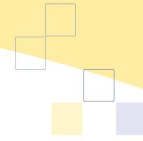


MCP²

Multidisciplinary
Collaborative Primary
Maternity Care Project

Projet de soins
primaires obstétricaux
concertés



Multidisciplinary Collaborative Primary Maternity Care

Interview Report

Guidelines for Model Development

Discussion Paper

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March 2005

For citation, please reference as follows:

Anderson, M (2005). Interview Report. Discussion Paper prepared for The Multidisciplinary Collaborative Primary Maternity Care Project. Ottawa.

Multidisciplinary Collaborative Primary Maternity Care

Interview Report¹

1.0 Introduction

The Multidisciplinary Collaborative Primary Maternity Care Project (MCP²) received funding from the Primary Care Health Transition Fund to “*reduce key barriers and facilitate the implementation of national multidisciplinary collaborative primary maternity care strategies as a means of increasing the availability and quality of maternity services for all Canadian women*”.

This paper reports on one of the methods being used to develop multidisciplinary collaborative maternity care models. The first in the series of background research papers – a literature review – was prepared in December 2004 (Anderson, 2004). In addition to this current interview report, two subsequent papers will present findings from ten focus groups and an e-delphi process conducted with key informants from across the country (Anderson, 2004).² It is very important to emphasize to the reader prior to reviewing this paper that its content must be seen as nested within an iterative process; the models development is ongoing, and the input presented here from key informant interviews contributes to this process.

A final report will synthesize all the findings from the data collection of this phase one initiative, the purpose of which is to develop models of multidisciplinary collaborative primary maternity care that can be used in a range of different contexts across Canada.

The paper begins with a discussion of conceptual framework being used in this research (section 2). Section Three reports on the approach used for this phase of data collection from interviews. It describes the process employed, the range of stakeholders interviewed, and the regional representation of the interviews across the country. Section Four reports on the findings. These are clustered under the prevailing themes. Section Five offers some interpretive discussion of the findings. Sections Six and Seven summarize the report and identify the future directions that this iterative research will be taking over the course of the next few months³.

¹ The analysis and conclusions presented in this report do not necessarily reflect the views of the members of the MCP² or their partner associations. Funding for the research was provided by Health Canada as part of the Primary Health Care Transition Fund. The views expressed herein do not necessarily represent the official policies of Health Canada.

² Other research is also being conducted as part of the overall MCP². For more information please go to www.mcp2.ca

³ Throughout this report direct quotations from interviewees will be presented in “*italics*”.

2.0 Conceptual Framework

It is important to situate the development of collaborative maternity care models based on an underlying rationale that quality care is comprised of a range of expected, fundamental outcomes. Figure 1 (next page) reflects the integration of two complementary frameworks for the development of collaborative models; the Donabedian framework for quality (1966, 1980, 1982, 1985, 1988) and the framework for understanding and applying change in organizations (Pettigrew et al, 1992).

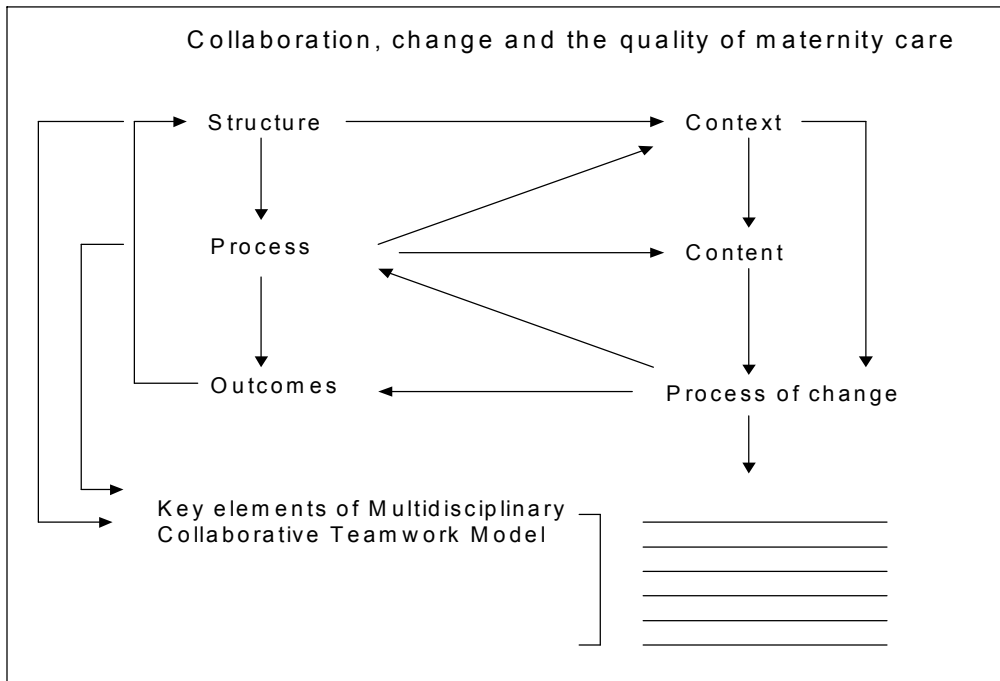
The logic of the integration is as follows: The ultimate goal of developing collaborative primary maternity care models is to improve the quality of care through more effective and efficient work processes and the realignment of increasingly scarce human resources. There are several key elements in a collaborative model that affect, and are affected by, the structures and processes in place in respective areas providing maternity care. To move towards collaborative models requires effective changes in what and how services are provided.

Thus developing guidelines for models has an explicit '*change*' dimension as organizations and professionals either independently or collectively move from one way of providing care to another. Change is multidimensional. Any changes introduced in organizations will be understood in terms of the *context* in which it is introduced (i.e., internal and external contexts), the *content* that is the focus of the change, and the *process* by which change is introduced.

The inter-relationships among Context, Content, and Process form the framework for introducing change, managing expectations and enhancing uptake and further knowledge transfer. In operational terms it provides the foundation for implementation – for developing guidelines for model adoption. Schematically this is represented in Figure 1 (next page).

The key elements of multidisciplinary collaborative teamwork models (MCTM) are integral for improving outcomes, and in fact, lend themselves well to subsequent formative evaluation of the new models that may emerge. Thus in the bottom right-hand quadrant, the key features of a MCTM can be agreed upon and used as a basis for further model development. This interview report, in fact, describes the key elements as identified by the 40 key informant stakeholders from across the country.

