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STEP THREE:

Determine the Need
for a New Model of Care

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Where are you in the PEPPA Framework?

- You are at the third step where you and your team will start defining the need for a new care delivery model.

What do you need to move forward to complete this step?

- A defined priority patient population to be the focus of needs assessment activities.
- Current understanding of the care delivery model for the priority patient population (from care maps developed in Step One and Step Two).
- Identified and engaged stakeholders.

How will this chapter help you?

- Identify the strengths and limitations of the current model of care delivery in meeting the health needs of a specific patient population affected by cancer.
- Plan and conduct a comprehensive assessment of patient health needs.
- Select the most efficient methods and strategies for collecting needs assessment data.
- Identify ways to reduce bias in data collection.
- Prioritize the importance of unmet health needs.

Step Three Objectives

- Identify the strengths and limitations of the current model of care delivery in meeting the health needs of specific patient population affected by cancer.¹

Guiding Questions for Step Three Activities

I. What are patient and family health needs?

- Who and how many patients/family members have these needs?
- What are the contexts and consequences of these health needs?

II. How well does the current model of care meet these needs?

- What factors contribute to unmet health needs?
 - What is the range, availability, accessibility, awareness, appropriateness of use and affordability of existing health services and health providers?
 - Have there been changes in patient volume and acuity, patient and health provider satisfaction and/or the quantity, distribution and types of healthcare provider roles?
- How do unmet health needs impact patients, family, providers, the organization and the healthcare system?
- What are the similarities and differences in stakeholder perceptions of unmet health needs?

III. What are the most important unmet health needs?

IV. What new care practices and/or care delivery strategies are required to address important unmet health needs?

Key Messages

1. Conduct a comprehensive needs assessment that is realistic and feasible by tailoring the process to fit the scope of healthcare planning goals, resources and time constraints.
2. Consider how the use of qualitative and quantitative data will inform your needs assessment.
3. Use a pre-determined process and criteria to identify priorities or the most important unmet needs to address first.

Needs Assessment

I. What are patient and family health needs?

In order to determine patient/family health needs, a needs assessment is typically undertaken.

■ *What is a needs assessment?*

A needs assessment is a research activity designed to determine:

- A patient population's health needs and their current use of healthcare services,
- Unmet patient health needs,
- Gaps in services that contribute to unmet patient health needs, and
- Priorities for improving existing or developing new health services to address service gaps and unmet patient health needs.²

Needs assessments are useful because they provide a rational, evidence-based approach to healthcare planning and allocation of resources.³

Needs assessments are important for developing effective healthcare services because they include healthcare consumers or patients and families in the assessment and planning process.⁴

■ *How do needs assessments differ from program evaluations?*

Needs assessments can be similar to program evaluations when they are conducted after a new program or service has been implemented. Both needs assessments and program evaluations collect information about the characteristics of patients and how they use program resources. Information on different aspects of the program such as the services provided and workload is also collected.

However, data collected for a program evaluation is usually specific to that program. Needs assessments are much broader in scope and collect information about the availability and use of other services outside of a program and about patients who do not use a program's services. Most importantly, needs assessments collect information to determine the extent of unmet health needs or the gap between health needs and the availability and/or use of health services. They are a key strategy for analyzing gaps and inequalities in healthcare for a population.⁵

Health needs assessment is a systematic method for identifying health issues facing a population, determining priorities and making decisions about the best use of resources to improve health and reduce inequalities.⁵

When should a needs assessment be conducted to inform the development of an advanced practice nursing (APN) role?

- Prior to the implementation of a new APN role in order to determine if the new role is required.
- After an APN role has been implemented to determine if there is a need to continue the role or to modify or adapt the role to meet changing patient, healthcare provider, organizational, or health systems needs.

T A B L E 1
Indicators for conducting a needs assessment for your health service or current model of care

- There are changes in the numbers and/or types of patients/families accessing care
- There are changes in the types or acuity of patient/family health needs
- There is uncertainty about the types or amounts of services required
- There are requests for services not currently provided
- An expansion of services is being considered
- Evidence is required to support the allocation of new healthcare resources or the realignment of existing healthcare resources to meet an identified need



■ *Comprehensive needs assessment*

A comprehensive needs assessment includes four main components.³

1. An environmental scan to determine:
 - a. Indicators of the current health status and the types of health needs of the target patient population
 - b. Extent of the patient population or market to be served
 - c. Numbers of potential patients or service users
 - d. Numbers and types of similar services
2. An examination of informal and formal patterns of service use within the model of care to determine the right mix of services.
 - a. Referral patterns
 - b. Numbers and characteristics of patients who use different services
3. Assessment of unmet needs or gaps between health needs and service use.
4. Collection of information about priorities and strategies for improving the model of care.

