

# Healthy Moms and Infants

## Selected Indicators

Smithers  
Local Health Area 054  
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) 1,066 mothers from the Smithers Local Health Area (LHA) delivered 1,079 newborns. Here is a summary.

Mothers	Smithers LHA		BC Overall	
	Number	%	Number	%
Total Number of Mothers	1,066	100	216,439	100
Cesarean Section Deliveries	275	25.80	65,918	30.46
Births to women ages $\leq$ 19 yrs (teen moms)	58	5.44	5,872	2.71
Births to women ages $>$ 35 (elderly gravida)	135	12.66	38,540	17.81
Mothers who smoked during pregnancy	90	8.44	20,752	9.59

Newborns	Smithers LHA		BC Overall	
	Number	%	Number	%
Total Number of Newborns	1,079	100	219,909	100
Total Number of Live Births	1,074	99.54	218,802	99.50
Preterm Births	81	7.51	21,405	9.73
Low Birth-weight ( $<$ 2500 grams )	44	4.08	12,783	5.81
Small for Gestational Age (SGA)	58	5.38	15,149	6.89
High Birth-weight ( $>$ 4000 grams)	171	15.85	27,042	12.30
Large for Gestational Age (LGA)	161	14.92	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>

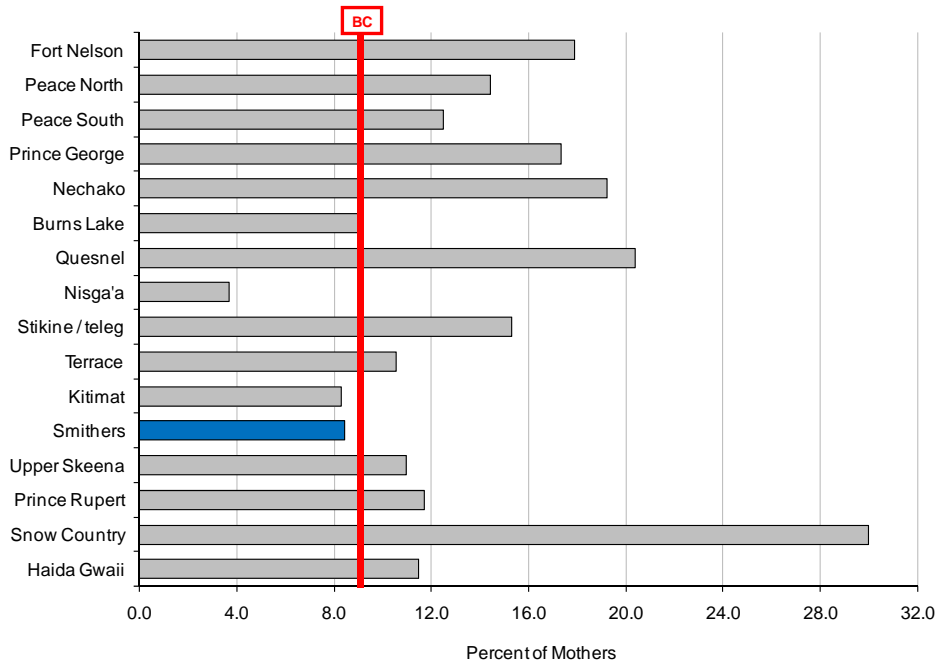
**High Birth-weight** Births involving high birth-weight babies tend to have higher rates of complications due to diabetes, Cephalo-Pelvic Disproportion (CPD) and / or obstructed labor. Shoulder dystocia and asphyxia in the infant are delivery complications that are closely associated with delivering 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>

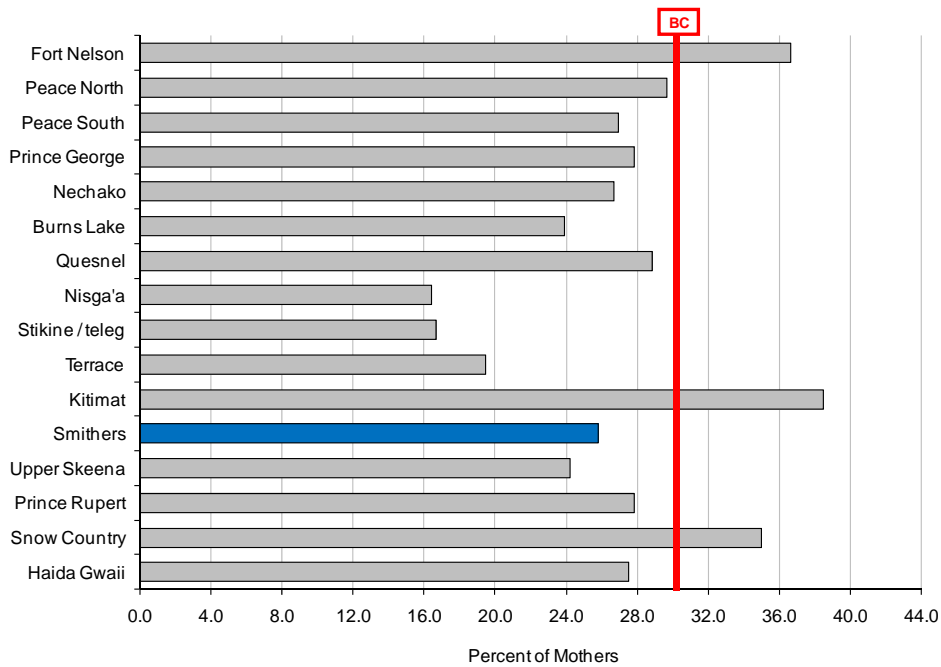
**Mothers Who Smoke** Exposure to tobacco smoke during pregnancy is associated with adverse outcomes including increased risk of preterm birth, stillbirth, low birth-weight, and placental abruption.<sup>8</sup> Mothers from Northern BC have the highest “smoking during pregnancy” rates in BC.<sup>9</sup> 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



