15.3	30.2	35.4	22.1	27.0	20.4	93.0	18.8
	05/06	27.0	12.0	22.6	19.5	34.7	27.0	9.7	11.0	14.6	3.2	13.0	18.9	11.9	21.3	20.3	15.3	17.9	28.0	35.2	20.7	25.9	20.6	92.7	20.5
	06/07	31.9	15.0	22.1	21.5	36.7	32.5	10.1	10.2	15.4	23.3	14.8	26.6	20.2	18.5	21.8	12.0	17.1	28.9	37.5	23.1	27.2	25.2	93.7	22.8
Not Monitored	04/05	5.6	4.7	6.2	5.5	5.4	22.3	5.0	11.7	9.0	4.3	6.6	4.3	5.3	4.9	3.9	2.8	3.9	5.6	9.2	7.4	7.1	2.9	7.0	5.6
	05/06	4.8	2.9	6.4	5.9	4.0	13.3	3.7	13.6	8.0	4.4	6.7	3.6	5.3	5.6	3.7	2.6	4.0	4.3	5.9	5.2	5.0	3.5	6.9	
	06/07	4.3	6.0	5.9	5.6	6.4	6.3	4.2	11.7	7.1	4.8	8.1	3.8	6.0	8.5	5.2	2.6	5.6	8.7	5.3	6.0	6.8	4.8	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 6 Fetal Surveillance During Labour by Place of Delivery for Health Authorities and Province, 2004/2005 to 2006/2007



*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, 2002/2003 to 2006/2007

(Refer to Data Table 9A – 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.

The Society of Obstetricians and Gynaecologists of Canada recommends that episiotomy is not necessary for an assisted vaginal birth [23]. A systematic review by Hartmann et al in 2005 also concluded that there were no improved outcomes from episiotomy, and that in some circumstances, the use of episiotomy may increase morbidity [24]. Despite this evidence and although the use of episiotomy has decreased substantially over the last twenty years, it persists in many countries, with variation among regions, hospitals and care providers [25-27].

Across British Columbia, rates of episiotomy in vaginal deliveries have stabilized in the past two fiscal years, reaching a low of **14.1%** in 2006/2007. The Fraser Health Authority (FHA), Provincial Health Services Authority (PHSA), and the Vancouver Coastal Health Authority (VCHA) had slightly higher episiotomy rates than the provincial average in

2006/2007, at **17.5%**, **16.0%** and **15.0%** respectively. Over the past five fiscal years, the PHSA has had the largest drop in rates, from a high of **23.6%** in 2002/2003 to **16.0%** in 2006/2007. Conversely, the Interior Health Authority has had the most stable episiotomy rates in the past five fiscal years, with a rate of **11.4%** in 2002/2003 (the lowest in the province that year, excluding home births), and **10.3%** in 2006/2007 (the lowest rate in the province that fiscal year, excluding home births). Home births have had a slight increase in episiotomy rates in the last fiscal year, increasing to a high of **1.4%** in 2006/2007.

The highest episiotomy rate in 2006/2007 in any of the Health Service Delivery Areas in BC was in Fraser South and Richmond, where **21.5%** and **21.4%**, respectively, of women delivering vaginally had an episiotomy. Women with the lowest likelihood of episiotomy in vaginal delivery in 2006/2007, excluding home births, delivered in Kootenay Boundary (**6.2%**). Although there is a wide range of rates across the province, all Health Service Delivery Areas have had a decrease in episiotomy in vaginal delivery rates from 2002/2003 to 2006/2007, except the Okanagan Health Service Delivery Area, where there was a very slight increase in rates, from **12.6%** in 2002/2003 to **13.7%** in 2006/2007.

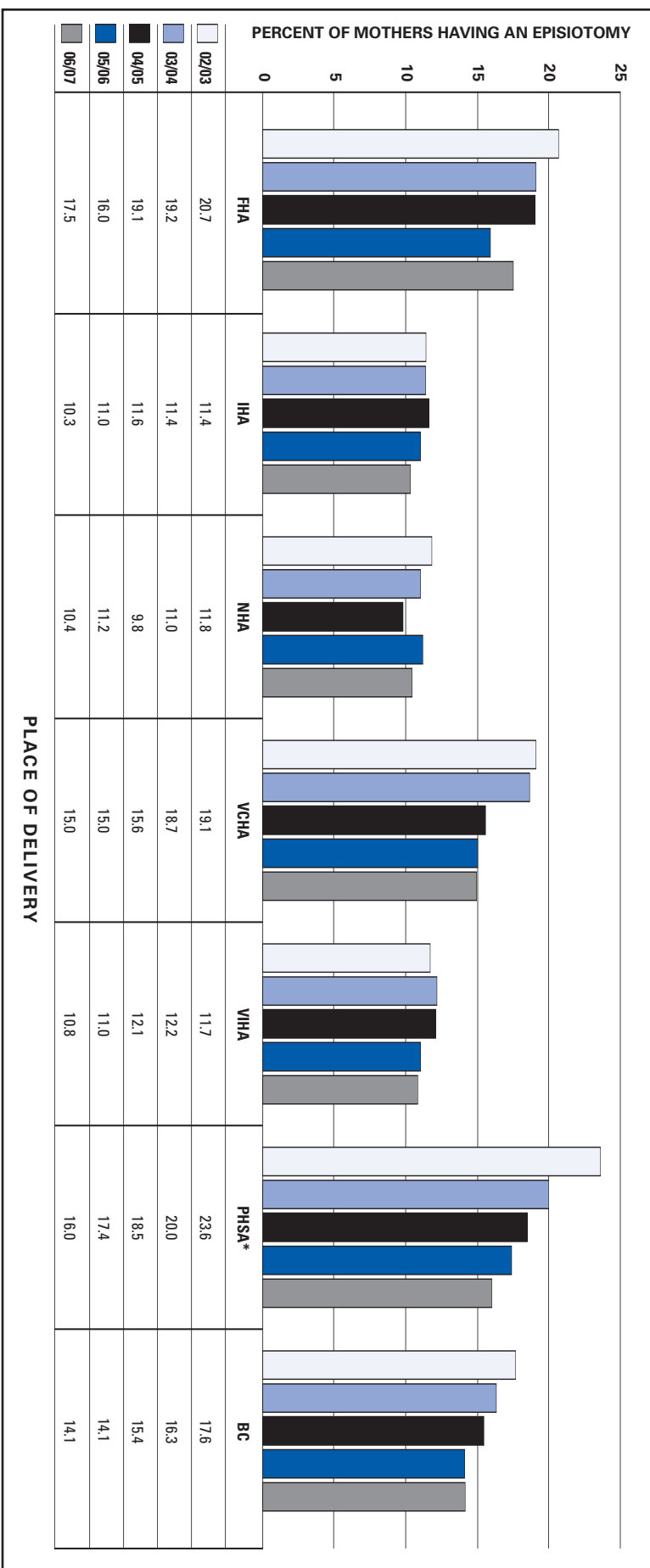
Table 9 Episiotomies by Place of Delivery for Health Service Delivery Areas, Health Authorities and Province, 2002/2003 to 2006/2007

	FHA			IHA			NHA			VCHA			VIHA			PHSA*	HB	BC						
	FE %	FN %	FS %	Total %	EK %	KB %	OK %	TCS %	Total %	NE %	NI %	NW %	Total %	CST %	RICH %				VANC %	Total %	CVI %	NVI %	SVI %	Total %
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	19.1	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	22.1	13.7	15.0	11.7	8.8	11.3	11.0	17.4	1.0	14.0
06/07	13.2	15.0	21.5	17.5	9.7	6.2	13.7	6.8	10.3	14.5	9.2	7.7	10.4	13.2	21.4	12.2	15.0	13.6	7.8	9.8	10.8	16.0	1.4	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 7 Episiotomies by Place of Delivery for Health Authorities and Province, 2002/2003 to 2006/2007



*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, 2002/2003 to 2006/2007

(Refer to Data Table 10A – APPENDIX 10)

Postpartum length of stay is defined as the amount of time, in hours, from delivery of the infant to maternal discharge from the hospital. For this report, postpartum lengths of stay were 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. As mothers who deliver at home are not discharged from care in the same manner as mothers who deliver in a hospital, only deliveries occurring in hospitals were included in the length of stay analysis. In addition, lengths of stay for maternal transfers to other facilities after delivery were not included in this analysis.

The duration of postpartum length of stay in hospital after vaginal delivery continues to decline in British Columbia. Provincially, in 2006/2007, **72.5%** of mothers having a vaginal delivery of a singleton stayed in hospital less than 48 hours post-delivery. In 2002/2003, **66.9%** of mothers having a vaginal delivery of a singleton stayed in hospital less than 48 hours and in 2000/2001, this percentage was 61.9% [14].

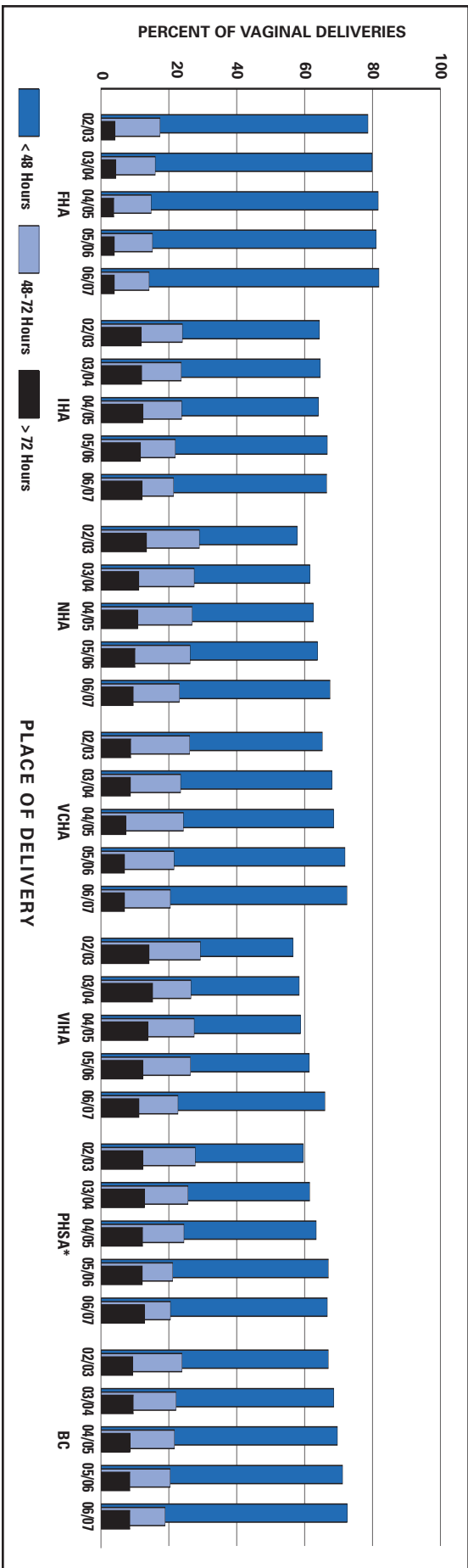
While the proportion of mothers staying in hospital for less than 48 hours post-delivery continues to increase across the province, Fraser Health Authority continues to have the largest proportion of mothers with the shortest postpartum length-of-stay. In 2006/2007, **82.0%** of women delivering within the Fraser Health Authority left within two days of delivering, compared to **66.0%** of women delivering in Vancouver Island Health Authority (VIHA). The VIHA and the Interior Health Authority had the largest proportion of women who remained in hospital for at least 72 hours (3 days) after vaginal delivery of a singleton in 2006/2007 (**11.2%** and **12.2%** respectively). Variation among Health Service Delivery Areas (HSDAs) in BC shows that **30.0%** of women who delivered in Kootenay Boundary stayed between two and three days in hospital postpartum (2006/2007), compared to only **9.8%** of women who delivered in the Fraser South HSDA.

Table 10 Postpartum Length of Stay (Vaginal Deliveries) by Place of Delivery for Health Service Delivery Areas, Health Authorities and Province, 2002/2003 to 2006/2007

	FHA			IHA					NHA			VCHA			VIHA			PHSA*	BC					
	FE %	FN %	FS %	Total %	EK %	KB %	OK %	TCS %	Total %	NE %	NI %	NW %	Total %	CST %	RICH %	VANC %	Total %			CVI %	NVI %	SVI %	Total %	
< 48 Hours	02/03	78.3	69.1	87.0	78.6	61.2	45.0	65.8	69.0	64.3	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	66.9
	03/04	80.1	69.6	88.3	79.8	60.3	51.1	63.9	70.9	64.5	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	68.5
	04/05	85.7	71.3	88.3	81.6	67.3	49.1	64.4	67.3	64.0	60.6	65.9	59.0	62.5	63.1	75.2	69.9	68.5	60.2	63.8	55.8	58.7	63.3	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	80.6	73.3	71.8	62.5	67.4	58.1	61.3	66.9	71.1
06/07	85.8	72.2	88.2	82.0	70.8	45.5	66.1	72.0	66.4	64.4	73.6	59.7	67.4	69.0	80.5	70.1	72.4	69.4	71.0	61.5	66.0	66.7	72.5	
48-72 hours	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	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	22.0
	04/05	10.6	23.0	9.5	14.7	21.7	30.7	22.9	23.0	23.7	29.8	24.7	27.1	26.8	28.0	21.0	22.0	24.2	24.3	26.0	30.2	27.4	24.4	21.6
	05/06	11.3	22.3	10.5	15.1	23.5	29.8	21.0	19.6	21.8	27.1	26.1	25.4	26.2	24.8	17.4	20.3	21.3	24.0	21.0	29.8	26.2	21.0	20.3
06/07	10.4	21.3	9.8	14.1	22.7	30.0	20.5	19.6	21.5	27.7	19.9	23.5	23.1	21.8	16.2	22.0	20.4	19.5	20.3	26.2	22.7	20.6	19.0	
> 72 hours	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	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	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	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	8.6
06/07	3.7	6.5	2.0	3.9	6.5	24.5	13.4	8.5	12.2	7.9	6.5	16.8	9.5	9.2	3.3	7.9	7.2	11.1	8.7	12.3	11.2	12.7	8.5	

*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 Postpartum Length of Stay (Vaginal Deliveries) by Place of Delivery for Health Authorities and Province, 2002/2003 to 2006/2007



*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, 2002/2003 to 2006/2007

(Refer to Data Table 11A – APPENDIX 10)

Postpartum length of stay is defined as the amount of time, in hours, from delivery of the infant to maternal discharge from the hospital. For this report, postpartum lengths of stay were 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 hospitals were included in the length of stay analysis. In addition, lengths of stay for maternal transfers to other facilities after delivery were not included in this analysis.

The proportion of mothers staying in hospital after caesarean section for longer than 96 hours is decreasing provincially. In 2006/2007, only **13.7%** of mothers stayed longer than 96 hours after delivering by caesarean section. In 2002/2003, **19.9%** of mothers had a postpartum length of stay of at least 96 hours (4 days) post-caesarean section.

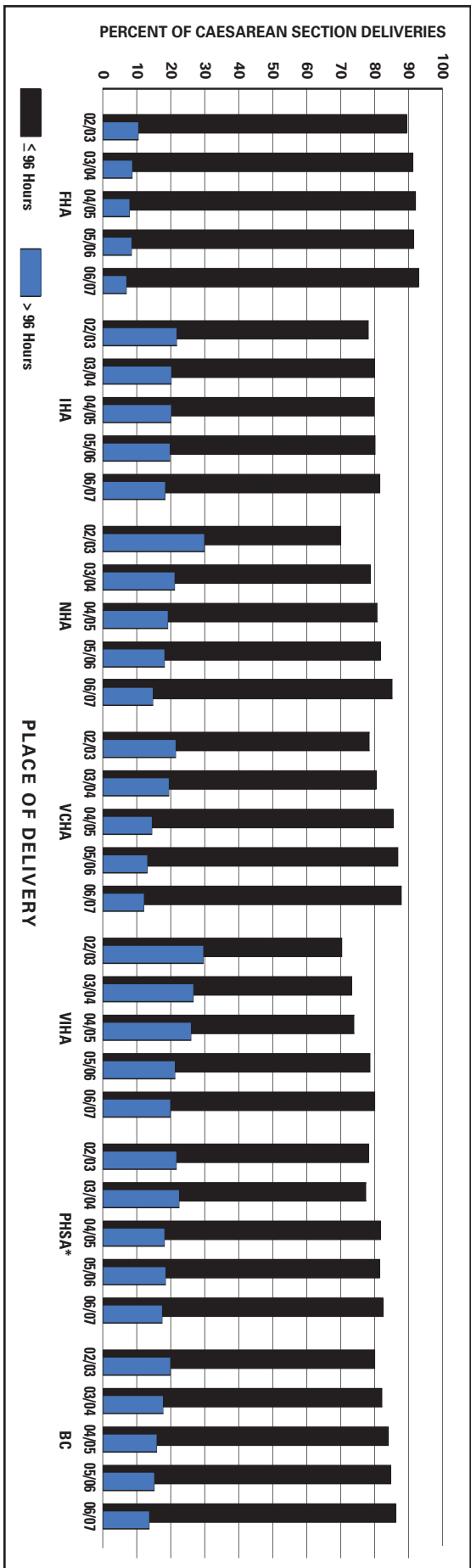
Vancouver Island Health Authority had the largest proportion of mothers staying greater than 96 hours post-caesarean section compared to other Health Authorities in 2006/2007, at **19.9%**. This is a decrease from 2002/2003, where **29.6%** of mothers delivering within VIHA stayed in hospital at least 96 hours post-caesarean. Conversely, women who had a caesarean section in facilities within the Fraser Health Authority have the lowest likelihood of staying longer than 96 hours postpartum. In 2006/2007, only **7.0%** of women did so, which is a decline from **10.5%** in 2002/2003. With the lowest caesarean section rate in the province in 2006/2007 at **22.8%**, Kootenay Boundary Health Service Delivery Area (HSDA) has the highest proportion of mothers who stay longer than 96 hours post-caesarean section, at **46.9%**.

Table 11 Postpartum Length of Stay (Caesarean Section Deliveries) by Place of Delivery for Health Service Delivery Areas, Health Authorities and Province, 2002/2003 to 2006/2007

	FHA			Total	IHA			Total	NHA			Total	VCHA			Total	VIHA			Total	PHSA*	BC		
	FE %	FN %	FS %		EK %	KB %	OK %		TCS %	NE %	NI %		NW %	CST %	RICH %		VANC %	CVI %	NVI %				SVI %	
≤ 96 Hours	02/03	93.2	84.8	91.8	89.5	83.3	56.8	77.8	83.1	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	80.1	
	03/04	94.3	86.4	94.0	91.3	81.5	58.1	76.9	86.9	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	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	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	83.5	77.7	78.7	81.5	84.8
	06/07	94.4	90.4	94.7	93.0	88.5	53.1	82.5	83.7	81.6	91.1	86.3	74.5	85.2	88.6	95.9	82.8	87.9	84.3	90.5	75.5	80.1	82.5	86.3
	> 96 Hours	02/03	6.8	15.2	8.2	10.5	16.7	43.2	22.2	16.9	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	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	22.5	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	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	16.5	22.3	21.3	18.5	15.2	
06/07	5.6	9.6	5.3	7.0	11.5	46.9	17.5	16.3	18.4	8.9	13.7	25.5	14.8	11.4	4.1	17.2	12.1	15.7	9.5	24.5	19.9	17.5	13.7	

*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 9 Postpartum Length of Stay (Caesarean Section Deliveries) by Place of Delivery for Health Authorities and Province, 2002/2003 to 2006/2007



*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, 2002/2003 to 2006/2007

(Refer to Data Table 12A – 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: $BMI = \text{weight (kg)} / \text{height (m)}^2$. 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.