Comprehensive needs assessment can also be thought about as a process that identifies and compares the demand for and supply of health services.⁶

■ *Stages for planning and conducting a needs assessment:*

A. Planning a needs assessment

- STAGE ONE** Identify stakeholders to participate in the process
- STAGE TWO** Determine the target audience for the final report
- STAGE THREE** Determine the purpose and formulate the questions to be answered by the needs assessment
- STAGE FOUR** Determine the sources of data that will answer the needs assessment questions
- STAGE FIVE** Identify how you will collect and analyze the data
- STAGE SIX** Identify the expertise and resources required to conduct the needs assessment

STAGE ONE Identify stakeholders to participate in the process.

The stakeholder group that has been brought together in Step Two has the primary responsibility for planning and implementing the needs assessment. However, at the start of the planning process, reassess the need to include other specific stakeholder groups. Key stakeholders who should be involved in this process include patients and family members as potential consumers of health services, healthcare providers, professional associations that may represent different health provider groups and healthcare planners and decision-makers.

STAGE TWO Determine the target audience for the final needs assessment report.

The stakeholder group established in Step Two will be a primary user of the needs assessment data. This information will be used to establish priorities and goals for improving the current model of care and will ultimately shape the focus of a new APN role and other practice improvement strategies.

However, the support of other decision-makers may be required to implement a new advanced practice role and practice improvements. Using the care map developed in Step Two, identify important individuals who are not currently involved in this healthcare planning process, but who have responsibilities for making decisions about the management and funding of the model of care under review. Some examples of these decision-makers include members of the organization's executive management team, the Board of Directors and/or funders of the organization and its services.

In planning the needs assessment, consider the types of questions and information these decision-makers will require in order to support your recommendations for improving the model of care.

TIP

Determine if the organization has conducted a prior needs assessment relevant to the model of care and the patient population.³ If a prior needs assessment exists, were its recommendations implemented? And if not, what were the barriers to implementation? If the needs assessment was recently completed, is another required?

STAGE THREE Determine the purpose and formulate the questions to be answered by the needs assessment.

Every needs assessment should include each of the components outlined in Table 2.

T A B L E 2

Components of a comprehensive needs assessment

- Environmental scan to identify patient health needs and existing health services
- Documentation of health service use
- Identification of unmet health needs or gaps in health needs and health service use
- Recommendations about priorities and strategies for improving health services

From Edmonton Social Planning Council (2009). *Doing it right: A needs assessment workbook*. Edmonton, AB: Author.

An important aspect of this step is determining the scope or extent to which each of these components will be examined. *In other words, what is the purpose of this needs assessment and what and how much information is required?*

TIP

Avoid collecting costly, time consuming and unnecessary information by balancing the purpose and scope of the needs assessment with the magnitude of potential costs and implications associated with any changes to the model of care

Many needs assessments collect large volumes of data that are never used to inform the healthcare planning process. This can lead to lengthy and costly delays in implementing important practice changes.

Balance the scope of the needs assessment with your expectations about the timing, magnitude and resources required to implement potential changes to the model of care.

For example, the potential wide scale introduction of large numbers of new APN roles across a large geographic region would require substantial healthcare dollars and have significant implications for the roles and responsibilities of many other healthcare providers. The magnitude of this proposed change likely warrants an in-depth needs assessment that may take 6 to 12 months and several thousands of dollars to complete.

In contrast, consider the potential introduction of one or two new APN roles in one organization. While the costs and implications of this change are equally important, the investment required to conduct a needs assessment should reflect the smaller scale of this planned change.

TIP

Develop concise, answerable questions for each of the four components of a comprehensive needs assessment.

The formulation of clear, concise and answerable questions is critical for developing a comprehensive needs assessment plan to collect information that is useful for healthcare planning and decision-making.

■ Use these strategies when developing your needs assessment questions:

- Develop at least one question for each of the four components of a needs assessment (see Table 2).
- Use precise terms to define the patient population, health services and relevant time points in the cancer continuum for data collection.
- Focus on priorities; eliminate questions that provide “nice to know” rather than “essential” information for healthcare planning and decision-making.
- Consider the need for different types of information and thus different types of questions (i.e., what, how and why).
- Consider the minimum type and level of information that would be required to inform decision-making and practice change.
- Consider the availability or accessibility of existing data and balance this with the importance or need to generate or collect new information.

