Capital Health

Health Sciences Library

Annual Report
2009-2010

Penny Logan, Manager Library Services

For the period April 2009 - March 2010
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Executive Summary

From community work to new sections on the website, the Library was stretched in new and exciting directions this year. As a result, the Library is encompassing new types of activities and broadening the Library’s reach into the community. The value that people place on the Library and the support that the Library provides to other services are validated in the number of requests for Library input into decision-making processes and in the volume of work completed by the Library staff.

One big piece of work this year was the development of an online learning module about Evidence-Informed Decision Making (EIDM). A representative from the Library sits on the Evidence-Informed Decision Making Advisory Team. This team has the mandate:

“to foster a culture of inquiry and advance the practice of evidence-informed decision making within management decision making at CDHA”.

This important work was possible because of funding from an Innovation grant. This allowed the Library to hire Barbara Stailing, a Health Librarian, for three months in the fall of 2009. Barbara filled the role of Librarian Educator, so that Library staff could devote their time to investigating the software, conferencing with Health Information Technology Services Nova Scotia (HITS NS) about standards, developing a plan for EIDM education in Capital Health, and completing the first online module in the education program. In addition, as part of this project, two essential databases to support the evidence-based process were purchased.

The Library worked closely with the Information Technology Services group to identify a solution to offsite access to the Library’s materials. This work is ongoing, and the knowledge of Library needs is growing. The necessity for this access is underscored by the results of user surveys that continue to indicate that offsite access is a high priority for Capital Health employees. Also, this year’s web site statistics show the Library’s website is #5 on the "most-accessed" web page.1 There are more than 3000 web pages on the Capital Health website, so it is fair to say that the Library’s web page is one of the main pages that people select when they want information about Capital Health.

The Library partnered with the Nova Scotia Association of Clinical Laboratory Managers and HITS NS to manage the purchasing of the Clinical and Laboratory Standards Institute (CLSI) database - an online database of Laboratory standards. As a result of this collaboration, all the Laboratories in all the health authorities have access to these standards anytime, day or night, and at a reduced cost.

Capital Health Libraries continues to work with the Dalhousie Kellogg Library, the Nova Scotia Department of Health and the IWK Library to move forward with what is now called the Virtual Health Library of Nova Scotia (VHLNS). Academic Council facilitated funding for a survey which was completed in December 2009. A copy of the survey is attached in the Appendix. The next phase of the project is to get approval from Academic Council for funding for a business plan for the VHLNS.

All in all, a full and forward-looking year for the Library!

1. e-mail from Darryl Corkery Web Coordinator, to Penny Logan., August 21, 2009.
Collections

Book collection
The Library continues to purchase e-books as the preferred format. Publishers are providing favourable pricing, and the e-book format allows access to these items at any time from any place within Capital Health.

Journal collection
The Library orders journal subscriptions for all departments in Capital Health. We have been notifying departments when we see that the department is paying for a paper subscription and the Library has an online subscription for the same title. In 2009, we calculate that departments ceased subscriptions worth $13,708 because they are now relying on the Library’s online subscriptions.

Databases
The Library had identified a gap in the database collection for a number of years. As a result of the Innovation funding, that gap has been filled with the addition of Embase and *ABI Inform* to the collection. These are essential databases to support Evidence-informed Decision Making (EIDM). *Embase* is the equivalent of PubMed, but with a more worldwide focus and *ABI Inform* indexes the business and health administration material. This combination rounds out the health literature holdings and allows us to truly support systematic literature searching.

Another essential addition to the collection this year is the *Conference Board of Canada* documents. The Library has been negotiating for several years to find a way to afford this essential database of Canadian content. The publisher was able to provide a different and affordable pricing model and we expect this will be another very useful tool for users who are investigating Canadian health policy topics.

The Library was delighted to announce that Capital Health now has free access to *Culture Vision*. “A database to guide healthcare professionals in providing culturally appropriate care based on patients’ values and cultural framework.” This is another product that we had been working to provide for several years, and the Diversity and Inclusion Committee noted the need for this kind of information. Proquest, the company from which we purchase several other databases, recently purchased *Culture Vision* and has made it available to subscribers at no additional charge.