The association between pre-pregnancy overweight and obesity and adverse outcomes such as caesarean section, macrosomia, gestational hypertension, pre-eclampsia, and gestational diabetes are well documented in the literature [28-31]. As well, women who are underweight pre-pregnancy may also have increased risk for low birth weight newborns [29]. In 2006/2007, singletons born to women in BC who were

obese pre-pregnancy (as defined in Table 12, below) had an average birth weight of 3661 grams, while singletons born to normal weight women had an average birth weight of 3457 grams, and for underweight mothers, 3279 grams [9].

The majority of women in BC are normal weight (as defined in Table 12, below) pre-pregnancy. In 2002/2003, **62.7%** of women with knownⁱ pre-pregnancy BMI were normal weight, and in 2006/2007, this proportion dropped slightly to **61.6%**. Rates of underweight pre-pregnancy BMI are also decreasing in BC, with a decline from **7.3%** in 2002/2003 to **6.5%** in 2006/2007. Pre-pregnancy obesity on the other hand, is increasing slightly, and taken together, pre-pregnancy overweight and obesity have increased from **30.0%** of all singleton pregnancies in 2002/2003 to **31.8%** in 2006/2007.

Table 12 Health Risk Classification According to Body Mass Index (BMI) [47]

Classification	BMI Category (kg/m ²)	Description
Underweight	< 18.5	Increased risk
Normal Weight	18.5 - 24.9	Least risk
Overweight	25.0 - 29.9	Increased risk
Obese	≥ 30.0	High to extremely high risk
Unclassified	blank	Unable to calculate body mass index

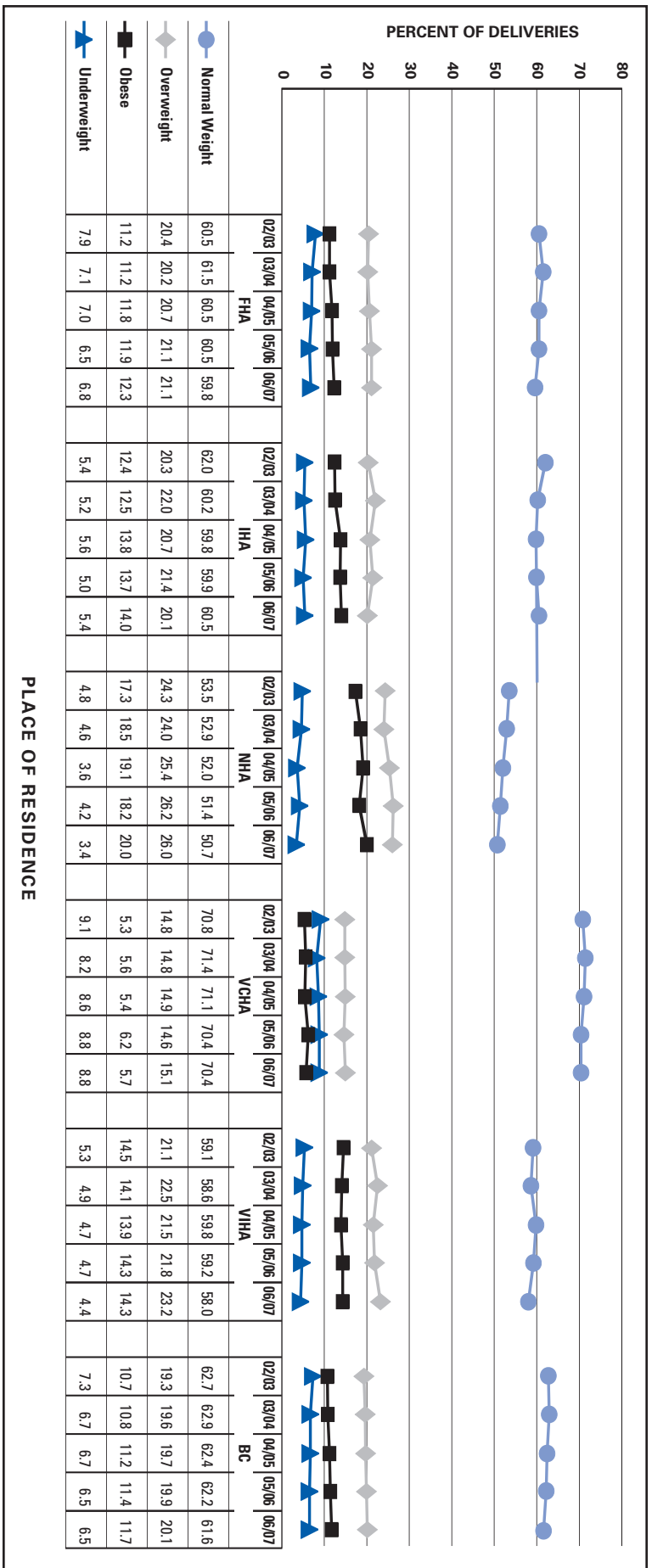
Source: Health Canada. Canadian Guidelines for Body Weight Classification in Adults. Ottawa: Minister of Public Works and Government Services Canada; 2003

Throughout BC, residents of Health Authorities demonstrate different patterns of pre-pregnancy BMI categories. For example, residents of the Northern Health Authority have higher levels of pre-pregnancy obesity than other health authorities. As well, these pre-pregnancy obesity rates have increased, from **17.3%** in 2002/2003 to **20.0%** in 2006/2007. Pre-pregnancy obesity rates have increased in the Interior Health Authority (from **12.4%** to **14.0%**), the Vancouver Coastal Health Authority (from **5.3%** to **5.7%**), and the Fraser Health Authority (from **11.2%** to **12.3%**). Vancouver Coastal Health Authority is the only health authority in BC whose rates of pre-pregnancy underweight (**8.8%** in 2006/2007) are higher than its rates of pre-pregnancy obesity (**5.7%** in 2006/2007).

Of concern are the high rates of unclassified pre-pregnancy BMI, indicating that one or both of the maternal pre-pregnancy weight and height fields are incomplete on the maternal record. In BC in 2006/2007, approximately one-third (**32.2%**) of records were incomplete in this category. Across the province, rates of unclassified pre-pregnancy BMI in 2006/2007 vary from **26.9%** in the Vancouver Island Health Authority to **50.9%** in the Northern Health Authority. The difference is more dramatic by Health Service Delivery Area, from lows of **6.2%** in South Vancouver Island and **16.2%** in Fraser South to highs of **56.4%** in Fraser East and **68.6%** in the Northwest. With the addition of the pre-pregnant BMI field to the recently revised Antenatal Record Part 1 in BC, it is hoped that the heightened awareness of the importance of these fields will result in more complete and accurate documentation of these elements to monitor pre-pregnancy BMI.

ⁱ 'Known' 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 10 Body Mass Index by Place of Residence for Health Authorities and Province, 2002/2003 to 2006/2007



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 2007 section of the BCPHP website (www.dcpnp.ca).

Maternal Postpartum Readmission to Hospital by Place of Delivery for Health Service Delivery Areas, Health Authorities and Province, 2002/2003 to 2005/2006

(Refer to Data Table 13A – 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 hospital of delivery, although the readmission could be to any facility in BC (not necessarily the same as the delivery facility), and includes only singleton deliveries.

Rates of postpartum readmission to hospital have increased slightly in the province of BC, after both caesarean section and vaginal deliveries. For vaginal deliveries, rates of readmission have increased from **1.5%** of all deliveries in 2002/2003 to **2.0%** in 2005/2006, while readmission after caesarean section delivery have increased from **2.1%** in 2002/2003 to **2.7%** in 2005/2006. All Health Authorities in BC have had an increase in postpartum readmission rates, for both vaginal and caesarean deliveries since 2002/2003. Although most Health Authorities have higher rates of postpartum readmission

following caesarean delivery, the Northern Health Authority had a higher postpartum readmission rate following vaginal delivery than caesarean delivery (**2.8%** compared to **2.2%**) in 2005/2006. Rates of postpartum readmission following births at home are the lowest in the province along with the Richmond Health Service Delivery Area (HSDA) (both at **1.0%** of all deliveries in 2005/2006).

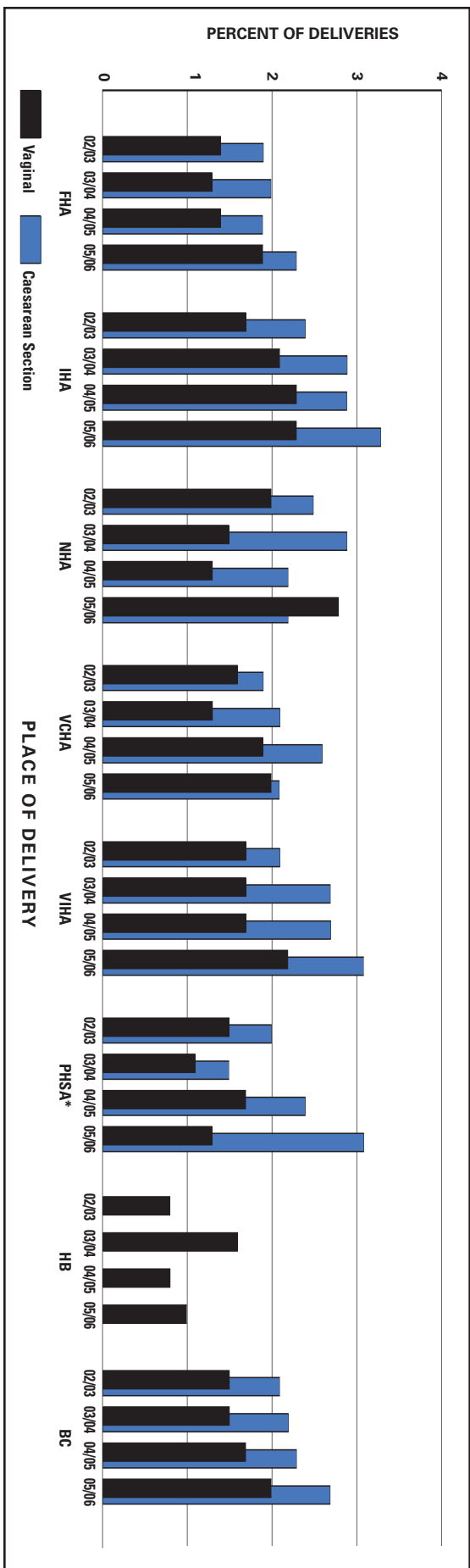
The highest rates of postpartum readmission in 2005/2006 were following caesarean delivery in the Thompson-Cariboo-Shuswap HSDA and North Vancouver Island HSDA, where **4.3%** of mothers delivering were readmitted postpartum. Readmission rates following vaginal delivery were highest in 2005/2006 in the Northeast and Central Vancouver Island HSDAs (both at **2.9%**), followed closely by the Northwest HSDA (**2.8%**) and Fraser East HSDA (**2.8%**). More detailed analysis of the reasons for readmission will be possible with the collection of postpartum readmission data in the new version of the BC Perinatal Database beginning with April 2008 discharges.

Table 13 Maternal Postpartum Readmission by Place of Delivery for Health Service Delivery Areas, Health Authorities and Province, 2002/2003 to 2005/2006

	FHA			IHA			NHA			VCHA			VIHA			PHSA*	HB	BC							
	FE %	FN %	FS %	Total %	EK %	KB %	OK %	TCS %	Total %	NE %	NI %	NW %	Total %	CST %	RICH %				VANC %	Total %	CVI %	NVI %	SVI %	Total %	
Caesarean Section	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
	05/06	1.3	2.6	2.4	2.3	3.6	0.9	2.8	4.3	3.3	2.8	2.1	2.0	2.2	1.3	1.4	3.1	2.1	1.7	4.3	3.6	3.1	3.1	0.0	2.7
Vaginal	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
	05/06	2.8	1.6	1.8	1.9	2.3	2.6	2.1	2.5	2.3	2.9	2.7	2.8	2.8	2.7	1.0	2.1	2.0	2.9	1.9	1.8	2.2	1.3	1.0	2.0

*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 11 Maternal Postpartum Readmission by Place of Delivery for Health Authorities and Province, 2002/2003 to 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, 2002/2003 to 2006/2007

(Refer to Data Tables 14A and 15A – APPENDIX 10)

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

In 2005/2006, the caesarean section rate in British Columbia (BC) for all births (singletons, twins and multiples) reached a national high of 30.4%, higher than the Canadian rate of 26.3% and surpassing every other province and/or territory in Canada to have the highest rate [32]. Caesarean delivery is associated with specific maternal health risks, such as hemorrhage, puerperal infection, anesthetic complications, and emergency hysterectomy [33, 34], as well as risk in subsequent pregnancies that include higher incidence of placenta previa, placenta accreta, abdominal adhesions, and repeat caesarean sections [35-37]. Infant and neonatal health risks associated with caesarean section have been found to be higher than for those infants delivered vaginally and include higher respiratory morbidity rates, neonatal intensive care admission rates, and neonatal mortality [38-41]. Despite these risks, caesarean delivery rates continue to rise. Concurrent with these increases are concerns over loss of skill set to perform instrumental vaginal delivery, lowering thresholds to make the decision to perform caesarean section, and the effect of obstetricians increasing their role in primary care of pregnant women. As well, changing maternal demographics, such as increasing maternal age and pre-pregnancy weight have also been associated with changes in caesarean section rate [42]. Despite a perception that many women are requesting caesarean section without medical indication, this trend has yet to be substantiated in the scientific literature.

In 2006/2007, (Table 14) the Northern Health Authority continued to have the lowest caesarean section rate in the province, at **26.5%**. In fact, the Northern Health Authority is the only Health Authority with a caesarean section rate that has not increased since 2002/2003. Vancouver Island Health Authority had the highest caesarean section rate in 2006/2007 at **31.5%**.

Vancouver Coastal Health Authority (VCHA) had the highest elective caesarean section rate in 2006/2007, (Table 15) at **13.0%** of all deliveries, an increase from **9.9%** in 2002/2003. In 2006/2007, Vancouver Island Health Authority had the highest emergent caesarean section rate in the province, at **21.3%** of all deliveries. All of the Health Authorities, except for Vancouver Coastal Health Authority, have had increases in emergent caesarean section rates over the last five fiscal years.

Rates of operative vaginal deliveries (Table 15) have been consistently the lowest within the Vancouver Island Health Authority for the past five years. In contrast, the Fraser Health Authority and the Provincial Health Services Authority (PHSA) had the two highest rates of operative vaginal delivery in 2006/2007, at **12.7%** and **13.3%** respectively. In fact, in 2006/2007, these two health authorities (FHA and PHSA) were the only two health authorities whose operative vaginal delivery rates were higher than their elective caesarean section rates.

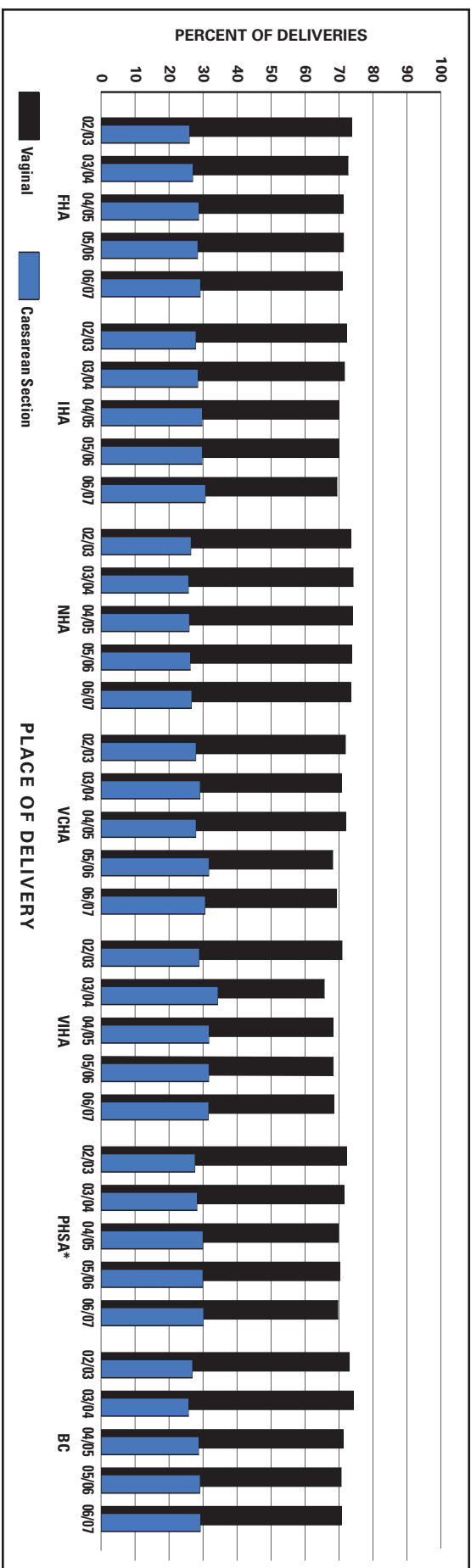
In February 2008, BCPHP released the findings of the Caesarean Birth Task Force, which culminated the work of 18 months of examination of trends and discussion of recommendations for the province with an aim to optimize caesarean delivery rates and identify factors that have contributed to the rise in caesarean section rates. In January 2008 a Caesarean Consensus Conference was held to discuss collaboration at the local, regional and provincial level to optimize caesarean birth. The final report of the Caesarean Birth Task Force, which includes the consensus statement from the Caesarean Consensus Conference, can be accessed at the BCPHP website: <http://www.bcphp.ca/>

Table 14 Method of Delivery by Place of Delivery for Health Service Delivery Areas, Health Authorities and Province, 2002/2003 to 2006/2007

