northern health

Decision Support Manual

Informed Decision Making:

The Interaction Between Sustainable Maternity Care Services & Community Sustainability

vancouver foundation

Maternity Care Research Group

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Background

Health care decisions have profound impacts in rural areas. Improving and aiding in the quality of these decisions is therefore of great consequence and high impact. For example, when maternity services close, women and families have to travel to receive care. As a result they lose personal and family supports as well as incurring significant financial costs. First Nations communities lose important cultural/community context. Maternity care closures result in fewer numbers of physicians and nurses and other maternity support staff, leading to further difficulties in recruitment and retention. The loss of medical facilities also affects economic capital as businesses find it difficult to recruit employees, reducing community economic viability. Closures and reductions in the level of maternity/newborn services offer a clear example of the consequences of the lack of attention being given to the relationship between health care, sustainable communities and overall quality of life.

This decision-support framework was created in order to aid Northern Health decision-makers in making optimal decisions about how to maintain low volume maternity care services. Employing established qualitative and decision-analysis techniques, the complexity of local maternity care provision was detailed through interviews and focus groups with key stakeholder groups: health care administrators, women, First Nations, community leaders, elected officials, business leaders, and physicians, nurses and other care providers (e.g. doulas, community health workers.) These interviews and focus groups took place in Quesnel, Vanderhoof, Fraser Lake, Fort St. James and surrounding First Nations communities, providing the basis for this document.

Note:

While this manual is directed towards maternity care, the process and methodology can be applied to any decision making situation regarding health care.

Introduction

Decision makers face a difficult task when confronted with balancing the multiplicity of interests associated with providing maternity care in rural British Columbia. The social importance of giving birth in one's community should not be underestimated; and yet, this must be balanced by staffing and financing as well as a myriad of other factors for decision makers to consider.

This manual will help balance different interests and priorities in a structured, impartial and thorough way. Not only will the process described in this manual lead to more robust decisions, its transparency and logic allows it to be a powerful communication tool between those who make the decisions and those affected by them.

Figure 1 is an influence diagram reflecting the complexities associated with determining the 'level' of maternity care that should be provided in a given situation. It was developed during the course of numerous interviews with decision makers, health care providers and community members when asked what factors affect the level of service to provide in a given community.

Decisions, however, are not limited to 'level' of service, they are also related to enhancing services through greater engagement with the community, more strategic use of resources, developing greater flexibility with service delivery options, and types of services offered.

> ***Note:***
>
> This is should not be viewed as an *additional* task for decision-makers, but rather a different way to approach difficult decisions that have to be made in any case.

Why choose this process?

This process is fundamentally different from the way management decisions are generally made. The time of the manager is generally restricted, and the first thing that is done when faced with a problem or an issue is to find a solution as quickly as possible. This processes employs an intermediate stage pivoted around setting objectives.

By considering the main problems or issues, objectives are identified to address them. The objectives are then assessed to build and expand on possible solutions and actions which meet them. Some fundamental or key objectives are then used to evaluate the different possible solutions.

Focussing on objectives for developing solutions has several advantages:

1. It diverts the focus from problems and negative aspects of a situation, and forces discussion on positive elements of change and future possibilities.

2. Focussing on objectives widens the scope of possible actions that may solve the issue. We often think linearly, and a single issue demands a single solution, which is usually burdened with preconceived ideas etc. The intermediate step of looking at objectives means a whole host of potential actions can be identified to meet the objectives.

3. Generally, when brought back to fundamental issues, objectives are usually easier to agree upon than problem-solution issues. While there will be differences in opinion between how important one objective is compared to another, it is seldom the case that there is disagreement that an objective is important or not.

4. Using objectives as evaluating criteria is the most impartial and transparent method of decision making available in decision research. It further provides for a very clear communication tool once the decision has been made.

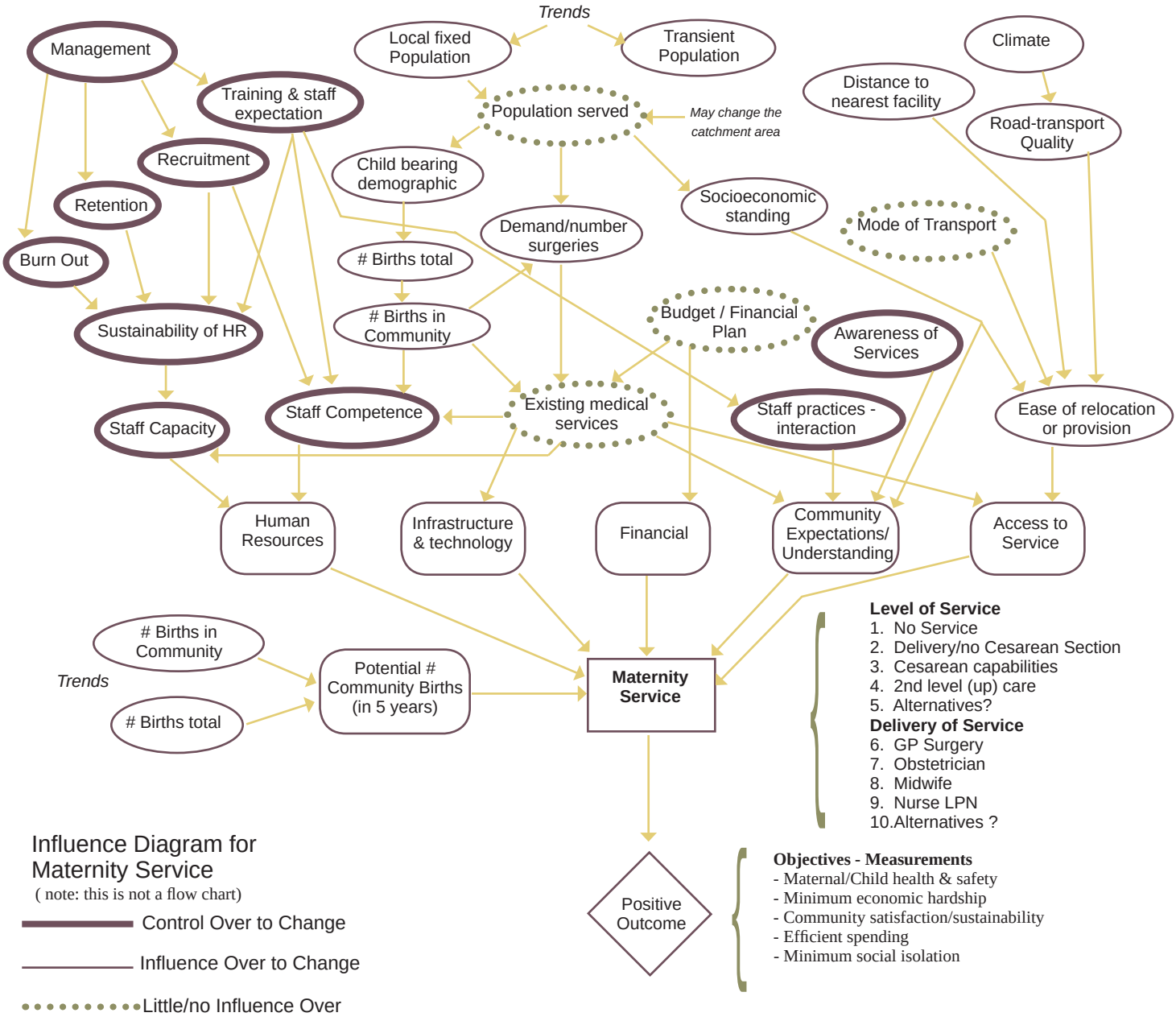
What resources are likely to be required?