All Capital Health employees also now have access to *Community of Scholars* (COS) a database of 400,000 funding sources for research. Connections were made between the Library and the Research department when it was discovered that Capital Health should have access to COS because of a joint agreement with Dalhousie University. The Library investigated and has made that access available to all Capital Health staff from the Library’s database page.
Capital Health Libraries was selected as one of four sites in North America for a 6 month trial of *BMJ Point of Care*. This new tool provides decision support and evidence-based clinical tools that are based on high quality information. There has been pressure on the Library to purchase a point of care product. Some of these products cost in the $100,000 range, and are not evidence-based. The Library has run free trials for different products over the past few years. *BMJ Point of Care* is the first affordable product that also has indisputable high quality evidence-based information as the basis for the product. It was hoped that if a high quality product that is affordable could be found, that the pressure on the Library to purchase other products that are not evidence-based will cease.

This seems to have been the case. Penny gave a presentation about *BMJ Point of Care* at Medicine rounds on Wednesday, February 10, 2010. There was much discussion about BMJ Point of Care, and subsequently, the Department has agreed to support this title and to refer medical students and Residents to this high quality, evidence-based product.

**Systems**

This year the Library has had regular, twice a month meetings with Michael Thibodeau, Andrew Kozma and Ryan Moore from Information Technology Services. These discussions are focusing on the technical, security and budgetary requirements to provide offsite access to the Library’s materials. We hope to find the resources to move ahead with this in the coming year.

There were many additions to the Library’s web site this year: A podcast section was added, and three new specialized pages were developed for Residents, for Nurses and for Research. In addition the Library website provides an entirely new section on Evidence-informed Decision Making.

**Equipment**

A new computer line was installed in the Library at the Dartmouth General Hospital in August, 2009. This is an important piece of work for the Library as we move to fill the gap left with the removal of the C@p computers that are no longer available in Capital Health sites. This is the result of a cooperative effort with Information Technology Services who pay for the connections and the computers. The Library provides the space, the monitors and printers. We can now offer computer access to patients and families via an Aliant connection in all the four Library sites. Because the connections are through Aliant, patients and families can access Facebook and other social networking sites that are not accessible through the Capital Health network.

**Services**

One of the Library’s successful services is providing information booths and displays at forums held within Capital Health. The Library is also often asked to provide specialized sessions for interested departments and units. Several forums and events were attended this year including those listed below.

At the Nurses Expo on May 14, 2009, a booth and overhead projection display were provided. This is a very popular event, and the Library has been attending for several years.
On July 7, 2009, Penny presented a session called *Introduction to Library Services* to the incoming Medical Residents as part of their Capital Health orientation. This is an excellent opportunity to acquaint new Residents with Library services as part of the broader orientation to clinical services.

On September 24, 2009 a session was delivered at the request of the Family Medicine Department about Capital Health Library resources. This is becoming an annual event and brings many questions about Library services, and feedback on the services our users need.

A booth was provided for Research Day on September 30, 2009. The Library was able to provide a small prize for attendees who visited the Library booth. This was very popular, and we will investigate how we can continue this activity.

October 28, 2009 the Library hosted a booth at a program sponsored by Nursing Professional Practice called "Building Knowledge: Novice to Advanced Beginner". This full-day session was aimed at recent graduates. Attendees were pleased to see the breadth of resources available to them through the Capital Health Library.

A tour for Library Technician students from the Nova Scotia Community College was conducted on October 30, 2009. This annual event allows for information exchange between students and Library staff about the specifics of hospital Library jobs, and about Capital Health as a prospective employer.

A training session was delivered at the request of the Department of Neurology November 27, 2009, focusing on new services and developments in the Library. There is ongoing interest in Library resources, and several department incorporate Capital Health Library sessions into their Continuing Education offerings.