Section	FHA			Total	IHA			Total	NHA			Total	VCHA			Total	VIHA			PHSA*	HB	BC				
	FE %	FN %	FS %		EK %	KB %	OK %		TCS %	NE %	NI %		NW %	CST %	RICH %		VANC %	CVI %	NVI %				SVI %	%	%	%
Caesarean	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	26.7	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	31.9	29.9	24.9	28.0	25.0	26.4	29.7	31.6	34.3	31.8	28.0	25.7	35.9	31.6	29.8	0.0	29.2	
	06/07	24.6	31.2	29.3	29.1	29.6	22.8	31.9	31.5	30.6	27.6	26.8	24.6	26.5	30.1	26.8	33.9	30.7	26.0	27.3	36.6	31.5	30.1	0.0	29.3	
	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	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	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	73.3	73.8	74.0	72.6	73.9	70.1	72.0	72.9	69.5	65.0	68.3	69.9	69.9	100.0	71.2	
05/06	73.8	72.5	69.4	71.4	68.5	78.9	70.0	68.1	70.1	75.1	72.0	75.0	73.6	70.3	68.4	65.7	68.2	72.0	74.3	64.1	68.4	70.2	70.2	100.0	70.8	
06/07	75.4	68.8	70.7	70.9	70.4	77.2	68.1	68.5	69.4	72.4	73.2	75.4	73.5	69.9	73.2	66.1	69.3	74.0	72.7	63.4	68.5	69.9	69.9	100.0	70.7	

*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 12 Method of Delivery by Place of Delivery for Health Authorities and Province, 2002/2003 to 2006/2007



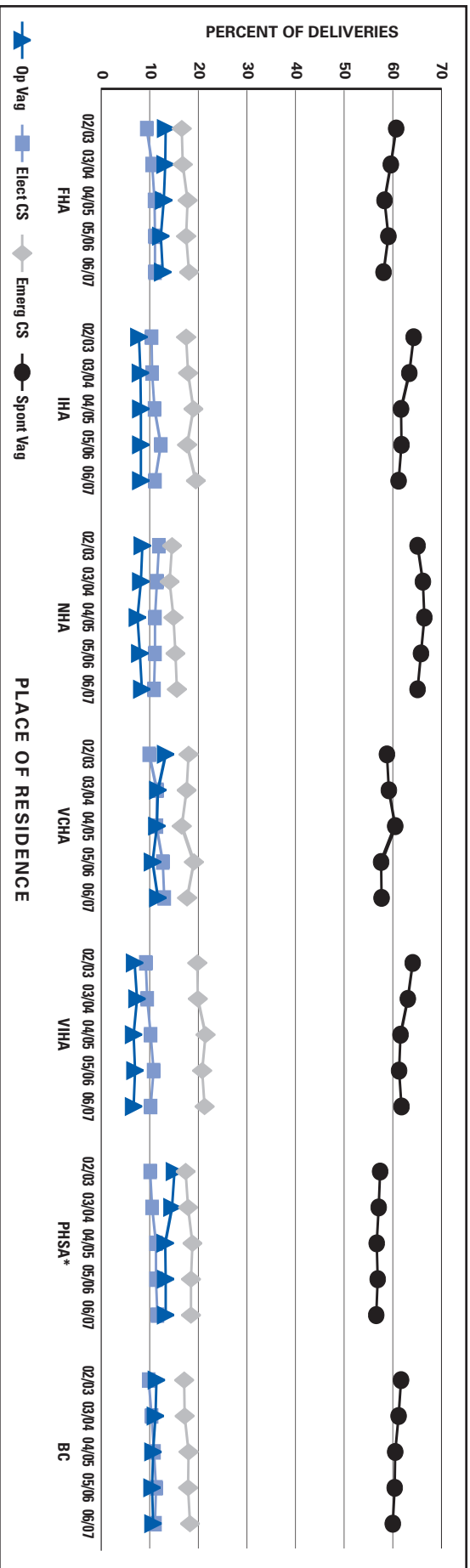
*PHSA: Refers to BC Women's Hospital patients only
 Note: Please refer to back flap for legend of the Health Authorities and Health Service Delivery Areas

Table 15 Spontaneous Vaginal vs Operative Deliveries by Place of Delivery for Health Service Delivery Areas, Health Authorities and Province, 2002/2003 to 2006/2007

	FHA			Total	IHA			Total	NHA			Total	VCHA			Total	VIHA			Total	PHSA*	HB	BC		
	FE	FN	FS		EK	KB	OK		TCS	NE	NI		NW	CST	RICH		VANC	CVI	NVI					SVI	PHSA*
	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%			
Elective CS	02/03	9.5	8.2	10.3	9.4	12.1	9.9	10.6	9.6	10.4	11.8	11.2	13.1	11.9	10.8	10.0	8.9	9.9	9.0	10.5	8.9	9.2	10.1	0.0	9.8
	03/04	10.5	10.1	10.9	10.5	13.4	9.5	10.2	10.2	10.5	10.2	10.7	14.2	11.5	14.2	9.7	9.7	11.5	10.2	11.3	8.5	9.5	10.5	0.0	10.4
	04/05	11.0	10.4	11.6	11.0	13.7	8.2	11.0	10.9	11.0	10.6	11.4	11.2	11.1	12.6	9.6	11.2	11.4	10.1	13.2	9.3	10.2	11.3	0.0	10.9
	05/06	10.1	10.1	12.3	11.1	15.1	15.1	8.8	12.4	12.0	12.3	10.3	11.7	10.9	11.1	13.1	12.6	12.4	12.7	11.5	10.9	10.4	10.8	11.3	0.0
06/07	10.4	10.8	11.6	11.1	11.7	8.5	11.9	10.5	11.5	11.1	11.1	10.1	10.9	14.6	10.7	12.8	13.0	8.9	10.7	10.8	10.2	11.6	11.6	0.0	11.1
Emergency CS	02/03	15.7	17.3	16.4	16.6	15.1	18.1	15.8	20.3	17.5	12.8	14.3	16.7	14.6	14.2	19.4	21.4	18.0	16.9	14.8	23.4	19.8	17.4	0.0	17.1
	03/04	15.3	17.0	17.2	16.8	15.9	13.0	17.0	21.3	17.9	13.9	15.1	12.7	14.1	13.2	19.4	21.4	17.6	18.2	14.6	22.7	19.9	17.9	0.0	17.2
	04/05	17.1	17.6	18.2	17.8	20.8	14.6	18.6	20.3	19.0	14.0	15.4	15.1	14.9	14.8	16.5	18.6	16.6	17.1	17.3	25.7	21.5	18.8	0.0	18.0
	05/06	16.1	17.4	18.3	17.5	16.4	12.3	17.6	19.9	17.7	14.6	16.3	14.1	15.3	16.5	19.0	21.9	19.1	16.5	14.8	25.5	20.8	18.5	0.0	17.9
06/07	14.3	20.4	17.7	18.1	17.9	14.4	20.0	21.0	19.5	16.5	15.7	14.5	15.6	15.5	16.1	21.1	17.7	17.1	16.6	25.8	21.3	18.5	0.0	18.3	
Operative Vaginal	02/03	12.5	11.4	15.4	13.3	7.5	6.6	8.6	7.3	7.8	8.7	6.8	10.8	8.5	11.1	13.8	15.4	13.3	8.0	7.9	5.8	6.9	15.1	0.0	11.4
	03/04	11.0	12.0	15.1	13.2	9.2	6.8	8.7	7.4	8.1	7.9	7.5	9.5	8.2	9.1	12.4	14.3	11.7	7.8	8.1	7.0	7.4	14.6	0.0	11.2
	04/05	11.6	12.0	14.3	12.9	5.6	7.7	9.5	7.6	8.2	7.2	7.3	8.1	7.5	9.8	10.6	14.1	11.5	6.5	9.5	5.8	6.7	13.2	0.2	10.7
	05/06	9.9	12.5	13.3	12.3	5.8	9.3	9.1	7.5	8.2	6.1	8.1	9.9	8.0	9.4	8.5	13.3	10.6	6.2	9.2	6.8	7.0	13.3	0.0	10.5
06/07	12.0	12.0	13.7	12.7	6.1	8.5	9.1	7.5	8.2	5.2	9.6	10.2	8.4	9.7	8.6	16.0	11.7	6.7	9.0	5.8	6.7	13.3	0.0	10.7	
Spontaneous Vaginal	02/03	62.3	63.1	57.9	60.7	65.3	65.4	65.0	62.8	64.3	66.7	67.7	59.4	65.1	64.0	56.9	54.3	58.8	66.0	66.7	61.9	64.1	57.4	100.0	61.7
	03/04	63.2	60.9	56.8	59.6	61.4	70.7	64.2	61.1	63.4	68.0	66.7	63.6	66.2	63.6	58.5	54.6	59.2	63.8	66.0	61.8	63.1	57.1	100.0	61.2
	04/05	60.3	60.0	55.9	58.3	59.9	69.5	60.9	61.2	61.7	68.2	65.9	65.7	66.5	62.8	63.3	56.0	60.5	66.3	60.0	59.1	61.6	56.7	99.8	60.5
	05/06	63.9	60.0	56.1	59.1	62.7	69.5	60.9	60.6	61.8	69.1	63.9	65.1	65.6	60.9	59.9	52.4	57.6	65.8	65.1	57.2	61.3	56.9	100.0	60.4
06/07	63.4	56.8	57.0	58.1	64.3	68.7	59.0	61.1	61.2	67.2	63.6	65.2	65.1	60.2	64.6	50.1	57.7	67.3	63.7	57.5	61.8	56.6	100.0	60.0	

*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
 Note: Operative Vaginal includes vacuum, forceps and breech deliveries

Figure 13 Spontaneous Vaginal vs Operative Deliveries by Place of Delivery for Health Authorities and Province, 2002/2003 to 2006/2007



*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

Newborn Feeding by Place of Delivery for Health Service Delivery Areas, Health Authorities and Province, 2004/2005 to 2006/2007

(Refer to Data Table 16A – 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. See Appendix 1 for the BCPDR categorizations of newborn feeding. As this field captures data that reflects activity during the hospital admission, newborn feeding for births that occur at home were not included in the analysis.

Breastfeeding has been demonstrated to be the most beneficial method to provide optimum nutritional and emotional health benefits to newborns and infants, and has been shown to contribute to positive health outcomes into childhood as well. These benefits include a reduction in the incidence of many conditions in the newborn, including diarrhea, otitis media, and respiratory tract infections, with additional literature associating breastfeeding with a reduction in the incidence of asthma and allergies in childhood [43-45]. Benefits to the mother include reduced risk of ovarian and uterine cancer, more rapid uterine involution, weight loss post-pregnancy, and a protective effect on maternal bone mineral density [45]. The World Health Organization advocates the promotion of exclusive breastfeeding, with complementary feeding supplementation for up to two years of age and beyond [44]. In 1991, the WHO/UNICEF developed a world-wide initiative, the 10 Steps for Baby Friendly Hospitals as a way of supporting and recognizing facilities providing the best practices in the protection, promotion and support of breastfeeding [44]. To date, British Columbia has one hospital, GR Baker Memorial Hospital in Quesnel that has achieved Baby-Friendly designation. Promotion and support of exclusive breastfeeding should be framed in the context of these benefits, while recognizing that barriers to breastfeeding may still exist (e.g. hospital policies, maternal education about how to breastfeed, lack of continuous support from family members or other support groups, separation at birth/delayed contact after birth due to NICU admission or caesarean section, etc.) [48].

Beginning with April 1, 2004 discharges, the BCPDR began collecting data on newborn feeding during the birth admission based on the Breastfeeding Committee for Canada (BCC) definitions, which have also been adopted by the Canadian Perinatal Program Coalition Committee as the definitions used by Perinatal Programs [46]. Because of this, reporting of this field can only begin with 2004/2005 data and may reflect a transition period as the new definitions are adopted throughout the province. The effects of the change in this definition as well as continued efforts from Health Authorities throughout BC to achieve 'Baby-Friendly' designation are just beginning to be reflected in this data indicator.

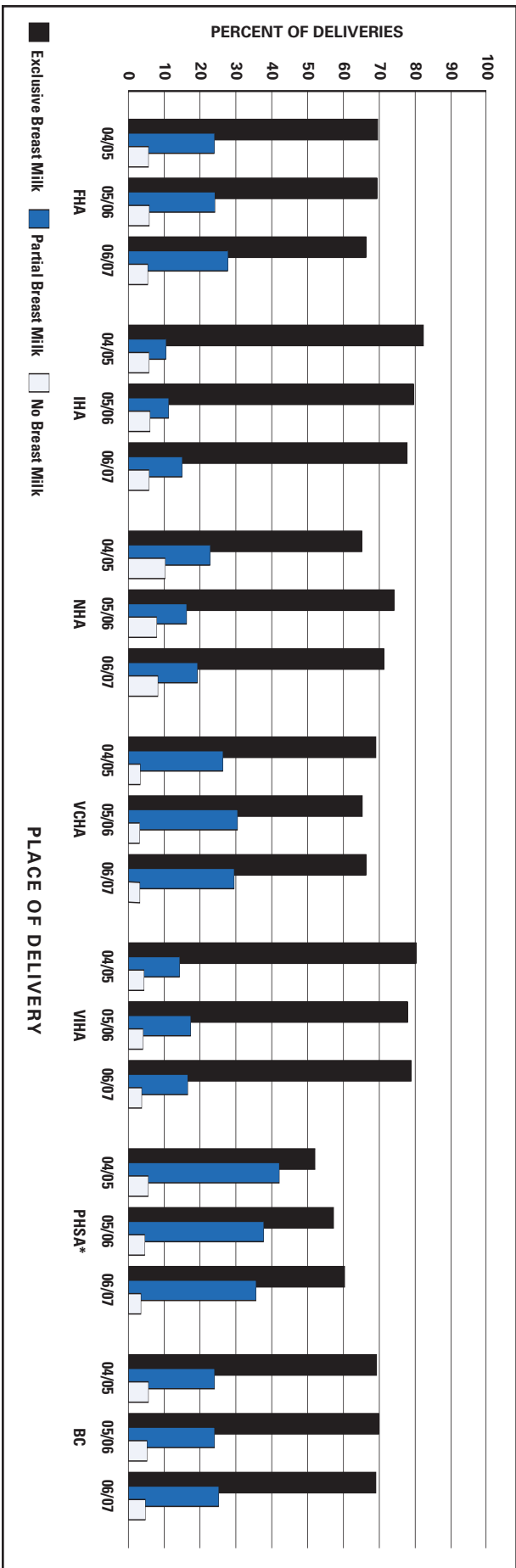
In 2006/2007 in BC, **69.2%** of newborns were reported to be exclusively breastfed during the birth admission, a slight decrease from 2004/2005 when the exclusive breastfeeding rate was **69.5%**. Breast milk substitute (formula) feeding during the birth admission accounted for only **4.8%** of singletons deliveries in 2006/2007, a decrease from **5.6%** in 2004/2005. Throughout the province, the majority of singleton newborns were reported to receive exclusive breast milk during the birth admission, with some differences between Health Authorities. Vancouver Island Health Authority reported the highest rates of exclusive breastfeeding at **79.1%** in 2006/2007, while the Provincial Health Services Authority reported the lowest rate in 2006/2007 at **60.5%**. Breast milk substitute (formula) feeding rates were reported the highest in the Northern Health Authority in 2006/2007, with **8.2%** of singleton newborns receiving only formula (no breast milk) during the birth admission. This is a decline from 2004/2005, when the rate was **10.2%**.

Table 16 Newborn Feeding by Place of Delivery for Health Service Delivery Areas, Health Authorities and Province, 2004/2005 to 2006/2007

	FHA			IHA			NHA			VCHA			VIHA			PHSA*	BC							
	FE %	FN %	FS %	Total %	EK %	KB %	OK %	TCS %	Total %	NE %	NI %	NW %	Total %	CST %	RICH %			VANC %	Total %	CVI %	NVI %	SVI %	Total %	
Exclusive Breast Milk	04/05	67.2	72.6	68.6	69.8	76.9	77.8	84.6	82.7	82.4	46.9	74.5	68.7	65.3	69.0	68.0	70.4	69.2	84.8	89.8	74.6	80.5	52.2	69.5
	05/06	67.8	70.8	69.4	69.6	68.4	86.0	79.4	82.5	79.8	69.7	76.9	73.6	74.2	66.0	63.2	66.6	65.5	79.0	86.2	75.0	78.1	57.4	69.9
	06/07	64.2	69.0	65.3	66.5	72.7	86.2	72.9	84.9	78.0	64.6	77.7	68.2	71.5	65.7	64.9	68.8	66.6	79.4	86.9	76.4	79.1	60.5	69.2
Partial Breast Milk	04/05	25.0	22.8	24.4	23.9	16.6	19.3	9.1	7.5	10.4	42.3	11.8	21.4	22.8	27.8	25.9	25.3	26.5	8.5	4.7	21.2	14.3	42.2	24.2
	05/06	24.7	24.4	23.7	24.2	23.8	8.5	11.3	7.6	11.2	23.1	10.9	19.1	16.2	30.5	32.6	29.3	30.6	14.6	9.6	21.6	17.4	37.8	24.0
	06/07	28.9	26.0	28.5	27.7	21.1	11.5	20.2	6.5	15.1	27.3	10.9	24.9	19.3	31.3	31.3	26.3	29.5	14.9	8.4	20.4	16.6	35.7	25.3
No Breast Milk	04/05	6.5	4.1	6.5	5.6	4.2	2.7	5.1	8.3	5.8	10.5	10.7	9.0	10.2	2.2	4.8	3.9	3.4	5.7	4.0	3.5	4.3	5.5	5.6
	05/06	7.2	4.4	6.6	5.9	5.6	5.1	4.9	7.9	6.0	7.0	9.5	5.8	7.9	2.6	3.6	3.5	3.2	5.2	3.8	3.3	4.0	4.6	5.2
	06/07	6.6	4.4	5.8	5.4	5.5	1.9	5.6	7.4	5.8	7.6	9.9	5.7	8.2	2.2	3.4	3.9	3.1	4.8	4.0	3.0	3.8	3.4	4.8
Unknown	04/05	1.3	0.5	0.5	0.7	2.3	0.2	1.2	1.5	1.3	0.3	3.0	0.9	1.7	1.0	1.3	0.4	0.9	1.0	1.5	0.7	0.9	0.1	0.8
	05/06	0.3	0.4	0.3	0.4	2.1	0.4	4.3	2.1	3.0	0.2	2.6	1.5	1.7	0.9	0.6	0.6	0.7	1.2	0.4	0.1	0.5	0.2	0.9
	06/07	0.3	0.7	0.3	0.5	0.6	0.4	1.2	1.2	1.1	0.4	1.5	1.1	1.1	0.9	0.4	1.1	0.8	0.9	0.6	0.1	0.5	0.4	0.6

*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 14 Newborn Feeding by Place of Delivery for Health Authorities and Province, 2004/2005 to 2006/2007



*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

Changes in Birth Rate by Place of Residence for Health Service Delivery Areas, Health Authorities and Province, 2000/2001 to 2006/2007

The birth rate change is defined as the change in the number of singleton births by fiscal year and expressed as a percentage increase or decrease. For this report, birth rate changes are analyzed two different ways: the overall birth rate change compares the change in number of births over seven fiscal years (2000/2001 to 2006/2007), while the remaining reported birth rates compare each fiscal year to the previous one. Only singleton deliveries of live births and stillbirths were included, and were analyzed by place of residence.