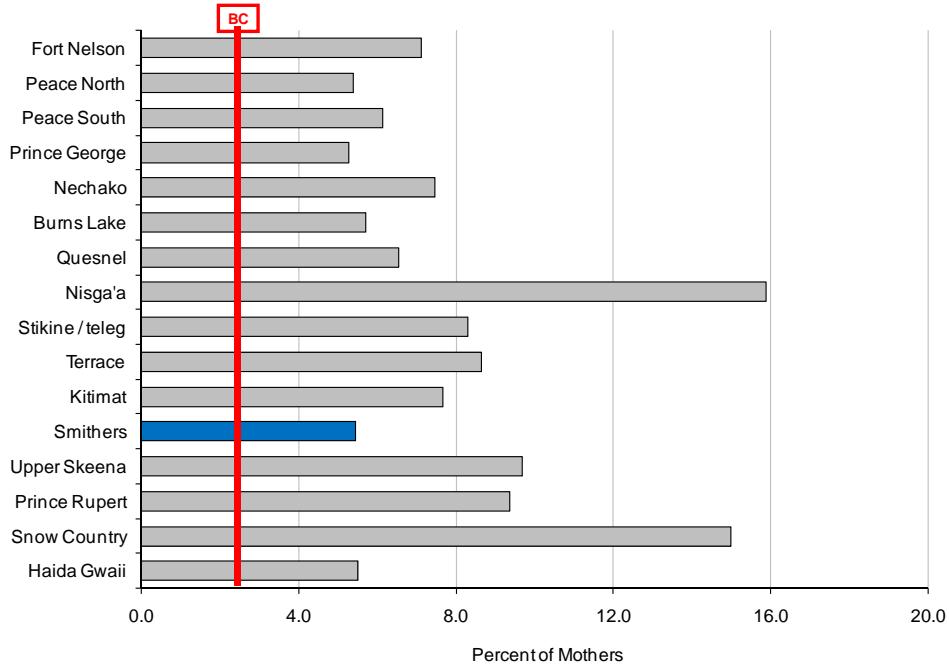
Cesarean Section Deliveries by Local Health Area: 2006 - 2011



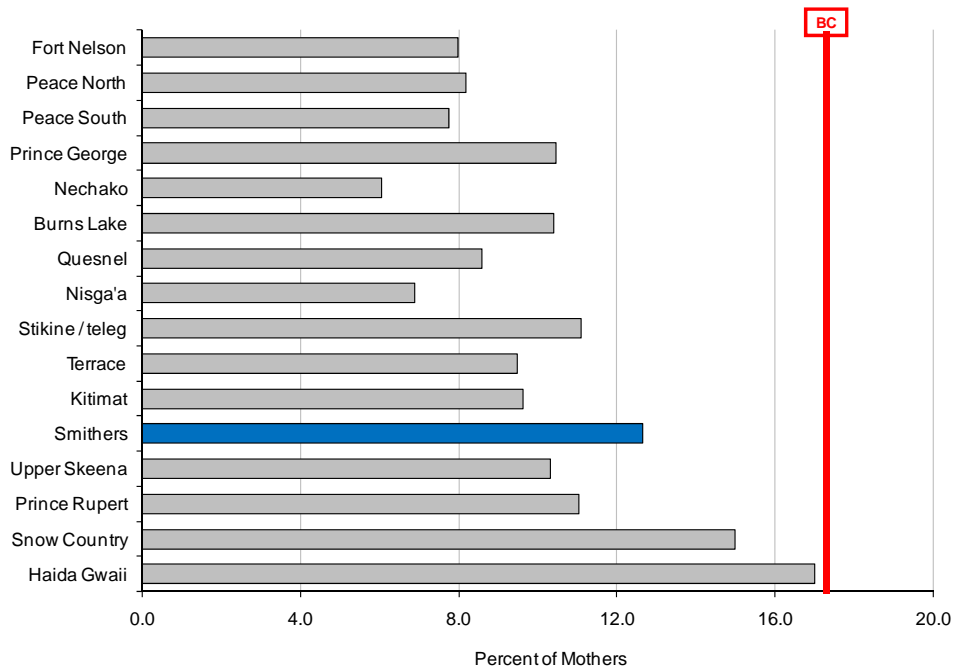
These figures are based upon mom's usual place (Local Health Area) of residence, not the facility location where delivery occurred.