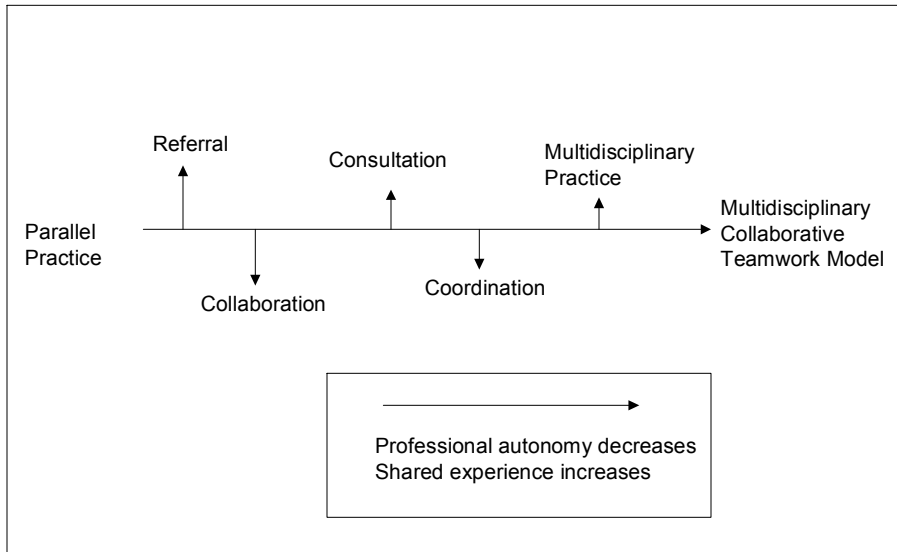
Figure 1: Collaboration, change and the quality of maternity care



In Figure 2 the multidisciplinary collaborative teamwork model (MCTM) is shown to clearly move beyond simply focusing on parallel practices, and is presented at the other end of the continuum – and is much further developed than models based around referrals and consultations. Various models of maternity care exist at any point along the continuum, including ‘collaboration’ as a distinct and separate entity.

This is partly because many providers feel they *do* collaborate even though they do not have any formal ongoing structured means of doing so, but rather on an ad hoc case-by-case basis. That, to them, is collaboration. Ultimately it is assumed that new models will improve care on a range of expected outcomes.

Figure 2: Continuum towards a Multidisciplinary Collaborative Teamwork Model (MCTM)



Adapted from King and Shah (1998).

3.0 Method

Semi-structured telephone and face-to-face interviews were conducted with n=40 key informants from across the country. The interviews lasted, on average, one hour. We used a snowballing approach whereby we enlisted the help of the project's Steering Committee members to identify a sample of potential interview participants. This initial list of key informants provided the basis for subsequent interviews.

These early key informants themselves identified other potential interviewees. In all cases we sought the inputs of those who had experience with collaborative models of maternity care, or who were recognized by peers as being able to offer considerable input into the context, context and process of developing multidisciplinary collaborative teamwork models.

The range of stakeholders interviewed is summarized in Table 1 (next page).

Table 1: Stakeholder Interview Matrix

Province/Territory	Midwives	Family Physicians	Nurse/NP	OB/GYN	Other
Yukon					
Northwest Territories			1		
Nunavut					
British Columbia		2	1		1
Alberta	2		1	1	
Saskatchewan		1			1
Manitoba	2	1	1	1	1
Ontario	1	3	1	1	4
Quebec			2		
New Brunswick					
Nova Scotia	1	1	2		5
Newfoundland					1
Prince Edward Island			1		
Total	6	8	10	3	13

Note: 'Other' is comprised of government policymakers, researchers and association representatives. Note also that additional interviews are still being conducted in addition to the 40 initially proposed to address any gaps or deficiencies in the above table

We were able to interview a wide range of key informants. Collectively the key informants reflected many years of experience – hundreds – in fact. As well, there were wide ranging experiences for many key informants; for example, although government representatives and researchers may have offered a particular perspective they also had practical experience in the delivery of primary maternity care in various capacities.

The focus of the interviews was:

- 1) Identification of key features of collaborative care models
- 2) Identification of the pragmatic issues surrounding implementation of new models.

Analysis of the early interviews provided feedback for modifying the interview guide as required (Corbin and Strauss, 1990; Miles and Huberman, 1994). We identified themes and patterns from the interviews. The interview notes were transcribed and reviewed independently by two researchers.

4.0 Model Context

Understanding context is critical because without this knowledge it is unlikely that an appropriate collaborative model can be put in place. The underlying social structures, spatial organization, and historical context of maternity care in the community are reflected in current practices. In the interviews, there were a number of factors identified that influence the provision of primary maternity care, and thus the development of collaborative models. The analysis of the interview data identified four contextual clusters: the Community, Human Resources, Political context, and Location.

Community

'Community' refers to the primary maternity care needs of a community, and the current configuration of individual and organizational resources available to meet those needs. Without this understanding it would be unwise to attempt to develop collaborative models. The underlying social structures that connect different providers and organizations will be pivotal in the development of successful models. It may well be, for example, that one hospital is preferred over another because of the strong relationships already established with that hospital by those providers working within the collaborative model. Typically this understanding would emerge through a comprehensive situational analysis, or needs assessment. We return to this later in this report.

Human Resources

An understanding of the human resource dimension is important in two respects: First, the models have an explicit human resource dimension, and in many respects shortages of health professionals have been the catalyst for examining the potential for collaborative models. Second, the models cannot be developed if there is no sense of the availability of health professionals to work in the models. If there are acute shortages of family physicians in a community it may not make sense to commit to a model that requires significant time commitments by family physicians. If there are no midwives in a community (or even the region) it will be unwise to advocate for a model that is based solely on the presence of midwives. Already then, we are alluding to a central tenet of the collaborative models, which is flexibility. We discuss this in more detail later in the report.

Politico-regulatory environment

The politico-regulatory environment refers to ability to legally perform the various activities required for effective maternity care. Simply put jurisdictional legislation and professional regulations may not allow the participation of various providers in the respective models that are proposed. There may be some merit in recommending and advocating new models of primary maternity care in an environment that cannot allow providers to function outside their scope of practice, or where there is no political will to look at new ways of providing care, but this contextual cluster is clearly an enabling or limiting factor for collaborative model development.

