VANCOUVER ISLAND health authority

BUSINESS CASE
DUNCAN PRIMARY MATERNITY CARE CLINIC

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Table of Contents

Proposal background 3

National and provincial perspective
BC Maternity Care Enhancement Project
VIHA and Cowichan Valley perspective

Stakeholders 7

Benefit and risk analysis 8

Scope of the business care proposal 9

Description of clinic
Objectives of clinic:
Services and operational plan:
Space and equipment requirements:
Proposed budget:

Conclusions and recommendations 12

References 13

Appendices 14

Results of physician survey
Recommendations from BC Maternity Care Enhancement Project

Proposal Background

National and provincial perspective

Family centered maternity and newborn care is an essential component of primary health care in Canada. Quality maternity care begins with pre-conception counseling, continues with prenatal care and education and concludes with services to mother and infant until approximately six-weeks after birth. The range of services is delivered by many health care professions; physicians, midwives, nurses, community health and mental health providers, lab and diagnostic imaging services, and neonatal and child health programs, among others.

Early and regular access to prenatal care improves birth outcomes and long-term health and social outcomes for infant, mother and family. It also reduces the need for financial and human resources required to manage complications that arise from a lack of prenatal care.

Patterns of care for mothers and babies have evolved over time. In Canada, most women continue to receive maternity care from physicians, with a slowly increasing number of pregnancies supported by midwives. A significant factor currently threatening the sustainability of maternity care is the shortage of maternity care providers.

Family physicians are the main providers of care to women in BC throughout pregnancy, childbirth and the postnatal period (BC MOH, 2004). They provide clinical care in both community and acute care settings for women with low risk pregnancies, and in shared care settings with obstetricians in high risk pregnancies. They also have a significant role in providing health education and counseling to support women and their families during the transition from pregnancy to parenthood. The proportion of family physicians attending deliveries varies greatly across Canada, from 8% to 69% in 2001, depending on the community, province or territory.

Of the approximately 40,000 births in BC in 2007, approximately 51% of those babies were delivered by family physicians, 41% by obstetricians, 4% by registered midwives, and 4% by other practitioners. This marks a significant decrease in the number of family physicians delivering babies in the last 15 years; in 1991/1992 72% of births were managed by family physicians.

There are a number of factors related to the decline in numbers of family physicians providing maternity services:

- A demanding professional lifestyle;
- Increasing issues of litigation and significantly increased liability costs;
- Lack of adequate remuneration;
- Reduction in skills if only seeing small numbers of pregnant women;
- Lack of specialist back up in smaller communities; and
- Advancing age of BC's family physicians, with fewer graduating physicians choosing family medicine
- Lack of locums who provide obstetrical coverage

The BC Maternity Care Enhancement Project

In 2003, a strategic consultation process was developed to address the sustainability of maternity care services in BC, including the development of business and practice models to encourage physicians and other maternity care providers to continue to provide maternity care services. The document "*Supporting local collaborative models for sustainable maternity care in BC: Recommendations for the Maternity Care Enhancement Project*" (2004) offered guiding principles to inform future reform of maternity services in the province. Recommendations addressed development of a maternity care pathway, education, recruitment and retention, and development of collaborative team-based models of care (see Appendix 1).

Several of the recommendations from this project focused on encouraging the development of innovative models of providing maternity care that brings providers together in different ways to meet the needs of their community and sustain maternity services across the province. One model that was proposed in the report and has since been implemented in several communities across the province is a hospital based family practice primary maternity care clinic. In this model, the health authority is responsible for providing fiscal support for overhead and the family physicians develop a coverage model for the community.

