

Conducting a Preliminary Assessment

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*For more information on **how to conduct a literature search**, see the CSHP 2015 tool kit for objective 3.1, "[From Paper to Practice: Incorporating Evidence into your Pharmacy Practice](#)" (specifically, Part 1: [How to Do a Basic Search for Evidence](#)).*

Conducting a Search for Evidence

Implementing a unit-dose system (manual or automated) that is suitable for the organization requires careful thought, extensive planning, and the investment of significant resources (in terms of both effort and money). In the early stages of planning, it is wise to search for evidence that will help in designing a drug distribution system to meet the needs of the organization, the healthcare providers who will be using the system, and the patients who will be served.

The following lines of enquiry, among others, should be explored:

- options available for unit-dose systems
- guidelines available for use of unit-dose systems
- impact on effectiveness of the existing medication-use system (specifically in the areas of inventory management, dispensing activities, and provision of clinical services)
- fit with other technology already in place
- economic analysis (e.g., return on investment, cost-benefit analysis, cost-effectiveness analysis)
- new safety issues

The following tips may help in the search for information:

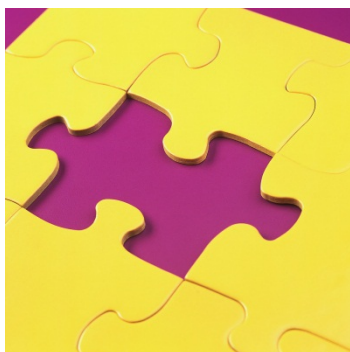
- Clearly define your question and search parameters, to ensure identification of appropriate key words and phrases for the search.
- Search established literature databases; for many topics, PubMed is a great place to start.
- Search the website of the Canadian Agency for Drugs and Technologies in Health (CADTH) for reviews related to the technology under consideration.

In addition to literature searches, collection of current practice information from peer facilities is also highly recommended.

Performing a gap analysis

A gap analysis will help to identify or highlight differences between the organization's current state and the ideal (future) state. This task includes process mapping, whereby the organization documents exactly what activities are performed, who is responsible for those activities, the standard (or ideal state) according to which a process should be completed, and how success for the process is determined.

Current state: Thorough documentation of what currently exists is essential for determining what will be required in the action plan as the project advances. Be sure to account for the corresponding human resources and affiliated costs.



Ideal state: Describing the ideal (future) state for a particular organization is often the most difficult step. Although we can look to the literature to determine the overall ideal, it may be difficult to attain this ideal in real life. The information gleaned in conducting the search for evidence is often highly beneficial for this step.

Gap analysis: An Excel workbook is often helpful for the gap analysis itself. The first worksheet is used to represent the current state, the second worksheet to represent the ideal state, and the third worksheet to identify all of the gaps. From there, individual action plans can be developed to close each gap, allowing the organization to move from the current to the ideal state. Performing an accurate and realistic gap analysis will allow you to prepare a briefing note that is aligned with the best options and recommendations for your project. It will also set you on the right course for creating the business case and project plan, once the project has been approved.

Collecting Data about the Medication-use System

Data about the medication-use system must be collected to identify or better understand issues related to the current state and to assess whether proposed changes will result in improvements, no difference, or exacerbation of the issues.

The data elements for such an analysis must be easily collected, valid, and relevant to the measurement of success. The following list of key elements is not exhaustive or prescriptive, and the elements chosen for a particular analysis will vary with the scope of the project.



The data elements must be easily collected, valid, and relevant to the measurement

- Medication errors due to drug selection in the pharmacy department
- Medication errors due to drug selection on the nursing units
- Medication errors due to transcription of orders to the medication administration record
- Medication errors due to missed orders
- Number of doses returned to the pharmacy
- Inventory variances
- Number of expired or wasted medications
- Pharmacist time spent in drug distribution
- Pharmacy technician time spent in drug distribution
- Nursing time spent in administering drugs
- Turnaround times (e.g., time for orders to reach pharmacy from patient care units; time for medications to reach patient from pharmacy)
- Number of instances when drugs are ordered but not available
- Staff satisfaction (nurses, physicians, pharmacists)
- Lessons learned and other observations

Developing a Briefing Note



A briefing note is a document that presents information and facts to ensure that decision-making is optimal. Briefing notes should generally be between 500 and 750 words (maximum of 2 to 3 pages). The note should include all of the following key elements:

- Clear statement of the issue, in the form of a question or a statement
- Description of current status, including accurate statement of all critical facts
- Background information, describing what happened to create the issue
- Options for consideration, including the gap analysis, along with a risk–benefit analysis and the cost of each option (this information should help the decision-maker to find the best option that can be achieved with available resources; cost information may be helpful in choosing between 2 options with similar risks and benefits)
- Recommendations, proposing a course of action(s) that will help to close the gap
- Next steps, summarizing future milestone activities, assuming the recommendations are accepted

Templates for briefing notes are presented in the appendix.

Appendices: Examples of a Template for a Briefing Note

1. [Example 1](#)
2. [Example 2](#)
3. [Example 3](#)

Additional Resources

Standards and guidelines:

- Canadian Society of Hospital Pharmacists: Official Publications (<https://www.cshp.ca/official-publications>)
- American Society of Health-System Pharmacists: policy positions and guidelines (<http://www.ashp.org/menu/PracticePolicy/PolicyPositionsGuidelinesBestPractices.aspx>)
- Accreditation Canada: standards (<http://www.accreditation.ca>)
- The Joint Commission: standards (<http://www.jointcommission.org/>)

Other sources:

- Hospital Pharmacy in Canada Report (<http://www.lillyhospitalsurvey.ca/hpc2/content/home.asp>)
- Pedersen CA, Schneider PJ, Scheckelhoff DJ. ASHP national survey of pharmacy practice in hospital settings: dispensing and administration—2008. (*Am J Health Syst Pharm* 2009;66:926-946)
- Canadian Agency for Drugs and Technology in Health. Technologies to reduce errors in dispensing and administration of medications in hospitals: clinical and economic analyses (2009) (<http://cadth.ca/en/products/health-technology-assessment/publication/924>)
- Canadian Agency for Drugs and Technology in Health. Automated medication dispensing systems: a review of clinical benefits, harms and cost-effectiveness (2010) (http://www.cadth.ca/media/pdf/10220_automated_dispensers_htis-2.pdf)