## Selected Indicators

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



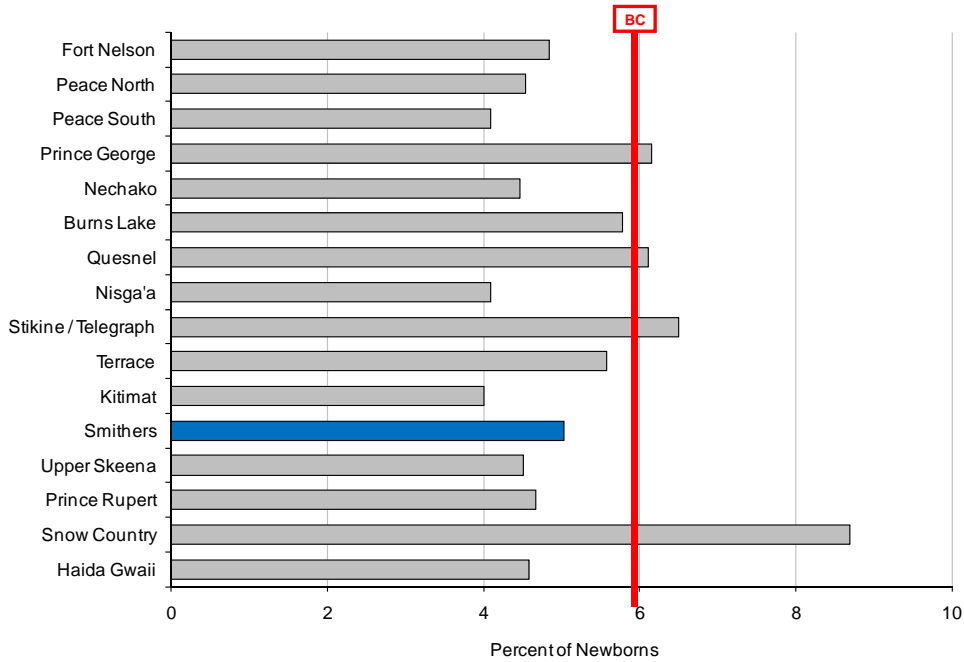
Older Moms (births to mothers  $\geq$  35 yrs) by Local Health Area: 2006 - 2011



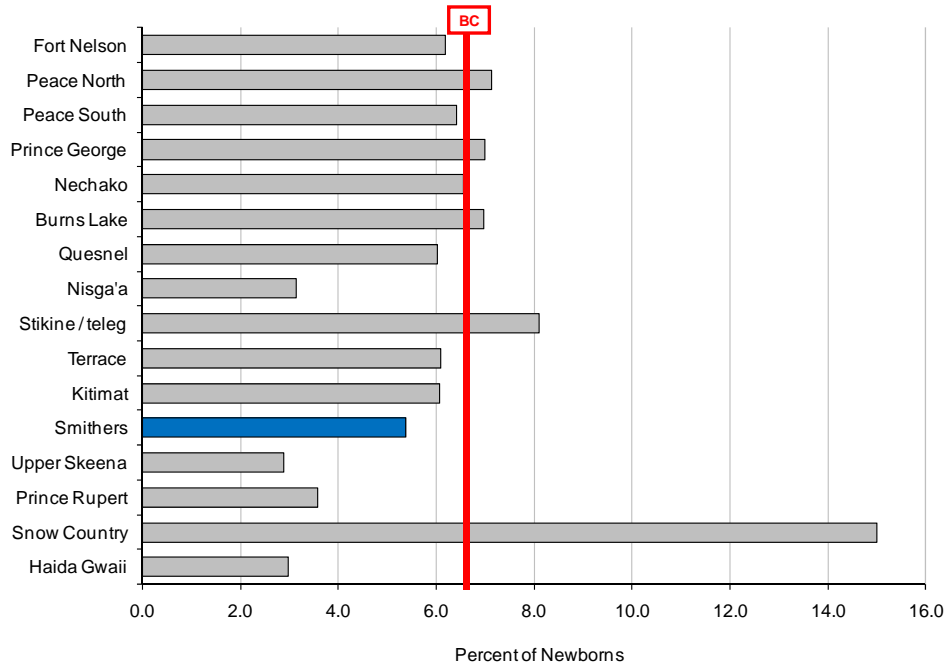
These figures are based upon mom's usual place (Local Health Area) of residence, not the facility location where delivery occurred.