Table 1
Location of BC Hospital Based Family Practice Maternity Clinics

Community	Hospital	Annual number of births
White Rock	Peace Arch Hospital	687
Surrey	Surrey Memorial Hospital	3651
Langley	Langley Memorial Hospital	1672
Kamloops	Royal Inland Hospital	1201
Penticton	Penticton Regional Hospital	572

A number of benefits have been noted with this model:

- The care needs of "orphan" patients are addressed;
- There is increased client satisfaction with the care they receive;
- There is decreased burn out among family physicians, resulting in increased retention for maternity care;
- There is ready access to delivery suite which reduces impact on clinic appointments;
- A much needed maternity clinical site is provided for medical, midwifery and nursing students; and
- Opportunities are created for enhanced prenatal care, including education classes, support groups, lactation consultation, and public health support.

This model also aligns well with other national, provincial and VIHA strategic plans, including the VIHA Strategic Plan, the BC Primary Health Care Charter (which identifies family physicians as the cornerstone of primary care and increased access to primary maternity care as one of its seven priorities), the National Birthing Strategy proposed by the Society of Obstetricians and Gynecologists of Canada and the MCP^2 national project (Multidisciplinary Collaborative Primary Maternity Care Project).

VIHA and Cowichan Valley perspective

There are currently 8 acute care facilities providing obstetrical services within VIHA. Other facilities do not offer planned services, but are required to manage unplanned or emergency deliveries. Teams of obstetricians, family physicians, midwives and nurses support pregnancy, birth and postpartum care, with the structure and function of these teams varies according to provider availability, the practice philosophies of team members, and the organization and resources of each community. Birth rates on the island as a whole have remained relatively stable, however in the past five years, areas of increases in birth rates are being noted particularly in the Cowichan and Comox Valley areas.

In addition to increases in birth rates, women in the Cowichan Valley are experiencing increasing social complexities in their lives. Providers are reporting increases in the number of pregnant women they are caring for who are dealing with issues such as substance use, violence, mental health challenges, homelessness and poverty. Some areas of the Cowichan Valley have the highest numbers of children in foster care in the province.

The Cowichan Valley is the traditional territory for a significant number of Aboriginal people. The health of Aboriginal mothers and babies is at greater risk than that of other mothers and babies in VIHA. The Status Indian population in VIHA has higher overall birthrates, rates of low birth weight and premature births, rates of teen pregnancy, and rates of infant mortality than that of other residents (VIHA Aboriginal Health Plan, 2006).

Since 1998 the birth rate trends at Cowichan District Hospital (CDH) have experienced a decline until 2004 when the rate began to climb again. With significant population growth in the Cowichan Valley, it is projected that the birth rate will continue to increase.

In the Cowichan Valley, family physicians have historically provided maternity care for a significant majority of annual births. From 1998 to 2001 family physicians provided maternity care to approximately 90% of women who delivered at CDH. By 2008, this percentage had dropped to 70%. Family physicians in the Cowichan Valley provide maternity care for low risk pregnancies and shared care with the obstetricians for high risk pregnancies. The three local obstetricians do not provide primary care services.

Table 2
Most responsible physician/midwife for deliveries at Cowichan District Hospital 1998-2008

Most Responsible Physician	98/99	99/00	00/01	01/02	02/03	03/04	04/05	05/06	06/07	07/08
Family Physician	502	513	460	415	391	353	358	366	405	396
Obstetrician	57	41	36	19	24	31	54	57	64	75
Midwife	2	15	10	25	39	38	55	60	69	91
Total Deliveries	**561**	**569**	**506**	**459**	**454**	**423**	**467**	**484**	**538**	**562**

