



Providing a Birth Support Program for Women of the North Island Region, Vancouver Island

An Aboriginal Midwifery Demonstration Project

Centre for Rural Health Research
August 2009



Health Canada

Santé Canada



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August 2009

THE CENTRE FOR RURAL HEALTH RESEARCH

The Centre for Rural Health Research (CRHR) was formed in 2005 in response to the need for evidence to develop policies and inform decision making in the area of rural health. This mandate is based on an understanding of the known health inequities between rural and urban residents arising in part from the difference between their respective health needs and service delivery context. Under the direction of Drs Stefan Grzybowski (a rural family physician) and Jude Kornelsen (a medical sociologist who specializes in maternity care), the CRHR is supported by both the Vancouver Coastal Health Research Institute and the Department of Family Practice at the University of British Columbia, and receives project funding predominantly from the Canadian Institutes of Health Research (CIHR). To date the program of research has focused primarily on rural maternity care and developing strategic approaches to planning sustainable rural maternity services in British Columbia. Please see www.ruralmatresearch.net for a complete list of projects and recent publications.

ABOUT THIS PROJECT

From March 3-8, 2009, the Centre for Rural Health Research conducted an on-site consultation on maternity service delivery in Mount Waddington to 1) assess the needs of Aboriginal women on the North Island regarding birthing services; 2) determine the community level of desire for an Aboriginal midwifery pilot project; and 3) determine the regulatory, financial, logistical and professional feasibility of a sustainable midwifery service on the North Island.

This consultation was commissioned by First Nations and Inuit Health (FNIH, Health Canada), with endorsement from the Vancouver Island Health Authority and the support of First Nations and hospital stakeholders in the North Island area.ⁱ The consultation team, led by Dr. Stefan Grzybowski, included Melanie McDonald, Sarah Munro, and Paul Dickinson. The team conducted extensive interviews throughout the North Island, including Port Hardy, Gwa'sala'Nakwaxda'xw, Port McNeill, Quatsino, Fort Rupert, Alert Bay/Namgis and Kingcome.

This report communicates the results of the consultation and includes recommendations for a sustainable model of local midwifery care, based on the findings from interviews and focus groups and informed by our understanding of sustainable models of maternity service in rural British Columbia.

ⁱ See Appendix 1.

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EXECUTIVE SUMMARY

First Nations Inuit Health contracted the Centre for Rural Health Research to investigate the issues surrounding sustainable maternity care for the North Island region. The **goal** of the community engagement was to gain an understanding of community and care provider attitudes and beliefs regarding the introduction of a local midwifery service in the North Island and to determine the health service delivery conditions necessary to support sustainable local maternity services.

Specific objectives included 1) To assess the needs of Aboriginal women on the North Island regarding birthing services; 2) To determine the community level of desire for an Aboriginal midwifery pilot project; and 3) To determine the regulatory, financial, logistical and professional feasibility of a sustainable midwifery service on the North Island.

A community engagement took place on the North Island in May 2009, consisting of interviews and focus groups with all key stakeholders involved in the provision of maternity care in the North Island. The following communities were visited: Port Hardy, Gwa'sala'Nakwaxda'xw, Port McNeill, Port Alice, Quatsino, Fort Rupert, Alert Bay/Namgis, and Kingcome. In total, four project team members conducted 18 interviews and 19 focus groups, speaking with 115 participants.

The North Island area has historically supported local birth, however in recent years hospital birthing services have been limited. In May 2003, the Vancouver Island Health Authority instituted a moratorium on local intrapartum services, which reflected community and care provider concerns over the safety of local birth. Birthing for low-risk parturient women was reinstated in Port McNeill in December of 2004, but Alert Bay and Port Hardy remain closed for elective deliveries.

A review of population birth numbers for the North Island indicates that currently there is an average of 147 births per year with approximately 13 births (8%) taking place annually at the low-risk elective maternity service in Port McNeill and an average of 4 births per year (3%) occurring at Port Hardy Hospital, which does not provide intrapartum care. The remaining 89% of women travel to higher levels of maternity care on Vancouver Island, namely Comox, Campbell River, or Nanaimo.

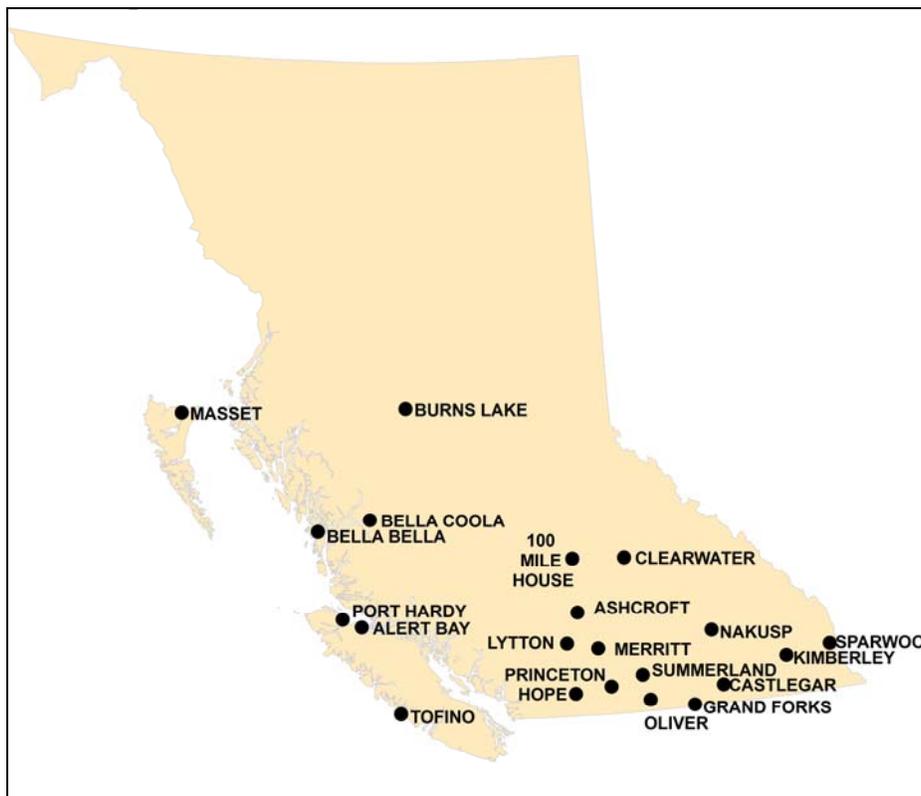
The findings from this consultation include rich descriptions of North Island women's experiences of childbirth and their vision for local birth. Participants articulated the challenges of supporting low-risk intrapartum services on the North Island and the significant social, financial, and physical costs incurred by women and families who leave the North Island to give birth. All key stakeholders in the North Island expressed interest in the introduction of an Aboriginal midwifery demonstration project, which they felt would be positioned to mitigate these costs through enhanced prenatal and postpartum care, trusting relationships with birthing women, and local birth for low-risk women.

Specific recommendations emerging from the findings can be found on page 56 of this report and consist of a three phase process: 1) Introduce two community-based midwives into the North Island and build local capacity for birthing services; 2) Foster an active midwifery-led birthing service in the North Island; and 3) Introduce local cesarean section services into the North Island based on the Rural Birth Index scores for Port Hardy and Port McNeill.

1. FRAMING THE ISSUE

a. Rural Maternity Care in British Columbia

There has been a significant decline in the number of rural hospitals offering maternity care in BC since 2000, mirroring trends of closures and service reductions that are occurring across Canada^{1 2} and internationally.³ In Nova Scotia between 1970 and 2002, 31 of 42 hospitals ceased to provide maternity services.^{4 5} In Ontario, 11 small hospitals that provided obstetric care in 1988 closed their services by 1995.^{6 7} In British Columbia alone, 21 communities¹ have closed local services since 2000 (see Figure 1).⁸



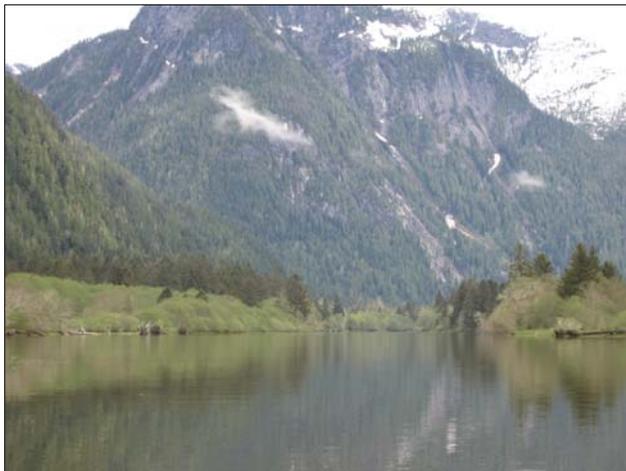
Map 1: Hospital closures in British Columbia since 2000. (Source: BC Perinatal Database Registry)

A convergence of factors has led to the lack of access of maternity services including structural-economic changes in rural communities,^{9 10 11} health care restructuring,¹² a changing context of care that supervaluates access to technology and specialists,¹³ and health human resource issues. The latter provide the most significant challenges, which include providing surgical care in low-resource environments, shortages in obstetrically-trained nurses,¹⁴ and the growing attrition of family physicians from rural practice. This attrition has been well-documented and is attributed to

¹ Closures since 2000 include the communities of 100 Mile House, Alert Bay, Ashcroft, Bella Bella, Bella Coola, Burns Lake, Castlegar, Clearwater, Grand Forks, Hope, Kimberley, Lytton, Masset, Merritt, Nakusp, Oliver, Port Hardy, Princeton, Sparwood, Summerland, and Tofino.

general workplace stress among rural physicians,^{15 16 17 18 19 20 21 22 23} demanding call schedules,²⁴ and, in British Columbia, the lack of remuneration for on-call obstetrics as many physicians take up the opportunity to participate in remunerated competing call groups such as Emergency, Pediatrics, or Psychiatry.

Rural service closures give rise to inequities in access to care for rural parturient women, and lead to place of residence becoming a determinant of maternal and newborn health.^{25 26 27} A review of the existing literature indicates that negative health consequences for the maternal-newborn population can occur as a result of these changing patterns of access to services, as has been found in rural Florida and Washington State.^{28 29 30} Closures of small-volume maternity units contradicts evidence from several large population-based studies from countries such as New Zealand, Finland, and Norway, which have shown that small hospitals can provide safe maternity services.^{31 32 33} Low risk pregnancies may in fact have fewer risk factors in a minimal-technology environment such as a small rural facility: “delivery with no known risk factors may actually be put at risk by the increased medical attention of technologically advanced maternity units, and low risk deliveries may benefit from the minimal intervention approach in small maternity units.”³⁴



Kingcome Inlet

While concern for safe birth outcomes is often cited as a reason for closing services, there is evidence that when adequately supported, small rural maternity services can safely serve rural parturient women,^{35 36 37} including in the absence of local cesarean section capability,^{38 39 40} suggesting that within a regionalized perinatal system, small maternity services can be as safe as tertiary obstetrical units provided an efficient mechanism for intrapartum transfer has been established.^{41 42}

In addition, research shows that evacuating women to give birth causes psychosocial stress to women, families, and communities, thus accentuating their vulnerability.⁴³

^{44 45 46 47 48} We have an emerging understanding of the psychosocial consequences for pregnant women from communities without local services, many of whom experience labour and delivery in referral communities as a crisis event fraught with anxiety, because they cannot plan for birth with any certainty.^{49 50 51} Not surprisingly, these social consequences have the greatest effect on women with limited social and economic resources. Studies have also demonstrated a number of adverse effects associated with travel for rural parturient women, which include increased intervention rates; stress; financial loss;⁵² separation from spouse, children and community; and lack of continuity of care.^{53 54 55 56 57}

For mothers with other children or dependent parents at home, leaving them behind can be emotionally stressful and it can be expensive to arrange care for them. To avoid these stresses, women may stay in their communities and wait until labour begins before traveling to the referral community, risking having their baby en route or at their unequipped local hospital. Limited numbers of rural women choose not to travel at all and have unassisted home births with lay attendants instead.⁵⁸ Another technique that mothers and care providers use to avoid long stays away

from home is geographic induction (elective induction of labour chosen to reduce a pregnant woman's time away from home when she is in a referral community). Rural parturient women who have to travel for care are 1.3 times more likely to undergo induction of labour than women who do not have to travel.⁵⁹ Many mothers have no choice but to undergo a geographic induction so that they can avoid a prolonged stay away from their families. Alternatively, in the case of intermittent services in their local communities, some women choose to be induced prior to the services being temporarily unavailable if it is close to their due date and physiological conditions are favorable.

Although emerging evidence clearly suggests the importance of maintaining local services (where warranted by population need), there are no clearly articulated policies aimed at strengthening the infrastructure for care on a provincial level.⁶⁰ This has led to challenges for regional health planners and a local response to meeting the needs of rural parturient women.

Although the nuances of the situation are unique to rural environments, the challenges facing the provision of maternity care extend to urban settings as well where planners must also contend with the attrition of providers and the lack of obstetrically trained nurses.^{61 62} This has forced consideration of new models of care and renewed interest in evidence regarding outcomes in situations without local access to cesarean section capacity.

b. Aboriginal Maternity Care

Although all rural women experience the impact of reductions in local maternity services, qualitative evidence suggests that these impacts are felt more acutely in Aboriginal communities. This is due in part to the historical place of birth in Aboriginal life where it was a community event that strengthened ties within families and nations.⁶³ In Canada's far north we have seen the systematic evacuation of women from their communities due to shifting policy and practice including immigration restrictions on foreign-trained nurse-midwives who traditionally staffed remote outposts.⁶⁴ The consequences have been severe, leading away from birth as a community event to birth as an isolating experience resulting in feelings of loss of control for women.^{65 66} As a consequence, many Aboriginal women experience significant psycho-social and physiological stress, leading to adverse perinatal outcomes.⁶⁷ There are also implications for the community. In describing the Pauktuutit (Inuit Women's Association) perspective, Martha Greig notes that the loss of self-sufficiency and competency is felt by older women as well, for those who acted as midwives in the past believe their own knowledge has been discredited, wasted, and ignored.⁶⁸

When talking of their evacuation experience, northern Aboriginal women themselves express regret at not having family close by to share their birthing experience and note the difficulty for women to focus on giving birth to a newborn when they are anxious about being away from their homes and children for extended periods of time.⁶⁹ In a comprehensive overview of the unintended consequences of maternal evacuation from the far north, Jennifer Stonier lists the detrimental health effects on women (e.g., loneliness, worry, anxiety, loss of appetite, increased smoking behaviour) and those on the children and family left behind (increased rates of illness and school problems for other children of evacuated women and the loss of understanding of the birth process among men).⁷⁰ Stonier also describes that with so much energy, time, and money devoted to the immediate intrapartum period, fewer resources were available for care and education services within the community, contributing to the diminishment of prenatal preparation and postnatal support.

Studies in Australia and New Zealand indicate that there are significant disparities between Aboriginal and non-Aboriginal perinatal health outcomes, with Aboriginal women experiencing higher rates of preterm birth (less than 37 weeks gestation), an increased risk of having small for gestational age babies (birth weight < 2500g), and a decreased likelihood of breastfeeding.^{71 72} Studies in North America have found similar negative outcomes,^{73 74 75 76} in addition to finding that rural Aboriginal women are more likely to receive inadequate prenatal care compared to their urban and non-Aboriginal counterparts.^{77 78} In Canada, Aboriginal women have rates of infant mortality and stillbirth double that of the national average.⁷⁹ Perinatal health statistics for people living in the Central Coast of British Columbia, a predominantly Aboriginal region, are dismal. From 1996-2000 the infant mortality rate in the Central Coast was 23.3/1000 while the provincial average was 4.2/1000, and the preterm birth rate was 178.3/1000 compared to the provincial average of 61.6/1000.⁸⁰



Kingcome Inlet

National efforts for improving rural perinatal outcomes for Aboriginal peoples in Canada emphasize the importance of keeping maternity services close to home, with community members playing a significant decision making role in the service planning process.^{81 82} Successful examples of rural Aboriginal maternity care include birthing centres in the Canadian north. Listening to Aboriginal women's birthing desires provides the foundational knowledge for building their maternity care programs, authenticates their knowledge, and ensures that programs are culturally appropriate.^{83 84 85 86} First Nations and Inuit Health and the National Aboriginal Health Organization advocate for approaches to service development that are grounded in Aboriginal culture, that build on community strengths, and that require care providers to be sensitive to Aboriginal sociocultural needs.⁸⁷

Cultural Safety

Cultural safety, or culturally safe care, strives to honour, support, and uplift a patient's culture and beliefs to improve quality of care and health outcomes. In contrast, care that depreciates, insults, or victimizes patients based on their ethnic or cultural background, reinforces social inequalities and power relations between social groups.⁸⁸ The concept of cultural safety in health care originated in New Zealand and was the result of nearly two decades of analysis surrounding poor health outcomes amongst the nation's indigenous Maori population.⁸⁹ Health care researchers Papps and Ramsden (1996) concluded that the delivery of nursing care required a drastic change in order to improve care for indigenous peoples. As a result, the Nursing Council of New Zealand has implemented cultural safety training for all nursing students.⁹⁰ Recent policy in New Zealand nursing has encompassed the need for a multicultural lens to cultural safety, including culturally safe protocol based on a patient's ethnicity, emigration experience, sexual orientation, religious beliefs, and/or disability.⁹¹

In Canada, researchers have identified a strong desire for culturally safe care amongst Aboriginal women and families.⁹² There is a need for care providers to connect the experiences of individual Aboriginal women to larger

social and political issues.⁹³ Rawlings (2001) recommended that care providers consider and integrate four cultural aspects of Aboriginal birth into Aboriginal maternity care: preparation for birth; having support persons present, both literally and spiritually, during birth; the actual experience of birth; and the contextualizing of birth in relation to the larger vision of life.⁹⁴ Other researchers have recommended the implementation of culturally safe maternity care through a woman-centred approach to policy design.⁹⁵ They also recommend a re-examination of the definition of “risk” as it applies to birthing Aboriginal women who must leave their communities.

c. Midwifery Care in British Columbia

Midwifery is regulated in 7 provinces and one territory in Canada and publicly funded in each of these regions except Alberta. In 1994, Ontario became the first jurisdiction in Canada to regulate midwifery, followed by British Columbia and Alberta in 1998, Quebec in 1999, and Manitoba in 2000. In 2005, the Northwest Territories became the first territory to regulate midwifery and, most recently, Saskatchewan (2008) and Nova Scotia (2009) have regulated the profession. Currently, New Brunswick and Nunavut are all in the process of regulating midwifery while Newfoundland and Labrador, Prince Edward Island, and the Yukon are the only jurisdictions in Canada that have yet to address regulating midwifery.