The number of singleton births in the province of British Columbia has increased from 39,412 to 40,878 [9], a **+3.7%** increase over the past seven fiscal years. Analysis of changes in overall birth rate, comparing 2000/2001 to 2006/2007, shows disparity throughout the province with Vancouver Island Health Authority showing the largest increase in overall birth rate at **+6.8%**, followed closely by the Fraser Health Authority with **+6.4%**, and the Northern Health Authority showing a decrease of **-2.6%** (Figure 15).

Fluctuations in birth rates exist from year to year as well (Table 17). For example, in the last fiscal year (2006/2007 compared to 2005/2006), BC had a **+3.0%** increase in birth rate. In addition, every Health Authority except for the Northern Health Authority and the Vancouver Island Health Authority had an increase in birth rate in the last fiscal year. Interior

Health Authority had the largest increase in birth rate in the last year when compared to other Health Authorities at **+5.0%**. The Northern Health Authority had an increase in birth rate from 2004/2005 to 2005/2006 (**+1.2%**) and from 2005/2006 to 2006/2007 (**+0.8%**). However, this increase was the smallest increase in the province.

The Northeast Health Service Delivery Area experienced the largest increase in birth rate in the last fiscal year at **+12.4%** (871 singleton births in 2005/2006 and 979 singleton births in 2006/2007). Other HSDAs also experienced large increases in the last fiscal year, such as East Kootenay (**+8.8%**), Okanagan (**+7.1%**), and Fraser East (**+4.7%**). Health Service Delivery Areas that have had decreases in the last fiscal year include the Northern Interior (**-3.9%**), the Northwest (**-2.3%**), Kootenay Boundary (**-1.9%**), and the South Vancouver Island HSDA (**-0.6%**).

This analysis provides a preliminary examination of the birth rate changes in the province of BC. Further analysis of the data would be beneficial to determine factors contributing to the disproportionate birth rate changes within the HAs and HSDAs.

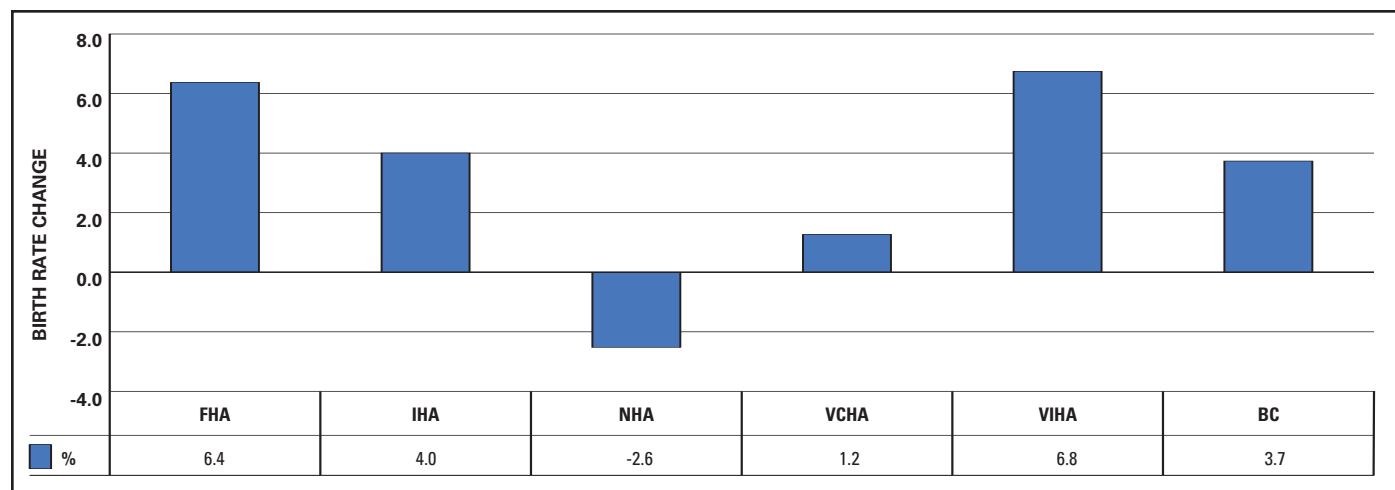
Table 17 Changes in Birth Rate by Place of Residence for Health Service Delivery Areas, Health Authorities and Province, 2001/2002 to 2006/2007 (Year-to-Year Comparison)

HA	HSDA	2001/2002	2002/2003	2003/2004	2004/2005	2005/2006	2006/2007
FHA	FE	6.0	2.8	1.8	0.3	-1.0	4.7
	FN	0.2	0.0	0.3	-0.9	-1.1	3.1
	FS	0.2	2.7	-0.9	2.4	-0.8	3.0
Total		1.3	1.7	0.0	0.8	-0.9	3.4
IHA	EK	-5.5	6.8	-5.6	2.8	1.6	8.8
	KB	-0.8	-5.7	-2.5	5.5	3.3	-1.9
	OK	-1.1	-4.7	-0.1	3.3	2.2	7.1
	TCS	-2.3	-3.5	2.1	2.4	-0.1	2.9
Total		-2.0	-3.1	-0.3	3.2	1.5	5.0
NHA	NE	3.2	2.1	-0.3	2.8	-1.4	12.4
	NI	-0.6	-4.4	1.6	-1.6	5.6	-3.9
	NW	-4.7	0.3	-7.3	-2.6	-3.6	-2.3
Total		-0.9	-1.4	-1.5	-0.8	1.2	0.8
VCHA	CST	-7.8	3.2	1.2	-1.7	-4.2	2.0
	RICH	-1.0	-3.0	-4.4	7.0	-1.1	4.2
	VANC	-2.1	0.1	1.2	-2.1	5.6	2.2
Total		-3.4	0.3	0.3	-0.6	2.2	2.5
VIHA	CVI	4.5	-3.5	0.7	1.8	6.1	2.1
	NVI	-1.3	0.3	-6.9	3.9	-3.0	2.2
	SVI	4.6	-2.3	5.9	-1.4	1.5	-0.6
Total		3.5	-2.2	1.8	0.5	2.3	0.8
British Columbia		-0.3	-0.3	0.1	0.5	0.7	3.0

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

Note: Includes Livebirths and Stillbirths

Figure 15 Changes in Birth Rate by Place of Residence for Health Authorities and Province, 2000/2001 to 2006/2007 (Overall Comparison)



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

Birth Weight vs Gestational Age by Place of Residence for Health Service Delivery Areas, Health Authorities and Province, 2002/2003 to 2006/2007

(Refer to Data Tables 18A and 19A – APPENDIX 10)

Birth weight by gestational age groups were created by categorizing the gender and gestational age according to birth weight percentiles. (Based on Appendix 4 and 5 birth weight and gestational age charts developed by BC Vital Statistics Agency using 1981-2000 population as a standard). Newborns were categorized as small-for-gestational age if they were under the 10th percentile for their gender and gestational age, large-for-gestational age if they were greater than the 90th percentile, and average-for-gestational age if they were between the 10th and 90th percentiles. Rates of these birth weight by gestational age groups were analyzed by place of residence for both term and pre-term newborns and includes only singleton deliveries.

Term (at least 37 completed weeks or 259 days gestation) singletons born in British Columbia (BC) are increasingly average-for-gestational-age (**80.8%** in 2006/2007). Small-for-gestational age in term newborns dropped slightly in the last fiscal year, from **7.0%** to **6.8%** of all term newborns. Similarly, large-for-gestational age in term singletons decreased, from **13.3%** in 2002/2003 to **12.4%** in 2006/2007. The highest proportion of large-for-gestational-age term newborns was in Vancouver Island Health Authority at **15.6%** in 2006/2007, followed closely by the Northern Health Authority at **15.2%**. The largest proportion of small-for-gestational-age term newborns in 2006/2007 was in the Fraser Health Authority at **7.3%**.

Over the last five fiscal years, a number of Health Service Delivery Areas (HSDA) in BC have seen an increase in the proportion of small-for-gestational-age term newborns. The Northeast, Fraser East, Fraser North, and Thompson-Cariboo-Shuswap all have had slight increases in small-for-gestational term newborns while Kootenay Boundary had the largest increase in BC, from **5.6%** in 2002/2003 to **8.3%** in 2006/2007. Conversely, the largest increase in large-for-gestational term newborns was in the Coastal HSDA, where the rate increased from **13.3%** in 2002/2003 to **14.4%** in 2006/2007.

Approximately 10% of preterm (less than 37 completed weeks or 259 days gestation) singletons born in BC are small-for-gestational age (**9.4%** in 2006/2007), while **13.4%** of singleton preterms in 2006/2007 are large-for-gestational-age. By Health Authority, the largest proportion of small-for-gestational age preterms were in the Fraser Health Authority, increasing from **9.7%** in 2002/2003 to **11.6%** in 2006/2007. Both the Fraser Health Authority and the Interior Health Authority have seen increases in the proportion of small-for-gestational-age preterms over the last five fiscal years. Large-for-gestational-age preterms were most prevalent in 2006/2007 in the Northern Health Authority (**17.4%**), followed closely by the Vancouver Island Health Authority (**17.2%**).

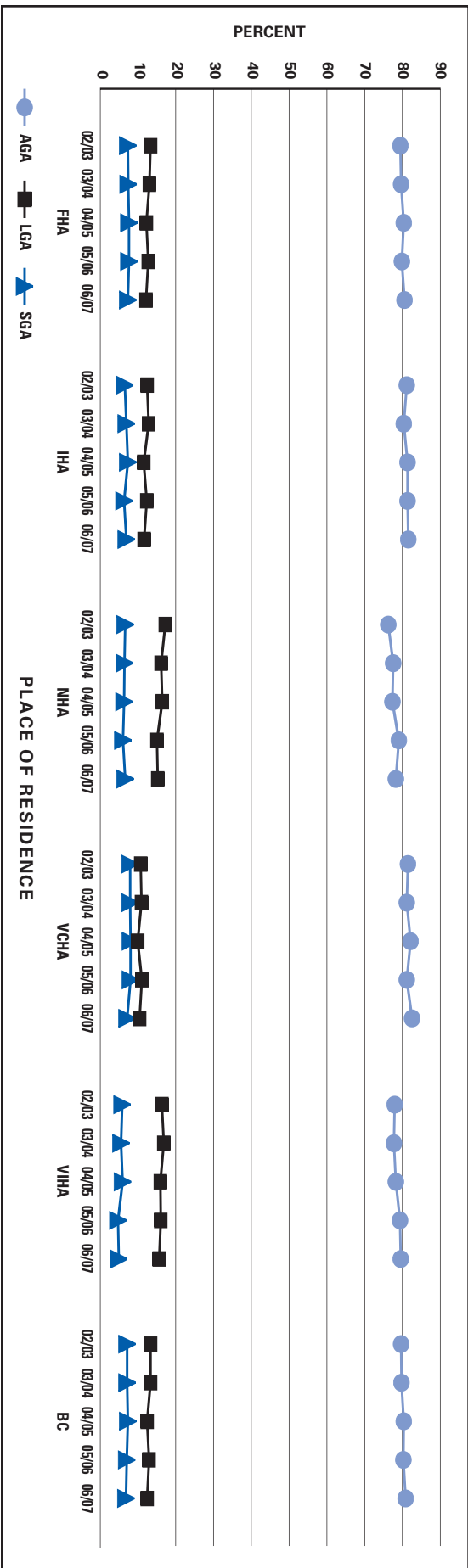
In 2006/2007, the Northwest Health Service Delivery Area (HSDA) had the highest proportion of large-for-gestational-age preterms at **20.3%**, although the North Vancouver Island HSDA and the Central Vancouver Island HSDA followed closely, with **18.7%** and **18.5%**, respectively. Small-for-gestational-age preterms were most common in 2006/2007 in the Fraser South HSDA (**12.3%**) and Vancouver HSDA (**11.7%**).

Table 18 Birth Weight vs Gestational Age (Term Births) by Place of Residence for Health Service Delivery Areas, Health Authorities and Province, 2002/2003 to 2006/2007

	FHA			IHA			NHA			VCHA			VIHA			BC Unspec %	Non Res %	BC %							
	FE %	FN %	FS %	Total %	EK %	KB %	OK %	TCS %	Total %	NE %	NI %	NW %	Total %	CST %	RICH %				VANC %	Total %	CVI %	NVI %	SVI %	Total %	
AGA	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	82.1	72.0	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	81.1	76.2	77.8	78.8	77.7	84.3	83.1	79.7
	04/05	79.5	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	78.3	79.2	80.7	77.5	80.2
	06/07	80.0	81.0	80.4	80.5	81.5	84.9	81.3	80.8	81.5	78.1	79.3	76.2	78.2	80.7	83.6	82.8	82.5	79.1	81.2	79.2	79.5	76.7	82.9	80.8
	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	12.4	14.4	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	10.3	10.2	13.3
04/05	13.8	12.2	11.5	12.2	11.7	10.1	11.6	11.6	11.5	14.2	15.2	21.0	16.5	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	10.2	16.3	12.9	
06/07	13.3	11.9	11.8	12.1	11.0	6.8	12.4	12.2	11.6	12.7	14.5	19.6	15.2	14.4	9.3	9.2	10.4	15.7	15.0	15.8	15.6	13.5	7.8	12.4	
LGA	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	5.6	13.6	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	5.4	6.8	7.1
	04/05	6.6	7.6	7.9	7.6	6.2	7.4	7.7	7.0	7.3	6.4	7.1	4.6	6.3	5.0	8.7	9.0	8.0	5.5	6.7	5.8	5.9	14.0	6.2	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	5.4	4.7	9.0	6.2	7.0
	06/07	6.7	7.2	7.7	7.3	7.5	8.3	6.3	7.1	6.9	9.2	6.3	4.2	6.6	4.8	7.0	8.0	7.1	5.2	3.9	5.1	4.9	9.9	9.3	6.8
	02/03	6.9	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	5.6	13.6	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	5.4	6.8	7.1
04/05	6.6	7.6	7.9	7.6	6.2	7.4	7.7	7.0	7.3	6.4	7.1	4.6	6.3	5.0	8.7	9.0	8.0	5.5	6.7	5.8	5.9	14.0	6.2	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	5.4	4.7	9.0	6.2	7.0	
06/07	6.7	7.2	7.7	7.3	7.5	8.3	6.3	7.1	6.9	9.2	6.3	4.2	6.6	4.8	7.0	8.0	7.1	5.2	3.9	5.1	4.9	9.9	9.3	6.8	

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 16 Birth Weight vs Gestational Age (Term Births) by Place of Residence for Health Authorities and Province, 2002/2003 to 2006/2007



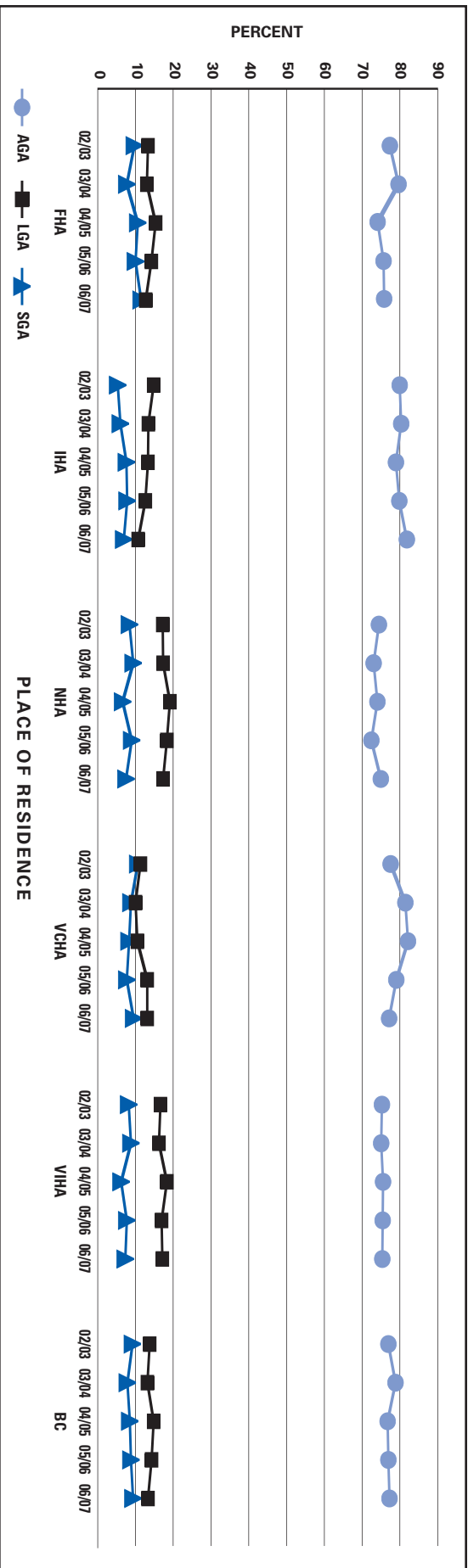
Note: Please refer to back flap for legend of the Health Authorities and Health Service Delivery Areas

Table 19 Birth Weight vs Gestational Age (Preterm Births) by Place of Residence for Health Service Delivery Areas, Health Authorities and Province, 2002/2003 to 2006/2007

	FHA			IHA			NHA			VCHA			VIHA			BC Unspec %	Non Res %	BC %							
	FE %	FN %	FS %	Total %	EK %	KB %	OK %	TCS %	Total %	NE %	NI %	NW %	Total %	CST %	RICH %				VANC %	Total %	CVI %	NVI %	SVI %	Total %	
AGA	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	62.1	87.5	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	75.0	85.7	78.9
	04/05	72.6	76.9	72.5	74.1	88.6	82.8	78.9	75.0	79.0	73.3	72.7	76.2	74.1	79.2	80.4	83.3	82.0	73.5	73.5	78.1	75.8	56.7	71.4	76.7
	05/06	80.9	74.3	74.6	75.7	82.6	80.0	77.7	81.5	79.7	66.7	79.8	67.1	72.6	71.2	73.0	82.6	79.0	72.8	67.4	80.4	75.3	71.4	83.3	76.8
	06/07	79.8	77.0	73.4	75.8	92.0	82.0	77.8	85.5	82.2	74.0	75.2	75.7	75.1	77.3	76.5	77.3	77.2	75.5	70.7	76.8	75.4	90.7	94.4	77.2
	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	13.8	6.3	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	18.8	0.0	13.2
04/05	17.3	12.5	16.8	15.4	6.8	12.1	13.4	15.8	13.4	20.0	18.2	20.2	19.3	13.9	11.8	8.9	10.4	20.0	17.6	17.0	18.2	33.3	9.5	14.8	
05/06	10.9	14.6	15.1	14.1	6.5	11.1	12.1	15.8	12.6	17.8	14.4	23.5	18.4	21.8	18.0	9.6	13.2	17.3	22.1	14.5	16.8	7.1	0.0	14.3	
06/07	10.5	11.5	14.3	12.7	8.0	12.0	12.9	8.2	10.7	16.0	16.2	20.3	17.4	16.0	17.4	11.0	13.1	18.5	18.7	15.8	17.2	4.7	5.6	13.4	
LGA	02/03	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	24.1	6.3	9.2
	03/04	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	6.3	14.3	7.9
	04/05	10.1	10.6	10.6	10.5	4.5	5.2	7.7	9.2	7.6	6.7	9.1	3.6	6.6	6.9	7.8	7.8	7.6	6.5	8.8	4.9	6.1	10.0	19.0	8.5
	05/06	8.3	11.0	10.3	10.2	10.9	8.9	10.2	2.7	7.7	15.6	5.8	9.4	9.0	7.1	9.0	7.8	7.8	9.9	10.5	5.1	7.8	21.4	16.7	8.9
	06/07	9.6	11.5	12.3	11.6	0.0	6.0	9.3	6.3	7.0	10.0	8.5	4.1	7.5	6.7	6.1	11.7	9.8	6.0	10.7	7.5	7.4	4.7	0.0	9.4
	02/03	7.3	7.4	8.1	7.7	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	24.1	6.3	9.2
	03/04	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	6.3	14.3	7.9
04/05	10.1	10.6	10.6	10.5	4.5	5.2	7.7	9.2	7.6	6.7	9.1	3.6	6.6	6.9	7.8	7.8	7.6	6.5	8.8	4.9	6.1	10.0	19.0	8.5	
05/06	8.3	11.0	10.3	10.2	10.9	8.9	10.2	2.7	7.7	15.6	5.8	9.4	9.0	7.1	9.0	7.8	7.8	9.9	10.5	5.1	7.8	21.4	16.7	8.9	
06/07	9.6	11.5	12.3	11.6	0.0	6.0	9.3	6.3	7.0	10.0	8.5	4.1	7.5	6.7	6.1	11.7	9.8	6.0	10.7	7.5	7.4	4.7	0.0	9.4	

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 17 Birth Weight vs Gestational Age (Preterm Births) by Place of Residence for Health Authorities and Province, 2002/2003 to 2006/2007



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

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.