When embarking on a structured process for informed decision making, it is important to take into account the associated resource implications. Gathering more information and understanding of a situation, and processing of that information in a structured and thorough way will lead to a more informed and rational decision. However, knowing when there is 'enough' information and a sufficient level of processing is also important.

Resources are needed to increase information and understanding, and in any situation or decision a point will be reached such that the amount of resources required exceeds the value of the potential increase in knowledge. Likewise, further processing and analysis will lead to increased certainty in results; however, should the additional effort be unlikely to lead to different results then it is not worth the effort.

How much effort and resources will depend upon the size, scope and complexity of the decision to be made. Nevertheless, some general estimation can be made. Let us assume that the process is applied to a care centre servicing a community of perhaps 5000, which has been decreasing in size over the last five years. The decision to be made may be precipitated by a key staff member leaving, raising the questions as to whether the same level of service should be maintained, should the staff be replaced, does the current situation 'warrant' the same level of service etc.

Figure 1: Factors Influencing Decisions for Maternity Care



- The diagram shows some of the major factors which influence decision-making regarding the level of maternity care needed.

- Note that the heavy solid-lined ovals are factors over which the decision maker has most control. The heavy dashed lines encircle factors over which they may have some control, while the thin lines represent factors where there is little to no control.

- Clearly, the decision maker should focus on those factors where they have greatest control to develop strategies.

Table 1: Time and Person Resources Estimated to Undertake the Decision Support Process

Step	People Needed	Time
1 – Community Evaluation	1-2 persons	2 days of interviews – meetings
2 – Community Analysis	Decision Team	½ day
3 – Issues-Effects Linkage and Objective Identification	Decision Team	½ day
4 – Creative Alternatives	Decision Team	½ day
5 – Portfolio Development and Consequence Analysis	Decision Team	½ day
6 – Choices and Trade-offs	Decision Team	2-3 hours
7 – Decision	Decision Team	1-2 hours
8 – Implementation	Unknown	Unknown
9 – Monitoring	1-2 persons	1-2 hours quarterly

While the time required may seem substantial, as mentioned, this should be balanced with the need for making a decision anyway.

Furthermore, the community survey and public engagement may actually be much simpler than in many other situations as many of the health care workers are already 'front-line' workers with the public.

Decision Team

For any decision or recommendation to be made, those who are ultimately going to decide or recommend must be identified. In some cases this may be only one person, in others it may be three or four, or more, depending on the nature of the decision. This core group will lead the process and work through the various steps to arrive at the final decision or recommendation. It is important to identify the decision team early on and familiarise them with the process.

How to Use this Manual

This manual follows a step-by-step process to assist in making complex decisions regarding rural maternity care in low volume situations in British Columbia. While the examples and research used to develop this manual focus on maternity care, the process could be applied to any complex decision-making process regarding health care.

This manual is brief and action oriented, the goal of which is to:

- **Ensure a structured approach to making complex decisions;**
- **Ensure an objective approach to making complex decisions;**
- **Facilitate dialogue and the exchange of information;**
- **Provide a transparent process and tool for effectively communicating decisions;**
- **Provide a method to incorporate community (and health care provider) values, concerns, and resources in decision-making;**
- **Incorporate basic principles of decision theory, such as value focussed approaches, consequence matrixes, and trade-off analysis; and,**
- **Employ the fundamentals of strategic planning.**

Steps in Process

This manual is set out with nine steps and three tools to assist those steps.

The steps focus on developing viable actions and a strategy for addressing the complex issues associated with providing high standards of care in a variety of situations.

With evolving economies, technologies, labour availability, community demographics, etc. decision makers are faced with extremely hard choices regarding service provision.

This manual assists in making these choices by distilling the underlying objectives behind the decision, identifying the many actions that can meet those objectives, and filtering out the most

viable actions into a strategic plan.

While it is understood that the 'safety of the mother and foetus/child' will always be the paramount objective, many other objectives, such as finance, community demand, human resources, will also play a role in the final decision. This manual provides a structured means, or a map, for balancing these different interests.

The manual is **action oriented**. The process focuses on developing ideas and actions by asking 'how concerns or issues could be addressed'. During interviews and meetings people will naturally forward ideas of how services can be improved. These should be captured and evaluated at the appropriate time and not necessarily at the time they are raised.

Who is this manual for?

This manual is intended to be used primarily by health care administrators responsible for service delivery decision-making, either in a regional context or when dealing with issues in a specific location. It is intended to be shared with both community and health care providers, administrators and other stakeholders as a communication tool. In addition, stakeholders can use this document to hone their understanding of the decision making process and as a vehicle for opening up dialogue.

How is this manual used?

The manual contains several tools that are designed to be either photocopied or generally followed when moving through a decision process. This is not a recipe, but rather a guide as to how to improve and facilitate complex decisions which affect stakeholders.

Note:

Depending on the resources (time, skill set, etc.) of the decision making team. In certain situations, the use of a professional decision analyst to aid in facilitating this process may be desirable.

The choice to use a facilitator may be due to a variety of factors including, simplicity, time availability, capacity, and wanting to have an 'out-side' entity run the process.

What this manual is not?

This is not a guide detailing public participation processes, or how to facilitate difficult meetings. It does not delve into the details and intricacies of strategic planning or decision theory. However, it is based on these methods and theories.

For more detailed information concerning the previous page please consult:

Public Participation:

The International Association for Public Participation has a wealth of information pertaining to process, pit-falls and best practices in PP. They have a list of publications and on-line tools at www.iap2.org . These pithy booklets cover all areas of PP and are easy to read and understand. There is even one tailored to the health care system entitled 'Examining Health Care: What's the Public Prescription'.

Facilitation:

'Facilitators Guide to Participatory Decision Making' by Sam Kaner. A simple and yet profound book to help the facilitator guide all types of discussions. Recommended for anyone who chairs meetings. It details meeting structure, consensus building, bringing out the opinions of those who are often quiet etc.

Decision Making:

'Smart Choices: a practical guide to making better decisions', by J. Hammond, R. Keeney and H. Raiffa. This easy to read book demonstrates the power and versatility of structured decision making by using common everyday examples. It goes through consequence analysis, trade-off analysis, and how to input risk into decisions.

