Exploring Options for Developing a Birth Centre/Women's Health Co-op in Prince Edward Island

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Introduction

Midwifery care has been shown to be safe, effective, and satisfying for women. It is available as a birthing option throughout the world, including much of Canada. In jurisdictions where it is currently not available in Canada, the groundwork is being done so that midwifery will be available in the near future. Prince Edward Island is "last out of the gate" in embracing midwifery.

In many parts of the western world, women have "taken back" the birthing process, tapping into the wisdom and experience of midwives. Midwives are *independent* and *interdependent* professionals who now provide service in both home and hospital settings. They are recognized as integral parts of interdisciplinary teams and are integrated into the full continuum of care, practicing in hospitals in collaboration with physicians and nurses.

BORN is building a case to advance its position that Prince Edward Island women need to have the same birthing options as are available, or becoming available, in the rest of Canada. The rationale to support this position falls into four streams:

- Better outcomes for mothers and babies;
- Personal choice;
- Cost savings for the health care system; and
- More efficient use of health dollars and health human resources.

This document expounds upon these rationales in the context of Prince Edward Island and presents statistical facts related to births on Prince Edward Island. This data will substantiate the perception that there is a shortage of maternity and newborn professionals in Prince Edward Island, and support the contention that Islanders should have access to a wider spectrum of birthing options, and will inform the analysis of the feasibility of establishing a Birth Centre/Women's Health Co-operative on Prince Edward Island. Once established, women in Prince Edward Island have better access to health services and more choice in health services.

Background / Context

For the most recent two generations, most Island babies were born in hospitals. In the early days of hospital births, labour and deliveries were overseen by family physicians in each of the small community hospitals. Over time, fewer and fewer family physicians performed deliveries. There were two primary reasons for this development. First, because the number of births was declining, physicians were not performing enough deliveries to maintain their proficiency. Secondly, the cost for professional insurance had increased steeply, and society was becoming much more litigious. Delivering babies was seen to be a procedure that had become too risky for family physicians. All mothers,

even those with routine, low-risk pregnancies, were referred to obstetricians and delivery was performed only in the two largest referral hospitals, Queen Elizabeth Hospital and Prince County Hospital.

The decline in birth rates and the movement from rural hospital deliveries to deliveries in the two referral hospitals is documented in Table 1, which reports historical data on the number of births in each county for the period from 1980 to 1997. From 1980 to 1992, the number of births in Kings County declined by 50%, a portion of which can be accounted for by the trend toward delivering babies Charlottetown, when finally, by 1993 no babies were delivered in Kings County. The number of births in the Prince County has declined 13.6%, and in Queens County, the number has increased just 2.9%, even after absorbing demand generated by Kings County mothers. Overall, the number of births declined 19.6% from 1980 to 1997.

Table 1: Vital Statistics - Births on PEI by County, 1980 - 1997

Year	Kings	Prince	Queens	Total
1980	134	683	1137	1954
1981	112	635	1121	1868
1982	139	681	1097	1917
1983	138	654	1091	1883
1984	115	712	1113	1940
1985	114	687	1183	1984
1986	104	630	1165	1899
1987	122	667	1136	1935
1988	105	698	1155	1958
1989	117	660	1142	1919
1990	98	649	1241	1988
1991	92	629	1131	1852
1992	67	590	1170	1827
1993	n/a	n/a	n/a	1737
1994	n/a	n/a	n/a	1693
1995	n/a	n/a	n/a	1746
1996	n/a	n/a	n/a	1663
1997	n/a	n/a	n/a	1570

Source: Vital Statistics, Department of Health, www.gov.pe.ca/vitalstatistics

More recent data on births on PEI reflects that numbers are stabilizing. On Prince Edward Island, babies are now almost exclusively born in one of two hospitals: Queens Elizabeth Hospital or Prince County Hospital. Table 2 reports the number of babies born in each of these facilities for the period 2002 to 2005, as well as the occupancy rates for the Obstetrics Units in those hospitals. Note that 2004-2005 Prince County Hospital data reflects activity in the new facility. The total number of births on PEI has remained relatively consistent, with a variance of 78 between the highest and lowest number of births in that five year period.

The occupancy rates at that Obstetrics Units indicates that, on average, there is additional capacity in terms of physical space, but does not reflect the variance through the year related to periodic bed closures or fluctuations in patient volumes. (Details about volume by month are captured in Appendix 1.)