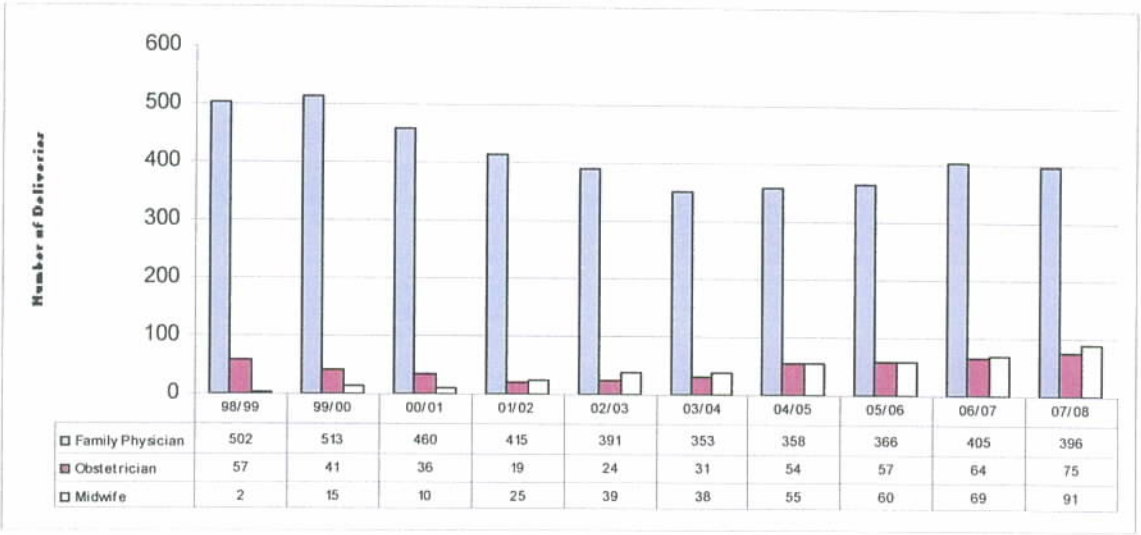
Source: BC Perinatal Database Registry

Two related trends have also been occurring. There has been a gradual increase in midwifery-supported births, from 0.4% in 1998 to 16.2% in 2008. The number of obstetrician - supported births has also

increased in recent years. Fewer new family physicians are engaging in obstetrical care, and more family physicians are dropping obstetrical care from their scope of practice.

Goals across the province are to encourage new family physicians to engage in obstetrics and retain family physicians that currently practice obstetrics. With the decline in family practice births, obstetricians in some communities are obligated to provide more primary care, which limits their ability to provide consultation in complex cases.

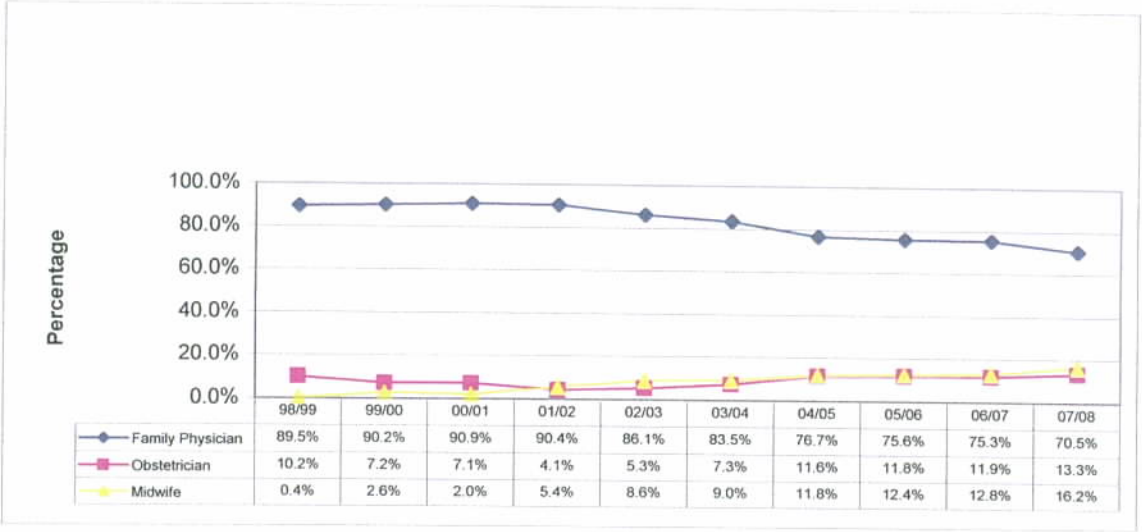
Figure 1
Numbers of Cowichan District Hospital Births Attended by Providers 1999 – 2008