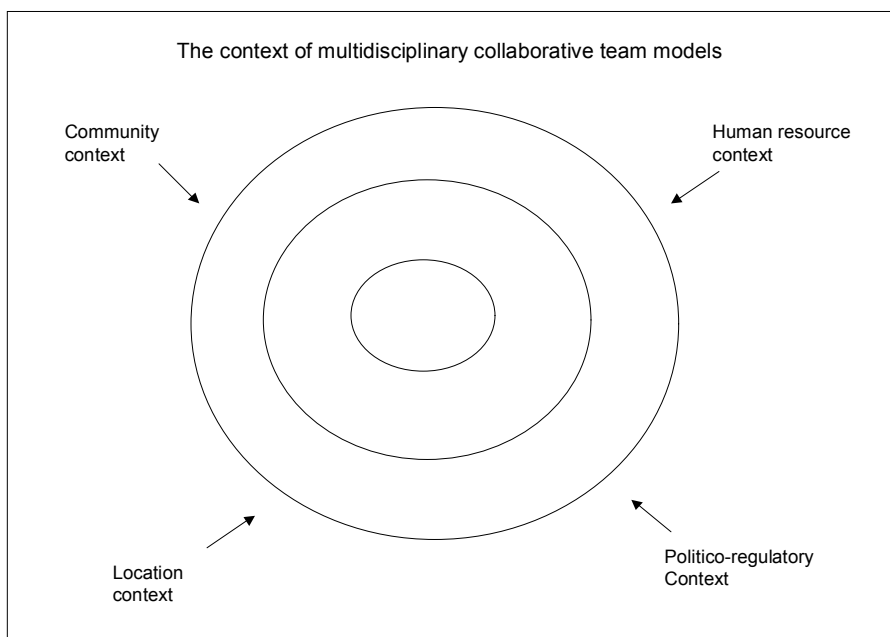
Location

A dominant theme to emerge from the interviews was the difference that location makes to the nature and extent of primary maternity care. While it can be understood at a

variety of different spatial levels, (for example, the location of a clinic in close proximity to the expecting mothers and/or a hospital), the main issue was the differences that must be accommodated for in rural and remote settings. In other words, the spatial organization of primary maternity care is itself conditioned by the layers of historical practice and the politico-regulatory environment. It is also closely tied to the human resource and community dimensions. The models that are developed will be required to meet the challenges of the rural and remote settings because if they do not there is little likelihood that they will be supported by these often under-resourced communities. Thus the members of the multidisciplinary collaborative team will by necessity reflect the needs of the rural and remote locations and the available, often limited supply of maternity care providers. As one interviewee commented, “*Rural communities have their own way of looking at things*”. That too, will influence the shape and scope of the multidisciplinary collaborative team models. The locational dimension’s importance is further ensconced in rural and remote areas in the winter.

To quickly summarize at this point, there are four key dimensions to understanding the context in which the multidisciplinary collaborative team models will be developed. These are shown the following diagram.

Figure 3 – The context of multidisciplinary collaborative team models



There was some discussion with interviewees concerning the definition of a collaborative model. What became apparent is that many providers may feel that they are currently working in a collaborative model. In fact, there are many *shades of grey* in this regard. To some, consultations with other professionals constitute collaboration, while for others, working the same delivery room may be considered as collaboration.

The important point here is that when the models are fully developed it needs to be clearly expressed as to what they are, and what they are not. It will also be necessary to

effectively communicate and delineate the new ways of providing care because if some providers already feel they are collaborating they may resent being informed that a model of collaboration is being proposed as if they are not engaged in relationships in some form. As these interviewees noted:

"I'm not convinced that we're not practicing collaboratively [sic] – especially in rural areas, and everywhere you go, they're different" [i.e., the collaborative models].

We have a good collaborative practice going on here. You need to be clear on the meaning of collaborative? We're doing it already!"

"Why change? Nothing is broken here."

Indeed, there is a wide range of 'models' already in existence. In Nova Scotia, for example, there are 11 centres where births take place, and in each situation the models are different. Yet they all do things that work in their own context. In one area the family physicians got together, and with the help of the hospital, established a Family Medicine clinic where they work "*collaboratively*". As an expecting mother you can see any of the six physicians. As someone in regular contact with the clinic noted "*It's a wonderful configuration, a true partnership.*" In another center with two obstetricians there are collaborative arrangements but there is no shared care, or shared information. This again points to the difficulties in defining what is meant by a collaborative model, and reinforces the need to ensure that information sharing be considered as a formative feature of the models we are developing.

Real change, it was noted, takes time – maybe up to 10-15 years. And "*We need to start now because 10-15 years from now, we'll be in deep [trouble].*" Indeed, most interviewees concurred that the time was right to mobilize changes in the way primary maternity care is provided. And be innovative.

"We're a big country and we have to be creative and we have to keep women at the center of what we're doing."

5.0 Model Content

5.1 Introduction

The purpose of this section is to begin the process of putting empirical substance around the multidisciplinary collaborative team models of primary maternity care that can be recommended for further discussions and development. There are, however, several underlying assumptions for such model development.

First, it does not make sense to develop just 'one model' with the expectation that it can be applied to any different context in which organizations or individuals have the desire or need to do things differently; there is enormous heterogeneity in the various contexts in which collaborative models can be developed. Indeed, without exception all interviewees were adamant that there should be more than 'one model' that could be presented for adoption by different organizations or health professionals. The second, and related, point is that *context* is such a fundamental component to this work that there needs to be flexibility in the models that are proposed. In this regard there is almost a conceptual continuum of flexibility that begins at one end with complete rigidity and spans to the other end that contains so much flexibility that it loses any resemblance of what could be considered 'a model'. Neither end of the continuum is satisfactory for this initiative.

Third, there is very limited empirical evidence of successful primary maternity care collaborative team models, and even less in the Canadian context. Even then, it is very rare that context will be sufficiently similar from one part of Canada to another. To assume data from one site's evaluation, if even available, will be completely generalizable to other contexts for subsequent development. The likelihood would be the more pragmatic and logical approach, which would be to take the lessons learned from other contexts and adapt and apply them to the new contexts. Thus it may not be '*the model*' per se that is replicated, but aspects of the model that will have more meaning, relevance and sustainability in other contexts. Which brings us back to the question of flexibility and when is a model a model?

As can be expected, there are many definitions of a 'model'. The Oxford Dictionary has many different definitions, depending on the context, but the core message is the same. A model is thus: "*a simplified description of a system ... a particular design or style of a structure ... an exemplary person or thing ... ideal, exemplary ... a person or thing used, or for use, as an example to copy or imitate ...*" The key elements are simplicity, exemplary and ability to copy or imitate.