Table 2: Births in Prince Edward Island hospitals, 2002-2005

	Queen Elizabeth Hospital	Prince County Hospital	Total
Number of Births			
2000-2001	900	467	1367
2001-2002	881	461	1342
2002-2003	875	477	1352
2002-2004	948	473	1420
2004-2005	915	474	1390
Occupancy Rate for Obstetrics Unit			
2002-2003	76%	58%	
2003-2004	72%	55%	
2004-2005	67%	62%	

Source: Provincial Health Services Authority, Annual Report 2004

On Prince Edward Island, as in other parts of the western world, the birthing process has become "medicalized". Over time, the perception of the birthing process changed from being a normal life process to one which carried great risk and needed to be overseen by highly specialized medical professionals who had access to highly specialized medical equipment. The increase in rates of medical interventions from 2001 to 2006, reflected in Table 3, is evidence of this trend.

Table 3: Characteristics of births on Prince Edward Island, 2001-2006

All rates are %	2001-02	2002-03	2003-04	2004-05	2005-06
Epidural Rates for Vaginal Deliveries	17.3	17.8	19.2	22.2	24.7
Epidural Rates for All Deliveries	19.7	19.2	19.8	21.8	23.1
Assisted Delivery Rate (Overall)	7.0	8.4	7.3	8.7	6.5
Assisted Delivery Rate (Vacuum Extraction)	3.7	5.4	3.8	4.8	3.9
Assisted Delivery Rate (Forceps)	2.4	2.0	2.9	3.6	2.4
Total Caesarean Section Rate	27.8	26.8	30.3	33.5	29.8
Primary Caesarean Section Rate	20.6	19.0	22.4	25.7	22.0
Repeat Caesarean Section Rate	76.2	82.6	82.6	83.6	82.8
Primary Section Rate (<35 years)	19.7	18.5	21.4	25.3	21.4
Primary Section Rate (^35 years)	28.5	22.1	28.9	28.0	26.5
Low Birth Rate (<2500 grams)	3.7	4.7	4.4	5.4	5.0

The implications of this trend are increased demand on a limited supply of health professionals, and increased health care costs – exacerbating the issue of sustainability of the health system. Pressures on the health system, coupled with demands of Island women, BORN is building a case to advance its position that Prince Edward Island women should have better access to health services and have more choice in health services. The rationale to support this position falls into four streams:

- Better outcomes for mothers and babies;
- Personal choice;
- Cost savings for the health care system; and
- More efficient use of health dollars and health human resources.

Rationale for Developing a Birth Centre/Women's Health Co-op in PEI

Better outcomes for mothers and babies

Mothers and babies benefit from the involvement of a midwife. Studies have shown that midwives generally spend more time with expectant mothers during prenatal visits and put more emphasis on patient counseling and education, as well as providing emotional support.

Midwives interact with the mother for about forty five minutes per visit, whereas an appointment with an obstetrician typically lasts no more than fifteen minutes. Most midwives are with their patients on a one-on-one basis during the entire labor and delivery process providing patient care and emotional support, in contrast with physician's care which is often more intermittent.

Midwives become involved much earlier in the pregnancy and maintain a relationship with the mother for weeks after a baby's delivery. Typically, prenatal visits are once a month for the first 28 weeks, every two weeks until 36 weeks and then once a week until the baby is born. Midwives are on call for emergencies 24 hours a day.

Longer visits provide the midwife with opportunities to establish rapport and to build trust. This is particularly important for young mothers, and/or for mothers who are vulnerable for reasons such as family violence or other abuse.

Better outcomes are also expected among high-risk mothers, primarily due to the improved access to pre-natal care. Because midwives are community-based, they can connect these mothers with community-based resources and supports. Also, midwives have strong counseling skills and access to resource materials. During this critical period, midwives can educate and support the mothers to adopt healthy behaviours, including avoiding alcohol and smoking cessation. Once the baby is born, the support continues with assisting in infant feeding and newborn care, and monitoring the mother's health.

Table 4 shows the number of weeks gestation mothers reached from 2002 to 2005. The percentage of mothers who pregnancy was fewer than thirty-seven weeks 5.9% in 2002; 6.5% in 2003; 8.0% in 2004; and 6.2% in 2005. Expanded pre-natal care offered by midwives can contribute to more babies being born at full term.

Table 4: Live births by weeks of gestation - Prince Edward Island

	2002	2003	2004	2005
42 weeks or more	11	27	12	29
40-41 weeks	644	648	600	575
37-39	594	649	337	652
34-36	59	59	78	52
32-33	11	12	13	17
28-31	4	16	13	11
24-27	4	2	6	2
20-23	0	3	0	1
Les than 20	0	1	1	0
Not stated	1	0	0	0

Table 5 reports the number of stillborns and the rate of stillborns per 1,000 total births in 2005 for each jurisdiction of Canada. The rate for stillbirths on Prince Edward Island was second highest in Canada, surpassed only by Nunavut. PEI had a stillborn rate of 8.9 per 1000 total births in 2005. The number of fetal deaths from 2002-2005 is reported in Table 6.