	98/99	99/00	00/01	01/02	02/03	03/04	04/05	05/06	06/07	07/08
Family Physician	502	513	460	415	391	353	358	366	405	396
Obstetrician	57	41	36	19	24	31	54	57	64	75
Midwife	2	15	10	25	39	38	55	60	69	91

Source: BC Perinatal Database Registry

Figure 2
CDH Delivery Rates by Most Responsible Physician/Midwife 1998-2008



	98/99	99/00	00/01	01/02	02/03	03/04	04/05	05/06	06/07	07/08
Family Physician	89.5%	90.2%	90.9%	90.4%	86.1%	83.5%	76.7%	75.6%	75.3%	70.5%
Obstetrician	10.2%	7.2%	7.1%	4.1%	5.3%	7.3%	11.6%	11.8%	11.9%	13.3%
Midwife	0.4%	2.6%	2.0%	5.4%	8.6%	9.0%	11.8%	12.4%	12.8%	16.2%

In 2008 a needs assessment was conducted with Cowichan Valley family physicians, obstetricians, anesthetists and pediatricians to describe their future plans for professional involvement in the practice of obstetrics and gather their opinions on the potential for development of a primary maternity care clinic at CDH. 42 surveys were received, with responses from family physicians, obstetricians, pediatricians, and anesthetists.

The findings mirrored the experiences in other communities across the province and in studies of family physicians to find what keeps them doing obstetrics. Overall, there was strong support for the idea. The current number of family physicians at the hospital doing obstetrics is 19. However, 60% of family physicians that currently deliver indicated that they would be planning to stop delivering babies in the next five to seven years, with three in less than three years. 63% saw the need for a primary maternity care clinic in the community and 85% indicated that they would refer to such a clinic.

Stakeholders

The combination of independent family physicians and VIHA's matrixed program operations structure will require partnership to develop and implement this model. Ongoing discussions on the development of a Duncan GP Division will also include some potential opportunities for support of this model as priorities for this group have been identified as maternity, urgent care and on-call models. It is recommended that stakeholders include:

Table 3
CDH Maternity Clinic Stakeholders

Program:	Role:	Representative:
Family Physicians	Provision of primary maternity care	Dr. Maggie Watt Family physician Chief, Family Practice Obstetrics, CDH Dr. Karen McIntyre Family physician
Community Hospitals	CDH site operations and funding	Linda Latham Director, Community Hospitals Dr. W. David Robertson Medical Director, Community Hospitals Peter Fahey Site Director, CDH
Community Hospitals	CDH Maternal-Child Health Committee	Dr. Sherri Hancock Chief, Obstetrics, CDH Chris Juneau Clinical coordinator, Obstetrics, CDH
Child Youth and Family	Perinatal consultation for practice and program development Community Health	Lenora Marcellus Leader. Perinatal Program Development Cheryl Damstetter Director, Child Youth and Family Mary Hill Manager, Community health
Primary Health	Primary health and primary maternity health planning	Victoria Power Director, Primary Health
Planning	Consultation regarding site architectural review and future facility planning	Jim Baxter Capital planner, Facility Planning Grant Hollett Regional Director, Planning and Community Engagement
Population and Family Health	Executive planning	Allison Cutler Executive Director, Population and Family Health Dr. Richard Crow Executive Medical Director, Population and Family Health
Aboriginal Health	Planning from Aboriginal health perspective	Darlene Martin
Cowichan Tribes	Planning from Aboriginal health perspective	Judith Johnnie-Gohn Fairly Mendoza
Healthiest Babies Possible	Link to pregnancy outreach and pre and postnatal support for high risk moms.	Kathryn Coopsie Coordinator

Social Work	Link to social support	MCFD Representative Sharon Driscoll Social Worker, CDH
BCMA	GP Division development, funding	Brian Evoy Executive Lead BCMA Divisions of Family Practice