Age-Specific Fertility Rate

The number of live births per 1,000 women in a specific age group.

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 BC 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. May include patients with electronic fetal monitoring during latent phase of labour. Mothers who do 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 completed 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 weighing less than the usual amount for the number of weeks of pregnancy. SGA babies have 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 within the normal range of weight for that gestational age. AGA babies have 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 born weighing more than the usual amount for the number of weeks of pregnancy. LGA babies have birth weights greater than the 90th percentile of a population specific weight versus gestational age plot.

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

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.

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

A systematic method of listening to fetal heart tones with an acoustical device (fetoscope) or hand-held ultrasound (dop-tone), 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 (IP)

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.

Method of Delivery**Vaginal**

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

Operative vaginal delivery

A vaginal delivery involving forceps or vacuum to facilitate delivery of the fetus; includes vaginal breech deliveries.

Caesarean section

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

Elective caesarean section

A caesarean section delivery in which the decision for caesarean section is made prior to labour; a booked caesarean section.

Emergent caesarean section

A caesarean section delivery in which there is a threat to maternal or fetal health; the patient may or may not be in labour at the time of an emergent caesarean section.

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 breast milk:

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, was a stillbirth or neonatal death or a midwife case.

Unknown:

No documentation as to how the newborn was fed during hospital stay.

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 BC registered midwife in attendance.

Preterm Birth

Live 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)

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

Live birth after 37 completed weeks (or 259 days) of gestation.

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 via the web 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 (New Denver) 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)

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

APPENDIX 3 – HEALTH AUTHORITIES, HEALTH SERVICE DELIVERY AREAS AND INSTITUTIONS* (CONT'D)

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 (Village of Queen Charlotte) Stewart General Hospital Wrinch Memorial Hospital (Hazelton)
Vancouver Coastal	North Shore/Coastal Garibaldi	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 Community Health Centre 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 (Salt Spring Island) 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 BCPHP website at <http://www.bcphp.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 2005

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	3,004,104	41,714	13.89	21,008	6.99	21,843	7.27	308	7.33
1987	3,050,160	41,611	13.64	21,618	7.09	23,417	7.68	291	6.94
1988	3,115,357	42,860	13.76	22,357	7.18	24,514	7.87	295	6.84
1989	3,197,880	43,589	13.63	22,786	7.13	25,177	7.87	324	7.38
1990	3,290,814	45,347	13.78	23,415	7.12	25,226	7.67	298	6.53
1991	3,373,464	45,346	13.44	23,819	7.06	23,665	7.02	298	6.53
1992	3,468,445	46,030	13.27	24,463	7.05	23,762	6.85	297	6.41
1993	3,567,406	45,956	12.88	25,603	7.18	23,478	6.58	292	6.31
1994	3,675,699	46,837	12.74	25,830	7.03	23,772	6.47	312	6.62
1995	3,777,004	46,701	12.36	26,225	6.94	23,632	6.26	350	7.44
1996	3,874,276	45,960	11.86	27,390	7.07	22,882	5.91	292	6.31
1997	3,948,544	44,402	11.25	27,260	6.90	21,883	5.54	335	7.49
1998	3,983,077	42,871	10.76	27,807	6.98	21,778	5.47	278	6.44
1999	4,011,342	41,748	10.41	27,882	6.95	21,628	5.39	313	7.44
2000	4,039,198	40,497	10.03	27,327	6.77	22,096	5.47	311	7.62
2001	4,078,447	40,393	9.90	28,235	6.92	20,573	5.04	287	7.06
2002	4,115,413	39,905	9.70	28,710	6.98	21,261	5.17	307	7.63
2003	4,154,591	40,305	9.70	29,151	7.02	21,985	5.29	305	7.51
2004	4,201,867	40,339	9.60	29,710	7.07	22,081	5.26	281	6.92
2005	4,254,522	40,653	9.56	30,033	7.06	22,631	5.32	313	7.64

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.

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.

APPENDIX 6 (CONT'D)

Infant Mortality – British Columbia and Canada, 1965 to 2005

Year	British Columbia							Total		Canada
	Age at Death (in Days)									
	0-6 Days		0-27 Days		28-364 Days		N.S.	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	3.70	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	104	2.58	120	2.98	47	1.17	–	167	4.14	5.3
2004	108	2.68	122	3.02	49	1.21	–	171	4.24	*
2005	104	2.56	124	3.05	50	1.23	–	174	4.28	*

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.

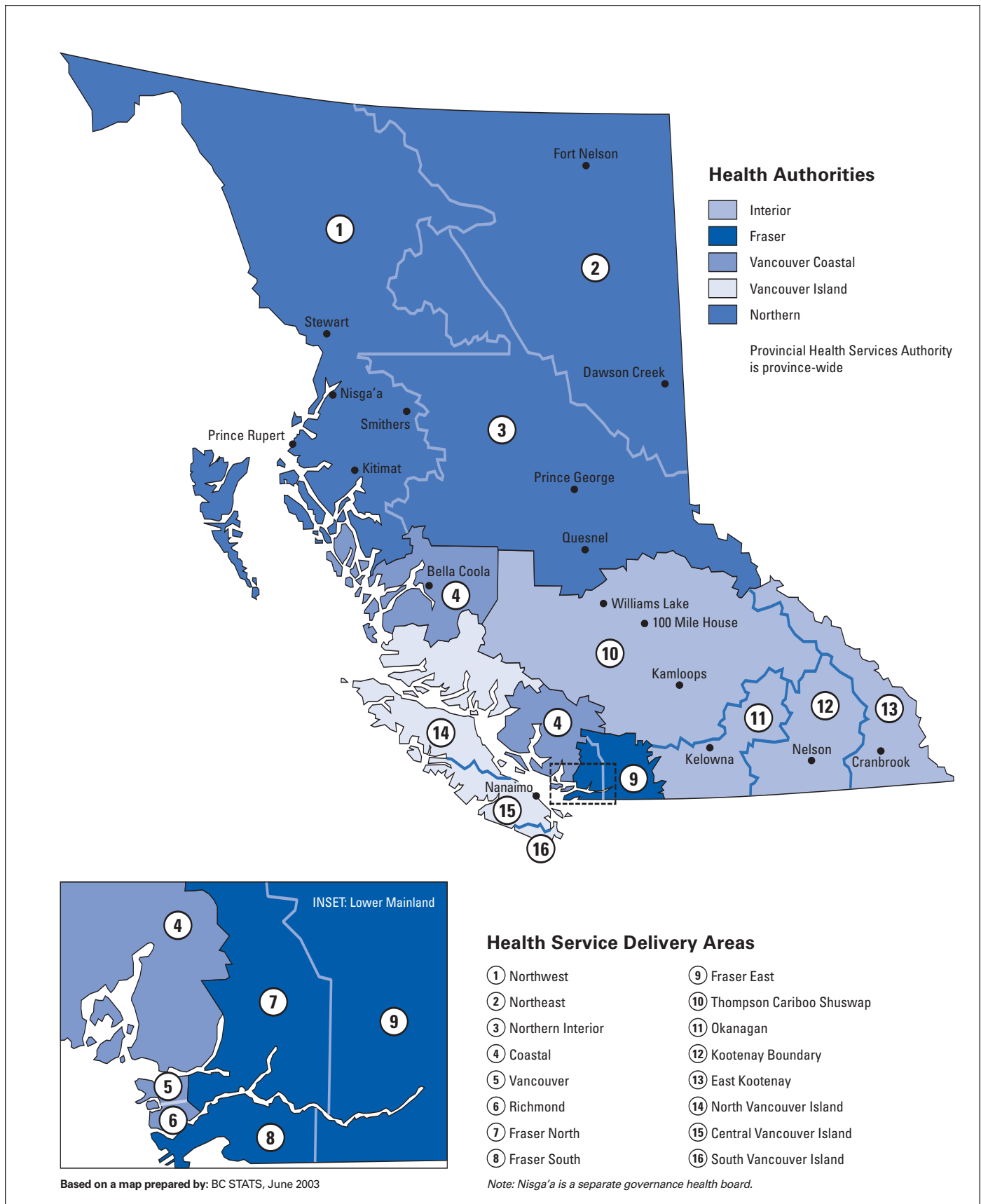
Canadian rates from Statistics Canada. *Rates were not available. Non-residents are excluded.

Total Fertility Rates – British Columbia, 1950 to 2005

Year	Total Fertility Rate	Live Births	Year	Total Fertility Rate	Live Births
1950	3,074	27,116	1980	1,716	40,104
1951	3,201	28,077	1981	1,718	41,679
1952	3,327	29,827	1982	1,749	42,942
1953	3,542	31,746	1983	1,751	43,047
1954	3,656	32,946	1984	1,781	44,040
1955	3,748	34,138	1985	1,642	42,989
1956	3,875	36,241	1986	1,603	41,714
1957	3,921	38,744	1987	1,608	41,611
1958	3,900	39,577	1988	1,640	42,860
1959	3,958	39,971	1989	1,645	43,589
1960	3,949	40,116	1990	1,682	45,347
1961	3,785	38,591	1991	1,665	45,346
1962	3,709	38,128	1992	1,661	46,030
1963	3,564	37,478	1993	1,638	45,956
1964	3,284	35,897	1994	1,642	46,837
1965	2,710	33,669	1995	1,609	46,701
1966	2,442	32,502	1996	1,545	45,960
1967	2,307	32,899	1997	1,480	44,402
1968	2,228	33,687	1998	1,447	42,871
1969	2,223	35,383	1999	1,421	41,748
1970	2,185	36,861	2000	1,389	40,497
1971	1,994	34,852	2001	1,386	40,393
1972	1,890	34,563	2002	1,368	39,905
1973	1,751	34,352	2003	1,384	40,305
1974	1,735	35,450	2004	1,380	40,339
1975	1,682	36,281	2005	1,383	40,653
1976	1,618	35,848			
1977	1,636	36,691			
1978	1,620	37,231			
1979	1,721	38,432			

Note: Total Fertility Rate – Sum of age-specific fertility rates multiplied by the number of years in each age group (see glossary for definition).
 Rates per 1,000 women age 15 to 44.
 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:

<http://www.gov.bc.ca/health/>

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

Reproductive Care Program of Nova Scotia:

<http://rcp.nshealth.ca/>

National

Breastfeeding Committee for Canada:

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

Canadian Institute for Health Information:

<http://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.publichealth.gc.ca>

Statistics Canada:

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

The Society of Obstetricians and Gynaecologists of Canada:

<http://sogc.medical.org/>

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.nicsl.com.au/cochrane/>

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 style="width: 90%;" type="text"/>		
* Profession:	<input style="width: 150px;" type="text" value="--- Please Select ---"/>	<input style="width: 300px;" type="text"/>	
* Health Authority:	<input style="width: 150px;" type="text" value="--- Please Select ---"/>	<input style="width: 300px;" type="text"/>	
Organization:	<input style="width: 550px;" type="text"/>		
Address:	<input style="width: 550px;" type="text"/>		
* Telephone #:	<input style="width: 40px;" type="text"/>	-	<input style="width: 40px;" type="text"/>
	<input style="width: 40px;" type="text"/>	-	<input style="width: 40px;" type="text"/>
	<input style="width: 40px;" type="text"/>	Local	<input style="width: 40px;" type="text"/>
		Fax #:	<input style="width: 40px;" type="text"/>
			<input style="width: 40px;" type="text"/>
			<input style="width: 40px;" type="text"/>
* Email Address:	<input style="width: 550px;" type="text"/>		

Data Request

* Purpose: (Briefly describe the purpose for which the data is being requested. How will this information be used?)			
<input style="width: 100%; height: 40px;" 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 style="width: 100%; height: 40px;" type="text"/>			
* Time Period:	From:	<input style="width: 40px;" type="text" value="Day"/>	-
		<input style="width: 40px;" type="text" value="Month"/>	-
		<input style="width: 40px;" type="text" value="Year"/>	
	To:	<input style="width: 40px;" type="text" value="Day"/>	-
		<input style="width: 40px;" type="text" value="Month"/>	-
		<input style="width: 40px;" type="text" value="Year"/>	
* Frequency of data request:			
<input checked="" type="radio"/>	One time Only	<input type="radio"/>	Annually
<input type="radio"/>	Other	<input style="width: 200px;" type="text"/>	
* Date required by:	<input style="width: 40px;" type="text" value="Day"/>	-	<input style="width: 40px;" type="text" value="Month"/>
	<input style="width: 40px;" type="text" value="Year"/>	-	<input style="width: 40px;" type="text" value="Year"/>
* Format of output:	<input style="width: 150px;" type="text" value="-- Please Select --"/>	<input style="width: 200px;" type="text"/>	
Special Instructions:			
<input style="width: 100%; height: 60px;" type="text"/>			

Submit

Clear All

Cancel

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

Care Provider Delivering Baby by Place of Delivery for Health Service Delivery Areas, Health Authorities and Province, 2002/2003 to 2006/2007

	2002/2003					2003/2004					2004/2005					2005/2006					2006/2007																				
	Obstetrician	Family Physician	Midwife	Nurse	%	Obstetrician	Family Physician	Midwife	Nurse	%	Obstetrician	Family Physician	Midwife	Nurse	%	Obstetrician	Family Physician	Midwife	Nurse	%	Obstetrician	Family Physician	Midwife	Nurse	%																
HA	#	%	#	%	#	#	%	#	%	#	#	%	#	%	#	#	%	#	%	#	#	%	#	%	#	%	#	#	%	#	%	#	%	#	%	#	%				
FHA	FE	809	31.3	1595	61.7	32	1.2	136	5.3	881	33.5	1575	60.0	57	2.2	107	4.1	891	34.3	1490	57.4	76	2.9	124	4.8	825	32.2	1509	58.8	90	3.5	120	4.7	786	30.1	1566	60.0	88	2.6	177	6.8
	FN	2260	46.6	2286	47.2	134	2.8	144	3.0	2293	48.5	2137	45.2	136	2.9	148	3.1	2314	49.1	2114	44.9	123	2.6	130	2.8	2281	48.2	2115	44.7	124	2.6	2587	52.2	2011	40.5	159	3.2	128	2.6		
	FS	3631	64.3	1556	27.6	88	1.6	359	6.4	3771	66.5	1453	25.6	94	1.7	337	5.9	3749	65.0	1630	28.3	104	1.8	266	4.6	3386	61.2	1722	31.1	123	2.2	288	5.2	3619	61.0	1858	31.3	136	2.3	301	5.1
Total		6700	51.2	5437	41.6	254	1.9	639	4.9	6945	53.3	5165	39.7	287	2.2	592	4.5	6954	53.2	5234	40.0	303	2.3	520	4.0	6492	50.6	5346	41.7	337	2.6	528	4.1	6992	51.8	5435	40.2	363	2.7	606	4.5
IHA	EK	95	15.5	445	72.5	14	2.3	31	5.0	135	22.7	386	64.6	33	5.5	11	1.8	189	30.9	320	52.4	55	9.0	14	2.2	157	25.2	349	56.1	66	10.6	15	2.4	192	29.1	341	51.7	78	11.8	19	2.9
	KB	190	36.9	277	53.8	35	6.8	11	2.1	110	22.7	331	68.2	37	7.6	4	0.8	111	21.3	346	66.3	62	11.9	1	0.2	134	25.0	340	63.6	55	10.3	2	0.4	102	18.8	365	67.2	74	13.6	1	0.2
	OK	947	39.6	1353	56.5	26	1.1	64	2.7	1007	41.8	1308	54.3	46	1.9	44	1.8	1031	42.2	1287	52.6	54	2.2	61	2.5	1067	42.3	1380	54.7	34	1.3	35	1.4	1234	45.9	1349	50.2	45	1.7	50	1.9
	TCS	471	27.0	1155	66.3	0	0.0	45	2.6	609	34.1	1046	58.6	2	0.1	70	3.9	621	33.8	1053	57.4	0	0.0	86	4.7	583	32.3	1056	58.6	6	0.3	78	4.3	613	33.2	1070	57.9	0	0.0	80	4.3
Total		1703	32.3	3230	61.3	75	1.4	151	2.9	1861	35.3	3070	58.2	118	2.2	129	2.4	1952	36.1	3006	55.5	171	3.2	162	3.0	1941	35.4	3125	57.0	161	2.9	130	2.4	2141	37.3	3125	54.5	197	3.4	150	2.6
NHA	NE	173	19.4	699	78.5	0	0.0	16	1.8	91	10.6	726	84.2	0	0.0	39	4.5	60	6.8	801	90.2	1	0.1	24	2.7	94	10.7	754	86.1	0	0.0	21	2.4	187	18.9	788	77.7	0	0.0	29	2.9
	NI	362	25.0	989	68.3	32	2.2	56	3.9	383	26.1	966	65.8	39	2.7	71	4.8	388	26.6	995	68.3	34	2.3	34	2.3	390	24.9	1079	68.8	58	3.7	33	2.1	394	26.3	994	66.3	58	3.9	38	2.5
	NW	287	30.5	618	55.7	0	0.0	33	3.5	269	30.0	590	65.8	0	0.0	30	3.3	309	35.6	541	62.3	2	0.2	14	1.6	317	38.8	466	57.0	1	0.1	29	3.5	298	37.0	480	59.6	1	0.1	18	3.6
Total		822	25.1	2306	70.3	32	1.0	105	3.2	743	23.0	2282	70.7	39	1.2	140	4.3	757	23.5	2337	72.7	37	1.2	72	2.2	801	24.6	2299	70.5	59	1.8	83	2.5	879	26.7	2242	68.1	59	1.8	85	2.6
VCHA	GST	658	34.3	1096	57.1	57	3.0	70	3.6	664	34.7	1042	54.5	102	5.3	54	2.8	631	34.0	1040	56.0	90	4.8	45	2.4	616	35.1	934	53.2	101	5.7	47	2.7	716	37.6	979	51.4	33	4.9	54	2.8
	RICH	696	51.8	588	43.8	1	0.1	54	4.0	655	56.9	453	39.3	0	0.0	40	3.5	654	57.1	433	37.8	3	0.3	51	4.5	683	59.4	384	33.4	11	1.0	63	5.5	732	62.5	389	31.5	18	1.5	48	4.1
	VANC	1179	71.0	381	23.0	73	4.4	22	1.3	1235	72.9	337	19.9	109	6.4	7	0.4	1205	71.1	355	20.9	118	7.0	9	0.5	1189	71.0	358	21.4	113	6.8	9	0.5	1272	75.1	312	18.4	89	5.3	14	0.8
Total		2533	51.5	2065	41.9	131	2.7	146	3.0	2554	53.7	1832	38.5	211	4.4	101	2.1	2490	53.0	1828	38.9	211	4.5	105	2.2	2488	54.3	1676	36.6	225	4.9	119	2.6	2720	57.0	1660	34.8	200	4.2	116	2.4
VHA	CVI	946	55.4	652	38.2	61	3.6	41	2.4	1029	58.9	592	33.9	64	3.7	55	3.1	993	55.5	635	35.5	117	6.5	39	2.2	1017	55.2	651	35.3	121	6.6	47	2.5	1048	54.8	680	35.6	132	6.9	46	2.4
	NVI	424	45.5	395	42.4	94	10.1	17	1.8	458	51.5	320	36.0	94	10.6	12	1.3	534	58.2	277	30.2	90	9.8	13	1.4	468	51.3	313	34.3	118	12.9	11	1.2	500	53.6	275	29.5	149	16.0	7	0.8
	SVI	1025	37.8	1460	53.8	178	6.6	45	1.7	1049	37.2	1480	52.5	232	8.2	47	1.7	1128	40.9	1327	48.2	250	9.1	41	1.5	1175	41.6	1351	47.9	253	9.0	37	1.3	1193	42.5	1320	47.1	254	9.1	26	0.9
Total		2395	44.7	2507	46.8	333	6.2	103	1.9	2536	46.5	2392	43.9	390	7.2	114	2.1	2655	48.6	2239	41.0	457	8.4	93	1.7	2660	47.7	2315	41.5	492	8.8	95	1.7	2741	48.5	2275	40.3	535	9.5	79	1.4
PHSA*		4710	69.7	1798	26.6	130	1.9	81	1.2	4943	71.2	1738	25.0	150	2.2	75	1.1	4824	70.9	1730	24.9	163	2.3	94	1.4	5174	70.4	1789	24.3	202	3.8	68	0.9	4919	67.6	1840	25.3	367	5.3	92	1.3
HB		0	0.0	0	0.0	489	99.2	0	0.0	0	0.0	0	0.0	511	99.2	0	0.0	0	0.0	0	0.0	580	96.5	0	0.0	0	0.0	0	0.0	596	97.2	0	0.0	0	0.0	0	0.0	633	97.5	0	0.0
British Columbia		18863	48.2	17343	44.3	1444	3.7	1225	3.1	19562	50.0	16479	42.0	1706	4.4	1151	2.9	19732	50.1	16374	41.6	1922	4.9	1046	2.7	19556	49.3	16550	41.7	2152	5.4	1023	2.6	20392	49.9	16577	41.6	2374	5.8	1128	2.8