It is conceivable that the introduction of midwifery would have an impact in two ways. First, the rate of stillbirths could be reduced as a result of more intensive pre-natal care; secondly, because of the post-partum involvement of midwives, mothers of stillborns would receive much more support to cope with the tragic loss.

Table 5: Stillbirth numbers and rates, by geography, 2005

Place of Residence of Mother	Number	Rate
Quebec	310	4.0
Northwest Territories	4	5.6
Saskatchewan	73	6.1
Yukon Territory	2	6.2
Canada	**2,209**	**6.4**
New Brunswick	46	6.6
Ontario	912	6.8
Newfoundland and Labrador	32	7.1
Alberta	311	7.3
British Columbia	313	7.6
Manitoba	114	8.0
Nova Scotia	72	8.3
Prince Edward Island	12	8.9
Nunavut	8	11.3

Table 6: Fetal deaths on Prince Edward Island

	2002	**2003**	**2004**	**2005**
		weeks		
20 weeks or more	6	14	5	12
28 weeks or more	3	5	4	4
TOTAL	9	19	9	16

Personal choice / Preference

While improved outcomes for mothers and babies may be the most compelling reason to provide midwifery services on Prince Edward Island, decision makers should also be swayed by the fact that Island women have expressed a desire to have access to midwifery services as a matter of personal choice.

Women are reclaiming pregnancy and childbirth as part of the normal life process. They want the more intimate care that midwifery allows, and the flexibility to accommodate a woman's health, social and personal needs.

The fact that more jurisdictions are responding to women's preferences is reflected in Tables 7, which shows the availability of midwives and whether services are funded.

Table 7: Provinces with midwife legislation and status of public funding

	Regulation (Year)	Funding
British Columbia	Yes (1998)	Yes
Alberta	Yes (1998)	No
Saskatchewan	Yes (1998)	No
Manitoba	Yes (2000)	Yes (some regions only)
Ontario	Yes (1994)	Yes
Quebec	Yes (1999)	Yes
New Brunswick	No	No
Nova Scotia	No	No
Prince Edward Island	No	No
Newfoundland & Labrador	No	No
Yukon	No	No
Northwest Territories	Yes (2005)	Yes
Nunavut	No	Yes

Source: Giving Birth in Canada: Providers of Maternity and Infant Care, 2004

Table 8 reports the percentage of births attended by midwives in select provinces. In these jurisdictions, availability is an issue – not just due to the number of practicing midwives, but also due to geographical constraints. There is a sense that these rates would be substantially higher if availability were increased. On Prince Edward Island, geographic barriers would be significantly reduced because of the density of the population and its small size, and the fact that despite being rural, no area is remote.

Table 8: Rate of attendance by midwives

	% of births
Manitoba	2%
Ontario	4%
British Columbia	5%

Source: Giving Birth in Canada: Providers of Maternity and Infant Care, 2004

Certain segments of the Island population are most apt to choose midwives care. As mentioned earlier, young mother, high risk mothers, and those in abusive relationships may prefer midwives. Midwives can be more culturally sensitive, and because the

services may mirror the traditional birthing experience in their native country, immigrant women may also choose to have the services of a midwife. The following three tables convey information about the age and marital status for women delivering babies on Prince Edward Island from 2002-2005, and present evidence of segments who may be inclined to choose a midwife.

For the period of 2002-2005, while most mothers were twenty-five to twenty-nine, there were 80-95 mothers from 15-19. While the official data indicates that no women under fifteen year had babies in that period, anecdotal evidence would indicate otherwise. If some of these young mothers may be leaving PEI to have their babies, having access to midwives may allow them to remain on the Island, and incur fewer costs and less stress.

Table 9: Live Births by Age of Mother, 2002 - 2005

	2002	2003	2004	2005
	number			
All ages	1,328	1,417	1,390	1,340
Under 15 years	0	0	0	0
15-19	89	95	83	80
20-24	260	290	263	298
25-29	422	445	446	419
30-34	372	396	390	385
35-39	158	164	172	136
40-44	27	26	35	21
45-49	0	1	1	0

Table 11 shows the mean age of mothers on PEI and Canada, which means that if you were considering all of the new mothers on PEI, there would be as many older than the mean age as there was younger than the mean age. For each of the four years reported, Island mothers had a mean age that is younger than the mean age of new mothers in all of Canada.

