

# Healthy Moms and Infants

## Selected Indicators

Prince George  
Local Health Area 057  
and  
Communities

June 2012



**northern health**  
*the northern way of caring*

## Selected Indicators <sup>1</sup>

During the 2006/07 - 2010/11 period (5 years) 5,419 mothers from the Prince George Local Health Area (LHA) delivered 5,521 newborns. Here is a summary.

Mothers	Prince George		BC Overall	
	Number	%	Number	%
Total Number of Mothers	5,419	100	216,439	100
Cesarean Section Deliveries	1,510	27.86	65,918	30.46
Births to women ages $\leq$ 19 yrs (teen moms)	286	5.28	5,872	2.71
Births to women ages $>$ 35 (elderly gravida)	567	10.46	38,540	17.81
Mothers who smoked during pregnancy	939	17.33	20,752	9.59

Newborns	Prince George		BC Overall	
	Number	%	Number	%
Total Number of Newborns	5,521	100	219,909	100
Total Number of Live Births	5,489	99.42	218,802	99.50
Preterm Births	515	9.33	21,405	9.73
Low Birth-weight ( $<$ 2500 grams )	330	5.98	12,783	5.81
Small for Gestational Age (SGA)	386	6.99	15,149	6.89
High Birth-weight ( $>$ 4000 grams)	816	14.78	27,042	12.30
Large for Gestational Age (LGA)	754	13.66	27,995	12.73

**Low Birth-weight** Low birth weight is now the principal risk factor associated with infant mortality, particularly between the ages of 28 to 365 days. Maternal factors that are associated with low birth weight include smoking, poor diet during pregnancy, low weight prior to pregnancy, poverty and pregnancy in very young or very old mothers.<sup>2</sup>

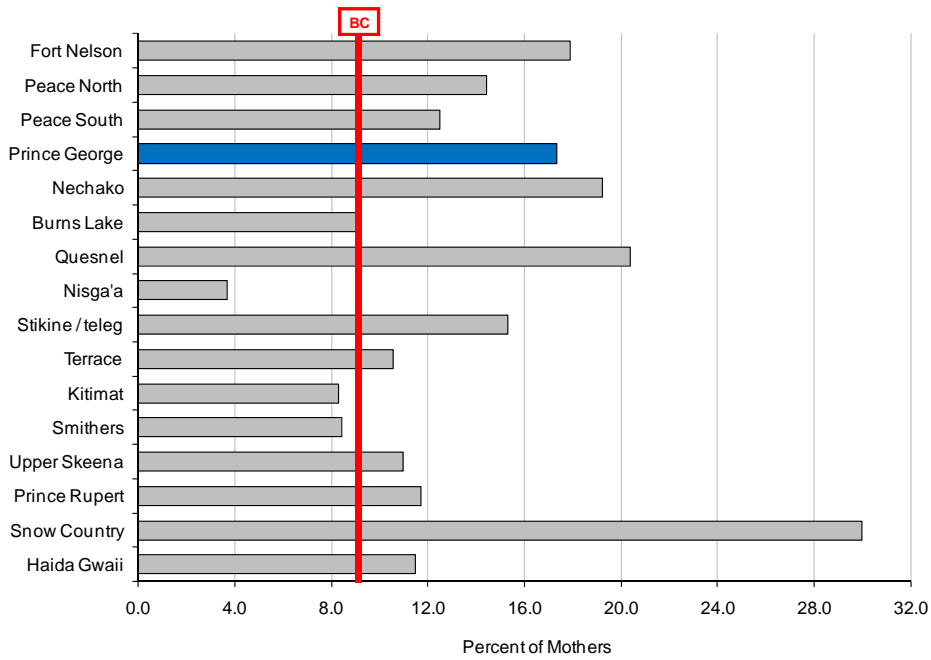
**High Birth-weight** Births involving high birth-weight babies tend to have higher rates of complications due to diabetes, Cephalo-Pelvic Disproportion (CPD) and / or obstructed labor. Shoulder dystocia and asphyxia in the infant are delivery complications that are closely associated with delivering high birth weight babies.<sup>3</sup> In BC, dystocia / CPD are some of the most common indications for Cesarean-section deliveries.<sup>4</sup>

**Births to Teen Moms** This indicator can provide indirect information about the effectiveness of sexuality education, contraceptive and other services for this age group, as it is assumed that most pregnancies among teens are unintended.<sup>5</sup> Northern BC mothers have some of the highest teen pregnancy and teen birth rates in BC.<sup>6, 7</sup>

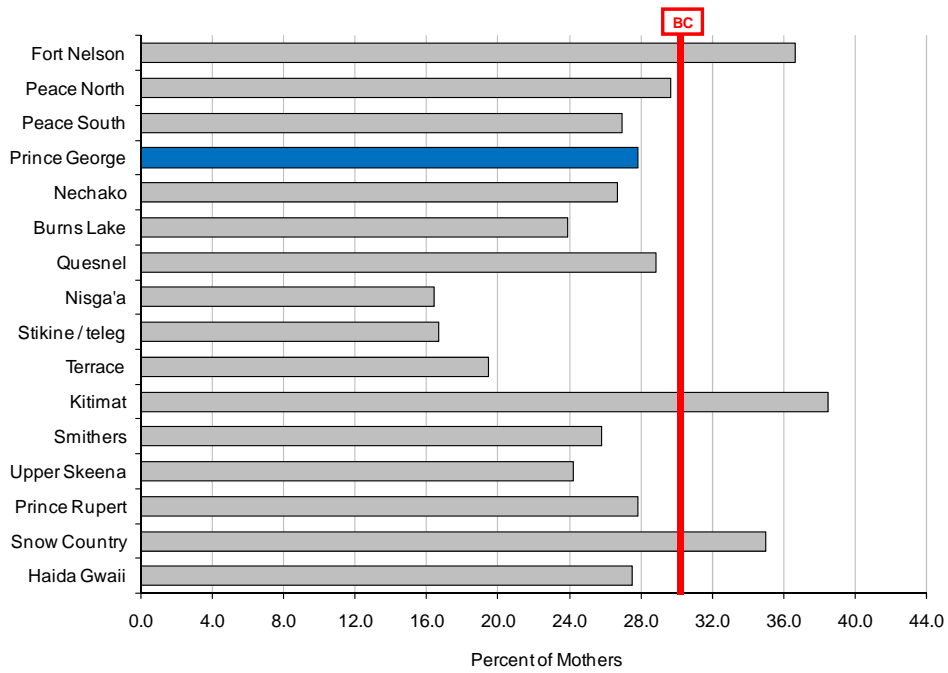
**Mothers Who Smoke** Exposure to tobacco smoke during pregnancy is associated with adverse outcomes including increased risk of preterm birth, stillbirth, low birth-weight, and placental abruption.<sup>8</sup> Mothers from Northern BC have the highest “smoking during pregnancy” rates in BC.<sup>9</sup> Also, the proportion of mothers identified as smokers and, for whom drugs were a recognized risk factor, is highest amongst northern BC mothers.<sup>10</sup>