In BC, a midwife works as an autonomous primary caregiver delivering maternity care service to an average of 40 women per year for full-time work. This care begins early in pregnancy and continues through labour, delivery, and the first 6 weeks postpartum. Midwives are legislated in BC under the Health Professions Act and are regulated by the College of Midwives of BC (CMBC).⁹⁶ Midwifery services are funded through the BC Medical Services Plan.

The key principles that inform the model of midwifery care include:

- Continuity of care;
- Informed client choice (including choice of birth setting), which recognizes that decision-making is shared between a woman, her family, and midwife, with the woman as the primary decision-maker and the midwife primarily providing complete, relevant, and objective information needed to make a decision;⁹⁷
- Collaboration with other health care professionals;
- Accountability (to women in their care, other health care professionals, their regulatory body, their local health authority, and the general public); and
- Evidence-based practice.⁹⁸

Midwives consider pregnancy as a state of health and childbirth as a normal physiological process. They may work alone or in a small group practice, with each practice having on-call 24-hour care available. A midwife works in a variety of settings, including a clinic, hospital, or client’s home, according to the request of the woman in her care. Because of this, it is important for midwives to have admitting and discharge privileges at the hospital maternity unit or units within the catchment they serve. In the event of a planned home birth, the birth is attended by two qualified attendants skilled in neonatal resuscitation and management of maternal emergencies.⁹⁹ The primary attendant is a midwife and the second attendant may be another midwife or a health professional whose qualifications have been approved by the CMBC.

Scope of Practice

Midwives in BC and across Canada work as primary caregivers mainly to women and newborns in uncomplicated pregnancy, birth, and postpartum. The scope of practice for midwives in BC specifically includes:

- assessing, monitoring, and caring for women during normal pregnancy, labour, birth, and postpartum periods;
- providing counsel, support, and advice to women during pregnancy, labour, birth, and postpartum periods;
- managing normal vaginal deliveries;
- providing care for, assessment, and monitoring of the healthy newborn; and
- providing advice and information on infant care, contraception, and family planning.¹⁰⁰

To aid in providing these services, midwives are authorized to order a variety of diagnostic and screening tests, as well as prescribe a variety of medications. In the event that a woman or infant needs additional care during pregnancy, labour, delivery, or postpartum, a midwife will seek collaboration with other health care professionals through discussion, consultation, or transfer of care. In the event that transfer of care occurs, the midwife provides supportive care to the woman and resumes primary care when appropriate.

Education

Midwives come from diverse educational backgrounds, but to register and practice in BC they must undergo written, clinical, and oral examinations specified by the CMBC. British Columbia has one midwifery training program: a four year Bachelor of Midwifery degree offered through the Faculty of Medicine at UBC.¹⁰¹

Barriers to Interprofessional Collaboration

Currently in British Columbia, specific potential barriers to inter-professional care exist and include the following:

- *Leadership provided by the professional and regulatory organizations:* For example, the College of Physicians and Surgeons of BC has stated that physicians' involvement with midwifery care "may occur at the discretion of the physician," but they are "not under an obligation to ... provide backup care [to midwives] and ... may quite reasonably ask the midwife to find another doctor to provide backup."¹⁰²
- *Home birth:* The College of Physicians and Surgeons of BC and CMA state that "births should take place in hospitals, clinics and low-risk birthing units associated with hospitals."¹⁰³ In addition, the Society of General Practitioners clearly stipulates that physicians should not agree to attend planned home births, and should advise women against them as well.¹⁰⁴ As midwives are obligated to practice within a model that acknowledges choice in location of birth (domiciliary or institutional) as a fundamental tenant of care,¹⁰⁵ it is currently not possible for professions to share call in a way that acknowledges midwives' full scope of practice.

- *Remuneration and reimbursement:* Though funded through the same government ministry, midwives and GPs have different models of remuneration, which is reflected in part through the length of time practitioners are able to spend with clients during clinic visits, labour, and home visits. Midwives are paid on a course-of-care basis, while GPs are paid on a fee-for-service basis. Currently, there are no billing structures for inter-professional consultations.^{106 107}
- *Liability issues:* These include the disparate and inequitable mechanisms of insurance between professions which leads to different interpretations of risk and liability. For example, the Canadian Medical Protective Association has stated that in multidisciplinary care models, all care providers are named defendants if a patient decides to begin legal action. If the court decides that multiple defendants are liable for damages, the plaintiff may receive compensation from any one of the negligent defendants. That defendant may then seek money to cover the compensation from the other negligent defendant(s).¹⁰⁸ This may lead to reluctance on the part of some care providers to enter into multidisciplinary care agreements for fear of being held financially responsible for damages. This is further exacerbated where care providers feel uncertain about the experience, skills, and competence of other professionals.

Additionally, there is variance between midwives and physicians' scope of practice which may make some aspects of collaboration challenging. Examples of differences include:

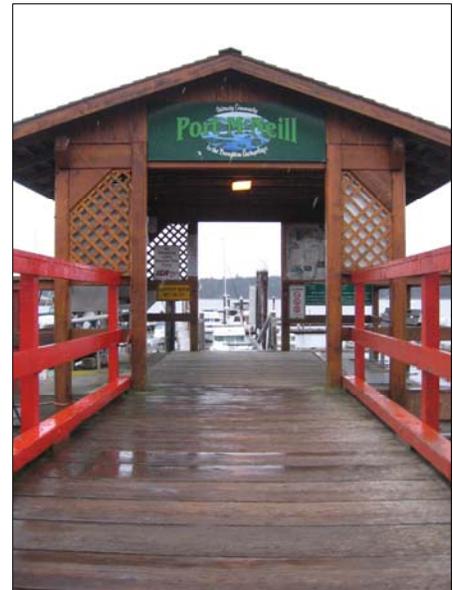
- *Prescribing:* GPs have a wider range of medications they may prescribe; midwives are limited to prescription of common drugs used during normal pregnancy, labour, delivery, and postpartum, as well as certain obstetrical emergencies (including several antibiotics, vaccines, local anaesthetics, and haemorrhage medications).¹⁰⁹ There are also medications midwives may not prescribe, but may administer in emergency conditions only after consultation.
- *Tests and diagnostics:* GPs have a wider range of tests they may order and interpret, while midwives are restricted to those tests related to maternity-care.
- *Choice in place of birth:* Midwives offer women a choice in place of birth, including out-of-hospital birth, while GPs do not.
- *Instruments and procedures:* GPs may use forceps and perform vacuum extraction, and some are qualified to perform or assist with caesarean sections. Midwives may only provide supporting care to their clients after transferring care to a physician when these interventions are necessary.
- *Postpartum:* While both midwives and doctors provide counseling on family planning and contraception, only GPs may prescribe contraceptive medications and devices. Midwives complete care of their clients at 6-weeks postpartum and refer them back to their GP, providing their doctor with the maternity and newborn records. Additionally, midwives do not perform circumcision, but as requested refer clients to GPs.

Despite known challenges, however, existing literature on collaborative models have shown a number of positive outcomes, including cost-efficient service,¹¹⁰ low incidences of negative birth outcomes,¹¹¹ and improved patient satisfaction.¹¹² It has also been suggested that inter-professional collaborative models will be key elements of a long-term solution to care provider shortages in rural communities.¹¹³

Midwifery Care with No Local Access to Cesarean Section

Currently in British Columbia the majority of rural midwifery practices are in close proximity to a hospital that provides local cesarean section services. However, in a number of rural catchments, midwives are the sole providers of maternity care and offer intrapartum services with no local access to cesarean section back-up.

On Salt Spring Island, registered midwifery has been the primary mode of maternity care since 1998, with birth taking place locally at women's homes or at Lady Minto Hospital. Women who must receive intrapartum care at a tertiary centre typically travel to Victoria or Duncan for care. For charting purposes, the Salt Spring midwives indicate "place of birth" as the place where, once a woman has gone into labour, she plans to have her baby. Thus a woman who hopes for a home birth and goes into labour at 28 weeks, delivering at Victoria General, has a planned hospital birth. Women with planned births off-island (10-15%) may still receive primary care from the Salt Spring midwives until transfer to the care of another



Port McNeill

practice in the community they intend to deliver. The local hospital, Lady Minto, has become an accepted and often preferred birth location for many women in the community, who are attracted to the comfortable, private room with birthing tub. Transfer of care to providers off-island is the biggest challenge to the Salt Spring model of practice, due to the associated financial disincentives. For instance, if a woman who plans to birth in Victoria presents on Salt Spring Island in precipitous labour, the local midwives will provide care until transport can be secured. In the current funding model, these services are not remunerated, which presents a challenge to financially sustainable rural midwifery practice. Method of transport out of the community varies depending on whether or not the transfer is emergent. Helicopter transfer depends on BC Bedline and ranges from 1 hour to 2-3 hours from transfer request to arrival at tertiary destination, weather, and daylight permitting. Private vehicles traveling by BC Ferries take a minimum of 1.5 hours between destinations. The water taxi service, which travels between the Gulf Islands, takes 40 minutes from neighbouring islands to Salt Spring, and another 45 minutes to Swartz Bay.

The West Kootenay midwifery practices in Nelson and Gray Creek have expanded population catchments and have historically been willing to provide homebirths to clients who live in distant and remote locations, often greater than one hour from the nearest cesarean section service. In the north, a midwife in Prince George offers care, including home birth, to women who live up to 4 hours from Prince George Regional Hospital, in communities that have no cesarean section back-up. The midwives carefully screen clients for the safety of homebirth and in recent years have made their distant homebirth criteria stricter due to the stress of providing such care without nearby surgical back-up.

Nurse-Midwifery in British Columbia

Nurse-midwives are health care practitioners who have formal training in both nursing and midwifery. Although the majority of these nurses have not been accredited to practice midwifery in Canada, historically, rural obstetrical services have employed some generalist nurses who have received international training in midwifery. These “nurse-midwives” have been key practitioners in rural maternity services, particularly in the far north, providing expertise in perinatal care, skills training for other practitioners, and keeping birthing services close to home for Aboriginal women.¹¹⁴ The majority of these nurses with specialist maternity skills received their midwifery training in Japan, Australia, New Zealand, the United Kingdom, Sweden, or other European nations. After conducting an environmental scan of literature on nurse-midwifery in the province, we have determined that there is a lack of research investigating the significant contributions of nurse-midwives to the sustainability of rural British Columbian maternity programs.

While, internationally, many jurisdictions provide joint training programs in nursing and midwifery, in Canada nurse-midwifery is not a recognized profession. Consequently, in Canada there are currently no training programs for nurse-midwives, only direct entry programs for either nursing or midwifery. Prior to the 1980's there were a number of universities that offered postgraduate training in midwifery to nurses through an Outpost Nursing program, suggesting that the advanced skill set was directed specifically for nurses intending on rural practice.¹¹⁵ In Europe, practitioners with a degree in nursing can continue their education for an additional 18 months to become a midwife, training which is often completed within the same institution.¹¹⁶ ¹¹⁷ In the United States, a nurse can conduct post-graduate work in midwifery to become a nurse-midwife, or practicing registered nurses can upgrade their skills through a specialized nurse-midwifery program.¹¹⁸



Fort Rupert Lona House

Preliminary findings from the Centre for Rural Health Research indicate that, nurses with enhanced perinatal training are invaluable practitioners in rural and remote communities because of their large scope of practice. Nurses who are able to provide nursing care with an additional skill set in obstetrics reduces the maternity caseload borne by family physicians in the community. Further, nurses with midwifery training are positioned to provide an expanded scope of practice, and typically assist with deliveries, provide prenatal and postnatal care within the community, and establish regular in-service programs to upgrade maternity skills for nursing staff. Interprofessional relationships between nurse-midwives and physicians in rural British Columbia have been positive, due to their overlap in skills and practice knowledge. Currently, many nurse-midwives in rural British Columbia are at or past retirement age, causing a significant health human resource gap in rural maternity care programs across the province. Some family physicians have stated that they are not comfortable providing obstetrical services without nurses with specialized perinatal training, which has resulted in the closure of small maternity programs.

d. Aboriginal Midwifery Care

Efforts to return birth to Aboriginal communities have included the establishment of midwifery programs in remote Aboriginal communities. The success of these programs is illustrated in the words of a Puvirnituk elder: *'to bring birth back to the communities is to bring back life.'* Upon further study, scholars and medical professionals have found that returning birth to Aboriginal communities, within a culturally-sensitive framework, leads to many psychosocial benefits including decreased family disruption, greater parent satisfaction, and greater community involvement with the newborn baby.¹¹⁹ These programs have also led to better clinical outcomes for birthing women and children, and impressive rates of local birth without local access to cesarean section, as the following case examples illustrate:

Nunavik

In the isolated region of Nunavik in northern Quebec, the Inuulitsivik birth centres in the communities of Puvirnituk, Inukjuak, and Salluit provide birthing services without local access to cesarean section for the 5,500 people living on the remote Hudson Bay coast. Established in 1986, the Puvirnituk birth centre, the largest of the three, is staffed by registered midwives, community midwives, maternity workers, nurses and physicians. Midwives, community midwives and community workers attend births and provide prenatal and postnatal care at the Puvirnituk birth centre, with nurses available for back-up as second attendants when needed. Although physicians are on-call 24 hours a day, they do not provide intrapartum maternity care services. The physician on-call is responsible for arranging evacuations after consultation with attending midwives.¹²⁰ The Puvirnituk staff are governed by an interdisciplinary council that sets policy and protocols, while a perinatal committee led by the midwives review maternity care cases.¹²¹ The Nunavik region is extremely isolated at 110 miles north of Montreal, accessible by a 4-8 hour, weather dependent plane ride.¹²²

On average, there are 305 births per year in the Nunavik catchment¹²³ and 50% are to women under the age of 20.¹²⁴ When a woman is at 32-34 weeks gestation, the perinatal committee reviews her case and makes a consensus decision on where she should give birth,¹²⁵ collectively taking responsibility for the decision.¹²⁶ For women from the four smaller, outlying communities surrounding the birth centres, they receive prenatal care from nurses at their local nursing station and leave for one of the birthing centres at 37-38 weeks.¹²⁷ Transfers are planned for women with twins, breech presentation, VBAC's, severe hypertension, and preexisting/other medical conditions.¹²⁸ As one group of researchers notes:

“Risk screening is seen as a social, cultural, and community process rather than simply a biomedical one. In Inuit culture, health is regarded as more than the absence of disease, and includes health of the individual's physical, mental, emotional and spiritual aspects, in addition to health in the family and the community as a whole” (pg. 387)¹²⁹

The Inuulitsivik birth centres support approximately 80% of deliveries locally, due in large part to the careful risk screening process conducted by an interdisciplinary care team and the highly comprehensive prenatal care provided.¹³⁰ Outcomes have been good with data between 1986-2004 showing no maternal deaths and a perinatal

mortality rate of 9/1000 (0.9%), slightly above the national average but significantly below the average for Aboriginal populations across Canada.¹³¹

Fort Smith

Fort Smith in the Northwest Territories offers a remote midwifery service with no local cesarean section backup. Opened to the public in 2005, the midwifery program serves the community's population of 2,430 (59% Aboriginal)¹³² and is staffed by two midwives¹³³ who are registered in Alberta.¹³⁴ On average, 34 births occur to Fort Smith women annually.¹³⁵ The Fort Smith birth centre houses expansive birthing rooms including a birthing tub¹³⁶ and is connected to the local Health Centre. The midwives care for all maternity patients, but are supported by an interdisciplinary maternity care committee. The nearest cesarean section service is 300km southeast in Yellowknife, accessible year round by highway or by a one-hour weather dependent plane trip. Over the past three years, Fort



Fort Rupert Long House

Smith has seen increasing utilization of the midwifery service and increasing rates of local birth. When the program began in 2005/06, 68% of women accessed prenatal services from the midwifery program and 21% of women delivered at the birth centre. In 2007/08, 100% of birthing women in Fort Smith used the prenatal service and 51% birthed in the community.¹³⁷ Risk screening for local birth includes a review by the Fort Smith Maternity Care Committee of each client's care plan and birthplace preference at approximately 34 weeks gestation.¹³⁸ Outcomes for this program have been good, with no severe maternal morbidity and mortality, no fetal deaths, and no severe neonatal morbidity.¹³⁹

Rankin Inlet

The midwifery-led birthing centre in Rankin Inlet, Nunavut, began in 1993 as a pilot project and was incorporated into a full program in 1996. Six surrounding communities use the centre with a total population catchment of 8,351. The birth centre at Rankin Inlet is connected to the health centre and is staffed by three midwives and a maternity care worker. The midwives provide outreach care to surrounding communities, including pre-natal care, discussing birth options, referrals for women who have medium to high risk pregnancies.¹⁴⁰ At the birth centre, the midwives provide antenatal, intrapartum and postpartum care,¹⁴¹ while the neighboring Health Centre staffs one to two physicians, seven nurses, lab technicians, one mental health nurse and two interpreters.¹⁴² Between 1996 and 2005 the Rankin Inlet birth centre encountered challenges to recruitment and retention of midwives. However, these challenges were resolved in 2005 when a dedicated team of midwives and advisors took over the program and integrated local training.¹⁴³