Strategic Planning:

'The Quick Guide: Strategic Planning for Local Economic Development', produced by UN Habitat and EcoPlan International. A very short (17 page) summary of the different elements associated with strategic planning. While focussed on local economic development, much of the 'process' issues are translatable to decision making in health care. It is available for free download at hq.unhabitat.org/pmss/getPage.asp?page=bookView&book=1922

In employing strategic planning it is important to keep in mind four key elements:

1. Where are we: What is the current situation, issues and problems?

2. Where do we want to go: What would be the best possible situation if realistic changes where implemented?

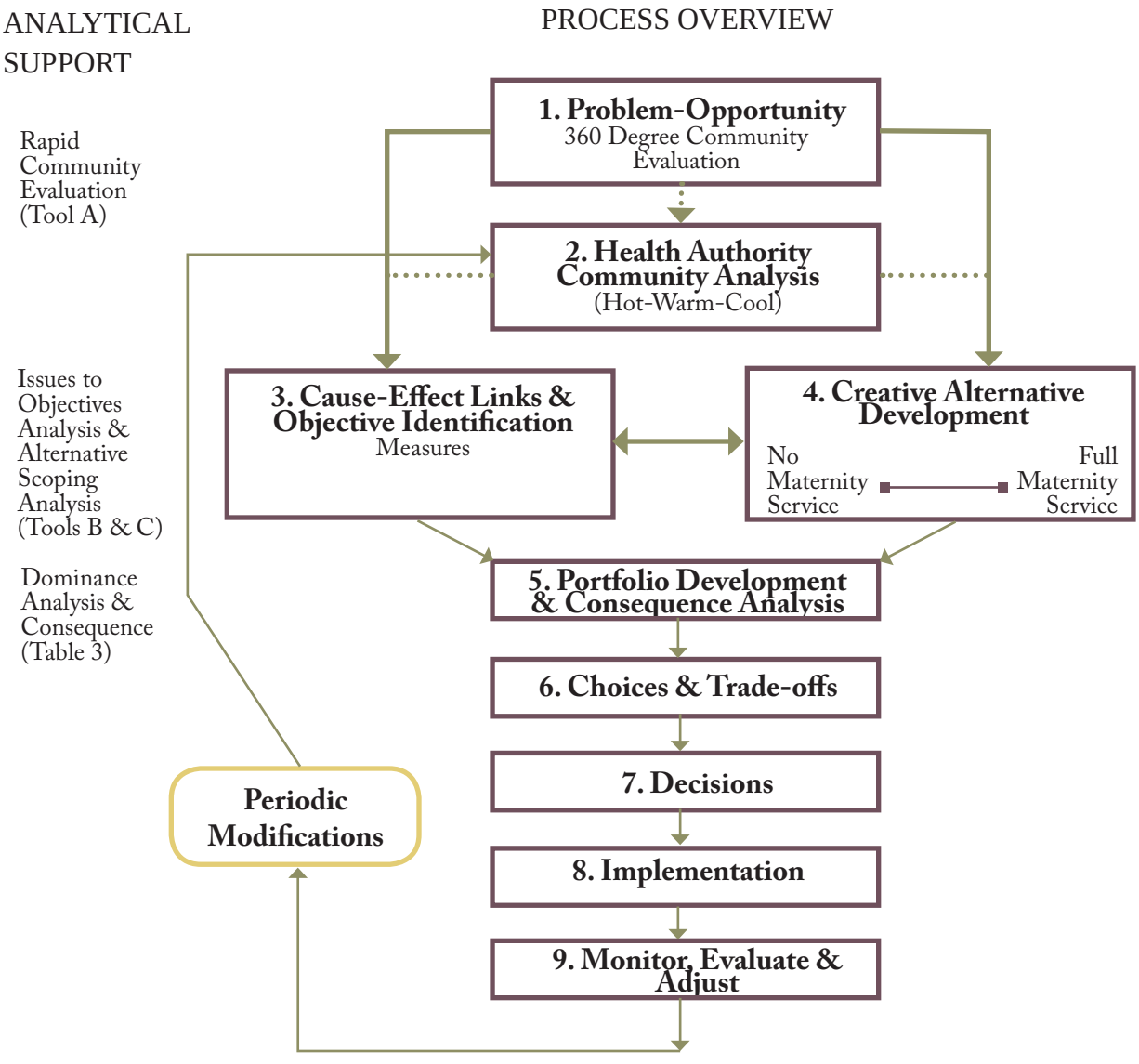
3. How do we get there: What are the actions needed to reach that 'best possible' situation, and how can they be most effectively implemented?

4. How do we know if we have arrived: Keeping track of the progress and adjusting the actions appropriately.

Rural Maternity Decision Support Process

Health Authorities faces difficult decisions with respect to low volume maternity services, or indeed other health services, in rural communities. Complex decisions as to level of service involve balancing human resources, geographical isolation of the community, weather, number of births, etc. To assist with both the decision and the communication of the decision to the community a structured approach can be used. Similarly, community input to the decision making process is facilitated by their employment of the structure.

Figure 2: Process Overview



Step 1:
IDENTIFICATION OF PROBLEMS & OPPORTUNITIES

Tool A - Can be used to assist with the evaluation. It is sometimes referred to as a 360 degree community evaluation, meaning that all views are captured. The current questions, generally serve most situations, but would need to be re-evaluated depending on the nature of the decision to be made.

The purpose of the community evaluation is to create an information foundation for further planning, decision-making and action. Key to this information base is understanding the 'problems' or issues, determining their origins, and looking for opportunities to ***move ahead***. Important throughout this process are the concepts of change and progression.

Consequently, the focus on obtaining information is for enhancing decision making; thus a balance must be made between "knowing everything" and "knowing enough" to make an appropriate decision.

Precipitating Question

Key to a successful decision will be identifying what has precipitated the need for a decision to me made. Is it reduced financing, or staff leaving, or community needs shifting etc. Knowing 'why' a decision must be taken will help define the scope of the process and the type of questions needed in the community survey.

To conduct a community evaluation, the individual or team, will need to:

- Identify and define the reason for the evaluation, and thus what general and specific information is needed;
- Determine the scope of the decision to be made (geographically and thematically);
- Determine how the information will be used, by whom, and what the community will learn from it;
- Identify existing and readily available information, such as Provincial Statistics or reports, etc.;
- Determine who will undertake the assessment and how will the process be conducted (individual interviews, group consultation, email etc.); and,
- Develop a timeline.

Who to include?

The community evaluation should include a broad enough spectrum on stakeholders to incorporate various values. In a local setting this would include, the care-providers, the local public communities, as well as the regional perspective.

The focus in **Tool A** is given to maternity related issues; however many of the questions can be applied for almost any situation, with additional questions tailored to that situation. Questions will necessarily range from the specific, such as the number of maternity nurses on staff; to broad, such as what economic developments are planned for the area.

Apart from information within the Health Authority, sources can include:

- Health care providers, community health representatives, social service providers, community elders, business council members, economic development organizations, elected officials, religious leaders; and
- Care recipients: mothers, potential mothers, fathers, etc.
- Academic studies, reports (these could also be from outside the Province and Canada), especially literature regarding evidence informed decision making.

The goal is to find the most relevant information for the decision at hand. But bear in mind, this is a decision process not an academic exercise.

The Rapid Community Assessment tool (**Tool A**) provides a range of questions that will help highlight problem areas where attention is most needed. As much should be filled out prior to the consultation process as possible in order to better focus the consultation process.

Note:

In conducting any consultation process, you generally have only one opportunity so make the most of it. Don't waste it with questions that can be found through researching literature.

Note:

Conducting interviews or group consultation with community members is often more complicated and time consuming than expected.

The nature of the decisions to be made will determine the detail and areas of further questioning needed. The survey could be conducted across a region, with several key interviews for each community; or can be used to focus on one community with a more extensive consultation process.

A regional level analysis would be conducted to look at 'system' approaches for the Health Authority and efficiencies at a regional level through broad policy development. In a community level analysis, concentration is given to actions that can be taken within a specific locale to enhance service provision. Within the community level, analysis is conducted within the context of regional needs, the provincial health system, amongst others. To conduct analysis in isolation of the outside influences would be to ignore some of the major influences and possible opportunities.