## 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

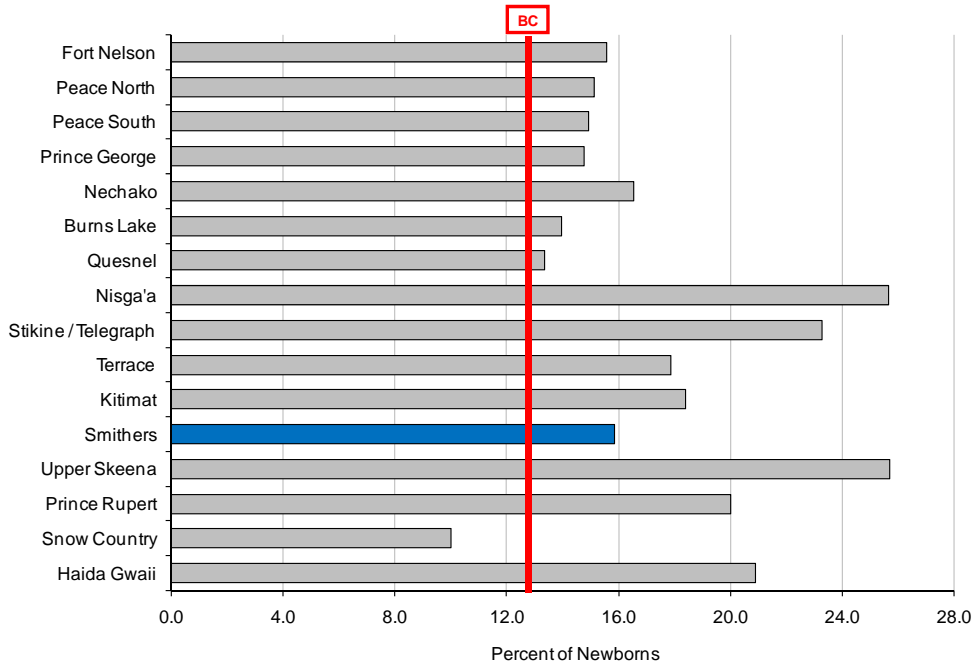


Small or Large for Gestational Age calculation is based on gender, birth number (singleton, multiple) and birth weight / gestational age charts for BC.

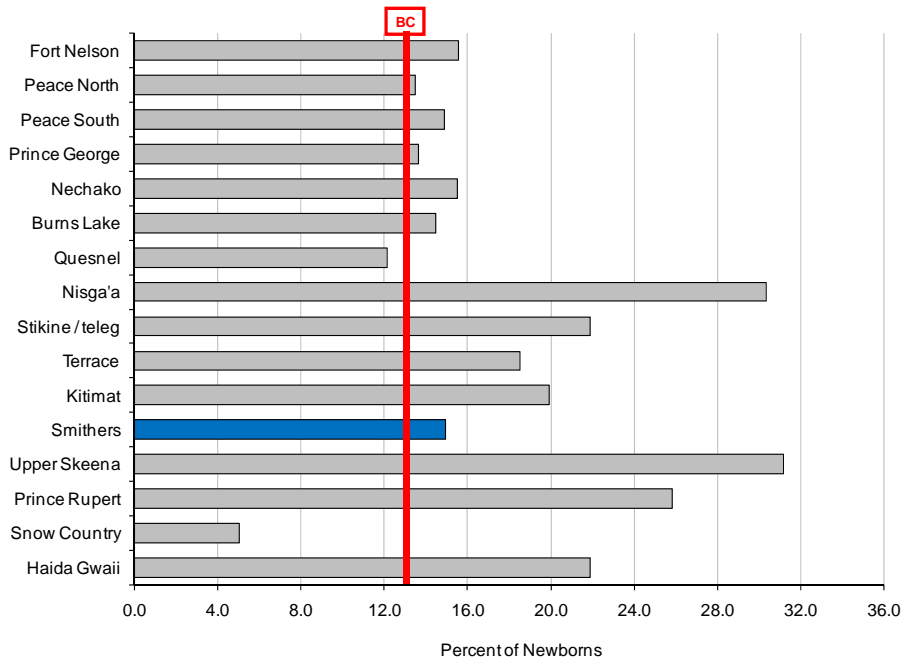
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High Birthweight Infants (greater than 4000 grams) by Local Health Area: 2006 - 2011