Benefit and risk analysis

Benefits:

- Cooperative call schedule enables individuals to maintain a reasonable family life and time off.
- Targeted maternity clinic would support maintenance of clinical skills
- In hospital service would support hospital maternity unit, which currently is required to absorb outpatient assessments (such as non stress testing) into acute care
- Dedicated group of family physicians with a similar philosophy of care would improve continuity of care.
- Women and their families would experience increased satisfaction with care
- Risks and fears of liability can be lessened by developing standard patient care protocols and by developing expertise and confidence in maternity care.
- Clinic would provide a learning environment for medical and nursing students, and family practice residents
- Opportunity to optimize care via a team approach in higher social risk patients (teenage, single, drug and alcohol issues, mental health issues, poor nutrition)

Risks:

- Continued degradation of primary care obstetric services in a growing community
- Further reduced access to primary maternity care, with potential risks for mother and infant related to inadequate prenatal care
- Obstetricians overused for low risk maternity care

Challenges to development:

- Securing initial and continuing financial support
- Obtaining adequate space, will need initial space adapted from current footprint, with planning for future space integrated into CDH facility review and planning process
- Developing, maintaining and evaluating care (including standards, continuity, clients and provider satisfaction)
- Health records and storage, electronic health records system
- Continuing intra-program commitment to clinic
- Working with current family physicians to ensure their concerns are addressed and communication is ongoing

Scope of the Business Case Proposal

This proposal will briefly outline the key components of and steps in development of an onsite family practice maternity clinic at Cowichan District Hospital (CDH). A full project plan will be developed pending approval of this proposal.

Description of clinic

The clinic will be an affiliation of family physicians with a specific interest in obstetrics and CDH/VIHA to provide women and their families with excellent prenatal, obstetric and neonatal care in a supportive team environment that would reflect the family centred care model of the maternity unit. The mandate of the clinic will be to provide maternity care for women whose family physicians do not provide maternity care, women who do not currently have a physician, and women at increased risk due to social factors. Patients whose family physician participates in the clinic could choose to see their physician at the clinic or at their doctor's office.

Objectives of clinic:

- To ensure women in the Cowichan Valley have access to primary maternity health care;
- To retain family Cowichan Valley family physicians in the practice of obstetrics and to recruit new family physicians to the community who will be willing to provide obstetrical care;
- To provide a normal birth clinical site for medical and nursing students. Some of these students will be those interested in staying in the community following graduation.

Services and operational plan:

The clinic will be modeled on other successful clinics within the province and adapted to meet local demographics and resources. Proposed services and operations include:

Health care provider components:

Family Physicians:

- Volume of family physicians in program sufficient for satisfactory call schedule and projected birth rate workload. Other provincial clinics with similar community birth rates estimate that approximately 10 to 15 family physicians are needed within the clinic group to provide half-day service in the clinic and provide comprehensive 24/7 coverage for deliveries.
- Commitment by each physician in call group for one year each January.

Registered Nursing:

- 1 FTE RN with perinatal experience. In collaboration with the family physicians, the RN will assess women as per clinical practice protocols and conduct fetal monitoring and family teaching.

Medical Office Assistant:

- 1 FTE position to provide office management, accept referrals, coordinate appointments, and schedule specialist, lab and diagnostic imaging appointments

Referral and communication:
• Early referral of pregnant patient in the first trimester. Clinic assumes care of pregnancy and early postnatal care. Non-pregnancy care will be the responsibility of the referring doctor. There will be communication between the two sets of providers. • Adoption of a community wide EMR (Electronic Medical Record) via the Cowichan Valley Community of Practice will facilitate communication and data transfer • Referring practitioners are assured that their patients are returned to their care following delivery in the early postpartum period.
Integration with other community services:
• Integration with community resources such as public health, pregnancy outreach, nutrition services. For example, public health nurses provide prenatal education through the Langley Maternity Clinic. • Social work planning with hospital social worker, MCFD and band workers.
Quality improvement:
• Regular business and education meetings • Linked to VIHA perinatal quality council and provincial perinatal planning processes • Will be linked through BC Perinatal Database Registry • Evaluation of implementation and outcomes • Research opportunities
Teaching:
• UBC integrated medical clerkship – third year students (proposed for 2010) • UBC Medicine 4th year elective students • UBC Family Practice Residents • UVIC, VIU BSN third and fourth year consolidated practicum students