# Selected Indicators <sup>11</sup>

Mothers who Smoked during Pregnancy by Local Health Area: 2006 - 2011



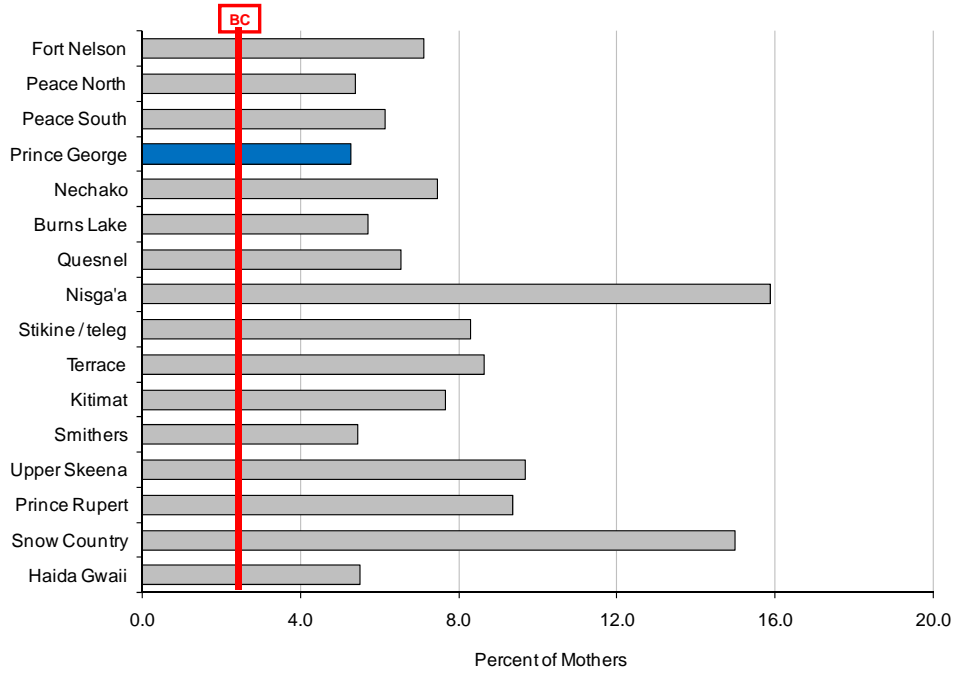
Cesarean Section Deliveries by Local Health Area: 2006 - 2011



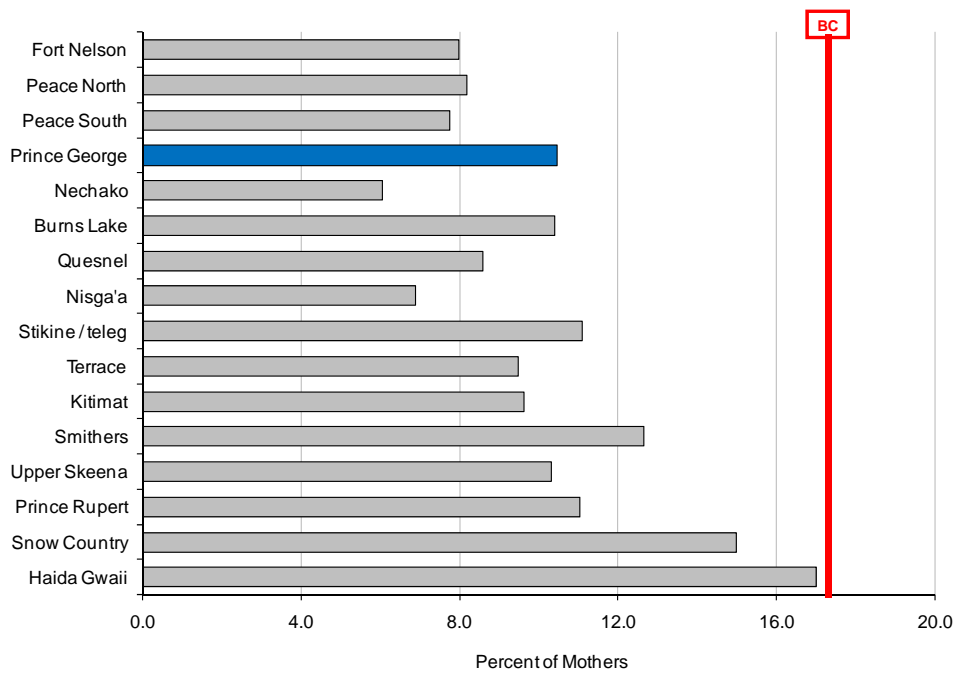
These figures are based upon mom's usual place (Local Health Area) of residence, not the facility location where delivery occurred.

## Selected Indicators

Teen Moms (births to mothers  $\leq 19$  yrs) by Local Health Area: 2006 - 2011



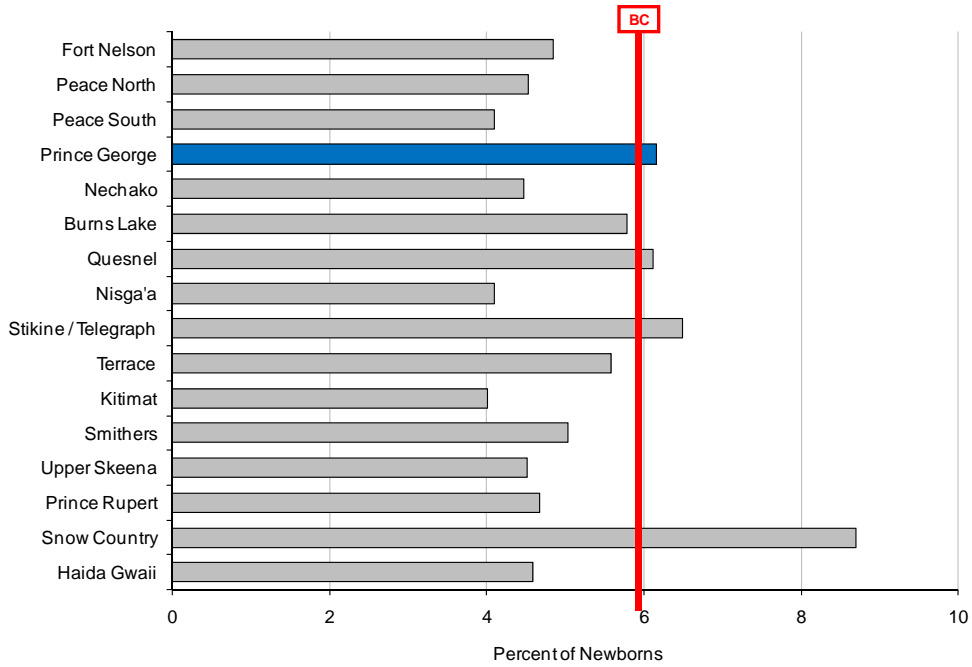
Older Moms (births to mothers  $\geq 35$  yrs) by Local Health Area: 2006 - 2011