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



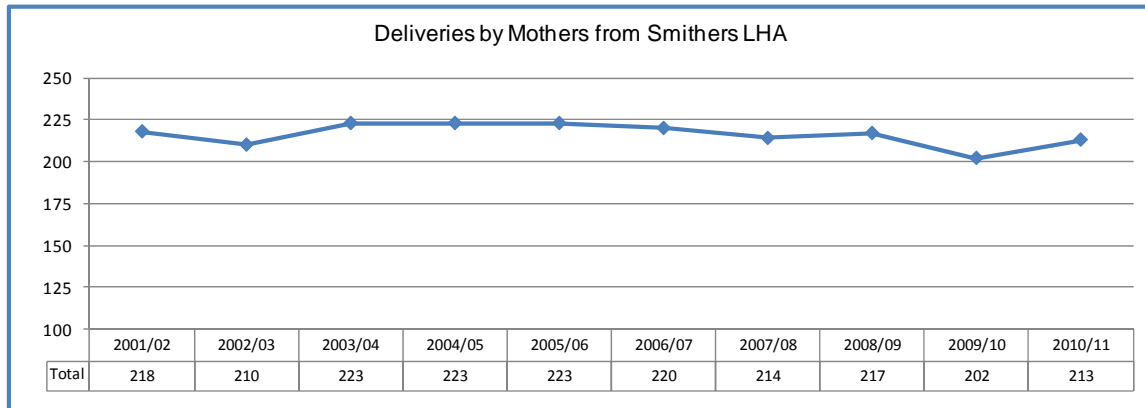
Small or Large for Gestational Age calculation is based on gender, birth number (singleton, multiple) and birth weight / gestational age charts for BC.

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## 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 Smithers LHA mothers: 2001/02 – 2010/11 <sup>13</sup>



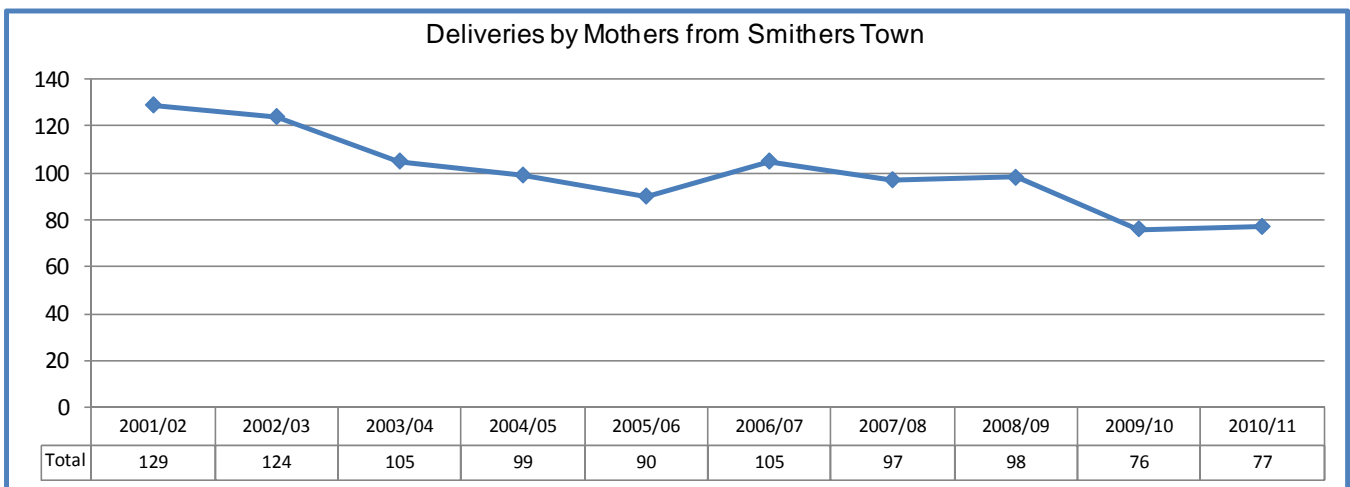
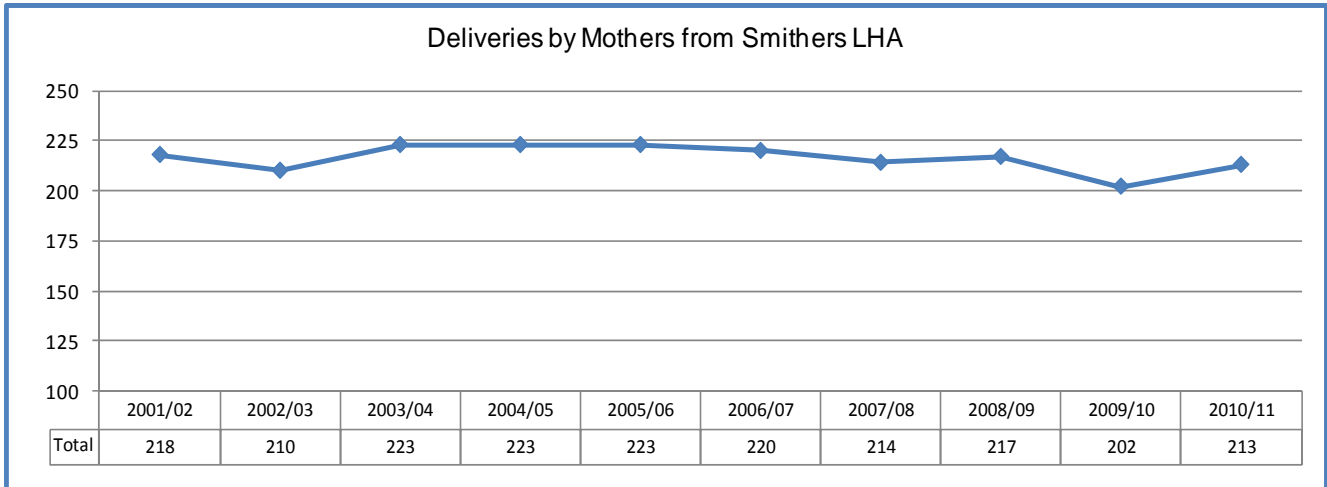
Where mothers from the Smithers LHA delivered: 2001/ 02 – 2010/11