Space and equipment requirements:

There are two anticipated phases to this program. The initial phase is to adapt space needs to that available within the current footprint of the hospital. The second involves future space planning aligned with the CDH Master planning process. The initial needs within the current space are below.

Space:

- Reception area
- Two examination rooms
- Washroom
- Proximity to maternity unit

Major equipment:

- Office furniture – waiting room chairs and tables, office desk and chairs, filing cabinets
- Computer
- Fax machine, telephone, answering machine, photocopier, dictaphone
- Examination room equipment – examination tables, lights, sinks, fetal doptone

A complete list of equipment will be developed upon approval of this proposal

Proposed budget:

Funding will be a combination of health authority resources for site management and administrative support plus Physician Compensation (through Medical Services Plan, MOCAP, etc)

Estimated costs for the set up and annual operation of the clinic are outlined in the table below. Renovation costs are extrapolated from other provincial programs with similar estimated volumes and will be dependent on renovations that will be required depending on the available space.

Table 4
Estimated Set Up and Annual Operating Costs

Start Up Capital	
Minor renovations to space	80,000
Furniture (eg. tables, chairs)	12,000
Medical equipment & supplies (eg. examining table, baby scales, adult scales)	15,000
Contingency (10% of total)	10,700
Total start up:	*128,700*
Operating Expenses	
Physicians – fee for service (covered through MSP). Additional funding for on call/clinic duties (via MOCAP or GP Division)	0 TBA
RN BCNU CH1 ($ 38.10/hr plus 25% benefits, 1879.2 hours)	89,497
Receptionist/MOA BCGEU ($ 22.00/hr plus 25% benefits, 1957.5 hours))	53,831
Supplies	15,000
Total operating:	*158,328*
TOTAL	**$ 287,028**

Conclusions and recommendations

This hospital based primary maternity care clinic will provide patient centred, maternity care for women and their families in the Cowichan Valley. The model addresses the issue of retaining family physicians in obstetrics, balancing workload of those that continue, and providing a consistent point of access to the community for maternity care. The clinic will work closely with the CDH maternity unit, community health and community agencies supporting women who are pregnant to coordinate care regarding antenatal, delivery, and early postpartum issues. This clinic model is a proactive solution in managing and maintaining family physicians practicing primary care obstetrics and providing service for those women in the community who currently have limited or no access to primary maternity care providers.

We recommend supporting both a revision of current space and inclusion of a maternity care clinic into the ongoing CDH master planning process and funding support for operation of the clinic.

References

BC Ministry of Health (2007). *Primary health care charter: A collaborative approach.*

Canadian Institute for Health Information (2004). *Giving birth in Canada: Providers of maternity and infant care.*

Canadian Institute for Health Information (2005). *Giving birth in Canada: Regional profiles.*

Maternity Care Enhancement Project (2004). *Supporting local collaborative models for sustainable maternity care in BC.* Ministry of Health.

Multidisciplinary Collaborative Primary Maternity Care project proceedings (www.mcp2.ca)

Provincial Health Services Authority (2006). *Aboriginal maternal health in British Columbia.*

Society of Obstetricians and Gynecologists of Canada (2007). *A national birthing strategy for Canada: An inclusive, integrated and comprehensive pan-Canadian framework for sustainable family-centred maternity and newborn care.*

Appendix 1
Results of Physician Survey

Do you deliver babies now?

Answer Options	Response Frequency	Response Count
Yes	48.8%	20
No	51.2%	21

If you are currently delivering babies approximately how many deliveries do you attend per year?