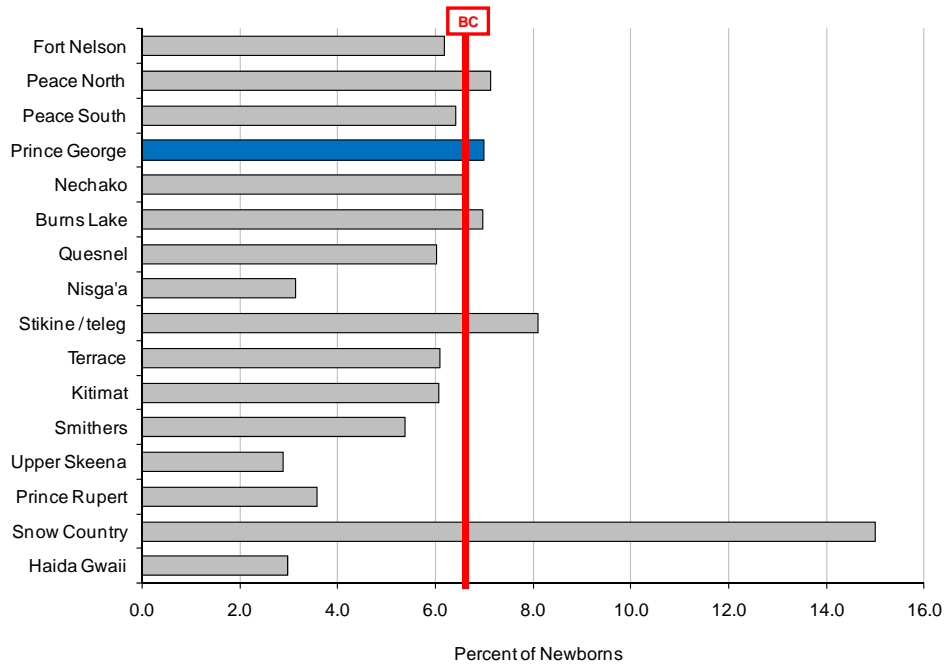
These figures are based upon mom's usual place (Local Health Area) of residence, not the facility location where delivery occurred.

## Selected Indicators

Low Birthweight Infants (less than 2500 grams) by Local Health Area: 2006 - 2011



Small for Gestational Age at Birth by Local Health Area: 2006 - 2011

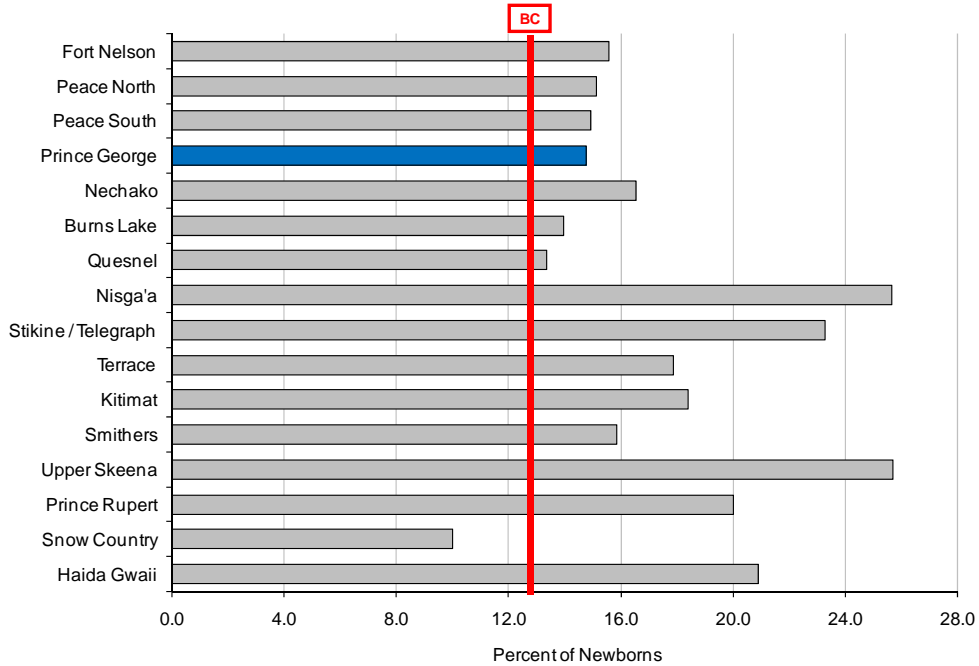


Small or Large for Gestational Age calculation is based on gender, birth number (singleton, multiple) and birth weight / gestational age charts for BC.

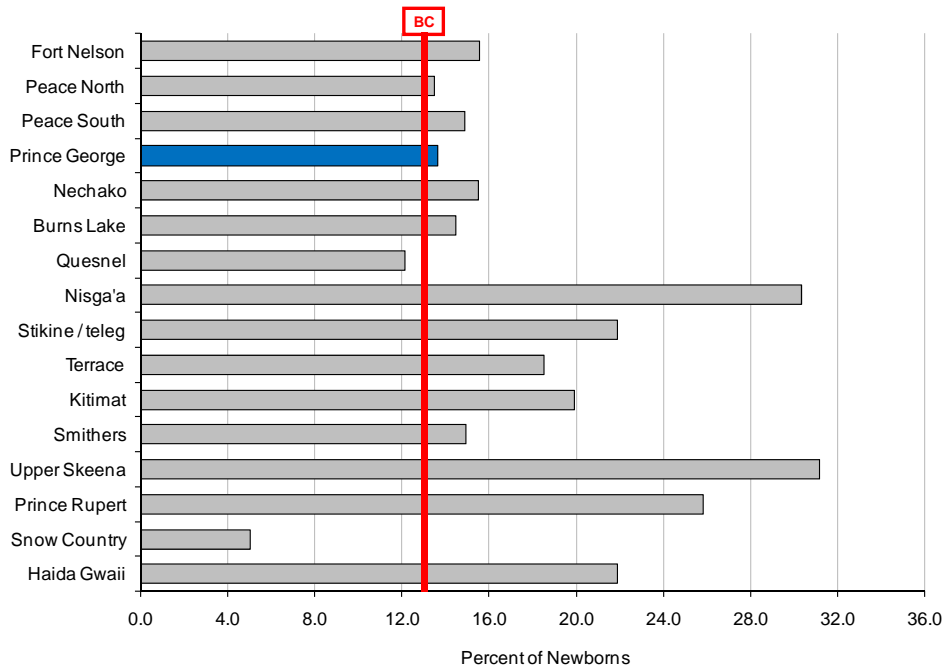
These figures are based upon mom's usual place (Local Health Area) of residence, not the facility location where delivery occurred.

## Selected Indicators

High Birthweight Infants (greater than 4000 grams) by Local Health Area: 2006 - 2011



Large for Gestational Age at Birth by Local Health Area: 2006 - 2011



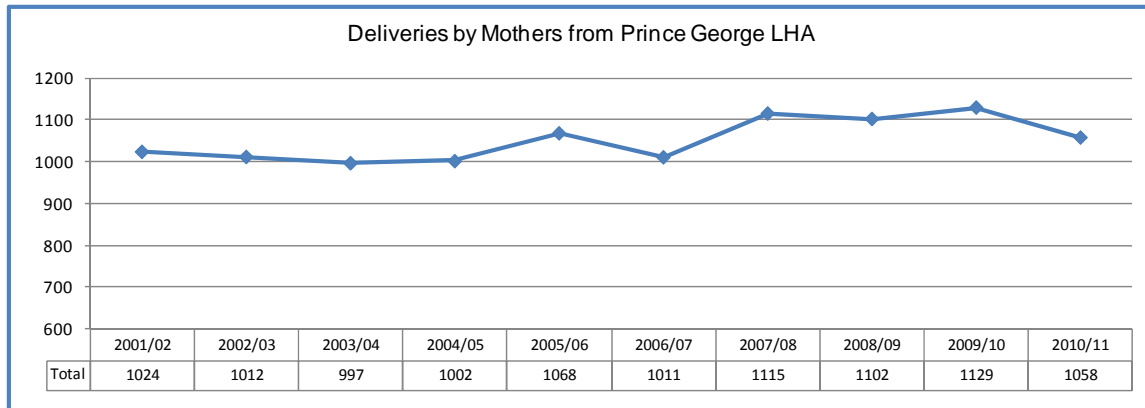
Small or Large for Gestational Age calculation is based on gender, birth number (singleton, multiple) and birth weight / gestational age charts for BC.