*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 2007 section of the BCPHP website (www.bcpnp.ca)

APPENDIX 10 - DATA TABLES

DATA TABLE 4A

Maternal Smoking During Pregnancy by Place of Residence for Health Service Delivery Areas, Health Authorities and Province, 2002/2003 to 2006/2007

	2002/2003		2003/2004		2004/2005		2005/2006		2006/2007	
	Yes #	No %	Yes #	No %	Yes #	No %	Yes #	No %	Yes #	No %
HA										
HSDA										
FHA										
FE	451	15.4	2478	84.6	419	14.0	2564	86.0	452	15.1
FN	432	7.9	5009	92.1	423	7.8	5032	92.2	410	7.6
FS	669	9.8	6171	90.2	586	8.6	6192	91.4	611	8.8
Total	1552	10.2	13658	89.8	1428	9.4	13788	90.6	1473	9.6
HHA										
EK	141	21.8	505	78.2	104	17.0	506	83.0	121	19.3
KB	73	13.1	485	86.9	80	14.7	464	85.3	91	15.9
OK	394	16.5	1995	83.5	348	14.6	2039	85.4	383	15.5
TCS	373	21.5	1361	78.5	319	18.0	1451	82.0	314	17.3
Total	981	18.4	4346	81.6	851	16.0	4460	84.0	909	16.6
NHA										
NE	167	19.4	695	80.6	180	21.0	679	79.0	168	19.0
NI	283	19.0	1209	81.0	304	20.1	1212	79.9	300	20.1
NWV	167	16.9	819	83.1	162	17.7	752	82.3	137	15.4
Total	617	18.5	2723	81.5	646	19.6	2643	80.4	605	18.5
VCHA										
CST	177	7.8	2084	92.2	138	6.0	2151	94.0	147	6.5
RICH	64	4.3	1425	95.7	57	4.0	1367	96.0	32	2.1
VANC	250	4.5	5362	95.5	229	4.0	5448	96.0	223	4.0
Total	491	5.2	8871	94.8	424	4.5	8966	95.5	402	4.3
VHA										
CVI	324	17.2	1556	82.8	304	16.1	1589	83.9	326	16.9
NVI	159	15.9	840	84.1	157	16.9	773	83.1	152	15.7
SVI	372	14.2	2255	85.8	398	14.3	2384	85.7	417	15.2
Total	855	15.5	4651	84.5	859	15.3	4746	84.7	895	15.9
BC UNSPEC	35	13.3	229	86.7	41	16.0	215	84.0	40	17.8
NON RES	14	9.9	127	90.1	9	6.7	126	93.3	21	16.3
British Columbia	4545	11.6	34605	88.4	4238	10.9	34944	89.1	4345	11.0

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 2007 section of the BCRHP website (www.bcrhp.ca)

DATA TABLE 6A

Induction of Labour by Place of Delivery for Health Service Delivery Areas, Health Authorities and Province, 2002/2003 to 2006/2007

	2002/2003			2003/2004			2004/2005			2005/2006			2006/2007		
	Yes #	No %	Total #	Yes #	No %	Total #	Yes #	No %	Total #	Yes #	No %	Total #	Yes #	No %	Total #
HA															
HSDA															
FE	632	24.5	2583	629	23.9	2627	604	23.3	2586	572	22.3	2565	560	21.5	2610
FN	1131	23.3	4846	1210	23.6	4728	1083	23.0	4713	1164	24.6	4728	1300	26.2	4960
FS	1369	24.2	5647	1312	23.1	5670	1238	21.5	5769	1292	23.3	5535	1302	21.9	5936
Total	3132	24.0	13076	3151	24.2	13025	2925	22.4	13078	3028	23.6	12828	3162	23.4	13506
HHA															
EK	124	20.2	614	114	19.1	482	114	18.7	611	135	21.7	487	163	24.7	496
KB	130	25.2	515	121	24.9	364	125	23.9	397	117	21.9	418	145	26.7	398
OK	572	23.9	2394	626	26.0	1765	577	23.6	1889	519	20.6	2005	648	24.1	2038
TCS	345	19.8	1743	367	20.5	1419	344	18.7	1491	376	20.9	1427	447	24.2	1400
Total	1171	22.2	5266	1228	23.3	4050	1160	21.4	5414	1147	20.9	4337	1403	24.5	5735
NHA															
NE	186	20.9	704	204	23.7	658	163	18.4	725	170	19.4	706	206	20.9	782
NI	273	18.9	1174	272	18.5	1196	248	17.0	1209	263	16.8	1305	271	18.1	1229
NW	224	23.8	717	175	19.5	721	177	20.4	692	186	22.8	631	177	22.0	628
Total	683	20.8	3278	651	20.2	2575	588	18.3	3214	619	19.0	2642	654	19.9	2639
VCHA															
CST	398	20.7	1522	338	17.7	1573	325	17.5	1531	338	19.2	1419	377	19.8	1527
RICH	230	17.1	1113	218	18.9	934	208	18.2	937	228	19.8	921	218	18.6	953
VANC	359	21.6	1301	315	18.6	1379	303	17.9	1392	344	20.5	1330	375	22.1	1319
Total	987	20.0	4923	871	18.3	3886	836	17.8	3860	910	19.9	3670	970	20.3	3799
VHA															
CVI	393	23.0	1314	410	23.5	1337	393	22.0	1395	437	23.7	1407	467	24.4	1445
NVI	156	16.7	776	160	20.2	710	193	21.0	724	197	21.6	715	180	19.3	753
SVI	746	27.5	1968	670	23.8	2147	635	23.0	2120	654	23.2	2168	630	22.5	2175
Total	1295	24.2	4058	1260	23.1	4194	1221	22.4	4239	1288	23.1	4290	1277	22.6	4373
PHSA*	1150	17.0	5611	1147	16.5	5800	1153	16.6	5793	1315	17.9	6033	1196	16.4	6080
HB	16	3.2	477	17	3.3	498	10	1.7	589	15	2.4	598	7	1.1	642
British Columbia	8434	21.5	30716	8325	21.2	30877	7893	20.0	31514	8322	21.0	31370	8669	21.2	32209

*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 to 2006/2007

	2004/2005										2005/2006										2006/2007															
	EFM & Intermittent Auscultation	EFM Only	Intermittent Auscultation Only	Not Monitored	Moms Laboured	NA	Total Moms	EFM & Intermittent Auscultation	EFM Only	Intermittent Auscultation Only	Not Monitored	Moms Laboured	NA	Total Moms	EFM & Intermittent Auscultation	EFM Only	Intermittent Auscultation Only	Not Monitored	Moms Laboured	NA	Total Moms															
HA HSDA	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%														
FHA	1044	46.2	578	29.6	512	22.6	127	5.6	2261	100.0	335	2596	1082	48.0	453	20.1	609	27.0	108	4.8	2252	100.0	313	2555	1101	48.1	359	15.7	730	31.9	99	4.3	2289	100.0	321	2610
FN	1721	41.7	1859	45.0	357	8.6	183	4.7	4130	100.0	583	4713	1711	41.5	1678	40.7	493	12.0	243	5.9	4125	100.0	603	4728	1804	42.1	1576	36.8	644	15.0	256	6.0	4280	100.0	680	4960
FS	2146	43.1	1492	29.3	1035	20.8	309	6.2	4882	100.0	787	5769	2096	44.2	1268	26.8	1070	22.6	304	6.4	4738	100.0	797	5535	2408	46.9	1296	25.1	1136	22.1	304	5.9	5182	100.0	804	5936
Total	4911	43.2	3929	34.5	1904	16.7	629	5.5	11373	100.0	1705	13078	4989	44.0	3389	30.6	2172	19.5	655	5.9	11115	100.0	1713	12828	5311	45.4	3221	27.5	2510	21.5	659	5.6	11701	100.0	1895	13506
IHA	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	188	33.5	132	23.5	206	36.7	36	6.4	562	100.0	97	659
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	164	33.3	137	27.8	160	32.5	31	6.3	492	100.0	51	543
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	1140	49.2	843	36.4	235	10.1	98	4.2	2316	100.0	370	2686
TCS	921	57.8	307	19.3	180	11.3	186	11.7	1594	100.0	241	1835	888	57.3	280	18.1	170	11.0	211	13.6	1549	100.0	254	1803	947	58.8	310	19.3	165	10.2	188	11.7	1610	100.0	237	1847
Total	2033	43.1	1681	35.7	572	12.1	426	9.0	4712	100.0	702	5414	2170	45.9	1486	31.5	691	14.6	377	8.0	4724	100.0	760	5484	2439	49.0	1422	28.6	766	15.4	353	7.1	4980	100.0	755	5735
NHA	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	265	30.8	354	41.1	201	23.3	41	4.8	861	100.0	127	988
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	1366	100.0	202	1568	432	32.7	587	44.4	195	14.8	107	8.1	1321	100.0	179	1500
NW	278	36.4	320	41.9	132	17.3	33	4.3	763	100.0	106	869	317	44.2	239	33.3	136	18.9	26	3.6	718	100.0	99	817	321	44.8	178	24.8	191	26.6	27	3.8	717	100.0	88	805
Total	995	35.1	1390	49.1	295	10.4	151	5.3	2831	100.0	383	3214	871	30.5	1492	52.3	339	11.9	152	5.3	2854	100.0	407	3261	1018	35.1	1119	38.6	587	20.2	175	6.0	2899	100.0	394	3233
VCHA	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	917	57.4	248	15.5	296	18.5	136	8.5	1597	100.0	307	1904
RICH	609	61.0	219	21.9	132	13.2	39	3.9	999	100.0	146	1145	536	55.0	204	20.9	198	20.3	36	3.7	974	100.0	175	1149	509	49.4	242	23.5	225	21.8	54	5.2	1030	100.0	141	1171
VANC	875	59.7	349	23.8	201	13.7	41	2.8	1466	100.0	229	1695	817	57.3	354	24.8	218	15.3	37	2.6	1426	100.0	248	1674	687	48.4	525	37.0	171	12.0	37	2.6	1420	100.0	274	1694
Total	2456	59.9	850	20.9	624	15.3	189	3.9	4069	100.0	627	4696	2225	57.2	776	19.9	734	18.9	156	4.0	3891	100.0	689	4580	2113	52.2	1015	25.1	692	17.1	227	5.6	4047	100.0	722	4769
VHA	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	657	38.7	417	24.6	476	28.0	147	8.7	1697	100.0	215	1912
CVI	256	32.7	178	22.7	277	35.4	72	9.2	783	100.0	134	917	307	38.2	166	20.7	283	35.2	47	5.9	803	100.0	109	912	319	39.0	149	18.2	306	37.5	43	5.3	817	100.0	116	933
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	1309	55.8	356	15.2	542	23.1	140	6.0	2347	100.0	458	2805
Total	1768	37.8	1328	28.4	1255	26.8	332	7.1	4683	100.0	777	5460	2268	47.9	1004	21.2	1226	25.9	238	5.0	4736	100.0	842	5578	2285	47.0	922	19.0	1324	27.2	330	6.8	4861	100.0	789	5650
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	221	3.5	6229	100.0	1119	7348	2819	42.4	1708	27.6	1560	25.2	297	4.8	6194	100.0	1092	7276
HB	0	0.0	0	0.0	557	93.0	42	7.0	599	100.0	0	599	2	0.3	1	0.2	568	92.7	42	6.9	613	100.0	0	613	15786	44.7	9407	26.6	8047	22.8	2081	5.9	35321	100.0	5557	40878
British Columbia	15107	44.2	10767	31.5	6418	18.8	1911	5.6	34203	100.0	5204	39407	15354	44.9	9954	29.1	7012	20.5	1841	5.4	34161	100.0	5530	39692	15786	44.7	9407	26.6	8047	22.8	2081	5.9	35321	100.0	5557	40878

*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
 NA: Not Applicable – mother not in labour

DATA TABLE 8A

Episiotomies by Place of Delivery for Health Service Delivery Areas, Health Authorities and Province, 2002/2003 to 2006/2007