More scientifically based, models can be regarded as *representation containing the essential structure of some object or event in the real world*" (Stockburger, 1996). Models are necessarily incomplete and as representations, do not include every aspect of the real world of primary maternity care. In order to create models, there must first be the assumptions about the essential or core structure and relationships that can be expanded upon in the real world. These assumptions are about what is necessary or important in the models. It should be possible to change or modify the models with relative ease. Indeed, it should be easier to manipulate the model than the real world.

The scientific method for building models consists of four key phases:

1. Simplification/Idealization – the essential structure of objects or events. This phase identifies the relevant key features.
2. Representation – the features are given meaning as objects, events, or relationships in the real world.
3. Transformation – Implications of the model are derived.
4. Verification – Here, the selected implications derived previously are compared with observations in the real world.

Fundamentally, the important consideration is whether the models were adequate for the purpose at hand – the *raison d'être* for the model development.

Given the contextual issues, and the discussion of flexibility and model development above, there are core components required of the models. It is around these core components that contextual specificities can be applied to ensure the models have enduring meaning, relevance, applicability and transfer.⁴ The following section presents the components as identified by the interviewees.

5.2 Key Components of the Models

Workable, sustainable collaborative primary maternity care models are deliberative, planned models that strengthen the team members and improve the care available. They are local models that reflect local needs. Recognizing the local specificity, they are developed through an organic approach, and evolve over time to reflect the changing circumstances in which they are based.

First and foremost, there should be a “*vision of flexibility and collegiality*”. They are built on relationships. As one interviewee noted, “*often getting people to change a bit of themselves for the greater good*”. Relationships are critical to the everyday functioning of the collaborative models. “*Without fulfilling relationships, it all falls to the wayside.*” Respect and trust are fundamental to successful implementation and ongoing evolution of the models. “*There must be respect for each other, which evolves over time as you work with them*”. Individuals working in a collaborative model “*must have a desire to work together, and great respect for each other. Their relationship must be open and flexible (especially because it’s a new model), and they have to adapt to this*”.

There is also a strong desire to see primary maternity care within a much broader population health approach. The goal of a population health approach is to improve the health of the entire population and to reduce health inequities among population groups. Thus a wide range of factors is addressed in such an approach. Pivotal is the notion of health as a positive concept, more than just the absence of disease, and the desire to see health as complete physical, mental and social well-being. The population health approach views health as a capacity or resource rather than a state.

Several interviewees expressed the view that primary maternity care is the foundational basis for the subsequent health of individuals. In this sense primary maternity care is about capacity building, with a healthy pregnancy, positive birth experience and a healthy mother and child. It is very important to see the “birth event” as one part of the spectrum of primary maternity care. “*We are overly emphasizing that, which is inhibiting*

⁴ The development of appropriate decision supports, and tools and templates for uptake and knowledge transfer of the models and/ or their core features is the central focus of phase two of this research.

our ability to develop positive things on everything else in the spectrum (e.g., prevention, on-going pre-natal education, screening etc).

The key elements – or ‘enablers’ of multidisciplinary collaborative teamwork models (MCTM) cited by the interviewees include:

Community consultation

To recognize the local solutions to local needs there must be the engagement of the community. It is essential that a new model fully understand the context in which it is emerging as. Failure to do so, will lead to a model that does not reflect true needs and the contextual relationships into which it enters. The experience of the Hamilton model is instructive in this regard.

The collaborative model was based on a comprehensive community survey at the start of the initiative. The model undertook a variety of activities as part of its community consultation. It held, for example, focus groups with teens and the aboriginal community, surveyed 200-250 women who had just had babies, consulted hospitals, obstetricians and family physicians, presented at prenatal classes, and used data for the design of the actual layout, even the art on the wall. It was an extremely thorough process, but it provided a solid, relevant, foundation for the subsequent model development. Importantly, it brought in, and was led by, someone external to the environment who was impartial and disengaged from the political context in which maternity care was being provided.⁵

Flexibility

It was consistently stated that flexibility in the models is essential because they must be responsive to considerable variations in contexts, and changes over time. Key elements of the variation are the human resource compositions. The most desirable compositions may simply not be available for a variety of reasons in many communities, especially in rural areas. So, what makes the most sense is to ensure that basic needs can be provided, but even then this may not be possible. There may, for example, not be any obstetricians or family physicians available, or the nearest hospital if required is several hours away or worse for remote northern communities. Some providers meanwhile may prefer not to work in collaborative models especially, if they cannot see the incentives for them to do so. One objective then is to try and accommodate the providers’ own needs.

Flexibility is also important as the models will evolve over time due to changing needs in the community, changing human resource compositions and the evolving and changing personal and professional needs of providers working in or along with, the model. Indeed, a model in one community may have physicians working in it in different ways, but as long as the core elements are protected, the providers satisfied, and clients’ needs are addressed and positive outcomes are achieved, there is no need to maintain a rigid organizational structure. Similarly, the role and functions of professionals in the

⁵ The model that evolved recognizes the community’s needs, especially the heavy psycho-social needs of expecting mothers and their families. For example, it makes a huge difference to the marginal populations such as those on cocaine, with a goal to get the expecting mother off the cocaine, and to ensure the pregnancy is longer (which will support child development). Resources can be directed to the baby, such as essential social supports.

model may reflect more the strengths and capacities of the individuals much more so than their professional training. Flexibility is central, reflecting the fact that the model should be “a *Living Organism*”.

Women centered

The model must be women centered. Several elements to this construct were stated by interviewees. These included the following:

- Choice for women
- Understanding what the clients want and need to know?
- Continuity of care, knowing who will be there at birth.
- Being given time and understanding
- Competence of providers
- Desire to be heard
- Minimizing uncertainty
- Responsitivity to unique individual needs
- Acknowledgment of continuity in the philosophy of care
- Provision of relationship-based care
- Meet members of team – all care providers
- Focus of control being the women
- Cultural competency

Indeed, as one interviewee observed “*I expect [women] are looking for quality service, close to where they live, and access to care that is appropriate to their needs. If these needs are met it doesn't matter who provides the service*”.

“Women want consistency and continuity. Want someone to trust. Someone to be with them. Know them at a center – know needs met and someone cares”.

Effective Communication

Effective and ongoing communication among providers in any collaborative model and with other professionals outside it is a fundamental necessity. Without it, the model will unlikely realize its full potential, could lead to inefficiencies in care, and create complications for providers and those who are receiving care. It can also lead to providers leaving the model, disillusioned with the model because effective communication is a central enabler of a common philosophy of care, and frustrated with the poor (or no communication) that result in problems with how and when they provide care.