These figures are based upon mom's usual place (Local Health Area) of residence, not the facility location where delivery occurred.

## Delivery Trends by Community <sup>12</sup>

We use information about where mothers live and where they deliver their infants to plan and deliver maternity care services. This information can also inform other services for children and families such as immunizations for preventable diseases and the early screening programs that target vision, hearing, dental and other health concerns.

### Deliveries per year by Prince George LHA mothers: 2001/02 – 2010/11 <sup>13</sup>



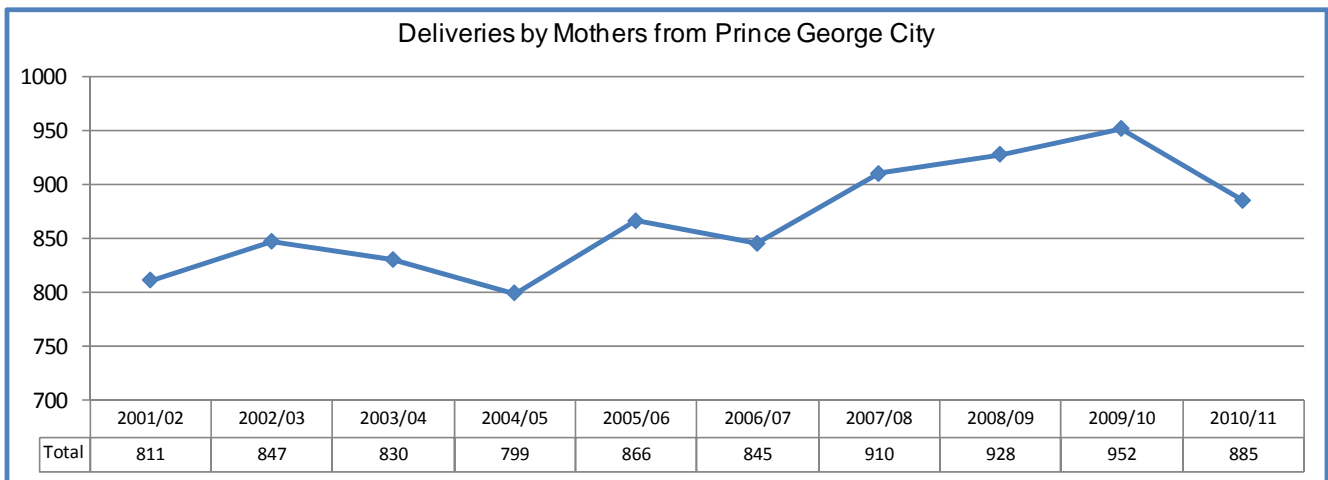
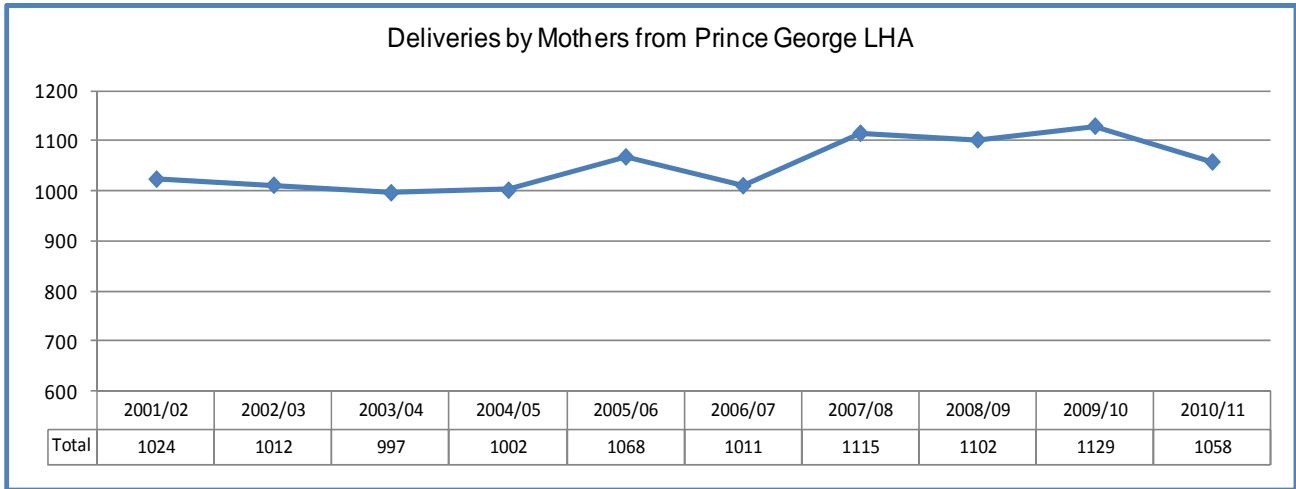
### Where mothers from the Prince George LHA delivered: 2001/ 02 – 2010/11

Delivery Location	Deliveries in British Columbia by Fiscal Year <sup>14</sup>									
	2001 2002	2002 2003	2003 2004	2004 2005	2005 2006	2006 2007	2007 2008	2008 2009	2009 2010	2010 2011
Prince George	929	916	915	931	991	960	1058	1058	1069	1020
Mackenzie	18	23	20	10	25	11	4	1	2	2
McBride	3	5	3	5	6	3	4	0	0	0
Quesnel	8	6	1	4	4	2	0	3	4	1
Home Births	11	28	20	16	13	11	17	9	13	1
Other BC Places	55	34	38	36	29	24	32	31	41	34
Total Deliveries	1024	1012	997	1002	1068	1011	1115	1102	1129	1058

Note: At the time this summary was prepared, BC homebirths had not yet been fully reported. As a result, the data shown for fiscal 2010/11 should be considered provisional and subject to revision at a later date.

## Delivery Trends by Community <sup>15</sup>

The following tables give us an indication of the long term trends occurring within the Prince George Local Health Area and within selected communities.