All primiparous and grand multiparous deliveries are automatically referred out of the community for care, leaving only 20% of local women eligible for local birth; that is, women who are pregnant for their second, third, or fourth

time and who are defined as low risk.¹⁴⁴ Women who need to access a higher level of care or cesarean section services are referred to St. Boniface Hospital in Winnipeg.¹⁴⁵ Travel costs for birthing women accounts for almost one quarter of Nunavut's health spending.¹⁴⁶ Risk assessment in the community consists of a traditional scoring approach that reviews a variety of factors including parity, delivery, smoking, and drug use.¹⁴⁷ Outcomes for the program have not been published to date.

e. Maternity Care with General Practice (GP) Surgery

The sustainability of a small-volume rural maternity program is closely linked with the presence of on-site cesarean section backup. Hospitals that do not provide local cesarean section capabilities are unlikely to provide local maternity services.¹⁴⁸ Those programs that do provide local maternity care without immediate access to cesarean section have a high maternity patient outflow¹⁴⁹ and are not likely to be sustainable.¹⁵⁰ Without local cesarean section services, rural care providers and their communities experience increased stress due to the perceived risks of local birth.¹⁵¹

In 2000, there were 76 communities in western Canada with local surgical services provided by GP Surgery and GP Anesthesia teams. Twenty of these services were located in British Columbia. In the past decade, the number of communities providing local rural surgical services in British Columbia has dropped to a total of 15. GP Surgeons and GP Anesthetists are General Practitioners with enhanced skills training in low-risk surgeries and anesthesia, respectively.¹⁵² Typically, GP Surgeons support programs in rural communities with populations of 5-15,000, while mixed models of GP Surgeons and Specialist Surgeons support communities of 15-25,000.¹⁵³ Procedural scopes of practice for GP Surgeons vary based on training experience and can consist of providing solely cesarean sections or can include a range of other procedures such as appendectomy, endoscopy, gastroscopy, colonoscopy, hand surgery, herniorrhaphy, tonsillectomy, laparoscopic tubal ligation, and D&C, in addition to cesarean section.¹⁵⁴

On average in each GP surgical program in BC, 200 procedures are performed annually by GP Surgeons.¹⁵⁵ GP Surgeons performed an average of 17 cesarean sections annually in BC from 1996 to 2005.¹⁵⁶ Research has shown that, in order to maintain competency in this procedure, a GP Surgeon should perform between 5 and 23 cesarean sections each year.¹⁵⁷ An analysis of the outcomes of GP Surgery has indicated equal or better quality of care than is offered in larger centres.¹⁵⁸

The physicians supporting these rural surgical programs are either Canadian-trained general practitioners with ad-hoc surgical training in BC or Alberta, some with international surgical experience, or internationally trained medical graduates (IMG's) with a foreign fellowship, typically from South Africa, who form two-thirds



Alert Bay

of the GP Surgeon population in Western Canada.^{159 160} Additionally, there are many South African trained family physicians in British Columbia, including in the North Island, who have a procedural skill set that could easily be utilized through a GP Surgery or Anesthesia practice, given the opportunity for skills updating and accreditation. In British Columbia, training is supported in part by REAP (the Rural Education Action Plan) and takes place in high-volume settings with surgical preceptors. The volume of procedures required for certification varies between individual practitioners and their preceptors.¹⁶¹

In addition to GP Surgery/Anesthesia teams, GP surgical programs also require the employment of trained Operating Room (OR) nurses. On average in British Columbia, a GP surgical practice employs a minimum of 2 OR nurses for every GP Surgeon.¹⁶² As in other areas of nursing, OR nurses are increasingly difficult to recruit and retain, particularly in rural surgical practices, where OR work is on a casual basis only.¹⁶³

Sustainable rural surgical practices typically consist of 1 GP Surgeon, 1 GP Anesthetist, and 1 GP with combined training in Surgery/Anesthesia, as well as 4 OR nurses. This model provides the opportunity for a rotating call schedule and locum relief to ensure care provider satisfaction and to preclude burn-out. Infrastructure for such a service includes an operating room, surgical equipment, and local sterilization services.¹⁶⁴

The sustainability of rural GP Surgical programs is a key issue for practitioners and decision makers. Centralization of services has led to the closure of small volume surgical programs, while the existing GP Surgeon population in BC is aging and nearing retirement.^{165 166} To mitigate these threats to rural surgery, researchers have put forward evidence and recommendations for a formal training and accreditation program for GP Surgery in BC.¹⁶⁷ Additionally, the first GP Surgical continuing medical education (CME) day was held in Banff in January 2008.

f. Planning Sustainable Rural Maternity Services

Province-wide, health planners are tasked with the challenge of making resource allocation decisions that are economically viable and meet the maternity health care needs of rural populations within a context of competing priorities.^{168 169} Additional pressures arise out of the nature of health care delivery systems themselves, which are characterized by their dynamic complexity and lack of stasis. This is further complicated by the lack of a systematic approach to rural health services planning and the absence of a robust evidence base to inform such planning.^{170 171} ¹⁷² As a consequence, much of the decision making with respect to rural maternity services has occurred in an ad hoc manner in response to a local or regional sense of crisis, such as when a community experiences a traumatic perinatal outcome or if an experienced maternity provider ceases providing care.¹⁷³

In response to the lack of evidence for the systematic planning of rural health services, the Centre for Rural Health Research has developed a mathematical model for predicting the optimal level of maternity service for a given rural community – the Rural Birth Index (RBI).¹⁷⁴ The development of the tool was based on the CRHR's extensive immersion in the phenomena of rural maternity services, which led to insights into the factors that are most significant in influencing the sustainability of services: *population birth numbers, social vulnerability, and geographic isolation*. The RBI is intended for rural British Columbia communities with populations under 25,000 and calculates a score for the 1 hour population catchment ranging from no local maternity services to local access to services provided by a specialist (see Table below).

Table 1: Application of the RBI Score to community service levels	
Rural birth index (RBI) score	Maternity service level
0–7.0	No local intrapartum services
7.0–9.0	Local intrapartum services without operative delivery
9.0–14	Local GP surgical services
14–27	Mixed model of specialists and GP surgeons
>27	Specialist only models

The formula is $RBI = [PBS \times APV] + IF$, where:

- PBS represents a *population birth score*, calculating average number of births over five years;
- APV represents an *adjustment for population vulnerability*, ranging from 0.8-1.4; and
- IF represents an *isolation factor*, representing distance to the next nearest cesarean section service.

Our research suggests that when a community does not provide the optimal level of maternity service for its population, certain effects may occur (see Figure 1 below). If a community is under-served, a number of women will choose alternatives to traveling to access maternity care at referral hospitals, such as arriving at their local hospital in active labour, timing their pregnancy to avoid giving birth in the winter months when seasonal weather impedes travel, and choosing unassisted home birth.^{175 176} These effects are enhanced as the social and financial resources of the women decrease. Communities whose RBI score is out of synch with existing service will have significant challenges to sustainability and will encounter sub-optimal maternal and newborn outcomes.^{177 178} Over-served communities are likely to experience increased intervention rates and difficulties in provider retention. The RBI score can be used in such circumstances to define the optimal level of service for the community.

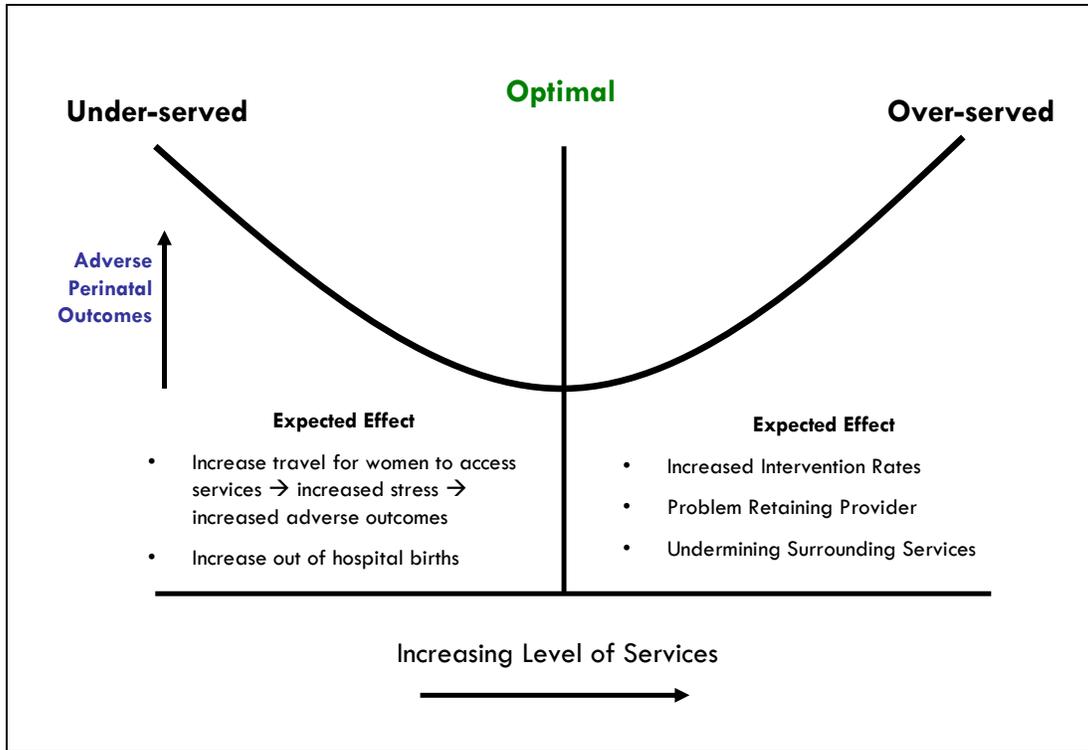


Figure 1: Level of maternity service and population need

The CRHR recommends planning rural maternity services within a 3-stage process (see Figure 2 below), of which the RBI represents stage one, the deterministic stage of objectively measuring the characteristics of population need related to the service under study: population size, vulnerability, and isolation. Stage two, the feasibility stage, addresses the question: *What are the pragmatic issues that need to be considered in locating a particular health service in a given rural community?* These issues may involve a review of existing facilities, availability of health human resources, history of the service in the community, and consideration of transport and economic issues. Stage three, the prioritizing stage, is addressed at the senior planning table for the health administrative agency and involves establishing the importance of the given service within a context of competing service issues. The present consultation of North Island maternity services represents stage 1 of this three part process. For information on the RBI scores of North Island communities, see page 54.

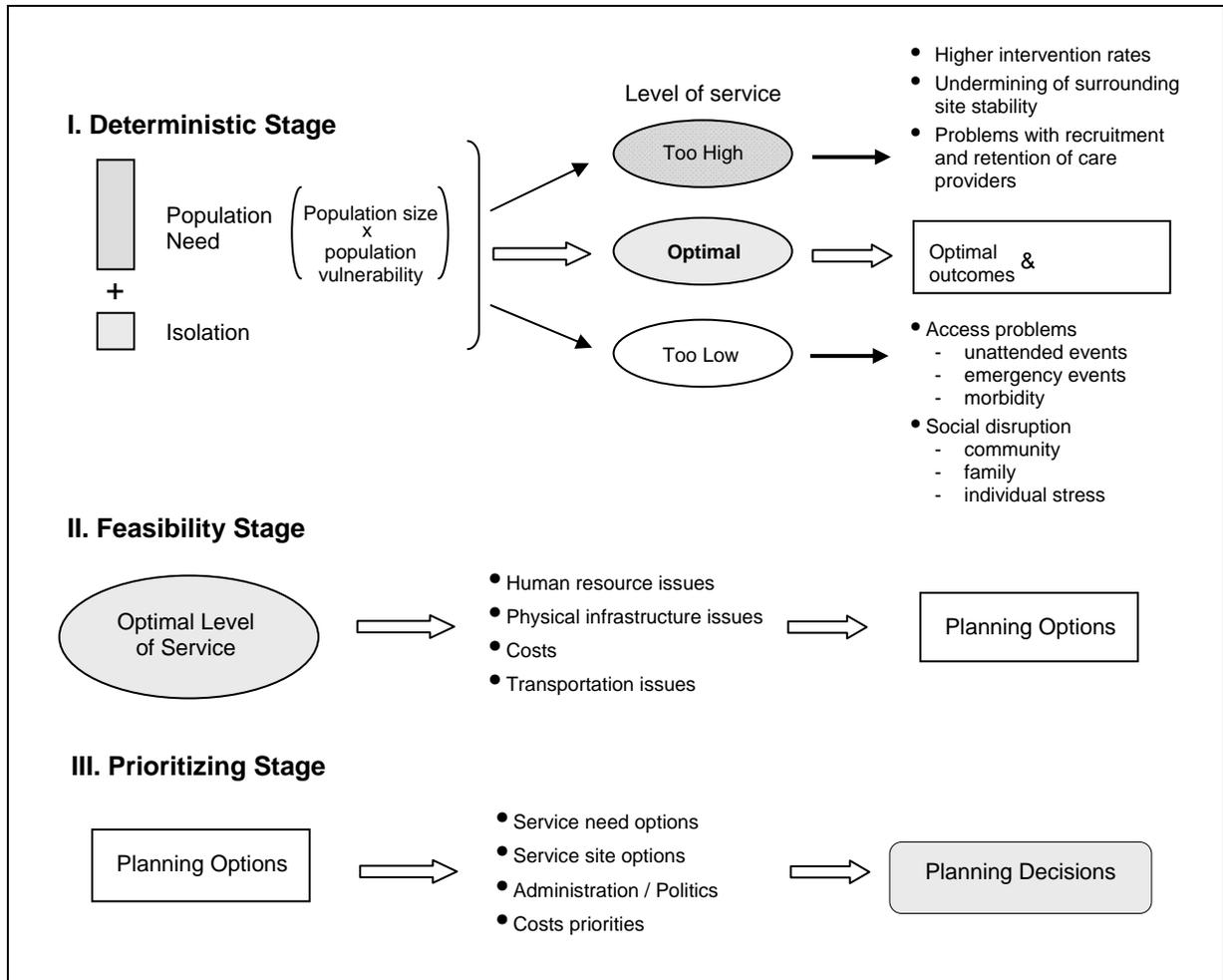


Figure 2: A theoretical framework of planning and evaluating rural health services

Planning maternity services in a prospective, rather than reactive, manner can help ensure that local services are appropriate and sustainable. These planning methods are particularly significant for communities that project an increase in the local birthing population.

2. PROJECT BACKGROUND AND DESCRIPTION

a. Goals and Objectives

The mandate of the Centre for Rural Health Research is to contribute to an evidence base for decision making about the optimal provision of health care to rural parturient women. As one of the challenges to the provision of rural maternity care has been the *closure* of services, a key task at the centre has been to investigate the components of *sustainable* services. To this end, First Nations Inuit Health contracted the Centre for Rural Health Research to investigate the issues surrounding sustainable maternity care for the North Island.

Research Goals and Objectives

The **goal** of the community engagement was to gain an understanding of community and care provider attitudes and beliefs regarding the introduction of a local midwifery service in the North Island and to determine the health service delivery conditions necessary to support sustainable local maternity services.

Specific objectives included:

1. To assess the needs of Aboriginal women on the North Island regarding birthing services;
2. To determine the community level of desire for an Aboriginal midwifery pilot project; and
3. To determine the regulatory, financial, logistical and professional feasibility of a sustainable midwifery service on the North Island.

b. Methods

This community engagement process was undertaken using a qualitative exploratory framework, used to guide data collection. Open ended interviews and focus groups were undertaken with all key stakeholders involved in the provision of maternity care in the North Island.

An environmental scan of all rural maternity services in British Columbia was conducted in order to determine a suitable community for the project. The following criteria were used for community selection:

- High need to enhance local maternity care services (defined as a socio-economically disadvantaged population without current local access to birthing services);
- A local population of birthing women large enough to sustain two practicing midwives;
- A large proportion of First Nations peoples living in the community; and
- Strong local support for undergoing the community engagement process.

Based on these criteria, and upon consultation with representatives from First Nations and Inuit Health, the Vancouver Island Health Authority (VIHA), and Kwakiutl District Council (KDC) Health Council on the North Island, the community

engagement process was undertaken in the North Island in the following communities: Port Hardy, Gwa'sala'Nakwaxda'xw, Port McNeill, Port Alice, Quatsino, Fort Rupert, Alert Bay/Namgis, and Kingcome.

The research team received ethical approval to conduct this community engagement process from the University of British Columbia and the Vancouver Island Health Authority in March 2009.

Culturally-Sensitive Research

Data collection was conducted in an ethical and culturally competent manner in keeping with Aboriginal values and traditions, following the CIHR Guidelines for Health Research Involving Aboriginal People. The research team worked collaboratively with the Health Director of the Kwakiutl Band, Shelley Henderson, and the Aboriginal Health Directors in each of the listed communities. The research team also worked collaboratively on establishing project protocols with the Maternal/Child Leader for First Nations and Inuit Health, Penny Stewart.

Recruitment Strategy

First Nations Communities: Quatsino, Fort Rupert, Alert Bay/Namgis, and Kingcome

The research team contacted a community leader and health representative from each of the First Nations communities involved in the consultation to gain support for the project. Once support was received, the research team worked with the health director in each community to set up focus group and interview times. Participants were then recruited through word of mouth and posters which were placed in each of the health centres.

Port Hardy, Port Alice, and Port McNeill

The hospital administrator for the North Island area distributed a letter of initial contact to care providers and allied health professionals from Port Hardy, Port Alice, and Port McNeill. Participants then either a) contacted the research team directly if they were interested in participating in the consultation, or b) gave the hospital administrator permission to give the research team their contact information. The research team then followed up with those individuals by email or phone to discuss the community consultation.

The research team recruited birthing women and community members through 'Family Place' employees and posters that were placed throughout the community.