Effective communication also extends to the relationships with professionals outside the model, such as the informal and formal consultations with obstetricians when required. More formalized communication such as reports, protocol development and application need to have consistent and clear messages (this paragraph does not achieve the high level of writing that is in the rest of the paper, but I'm not sure how to change it?).

Continual discussions and consultations by health professionals in the model with support staff everyday is fundamental because it reaffirms the importance of everyone in a team – that a team's effectiveness is based on the engagement of everyone meeting

or exceeding their expected roles and functions and being instrumental in helping others do the same. Exchange of information is continuous at the interface of the activities among and between the health professionals' and the support staff. And while technology is a significant enabler for this exchange, ultimately it is the face-to-face and verbal communications of all team members in the model that make it happen effectively.

Regular meetings are important, as are the ongoing opportunities to, and respect for, freely discussing issues that are of importance to those in the model. For example, organizationally, one collaborative team meets regularly once every two weeks for about 1 ½ hrs. Examples of the details to be addressed include the transfer times and processes for on and off call, and who is doing the billings and when.

The models will need to accept that there will be significant time commitment and investment required. This will be through *structured time* commitment such as meetings each week, and *unstructured time* through social interaction. Both investments of time are important for building rapport and respect. The ideal form of communication is face-to-face – even if it's occasional hallway consultation, then telephone, followed by notes. Regardless, ongoing communication in any form is essential.

Common Understanding

First and foremost is the need for a common understanding of what the model is, and what it is not. As a team member, a health professional would want to know what is meant by 'collaboration'. Is it a team of people? What is it based on? And they would want to know if all their skills are going to be used, or if they will be limited in their role and function. They would want to know who they are working with, and how. Indeed, as this interviewee observed, "*Sometimes it's the person in the position that makes the role.*"

Just as important is the need for a common, shared philosophy. But this does not mean pages and pages of text attempting to articulate roles and responsibilities, structure, policy manuals and so on. More simple and effective are mission and vision statements, and even then these may not be referred to very often. They may not even be written – there may simply be a shared understanding of what happens in the model's setting.

Collaborative culture

It should be of no surprise that a spirit of collaboration should infuse the models. In most cases interviewees emphasized that the partners of a collaborative model need to be '*like-minded*'. But this is not always the case. In one situation it was noted that the team members had to "*work through it because they believed in the greater good*", and especially had to face head-on the issue of remuneration.

Key ingredients to the collaborative culture are respect for one another (*peers or colleagues who don't talk down*), trust (which team members get by knowing each other clinically and socially (if it can happen.)), freedom to say what they feel, no hierarchy, and the "*fundamental view that people at the top have to believe in it, including the secretarial support*". "*Secretaries are really important. They're the first line*".

Individuals must be willing to give credit to their partners for their work. There must be openness by the group to ideas. There should be a willingness *not to have a fixed model* – therefore what's needed is a flexible, team player, willing to put opinions on the table, and still express their views even if there are disagreements.

“Relationships must evolve around basic principles, and ideally never be never be referred to”. But a key thing is to meet regularly, both professionally and socially if possible (e.g., once a month at a breakfast meeting, a couple times a year for dinner etc. and other social events during the year).

Organizational structure

There are likely to be principles or mission and vision statements but the effectiveness of the models will depend on how they function at an operational level. The organizational structure can be highly variable depending upon the context in which the model is developed. In one model, for example, the coordination of the team is non-hierarchical, and changes from year to year. The administrative component is one of the critical elements of the model. Important considerations other than day-to-day operations, such as billing processes and consistent approaches to the use of medical records, include compensation to professionals for administrative time, the administrative relationships with other organizations (e.g., hospitals), the reporting structure with support staff, and the ongoing administrative inter-relationships among the team members. Even the casual every day exchange is critical, and where and how the team members are located together. *“Working together over time moulds sense of trust – not going to easily give over what they have always done. Without trust – takes time – helps to develop and establish”*

Standards of care

While it seems an obvious point, it was necessarily stated by key informants that standards must be maintained. It is important to respect each other's scopes of practice and to maintain appropriate standards of care. At the same time, collaborative models offer opportunities to share care and build upon the expertise of others, building broader core competencies as a team. There are the well known inherent contextual barriers to this working in the respective jurisdictions across the country, but the ability for different professionals to overlap practice functions offers numerous advantages for both the providers and recipients of care.

Work-life balance

It was clear in several interviews that collaborative models offer potential advantages for redressing work-life balances for several different professional groups. This is particularly evident with regard to the on-call scheduling for obstetricians, family physicians and midwives.⁶ By more effectively sharing the on-call time and re-organizing so that much of it occurs in blocks of time it *“makes your life more manageable”*. Not only is the balance more possible, it was noted by interviewees that the on-call freedom

⁶ The literature states that Obstetricians move into Gynecology as they get older (i.e., into their fifties), as there is less on-call work in that area of specialization.

makes it possible to do other work related activities such as continuing education or teaching.⁷

Support structures

It was noted on several occasions that the support staff (e.g., clerical, secretarial, medical assistants – who “*make sure things happen*”) and associated structures are pivotal to effective collaborative teams. As one key informant observed “*It’s the supports that make it possible*”. Similarly, from a northern First Nations community, one interviewee noted, that “*support staff are the mainstays – and usually from the community. They’re under-utilized – they could expand their roles*”.

Decision supports

As the models are developed and evolve there needs to be decision supports available to ensure that the local model developers – the protagonists – can maximize the knowledge of others and minimize the logistical work to get the models up and running effectively.⁸

Community linkage

It was noted in different contexts that linkages with the community are essential. Not just awareness of the model with the general public but also with other providers. In fact, the more those other non-model providers can see the advantages of the collaborative models the more receptive they will be to the integration of the model with the current local system of primary maternity care. Patients in the Hamilton model, for example, can come in without referral (approximately 20-25% is high risk patients – teens, low income, refugees, etc). A significant number come in without a family doctor, and so the model works with the community and other providers every day to get advocates for their patients and to find other family physicians who would take on new clients. The logical extension of the core model is the social worker function.

Remuneration

Remuneration was identified as a significant issue that needs agreement and resolution on by the model developers and the organizations they may work for, and government. It was consistently stated that the fee-for-service (FFS) arrangement was a barrier to effective collaborative models. FFS is counterproductive to collaboration unless there is some pooling of the income for the team. FFS is also difficult in areas where birth numbers are small.⁹ Nevertheless, as one key informant observed, somewhat pessimistically, “*There’s no evidence that funding models change outcomes. I don’t think that we’ll ever get that evidence*”.

⁷ One family physician interviewed noted that even though she is on call less in the collaborative model, she is actually delivering more babies than ever before. She now feels more competent with more deliveries.