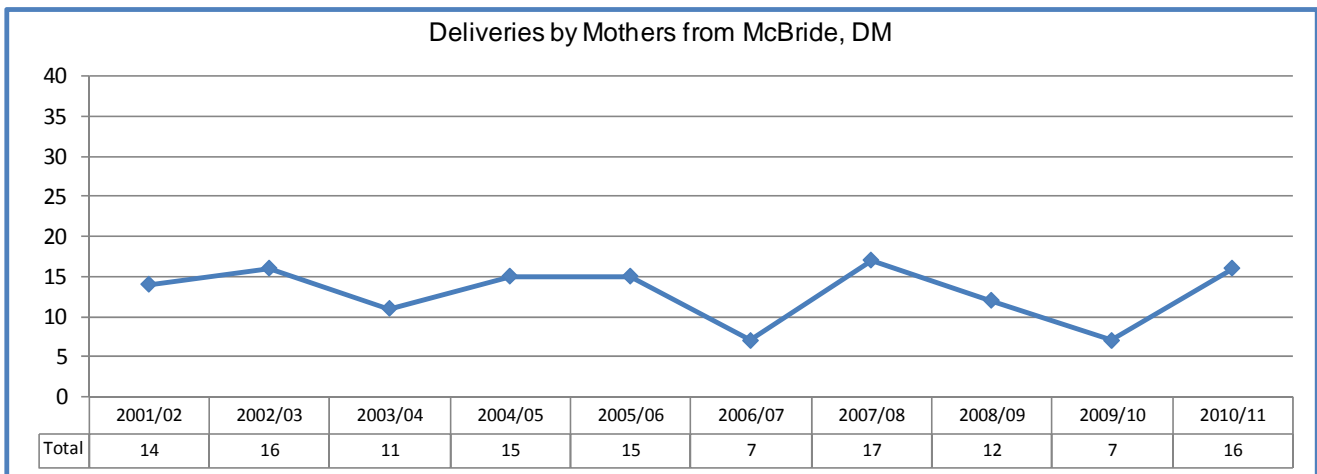
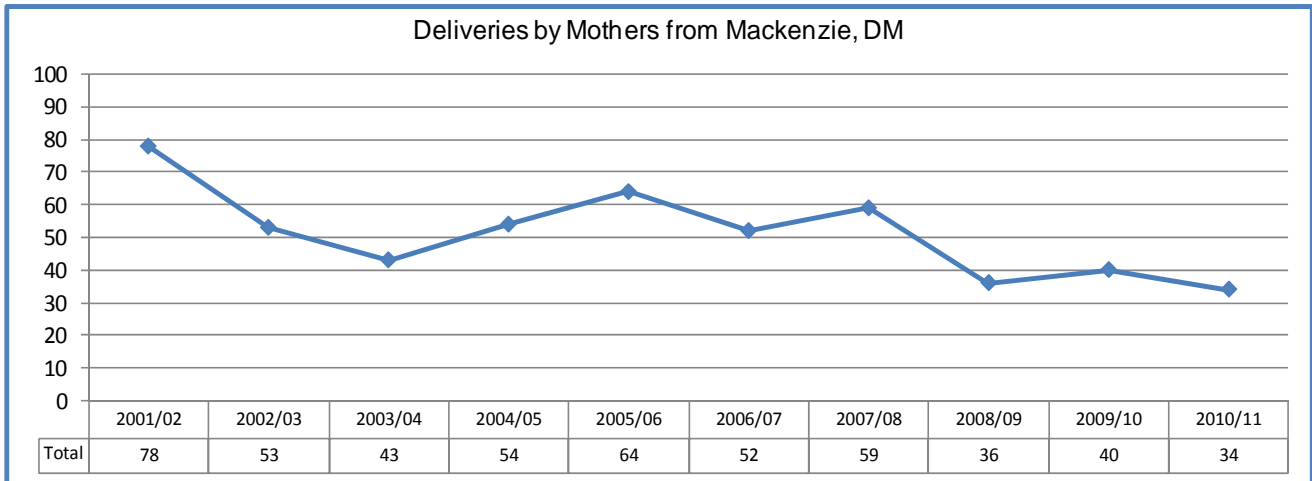


These figures are based upon mom's usual place of residence (LHA, Regional District Area or Community), not the facility location where delivery occurred.



## Delivery Trends by Community

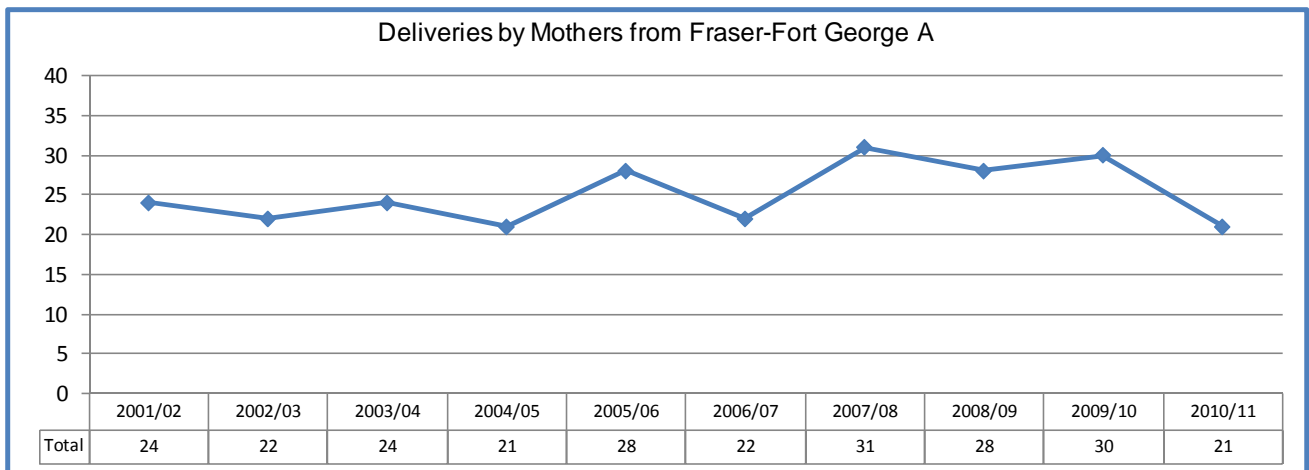
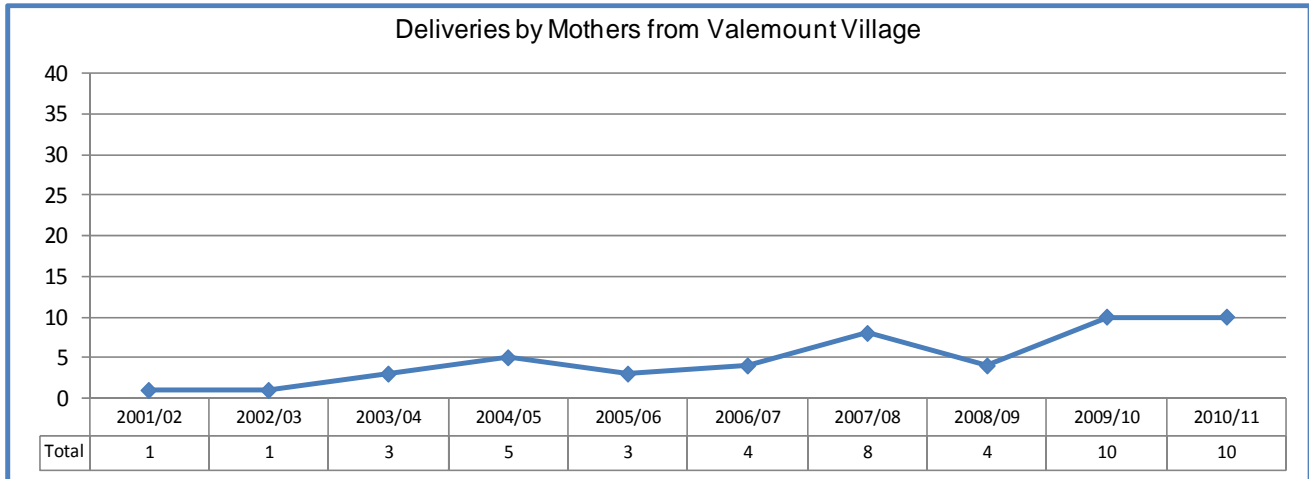
The following tables give us an indication of the long term trends occurring within the Prince George Local Health Area and within selected communities.