Research team members (left to right): Melanie McDonald, Paul Dickinson, and Sarah Munro

Participants

Focus groups were undertaken with all interested local birthing women from each community, as well as their family members (i.e. husband, boyfriend, mother, father, sibling, aunt, uncle), and with community leaders in the four specified study communities. Birthing women included those from the community who were pregnant, or who had given

birth either locally or in a referral centre. Additional interviews and focus groups were undertaken with all care



Stefan Grzybowski, co-director of the Centre for Rural Health Research (left) with Mayor Gerry Furney of Port McNeill (right)

providers and allied health professionals (including physicians, nurses, public health nurses, and emergency transport personnel) involved in the provision of maternity care in Port Hardy, Gwa'sala'Nakwaxda'xw, Port McNeill, Quatsino, Fort Rupert, Alert Bay/Namgis, and Kingcome. Follow-up interviews were undertaken with administrators and policy makers to determine the feasibility of the recommendations.

Informed consent was obtained by the researchers before interviews and focus groups commenced. All care providers and allied health professionals signed written consent forms prior to being interviewed. The researchers obtained oral consent for all interviews and focus groups conducted in the Aboriginal communities in order to respect Aboriginal approaches to research initiatives outlined in the CIHR

Guidelines for Health Research Involving Aboriginal People.

Data Collection

Data collection consisted of an onsite community consultation with key stakeholders, including: maternity care consumers (birthing families); allied health professionals (public health nurses, Family Place staff, outreach workers, doulas); care providers (local nurses and physicians, as well as obstetricians from referral communities); community leaders (Aboriginal Band Council members, mayors); and health planners responsible for the North Island.

In total, four project team members conducted 18 interviews and 19 focus groups, speaking with 115 participants. See table below for participant cohort:

Table 2: List of Participants	
Participant Designation	# of Participants
Birthing Women	46
Fathers	2
Elders	4
Physicians	10
Obstetricians	1
Nurses	20
Public Health Nurses	4
Community Health Representatives	4
Mental Health and Addictions Workers	1
Administrators	5
Prenatal Educators	8

Doulas	2
Community Leaders [Chief, Mayor etc.]	4
Regional policy makers	4
Total	115

Data Analysis

These interviews and focus groups were thematically analyzed to determine the participants' values and priorities around birth, perceptions of midwifery care, barriers to local midwifery care, and solutions for a sustainable system, as well as areas and levels of consensus and disagreement regarding maternity services. To enhance our understanding of the unique maternity health services delivery context in the North Island, the Centre for Rural Health Research compiled an overview of current and historical catchment population outcomes including service access patterns, adverse outcomes, and intervention rates in conjunction with BCPHP.

3. BACKGROUND AND CONTEXT

a) History and Demographics of Community

Demographics of the North Island Area

The North Island region covers 21,157 square kilometres of northern Vancouver Island and the adjacent mainland, and is comprised of a number of isolated communities, including Port Hardy, Port McNeill, Gwa'sala-Nakwaxda'xw, Kwakiutl, Fort Rupert, Alert Bay, Port Alice, Quatsino, Coal Harbour, Sointula, Zeballos, Woss, and Kingcome. For the purposes of this report, these communities are referred to as the North Island. Statistics Canada lists the current population of the region at 11,919.¹⁷⁹ The two largest communities, Port McNeill and Port Hardy, account for approximately 54% of the population, with 3,822 individuals living in Port Hardy and 2,623 in Port McNeill.¹⁸⁰ In total, 23.9% of the North Island population is Aboriginal, the majority of whom identify themselves as members of the Kwakwaka'wakw Nation.¹⁸¹

The population of the North Island displays a high degree of social vulnerability. The region has a teen pregnancy rate (ages 15 to 19) of 50.8 per 1,000, nearly five times the provincial average of 10.4 per 1,000.¹⁸² Single parents in the region make up 31.8% of families, more than 6% above the provincial average.¹⁸³ Alcohol consumption rates in the region double those of the rest of the province at 208 litres purchased per adult in 2008. Death from illicit drug use stands at 12.1 per 10,000 persons aged 19 to 64, 40% higher than the BC mean of 7.2 per 10,000. Life expectancy at birth on the North Island is 75.9 years, 5 years below that of the rest of the province (81.1 years).¹⁸⁴

According to 2005 data, the average annual family income in the North Island was \$66,043, roughly \$16,000 less than the average in the remainder of BC.¹⁸⁵ Individuals with post-secondary credentials totaled 47.2% of the population in 2006, falling well below the provincial average of 62.8%.¹⁸⁶

Demographics	Port Hardy	Port McNeill	BC
One Hour Pop	6,000	5,000	----
Aboriginal Pop (within 1 hr)	18.9%	5.6%	----
Social Vulnerability Index (BC Stats)	0.34		----
EI Beneficiaries (BC Stats)	4.0%		1.9%
Infant Mortality Rate (per 1,000 live births)	7.8		4.2
Teen Pregnancy (per 1,000 women 15-19)	50.8		10.4
Women 20-29 yrs old (StatsCan)	10.7%		10.7%

Source: Postal Code Birthing Statistics, CRHR

Geographic isolation is a significant challenge to adequate health care provision in the North Island region. Several communities, such as the First Nations community of Kingcome, are accessible only by water or seaplane. The main

airport on the North Island is located 11 kilometers to the southeast of Port Hardy, and poor weather conditions often delay or annul flights into and out of the region.¹⁸⁷ Access by road is limited to a single highway along the east coast of Vancouver Island. The city of Campbell River lies 200 kilometers to the south, approximately 2 hours travel time by vehicle.

The economy of the North Island is currently in transition. From 1970 until 2000, the primary employer in the community of Port Hardy was the Island Copper Mine, which extracted copper, gold, silver, and molybdenum using open-pit mining techniques.¹⁸⁸ However, the steady decline of mining production in the 1990s and the eventual closure of the mine in 2000 removed a significant source of employment from the area and devastated the local economy.¹⁸⁹ Forestry, which was and remains the driving economic force on the North Island,¹⁹⁰ has suffered a series of major setbacks since the early 1980s. This has further compounded economic hardship for the region. As a result, North Island communities are now relying more heavily on the fishing industry, with increased focus on sport fishing tourism.¹⁹¹ The recent introduction of the Orca Sand and Gravel quarry, owned by Polaris Minerals Corporation and the 'Namgis First Nation, has modestly boosted local employment, but only by a fraction of what was once offered by copper mining and timber harvest. This economic uncertainty is expected to result in a decline in the North Island's population over the next 10 to 20 years (see Table 4 below). This is largely due to migration of the workforce out of the North Island and does not reflect current birthing trends.

Table 4: Vancouver Island North – Population Projectionsⁱ	
Vancouver Island North LHA Population (2006) ⁱ	11,919
Population projection for Vancouver Island North (2015) ⁱ	11,306
Population projection for Vancouver Island North (2020) ⁱ	11,015
ⁱ Statistics referenced from BC Stats, LHA, Vancouver Island North unless otherwise noted. Available from: http://www.bcstats.gov.bc.ca/data/sep/lha/lha_85.pdf	

Despite the overall decline in population, birthing in the North Island remains substantially higher than the provincial average. Women from the Vancouver Island North Local Health Area have ranked significantly higher than the provincial average in birth numbers over the past five years. Between 2004-2008, there were on average 60.4 births per 1,000 women annually in the North Island while in the province as a whole, 41.4 births per 1,000 women occurred annually in the same timeframe (see Table 5 below).

Table 5: Vancouver Island North – Average fertility rates for women aged 15-49		
Year	North Island births per 1,000 women	BC births per 1,000 women
2004	56.1	40.1
2005	57.0	40.7
2006	56.0	41.2
2007	67.5	42.1
2008	65.4	43.1
Average (2004-2008)	60.4	41.4
¹ Statistics calculated from BC Stats, LHA, Vancouver Island North, age-specific fertility rates (ASFR). Available from: http://www.bcstats.gov.bc.ca/data/pop/vital/lha_asfr.asp .		

b) History of Local Birthing Services

The North Island area has historically provided local birth, in the past hundred years with the support of hospital services. In 1909 the Columbia Coast Mission, an Anglican Church group, founded St. George's Hospital in Alert Bay.¹⁹² Prior to the hospital's foundation, a ship, owned by the mission, visited the surrounding communities and administered medical attention.¹⁹³ This practice continued into the 1920s. Around 1950, a 50-bed facility offering generalist obstetrical care with GP surgical capability was founded in Alert Bay.¹⁹⁴ For the next 40 years, Alert Bay was the main birthing centre on the North Island, and was serviced by one GP Surgeon, Dr. Jack Pickup, who provided delivery services and cesarean section access for the majority of parturient women in the region. Port Alice and Port Hardy were each served by hospital facilities as early as 1920.¹⁹⁵ Local delivery services were provided by family physicians and European-trained nurse midwives,¹⁹⁶ with surgical backup located in Alert Bay. As early as 1968, health advocates, care providers, community members, and policy makers discussed the possibility of establishing a regional hospital offering obstetrical services with surgical backup, which would involve the closure of the other hospitals in the region.¹⁹⁷ The idea was eventually abandoned in favour of local hospital services in each community.¹⁹⁸

A 10-bed hospital was constructed in 1976 in Port McNeill¹⁹⁹ and the two physicians who were subsequently hired began practicing obstetrics the following year, with Alert Bay as their surgical backup.²⁰⁰ Port Hardy received a new, 26-bed hospital in 1982, after almost 20 years of lobbying by local health advocates.²⁰¹ However, surgical capability was lost in the North Island around 1981 with the departure of Dr. Pickup, the last GP Surgeon.²⁰² North Island physicians and nurses continued to provide low-risk delivery services to the birthing population in the absence of local cesarean section capability. However, physician and nurse shortages at the Port Hardy and Port McNeill hospitals resulted in sporadic, alternating closures of the Port McNeill and Port Hardy emergency departments, beginning in 2001. Accordingly, maternity services also became sporadic.²⁰³

Following an incident of infant mortality during an ambulance transfer from Port McNeill District Hospital to a referral centre further south, the Professional Practice Committee, composed of North Island area nurses, requested an evaluation of birthing services on the North Island. In response, the Vancouver Island Health Authority instituted a moratorium on local intrapartum services for the entire North Island region in May 2003.²⁰⁴ Birthing for low-risk parturient women was reinstated in Port McNeill in December of 2004,²⁰⁵ but Alert Bay and Port Hardy remain closed for elective deliveries.

c) Current Maternity Service Delivery

Port McNeill District Hospital

The Port McNeill District Hospital is an 11-bed acute care facility that offers 24-hour emergency services, low-risk obstetrical services, general radiology, acute mental health and addictions inpatient care, outpatient rehabilitation, general laboratory services, and palliative care.²⁰⁶ Four physicians and 10 permanent nurses work at the hospital,

with two nurses in the emergency department at all times. There are an additional 12 casual nurses in the community.²⁰⁷ All nurses have been trained at the British Columbia Institute of Technology (BCIT) in perinatal care Level 1.²⁰⁸ Prenatal and post-partum care is administered by all physicians, by public health nurses, and by outreach workers through Promising Babies, a BC Pregnancy Outreach Program.²⁰⁹

Women who fall under the following categories are considered high risk and are therefore not eligible to birth in Port McNeill: primiparous women, grand multiparous women, women who previously delivered by cesarean section, women whose previous child weighed more than nine pounds at birth, women in labour before 37 and after 41 weeks, women with substance abuse issues, and women under 16 years of age. Any women who fit any of these criteria must leave the community at 38 weeks for a referral centre, most commonly Comox (257 kilometers from Port McNeill District Hospital) or Campbell River (157 km).²¹⁰

For women who are permitted to birth in Port McNeill and who choose to do so, the woman's physician will at times deliver the baby. If he or she is unavailable, which is often the case, the physician on call for the obstetrics call group will attend the delivery.²¹¹ In the event of an emergency evacuation, women are transported by ground or air ambulance to a referral centre. Expedient emergency transportation, particularly in the case of air transport, depends heavily on weather and availability, as well as the speed of progression of the woman's labour.²¹²

Port Hardy Hospital

Port Hardy Hospital is a 12-bed facility with four emergency care beds, and provides acute care to the communities of Port Hardy, Gwa'sala-Nakwaxda'xw, Fort Rupert, Kwakwaka'wakw, Quatsino, and Coal Harbour. The hospital has recently stabilized its emergency service and currently offers 24-hour emergency care with no surgical backup. Other services include general radiology and ultrasound, residential care, adult inpatient and outpatient rehabilitation, and laboratory services.²¹³ In total, 11 full-time and four casual RNs work at the Port Hardy Hospital, with two nurses on duty 24 hours a day.²¹⁴ Hospital staff continue to offer only emergent delivery services.

Currently, the community has five practicing family physicians. However, several of the physicians have been in the community for less than two years, and a number have expressed interest in moving on to new practices in different communities.²¹⁵ All five physicians provide basic prenatal and post partum care. Additional prenatal and post-partum support is provided through public health and through Family Place, a community outreach program established in 1999.²¹⁶ Women deliver either in Campbell River (196 km from Port Hardy by road), Comox (296 km), or Port McNeill (41 km) in the case of low-risk patients.²¹⁷

All parturient women are expected to leave Port Hardy at 38 weeks' gestation at the latest and stay in the referral community until released from hospital post-partum.²¹⁸ Emergent delivering women in Port Hardy are generally transported



Birthing tub in labour and delivery room at the Port Hardy Hospital

to a larger centre by ground or air Ambulance. However, if labour has progressed beyond safety guidelines or if adverse weather conditions exist, expedient transportation can become impossible and care providers are forced to perform local deliveries.²¹⁹

Cormorant Island Health Centre (Alert Bay)

The Cormorant Island Health Centre in Alert Bay is a 4-bed acute care facility, offering general laboratory tests, part-time radiology, a 10-bed residential service, and mental health and addictions support.²²⁰ The centre employs four full-time nurses and one part-time nurse.²²¹ As a result of nurse understaffing, the hospital experiences sporadic closures. One nurse is responsible for both the acute care and ambulatory care, which are offered 24 hours a day.²²² The 'Namgis Health Centre, located across the street from the Cormorant Island Health Centre, houses the medical clinic and is also the base for community and home care nurses.²²³

The community is currently served by three family physicians, all of whom offer basic prenatal and post-partum care. There is no local elective delivery service and all parturient women are required to leave the community at 36 weeks' gestation.²²⁴ Most women travel to Campbell River (a distance of 213 kilometers by ferry and road) or Comox (313 km) to deliver.

Emergency transport to a referral centre is extremely challenging, as the ground ambulance is required to take the ferry to Port McNeill before traveling south by highway to a referral centre.²²⁵ As in Port McNeill and Port Hardy, the speed of air ambulance transportation from Alert Bay to a referral hospital is dependent upon weather, availability, and progression of labour.²²⁶

Community-based maternity care in the North Island

All First Nations communities in the vicinity of Port Hardy have newly constructed health centres and generally employ their own community health nurses, all of whom provide prenatal and post-partum care. However, recruitment and retention challenges have left a number of communities without local nursing support. Consequently, many of the on-reserve health facilities do not have adequate nursing staff to meet the needs of the birthing population.²²⁷ Currently, the Vancouver Island Health Authority (VIHA) intends to hire a nurse practitioner for the North Island to alleviate some of these concerns,²²⁸ yet prenatal care in Aboriginal communities remains largely dependent on the individual community's ability to recruit and retain nurses. The Kwakiutl District Council (KDC) funds two programs providing prenatal support to Aboriginal birthing women, a prenatal outreach program led by either a Community Health Nurse or Licensed Practical Nurse (LPN), as well as a program addressing Fetal Alcohol Syndrome.

Some communities have agreements in place that allow VIHA's public health nurses to conduct outreach on-site, most notably Kingcome and Rivers Inlet, however, these nurses do not have formal contracts to provide care on-reserve in the majority of North Island First Nations communities.²²⁹ A few bands employ part-time, on-site health nurses, but a number of them are nearing retirement, which will likely discontinue on-reserve prenatal and post-partum care in those communities.²³⁰

Two major community outreach programs, Family Place in Port Hardy and Promising Babies in Port McNeill, provide integrated community health services to women and families of the North Island.²³¹ These programs provide

parturient women with prenatal instruction, breastfeeding assistance, mental health and addictions counseling, and post-partum support. Family Place, funded by the Vancouver Island Health Authority (VIHA), employs a part-time support worker to seek out socially vulnerable, parturient women in Port Hardy.²³² The program also supported a drop-in style clinic once per week for parturient women to receive prenatal care from a physician; however, funding for the program was discontinued after a brief trial period.²³³

d) History of Reports on Local Maternity Services

Several reports have been written on the context of birthing services in the North Island Area. For example, in 2002 Judy Rogers conducted a pilot study to explore the potential for an integrated model of maternity care involving physicians, midwives, and nurses in the North Island. The findings from this report describe the need for increased intrapartum care in the North Island and the potential benefits and challenges to an integrated maternity care model. The report recommended the integration of two registered midwives into the health care team for the North Island with a focus on providing low-risk delivery care, prenatal outreach, and additional postpartum support for the disadvantaged populations.