Answer Options	Response Frequency	Response Count
0 - 10	10.5%	2
11 - 30	68.4%	13
31 - 50	15.8%	3
more than 50	5.3%	1

Do you plan to continue delivering babies?

Answer Options	Response Frequency	Response Count
Yes	95.0%	19
No	5.0%	1

Do you have any plans to stop delivering babies?

Answer Options	Response Frequency	Response Count
Yes in the following number of years:	58.3%	7
No	41.7%	5

Have you delivered in the past but stopped?

Answer Options	Response Frequency	Response Count
If YES when?	88.9%	16
Why did you stop?	94.4%	17

Would you consider starting again if there was funding for on call?		
Answer Options	Response Frequency	Response Count
Yes	10.0%	2
No	90.0%	18

Would you consider starting again if there was a primary care clinic?		
Answer Options	Response Frequency	Response Count
Yes	10.0%	2
No	90.0%	18

Would you like to do more deliveries?		
Answer Options	Response Frequency	Response Count
Yes	53.3%	8
No	46.7%	7

Are you satisfied with the current call system?		
Answer Options	Response Frequency	Response Count
Yes	65.2%	15
No	34.8%	8

Do you see the need for a primary maternity care clinic?		
Answer Options	Response Frequency	Response Count
Yes	62.9%	22
Perhaps	20.0%	7
No	17.1%	6

Would you refer to such a clinic?		
Answer Options	Response Frequency	Response Count
Yes	84.6%	22
No	15.4%	4

Are you interested in participating in a primary care obstetrical clinic?		
Answer Options	Response Frequency	Response Count
Yes	28.2%	11
Perhaps	15.4%	6
No	56.4%	22

Appendix 2

Needs Assessment – General Practice Obstetrical Services
Cowichan District Hospital

CC: OB/GYN, Anaesthesia, Pediatricians, Midwives – for Information and Comments Only

In response to declining numbers of GP's providing obstetrical care, other communities in B.C. and elsewhere have successfully set up primary care OB clinics. These clinics are run out of the hospital, and accept referrals for antenatal care from GP's who do not do obstetrics, do not work out of the hospital, or for patients who do not have a GP (i.e. "orphan maternity patients"). They are staffed by GP's who work in a collaborative fashion with other care providers (e.g. nurses, dieticians, OB's, public health, social work). I am exploring the possibility of setting up such a clinic at CDH. It would allow an interested team of GP's to continue to provide maternity care in a financially sustainable manner, while continuing to have a reasonable family life, maintain an excellent level of competence and have good professional support. It would provide a high level of maternity care to a growing community, as well as provide training opportunities to students and thus lead the way for future recruitment.

Please provide your input regarding GP-Delivered OB services at CDH.
Thanks for your immediate response – we are seeking 100% survey return
Many thanks, Maggie Watt

1. Do you deliver babies now? Yes ☑ No ☐
2. Have you delivered in the past but stopped? Yes ☐ No ☑
   - If "yes" When? _____
   - Why did you stop? _____
3. Would you consider starting again?
   - If there was funding for on-call Yes ☐ No ☐
   - If there was a primary care clinic? Yes ☐ No ☐
4. If you are currently delivering babies:
   - Approx. # Deliveries/year 25-30
   - Do you plan to continue? Yes ☑ No ☐
   - Any plans to stop? Yes ☐ in____Years No ☑
   - Would you like to do more? Yes ☑ No ☐
5. Satisfied with current call system? Yes ☐ No ☑
6. Do you see the need for a primary care obstetrical clinic? Yes ☑ No ☐
7. Would you refer to such a clinic? Yes ☑ No ☐
8. Are you interested in participating in a clinic? Yes ☑ No ☐

Comments:

Name: Maggie Watt Signature: M Watt

I am a : GP ☑ OB/Gyn ☐ Pediatrician ☐ Anaesthetist ☐ Other_____ ☐

Fax to: 748-4839 or put in Dr. Maggie Watt's mailbox in medical records