These figures are based upon mom's usual place of residence (LHA, Regional District Area or Community), not the facility location where delivery occurred.

## Delivery Trends by Community

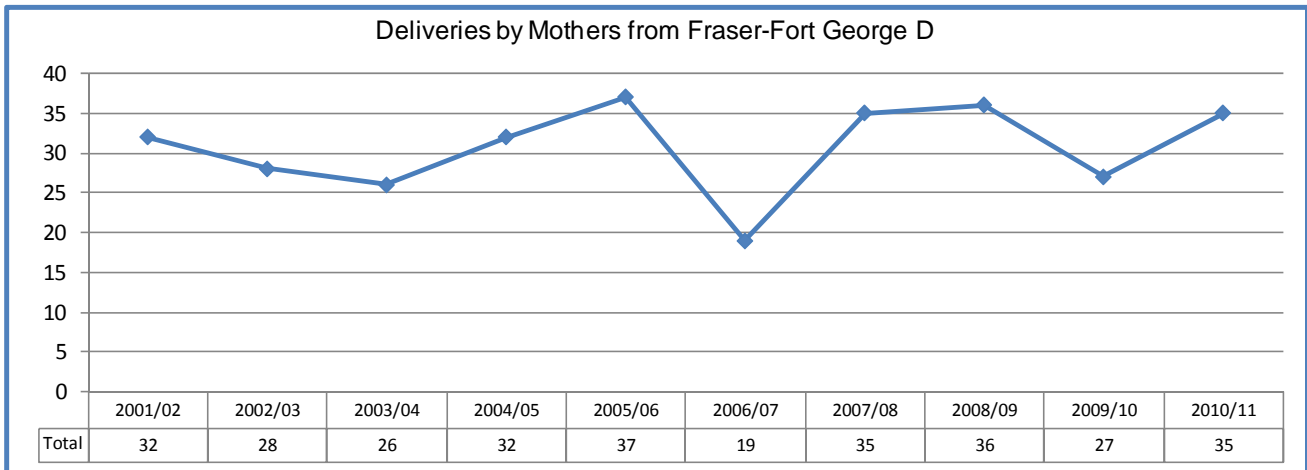
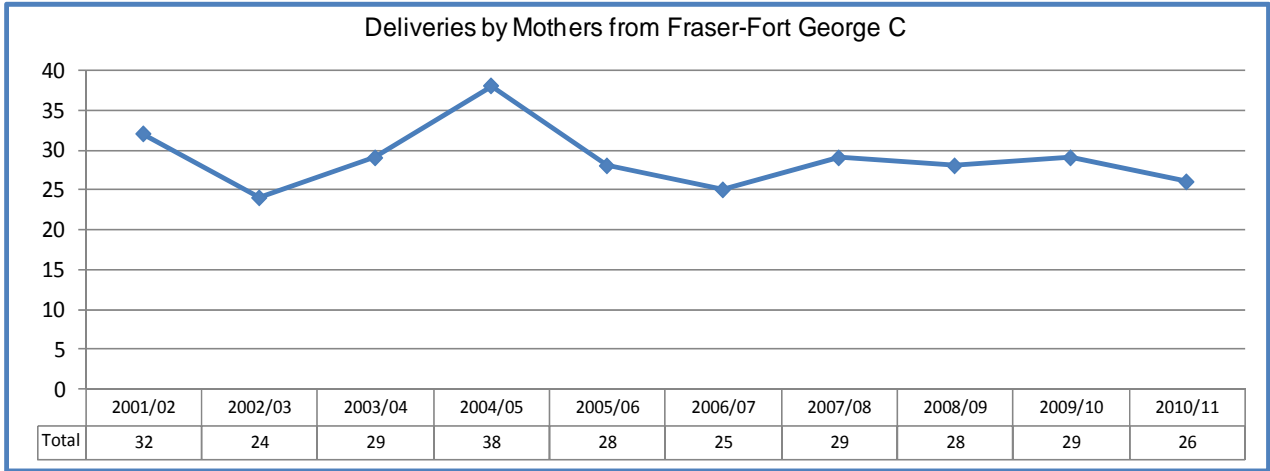
The following tables give us an indication of the long term trends occurring within the Prince George Local Health Area and within selected communities.



These figures are based upon mom's usual place of residence (LHA, Regional District Area or Community), not the facility location where delivery occurred.

## Delivery Trends by Community

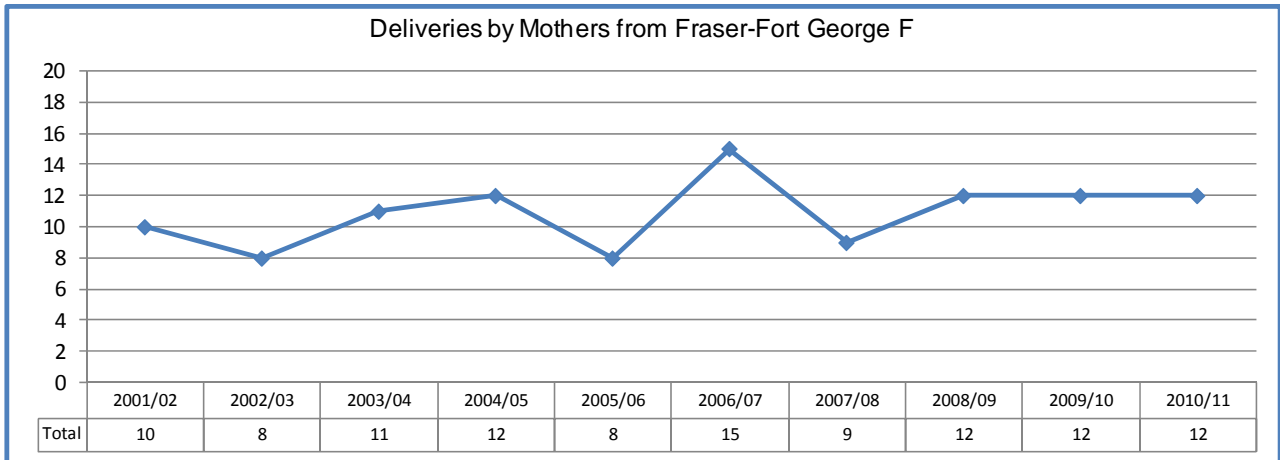
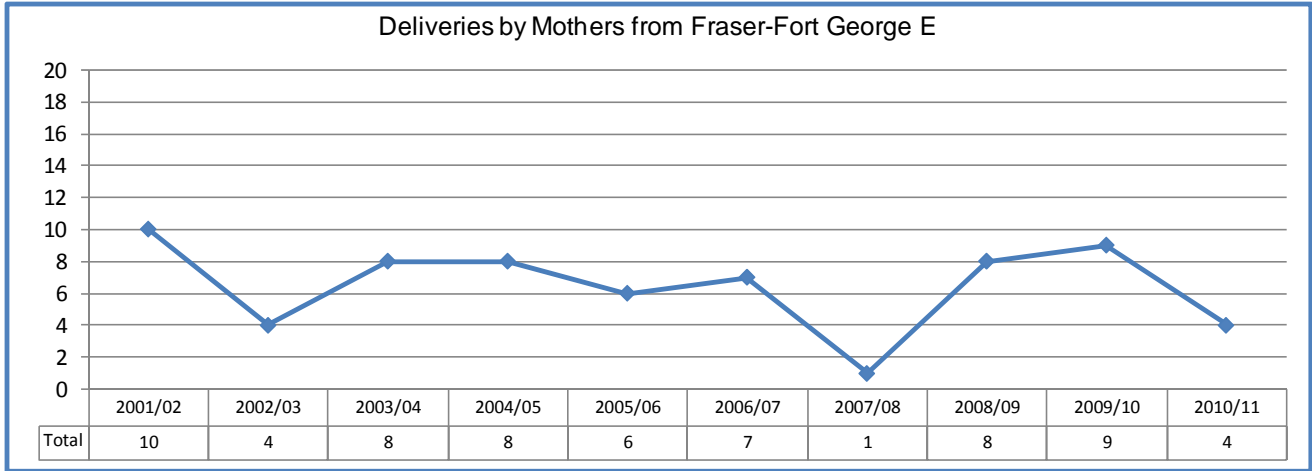
The following tables give us an indication of the long term trends occurring within the Prince George Local Health Area and within selected communities.