	2002/2003					2003/2004					2004/2005					2005/2006					2006/2007												
	Yes #	%	No #	%	Total #	Yes #	%	No #	%	Total #	Yes #	%	No #	%	Total #	Yes #	%	No #	%	Total #	Yes #	%	No #	%	Total #	Yes #	%	No #	%	Total #	NA #		
HA																																	
HSDA																																	
FE	332	17.2	1599	82.8	1931	652	289	14.8	1661	652	311	16.7	1556	83.3	1867	729	240	12.7	1653	87.3	1893	672	259	13.2	1708	86.8	1967	643					
FN	666	18.4	2944	81.6	3610	1236	638	18.5	2810	1280	565	16.6	2830	83.4	3395	1318	507	14.8	2923	85.2	3430	1298	513	15.0	2699	85.0	3412	100.0	1548				
FS	1005	24.3	3134	75.7	4139	1508	891	21.9	3184	1508	901	22.3	3148	77.7	4049	1720	721	18.8	3118	81.2	3839	1696	901	21.5	3293	78.5	4194	100.0	1742				
Total	2003	20.7	7677	79.3	9680	3396	1818	19.2	7655	80.8	9473	3552	1777	19.1	7534	80.9	9311	100.0	3767	1468	16.0	7694	84.0	9162	100.0	3666	1673	17.5	7900	95.3	9573	100.0	3933
IHA																																	
EK	70	15.7	377	84.3	447	167	60	14.3	361	85.7	421	175	37	9.3	363	90.8	400	100.0	211	42	9.9	384	90.1	426	100.0	196	45	9.7	419	90.3	464	100.0	195
KB	40	10.8	331	89.2	371	144	34	9.0	342	91.0	376	109	46	11.4	357	88.6	402	100.0	119	28	6.6	394	93.4	422	100.0	113	26	6.2	393	93.8	419	100.0	124
OK	222	12.6	1539	87.4	1761	633	235	13.4	1521	86.6	1756	655	247	14.3	1475	85.7	1722	100.0	724	259	14.7	1508	85.3	1767	100.0	757	251	13.7	1579	86.3	1830	100.0	856
TCS	103	8.4	1119	91.6	1222	521	101	8.3	1122	91.7	1223	563	108	8.6	1155	91.4	1263	100.0	572	94	7.7	1133	92.3	1227	100.0	576	86	6.8	1180	93.2	1266	100.0	581
Total	435	11.4	3366	88.6	3801	1465	430	11.4	3346	88.6	3776	1502	438	11.6	3350	88.4	3788	100.0	1626	423	11.0	3419	89.0	3842	100.0	1642	408	10.3	3571	89.7	3979	100.0	1756
NHA																																	
NE	105	15.6	566	84.4	671	219	98	15.0	556	85.0	654	208	107	16.0	563	84.0	670	100.0	218	109	16.6	549	83.4	658	100.0	218	104	14.5	611	85.5	715	100.0	273
NI	117	10.9	961	89.1	1078	369	105	9.6	984	90.4	1089	379	92	8.6	976	91.4	1068	100.0	390	103	9.1	1026	90.9	1129	100.0	439	101	9.2	997	90.8	1098	100.0	402
NW	63	9.5	598	90.5	661	280	61	9.3	594	90.7	655	241	33	5.1	608	94.9	641	100.0	228	56	9.1	557	90.9	613	100.0	204	47	7.7	560	92.3	607	100.0	198
Total	285	11.8	2125	88.2	2410	868	264	11.0	2134	89.0	2398	828	232	9.8	2147	90.2	2379	100.0	836	268	11.2	2132	88.8	2400	100.0	861	252	10.4	2168	89.6	2420	100.0	873
VCHA																																	
GST	255	17.7	1186	82.3	1441	479	197	14.2	1191	85.8	1388	523	156	11.6	1191	88.4	1347	100.0	509	143	11.6	1093	88.4	1236	100.0	521	176	13.2	1155	86.8	1331	100.0	573
RICH	219	23.1	730	76.9	949	394	225	27.5	592	72.5	817	335	199	23.5	647	76.5	846	100.0	299	174	22.1	612	77.9	786	100.0	363	183	21.4	674	78.6	857	100.0	314
VANC	222	19.2	934	80.8	1156	504	208	17.8	959	82.2	1167	527	174	14.6	1015	85.4	1189	100.0	506	151	13.7	949	86.3	1100	100.0	574	136	12.2	983	87.8	1119	100.0	575
Total	696	19.6	2850	80.4	3546	1377	630	18.7	2742	81.3	3372	1385	529	15.6	2853	84.4	3382	100.0	1314	468	15.0	2854	85.0	3122	100.0	1458	495	15.0	2812	85.0	3307	100.0	1462
VHA																																	
CVI	176	13.9	1088	86.1	1264	443	172	13.7	1079	86.3	1251	496	178	13.7	1125	86.3	1303	100.0	485	156	11.7	1172	88.3	1328	100.0	516	192	13.6	1223	86.4	1415	100.0	497
NVI	74	10.6	622	89.4	696	236	70	10.6	589	89.4	659	231	64	10.0	573	90.0	637	100.0	280	60	8.8	618	91.2	678	100.0	234	53	7.8	625	92.2	678	100.0	255
SVI	196	10.7	1642	89.3	1838	876	227	11.7	1710	88.3	1937	880	208	11.6	1582	88.4	1790	100.0	965	204	11.3	1604	88.7	1808	100.0	1014	174	9.8	1603	90.2	1777	100.0	1028
Total	446	11.7	3352	88.3	3798	1555	469	12.2	3378	87.8	3847	1607	450	12.1	3280	87.9	3730	100.0	1730	420	11.0	3394	89.0	3814	100.0	1764	419	10.8	3451	89.2	3870	100.0	1780
PHSA*	1155	23.6	3744	76.4	4899	1862	998	20.0	3890	80.0	4978	1969	900	18.5	3954	81.5	4854	100.0	2091	895	17.4	4261	82.6	5156	100.0	2192	813	16.0	4273	84.0	5086	100.0	2190
HB	6	1.2	487	98.8	493	0	3	0.6	512	99.4	4978	0	4	0.7	595	99.3	599	100.0	0	6	1.0	607	99.0	613	100.0	0	9	1.4	640	98.6	649	100.0	0
British Columbia	5026	17.6	23601	82.4	28627	10523	4612	16.3	23747	83.7	28359	10843	4330	15.4	23713	84.6	28043	100.0	11364	3948	14.0	24161	86.0	28109	100.0	11583	4069	14.1	24815	85.9	28884	100.0	11994

*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
 NA: Not Applicable – refers to mothers who have had a Caesarean Section

Postpartum Length of Stay (Vaginal Deliveries) by Place of Delivery for Health Service Delivery Areas, Health Authorities and Province, 2002/2003 to 2006/2007

	2002/2003						2003/2004						2004/2005						2005/2006						2006/2007					
	<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	<48 Hours	48-72 Hours	>72 Hours	<48 Hours	48-72 Hours	>72 Hours									
HA	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%								
HSA	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%								
FHA	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%								
FE	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								
FN	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	2431	71.4	758	22.3								
FS	3586	87.0	448	10.9	87	2.1	3583	88.3	397	9.8	79	1.9	3556	88.3	383	9.5	87	2.2	3340	87.4	401	10.5								
Total	7561	78.6	1699	17.3	392	4.1	7522	79.8	1500	15.9	403	4.3	7557	81.6	1358	14.7	346	3.7	7369	81.0	1371	15.1								
HHA	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%								
KB	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								
OK	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								
KB	1152	65.8	392	22.4	208	11.9	1113	63.9	386	22.7	232	13.3	1102	64.4	392	22.9	216	12.6	1170	66.7	388	21.0								
TCS	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	862	72.0	235	19.6								
Total	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	2511	66.6	821	21.8								
NHA	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%								
NE	382	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								
NI	653	62.4	297	28.4	97	9.3	699	66.1	263	24.9	96	9.1	687	65.9	258	24.7	98	9.4	737	67.1	287	26.1								
NW	347	53.5	186	28.7	115	17.7	385	61.2	163	25.9	81	12.9	388	59.0	169	27.1	87	13.9	347	58.3	151	25.4								
Total	1382	57.7	683	28.9	316	13.4	1434	61.4	640	27.4	260	11.1	1455	62.5	624	26.8	248	10.7	1491	63.7	613	26.2								
VCHA	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%								
CST	888	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								
RICH	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	630	80.6	136	17.4								
VANNC	727	63.1	308	26.7	117	10.2	760	65.6	273	23.4	125	10.8	823	69.9	259	22.0	96	8.1	797	73.3	221	20.3								
Total	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	2221	71.8	660	21.3								
VHA	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%								
CVI	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								
NVI	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								
SVI	994	54.5	588	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								
Total	2116	56.5	1095	28.3	532	14.2	2221	56.3	1007	26.4	584	15.3	2167	56.7	1013	27.4	511	13.8	2308	61.3	989	26.2								
PHSA*	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								
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	0	0.0	0	0.0								
British Columbia	18634	66.9	6621	23.8	2600	9.3	18884	68.5	6072	22.0	2616	9.5	18923	69.6	5868	21.6	2404	8.8	19331	71.1	5532	20.3								

*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

Detailed data tables are available in the Annual Report 2007 section of the BCPHP website (www.bcpnp.ca)

DATA TABLE 10A

Postpartum Length of Stay (Caesarean Section Deliveries) by Place of Delivery for Health Service Delivery Areas, Health Authorities and Province, 2002/2003 to 2006/2007

	2002/2003		2003/2004		2004/2005		2005/2006		2006/2007	
	≤96 Hours #	>96 Hours %	≤96 Hours #	>96 Hours %	≤96 Hours #	>96 Hours %	≤96 Hours #	>96 Hours %	≤96 Hours #	>96 Hours %
HA										
HSDA										
FHA										
FE	585	93.2	43	6.8	631	94.3	38	5.7	694	95.9
FN	1047	84.8	187	15.2	1102	86.4	173	13.6	1181	89.7
FS	1382	91.8	123	8.2	1494	94.0	95	6.0	1579	92.3
Total	3014	89.5	353	10.5	3227	91.3	306	8.7	3454	92.1
IHA										
EK	130	83.3	26	16.7	132	81.5	30	18.5	156	81.3
KB	79	56.8	60	43.2	61	58.1	44	41.9	58	53.2
OK	490	77.8	140	22.2	499	76.9	150	23.1	572	79.6
TCS	417	83.1	85	16.9	477	86.9	72	13.1	488	85.2
Total	1116	78.2	311	21.8	1169	79.8	296	20.2	1254	79.9
NHA										
NE	165	75.3	54	24.7	163	79.5	42	20.5	189	87.5
NI	272	76.0	86	24.0	304	83.5	60	16.5	308	80.8
NW	153	57.7	112	42.3	158	70.5	66	29.5	159	74.0
Total	590	70.1	252	29.9	625	78.8	168	21.2	656	80.8
VCHA										
CST	359	77.0	107	23.0	398	78.5	109	21.5	422	84.2
RICH	347	88.5	45	11.5	306	92.7	24	7.3	275	92.6
VANC	358	72.0	139	28.0	389	74.7	132	25.3	413	82.4
Total	1064	78.5	291	21.5	1093	80.5	265	19.5	1110	85.5
VIIA										
CVI	302	69.7	131	30.3	349	73.0	129	27.0	345	73.1
NVI	160	70.5	67	29.5	168	74.0	59	26.0	207	75.8
SVI	616	70.7	255	29.3	643	73.3	234	26.7	712	73.9
Total	1078	70.4	453	29.6	1160	73.3	422	26.7	1264	74.0
PHSA*										
PHSA*	1452	78.3	402	21.7	1521	77.5	442	22.5	1704	81.8
HB										
HB	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
British Columbia	8314	80.1	2062	19.9	8795	82.2	1899	17.8	9442	84.1

*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
 Detailed data tables are available in the Annual Report 2007 section of the BCPHP website (www.bcpnp.ca)

APPENDIX 10 –
DATA TABLES (CONT'D)

DATA TABLE 13A

Maternal Postpartum Readmission by Place of Delivery for Health Service Delivery Areas,
Health Authorities and Province, 2002/2003 to 2005/2006

	2002/2003						2003/2004						2004/2005						2005/2006						
	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																									
HSDA																									
FHA																									
FE	11	1.7	652	34	1.8	1931	17	2.5	677	25	1.3	1950	17	2.3	729	33	1.8	1867	9	1.3	672	53	2.8	1893	
FN	21	1.7	1236	44	1.2	3610	29	2.3	1280	42	1.2	3448	27	2.0	1318	46	1.4	3395	34	2.6	1296	55	1.6	3430	
FS	32	2.1	1508	53	1.3	4139	26	1.6	1595	58	1.4	4075	27	1.6	1720	54	1.3	4049	41	2.4	1696	69	1.8	3841	
Total	64	1.9	3396	131	1.4	9680	72	2.0	3552	125	1.3	9473	71	1.9	3767	133	1.4	9311	84	2.3	3666	177	1.9	9164	
IHA																									
EK	2	1.2	167	11	2.5	447	5	2.9	175	13	3.1	421	4	1.9	211	12	3.0	400	7	3.6	196	10	2.3	426	
KB	3	2.1	144	3	0.8	371	5	4.6	109	8	2.1	376	1	0.8	119	7	1.7	403	1	0.9	113	11	2.6	422	
OK	18	2.8	633	31	1.8	1761	18	2.7	565	37	2.1	1756	24	3.3	724	42	2.4	1722	21	2.8	757	38	2.1	1768	
TCS	12	2.3	521	21	1.7	1222	15	2.7	563	21	1.7	1223	18	3.1	572	27	2.1	1263	25	4.3	576	31	2.5	1228	
Total	35	2.4	1465	66	1.7	3801	43	2.9	1502	79	2.1	3776	47	2.9	1626	88	2.3	3788	54	3.3	1642	90	2.3	3844	
NHA																									
NE	3	1.4	219	17	2.5	671	6	2.9	208	14	2.1	654	8	3.7	218	10	1.5	670	6	2.8	218	19	2.9	658	
NI	12	3.3	369	13	1.2	1078	14	3.7	379	16	1.5	1089	5	1.3	390	15	1.4	1068	9	2.1	439	31	2.7	1129	
NW	7	2.5	280	18	2.7	661	4	1.7	241	7	1.1	655	5	2.2	228	5	0.8	641	4	2.0	204	17	2.8	614	
Total	22	2.5	868	48	2.0	2410	24	2.9	828	37	1.5	2398	18	2.2	836	30	1.3	2379	19	2.2	861	67	2.8	2401	
VHA																									
CST	4	0.8	479	28	1.9	1441	6	1.1	523	13	0.9	1388	11	2.2	509	25	1.9	1347	7	1.3	521	33	2.7	1237	
RICH	7	1.8	394	8	0.8	949	6	1.8	335	8	1.0	817	6	2.0	299	14	1.7	846	5	1.4	363	8	1.0	786	
VANC	15	3.0	504	19	1.6	1156	17	3.2	527	24	2.1	1167	17	3.4	506	25	2.1	1189	18	3.1	574	23	2.1	1100	
Total	26	1.9	1377	55	1.6	3546	29	2.1	1385	45	1.3	3372	34	2.6	1314	64	1.9	3382	30	2.1	1458	64	2.0	3123	
VHA																									
CVI	7	1.6	443	25	2.0	1264	9	1.8	496	23	1.8	1251	9	1.9	485	28	2.1	1303	9	1.7	516	39	2.9	1329	
NVI	6	2.5	236	12	1.7	696	6	2.6	231	8	1.2	659	8	2.9	280	6	0.9	637	10	4.3	234	13	1.9	678	
SVI	20	2.3	876	29	1.6	1838	29	3.3	880	35	1.8	1937	30	3.1	985	29	1.6	1790	36	3.6	1014	33	1.8	1808	
Total	33	2.1	1555	66	1.7	3798	44	2.7	1607	66	1.7	3847	47	2.7	1730	63	1.7	3730	55	3.1	1764	85	2.2	3815	
PHSA*																									
HB	38	2.0	1862	72	1.5	4899	30	1.5	1969	57	1.1	4978	50	2.4	2091	81	1.7	4854	67	3.1	2195	67	1.3	5157	
British Columbia	0	0.0	0	4	0.8	493	0	0.0	0	8	1.6	515	0	0.0	0	5	0.8	599	0	0.0	0	6	1.0	613	
	218	2.1	10523	442	1.5	28627	242	2.2	10843	417	1.5	28359	267	2.3	11364	464	1.7	28043	309	2.7	11586	556	2.0	28117	

*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 by Place of Delivery for Health Service Delivery Areas, Health Authorities and Province, 2002/2003 to 2006/2007

	2002/2003		2003/2004		2004/2005		2005/2006		2006/2007												
	C/Section #	%	Vaginal #	%	C/Section #	%	Vaginal #	%	C/Section #	%											
HA	HSDA																				
FHA	FE	652	25.2	1931	74.8	677	25.8	1950	74.2	729	28.1	1867	71.9	672	26.2	1893	73.8	643	24.6	1967	75.4
	FN	1236	25.5	3610	74.5	1280	27.1	3448	72.9	1318	28.0	3395	72.0	1298	27.5	3430	72.5	1548	31.2	3412	68.8
	FS	1508	26.7	4139	73.3	1595	28.1	4075	71.9	1720	29.8	4049	70.2	1696	30.6	3839	69.4	1742	29.3	4194	70.7
Total		3396	26.0	9680	74.0	3552	27.3	9473	72.7	3767	28.8	9311	71.2	3666	28.6	9162	71.4	3933	29.1	9573	70.9
HHA	EK	167	27.2	447	72.8	175	29.4	421	70.6	211	34.5	400	65.5	196	31.5	426	68.5	195	29.6	464	70.4
	KB	144	28.0	371	72.0	109	22.5	376	77.5	119	22.8	403	77.2	113	21.1	422	78.9	124	22.8	419	77.2
	OK	633	26.4	1761	73.6	655	27.2	1756	72.8	724	29.6	1722	70.4	757	30.0	1767	70.0	856	31.9	1830	68.1
	TCS	521	29.9	1222	70.1	563	31.5	1223	68.5	572	31.2	1263	68.8	576	31.9	1227	68.1	581	31.5	1266	68.5
Total		1465	27.8	3801	72.2	1502	28.5	3776	71.5	1626	30.0	3788	70.0	1642	29.9	3842	70.1	1756	30.6	3979	69.4
NHA	NE	219	24.6	671	75.4	208	24.1	654	75.9	218	24.5	670	75.5	218	24.9	658	75.1	273	27.6	715	72.4
	NI	389	25.5	1078	74.5	379	25.8	1089	74.2	390	26.7	1068	73.3	439	28.0	1129	72.0	402	26.8	1098	73.2
	NW	280	29.8	661	70.2	241	26.9	655	73.1	228	26.2	641	73.8	204	25.0	613	75.0	198	24.6	607	75.4
Total		868	26.5	2410	73.5	828	25.7	2398	74.3	836	26.0	2379	74.0	861	26.4	2400	73.6	873	26.5	2420	73.5
VCHA	CST	479	24.9	1441	75.1	523	27.4	1388	72.6	509	27.4	1347	72.6	521	29.7	1236	70.3	573	30.1	1331	69.9
	RICH	394	29.3	949	70.7	335	29.1	817	70.9	299	26.1	846	73.9	363	31.6	786	68.4	314	26.8	857	73.2
	VANC	504	30.4	1156	69.6	527	31.1	1167	68.9	506	29.9	1189	70.1	574	34.3	1100	65.7	575	33.9	1119	66.1
Total		1377	28.0	3546	72.0	1385	29.1	3372	70.9	1314	28.0	3382	72.0	1458	31.8	3122	68.2	1462	30.7	3307	69.3
VHA	CVI	443	26.0	1264	74.0	496	28.4	1251	71.6	485	27.1	1303	72.9	516	28.0	1328	72.0	497	26.0	1415	74.0
	NVI	236	25.3	696	74.7	231	26.0	659	74.0	280	30.5	637	69.5	234	25.7	678	74.3	295	27.3	678	72.7
	SVI	876	32.3	1838	67.7	880	31.2	1937	68.8	965	35.0	1790	65.0	1014	35.9	1808	64.1	1028	36.6	1777	63.4
Total		1555	29.0	3798	71.0	1607	29.5	3847	70.5	1730	31.7	3730	68.3	1764	31.6	3814	68.4	1780	31.5	3870	68.5
PHSA*		1862	27.5	4899	72.5	1969	28.3	4978	71.7	2091	30.1	4854	69.9	2192	29.8	5156	70.2	2190	30.1	5086	69.9
HB		0	0.0	493	100.0	0	0.0	515	100.0	0	0.0	599	100.0	0	0.0	613	100.0	0	0.0	649	100.0
British Columbia		10523	26.9	28627	73.1	10843	27.7	28359	72.3	11364	28.8	28043	71.2	11583	29.2	28109	70.8	11994	29.3	28884	70.7

*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

Detailed data tables are available in the Annual Report 2007 section of the BCPHP website (www.bcpnp.ca)

DATA TABLE 14A

Newborn Feeding by Place of Delivery for Health Service Delivery Areas, Health Authorities and Province, 2004/2005 to 2006/2007