Fort Rupert Health Centre

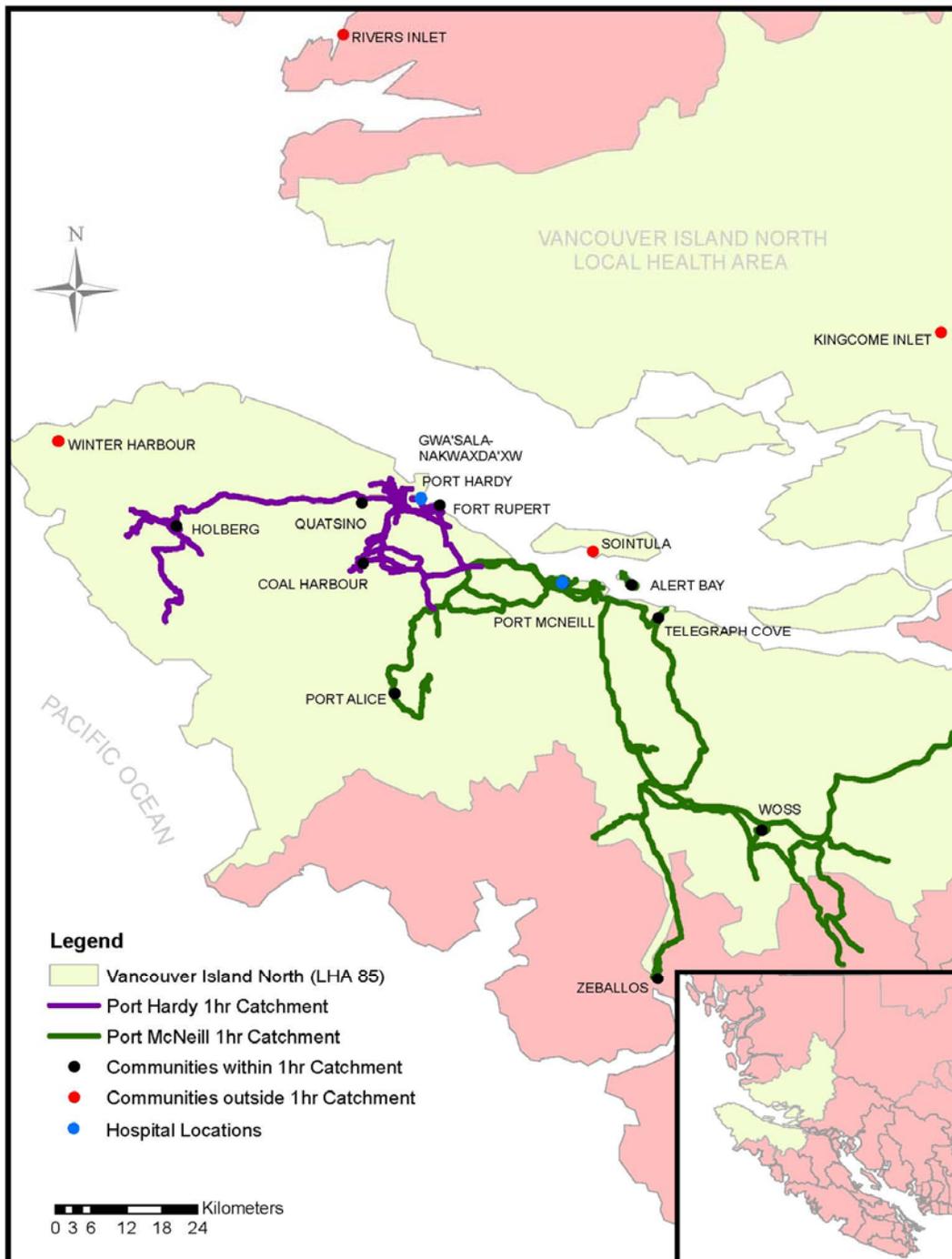
4. FINDINGS

a) Maternity Care in the North Island

1) The North Island Catchment

CRHR has calculated population catchments for all rural communities in British Columbia, using postal code-linked population data, GIS mapping technology, and Google Maps travel times. The North Island catchment contains seven postal code areas, representing the communities of Port Hardy/Gwa'sala-Nakwaxda'xw/Fort Rupert [VON 2P0], Coal Harbour [VON 1K0], Port Alice [VON 2N0], Port McNeill [VON 2R0], Alert Bay [VON 1A0], Telegraph Cove [VON 3J0], Woss [VON 3P0], Zeballos [VOP 2A0], Sointula [VON 3E0], Holberg [VON 1Z0], Quatsino [VON 2V0], and Winter Harbour [VON 3L0].

In Map 1 below, the purple lines indicate the one-hour catchment for Port Hardy while the green lines represent the one-hour catchment for Port McNeill hospital, based on surface travel time – that is, the populations living in those postal code areas are within one hour of either hospital. North Island communities that are beyond one-hour from the hospitals are Kingcome Inlet, Winter Harbour, Sointula, and Rivers Inlet.



Map 1: One-hour population catchments for the North Island region

2) Number of Deliveries

Currently on the North Island, there is an average of 147 births per year with approximately 13 births = (8%) taking place annually at the low-risk elective maternity service in Port McNeill and an average of 4 births per year (3%) occurring at Port Hardy Hospital, which does not provide intrapartum care. The remaining 89% of women travel to higher levels of maternity care on Vancouver Island. The majority of North Island women (44%) travel to Comox to give birth. In comparison, only 16% give birth in Campbell River, even though it is the next nearest maternity service for North Island women.

2004/2005	2005/2006 ⁱⁱ	2006/2007	Average per year
155	124	161	147

Source: Postal Code Birthing Statistics, CRHR
 Notes:
 i. VON 2N0, VON 2R0, VON 1A0, VON 3J0, VON 3P0, VOP 2A0, VON 3E0, VON 2P0, VON 1K0, VON 1Z0, VON 2V0, VON 3L0
 ii. Alert Bay birth numbers not available for 2005/2006.

Community	2004/2005	2005/2006	2006/2007	Average per year
Port McNeill	3	15	20	13
Port Hardy	5	3	4	4
Comox	75	56	63	65
Campbell River	24	18	27	23
Nanaimo	18	15	15	16
Other	29	17	30	25
Home Births	0	2	2	1
Total	154*	126	161	147

Source: Postal Code Birthing Statistics, CRHR (VOP 2A0, VON 3E0)
 One birth in Port Hardy one-hour plus catchment not defined

Port McNeill's one hour catchment sees an average of approximately 70 births per year. This includes the communities of Port McNeill, Port Alice, Alert Bay, Telegraph Cove and Woss. The communities beyond one hour that utilize Port McNeill Hospital have on average 13 births per year (Zeballos and Sointula).

Community	2004/2005	2005/2006	2006/2007	Average per year
0-60 Catchmentⁱ	64	37 ⁱⁱⁱ	83	61
61+ Catchmentsⁱⁱ	13	22	4	13
Total	77	59	87	74

Source: Postal Code Birthing Statistics, CRHR
 i. 0-60 min: VON 2N0, VON 2R0, VON 1A0, VON 3J0, VON 3P0
 ii. 61-120 min: VOP 2A0; 120-240 min: VON 3E0
 iii. Alert Bay birth numbers not available for 2005/2006.

Table 9: Where Do Women from Port McNeill's 1 Hour Catchment Deliver?

Community	2004/2005	2005/2006 ⁱ	2006/2007	Average per year
Port McNeill	2	6	13	7
Comox	33	22	34	30
Campbell River	3	2	6	4
Nanaimo	9	5	7	7
Other	17	2	22	14
Home Births	0	0	1	0
Total	64	37	83	62

Source: Postal Code Birthing Statistics, CRHR (VON 2N0, VON 2R0, VON 1A0, VON 3J0, VON 3P0)

i. Alert Bay birth numbers not available for 2005/2006.

Table 10: Where Do Women from Port McNeill's 1 Hour Plus Catchments Deliver?

Community	2004/2005	2005/2006	2006/2007	Average per year
Port McNeill	0	2	0	1
Comox	3	8	0	4
Campbell River	5	8	4	5
Nanaimo	2	1	0	1
Other	3	3	0	2
Home Births	0	0	0	0
Total	13	22	4	13

Source: Postal Code Birthing Statistics, CRHR (VOP 2A0, VON 3E0)

Women from the Port Hardy catchments have on average 72 births per year, with the majority delivering in Comox or Campbell River. Since intrapartum services closed at Port Hardy Hospital in 2003, 6% of Port Hardy women have continued to present and deliver at the hospital, compared to 7% of Port Hardy women who give birth at the official elective service in Port McNeill.

Table 11: Number of Deliveries for the Port Hardy Catchments

Community	2004/2005	2005/2006	2006/2007	Average per year
0-60 Catchment ⁱ	77	65	74	72
61+ Catchments ⁱⁱ	1	0	0	1
Total	78	65	74	72

Source: Postal Code Birthing Statistics, CRHR

i. 0-60 min: VON 2P0, VON 1K0

ii. 61 min +: VON 1Z0, VON 2V0, VON 3L0

Table 12: Where Do Women from Port Hardy's 1 Hour Catchment Deliver?

Community	2004/2005	2005/2006	2006/2007	Total
Port Hardy	5	3	4	4
Port McNeill	1	7	7	5
Comox	39	26	29	31
Campbell River	16	8	17	14
Nanaimo	7	9	8	8
Other	9	12	8	10
Home Births	0	2	1	1
Total	77	65	74	73

Source: Postal Code Birthing Statistics, CRHR (VON 2P0, VON 1K0)

b) Themes from Interviews and Focus Groups

The findings from this consultation indicate that all key stakeholders in the communities of the North Island are interested in the introduction of an Aboriginal midwifery demonstration project. Several themes emerged from the interviews and focus groups that spoke to factors necessary to underpin a sustainable midwifery program on the North Island. These included the current challenges in providing local, culturally-appropriate care as well as the social and financial costs birthing families incur in leaving their home communities to give deliver in referral centres down-island. Many expressed that these indirect costs were experienced more acutely by First Nations and socially vulnerable women, and that a midwifery model of care would be positioned to mitigate these costs through enhanced prenatal and postpartum care, trusting relationships with birthing women, and local birth for low-risk women. Other themes were grouped around the qualities required for midwifery care in the North Island, as well as ancillary services that would enhance the sustainability of the program (local cesarean section) and provide greater social support for birthing women (an Aboriginal doula program). Additionally, the women we spoke with, both First Nations and non-First Nations, clearly expressed their experiences of childbirth and their vision for local birth. The following pages outline these thematic findings.



Moms and dads at a focus group in the Port McNeill Family Place

1) Desire for local maternity care services

All stakeholders expressed that the current system of maternity care does not meet the needs of women and families. Although Port McNeill Hospital provides a low-risk obstetrics program, few women meet the narrow criteria for local birth. Women described the importance of local birth to the social and cultural fabric of their communities, particularly in maintaining connections between generations of family who have lived and birthed on the North Island. Care providers were acutely aware of the importance of birth to the community and physicians from all three hospitals (Port Hardy, Port McNeill, and Alert Bay) expressed that the North Island should have a safe, sustainable birthing service to serve local women. One Port Hardy physician said, "If someone wants to do them [births], provide a service, I'm really happy. And I'm glad that someone wants to ... The service is certainly required. And I never said they shouldn't have the service up here ... If anybody wants to do deliveries in Port Hardy, I would encourage them." An Alert Bay doctor, reflecting on the potential introduction of midwifery, noted, "I'm very excited about the concept of having dedicated obstetrical care up there [Port Hardy]."

Desire for local maternity services	
Women and families	<p>Where's the freedom of choice? If we want to have our babies at home, if we want to have our babies in our community...where's our freedom of choice? It's being dictated. (FG #002)</p> <p>I don't understand why we can't have babies here. (FG #013)</p> <p>I would have loved to have had my babies up here. (FG #003)</p> <p>I think if I were ever to have a baby again, I would go back to Port McNeill, because it's closer to home. (FG #003)</p> <p>Why were we all born here and our kids weren't born here? (FG #013)</p> <p>[Women from] the Aboriginal communities don't want to go, they want to deliver here. And I think most of us who are non-Aboriginal want to be here. I don't want to go down Island for my next baby. (FG #013)</p>
Care providers	<p>We've got grandparents who want their grandchildren to be born in the community. There kids were born here, they're like, 'why can't my grandchildren be born here'? (FG #017)</p> <p>Women want to deliver here, and they don't want to go to Port McNeill necessarily. Some do, but some don't. They want to be at home. I think that's just what people want. (P#002)</p> <p>We should be able to let those [high-risk] moms go home, and we should be able to feel good about it. (FG #003)</p> <p>I understand that many of my patients do want to deliver here. I've begun to understand how important it is to have the family and the support. (FG #014a)</p> <p>It's going to keep happening. People are still going to be, accidentally or on purpose, having babies [on the North Island]. (FG #014a)</p> <p>The moms up in Port Hardy do not want to go away. They want to deliver there. They'll wait to the absolute last minute to go [to the hospital]. (P #009)</p>
Allied Health Professionals	<p>Ideally, it would be wonderful if everybody had the opportunity to birth in their home community. (P #011)</p> <p>The hospital used to be a place of happy times and sad...what happened when the birthing stopped was that happy part was missing from the hospital, and it was missing from the community. (P #011)</p>

2) Desire for more culturally appropriate care

Birthing families and Elders spoke of their desire to experience an integration of cultural practices in the health care system, particularly in the case of maternity care. Although, care providers in the North Island have undergone cultural safety training in recent years, the First Nations birthing women we spoke with had a negative perception of their hospitals. Participants' perceptions reflected personal negative experiences, hearing stories of poor perinatal outcomes, or from their family members' encounters with insensitive hospital care. These participants also perceived the hospital care to be highly medicalized and felt that care providers should do more to learn about First Nations values, beliefs, and traditions regarding childbirth. They spoke of birth as a natural, physiological event, and of the importance of embracing family and community in the event of childbirth. One woman from Alert Bay spoke of her grandmother's traditional teachings about childbirth and rituals for encouraging a smooth labour and delivery. The care providers we spoke with were acutely aware of the importance of traditional knowledge, community participation, and natural approaches to childbirth for First Nations women. Many public health nurses and outreach workers who work in on-reserve health centres suggested that primary maternity care providers spend more time building trusting relationships with birthing women and their communities, noting that relationship building and cultural education can take years for care providers in First Nations communities.

Desire for more culturally appropriate care	
Women and families	<p>That's important to me as an Aboriginal woman, that she [my daughter] have a connection with my grandmother. (FG #002)</p> <p>Rather than bringing culture into practice, we need to bring practice into culture. (FG #009)</p> <p>[I would love to integrate] rubbing of cat fish oils on the belly. (FG #002)</p> <p>A big cultural part, is the big support. I notice how the births I've gone to here, everybody comes up. The word gets around very quickly... and there is like 15 people in the delivery room.... And children are involved... when siblings are in during the birth the siblings themselves more connected to the new birth, the new baby. So that's a huge piece that when moms have to travel out of town that gets missed. (FG #002)</p>
Care providers	<p>I think there's a huge discrepancy between traditional and cultural practices that we are bound to tie-in in our prenatal teaching and the realities of modern-day birth. (FG #014)</p> <p>Something that would be really wonderful is to have an acknowledged elder or healer from the community partnering with the midwife...that would create the bridge. (FG #009)</p> <p>There could be a value for the knowledge that already is within the community, because traditionally, there is knowledge around the whole process of birthing and what that looks like. (FG # 009)</p> <p>One of the words of our elders was, 'birth is not an illness.' (FG #009)</p> <p>In First Nations culture, it's a very, very important life event for that woman and her partner, and usually it's supposed to be celebrated as a family group and as an extended community. (P #014)</p> <p>Saying, 'this is what our culture values, and this is what birth looks like within our culture,' I think there would be a huge value in that. (FG #009)</p> <p>There is the mistrust that has been carried over between any kind of authority and First Nations, and that goes right down into physicians, nurses...I would say you need to be at least a year in a First Nations community before any door opens really up to you and people will let you in. (P #004)</p>

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	<p>They [First Nations] see life and death in the same equation. And so whether it's a Downs baby or it has got other genetic aberrations, it doesn't matter. They're all taken in the same, you know...it's a natural thing, it's life. And it's amazing how the community will shut down, there will be a big mourning, and then it's all gone. And life goes on, like, it's a natural thing. (P #004)</p>
Allied Health Professionals	<p>There's a lot of women that won't go to the hospital because of the way that they're treated. (FG #002)</p> <p>I think there's historically some distrust of the system. People were not treated well. (P #012)</p> <p>A big cultural part is the support. I know the births I've gone to here, everybody comes up. The word gets around very quickly. (FG #002)</p> <p>What would be nice is training that integrates into community more. (FG #015)</p>



Moms and prenatal outreach workers in Gwa'sala'Nakwaxda'xw

3) Experiences of current maternity services

When asked to reflect on the current model of maternity services for the North Island, the majority of participants spoke of their experiences receiving or supporting care for birth in referral centres down-island. There was consensus among participants that the existing low-risk birthing service in Port McNeill was not meeting the needs of North Island women. Women continue to present in labour at Port Hardy and Alert Bay hospitals, typically with high-risk deliveries, creating highly stressful situations for the care providers. Some physicians noted that they do not recommend their maternity patients elect to deliver on the North Island, even if the patient qualifies for a low-risk delivery in Port McNeill.

This lack of confidence in local birthing services was echoed by birthing women, many of whom shared community and personal stories of traumatic birth outcomes on the North Island. When women spoke of their experiences of giving birth in referral centres, their stories focused on the emotional stress of leaving husbands, family, and other children behind for up to 6 weeks; the financial strain of paying for accommodation, food, and travel to and from the community; the lack of safety in the budget hotels where they lodged; and their overwhelming desire to return home to the community. Care providers spoke of women who chose to return home to the North Island prior to delivery due to homesickness. Others noted that there is a lack of mental health and addictions support for visiting pregnant women in referral communities, which has led to relapse for some birthing moms.