⁸ Key informants were consistently pleased to know that the second phase of this research work involves the development of these supports, although not all supports they identified are covered (e.g., evaluation and outcome measurement).

⁹ Although one key informant viewed the FFS arrangement as being more a psychological barrier than it is anything else. Another suggested perhaps FFS could be modified with some minor tweaking instead of a wholesale shift to a salaried model.

Another approach would be for everyone to be salaried. In times where there are low numbers of expecting mothers, Midwives and Nurses, for example, could be involved in other related activities such as breastfeeding clinics, nutritional counseling and so on. Similarly, Obstetricians may not be “funded” for providing birth services, but could still get remunerated for being part of the team, and then some days will be more active than others. Again, the precise contours of engagement can be determined to suit the local contexts and needs of providers and recipients of care.

Funding it was noted, is important and must be clear and transparent. People should not be punished for working in collaborative care, but rather, be rewarded for doing so. If a professional, for example, is losing money because care is going to a midwife – there needs to be some mechanism in place to reward collaborative practice; *“this is the hard part”*.

In one model it was noted that the method of remuneration in an alternative funding arrangement ensures that everyone gets paid \$500 for a ½ day clinic. With all billings that are generated from hospital care, the funds generated go into an account and gets divided up based on the number of shifts that a physician does in that given period. Thus remuneration is based on availability, and not the number of deliveries that a physician does.

Significantly, people who are in it for the money are not likely to want to be involved in collaborative models. Regardless, there must be equity and fairness addressed in any remuneration that is arranged.

Learning organization

The core elements of a learning organization – personal mastery, mental models, shared vision, team learning and systems thinking were implicitly observed as core ingredients of collaborative models.¹⁰ There are clear and sustainable synergies with the educative role that collaborative models can play for and among health professionals, with students of different disciplines through electives, and the general public. Indeed, a spirit of collaboration can work synergistically with a spirit of enquiry. It was noted by some key informants that there is not enough inter-collaborative education, and that we should start with the education of students – the models could take on this responsibility. With the new learnings the accumulating body of knowledge works to improve the health outcomes for primary maternity care.

Accountability

Clarity must be determined as to who or what organization is ultimately accountable for the care provided. As one interviewee commented, *“It’s clear at the moment that it’s the physician that’s accountable, but it should be “the team” – the most responsible. That should be the goal. There’s a need to educate the legal system”*. That said, it was also acknowledged that practice providers are accountable according to their own standards of practice.

¹⁰ These attributes can, and will be expanded upon in subsequent phase of this research.

Common record

A common medical record was identified as a central feature of a collaborative model. This enhances the capacity for sharing information – accurate information that can be easily updated and accessible to those who need it. The various professionals have access to the chart but not necessarily all of it. At the centerpiece of one model is a common chart but the *'chart'* is paper-based. An electronic medical record such as OSCAR is not necessarily a pre-condition for a collaborative model, although it would be a strong enabler, especially if there are multi-site issues that need to be addressed, or several different staff needing quick and easy access to records at the same time. The administrative function of the model would ensure that the records are up-to-date and accessible regardless of them being electronic or paper-based.

Size of the model

One question that again focuses attention on flexibility is the size of the respective models. This is especially so as the models evolve over time, and more clients may come into the models. It may well be that there is more merit in having a number of smaller nodes of collaborative models in large centers to avoid the pitfalls of size and potentially larger bureaucracy. So as volumes get too high it may be more appropriate to place caps on clients, and this may also be more beneficial to the collaborative team members, especially as collaborative relationships may be easier to foster with smaller numbers of team members. The idea then may be to replicate the smaller size collaborative models as opposed to expanding the size of collaborative models of primary maternity care.

Location

Location is important to the development of collaborative models in several ways. First, it was strongly suggested that the team be based in one central location rather than be diffused over many. Second, where possible it was felt that the ideal location of the collaborative model site in the urban and urban/rural areas would be close to the hospital. Possibilities were also highlighted that 'satellite' sites or outreach clinics closer to women's homes might be appropriate for certain aspects of the pregnancy. This would help to bring into stronger focus women at the center of the care system.

Co-locating with family physicians offices and other professionals was also supported; the thinking being that this made sense for people receiving care as well as offering opportunities for closer ties among the professionals. Co-location is ideal for the following reasons:

- Getting the group together brings in efficiency.
- Reasonable proximity to the hospital (e.g., 10 minutes).
- Outreach needs to be looked at.

In rural areas the challenge is less one of size and inter-relationships and more the enduring questions regarding access to care, and who provides that care. The questions are more poignant knowing that there are rural hospital closures and downsizing occurring across the country placing new challenges on maternity care providers. Without necessary decision supports and appropriate community consultation it may be

unlikely that collaborative models will be picked up. Conversely, such models may be the only solution to maximizing health professionals' composition and commitment to continuing primary maternity care practice in rural areas. The mix of model members will likely be predicated on the current mix of providers in the respective rural communities.

In northern communities, it is very often the community health nurse that is the first point of entry. But in a new integrated model, it could be social worker etc. Traditionally, it's always been the nurses in the core of the model, and then others as required, or as available. Recognizing the cultural specificities is very critical in northern communities, as the dislocative effects of giving birth away from the communities has a rippling effect on family dynamics, the growth and development of children, and the cultural traditions of the First Nations and Inuit people.

Social interaction

Very simply, collaboration is all about sharing – sharing space, sharing knowledge and sharing experiences. Inherently it is about relationships and relationship building – stemming from trust and common understanding and a willingness to see other points of view. Often to fully understand other perspectives means having a better understanding of the person with those different perspectives. This is enhanced considerably if individuals get to know one another on different levels. *“When you spend downtime with people, they see you as a human being.”* That also means creating the space – the possibility – for that to occur.