	2004/2005										2005/2006										2006/2007															
	Exclusive Breast Milk #	Partial Breast Milk #	No Breast Milk #	Unknown #	Total #	NA #	Exclusive Breast Milk #	Partial Breast Milk #	No Breast Milk #	Unknown #	Total #	NA #	Exclusive Breast Milk #	Partial Breast Milk #	No Breast Milk #	Unknown #	Total #	NA #																		
HA	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%		
HSDA	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%		
FHA	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%		
FE	1724	67.2	642	25.0	188	6.5	33	1.3	2567	100.0	29		1724	67.8	629	24.7	182	7.2	7	0.3	2542	100.0	23		1659	64.2	747	28.9	170	6.6	8	0.3	2584	100.0	26	
FN	3401	72.6	1067	22.8	192	4.1	25	0.5	4685	100.0	28		3325	70.8	1143	24.4	205	4.4	21	0.4	4694	100.0	34		3397	69.0	1279	26.0	216	4.4	34	0.7	4926	100.0	34	
FS	3920	88.6	1395	24.4	370	6.5	29	0.5	5714	100.0	55		3813	69.4	1302	23.7	380	6.6	17	0.3	5492	100.0	43		3844	65.3	1679	28.5	340	5.8	20	0.3	5683	100.0	53	
Total	9045	69.8	3104	23.9	730	5.6	87	0.7	12966	100.0	112		8862	69.6	3074	24.2	747	5.9	45	0.4	12728	100.0	100		8900	66.5	3705	27.7	726	5.4	62	0.5	13393	100.0	113	
IHA	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%		
EK	463	76.9	100	16.6	25	4.2	14	2.3	602	100.0	9		414	68.4	144	23.8	34	5.6	13	2.1	605	100.0	17		472	72.7	137	21.1	36	5.5	4	0.6	649	100.0	10	
KB	404	77.8	100	19.3	14	2.7	1	0.2	519	100.0	3		456	86.0	45	8.5	27	5.1	2	0.4	530	100.0	5		463	86.2	62	11.5	10	1.9	2	0.4	537	100.0	6	
OK	2055	84.6	221	9.1	123	5.1	29	1.2	2428	100.0	18		1990	79.4	284	11.3	124	4.9	109	4.3	2507	100.0	17		1941	72.9	539	20.2	150	5.6	33	1.2	2663	100.0	23	
TCS	1507	82.7	137	7.5	151	8.3	28	1.5	1823	100.0	12		1476	82.5	136	7.6	141	7.9	37	2.1	1790	100.0	13		1552	84.9	118	6.5	135	7.4	22	1.2	1827	100.0	20	
Total	4429	82.4	538	10.4	313	5.8	72	1.3	5372	100.0	42		4336	79.8	609	11.2	326	6.0	161	3.0	5432	100.0	52		4428	78.0	856	15.1	331	5.8	61	1.1	5676	100.0	59	
NHA	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%		
NE	411	46.9	371	42.3	92	10.5	3	0.3	877	100.0	11		598	69.7	198	23.1	80	7.0	2	0.2	858	100.0	18		636	64.6	269	27.3	75	7.6	4	0.4	984	100.0	4	
NI	1076	74.5	170	11.8	155	10.7	44	3.0	1445	100.0	13		1195	76.9	169	10.9	148	9.5	41	2.6	1553	100.0	15		1157	77.7	163	10.9	147	9.9	22	1.5	1489	100.0	11	
NW	588	68.7	183	21.4	77	9.0	8	0.9	856	100.0	13		593	73.6	154	19.1	47	5.8	12	1.5	806	100.0	11		547	68.2	200	24.9	46	5.7	9	1.1	802	100.0	3	
Total	2075	65.3	724	22.8	324	10.2	55	1.7	3178	100.0	37		2386	74.2	521	16.2	255	7.9	55	1.7	3217	100.0	44		2340	71.5	632	19.3	268	8.2	35	1.1	3275	100.0	18	
VCHA	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%		
CST	1276	69.0	515	27.8	40	2.2	19	1.0	1850	100.0	6		1154	66.0	534	30.5	46	2.6	15	0.9	1749	100.0	8		1237	65.7	589	31.3	41	2.2	17	0.9	1884	100.0	20	
RICH	776	68.0	295	25.9	55	4.8	15	1.3	1141	100.0	4		723	63.2	373	32.6	41	3.6	7	0.6	1144	100.0	5		755	64.9	364	31.3	39	3.4	5	0.4	1163	100.0	8	
VANC	1183	70.4	426	25.3	66	3.9	6	0.4	1681	100.0	14		1110	66.6	488	29.3	58	3.5	10	0.6	1666	100.0	8		1155	68.8	441	26.3	65	3.9	18	1.1	1679	100.0	15	
Total	3235	69.2	1236	26.5	161	3.4	40	0.9	4672	100.0	24		2987	65.5	1395	30.6	146	3.2	32	0.7	4599	100.0	21		3147	66.6	1394	29.5	145	3.1	40	0.8	4726	100.0	43	
VHA	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%		
CVI	1505	84.8	150	8.5	101	5.7	18	1.0	1774	100.0	14		1445	79.0	268	14.6	95	5.2	22	1.2	1830	100.0	14		1501	79.4	282	14.9	91	4.8	17	0.9	1891	100.0	21	
NVI	817	89.8	43	4.7	36	4.0	14	1.5	910	100.0	7		780	86.2	87	9.6	34	3.8	4	0.4	905	100.0	7		803	86.9	78	8.4	37	4.0	6	0.6	924	100.0	9	
SVI	2044	74.6	582	21.2	97	3.5	18	0.7	2741	100.0	14		2101	75.0	606	21.6	92	3.3	4	0.1	2803	100.0	19		2130	76.4	570	20.4	85	3.0	4	0.1	2789	100.0	16	
Total	4366	80.5	775	14.3	234	4.3	50	0.9	5425	100.0	35		4326	78.1	961	17.4	221	4.0	30	0.5	5538	100.0	40		4434	79.1	930	16.6	213	3.8	27	0.5	5604	100.0	46	
PHSA*	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%		
	3585	52.2	2903	42.2	375	5.5	9	0.1	6872	100.0	73		4776	57.4	2753	37.8	336	4.6	15	0.2	7280	100.0	88		4348	60.5	2566	35.7	246	3.4	27	0.4	7187	100.0	89	
HB	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%		
	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	599		0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	613		0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	649	
British Columbia	26735	69.5	9300	24.2	2137	5.6	313	0.8	38495	100.0	922		27073	69.9	9313	24.0	2030	5.2	338	0.9	38754	100.0	938		27597	69.2	10083	25.3	1929	4.8	252	0.6				

Birth Weight vs Gestational Age (Preterm Births) by Place of Residence for Health Service Delivery Areas, Health Authorities and Province, 2002/2003 to 2006/2007

	2002/2003						2003/2004						2004/2005						2005/2006						2006/2007					
	AGA	LGA	SGA	AGA	LGA	SGA	AGA	LGA	SGA	AGA	LGA	SGA	AGA	LGA	SGA	AGA	LGA	SGA	AGA	LGA	SGA									
HA	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%								
HSA	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%								
FE	148	77.9	24	12.6	18	9.5	155	78.6	35	14.1	18	7.3	172	72.6	41	17.3	24	10.1	186	80.9	25	10.9								
FN	334	78.4	54	12.7	38	8.9	358	82.9	42	9.7	32	7.4	327	76.9	53	12.5	45	10.6	330	74.3	65	14.6								
FS	366	75.9	66	13.7	50	10.4	371	76.8	73	15.1	39	8.1	375	72.5	87	16.8	55	10.6	420	74.6	85	15.1								
Total	848	77.2	144	13.1	106	9.7	924	79.4	150	12.9	89	7.7	874	74.1	181	15.4	124	10.5	936	75.7	175	14.1								
HHA	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%								
EK	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								
KB	37	82.2	5	11.1	3	6.7	30	71.4	11	26.2	1	2.4	48	82.8	7	12.1	3	5.2	36	80.0	5	11.1								
OK	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								
TCS	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	119	81.5	23	15.8								
Total	315	79.9	58	14.7	21	5.3	352	80.5	59	13.5	26	5.9	354	78.0	60	13.4	34	7.6	353	79.7	56	12.6								
NHA	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%								
NE	31	73.8	7	16.7	4	9.5	34	87.2	2	5.1	3	7.7	33	73.3	9	20.0	3	6.7	30	66.7	8	17.8								
NI	90	77.6	15	12.9	11	9.5	92	75.4	17	13.9	13	10.7	72	72.7	18	18.2	9	9.1	83	79.8	15	14.4								
NW	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								
Total	169	74.4	39	17.2	19	8.4	177	73.1	42	17.4	23	9.5	169	74.1	44	19.3	15	6.6	170	72.6	43	18.4								
VCHA	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%								
CST	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								
RICH	81	83.5	3	3.1	13	13.4	88	79.3	13	11.7	10	9.0	82	80.4	8	7.8	8	7.8	81	73.0	20	18.0								
VANVC	338	75.6	50	11.2	59	13.2	372	83.4	38	8.5	36	8.1	355	83.3	41	8.9	36	7.8	437	82.6	51	9.6								
Total	549	77.5	81	11.4	78	11.0	594	81.8	71	9.9	59	8.3	604	82.0	77	10.4	56	7.6	629	79.0	105	13.2								
VHA	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%								
CVI	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								
NVI	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	58	67.4	19	22.1								
SVI	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								
Total	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	394	75.3	88	16.8								
BC UNSPEC	18	62.1	4	13.8	7	24.1	24	75.0	6	18.8	2	6.3	17	56.7	10	33.3	3	10.0	10	71.4	1	7.1								
NON RES	14	87.5	1	6.3	1	6.3	12	85.7	0	0.0	2	14.3	15	71.4	2	9.5	4	19.0	15	83.3	0	0.0								
British Columbia	2268	77.0	406	13.8	271	9.2	2425	78.9	404	13.2	243	7.9	2383	76.7	458	14.8	264	8.5	2507	76.8	468	14.3								

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

DATA TABLE 19A

REFERENCES

1. Health Canada, *Canadian Perinatal Health Report 2003*. 2003, Canadian Perinatal Surveillance System: Ottawa.
2. British Columbia Vital Statistics Agency, *Selected Vital Statistics and Health Status Indicators. Annual Report 2005*. 2005, British Columbia Vital Statistics Agency: Victoria.
3. College of Family Physicians of Canada, C.M.A., Royal College of Physicians and Surgeons of Canada. *2007 National Physician Survey*. 2008 [cited 2008 February 1]; Available from: http://www.nationalphysiciansurvey.ca/nps/2007_Survey/2007nps-e.asp.
4. SOGC. *Society of Obstetricians and Gynaecologists of Canada website*. [Website] [cited 2008; Available from: <http://www.sogc.org>].
5. BCRCP, *British Columbia Perinatal Database Registry Annual Report 2003*. 2003, British Columbia Reproductive Care Program: Vancouver, BC.
6. Klein, J.D., *Adolescent pregnancy: current trends and issues*. Pediatrics, 2005. **116**(1): p. 281-6.
7. Jolly, M.C., Sebire, N., Harris, J., Robinson, S. and Regan, L., *Obstetric risks of pregnancy in women less than 18 years old*. Obstet Gynecol, 2000. **96**(6): p. 962-6.
8. Eure, C.R., M.K. Lindsay, and W.L. Graves, *Risk of adverse pregnancy outcomes in young adolescent parturients in an inner-city hospital*. Am J Obstet Gynecol, 2002. **186**(5): p. 918-20.
9. British Columbia Perinatal Health Program, *British Columbia Perinatal Database Registry*: Vancouver: Canada.
10. BCRCP, *British Columbia Perinatal Database Registry Annual Report 2006*. 2006, British Columbia Reproductive Care Program: Vancouver, BC.
11. Pollack, H., P.M. Lantz, and J.G. Frohna, *Maternal smoking and adverse birth outcomes among singletons and twins*. Am J Public Health, 2000. **90**(3): p. 395-400.
12. Pickett, K.E., Wakschlag, L.S., Dai, L. and Leventhal, B.L., *Fluctuations of maternal smoking during pregnancy*. Obstet Gynecol, 2003. **101**(1): p. 140-7.
13. ACOG committee opinion. Number 316, October 2005. *Smoking cessation during pregnancy*. Obstet Gynecol, 2005. **106**(4): p. 883-8.
14. BCRCP, *British Columbia Perinatal Database Registry Annual Report 2004*. 2004, British Columbia Reproductive Care Program: Vancouver, BC.
15. BCRCP. *Obstetric guideline 1. Cervical Ripening and Induction of Labour*. 2005 [cited 2008 February 1].
16. Battista, L., Chung, J.H., Lagren, D.C. and Wing, D.A., *Complications of labor induction among multiparous women in a community-based hospital system*. Am J Obstet Gynecol, 2007. **197**(3): p. 241 e1-7; discussion 322-3, e1-4.
17. Peregrine, E., O'Brien, P., Omar, R. and Jauniaux, E., *Clinical and ultrasound parameters to predict the risk of cesarean delivery after induction of labor*. Obstet Gynecol, 2006. **107**(2 Pt 1): p. 227-33.
18. Crane, J.M., *Factors predicting labor induction success: a critical analysis*. Clin Obstet Gynecol, 2006. **49**(3): p. 573-84.
19. SOGC, *SOGC clinical practice guidelines. Guidelines for vaginal birth after previous cesarean birth. Number 155 (Replaces guideline Number 147), February 2005*. Int J Gynaecol Obstet, 2005. **89**(3): p. 319-31.
20. Liston, R., D. Sawchuck, and D. Young, *Fetal health surveillance: antepartum and intrapartum consensus guideline*. J Obstet Gynaecol Can, 2007. **29**(9 Suppl 4): p. S3-56.
21. Thacker, S.B., D. Stroup, and M. Chang, *Continuous electronic heart rate monitoring for fetal assessment during labor*. Cochrane Database Syst Rev, 2001(2): p. CD000063.
22. Cole, C., *Admission electronic fetal monitoring does not improve neonatal outcomes*. J Fam Pract, 2003. **52**(6): p. 443-4.
23. *SOGC clinical practice guidelines: Guidelines for Operative Vaginal Birth. Number 148 Ottawa: SOGC, 2004*.
24. Hartmann, K., Viswanathan, M., Palmieri, R., Gartlehner, G., Thorp, J. and Lohr, K.N., *Outcomes of routine episiotomy: a systematic review*. JAMA, 2005. **293**(17): p. 2141-8.
25. Graham, I.D., Carroli, G., Davies, C. and Medves, J.M., *Episiotomy rates around the world: an update*. Birth, 2005. **32**(3): p. 219-23.
26. Goode, K.T., Weiss, P.M., Koller, C., Kemmel, S. and Hess, L.W., *Episiotomy rates in private vs. resident service deliveries: a comparison*. J Reprod Med, 2006. **51**(3): p. 190-2.
27. Weber, A.M. and L. Meyn, *Episiotomy use in the United States, 1979-1997*. Obstet Gynecol, 2002. **100**(6): p. 1177-82.
28. Abenhaim, H.A., Kinch, R.A., Morin, L., Benjamin, A. and Usher, R., *Effect of prepregnancy body mass index categories on obstetrical and neonatal outcomes*. Arch Gynecol Obstet, 2007. **275**(1): p. 39-43.
29. Doherty, D.A., Magann, E.F., Francis, J., Morrison, J.C. and Newnman, J.P., *Pre-pregnancy body mass index and pregnancy outcomes*. Int J Gynaecol Obstet, 2006. **95**(3): p. 242-7.
30. Chu, S.Y., Callaghan, W.M., Kim, S.Y., Schmid, C.H., Lau, J., England, L.J. and Dietz, P.M., *Maternal obesity and risk of cesarean delivery: a meta-analysis*. Obes Rev, 2007. **8**(5): p. 385-94.
31. Robinson, H.E., O'Connell, C.M., Joseph K.S. and McLeod, N.L., *Maternal outcomes in pregnancies complicated by obesity*. Obstet Gynecol, 2005. **106**(6): p. 1357-64.
32. CIHI, *Health Indicators 2007*. 2007, Canadian Institute for Health Information: Ottawa.
33. Liu, S., Liston, R.M., Joseph, K.S., Heaman, M., Sauve, R. and Kramer, M.S., *Maternal mortality and severe morbidity associated with low-risk planned cesarean delivery versus planned vaginal delivery at term*. CMAJ, 2007. **176**(4): p. 455-60.
34. Baskett, T.F. and C.M. O'Connell, *Severe obstetric maternal morbidity: a 15-year population-based study*. J Obstet Gynaecol, 2005. **25**(1): p. 7-9.
35. Hemminki, E., *Impact of caesarean section on future pregnancy—a review of cohort studies*. Paediatr Perinat Epidemiol, 1996. **10**(4): p. 366-79.
36. Hemminki, E., J. Shelley, and M. Gissler, *Mode of delivery and problems in subsequent births: a register-based study from Finland*. Am J Obstet Gynecol, 2005. **193**(1): p. 169-77.
37. Myers, S.A. and T.L. Bennett, *Incidence of significant adhesions at repeat cesarean section and the relationship to method of prior peritoneal closure*. J Reprod Med, 2005. **50**(9): p. 659-62.
38. Hansen, A.K., Wisborg, K., Ulbjerg, N. and Henriksen, T.B., *Risk of respiratory morbidity in term infants delivered by elective caesarean section: cohort study*. BMJ, 2008. **336**(7635): p. 85-7.
39. Morrison, J.J., J.M. Rennie, and P.J. Milton, *Neonatal respiratory morbidity and mode of delivery at term: influence of timing of elective caesarean section*. Br J Obstet Gynaecol, 1995. **102**(2): p. 101-6.

40. Hernandez-Diaz, S., Van Marter, L.J., Werler, M.M., Louik, C. and Mitchell, A.A., *Risk factors for persistent pulmonary hypertension of the newborn*. *Pediatrics*, 2007. **120**(2): p. e272-82.
41. MacDorman, M.F., Declercq, E., Menacker, F. and Malloy, M.H., *Infant and neonatal mortality for primary cesarean and vaginal births to women with "no indicated risk," United States, 1998-2001 birth cohorts*. *Birth*, 2006. **33**(3): p. 175-82.
42. Joseph, K.S., Young, D.C., Dodds, L., O'Connell, C.M., Allen, V.M., Chandra, S. and Allen, A.C., *Changes in maternal characteristics and obstetric practice and recent increases in primary cesarean delivery*. *Obstet Gynecol*, 2003. **102**(4): p. 791-800.
43. Gartner, L.M., Morton, J., Lawrence, R.A., Naylor, A.J., O'Hare, D., Schanler, R.J. and Eidelman, A.I., *Breastfeeding and the use of human milk*. *Pediatrics*, 2005. **115**(2): p. 496-506.
44. World Health Organization, *Global Strategy for Infant and Young Child Feeding*. 2003, World Health Organization: Geneva.
45. Ip, S., C.M., Raman, G., Chew, P., Magula, N., DeVine, D., Trikalinos, T., Lau, J., *Breastfeeding and Maternal and Infant Health Outcomes in Developed Countries*, in *Evidence Report/Technology Assessment No. 153*. 2007, Agency for Healthcare Research and Quality: Rockville, MD.
46. Breastfeeding Committee for Canada, *Breastfeeding Statement of the Breastfeeding Committee for Canada*. 2006, Breastfeeding Committee for Canada.
47. Health Canada. Body Mass Index Nomogram. Ottawa: Office of Nutrition Policy and Promotion. Accessed on January 17, 2007 at: http://www.hc-sc.gc.ca/hpfb-dgpsa/onpp-bppn/bmi_chart_java_e.html
48. World Health Organization, *Evidence for the ten steps to successful breastfeeding*. 2004, World Health Organization: Geneva.

LEGEND

Health Authority (HA)

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

Health Service Delivery Area (HSDA)

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