Table 10: Mean age of New Mothers, PEI vs. Canada, 2002-2005

	2002	2003	2004	2005
Mean age of Mother (Prince Edward Island)	28.2 years	28.1 years	28.5 years	28.0 years
Mean age of Mother (Canada)	29.0 years	29.1 years	29.2 years	29.2 years

Table 12 shows the marital status of new mothers from 2002 to 2005 on Prince Edward Island. The number of babies born to never-married women was 32% in 2002 and 2003 and almost 37% in 2004 and 2005. Again, these numbers indicate a sizable target population for the services of midwives.

Table 11: Live Births by Marital Status of Mother, 2002 - 2005

	2002	2003	2004	2005
	number			
Total	1,328	1,417	1,390	1,340
Single (never married)	430	456	512	495
Married	879	951	861	814
Widowed	1	0	0	0
Divorced	13	4	10	6
Separated	0	0	0	1
Not Stated	5	6	7	24

Midwifery is also a preference for geographic reasons. Currently, babies are almost exclusively born in hospitals in the urban areas of Prince Edward Island. Mothers in rural areas must leave their home community and their families to have their babies. Having access to midwives would give Island women access to high-quality services as close to home as possible.

Overall, access to midwifery would empower Island mothers by providing them access to care, information and support, and allowing them to make informed decisions about their labour and delivery. The sense of control fostered by the ability to exercise choice further contributes to better outcomes for mothers and babies.

Cost saving for the Health Care System

There are also economic and practical reasons why the health system would want to make midwifery services available. Whether the delivery is at home or in a hospital, births attended by midwives tend to have less medical and technical interventions. In fact, research by the Public Citizen Health Research Group has shown that in midwife-attended deliveries, the rate of caesarean sections is about half the national rate. Less intervention translates into reduced costs to the health system.

According to the 2006 PEI Health Indicators, pregnancy and birth is the leading cause of hospitalization, both in 2005 and in 1995, although the actual number of hospitalizations declined greatly over that period. There were approximately 3000 visits per 100,000 population in 1995, but less than 2000 visits per 100,000 population in 2005. (*Source: 2006 PEI Health Indicators, PEI Department of Health)*

The rationale to support the expansion of birthing options often relates to the "medicalization" of what is a natural process. Earlier data in Table 5 showed that the rate for epidurals for vaginal deliveries has increased from 17% to almost 25% from 2001-2002 to 2005-2006. It shows that the rate for caesarean sections has also increased by 1 percentage point in that period, while the rate for c- sections for subsequent deliveries increased by 6.6%. It should be noted that the World Health Organization recommends that no more than 15% of births worldwide should performed by caesarean section. There is a sense that more caesarean sections are being performed than is medically necessary, and that this may be due to increased demand my mothers.

Most births are uncomplicated vaginal deliveries. In 2002-2003, average inpatient hospital costs for patients who had vaginal delivery with no complications were about $2,700. For caesarean sections, average cost was $4,600. If the baby was admitted to a neonatal intensive care unit, the cost rose to $9,700. (*Source: Canadian Institute for Health Information, Giving Birth in Canada: The Costs, 2006)*

A report released by Canadian Institute of Health Information indicates that the percentage of babies weighing less than 5.5 pounds rose to 6.2% in 2005-2006, up from 5.7% in 2001-2002. In PEI, 5.5% of babies had low birth weights, which was the lowest rate in the country. The highest rate was in Alberta, where 6.9% of babies were underweight. Babies of low birth weight potentially have higher demands on the health system, which in turns increases the cost of care.

Further, because the relationship with the midwife is maintained several weeks after the delivery, hospital stays for new mothers tend to be shorter, thereby reducing costs to the system even more.

In the case of home births, there are even greater cost savings. An economic analysis found that an uncomplicated vaginal birth in hospital in the United States cost on average three times as much as a similar birth at home with a midwife.

Reinforcing the earlier fact that midwifery improves outcomes for mothers and babies, it is important to note that these lower costs do not compromise quality of care.

More efficient use of health dollars and health human resources

Closely connected to the potential for cost savings to the health system, the final rationale relates to *efficiency*. Even if the province has unlimited dollars to spend on costs associated with pregnancy, labour and delivery, *human* resources would be a limiting

factor. In recent years, it has proven difficult to recruit family doctors and specialists to practice on Prince Edward Island. Nurses are also in short supply. Allowing midwives to attend normal pregnancies would free nurses, family doctors and specialists to focus their energies on more complicated and high-risk pregnancies and births.