Hint:

When actions are suggested or noted, they should be collected in a special 'parking lot' – they can be organised and assessed after the interview, or consultation process, etc. But they should not be lost as they provide fodder for others to generate ideas.

Step 2:
Health Authority Analysis of Community Evaluation

Following the consultation, initial analysis of the information from the Community Evaluation is required to determine where attention is most needed. The decision team that is charged with making recommendations should conduct this analysis; however, it may be useful to bring in any additional expertise that will assist in identifying key 'hot spots'.

This is an opportunity to identify:

- **"Hot spots"** where attention is needed immediately (ie. in retention of nurses and physicians; in community X, etc.)
- **"Warm areas"** where there is trend towards instability
- **"Cool zones"** where the service is functioning efficiently and all that is required is consistent support and monitoring

At the regional level of analysis, communities should be placed into one of the above categories. Alternatively, areas of health services, such as education and training, could also be analyzed to fall into the above categories.

At the community level, the most pressing aspects of the care service will be identified (e.g. staffing, infrastructure, etc.)

Step 3 - Part 1:
Cause Effect Links & Objective Identification

Tool B - Can be used to help develop cause-effect links and identify objectives.

The fundamental objective of 'safety of mother and foetus/newborn' is paramount and ubiquitous. Other objectives, however, may be site specific and will emerge through the consultation process, such as 'decrease economic hardship for families and individuals'. This may be of particular importance when dealing with marginalized communities.

It is important to understand the relationships between the objectives of any process as fully as possible.

These objectives will form the basis of choosing between possible alternatives and actions, and are thus important in supporting the recommendations emerging from the process.

The more clearly they are defined and assessed at this stage, the easier it will be to make choices and communicate the reasons behind those choices at later stages.

Tool B: Cause - Effect Links

To help generate clear objectives, a 'cause – effect link' is developed between key issues arising from the community assessment and their effect on rural maternity care. In developing the links the major objectives for improving care are determined.

Table 2 provides an example of how to use **Tool B**

When issues are identified the link to the decision at hand must be made. Describing this cause-effect relationship allows for clear objectives to be identified. – Recall we not specifically looking at solutions at this point, but developing objectives to work towards.

> ***Note:***
>
> A single 'issue' that is broad may help identify several objectives. Do not worry about a single issue leading to a single objective.

Objectives should be SMART:

- **Specific** – brief and to the point;
- **Measurable** – ideally have a way of determining how far along you are in reaching your objective;
- **Appropriate** – directly address the issue at hand (optimise services);
- **Realistic** – feasible and reality-based; and,
- **Time Sensitive** – may be achieved in the foreseeable future.

Table 2: Examples of Cause-Effect Links and Objective Identification

Issue	Description and link to Rural Maternity	Objective	Possible Performance Measures	Key Data Gaps that Would Help Inform Decision
High burden of costs on families to travel for services.	Travel costs, missed work opportunities, etc.	Decrease economic hardship on families and individuals.	-% income lost -% income needed to travel -$ -direct cost	Who pays? Are costs shifted to business, band councils, extended families?
A pressing problem is the recruitment and retention of nurses, maternity in particular.	Fewer nurses mean more maternity work for each resulting in increased stress.	Increase retention of skilled nurses (reduce turnover rate, reduce dependency on agency nurses)	-number of nurses skilled with maternity experience -turnover rate -level of use of agency nurses.	Other reasons for turn-over or loss - spouse gets new job, etc.
Stress for nurses on maternity ward is very high.	High turn over rate, exodus of skilled nurses, nurses don't want to 'cross-over' to non-maternity areas.	1. Reduce stress for nurses on Maternity ward. 2. Increase # of cross-over nurses.	-interviews -number of nurses able to cross over -maternity staff stability/longevity	Issues in other sections such as emergency, PCU etc.
Small community size, isolation, limited number maternity care providers, (particularly nurses skilled in maternity care).	Potential for relatively high and low volume birth periods, uncertainty in capability to provide consistent service.	Create flexibility and locally adapted innovative ways to meet demands.	Possible survey of atmosphere and general attitudes in maternity care.	Community capacity to engage, expectations of the community, etc.
There is a need for more continuing education to support maternity nurses, for example in breastfeeding.	More PCU nurses could have skills to assist in maternity care; there will be greater flexibility for scheduling.	Increase knowledge and understanding of maternity care for nurses and cross training for other nurses	Number of nurses with adequate training, including Neonatal Resus. Program, etc.	Review of education possibilities.
A couple of key physicians have left the community for personal reasons.	Lack of physician care.	Increase availability of physician care.	# hours/week there are physicians available for coverage, etc.	Recruitment possibilities, scheduling possibilities, etc.

Determining key information gaps is important to see what additional information may be needed before a decision can be made. And therefore what resources may be required.

Step 3- Part ii: Defining Key Objectives for Developing Recommendations

It is important to identify the **key objectives** and the **means objective**s from all those identified in Part I of Step 3.

Note:

The point of discussing and organising the objectives is not to develop a perfect hierarchy of independent objectives. This is the role of decision theorists.

It is to help clarify and understand the different objectives and how they relate to one another. This will simplify future choices and the subsequent communication of those choices.

After having listed cause-effect links and determined objectives for each of the 'issues', they should be arranged, as much as possible, between those which are **Key or fundamental objective**s and those which are **Means objectives.**

- **Key or Fundamental objectives** (Key decision objectives) are used to assess final groups of actions or alternatives.
- **Means objectives** determine which are key decision objectives, and important in identifying actions to meet those key decision objectives.

Example:

The objectives to 'increase leadership and support for the maternity nursing staff' and 'create staffing flexibility and locally adaptive innovative ways to meet demands' are means objectives to arrive at 'reducing stress for nurses and physicians on the maternity ward'.

In focussing on increasing leadership, one of the action ideas may be to: 'create a maternity nurse coordinator position'. The action is then evaluated in how well it meets the fundamental objective of 'reducing stress for nurses and physicians on the maternity ward'.

It is understood that from the perspective of the Health Authority and the care providers, the ultimate objectives behind any series of recommendations are to ensure the best possible patient safety and health, to maximize efficiency of service delivery, and to maximize cost efficiency. Beyond these, however, other fundamental objectives should be considered and a brief discussion regarding the relationship between different objectives should take place.

In discussing the hierarchy of objectives regarding the 'decision', there will often appear to be overlap between some of the objectives. Indeed, a circular effect may be seen.

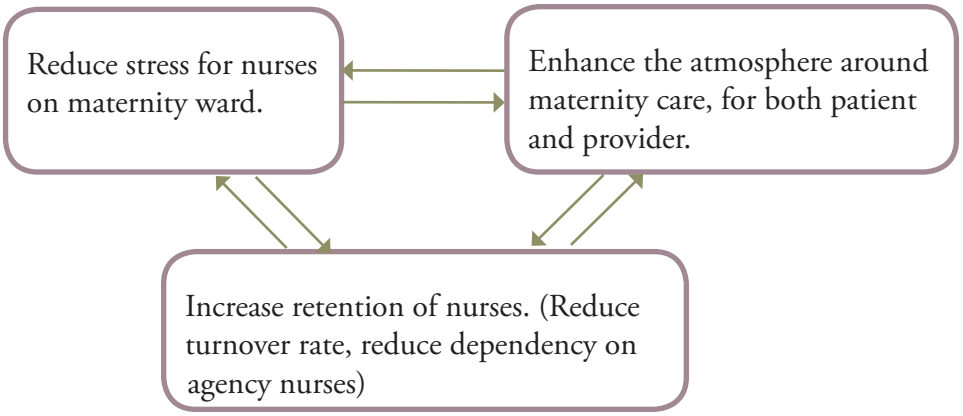
For instance, some objectives may be to:

- 'reduce stress for nurses on the maternity ward';
- 'enhance the atmosphere around maternity care for both patient and provider'; and,
- 'increase the retention of nurses in maternity care', but also in the reservoir of nurses generally.