Appendix D1 provides an example of questions developed for a needs assessment.

STAGE FOUR Determine the sources of data that will answer the needs assessment questions

Use of existing data sources

Whenever possible, use existing sources of data to answer your needs assessment questions.

Examples of existing data sources include government census data and statistics, agency reports, health records and published literature.

The use of existing data sources can permit comparison of patient populations and communities, is inexpensive, easy to access and usually requires little expertise.

These advantages need to be weighed against the potential limitations of existing data sources. For example, existing data sources may only provide indirect or proxy measures of health needs and may not accurately reflect the health needs of your specific patient population. There may also be unknown biases and assumptions associated with how the data was collected and analyzed.

■ **Generating new data, when the use of existing sources is not feasible**

Patients, family members, healthcare providers, healthcare managers, decision-makers and funders are other potential sources for collecting new information that is not available from existing data sources.

■ **Capturing unmet health needs**

Capturing unmet needs is the most difficult and most important component of a needs assessment. Several strategies can be used to capture unmet health needs:

- Collect information on indicators of health status and/or the severity, incidence and prevalence of health needs experienced by your patients that can be compared with those reported for other similar patient populations in the research literature or by other comparable healthcare agencies.
- Collect information about the types of services patients received or did not receive in relation to their health status or a specific health need.
- Identify and describe the characteristics of eligible patients who did not use available health services.
- Collect information to assess the awareness, availability, accessibility, affordability and appropriate use of health services.
- Assess patient, family and healthcare provider satisfaction with health services.
- Collect information about health needs and services that can be compared with existing practice standards, quality indicators or other benchmarks.
- Collect information from patients, families and health providers to identify their perceptions about gaps in service or other barriers to meeting important health needs.



STAGE FIVE Identify how you will collect and analyze the data

The collection of data from existing sources may require a review of the research literature. *See the Resources Section for strategies on how to conduct effective and time efficient searches of the literature.*

Data may also be collected from other existing sources by accessing agency files, data sets and health records.

Ethics board approval and patient permission to access health records may be required if the results of the needs assessment will be used for more than program development purposes and if you intend on sharing the results of the needs assessment beyond the organization through publications or presentations. See Appendix D2 for guidelines on determining the need for research ethics approval.

Depending on the type of question, a variety of methods can be used when collecting new information from key stakeholders. Key informant surveys can be conducted using telephone or postal questionnaires, face-to-face interviews or focus groups.

Key informant data can be inexpensive and fairly simple to collect over a short period of time. The collection of key informant data also permits an examination of a wide variety of viewpoints and experiences and can encourage inter-agency cooperation.

Appendixes D3 through D5 provide three tools that can assist you in developing your needs assessment data collection plan including a:

- Table outlining types of needs assessment data and data sources,
- Summary of methods for collecting data from key informants, and
- Worksheet with sample needs assessment questions to outline relevant data variables and data sources and to plan methods for data collection.

STAGE SIX Identify the expertise and resources required to conduct the needs assessment

It may be important to do an inventory of skill sets and expertise within the healthcare planning team and organization to identify personnel needs for conducting a needs assessment.

Conducting a time efficient needs assessment is also important for maintaining interest and momentum in the healthcare planning process. Therefore other factors such as workload and other time commitments within your team may necessitate the recruitment of other personnel.

When conducting a needs assessment, maximize the use of existing resources to help you collect this data including: library staff, information specialists or data management staff, health records departments, local researchers, statisticians, graduate students and volunteers.

Appendixes D6 through D10 provide a number of tools and resources to assist you in planning and conducting a needs assessment including:

- An inventory of skills and types of individuals who may have the expertise to implement a variety of needs assessment activities,
- A budget template,
- A sample of a patient focus group invitation letter,
- A semi-structured guide for conducting patient interviews or focus groups, and
- A semi-structured guide for conducting healthcare provider interviews or focus groups.

Quantitative versus qualitative data

How much data should be quantitative and how much should be qualitative?

There is no right or wrong answer to this question. Needs assessments often involve both forms of data, in order to answer different types of questions.