Experiences of current maternity care services	
Aboriginal women and families	<p>We got sent to a hotel...where drug dealers work from, it's where hookers stayed, there was mould in the bathroom. [My son] came with me; I didn't even want to put him in there. I was just emotionally distraught. It was just awful. (FG #013)</p> <p>I finally went into labour two days before my due date. We were down there for a month and a half. (FG #013)</p> <p>The travel was a bit difficult, but my travel was always last minute. I don't think I would have liked staying down there [in Campbell River] for two whole weeks. (FG #006)</p> <p>I sat in Vancouver for six weeks to give birth and be out of the hospital in 12 hours. So it was kind of pointless, because there were no complications, I was just huge and swelling. (FG #002)</p> <p>In the beginning, they [the band] paid for everything...they funded my hotel the whole time I was down there with my daughter. They funded both of us. (FG #003)</p>
Non-Aboriginal women and families	<p>Five weeks in a hotel set us back for a year. (FG #002)</p> <p>I had a baby in Victoria, and it was the most horrendous experience of my life. I was there for six weeks. It cost my husband and I \$5,000. (FG #013)</p> <p>In Comox, for semi-private and private rooms [in the hospital], you have to pay. (FG #011)</p> <p>I'm all alone in Courtenay until [my husband] gets that phone call, 'get down here now', you know? It's added stress to the mother, just sitting and waiting. (FG #013)</p>
Care providers	<p>I got called into the hospital in the middle of one night when I was working acute care. We had a mom who was First Nations who had been sent down Island to have her baby, but she'd hitchhiked back home....she delivered 11 minutes after arriving at Port McNeill hospital ... Even though long plans were in place to get this woman down Island to have her delivery, she made her way back up Island. That happens very frequently. (FG #017)</p>

	<p>They know that they're going to still be able to engage in that celebration and everything when they get back home, but it's a loss still when they're not able to have their close relatives with them when it comes time for them to give birth. (P #014)</p> <p>It's even difficult for the marginalized people to get from Port Hardy to Port McNeill. Some of them don't have the transportation. (FG #013)</p> <p>If you're 17 and you're pregnant, that's the scariest thing in the world to begin with. And then to have to find a way to get down-island...I know there were a few [pregnant teens] who were beside themselves. (FG #017)</p> <p>We tell our patients to leave at 38 weeks, so anybody that delivers before 38 is going to deliver here no matter what rules we have, because, I mean, if – obviously they would have not been out of the community. Um...but after 38 weeks, the people who deliver in Port Hardy, it's probably due to financial hardship or personal choice. They've decided, 'well, I'm just going to hide and present myself.' (P #002)</p>
<p>Allied Health Professionals</p>	<p>They [birthing women] don't want to leave their family and their community, so they wait...and they know where the point is that they [physicians] will not send them out. (P #009)</p> <p>I think there's a misconception that if you're from one of the Aboriginal communities that everything is paid for, and that you get to have family supporting you down there, which is not true. (P #011)</p> <p>We will give them transportation, we make sure they have a bed to stay, and we make sure they get food, and they even get money for the day. (FG #004)</p> <p>The majority [of underprivileged families] don't have a vehicle. So now you need to get them and the baby on a bus. (P #009)</p>



Port Alice moms focus group

4) Reflections on community need and population characteristics

Women were reluctant to refer to specific instances of social vulnerability; instead, most women focused on expressing the incredible challenges they faced financially and emotionally when leaving the community to give birth. A number of participants also outlined the lack of antenatal support provided in the more remote communities on the island.

Care providers emphasized that birthing women in the North Island have a significantly high degree of social vulnerability that negatively impacts their birth experience and perinatal health. Participants spoke of the challenge of providing prenatal care to Aboriginal women in particular, who often “go underground” and avoid care to preclude being sent from the community to deliver down-island. Although women are aware of the consequences to their health of avoiding care, many feel that the social risks of receiving care outweigh the clinical risks. For instance, multiparous women have other children they cannot leave for 2-6 weeks while waiting to deliver, women dealing with substance abuse fear judgment and reprisal from physicians, and teenaged and low-socioeconomic status women have few resources to pay for travel for care. Consequently, participants noted that care providers need to offer care in a non-judgmental, flexible, and committed manner. One care provider spoke of having to “stalk” pregnant women who avoid services, while another noted that women nervous to engage with strange care providers who could put their children in the foster care system. Allied health professionals told us that Aboriginal birthing women do not develop relationships with the local physicians, expressing that some women associate doctors with illness. The extent of prenatal care for some women, participants told us, consists of going to the doctor’s office for a pregnancy test. Paramedics noted that the majority of maternity emergency calls on the North Island come from women who have not received any perinatal care.

Community need and population characteristics	
Women and families	I find it difficult to ask for help, and there was no one immediately following up and checking up on me. (FG #011)
Care providers	<p>The kind of deliveries that come here are ultimately high-risk. (FG #003)</p> <p>We’ve had quite a few troubled babies coming out of here recently...one was a premature baby with a poor prenatal history. (FG #014a)</p> <p>I know some people hide away until 40 weeks, then they go into labour and deliver. (P #002)</p> <p>For some reason or other, they’re not seeking care in order to avoid being sent out. That is a problem, and I know it happens. (P #014)</p> <p>It’s a huge issue when alcohol and drugs are involved. If you got someone that’s recovering, to send them away from their support, they may start using again. (FG #009)</p> <p>If you have to go down Island to have a new baby and you’re scared your kids are going to end up in foster care? I’d stay home. I can see completely why they would. (FG #017)</p> <p>[I]n the beginning of pregnancy, there is a fair amount of spousal abuse, violence. And it doesn’t matter if you’re pregnant or not. There is a fair amount of physical abuse by oneself. So whether it is alcohol or...all of the above. (P #004)</p> <p>And you add that to the distrust of the First Nations woman, because she’s not going to keep every appointment. And this is what the physicians always complain about. Because she</p>

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	<p>forgot her appointment again. What they don't tend to realize is they're living in the now, they're not living in tomorrow. You've given her these appointments three weeks ago, she doesn't know where the card with the appointment is, it's somewhere in the house, and heaven knows who ate it. (P #004)</p> <p>We get a lot of drug addiction here as well. Huge issue. And that's why I'm – I think I – our perinatal statistics is going to get bad because of that. Because we see cocaine, we see lots of prematurity and stillbirths, and all that kind of stuff. (P #002)</p>
<p>Allied Health Professionals</p>	<p>[I]t isn't, "you come and I'll teach you, and if you don't come, your loss". If they don't come, you go out there, you inquire, you say, "hon, can I set another appointment for you? You really missed it this time". (P #004)</p> <p>There are a group of mothers that just will deliver in Port Hardy. You won't change them one iota ... some of them are just poor people who cannot afford to go anywhere. And they will tell their doctor anything, and then they will do exactly what they've been doing, which is deliver their babies in Port Hardy. (FG #014)</p> <p>If you're a fall through the cracks person...you have nothing. We've seen young girls go down Island...we try to do what we can. It is very difficult, so of course most of them aren't going to go. (P #009)</p> <p>We have a lot of male doctors. Here's an issue. Because of a background of sexual abuse, [some parturient women] don't want anybody touching them. So whoever they're comfortable with could change that. (P #009)</p> <p>The health of the infant is directly dependent on the health of the mother. So if we have high infant mortality, we're missing the boat with mom. (P #012)</p>



Entrance to Port Hardy Hospital

5) Current barriers to local maternity care services

Participants shared various reflections on the current barriers to local maternity services, noting that although Port McNeill and District Hospital offers low-risk maternity services, many do not consider there to be a formal maternity service on the North Island. As one participant noted, “It’s not that people aren’t accessing services. It’s that the services aren’t here” (FG #017). Specifically, many expressed that most women are ineligible to deliver in Port McNeill due to the strict criteria for local birth, while some care providers stated a preference to refer all patients to the higher levels of service in Campbell River and Comox. In sum, participants expressed four thematic barriers to local birth i) perceptions of the risk of local birth, ii) health human resource challenges, iii) limited resources, and iv) unsustainable service planning. These themes are discussed in detail below.

i) Perceptions of the risk of local birth

The risk of local birth was cited as the most significant barrier to care in Port McNeill Hospital. Birthing women told us of their desire to be sent to referral communities far in advance of their due date due to lack of trust in the safety of the Port McNeill service. This lack of confidence in the local service stemmed predominantly from a perinatal death that occurred within the past decade: “We had that one horrible incident and services were closed. People still haven’t forgotten that” (FG #009). Women emphasized, though, that fears could be assuaged through a collective discussion and healing process between the hospital and community. There were a number of mothers, however, who perceived that local birth is a safe option: “We’ve had babies born up here at 20 weeks, 27 weeks, 28 weeks, and be okay” (FG #002). Some participants felt that physicians and nurses at Port McNeill Hospital created a strict criteria for local birth because they are afraid to provide the service. The criteria, they noted, focus on clinical factors that exclude a woman from local delivery. Equally or more important, some articulated, are the social factors that impact a woman’s health and well-being. These social determinants, they argued, should be included in the criteria for local delivery. As one participant said, “When you talk to these women and tell them the risks, they say they don’t care. [To them], the risk of leaving is greater than the risk of staying” (FG #009).

Barriers: Perceptions of the risk of local birth

It just seems like they’re [docs] so worried that something will go wrong that they rule out everybody from delivering [locally]...I know a lot of people find that very frustrating. (FG #017)

When you go into the hospitals here, you don’t get any sense at all that you’d be comfortable having a baby (FG #011)

People expect perfect outcomes. We used to accept that everything wasn’t always perfect, but I don’t think that’s true anymore. (FG #003)

I don’t think it’s that we don’t want to send patients to [Port McNeill hospital]. There’s the perception that we don’t want to...but I tell the patients, ‘if it’s me, I wouldn’t’...If people qualify to deliver in Port McNeill, then I obviously tell them that’s an option. I do add my concerns about...the lack of some services...I tell them if it were my wife, I’d probably want her to deliver in a bigger centre. (P #002)

Even though they might not have ever had a post-partum haemorrhage, even if they’re on baby number 8 and they’ve never ever had a haemorrhage, they’ll still send them down sometimes. So, the risk factors that they use to decide that

they are high risk are not often the serious ones. (P #014)

Maybe the fear [of local birth] is based on the social problems up here...we need to be looking at prevention, helping these moms who have these lifestyles, and knowing what their complications are. (FG #002)

Most of the nurses here, if you were to ask them 'would you have a baby in the Port McNeill hospital', they would say 'no'. (FG #009)

The physicians need to support the services that are here now in order for the community to feel comfortable with it. (P #011)

ii) Health human resource challenges

Care provider challenges emerged as significant barriers to local maternity care, with the greatest challenge centering on a lack of perinatal training and skills to support birth on the North Island. Care providers in all three North Island hospitals told us they felt unprepared to confidently provide intrapartum care, in particular for the disproportionately high number of emergency and preterm deliveries that present in the communities. In 2001, when Port McNeill was designated as the low-risk obstetric unit for the North Island, the hospital's nurses were trained through the BCIT Perinatal Nursing course. However, nurses told us that these skills have faded with time as the birth volume at Port McNeill hospital is too low for skill maintenance. As one noted, "Some people [nurses] will go a couple of years and they won't have a delivery."

Participants also spoke of the challenge of recruiting and retaining skilled care providers. Many care providers worked overtime or avoided retirement due to staffing shortages. This commitment, however, also reflected care providers' sense of loyalty to the community. As one nurse expressed, "My kind of breed is getting old. We need to retire so desperately. And how can I retire? What do you do with the community?"

Retention of primary care physicians was another barrier to local birth cited by participants, who perceived that physicians are disinterested in providing or supporting local intrapartum services. Some felt that the burden of maternity on-call work was unsustainable, while others were not planning to stay in the community long-term. Additionally, physicians expressed concern that, in the event of a bad perinatal outcome, they would be blamed and potentially sued. Although all physicians spoke of the need to for local maternity care on the North Island, many expressed that they were not in a position to provide that service.

Barriers: Health human resource challenges	
Competence and Confidence	<p>I delivered a baby...the mom was told by her family doctor earlier that week to head down island as planned. She didn't. She showed up at 11 at night...4 centimeters dilated. I had a locum who hadn't delivered a baby in 15 years. (FG #014)</p> <p>Would you want somebody to deliver your baby that does it maybe once a year, or would you want somebody who does it maybe 300 times a year? (FG #009)</p> <p>The bottom line is, you have to have babies, and then our nurses will be comfortable with competent doctors who are delivering more babies. (FG #009)</p> <p>Many family physicians coming through their training have only done 8 weeks of a rotation in obstetrics. Is that enough to make them competent care providers in labour and delivery? I think that's a problem. (P #014)</p>

<p>Recruitment and retention challenges</p>	<p>We're working so much overtime right now just to keep this place afloat. We had a nurse working last week, 67 years old, who couldn't get a hold of a manager for workload support. (FG #014)</p> <p>"We struggled. I mean, we closed the emergency maybe every second day, and the poor docs in Port McNeill had to do the same. So we alternated services between the two communities. So once again, I mean, some days we can't even keep the physician numbers up here." (P #002)</p> <p>Both sites are always short of something or other: X-Ray, lab, nurses, doctors. (FG #009)</p> <p>How are you going to get those guys [specialists] to stay up here? Getting them here is a big issue. (FG #013)</p> <p>We can't even retain enough nurses to run the wards, never mind a nurse that's an OR nurse, or nurses who will be competent in assisting or managing C-Sections. (P #002)</p> <p>We have problems keeping staff here....if you're gonna promise something, take it away, promise it, it's gonna be hard on the communities. (FG #015)</p>
<p>Physicians' disinterest in local birth</p>	<p>Even if I had a choice now, I wouldn't go back to doing deliveries here. It might be selfish...[but] you have to be available all the time. (P #002)</p> <p>I don't know that all of them or even any of them want to deliver babies up here. (FG #014a)</p> <p>I fought tooth and nail for it [physician outreach to the community], you don't know the situations that I faced, until we finally got physicians in and the medical van. There were times I cried my heart and my eyes out. It was bad. (P #004)</p> <p>I think people find it intimidating. I find it intimidating and I've got lots of experience. It's certainly – I'm amazed everybody participates. It's affecting your quality of life, which is a very selfish statement to make, but that's their attitude. All the new doctors, they put their private time first before they even consider their work time. (P #002)</p>
<p>Medico-legal concerns</p>	<p>The biggest beef for us always is that we [doctors] take responsibility for it [a bad outcome]. (FG #014a)</p> <p>I've been told that if you deliver a baby or you do something in a rural area, you're judged on the same standards as if you do it downtown; i.e., you're supposed to get them out. That perception is out there. That's what you're going to face in court. (FG #014a)</p>

iii) Limited resources

Physicians and allied health professionals detailed numerous resource barriers to local birth, including limited infrastructure for intrapartum care, lab services, and ultrasounds. As one participant expressed, "If anything were to go wrong, we've got nothing here. Basically, we can give you an IV, we can assess you, and can call for help" (FG #009). Consequently, in the event of an emergency, care providers must transfer birthing women and newborns to a higher level of care, typically either by road ambulance to Campbell River or air ambulance to BC Women's Hospital in Vancouver. Participants spoke repeatedly of the challenge of receiving a timely air ambulance transfer from the province's Infant Transport Team (ITT), noting that the team can take up to seven hours to arrive on the North Island. Care providers in one focus group described the emergency transfer system on the North Island as "third-world level" and added that when the ITT is requested for an emergency delivery, they often do not arrive until the baby is born (FG #014a).

Barriers: Limited resources

<p>Limited infrastructure for local birth</p>	<p>We just don't have the staff, we don't have the equipment, and we don't have the services to support any more than what we've done. (FG #014)</p> <p>If the physicians here had a [portable] ultrasound, it would make a huge difference for us over here. (FG #014)</p> <p>A lot of our moms never get their blood work or ultrasounds done...lab hours are only in the morning, and a lot of our moms...can't get to the lab. (FG #009)</p> <p>Routine ultrasounds: that is one thing I would say is not working for women of the North Island. They only have a tech that goes up there once a week or once every two weeks. It's very difficult to get an urgent ultrasound without them having to travel. (P #014)</p>
<p>Emergency Transport</p>	<p>If we phone the air ambulance, it takes – the quickest is an hour, and that's exceptional, you know, if they happen to be flying overhead. But sometimes, it can take 5, 6, 7 hours. I mean, that's just – and never mind it being an obstetrical crisis, for any crisis sometimes. (P #002)</p> <p>We had a 40-year-old primip who ended up delivering here. We couldn't get a hold of somebody at [referral centre], we couldn't get a plane. The whole support system is really poor. (FG #003)</p> <p>We don't get that quick support from the Air Ambulance, or from a neonatal team, but at the same time, we don't have access to any services up here. (FG #017)</p> <p>The air ambulance just doesn't get here in time. It's not because they're bad, it's just that there's only so many planes. (P #002)</p> <p>The only reason we're delivering them [high-risk babies] here is because we can't get them out. (FG #003)</p>

iv) Unsustainable service planning

Another significant barrier discussed by participants was the history of unsustainable maternity service planning on the North Island. As with many small communities throughout the province, it is highly challenging for a local maternity service that has experienced a moratorium to be successful at repatriating births to the community. Both community and hospital participants expressed that the moratorium instilled a lack of confidence in local birthing services. They noted that the reasons for the moratorium on local birth in 2003 were not clearly explained to the community. When services reopened in 2004 there was also no communication strategy for encouraging low-risk women to utilize the Port McNeill service. In addition, there was a perception in the communities that research projects and consultations rarely resulted in long-term solutions to health issues. This feeling translated into skepticism around any plan to improve birthing services locally; however, participants all agreed that improved services were a necessity.