Clearly, increasing the retention of nurses, and therefore the number available, will assist in reducing the stress on the maternity ward, as will enhancing the atmosphere around maternity care. **Figure 3** shows this circular interaction.

However, it can also be that enhancing the atmosphere around maternity care might also positively affect retention, particularly if atmosphere is extended to include 'mental atmosphere'. Furthermore, increasing retention of nurses will reduce stress, and thus 'enhance the overall atmosphere'.

Figure 3: Circular Interaction of Objectives



Will the key objective please stand up?

To determine the key driving factors, and thus the best point of intervention, it is important to return to the 'Community Assessment' (**Tool A**) and therefore to the *specific decision at hand*.

In most cases it will be that 'stress on the ward' is the fundmental problem and therefore decreasing it is one of the key objective to address.

Retention of nurses, for example, might be addressed simply by paying higher wages. However, this is unlikely to address the issue of stress and its associated relationship with quality of service provision, or safety of mother and child. There are likely underlying reasons for the poor retention of staff. Much of this due to work environment, both physical and mental. Fortunately, these are usually directly under the control of management, consequently action can be taken should this be the root of the problem (see **Figure 1**).

Note however, that retention of nurses may be affected by external factors such as the availability of alternative employment, spouses leaving, the addition of a new child to a family, amongst others. These are areas where the decision-maker has little control.

To arrive a key, or fundamental, objectives it is useful to ask the question "why is something important"? For instance, why is it important *'to increase leadership of maternity nurses*'? The answer may be to ensure sheduling and on-ward issues can be addressed efficiently, or create better relationships amongst other health care providers. And why is 'addressing on-ward issues efficiently' important? The answer may be to 'reduce stress on the maternity ward'. And why is that important – to provide a better service ensuring the safety of the patients.

Note:

When looking at objectives it is important to highlight those where there is a high degree of potential control. Meaning that actions taken would have a high degree of success in achieving the objective.

The specific **Key Objectives** for decision-making in a particular situation will be developed through hierarchical analysis.

Figure 4 is an example of a map of objectives. The arrows indicate the most important influences, and are shown to move *right to left*.

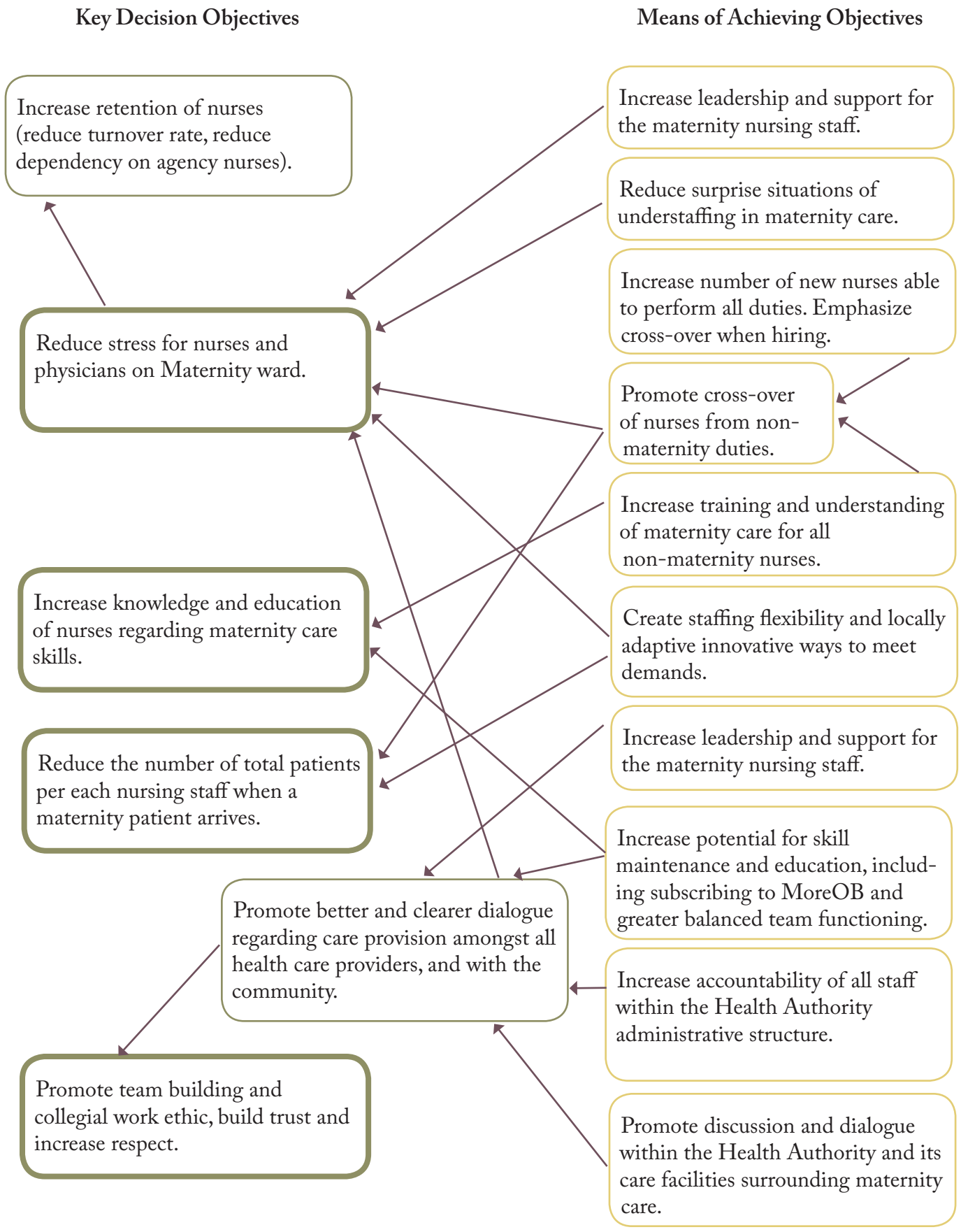
The key objectives in heavy boxes have been specifically chosen as those which can be addressed by 'actions' under the control of the Health Authority.

In this example the retention of nurses, while of key import, is seen to be influenced greatly by stress on the maternity ward. Thus, reducing stress on the ward would be the primary objective.

Note:

The Heavy Boxed key decision objectives will help to evaluate actions and strategies; means objectives will help to generate the ideas and action to make strategies.

Figure 4: Map of Objectives



Note:

'Promoting cross-over of nurses' is also influenced by two other means objectives, either training existing nurses or when hiring emphasize cross-over.

Note:

In Figure 4, 'Promoting better and clearer dialogue' is an intermediate objective between the means and key objectives.

While many key decision objectives will be similar among communities, many will be unique to specific communities or to the decision at hand. The means objectives and their related actions will often be very site specific, involving unique solutions.

Although most of the examples here focus on nursing, the process would apply to the analysis of physicians, administration, and the community.