These figures are based upon mom's usual place of residence (LHA, Regional District Area or Community), not the facility location where delivery occurred.

## Delivery Trends by Community

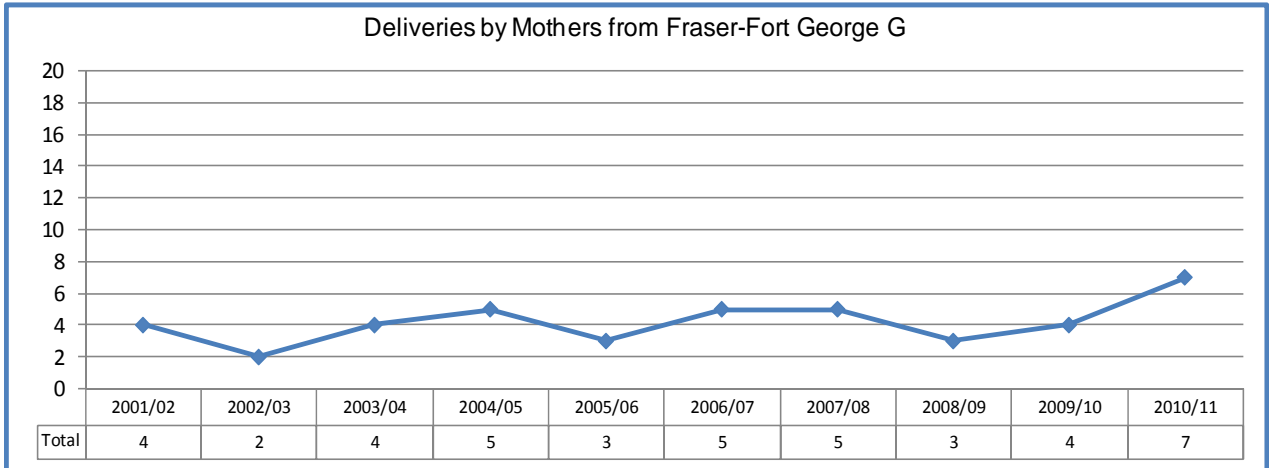
The following tables give us an indication of the long term trends occurring within the Prince George Local Health Area and within selected communities.



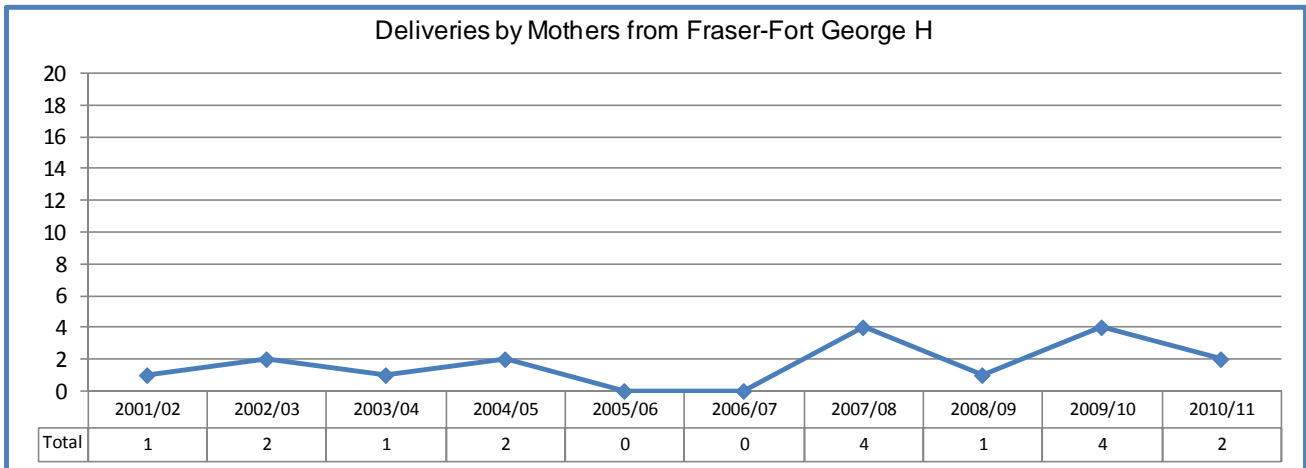
These figures are based upon mom's usual place of residence (LHA, Regional District Area or Community), not the facility location where delivery occurred.

## Delivery Trends by Community

The following tables give us an indication of the long term trends occurring within the Prince George Local Health Area and within selected communities.



These figures are based upon mom's usual place of residence (LHA, Regional District Area or Community), not the facility location where delivery occurred.