<p>Barriers: Unsustainable service planning</p>
<p>I always said, 'don't take it [obstetrics] away from Port Hardy, because if you take it away, it'll never come back'. (P #002)</p> <p>I think they [VIHA] have a responsibility, as far as I'm concerned, to provide services to their population. (FG #003)</p> <p>I think when they reintroduced the services, VIHA didn't do a good job with doing some kind of consultation or engagement with the community, or even education about the services. (FG #009)</p> <p>I've seen so many people come up here asking me the same questions. And in fact, this has never made a difference to what happens. It's a shame that I have to say that, but that – that's the reality, though. (P #002)</p>

6) Desire for increased support for birthing services away

Nearly all birthing women we spoke with shared an experience of financial or social hardship as a result of traveling from the community to give birth. Some mentioned that they were fortunate to stay with family, but still had to pay for transportation and food. Moreover, Aboriginal women related very different stories of financial hardship from community to community. While some bands provide comprehensive funding for travel, food, and accommodations, others were limited to a hotel room only for themselves, with no financial support for their partner, and only a \$7 per diem allowance for food. Participants also described the negative social effects of leaving their family, other children, and partner, including depression, lack of social support during labour, and traumatic birth experiences. These social stressors in many cases overruled any safety concerns for mothers. One multiparous Aboriginal mother spoke of her decision to return home to her husband and 2-year-old daughter after being sent down-island at 38 weeks gestation: “There was no way I was staying in a hotel for Christmas without my daughter.” (FG #013)

Desire for increased support for birthing services away	
Women and families	<p>I had to take a loan from my employer, which she was willing to do, but I had to work my butt off to pay it off, so I didn't get any maternity leave. I did, but I didn't take it, because I needed to pay the money back. (FG #003)</p> <p>None of us are getting reimbursed for going down there...our medical doesn't cover anything. Unless you're staying in a hotel, there's no compensation for it. (FG #011)</p> <p>I got \$800 bucks out of \$4,000 back that we paid [to stay down Island]. (FG #011)</p>
Care providers	<p>First Nations women, a lot of the time, we send them down there, get them all set up, and they're too lonely and they'll just come home. (FG #009)</p> <p>Leaving their family for that amount of time isn't really adaptive to coming home with a new baby. (FG #017)</p> <p>I have done social induction. And that term, 'social induction,' means starting a woman's labour when they're homesick. So I'm doing it for a social reason, because she's distressed because of her separation from her community and her family. (P #014)</p>
Allied Health Professionals	<p>When you're a status person living off-reserve, you don't get funding [for travel]. That's a common misconception. You have to put out the money first and then get reimbursed, and a lot of families don't go through the process. (FG #002)</p> <p>If they [VIHA] aren't going to provide a service in the community, then there should be some funding for them to go down island....having somewhere to live, child care, it just isn't covered. (FG #009)</p> <p>There should be one central accommodation, right below the hospital or right beside the [referral]hospital so it doesn't cost you an arm and a leg to get somewhere. (FG #013)</p> <p>I think, for the moms...they really would like some kind of birthing facility, or somewhere where they can stay there. (P #009)</p> <p>There's nowhere to stay. People are constantly phoning us, saying, “do you know of a place for us to go?” And the cheapest I could find people was \$65 a night. (FG #002)</p>

7) Desire for midwifery services

Participants were very enthusiastic about the notion of a midwifery service on the North Island. All parties felt that the presence of midwives would improve support for parturient women in the North Island: "There's no way to go wrong if we got midwives. You won't ever make it worse bringing midwives into the equation" (FG #003). Aboriginal and non-Aboriginal women were highly supportive of a midwifery-based model of maternity care that includes community-based care, potential for local deliveries, home birth, and continuity of care provider. Many women expressed that they have accessed midwifery services down-island for their births. In addition, some women highlighted the highly personal nature of pregnancy and the need for a more holistic approach to care, which they felt a midwife could offer: "A midwife, all the way around, is just a better way to go for your own sense of comfort." (FG #011)

Care providers were also supportive of potential midwifery services on the North Island. Nurses and physicians both felt that midwives offer excellent prenatal and post-partum support, and were willing to work with midwives in increasing the capacity for prenatal and post-partum care. All physicians acknowledged the need for increased services for parturient women on the North Island. However, some cautioned that other services – most notably mental health and addictions – require improvement as well in order to properly support the region: "Midwifery can be used as a stepping stone for a healthier North island, but we can't look at things segmentally." (P #007)

Desire for midwifery services	
Women and families	<p>I'm a little cautious when I look at home births, but midwives in the hospital? Absolutely. (FG #013)</p> <p>[Home birth] would be pretty nice. (FG #006)</p> <p>And a female midwife, too, because I wanted a female doctor but I didn't get one when I was in Port McNeill. (FG #006)</p> <p>I never had anybody [at the delivery]. I felt like there was no advocate for me, and I feel like I would get that more from a midwife. (FG #011)</p> <p>My next baby, I'm going to go to a midwife, even if I have to go down-island. (FG #011)</p> <p>It would be nice to have the option [of midwifery care]. (FG #002)</p> <p>I would really like to see midwives and better services available for clients up here. Because not everyone has the financial resources to go down-island for a month. (FG #002)</p>
Care providers	<p>I can see [midwifery] being of value even if they don't deliver babies. I can see it being of really good value in terms of prenatal care. (FG #014a)</p> <p>If someone wants to provide [obstetrical] service, I'm really happy. And I'm glad that someone wants to. The service is certainly required. (P #002)</p> <p>If they choose to give birth at home, just tell them, let them have the choice. (FG #003)</p> <p>If you have someone [a midwife] who's a professional who's willing to do that, why wouldn't they embrace that opportunity? (P #014)</p> <p>When you look at the model midwife, right, so you look from prenatal until lactation stops, right. Women usually need more support than that in a First Nations community. (P #004)</p> <p>I know there's a lot of moms up here that would choose to use a midwife, if one was available, that are not even considering it now. (FG #017)</p>

	<p>If a midwife could offer them [socially vulnerable women] the opportunity to deliver in their own community, that's huge....because they're not going to go out anyway. (FG #009)</p> <p>I'd be happy to include midwives in the plan. (FG #014a)</p> <p>I have no concerns about the quality of care that women get when they're with midwives. (P #014)</p>
<p>Allied Health Professionals</p>	<p>The doctors are busy with sick people. The midwives can give so much more. The moms need the time...and the midwives have that time. (FG #002)</p> <p>[Midwives will] fit a whole lot better on the reserves, because the women don't want to be medicalized. (FG #009)</p> <p>Not even in terms of delivery, just in terms of prenatal care, I'd like to see someone who's willing to go into the homes and meet people where they're comfortable. (FG #002)</p> <p>I'm definitely comfortable with midwifery when there is a really good medical support backing it, well trained doctors and nurses... and the ability, if something goes wrong, to get people out quickly, like a really strong plan. (FG #002)</p>
<p>Administrators</p>	<p>There needs to be a lot of time devoted to people getting to know the midwife. You can't sit in an office...and expect that people will come to you. (P #012)</p> <p>Midwifery care is a more traditional way of providing service to our Aboriginal moms, in that there's a relationship. A midwife engages with women from the start. (P #012)</p> <p>The trust that develops over the period of the mom being pregnant can only lead to better utilization of the service. (P #012)</p>



Moms from a focus group in Quatsino

8) Characteristics of desired midwifery services

Participants clearly expressed the ideal qualities and attributes of a midwifery service to serve the Aboriginal women of the North Island. Birthing women focused on the personality characteristics they would desire in a midwife. They noted that a midwife would need to be non-judgmental, kind, and trustworthy, gaining the respect and confidence of the birthing women and their communities. To achieve this trust, a midwife would require the commitment and tenacity to build lasting relationships, with the awareness that it can take years to build trust with the First Nations communities. Recognizing the challenge of setting up practice as a stranger in a new community, participants suggested that potential midwives spend time in the North Island for a cultural orientation prior to providing services.

Additionally, participants expressed a desire for a community outreach, or “street midwife” approach, whereby midwives would provide prenatal and post-partum care in each community, while actively seeking out and offering care to the most socially vulnerable parturient women. Finally, while interest in midwives was high, many women requested more information about this type of maternity care. Allied health professionals suggested that potential midwives visit the North Island prior to practice and provide the communities with a midwifery care “open house” to educate the communities on the midwives’ role and scope of practice.

Similarly, care providers expressed the need for creating strong interprofessional relationships between potential midwives and other care providers, premised on open communication and clear definitions of roles and responsibilities. In particular, physicians expressed the need for a clear protocol for obstetrical consult and emergency back-up in the case of homebirth, noting that a midwife would have more expertise in managing perinatal emergencies than most physicians in the North Island. While some physicians in Port McNeill expressed a willingness to provide consultation to midwives, at least in the case of non-emergent medical concerns, the majority of North Island physicians felt that an obstetrician/gynecologist should provide any consultation or back-up for deliveries.

Allied health professionals expressed the desire for a midwife to provide integrated care and to consult or share care of maternity clients with mental health and addictions workers, outreach workers, and public health nurses where indicated. Overall, physicians, hospital-based nurses, public health nurses, transport personnel, and outreach workers all expressed a willingness to work with midwives to provide an integrated, interprofessional approach to providing maternity care on the North Island. The participants emphasized the need for clearly defined roles and expectations for each party.

Characteristics of desired midwifery service	
Midwife's characteristics	<p>There's a whole lot less judgment with midwives, I would say. (FG #009)</p> <p>You have to be tenacious. Now what young nurse, out of the university, I beg you, has got that luxury? (P #004)</p> <p>You'd have to have somebody who [can] adapt to the needs of the different communities. (P #011)</p> <p>So you can have a fair number of professionals come into a community, whether or not will really make an impact depends all on how much trust the person has gained with his or her client. (P #002)</p>

	<p>You've got to be able to be truthful and kind. But you've got to be truthful. (P #004)</p> <p>She has to gain the confidence of the community. Gaining the confidence of one person is not going to do it. First Nations are tribal orientated. They are community orientated. (P #004)</p> <p>She would have to gain the trust of the community in order to be effective. So there - the trust issue is a big issue. The trust issue, I would say, is about number one. (P #004)</p> <p>So, she has to be for the community, gain the trust of the community, before the woman will actually trust her. But she cannot live on the reserve. So she would have to be, at every level, for the community, come into it, and gain the trust of the community. And you gain the trust of any community...and there's two factors: you have to be extremely fair, to all people. So if they come and they throw something in your face, or something in your back, you look at it and you say, "water down a duck's back". (P #004)</p> <p>So they test you, continuously. And by your consistent way of demonstrating, "I won't be hurt, I'm here for you, you can give me another one, I'm still here for you", they finally come to realize, she's okay. [Laughs] (P #004)</p> <p>The care provider needs to have an expanded scope of practice to be able to deal with the issues that come out of those social issues. (P #004)</p>
<p>Relationship-building</p>	<p>I would say you need to be at least a year in a First Nations community before any door opens really up to you and people will let you in. (P #004)</p> <p>The relationship-building piece is going to take a lot of time. (FG #009)</p> <p>You can have a fair number of professionals come into a community, whether or not will really make an impact depends all on how much trust the person has gained with his or her client. (P #004)</p> <p>[The midwife] would have to show up to the potlatches, she would have to show up to the first years' birthdays, she would have to show up for all these kinds of things to be finally accepted by the community. But she needs to go home in the evening. (P #004)</p> <p>I have people at various stages and I have people with different needs. And so I need that relationship built early. It's a trust relationship that comes by proving to your client you really care. (P #004)</p>
<p>Home Birth</p>	<p>The person wanting to deliver, the midwife would certainly have to have a good dialogue with the person before she got into a situation like that [a home birth]. (FG #003)</p> <p>Any way you look at it, you'd rather be home....if I could have given birth in my own bed, life would have been perfect. (FG #011)</p> <p>The ambulance service would know that there's a planned home birth. (FG #015)</p> <p>I don't mind if midwives work here, but who's going to be their backup? Because I won't be their backup, because I'm not doing obstetrics myself, how can I be the backup for someone who does it? Because they need someone who's going to support them. And who will support them? That's the issue. (P #002)</p>
<p>Birth with no local cesarean section</p>	<p>I think we can get away with it, and I think it's an important service to offer to people. It will need to be put in place with great care, making sure the patient selection is done with great care. The women who should be selected for that, to deliver where there's no cesarean section backup, they should be truly deemed to be low risk. (P #014)</p> <p>If someone goes into obstructive labour here, the thing to do would be to send them away. And the midwife should do that. She shouldn't call the local GP thinking he's going to sort it out, because he probably knows less than her. (P #002)</p> <p>It doesn't matter to me who is doing their labour and delivery care if there's no cesarean backup, as long as you have a skilled birth attendant. That could be a family physician or a midwife. (P #014)</p>
<p>Outreach service</p>	<p>We need to have a midwife that comes to Alert Bay...people want to stay here. They know</p>

An Aboriginal Midwifery Demonstration Project

	<p>the staff, they know the physicians. (FG #014)</p> <p>Until we address the issue of distrust of our system, [midwifery] has to be an outreach service. (P #012)</p> <p>Just because these young women can hop on a bus and go into town, that doesn't necessarily mean that they have access...to culturally appropriate teaching and support. That's where you really need to have that outreach. (P #011)</p> <p>I think in outlying areas, it is very important to do follow-up...things change in a day, things change a lot in a month. But maybe they [the parturient women] never go back [to see the care provider]. (FG #003)</p> <p>I really would like to have a midwifery model. It's just not even looking at deliveries, but in terms of prenatal care for these moms. Someone who is willing to go into the homes and meet people, where they're comfortable, non judgmental, go and do the care that's needed. (FG #002)</p>
<p>Interprofessional collaboration</p>	<p>They have to be wanted and accepted by the docs. It's got to be supported. (FG #009)</p> <p>As healthcare workers, we all work together for the benefit of the patient, so it's nice to have that mingling. (FG #015)</p> <p>There needs to be some communication and standardization, maybe they understand what we have and what our capabilities are in remote versus urban versus metropolitan areas. So that needs to be clarified. Because those resources are different from area to area. (FG #015)</p> <p>Paramedics [should be invited] to attend sessions and for the midwives to ride along, to get an idea of pre-hospital care...that interprofessional aspect would be key. (FG #015)</p>
<p>Need for education on midwifery service</p>	<p>I think there needs to be some kind of community education...it's all about trust in the providers. (FG #009)</p> <p>Right now, midwifery is viewed as [a service] that middle-class women can use down Island...but not accessible to people like us. (FG #013)</p> <p>If we get those midwives, and we want our people to use them, there's going to be a whole education process. (FG #014)</p> <p>Those midwives will have to come here, make a trust relationship with those moms....there will have to be a whole front-end public relations [campaign] about what midwives do. (FG #014)</p>
<p>Emergency back-up</p>	<p>If she calls me [physician] to resuscitate the baby, you know, that's fine. I should do that anyway. If she calls me to help with the delivery, I'm not doing lots of deliveries, so I don't know if I can provide the necessary backup because – that's the biggest stumbling block with midwives. I have nothing against midwives coming here. It's just who backs them up. (P #002)</p>

9) Need for cesarean section back-up

Many felt that the North Island would have a stronger service if local cesarean section capability was introduced. Some physicians who were trained in South Africa expressed an interest in adding surgical and anesthetic procedures to their scope of practice, noting that it would improve job satisfaction, act as an incentive to remain in the community long-term, and attract other South African doctors to the North Island. Many nurses, health professionals, and women stated that their confidence in local birth would be greatly increased with the presence of a local operative delivery service. Indeed, the current lack of accessibility to surgical back-up was the deciding factor against local birth for several mothers. The establishment of a GP surgical service, these mothers stated, would be widely used by North Island women: “If we had [C-section] services up here, I don’t know of any mom who wouldn’t take advantage of it [local birth] if they could” (FG #011).

However, a number of participants voiced skepticism about the program, citing the financial challenges of establishing and maintaining an operative delivery service on the North Island:

“Can you see why I’m really annoyed – and in the big picture, people are wanting to provide a GP surgeon and an OR nurse, but on the ground, they won’t even provide public holiday staff in the front office. So, and I mean, that’s why I say, if they can’t even do that, how on earth do they think they can make this stuff [a surgical service] work?” (P #002)

In addition, difficulty with recruitment and retention of skilled nursing staff and physicians was seen as a potential barrier to a North Island surgical service: “How are they going to manage to get a line of nurses who’s going to cover an OR room. So that’s the reality of what I see. I mean...it’s the same funding pool.” (P #002)

Need for cesarean section back-up	
Lack of local cesarean section	<p>Many of [the South African doctors] have C-Sections in their training, and they do want that backup. (FG #014a)</p> <p>If something does go wrong, they [mothers] want to know that the C-Section is 15, 20 minutes away, not 2 or 3 hours away. (FG #017)</p> <p>The stillbirth would have survived here if we had C-section capabilities...but that’s one of the few cases where it would have made a difference. (P #002)</p>
Women and families	<p>If there’s [C-section capability] available on the North Island...I don’t think it would matter where you put it. People would go. (FG #002)</p>
Care providers	<p>When I talk to women, they’re scared to deliver here because there’s no backup....the other big thing is there’s no epidurals. (FG #009)</p> <p>More hands-on medicine, more experience, proper back-up. That’s what we need. (FG #014a)</p> <p>If you had a highly-trained midwife, and you had a GP Surgeon, and some sort of anaesthetist, boy, that would make a big difference up here. (FG #014a)</p> <p>There’s a handful of people out there who like the idea of GP Surgery and GP Anaesthesia. Maybe having a service like that would attract some of them, who want that. (FG #014a)</p> <p>I think for maternity service, ideally, we should have a functioning OR and an on-call anaesthetist or GP anaesthetist, a GP Surgeon and OR staff so that we can perform all the</p>

	<p>necessary operations. (FG #014a)</p> <p>I think in the big picture, if someone wants to spend money – you know, it would be cheaper, probably, to provide people some funding to support them while they're down Island versus building a system that's got all the [cesarean section] services here. (P #002)</p>
Allied Health Professionals	<p>I have no idea whether VIHA could support [GP surgery]. Not a clue...I think that we might have more success by showing what the midwives can do...and then going to VIHA and saying, 'we need to open the OR'. (P #012)</p> <p>You're sitting there with the ability [to perform Caesarean Sections], that sends a message to the community, but if you don't have the staff for that at any given time, that's a slippery slope. (P #011)</p> <p>We have to be very mindful that we're not setting up the community with unrealistic expectations. (P #011)</p> <p>That resource...for the C-section capability, it's one of the things where you'll get a memo where oh it's off, it's back on, and it's off. It's on, it's off. It drives us nuts. (FG #015)</p>

10) Need for an Aboriginal doula program

The majority of participants were in favour of establishing an Aboriginal Doula Program on the North Island. As an additional support for birthing mothers, many women felt that doulas could be enhance maternity services on the North Island, particularly for marginalized women in underserved communities. Previous doula training programs have taken place on the North Island, and some participants volunteered an interest in completing the necessary educational components and providing doula services for the communities.