Step 3- Part iii:
Prioritizing Key Objectives

A review of the key objectives should address all the principle issues of the decision to be made. If there are obvious gaps, make new objectives.

Key objectives should be discussed in terms of their importance in the decision, and if possible rough weighting or prioritizing should be conducted.

Note:

Do not spend too much time on prioritization; spend time on discussing and developing a common understanding of the objectives. Sometimes obvious objectives are interpreted differently by various people in the team.

There are three reasons for taking time to have this discussion, even if prioritization cannot be done, or can only be done by identifying the top two and bottom two key objectives:

1. It helps ensure that all principle issues are covered by one or more key objectives.
2. It will help develop a common understanding of the key objectives of the decision making team.
3. It will help facilitate decision making at later stages when developing strategies.

Note:

In detailed decision theory, it is not the key objectives themselves that are rated, but rather the difference between the best and worst possible outcomes. It is as assessment of the relative gains obtained through implementing certain actions or options. In most cases this degree of precision is not needed, and it is best undertaken with a decision analyst or theorist.

Step 4:
Creation & Weighing of Alternatives

Tool C - Will assist in the initial creation of actions and ideas, and filtering them out based on their suitability to the situation at hand.

Initial Action Evaluation

Many potential actions will have emerged during the community assessment. This is the point where actions are initially assessed and filtered out.

This 'quick assessment' will ensure that all suggestions and actions are considered, and help validate why some actions recieve more detailed attention and others do not.

Impact and feasibility of **Implementation** can be rated as: **low, low-med, medium, med-high, high.**

In the case of how easily it could be implemented a High score would mean easily implemented with respect to time, money, staffing, and support from the Health Authority.

While this is a 'quick assessment' it is nonetheless a realistic assessment. Time should be taken to compare between the different assessments.

The decision-making team should:

- List and categorize all the potential actions which emerged during and after the consultation process,
- Review all the means objectives to see if any of them give more potential actions not covered.

For each action the team should determine:

- The impact that it would have overall on the key objecitives, and
- The ease with which it could be implemented, taking into account ***time, resources and political will.***

Hint:

If in doing the assessment the group is giving results that are all Medium, then go back and choose the highest and lowest for impacts and implementation, and rate other actions relative to them. We are looking for a picture of the relativity between actions.

Uncertainty:

There may be some actions which are very uncertain as to their impact or their ability to be implemented. These should be flagged, as should they be chosen to be potentially included in a final strategy some time may be required to better determine their impacts.

Table 3 shows an example of a rapid assessment of actions.

Tool C contains a list of potential actions which were suggested by various health-care providers, community members, administrators, and academics during a research project. It can be used as a means of stimulating ideas during discussion.

Note:

The evaluations are based on a single assessement of the decision-making team. They are not definitive assessments, they are to highlight the actions with the most potential for inclusion in a strategy, and discussions around these weightings will help the process by which providers, administration, and community, as appropriate, mutually problem-solve.

Table 3: Potential Actions and their Ratings (example)

	Actions - Areas	Impact	Implementation
	Coordination		
1.	Create a Perinatal Committee - an open forum for discussion (logistical, cross-education, issues, policy development).	H	H
2.	Develop protocols for low staffing periods – including using robust casual pool of nurses in the community.	M-H	M-H
3.	Maternity care nurses who are specialized and only work in maternity care, with no cross over.	H	L
4.	Create a maternity nurse coordinator position or (clinical nurse leader) to liaise with Head nurse, administration, physicians etc., and may provide relief at peak periods etc.	H	H
	Staff - Care Provider		
5.	Analysis of Key "Flex staff": nursing admin to fill certain clinical functions, and require critical mass of nurses trained in both maternity and PCU nursing. This will increase staffing flexibility.	H	H
6.	Offer new incentives when recruiting nurses (emphasize maternity skill set).	M-H	M
	Community		
7.	Develop community education pamphlet describing various levels maternity services and benefits and risks associated with the services.	M-H	H
8.	Engage the Chamber of Commerce and business community to raise funds for the refurbishment and development of an attractive birthing centre in the hospital.	H	M

Step 5 - Part 1: : Portfolio development

The purpose of this stage is to determine which actions will require further analysis to be included in the final recommendations or plan of action. Following the 'quick assessment' of the actions is the development of a portfolio of actions which may be implemented. It is here where a series of actions are selected to make up a strategic portfolio to be implemented.

Note:

This is designed to be completed in a group setting among the decision-team. It does not have to be a lengthy process. Don't waste it with questions that can be found through researching literature.

Note:

Portfolio Development and Consequence Analysis are iterative steps, meaning that they may be done several times prior to coming to a conclusion.

Generally, at this stage in the process some actions have emerged as clear **'must do'** actions (these actions would have scored 'High' in both Impact and Implementation), while others seem like good possibilities, or have strong potential.

However, not every action can be done, nor should be done. To be effective, some strategic choices must be made.

It happens that 1, 4 and 5 from Table 2 are classified as **'must do'**. As they will form part of the final strategy there may be little need to further evaluate them until developing the final portfolio. On the other hand, if there is a sufficiently large number of 'must do' actions that cannot all be 'done' then a more detailed analysis must be conducted on them.

To choose the actions for further analysis thought must given to analysing sufficient actions to cover the key objectives, and in particular those key objectives that are ranked highest. Recall, these are not necessarily the most important from a societal point of view, but rather the ones with the most likelihood of having significant gains from implementing actions. For an initial round it may be worthwhile to select 10 or so actions from the 'quick assessment' in Step 4. These will form the 'first round' actions.

Step 5 - Part II: Consequence Analysis

It is important to 'estimate' the relative impacts of different actions even in a rapid form as it helps to force an 'objective approach' to determining an appropriate portfolio and increases both transparency and the ease of communicating decisions to those ultimately affected. **Table 4** shows an example of a consequence analysis for developing a final portfolio of actions.

Note:

For the purposes of simplification, not all the objectives have been listed in Table 4.

Method

List the objectives and the 'first round' actions in a matrix format and fill in the table. Be as accurate as possible in estimations, and where possible find actual numbers. If numbers cannot be found use a low, low-med, medium, med-high, and high format as before.

Hint:

Analyze all actions with respect to one objective, then move onto the next objective. We are interested in looking at relative impacts, not necessarily absolute impacts. It is also advisable to agree upon the highest, then the lowest, and then fill in the others relative to them. This is called book-ending.

In reviewing the table:

- Note that action 3 from Table 3, "Maternity care nurses who are specialized and only work in maternity care, with no cross over", was not included in a more detailed assessment as it has such a small possibility of implementation under current realities. It can always be revisited and documented, and may be included in future developments, but at present there is no point in its continued inclusion.

- Actions 1, 4 and 5 from Table 3 have been included as they should be when conducting the final portfolio development. For initial rounds they might have been excluded. Recall this is an iterative process.

- The box corresponding to 'maximize cost efficiency' and 'offering new incentives when recruiting nurses' (action 6, Table 4) is rated as **Low** in meeting the objective, as it is assumed that the incentives are financial. However, it is also shaded and flagged as uncertain because incentives could include other things than financial incentives.

- The objective "decrease economic hardship on families and individuals" is not well addressed with the existing list of actions. A second review of all the potential actions should be done, this time with the focus on finding actions that might relate to this objective. Also, analyze any of the existing actions that may be enhanced or expanded to partially address this objective.