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
Smithers	184	188	215	218	199	206	195	204	182	198
Burns Lake	10	4	0	0	2	0	1	0	0	0
Prince George	5	3	1	1	6	4	8	4	7	3
Vanderhoof	1	0	0	0	1	0	1	0	0	1
Terrace	1	4	1	1	3	5	5	4	6	4
Other BC places	17	11	6	3	12	5	4	5	7	7
Total Deliveries	218	210	223	223	223	220	214	217	202	213

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 Smithers Local Health Area and within selected communities.

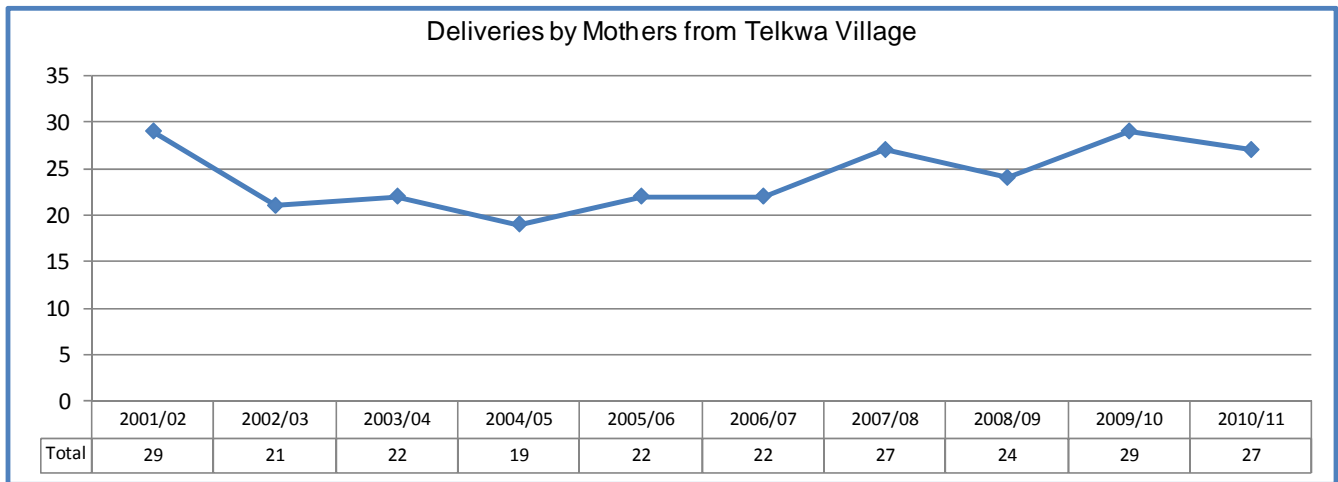
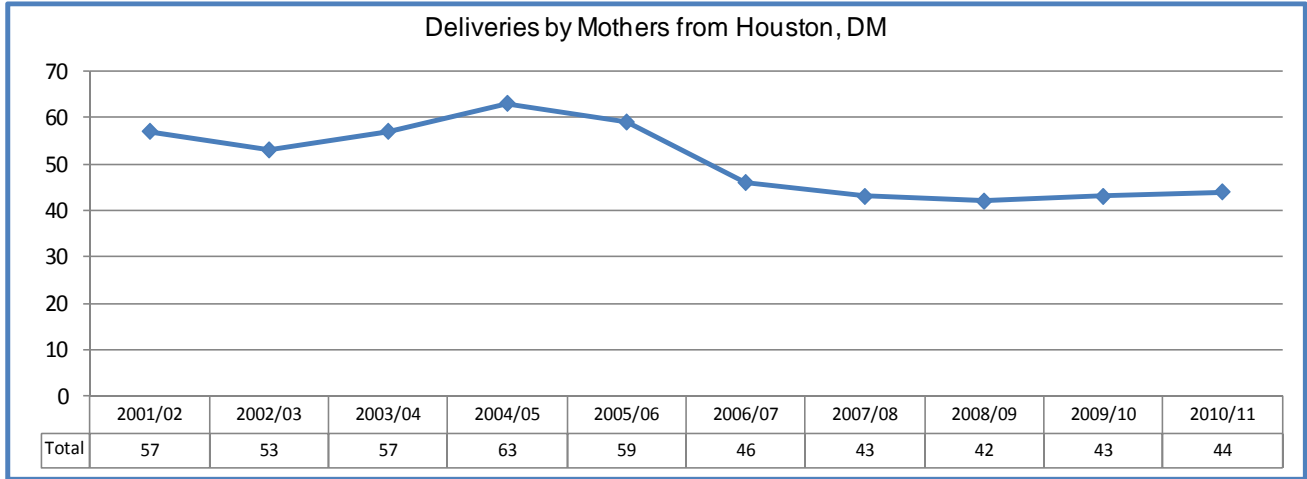