The following are examples of needs assessment questions that require quantitative or qualitative data collection:

- a. Prevalence and incidence of a certain health condition or need (quantitative).
- b. Use of current services (quantitative).
- c. Descriptions of experiences with current services (qualitative).
- d. Rationale for why a need may be unmet, inappropriate, inefficient, or ineffective (qualitative).

Quantitative data helps to address the “what” questions. The potential responses to these types of questions are categorized or predetermined by the assessor/evaluator. In contrast, qualitative data helps to address the “why” and “how” questions and are open ended allowing the responder to provide answers or information in their own words.⁷

A large number of people can be surveyed relatively quickly (using paper, online or short interviews with closed ended questions) to provide information when using quantitative data requests. However, qualitative data collection takes a lot more time as this is usually conducted through interviews or focus groups and the resulting data takes longer to sort and analyze. Therefore, a smaller number of people are asked to answer questions providing qualitative data.

The following example describes the complementary value of each type of data collection:

Clinic attendance data is reviewed to identify the number of cancer survivors that attend the clinic and the reasons for their attendance are numerated using pre-determined categories. This allows us to see the current utilization of the clinic and the types of needs that brought patients to the clinic. This data, however, does not inform us of any other needs that the cancer survivors may have that were not addressed or expressed at the time of the clinic appointment. A focus group with a sample of cancer survivors can reveal insight into needs that were not being addressed as well as whether they felt satisfied with the services they were receiving at the clinic for specific needs.

TIP

For each area of a needs assessment, ask what type of data will provide the best information and whether both types of data (qualitative, quantitative) are required to answer key questions.

■ Minimizing bias in data collection

Strategies for minimizing bias in data collection and to collect high quality data

Ensuring that needs assessment data is of high quality requires strategies to minimize bias and to ensure the accuracy and completeness of data collection.

Bias occurs when:

- Data collection tools or methods do not capture the true meaning of what is intended.
- Data collection tools or methods provide inconsistent data despite similar circumstances.
- Data collection is incomplete or inaccurate.
- Data is collected from individuals who are not the most knowledgeable about the issues or who are not relevant to the priority population or model of care.
- Data collector and analyzers consciously or unconsciously influence what data is collected and how it is interpreted because of their pre-determined ideas or preferences.



A number of strategies can be used to ensure high quality data:

- Ask the question: Whose perspective is the data coming from and which perspective should receive more attention? Ideally, the patients' perspective is the most important, as they are focus of the needs assessment.
- Ask the question: How is the data interpreted and validated? Validating the interpretation of the data with the patient population is one way of ensuring that the information they provided was interpreted correctly. Involving patients in subsequent phases of development of healthcare delivery model ensures that the needs assessment is used to inform the decisions that are made.
- Use pre-existing questionnaires or tools that have been shown to be valid and reliable.
- Triangulation of data or using multiple sources of data (from patients, from advocacy groups, from providers, etc) can help to identify if there are consistencies or discrepancies in the resulting conclusions of the needs assessment.
- Use a systematic process, with clear documentation and predefined methods for data management and analysis to ensure that the data is not tampered, lost or misused/misinterpreted.
- Where possible, use people to collect and analyze the data who have no vested interests in the outcome of the needs assessment and who are not associated with the current model of care. This may help to avoid any pre-conceived notions or expectations that can lead to inaccurate collection and misinterpretation of data.

II. How well does the current model of care meet these needs?

Answering this question involves analyzing the data you have collected for the first three components of a needs assessment outlined in Table 2 to capture unmet health needs and gaps in care. Data from the environmental scan on patient health needs and availability of health services are compared with actual use of health services and information about the extent to which health needs were met or not met and why.

Types of questions that may guide your analysis include:

- How does the health status of the priority patient population compare to that of similar patients reported in the published literature or by other similar organizations?
- What patient, provider, organization and health system factors contribute to unmet health needs?
 - Consider the range, availability, accessibility, awareness, appropriateness of use and affordability of existing health services and health providers.

- Assess if indicators about processes and quality of care are similar to accepted gold standards or benchmarks.
- Consider trends or changes in patient volume and acuity, patient and health provider satisfaction, and/or the quantity, distribution and types of healthcare provider roles.
- How do unmet health needs impact patients, family, providers, the organization and healthcare system?
 - Consider the negative consequences and down stream effects of unmet needs and if these consequences are important.
- What are the similarities and differences in stakeholder perceptions regarding the extent, causes and importance of unmet health needs?

In Step Four, the analysis of unmet needs continues in more depth to determine if there are common patterns or overlapping problems that contribute to unmet needs.