- Enhance Actions: Look to see where certain actions may be enhanced to address objectives that are not being addressed. For instance, action 1 (Table 4), "Create a Perinatal Committee - an open forum for discussion (logistical, cross-education, issues, policy development)", could extend its mandate to interact with the community, perhaps, through open houses, or some appropriate engagement process. In this way, it might be able to affect "promoting community sustainability", and could definitely be made to impact "encouraging positive and culturally appropriate experience for mother and family".

Table 4: Portfolio of Actions (example)

Achievable actions \ Key objectives		Reduce stress for nurses on maternity ward	Decrease economic hardship of families and individuals	Promote team building and collegial work ethic, build trust and increase respect	Reduce the number of total patients per each nursing staff when a maternity patient arrives	Maximize Cost efficiency	Promote community sustainability
1*	Create a Perinatal Committee - an open forum for discussion (logistical, cross-education, issues, policy development).	M-H	Nil	M-H	H	M-H	Nil
4	Create maternity nurse coordinator or (Clinical nurse Leader) to liaise with Head nurse, admin, doctors etc, and may provide relief at peak periods etc.	H	Nil	M-H	M-H	M	Nil
2	Develop protocols for low staffing periods – including using robust casual pool of nurses in the community.	H	Nil	H	L	M	Nil
5	Analysis of Key "Flex staff": nursing admin to fill certain clinical functions, and require critical mass of nurses trained in both maternity and PCU nursing. This will increase staffing flexibility.	H	Nil	L-M	M-H	H	Nil
6	Offer new incentives when recruiting nurses (emphasize maternity skill set)	L-M	Nil	L-M	H	L	L-M
7	Develop community education pamphlet describing various levels maternity services and benefits and risks associated with the services.	Nil	L-M	Nil	Nil	L-M	M-H
8	Engage the Chamber of Commerce and business community to help raise funds for an attractive birthing centre in the hospital, amongst others.	M-H	L-M	Nil	Nil	M-H	M-H

* The left-hand column numbers correspond to Table 3

Step 6:
Choices & Trade-offs - Final Portfolio Development

The actions-consequence analysis table may still have too many actions to all be implemented, and choices may have to be made between implementing them. The table can therefore be used to determine priority actions and provide a basis for overall strategic planning of actions. Conduct a more detailed assessment on the feasibility of implementing the actions.

Dominance, Linking Actions, and Trade-off Analysis

1. Dominance

Review the actions to see if there are links which can be made to enhance their impact on the objectives, or if they are inter-dependent, in that one cannot proceed without the other.

An example would be linking action 7 (Table 4) as a task for the Perinatal Committee created in action 1. The action-consequence table has reinforced action 1 as a **'must do'** option, so linking 7 with 1 is fairly risk free.

Consider the benefits and disadvantages when linking actions. Making some actions dependent upon others may run the risk of loosing them, should the first actions not take place. Reviewing the feasibility assessment will help determine which actions are safe to make dependent on others.

2. Feasibility

Conduct a more detailed assessment on the feasibility of implementing the actions.

A new column should be added to the actions-consequence table where feasibility is assessed based on:

- Time to implement
- Financial resources
- Human resources
- Political will - policy

Highlight those which are the most easy to implement. Also, make special note of those which are difficult to implement due to political will/policy, as these actions will take lobbying to implement. 'Long-term' actions may be included as part of a strategic portfolio.

3. Link Actions

Review the actions to see if there are links which can be made to enhance their impact on the objectives, or if they are inter-dependent, in that one cannot proceed without the other.

An example would be linking action 7 (Table 4) as a task for the Perinatal Committee created in action 1. The action-consequence table has reinforced action 1 as a 'must do' option, so linking 7 with 1 is fairly risk free.

Consider the benefits and disadvantages when linking actions. Making some actions dependent upon others may run the risk of loosing them, should the first actions not take place. Reviewing the feasibility assessment will help determine which actions are safe to make dependent on others.

4. Trade-offs

Choosing between actions.

If there are still too many actions to be seriously considered for implementation, trade-offs must be made. There are specific ways of dealing with these issues in decision analysis theory, however, it is beyond the scope of this guide to deal with them in detail.

A simplified trade-off analysis may be conducted by exploring and discussing the benefits of pursuing certain actions (meeting objectives) versus the feasibility of their implementation.

Furthermore, a strategic portfolio of actions can be developed, whereby some longer term, more difficult to implement actions, can be incorporated into the plan.

Step 7:
Decision

This may involve a certain formality depending on the nature of the decision. Often, the process may be undertaken to make 'recommendations' to a council or board for a final decision. The nature of the 'final decision' will depend upon the institutional practices of the organizations. Nevertheless, a final decision should be incorporated and addressed to justify the effort in conducting the process.

Step 8:
Implementation

In developing the strategy of different actions an estimation of time and resources will be needed. These will have been addressed, in part at least, while looking at the feasibility of various actions. Many actions will likely be institutional actions such as altering work formats, pay structures, staffing positions, etc. Some may be related to infrastructure, such as building a new maternity area.

Clear and specific implementation goals with **timelines** are needed, whatever the nature of the actions.

'Improve the look of the maternity ward' lacks clarity and will unlikely to be implemented because it takes additional effort to specify how it will be done.

'Paint meeting room and get more comfortable furniture' has specificity and is more likely to be accomplished.

This is the same with timelines. Vague are often neglected, specific ones force action by a certain date.

Step 9:
Trade-offs

There is no other way to determine if fundamental objectives have been addressed, other than through monitoring and evaluation. Unfortunately, once a strategy has been, or is being, implemented, too often managers are forced to address new issues and the evaluation of previous decisions and actions is squeezed out.

Monitoring and evaluation can take many forms. Meetings, reports, surveys, questionnaires etc. can all be used to assist monitoring and evaluation. Being creative will help diminish the time and resources needed.

TOOL A - Rapid Community Assessment

Community		
Issues	Comments	If applicable, what possible actions can be taken to enhance the situation?
Births from community members		
Births in community		
Projected trends		
Are local births culturally important to the community?		

Issues	Comments	If applicable, what possible actions can be taken to enhance the situation?
Is the community aware of all the services provided?		
Is the community aware of risks associated with delivery options?		
Is there good integration of health providers in community: • cultural sensitivity • language • ?		
Are there care givers or health-care workers in the public community: midwives, doulas, alternative works, ex-nurses, etc. Can they be of assistance?		

Issues	Comments	If applicable, what possible actions can be taken to enhance the situation?
Birth Statistics - Rates of intervention, induction rates, etc. Any statistics out of the norm from Provincial averages, etc.		
Additional Comments:		

Access to Services

Issues	Comments	If applicable, what possible actions can be taken to enhance the situation?
How far is the community from the nearest centre with C-section capability (in kms), and how long does it take to get there (in summer, in winter)?		
Is transport a problem, or restricted at certain times? Can these addressed?		
Can access to services be made better at health centre/hospital?		
Can services be brought to the community? If so which ones, and how; if not, why not?		