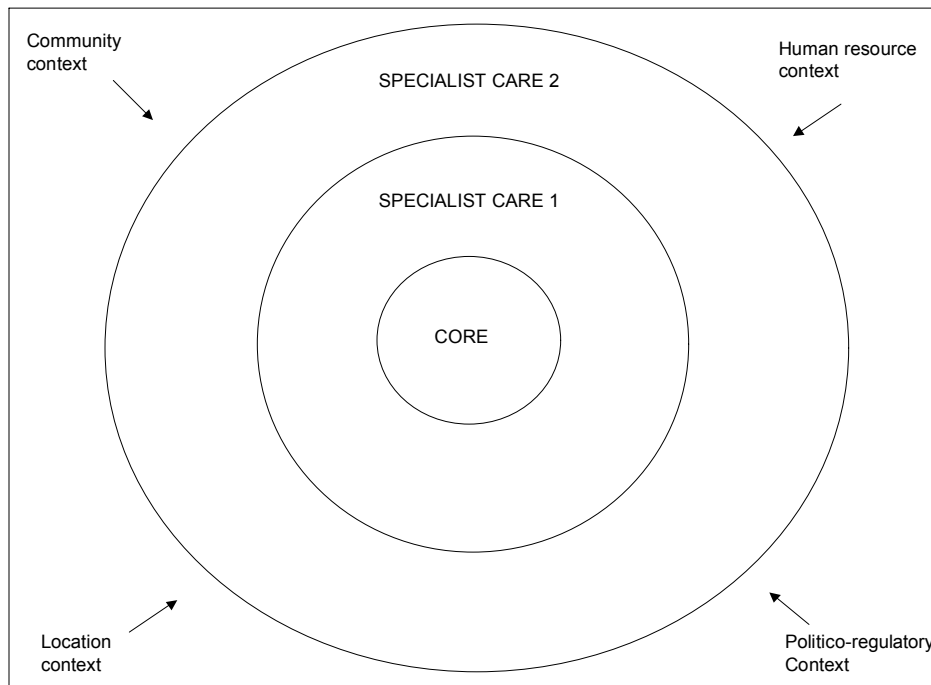
Evaluation

Right up front as models are developed it is important to establish the parameters for success. Metrics can be developed that link organizational and provider outcomes with health outcomes for babies and mothers. Critical success factors must not only be defined – to show whether the models work or not, but there must also be the capacity developed to enable evaluations and ongoing improvements to occur. It would be interesting, for example, to compare data of pilot models with existing models of primary maternity care, and to build databases and the capacity to compare over the longer term.

5.3 Model structure

Attention on the structure of the model focused primarily on which professionals should be in the model. The main contextual elements have already been described, as have the key components as expressed by the interviewees. Schematically, what emerged were concentric circles with the delineation of the 'models' core functions in the center and various specialists in the outer circles. The interface of these speaks to the efficiencies of communication and the administrative structures to ensure continuity of care and responsive to women's needs. Conceptually the models appear below..

Figure 4 – Conceptual structure of the Multidisciplinary Collaborative Teamwork Models



The Core

As Figure 5 shows, the professionals consistently placed at the core of the collaborative models by the key informants were family physicians, midwives, nurses and nurse practitioners.

There was a concern expressed by several interviewees that family physicians may possibly be excluded in the collaborative models. But as it was also pointed out, family physicians are pivotal as they are the primary care entry point for other medical care needs provided to expecting mothers and their families. As one physician noted: *“That’s our strength.”*

Although some key informants included obstetricians in the core, most did not. They are currently shown in the model as Specialists 1 for primary maternity care, as it is currently felt that their expertise is best suited in the more specialist clinical role. There was no question of their importance to the collaborative models, however. That said, other key informants noted that many obstetricians do provide and want to continue to provide primary maternity care, and their presence in rural communities makes it imperative that they are included as core members of the models. Again, both lines of discussion are appropriate, and re-emphasize the need for flexibility in the models proposed.

Nurse Practitioners (NP) were considered a critical part of the core because they have extended scope of practice (e.g., including pre-natal care) and skills. In one active model, for example, they are present on a full-time basis, and therefore provide continuity when other professionals come in and out of the site (clinic).

It was often suggested also that Midwives-NP partnering would work well in rural/remote areas where there may be shortages of physicians. The possibility exists that they could extend their scope of practice, if regulations allowed.

Ideally the “team members would have discussions on specific clients, and be able to bounce ideas off one another. There can be shared physical space, respectful relationships, blurred hierarchy, less sharp edges to the differences, and something together other than the work. If you take the relationships further with some degree of social interaction, these then strengthen the workplace”.

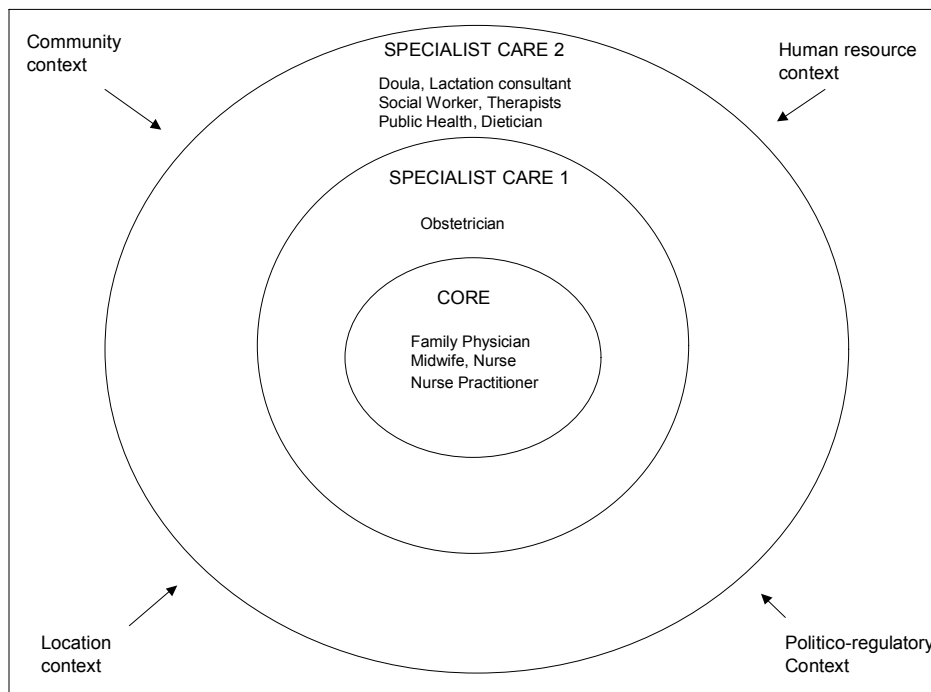
The day-to-day functioning of the models will vary according to many factors, including whether it is antepartum, intrapartum or postpartum, but at a general level a typical model *could have* two Nurse Practitioners or Midwives fulltime, and one part-time in administration, and several family physicians on different shifts to ensure physicians are present throughout the regular work week, as well as someone always on-call.

In the Hamilton model NPs visit the hospital daily to see the patients (and some of the time is spent on data collection (e.g., episiotomies, vacuum rates etc). They facilitate discharge planning if needed, and the clients *“appreciate the common face – the essence of the model”*.