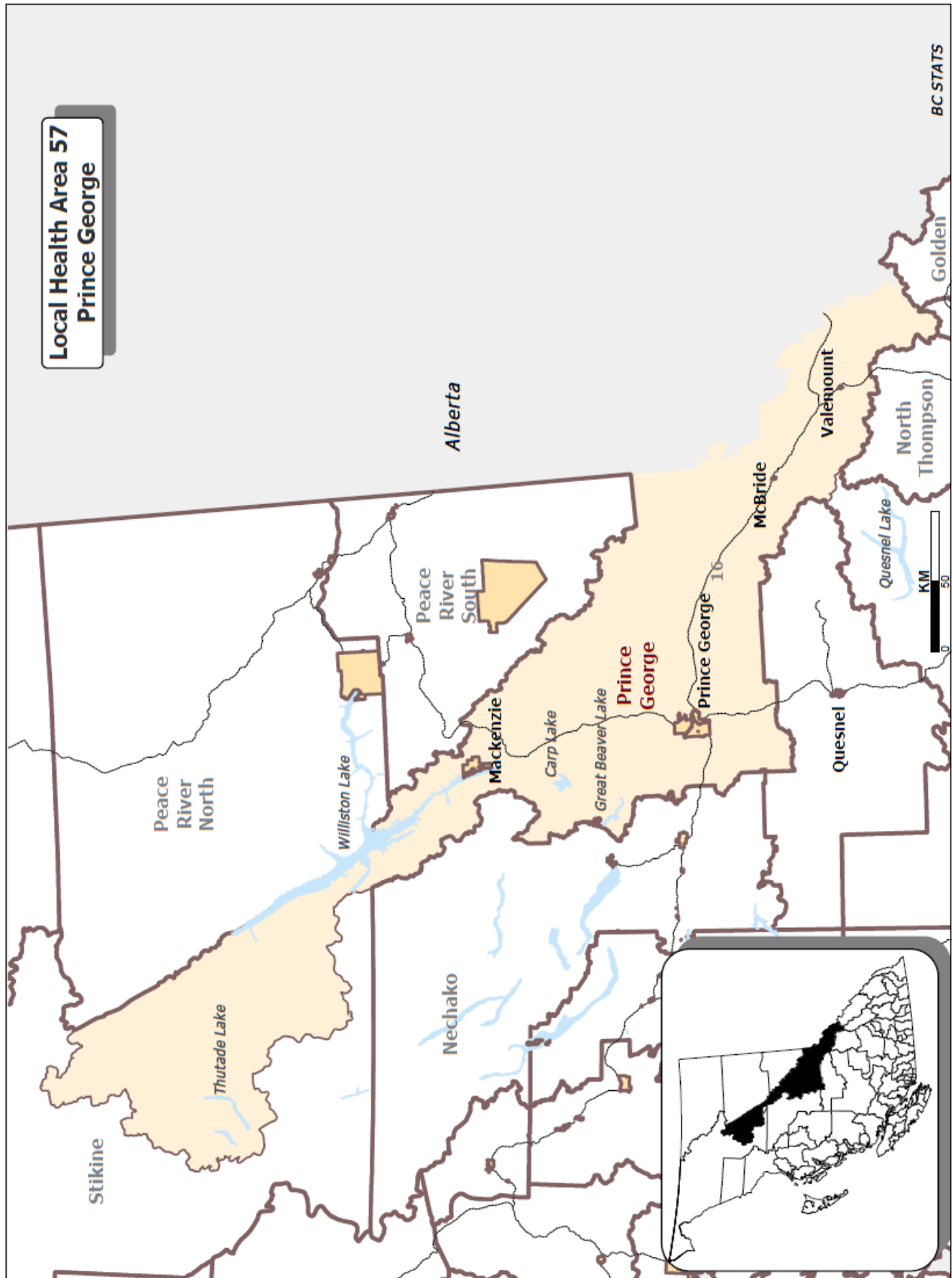
## Deliveries in Alberta

Each year in British Columbia a certain number of mothers choose to deliver their babies in Alberta. Below is an annual summary according to mother's home community.

Mother's Home Community	Deliveries in Alberta by Fiscal Year <sup>16</sup>						
	2004 2005	2005 2006	2006 2007	2007 2008	2008 2009	2009 2010	2010 2011
Ft Nelson	7	3	2	11	5	1	6
Ft St John	1	1	6	2	0	2	1
Dawson Creek	2	1	2	0	0	0	1
Chetwynd	6	1	3	1	2	0	2
Tumbler Ridge	0	0	0	3	1	0	0
McBride	4	3	4	3	2	1	2
Valemount	10	9	0	1	2	6	7
<b>Total Deliveries</b>	<b>30</b>	<b>18</b>	<b>17</b>	<b>21</b>	<b>12</b>	<b>10</b>	<b>19</b>

Source: Alberta Perinatal Health Program update for Northern Health. April 2012.

**Local Health Area 57  
Prince George**







## Thank you

Over the years we have worked closely with Perinatal Services BC. We are especially grateful to Cathe Johnson who has been an unflinching source of support for our efforts.

We are also grateful to Donna Boyd and her colleagues in the Alberta Perinatal Health Program who support us with data so that we might better understand the health needs and outcomes of northerners who choose to receive maternity services in Alberta.

## References

---

- <sup>1</sup> Northern Health Resident Mothers and Newborn Babies: Selected Indicators April 01, 2006 – March 31, 2011. Data prepared for Northern Health by Perinatal Services BC: February 2012. Request No. 2011-051.
- <sup>2</sup> BC Provincial Health Officers Annual Report 1999. Appendix C: Indicator Definitions <http://www.health.gov.bc.ca/pho/reports/>
- <sup>3</sup> Infant Macrosomia Among First Nations in British Columbia: Prevalence, Trends and Characteristics. Key Findings: page IV. BC Vital Statistics Agency: [http://www.vs.gov.bc.ca/stats/indian/infant\\_macrosomia.html](http://www.vs.gov.bc.ca/stats/indian/infant_macrosomia.html)
- <sup>4</sup> Validation of the Indications for cesarean delivery in the BC Perinatal Registry: Volume 1, Issue 5, April 2012. Refer to Table 3, page 7: Perinatal Services BC: <http://www.perinataleservicesbc.ca>
- <sup>5</sup> BC Provincial Health Officers Annual Report 1999. Appendix C: Indicator Definitions <http://www.health.gov.bc.ca/pho/reports/>
- <sup>6</sup> BC Vital Statistics Agency Annual Reports: <http://www.vs.gov.bc.ca/stats/annual/index.html>
- <sup>7</sup> Northern Health Resident Mothers and Newborn Babies: Selected Indicators April 01, 2006 – March 31, 2011. Data prepared for Northern Health by Perinatal Services BC: February 2012. Request No. 2011-051.
- <sup>8</sup> Pollack et al. as cited in Perinatal Services BC, BC Perinatal Database Annual Report 2007: Page 14. <http://www.perinataleservicesbc.ca/Annual%20Report.htm>
- <sup>9</sup> Perinatal Services BC; Perinatal Annual Indicators for BC Residents: Updated February 16, 2012. <http://www.perinataleservicesbc.ca/DataAndSurveillance/Surveillance/annual-indicators/default.htm>
- <sup>10</sup> Perinatal Services BC, BC Perinatal Database Annual Report 2008: Page 57. <http://www.perinataleservicesbc.ca/DataAndSurveillance/Surveillance/AnnualReports/default.htm>
- <sup>11</sup> Northern Health Resident Mothers and Newborn Babies: Selected Indicators April 01, 2006 – March 31, 2011. Data prepared for Northern Health by Perinatal Services BC: February 2012. Request No. 2011-051.
- <sup>12</sup> Northern Health Resident Mothers that Delivered a Baby in British Columbia, by Resident Municipality, April 01 2000 - March 31, 2011: Data prepared for Northern Health by Perinatal Services BC. Request 211051: an update to reports: 2008078, 200901, 201040 and 211011. February 2012.
- <sup>13</sup> Northern Health Resident Mothers that Delivered a Baby in British Columbia, by Resident Municipality, April 01 2000 - March 31, 2011: Data prepared for Northern Health by Perinatal Services BC. Request 211051: an update to reports: 2008078, 200901, 201040 and 211011. February 2012.
- <sup>14</sup> Northern Health Resident Mothers that Delivered a Baby in British Columbia, by Resident Municipality, April 01 2000 - March 31, 2011: Data prepared for Northern Health by Perinatal Services BC. Request 211051: an update to reports: 2008078, 200901, 201040 and 211011. February 2012.
- <sup>15</sup> Northern Health Resident Mothers that Delivered a Baby in British Columbia, by Resident Municipality, April 01 2000 - March 31, 2011: Data prepared for Northern Health by Perinatal Services BC. Request 211051: an update to reports: 2008078, 200901, 201040 and 211011. February 2012.
- <sup>16</sup> Alberta Perinatal Health Program, update for Northern Health: April 2012.