Issues	Comments	If applicable, what possible actions can be taken to enhance the situation?
Additional Comments:		

Stress on Service Providers		
Issues	Comments	If applicable, what possible actions can be taken to enhance the situation?
Is staff workload an issue?		
Is staff turn-over high?		
What are the principal reasons for over-taxing staff? • poor scheduling and planning • lack of leadership • lack of communication between providers • insufficiently trained staff		
Additional Comments:		

Maintain Skills and Competence of Providers

Issues	Comments	If applicable, what possible actions can be taken to enhance the situation?
Are capable staff hard to recruit?		
Is there an issue with staff maintaining their level of expertise?		
Additional Comments:		

Maintain Stable Pool of Providers

Issues	Comments	If applicable, what possible actions can be taken to enhance the situation?
Is maintaining a stable pool of staff a problem?		
Can any assistance or part-time health care workers be available from the public community? Midwives, doulas, ex-nurses etc.		
Additional Comments:		

Financial Issues

Issues	Comments	If applicable, what possible actions can be taken to enhance the situation?
What are major budgetary issues?		
Are there any alternative sources of funding? From the community, business etc.?		
Are there potential ways to reduce existing costs?		
Additional Comments:		

Administrative Issues

Issues	Comments	If applicable, what possible actions can be taken to enhance the situation?
What are major administrative issues? issues?		
Do the nurses and physicians feel supported by administration? Why or why not?		
Is communication effective?		
Additional Comments:		

Infrastructure Issues		
Issues	Comments	If applicable, what possible actions can be taken to enhance the situation?
Are facilities adequate? How could it be improved?		
Is technology adequate? How could it be improved?		
Additional Comments:		

General Overview		
Issues	Comments	If applicable, what possible actions can be taken to enhance the situation?
Are current services meeting the community needs?		
Will current services meet the needs in 5 years?		
How can current services be made better? Chose two or three key actions.		
Additional Comments:		

Tool B - Cause-Effect Link Table

example – table 2 (page 15)

Issue	Description and link to Rural Maternity	Objective	Possible performance measure	Key data gaps that would help inform decision

Tool C - Potential Actions

Corresponds with Table 3 (Page 24)

Potential Actions	Impact	Implementation
No action / keep status-quo		
Institutional		
Increase permanent in-situ delivery services in community: professional staff		
Increase permanent in-situ delivery services in community: support staff		
Increase permanent in-situ delivery services in community: alternative staff such as midwives		
Increase 'service as needed' in-situ delivery services in community: mobile clinics/surgery		
Increase 'service as needed' in-situ delivery services in community: on stand-by professionals		
Redesign catchment areas (alter distances to potential higher services..)		
Redesign catchment - increase population coverage - increase medical services		
Longer-term succession planning to reduce lag time between vacancy and replacement		
Recruiting experienced staff with sufficient skill set and expectations		
Recruitment drive at university - future staff		
Alter work scheduling		
Healthy workplace forums		
Workplace revitalization		
Better management-worker relationships		
Incentive packages - benefits and incentives (pay, time-off, Alternative payment models, other?)		
Increase team approach of delivering medical services		
Better screening of patients (low risk, high risk etc.)		
Use 'remote' diagnosis, screening, clinical rounds etc. (i.e. doctor is not in-situ – for examination)		
Coordination Issues		
Create a Perinatal Committee - an open forum for discussion (logistical, cross-education, issues, policy development		
Develop maternity service education and support forum between different care facilities in Western cluster (Terrace, etc.) - rationale is that if key members of the Perinatal Committee are gone / input can be given by Western Support Forum.		

Potential Actions	Impact	Implementation
Separate maternity services (institutional) - an entirely separate unit staffing wise. (may not be option due to size)		
Create maternity nurse coordinator to liaise with Head nurse, admin, doctors etc.		
Increase institutional autonomy of maternity nursing - create a clinical-maternity nursing coordinator to be organizing maternity (in consultation with chief patient care coordinator)		
Focus on education/assistance/development of "long term" staff rather than short term		
Diminish 'intervention for birthing' such as epidurals, inductions, thereby reducing the need extra nurses on shift. Recognize that there need to be nurses on duty with full skill set, but more technical interventions require more nurse time.		
Create a hierarchical protocol for putting through 'issues' - local-Western cluster (Terrace) - regional (PG)		
Staff Issues		
Analysis of Key "Flex staff": admin. to fill certain functions, and cross-over nurses		
Ensure critical mass of cross-over nurses: hire cross-trained nurses		
Increase (hire or train) number of specific maternity nurses		
Use Patient Care Unit (non-maternity care) nurses to be scheduled to come in and relieve mat nurses (as part of their work)		
Scheduling issues: such as cross-over nurse every second shift can be assigned to maternity ward		
Use alternative/community maternity workers to relieve maternity nurse work-load i.e. part time-casual maternity nurses from within the community.		
LPN nurses to come in and assist maternity nurses - particularly in postpartum care		
Better scheduling and information exchange on quarterly basis – Physicians should know how many women will be birthing between 37-41 weeks gestation. They can request supplementary / locum nurses for peak periods		
Dialogue Issues: Team-Building		
Create Perinatal Committee in the facility- an open forum for discussion (logistical, cross-education, issues, policy development)		
Hospital community / administration to help coordinate overall hospital team building – "social events"		
Team-building for nurses - collegial development mat/PCU/ medical surgery		

Potential Actions	Impact	Implementation
Doctor - nurse collegial development		
Nurse – admin. collegial development		
Doctor – admin. collegial development		
Doctor - nurse – admin. collegial development. Hospital community – admin. to help coordinate overall hospital team building - "BBQ Actions"		
Decision Making		
Create "local hospital driven' - protocols for maternity care (clinical, dealing with induction etc.) with support from Health Authority Admin		
Clarify regional-local decision-making and reporting structure: organogram, dialogue, education		
Build community awareness about full implications of birthing options in general and 'inductions' and interventions in particular. This education covers both the effect on the patient, as well as the implications on the health care centre in terms of technical and human resources. Long term strategy to reduce 'socially driven' interventions.		
Capital Investment		
Physical separation of Maternity Unit – quiet, separate, able to use areas for pre-post-natal etc.		
Coffee room - break room closer to Mat Unit (induce more PCU nurses to check in…)		
Lobby for better road maintenance, upgrade of roads or transport lines		
Better vehicles – ambulances specially designed for adverse conditions		
Upgrade delivery facilities (e.g. single room maternity care, making it more 'friendly', etc.)		
Upgrade in-situ diagnostic capabilities/better screening (risk assessment) - better in-situ equipment		
Technical assistance – telecommunications for remote diagnosis etc./ peer support - i.e. a remote 'access line' for discussing immediate issues - hot-line to other colleagues		
Educational		
Promotion and community awareness of services, risks, and options.		
Community newspapers/media		
Community meetings		
Pamphlet		
Community volunteers		

Potential Actions	Impact	Implementation
Community groups		
Medical staff- consultations		
Increase staff skills		
Rotation of workers to gain hands on skills etc. (MoreOB) – local/regional clinical rounds'		
Bring in external resources (specialists for clinical rounds – in-situ training)		
Mentoring system for rural health staff		
Education streaming at university level - specialization course		
Incentives – cover costs of all training and skill upgrading (in-situ, ex-situ)		
Establish rotations for high volume workplace, or training is built into job- more predictable, less stress etc.		
Staff training in dealing with culture and community - inter-personal skills		
Peer coaching (pool of urban doctors willing to take calls from rural areas- like a med-help line)'		
Training for health staff in risk communication etc.		
Training to increase capabilities of LPN to take over some maternity work (breast feeding, primary etc.)		
All nurses should have NRP (training/qualification)		
Support MORE-OB - increase use		