Some participants suggested that doulas be integrated with the potential midwifery service, working as part of a team, but practicing out of their own communities. In addition, participants felt that the midwives could be involved in the training and certification of doulas. As one health professional noted, "I really believe there needs to be a midwife at the hub of that [doula training] program." (P #012)

Need for Aboriginal Doula program
<p>It would be good for someone who didn't have the support of a big family. (FG #003)</p> <p>"[A doula] would be good for a person who's single and doesn't have the support of a big family." (FG #006)</p>
<p>There were a lot of doulas that were trained in the community that never actually practiced. So having doula support could be worked into the midwifery practice. (FG #009)</p>
<p>Bring together elders and people who are interested in having the midwife support the process. (P #012)</p>

5. DISCUSSION

This community-based consultation found that the communities of the North Island have a high level of interest in the introduction of midwifery and that all key stakeholders perceive that the model of care would lead to improved care for Aboriginal birthing women. Women, families, care providers, decision makers, and allied health professionals were consistent in their characterization of the existing maternity care system on the North Island, stating that it does not currently meet the needs of birthing women and children. This perception was grounded in a belief that women should birth close to home, in the supportive network of community, not in distant communities where they are separated from their familiar environment and from the care of nurturing providers and family. Building on the findings of this consultation, the Centre for Rural Health Research has developed a set of recommendations to address the challenges facing birthing services on the North Island.

1) Rural Birth Index Score

To facilitate a sustainable service planning process for the birthing women of the North Island, the Centre for Rural Health Research has calculated a Rural Birth Index score for the communities of Port Hardy and Port McNeill, predicting the optimal level of maternity service for each community. Based on *population birth score (PBS)*, *adjusted population vulnerability (APV)*, and *geographic isolation factor (IF)*, the score corresponds to an appropriate service level (see Table 1, page 17). These scores have been calculated for all rural communities in the province. When compared to like-sized communities with similar characteristics, Port Hardy and Port McNeill demonstrates the need for higher levels of service than are currently provided. Strikingly, when the RBI scores for Port Hardy and Port McNeill are combined and compared to like-sized communities in BC, the North Island has the most under-served birthing population in the province.

The Rural Birth Index formula ($RBI = [PBS \times APV] + IF$) for Port Hardy indicates that based on an average 72 births per year, high degree of social vulnerability, and greater than one hour travel time to the next nearest cesarean section service (Campbell River), Port Hardy is in need of local intrapartum care and cesarean section services, provided by a GP Surgeon (see Table 13 below). The calculation for Port McNeill is similar, with the community's average of 66 births per year and high degrees of vulnerability and isolation.

When Port Hardy and Port McNeill's one hour catchments are calculated together, the North Island has an RBI score of 18.6. This is well within the range of sustaining a mixed model of care with local maternity and surgical services supported by one specialist working alongside GP Surgeons.

The current local level of care at Port Hardy Hospital, no local elective intrapartum services, does not provide the optimal level of maternity care for its population, nor does the low-risk service in Port McNeill. Our research suggests that when a community is under-served, as in both communities' case, a number of women will choose sub-optimal alternatives to traveling to access maternity care at referral hospitals and emergent deliveries will not receive adequate care.

Community	Average # of Births ¹	PBS ²	APV ³	Nearest C-section	Travel Time	Isolation Factor (IF) ⁴	RBI	Recommended Level of Service
Port Hardy	72.0	7.2	1.14	Campbell River	186min	3	11.2	GP Surgical Service
Port McNeill	65.7	6.6	1.14	Campbell River	154min	3	10.5	GP Surgical Service
COMBINED	137.7	13.7	1.14	Campbell River		3	18.6	Mixed Model of Care

Notes:
 1 Average births in 1 hr catchment over 5 years (2003-2007)
 2 Population Birth Score
 3 Adjustment for Population Vulnerability
 4 Isolation factor is calculated to weight surface travel time to the nearest cesarean section service, and increases in value as a service is more isolated.

RBI score	Maternity service level
0–7.0	No local intrapartum services
7.0–9.0	Local intrapartum services without operative delivery
9.0–14	Local GP surgical services
14–27	Mixed model of specialists and GP surgeons
>27	Specialist only models

2) Potential Deliveries for the North Island

If services were enhanced on the North Island to allow for more local births, we would project an increase in local deliveries over time, with a potential limit based on the capacity of services to provide for higher-risk women. Currently, as a region with a highly limited local elective intrapartum service, 89% of North Island women give birth away. Port Hardy, a community with no local elective maternity services (Model A) delivers 6% of birthing women in its population catchment, which is significantly higher than the provincial average of 2% among like-sized Model A communities.²³⁴ Port McNeill, an elective maternity service without local access to cesarean section (Model B), delivers 11% of women from its one-hour population catchment and 9% of all births to women on the North Island. These figures are considerably lower than those found throughout the rest of the province and other rural Aboriginal communities in Canada.

Well-functioning elective maternity services without local access to cesarean section (Model B) can capture a range of local deliveries, depending on the characteristics of the service model and birthing population. In British Columbia, Model B communities supported by family physicians deliver 30-40% of women locally.²³⁵ On Salt Spring Island, the

only Model B community in British Columbia where maternity services are provided solely by midwives, approximately 70% of midwifery clients deliver locally; 15% of births away are intrapartum transfers while the other 15% are deemed too high risk for local birth at the outset of pregnancy. Few women elect not to use the midwifery service and instead receive care from doctors on Vancouver Island or the Lower Mainland.²³⁶ Fort Smith in the Northwest Territories also offers a remote Model B midwifery service that in 2007/2008 provided midwifery care to all 49 birthing women in the community, 25 of whom (51%) gave birth in the community.²³⁷ In the isolated region of Nunavik in northern Quebec, the Model B Inuulitsivik birth centres support approximately 80% of deliveries locally, due in large part to the careful risk screening process conducted by an interdisciplinary care team and the highly comprehensive prenatal care provided.²³⁸ Notably, of the birthing women served by the Inuulitsivik birth centres 50% are under the age of 20; there are approximately 305 births per year in the program's catchment; and the communities are extremely remote (4-8 hours by plane to Montreal).

Rural intrapartum services that provide local cesarean section back-up (Model C) typically provide for 85% of births locally, with 15% of women having to leave the community to give birth.²³⁹ Thus, were the North Island to establish a pilot midwifery practice, the service would be able to provide prenatal and postpartum care for all local birthing women and to deliver approximately 30-40% of births locally at the outset. This percentage could increase as the experience of the service grows, the birthing population utilizes prenatal care, and maternity care providers develop a careful risk screening process for local birth versus birth away. However, there will continue to be a large number of women whose clinical risk factors preclude the choice of local birth. With the introduction of a local cesarean section service, as the Rural Birth Index recommends, nearly 85% of women will be eligible to give birth in the North Island.

3) Potential Challenges

The CRHR recommends planning rural maternity services within a 3-stage process, of which the RBI represents stage one. Stage two, the feasibility stage, addresses the question: *What are the pragmatic issues that need to be considered in locating a particular health service in a given rural community?* Stage three, the prioritizing stage, is addressed at the senior planning table for the health administrative agency and involves establishing the importance of the given service within a context of competing service and systemic issues. The present consultation of North Island maternity services represents stage 1 of this three part process.

In reviewing this consultative report and planning maternity services for the North Island, stages two and three, decision makers will need to consider cost priorities and the feasibility of implementing the following recommendations, particularly as the Vancouver Island Health Authority currently faces a significant budget deficit. In these stages, decision makers may feel that the costs of implementing the recommended GP Surgical service exceed what the health authority can currently spend. Yet if there is administrative buy-in and prioritization of the *eventual* implementation of the recommended level of service, there would be support from the North Island community (see page 52). Also, with the implementation of a GP Surgical service in Port Hardy, more women would be able to deliver locally, which would significantly reduce the financial and psychosocial costs of traveling down-island for delivery.

6. RECOMMENDATIONS

The following recommendations emerge from the data gathered during this community consultation. We recommend the formation of a pilot midwifery demonstration project for the Aboriginal women of the North Island, implemented in a three-phase process. While this report is primarily focused on meeting the needs of Aboriginal women and families in the North Island area, in order to support integrated and stable communities, services need to be made available to all women. Priority of access to midwifery services should be based on need. Below is an overview of the recommendations with potential next steps described in table-form in the following pages.

Phase 1

Introduce two community-based midwives into the North Island and build local capacity for birthing services

This phase would be focused on:

- Cultural orientation of midwives
- Relationship building within the community and the care provider groups,
- Education around midwifery care and scope of practice,
- Enhancing perinatal skills of Port Hardy nurses,
- Developing support services for local birth including the training of Aboriginal doulas, and coordination with mental health and addictions services,
- Enhancing support for women who travel to birth in referral communities, and
- Providing outreach prenatal and post-natal care to women in the North Island.

Midwives may begin providing birthing services to some of the women from the North Island, but the focus of Phase 1 would be on relationship building.

Phase 2

Foster an active midwifery-led birthing service in the North Island

This phase would be focused on:

- Providing intrapartum care to the women and families of the North Island,
- Continuing to provide outreach prenatal and post-natal care to women,
- Continuing to foster relationships with community and care provider groups.

Phase 3

Introduce local cesarean section services into the North Island, subject to feasibility

This phase would be focused on:

- Recruiting or training care providers to provide surgical and anesthesia services
- Recruiting or training OR Nursing staff,
- Setting up an OR at the Port Hardy Hospital

Phase 1

Introduce two community-based midwives into the North Island and build local capacity for birthing services

- Recruit 2 community-based midwives, contracted through an alternative payment plan (salary-based).
- The midwives should engage in
 - Cultural orientations in all North Island First Nations communities
 - Relationship/team building meetings with other North Island and referral hospital maternity care providers (physicians, nurses, paramedics, referral centre obstetricians and pediatricians, mental health and addictions workers, public health nurses, community health nurses, Family Place workers, home visitors).
 - Education for the public on the new midwifery practice through participation in prenatal classes, moms' groups, and Elders' luncheons
 - Education for the hospital community on midwives' roles, responsibilities, scope of practice, risk assessment for local birth, and transfer protocols
- Enhance perinatal skills of the care provider complement through a North Island ALSO/ALARM course, training from midwives, and potential recruitment of nurses with enhanced maternity skills to practice as generalist hospital nurses
- Develop an Aboriginal doula program, using the BCPHP designed model of Aboriginal doula education
- Enhance support for women who travel to access birthing services in referral centres, including travel arrangements for women and escorts, funding all women, and reduced hotel prices in referral centres.

Phase 2

Foster an active midwifery-led birthing service in the North Island

Midwives will provide the standard scope of practice for British Columbia midwives (www.cmbc.ca) with attention to:

- Providing pre/postnatal care to the population and low-risk intrapartum care to appropriate women
- Providing office-based midwifery clinics/appointments in a confidential and comfortable Port Hardy office
- Providing outreach clinics in the First Nations reserve communities of the North Island
- Liaising with health care workers in reserve communities to initiate contact with pregnant women and provide them with prenatal services
- Collaborating with local and referral centre health care professionals and developing strategies for shared care where needed
- Providing perinatal skills continuing education to hospital-based nurses and physicians in the North Island
- Providing postpartum follow-up beyond 6 weeks based on patient need
- Employing a harm-reduction approach of care for high-risk and substance-abusing women
- Providing reproductive education to students in elementary and secondary schools

Phase 3

Introduce local cesarean section services into the North Island, subject to feasibility

- Recruit or train 3 care providers to provide surgical and anesthesia services (1 GP Surgeon, 1 GP Anesthetist, and 1 GP Surgeon/Anesthetist)
- Recruit or train 4 OR nursing staff and potentially have midwives trained and accredited to assist with cesareans
- Set up an OR at the Port Hardy Hospital
- Procedures other than cesarean section should be encouraged as population need dictates, in addition to itinerant surgeries provided by referral consultants from Campbell River, Comox, and other appropriate centres

Rationale for Recommendations

The maternity care needs of North Island Aboriginal women have not been successfully met by existing service models, resulting in the majority of women having to travel away from home to birth – in most cases, from 38 weeks until parturition. This frequently necessitates a separation from close family, sometimes including other young children, and can compound existing financial challenges and social morbidities. Community-based midwifery with community outreach has the potential to meet the maternity care needs for North Island women. Through cultural orientations, care provider relationship building, and education on the midwifery scope of practice for the public and hospital communities, the midwives will likely develop strong and trusting relationships with the women, communities, and maternity care professionals on the North Island. To create a strong maternity care program for the North Island, we also recommend implementing an ALSO/ALARM course and perinatal skills updating for all hospital care providers on the North Island. Additionally, an Aboriginal doula program would enhance community engagement in local birth and provide psychosocial support for birthing women.

The pilot Aboriginal midwifery program would offer prenatal and postpartum support through Port Hardy clinic hours, as well as through community outreach. By traveling to the individual North Island communities and establishing outreach midwifery clinics in the communities' health centres, the midwives will be able to provide access to a greater number of women, particularly those who do not have the resources to travel to Port Hardy for an appointment. Community outreach also provides a mechanism for the midwives to engage with existing services, such as prenatal groups, and to participate in community activities, fostering positive relationships and trust.

Nurses with enhanced maternity skills have historically made significant contributions to the sustainability of rural maternity services in British Columbia. Rural physicians have stated that good nursing support is the key issue behind their ability to continue to provide intrapartum services to rural communities.²⁴⁰ While small community hospitals need generalist providers, both physicians and nurses, they also need individuals with specialist skills to provide enhanced services in areas such as maternity care. This is particularly important in the Port McNeill hospital, where intrapartum services will continue to be provided, by both the existing family physicians and the pilot midwifery practice.

The recommendation for a local cesarean section service is premised on the findings of the Rural Birth Index. The North Island is significantly underserved for its population size, isolation, and vulnerability when compared to like-sized communities. The Rural Birth Index scores for Port Hardy and Port McNeill individually indicate the need for local cesarean section services provided by a GP Surgical team. The feasibility of such a cesarean section service is strengthened by the high level of interest from local physicians. Of the thirteen physicians currently in practice in the North Island area, eight were trained in South Africa. These physicians have a high degree of interest in providing procedural (surgical) support to midwifery practice, as this is the model most frequently seen in South Africa. Currently on staff, there is one physician with GP Anesthesia skills who would be willing to provide this service after refresher training. In Port McNeill, there is a second physician who has a GP Surgery background and would be willing to provide cesarean section services and other procedures in Port Hardy after a refresher training. Turnover among the Port Hardy Hospital staff has been relatively high, and the establishment of a GP surgical service would likely stabilize this practitioner complement. It is also likely that the opportunity to practice GP surgery will be attractive to new recruits.

As midwives in British Columbia are currently registered to assist at cesarean sections, there is potential for the two community-based midwives to become trained and accredited in this practice. This would assist in buttressing the health human resource complement for the surgical service and to reduce the burden of call for OR nurses when cesarean sections are necessary.

The presence of a 24/7 cesarean section service at the Port Hardy hospital would not only stabilize care for the population within the Port Hardy catchment, but it would also provide needed backup for the Port McNeill and Alert Bay populations. Travel time from Port McNeill to Port Hardy is less than 30 minutes, which is reasonable for rural access to operative delivery. Currently, the Port McNeill maternity service is only providing a small number of birthing services a year (less than 10). This is largely related to lack of local cesarean section. Establishment of cesarean section in Port Hardy would provide surgical back-up for the Port McNeill service, stabilize the service, and provide North Island women with choice of care provider and place of birth. We also predict that with the introduction of a local cesarean section service, perinatal morbidity and mortality outcomes would significantly improve.

7. APPENDICES

Appendix 1: Letters of Support



Dear VIHA Ethics Research Board,

Please accept this letter as indication of my awareness of the intent of Drs. Kornelsen and Grzybowski to conduct a community needs assessment research project funded by First Nations Inuit Health entitled “Rural Maternity Care Needs Assessment in the North Island.” I am fully informed of the goals and objectives of this community consultation in order to gain an understanding of community attitudes and beliefs regarding the introduction of a local midwifery service through a potential pilot midwifery project on the North Island.

I understand and accept their intent to interview physicians, nurses, hospital administrators, and allied health care professionals such as emergency transport personnel and doctors in Alert Bay, Port Hardy and Port McNeill who consent to participate in this project. Additionally, I understand and accept their intent to host focus groups and interviews with birthing women, family members and community leaders in the following communities: Quassila, Quatsinnal, Fort Rupert and Nanges. I am aware that Drs. Stefan Grzybowski and Kornelsen have received permission from the appropriate jurisdiction (including the KDC executive council) in order to conduct this important needs assessment in these communities.

Please accept this letter to acknowledge my understanding that nurses at Alert Bay health centre and Port Hardy/Port McNeill hospitals will be asked to participate an interview or focus group should they provide consent. The implications of their involvement include approximately 40-60 minutes of dedicated time and attention to this project.

Please accept this ethics application with my full understanding of the methods and goals of the project and my signature below indicating support of the research being carried out in my community.

Sincerely,

Jeannie Wheeler

February 6, 2009

[Address]

Dear [Recipients],

I am writing to express my support for the Rural Maternity Care Needs Assessment in the North Island, conducted by the Centre for Rural Health Research in partnership with First Nations and Inuit Health and the Vancouver Island Health Authority.

I am familiar with the project and feel that it would be appropriate for the North Island with significant potential benefits for local maternity care, birthing families, and the Aboriginal community. To facilitate this project, I will also make efforts to gain support from other community leaders in the North Island community and on the Kwakiutl District Council.

I believe that this community consultation will result in a productive and mutually beneficial relationship between researchers, the Kwakiutl District Council, and North Island community. I look forward to learning the results of the research and the opportunity for enhancing maternity services in the North Island. It is for this reason that I express my support for the Centre for Rural Health Research's maternity care needs assessment.

Sincerely,

James Wilson
Chairman, Kwakiutl District Council

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