These figures are based upon mom's usual place of residence (LHA, Regional District Area or Community), not the facility location where delivery occurred.



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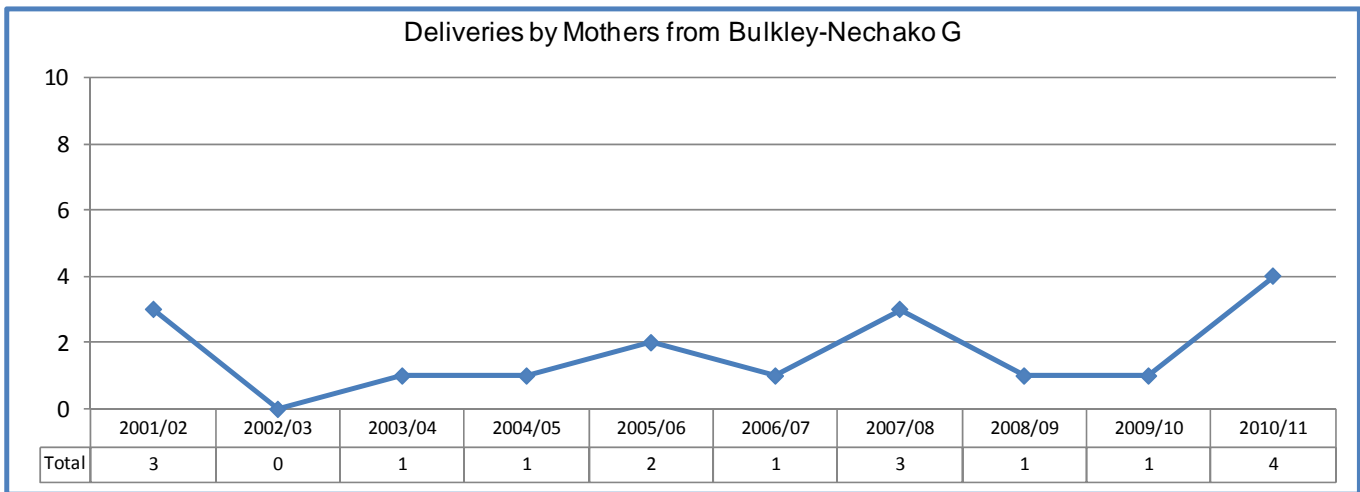
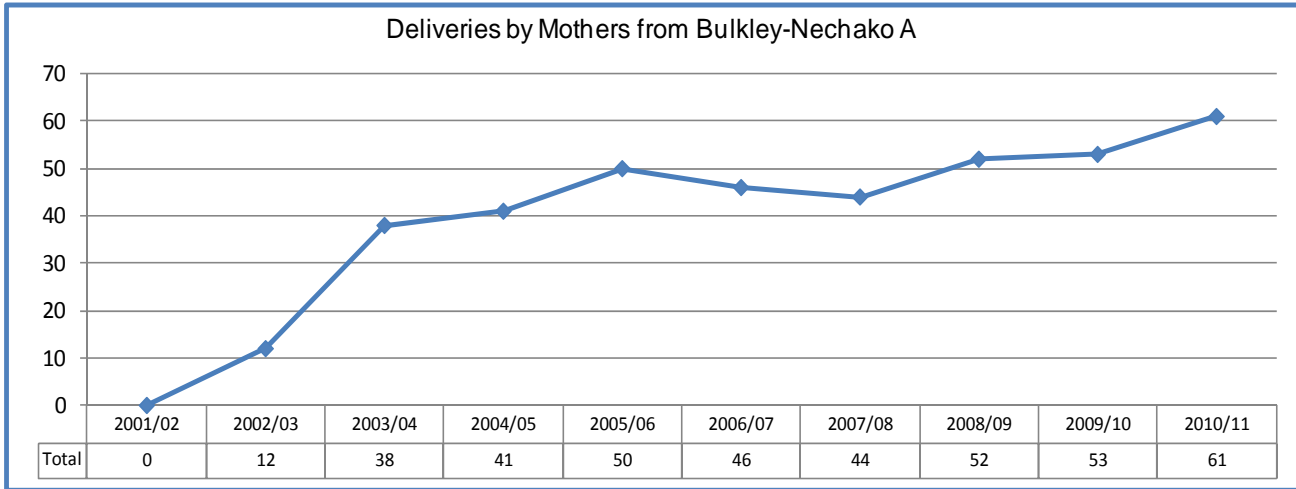