III. What are the most important unmet needs?

It is not realistic to expect that organizations can fully address all unmet health needs. However, some unmet health needs may be more important to address than others because of patient preferences, the significance or negative consequences of unmet needs or because of timing and feasibility issues.

Perceptions of the importance of unmet health needs may be identified from key informant interviews or focus groups that engage patients, families and health providers. Summarizing this data and drawing conclusions or recommendations may be challenging if there are varied views and lack of guidelines or criteria to make judgments about the importance of unmet health needs.

There are various strategies available that can be used to support the process of establishing priorities. This process must be undertaken with close involvement of patient groups in order to ensure that the most relevant “unmet needs” are addressed.

The prioritization matrix is a common strategy that can be used to systematically approach a whole set of unmet needs with the use of defined criteria to select the top three or four areas to focus on initially.⁸⁻¹⁰ Table 3 provides some examples of criteria that can be used to prioritize unmet needs. These criteria must be agreeable to patient groups.

TIP

To undertake a prioritization exercise, consensus decision-making is required. See the Resources Section for information on consensus decision-making strategies.

TABLE 3

Criteria for prioritization of unmet needs

Some potential criteria that can be used to assess the relative importance of an unmet patient need are as follows:

- High risk associated with unmet needs (life threatening, can result in permanent or long-term disability)
- Unmet needs associated with significant pain, suffering, discomfort and inconvenience
- Large numbers of people experiencing unmet need
- Unmet needs creating significant costs to the individual, organization and/or society
- Unmet needs creating inequity among patient groups or across geographic regions
- Feasibility of addressing unmet needs – existing evidence on intervention strategies, expertise, cost, space, time etc to address unmet need
- High consensus among patients of the overall priority
- High consensus among providers of the overall priority

Table 4 provides an example of a prioritization matrix. In this example, a point or checkmark can be given to identify all of the criteria associated with each unmet health need. Priority may be given to the unmet needs associated with higher scores or the greatest number of criteria. This exercise could be done with a group of invited stakeholders or by your healthcare planning team.

A drawback of this particular matrix example is the criteria are all considered to have equal importance and this may not be the case.

In the Resources Section related to decision-making you will find an example of a more detailed decision-matrix that may permit the weighting and/or rating of criteria.

Prioritization matrix - example

TABLE 4

Criteria*	Unmet Patient Health Needs			
	Information	Symptom management	Safety	Care coordination
High risk				
High pain, suffering, discomfort, inconvenience				
High volume				
High cost				
High inequity				
High feasibility				
High overall priority by patients				
High overall priority by providers				

* Check all the criteria that apply to each unmet health need

IV. What new care practices and/or care delivery strategies are required to address unmet health needs?

As was outlined in Table 2, a comprehensive needs assessment will collect information, usually from key informants, about the types of strategies, solutions or recommendations they have for addressing unmet health needs.

Information about key informant recommendations for strategies or solutions could be collected in two ways:

- As part of the initial collection of needs assessment data through a survey, interview or focus group discussion; or
- Through discussion at a community forum where the initial results of the needs assessment are shared with various key informants such as patients, family members, health providers and administrators.

Research-based literature can also be reviewed to learn about evidence-based strategies known to be effective for addressing specific health needs.

TIP

Work closely with a librarian to determine a search strategy when conducting a literature search. Additionally, use your network of experts to scan the environment for established best or promising practices

Next Step

In Step Four, we continue to build on and examine the needs assessment data. Strategies are used to determine the root causes or underlying problems that contribute to unmet needs, decisions are made about the most important problems to tackle and goals and measurable outcomes for improving patient health and the model of care are identified.



Implementation Pointers

Needs assessment exercises can help with many organizational objectives including:

- Enhancement of care delivery models,
- Establishing patient friendly environments, and
- Achieving greater cost effectiveness and efficiencies.

Therefore, a thoughtful process involving other groups or departments in the organization might provide an opportunity for leveraging needs assessment processes and resources for multiple purposes or projects.

Here are some additional pointers that can help ensure the most efficient use of limited time and resources for capturing information for a needs assessment:

- Brainstorm about ways various organizations already collect data that on a regular basis that could be used in the needs assessment (e.g., suggestion boxes, patient satisfaction results, community surveys, human resource department databases, surveys conducted by various associations such as the Canadian Cancer Society).
- As patients' needs may change over time, it is important to integrate needs assessment questions in existing processes in order to collect and analyze the data on a period basis.





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