Other specialist may work within the model on various days – for example Obstetricians, Dieticians, Social Workers, Therapists, Doulas and possibly Lactation Consultants. There will be a constant changing blend of professionals – some working part-time, and others full-time. The mix will be a function of the context and the process by which the models are developed.¹¹

¹¹ It has not been the intent of this interview stage to delineate the full details of the models – these will emerge in these next phases of the research.

Figure 5 – A template for professional roles in the new collaborative models



Another option put forward involved setting up new clinics that would be run by NPs or Midwives or Family Physicians, with Obstetricians juxtaposed as the ‘*problem carers*’. Several teams of these could be established, depending on human resource availability, with specialists around them as needed. For the actual birth, Obstetricians could be on a call basis, and be paid not for the “delivery” of the baby, but paid on retainer – a flat rate over the course of a year.

Specialist Care 1

This category is designed to reflect the importance of the Obstetrician to the effective delivery of primary maternity care.

Specialist Care 2

Other specialists play a vital role in the provision of primary maternity care, depending on the circumstances of the client. The social workers, for example, could be seconded for a half day a week – and may see all the high risk patients and get relevant agencies involved at an early stage. Successes with such a model have been shown in Hamilton because there is enough lead time available to ensure that a child’s safety can be arranged at the earliest stage possible following birth.

Collaboration beyond the models

There is also a need to examine the nature and extent of relationships with other providers regardless of the models that are configured. It would be hoped that the collaborative models are seen in a positive light by other health professionals who see

the potential for providing more effective integrated care at a systems level. This point, in fact, highlights the need to focus on the operational enablers to encourage greater levels of inter-relationships to occur (i.e., communication, knowledge exchange, common records). It is also at the boundaries of the concentric circles that the continuity of care is most visibly recognized by the expecting mother. Attention to details is paramount at the boundaries.

These then are the core elements – **at this stage in the research** – that serve as the basis for ongoing refinement and the inclusion of operational details. An analogy at this point would be the construction of a website whereby a drop-down menu is being developed. Other components of the drop-down menu may be identified over the next few months, but for the most part the subsequent stages of the work will be to a) provide supporting details to the drop-down menu (see below), b) the integration of these into the different stages of primary maternity care (i.e., antepartum, intrapartum or postpartum care), and c) the development of decision supports that will assist local systems of primary maternity care to be more collaborative and integrated in their approaches.

To summarize, the 20 core components identified in the earlier sections were as follows:

1. Community consultation
2. Flexibility
3. Women centered
4. Effective communication
5. Common understanding
6. Collaborative culture
7. Organizational structure
8. Standards of care
9. Work-life balance
10. Support structures
11. Decision supports
12. Community linkage
13. Remuneration
14. Learning organization
15. Social interaction
16. Common record
17. Size of the model
18. Location
19. Accountability
20. Evaluation

6.0 Process

It is one thing to recommend models of care but quite another to effectively operationalize them. This research is developing the models *and* the support tools to enable communities to create operational collaborative models of primary maternity care. This combination, in fact, was a large factor in how the interview phase of the research was used.

Fundamental to the process of developing collaborative models is a gradualist, organic, community-based approach – an approach that incorporates the appropriate timing required in different locations for the adoption of the new models. The community and the *Community of Maternity Care Practice* decide. In theory, providers should get together to know each other in organizational development meetings, and be able to look ahead at longer-term societal benefits in their community. Theories often clash with practicalities and different real world contexts. But ideally the collaborative models can evolve into a regional system of integrated primary maternity care.

“In the end it will be the will of the local care provider that will make it happen, and provide support”.

“A lot of it depends on the individuals involved. [They] decide on “working together” – and pool things together”.

It also important to work at building the relationships even if they are difficult to begin with, as people have been seen to *“come around and work together when they see the benefits that emerge”*. Patience is certainly a virtue in some cases. One nurse interviewed gave examples of the challenges faced when attempting to foster closer relationships. *“I remained oblivious to his rudeness.”* She persevered. He eventually came around, and he is now a proponent of collaborative approaches.

When setting the models up there is *“a lot of unpaid time that goes into it”*. One of the biggest challenges for a collaborative model formation is communication, which is very time consuming. *“You must create time to make a collaborative model work”*.

It can be anticipated that there will be some resistance to change. This is especially the case if models do not contain an element of local input addressing local needs. These key informants identify two other challenges:

“There may be resistance to change in the rural communities – it’s that whole thing of the unknown. Why should they trust ‘the solutions?’”

“If services are hanging on by their finger nails its less likely that they will try something radically different”

7.0 Summary

The purpose of the interview phase has been to continue the understanding and development of collaborative primary maternity care models. We conducted semi-structured interviews with n=40 key informants from across the country. A number of themes continued to emerge throughout the interviews, including the identification of four main contextual factors – politico-regulatory, location, human resources and community. These contextual factors in turn further emphasize the necessity for flexibility in models and the need to respond to the community needs.

Community consultation is essential as the models are developed. Failure to do so would fly in the face of strong opinion from those who have developed collaborative models, and would cause considerable angst among existing communities of maternity care practice.

There is no 'one size' model that fits all the permutations of the different community contexts. What will be far more palatable and marketable are models from which interested organizations or professionals can draw upon as further required, again depending on their needs in that community context. In this regard decision support tools will make a difference to the nature and extent to which collaborative models are taken up.

The important thing is to ensure in all of this development is that the desired outcomes of the model formations can be achieved. While it can be anticipated that there will be certain core components of the models it is equally anticipated that they will reflect a variety of different contextual issues.

While we are starting to see the emergence of a core team – which was consistently identified throughout the interviews – we recognize also that the team composition will vary from place to place. This is especially so where there are known shortages of various professionals, or where regulations do not permit certain roles and responsibilities to be within their scopes of practice.

The fundamental belief, however, is that collaborative models will lead to better health outcomes, healthier babies and mothers, greater efficiencies in the system and improved working environments for primary maternity care professionals.

The very next phase of this research will examine the range of incentives and disincentives for different professions to join in a collaborative model. This will reveal potential challenges and point to ways in which the different professions could benefit from working in collaborative models. We are soon to be conducting focus groups as our next formal stage in this research. In these focus groups we will be exploring the various desirable permutations of professionals and their roles and functions as they relate to antepartum, intrapartum or postpartum care. We will then synthesize that data, along with the input from the Steering Committee on incentives and disincentives, the data discussed in this paper, and the literature review to then present different models of primary maternity care. This is scheduled for May 2005.

Malcolm Anderson
March 2005