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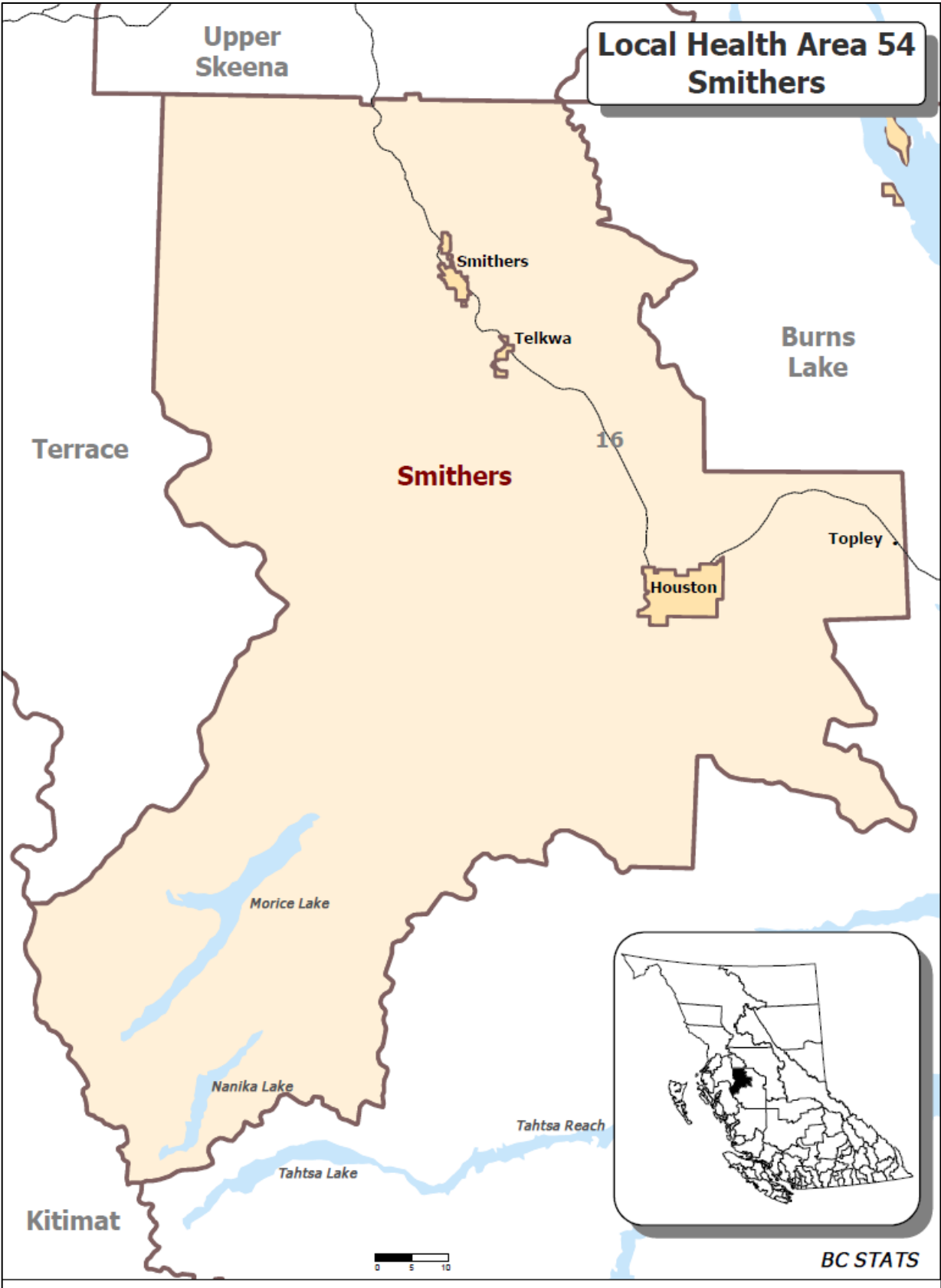
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## Thank you

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

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- <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.
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