Efficiencies within the health care system would also be gained by having birthing services available in rural areas. It is impractical to have labour and delivery units in rural hospitals, but such services could be offered to mothers in the rural parts of Prince Edward Island by midwives. This would reduce human resource pressures in the labour and delivery units of the large referral hospitals on PEI. Because PEI is small and densely populated, full coverage by midwives would be relatively easy and efficient.

Conclusion

The Second World Health Organization (WHO) Ministerial Conference on Nursing and Midwifery in Europe addressed the unique roles and contributions of Europe's six million nurses and midwives in health development and health service delivery. The Ministers stated their belief that "nurses and midwives have key and increasingly important roles to play in society's efforts to tackle the public health challenges of our time, as well as in ensuring the provision of high-quality, accessible, equitable, efficient and sensitive health services which ensure continuity of care and address people's rights and changing needs." (WHO Munich Declaration: Nurses and midwives: a Force for Health, 2000)

It is time that decision makers in Prince Edward Island embrace the position put forward by the World Health Organization and take the necessary steps to make midwifery services available on Prince Edward Island. Midwifery makes practical sense in terms of human and financial resources, but also makes sense because it will contribute to improved outcomes for mothers and babies. PEI's neighbouring provinces are joining the rest of the country in making these services available. BORN, its partner organizations and Island women have lobbied to make this a reality. The stage is set for change on Prince Edward Island.

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APPENDIX 1: Births by Month, 2002 - 2005

The peak volume each year indicated in bold. The peak months were typically in early summer, except in 2005 when March had a mini "baby boom", and 11% of the annual number of babies was born.

	2002	**2003**	**2004**	**2005**
	number			
Total	1,328	1,417	1,390	1,340
January	115	102	118	98
February	94	105	94	100
March	107	117	121	**144**
April	98	125	106	111
May	**128**	130	**129**	122
June	122	**131**	128	102
July	114	126	123	123
August	109	126	141	117
September	126	127	122	115
October	124	124	110	89
November	106	105	103	90
December	85	99	115	129

APPENDIX 2: Births in Canada

Live Births, Place of Residence of Mother, 2002 - 2005

Place of residence of mother	2002	2003	2004	2005
	number			
Canada	**328,802**	**335,202**	**337,072**	**342,176**
Newfoundland & Labrador	4651	4629	4,488	4,501
Prince Edward Island	**1328**	**1417**	**1,390**	**1,340**
Nova Scotia	8663	8650	8,734	8,557
New Brunswick	7046	7117	6,959	6,982
Quebec	72,477	73,905	74,072	76,346
Ontario	128,528	130,927	132,551	133,760
Manitoba	13,888	13,940	13,811	14,145
Saskatchewan	11,7611	12,038	11,983	11,967
Alberta	38,691	40,287	40,779	42,110
British Columbia	40,065	40,496	40,489	40,827
Yukon	339	335	365	320
Northwest Territories	635	701	698	712
Nunavut	726	758	747	699
Unknown	0	2	0	0

Live Births, Place of Occurrence of Birth for Mothers Residing in PEI, 2002 - 2005

Place of Occurrence	2002	2003	2004	2005
	number			
Total	1,328	1,417	1,390	1,340
Newfoundland & Labrador	1	1	0	0
Prince Edward Island	1,306	1,384	1,365	1,310
Nova Scotia	18	28	22	25
New Brunswick	2	2	0	3
Ontario	1	1	1	2
Alberta	0	0	1	0
British Columbia	0	1	0	0

APPENDIX 3: Place of Birth, PEI vs. Canada

Place of Birth - Prince Edward Island, 2002 - 2005

	2002		2003		2004		2005	
	live	stillbirth	live	stillbirth	live	stillbirth	live	stillbirth
Total	1,328	6	1,417	14	1,390	5	1,340	12
Hospital	1,127	6	1,417	14	1,386	5	1,335	12
Non-hospital	0	0	0	0	0	0	1	0
Unknown	1	0	0	0	4	0	4	0

Place of Birth - Canada, 2002 – 2005

	2002		2003		2004		2005	
	live	stillbirth	live	stillbirth	live	stillbirth	live	stillbirth
Total	228,802	2,015	335,202	2,162	337,072	2,066	1,340	12
Hospital	326,370	2,000	331,499	2,121	333,612	2,045	1,335	12
Non-hospital	2,359	12	2,807	23	1,483	9	1	0
Unknown	73	3	896	18	1,977	12	4	0