**Training**

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<th>Year</th>
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<th>Increase over previous year</th>
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<tr>
<td>2003-2004</td>
<td>95</td>
<td>n/a</td>
</tr>
<tr>
<td>2004-2005</td>
<td>183</td>
<td>88</td>
</tr>
<tr>
<td>2005-2006</td>
<td>253</td>
<td>70</td>
</tr>
<tr>
<td>2006-2007</td>
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<tr>
<td>2007-2008</td>
<td>887</td>
<td>630</td>
</tr>
<tr>
<td>2008-2009</td>
<td>829</td>
<td>-58*</td>
</tr>
<tr>
<td>2009-2010</td>
<td>874</td>
<td>45**</td>
</tr>
</tbody>
</table>

* Due to staffing issues, the training program was suspended from December 2008 through April 2009. These figures represent training statistics for 8 months of the fiscal year.

** Consistent staffing in the coming year should increase this number
Staffing issues caused some gaps in the Library’s training schedule this year. Despite this, we were able to train approximately 870 people. The number trained is possible because of the Librarian Educator position.

Library staff are also always looking for opportunities to increase their own knowledge. This year, the Library Technicians who catalogue, attended a workshop on Inmagic held at the Department of Education on June 8, 2009. Inmagic software is used in many of the special libraries in Nova Scotia, so this was an excellent resource-sharing and information–gathering opportunity as well as an educational event.

Seana Collins was supported to attend the Canadian Patients for Cancer workshop in Toronto, March 29-30. This forum brought together Librarians from across Canada to discuss the education and information needs of Cancer patients.

As part of the CanMEDS framework of required competencies for Canadian physicians, Penny Logan was asked to meet with a Resident in the Respirology program to provide training in literature searching, reference management, and evidence-based practice methods. In addition, three questions were provided that will be used in the Resident evaluation test. The Library is getting requests from several areas to provide this kind of one-on-one training. Although one-on-one training is ideal, the number of Residents that require this knowledge is larger than the available Librarian personnel. The EIDM module is a first step in developing skills within the Library to create online e-learning sessions that can provide this kind of training to larger numbers at a time that is convenient to the learner.

**Outreach**
The Library partnered with the Mental Health Program, and many community members to find suitable ‘homes’ for some of the valuable and fragile artifacts at the Nova Scotia Hospital Library. May of these artifacts require special climate controlled environments. Special mention to Dr. Nick Delva, Chief of Psychiatry, who delivered artifacts to Museum of Health Care in Kingston, Ontario, Dr. Alan Marble from the Medical History Museum of Nova Scotia and Crystal Martin from the Dartmouth Heritage Museum. These people were instrumental in seeing this project through.

Below is an excerpt from “Mental Health Happenings, August 17, 2009”:

**Donation of MH Artifacts**
*As part of our ongoing work to find appropriate homes for all of the historical artifacts which have been amassed over the past few years, last Friday a formal donation of items was made to the Medical History Society of Nova Scotia. Some of the items donated were a 1948 Atlas of Electroencephalography, several round Breath-O-Life oxygen bottles from the 1950s and a collection of medicine jars and bottles. These items will be housed in the mini medical Library and artifact storage area of the Abbie J. Lane. Another large group of items was also donated to the Museum of Health Care in Kingston, Ontario.*
In July, a painting of Dorothea Dix which has long been proudly hanging in the Nova Scotia Hospital Library, was loaned to the Art Gallery of Nova Scotia for display. Dorothea Dix is a significant historical figure in the development of Mental Health services in the United States and Canada. She is credited with selecting the site for the Nova Scotia Hospital.

The Infirmary Library has received artifacts over the years from the Sisters of Charity, who ran the Halifax Infirmary before the hospital moved to its present site. Sister Mary Palardy, on behalf of the Sisters of Charity, donated a large painting to the Library. The painting is titled “Crucifixion” and it hung in the “old” Infirmary over the altar in the chapel.

Sister Agnes Berchman Landry, who is a world-renowned artist, painted this picture. The Library contacted several galleries, and Peter Larocque from the New Brunswick Museum accepted the painting so that it can be restored and displayed. Sister Agnes was a distinguished member of the New Brunswick Acadian community, so New Brunswick is a good home for this important piece of artwork.

Although not strictly Library work, the Library is honoured to help ensure these kinds of historic records are preserved appropriately.

Penny Logan was asked to attend the Community Health Board Consensus-Building session January 18, 2010 as a content expert with this invitation: “Conversations with content specialists like yourself, along with findings from the Our Health: A Community Health Assessment Survey, subsequent community conversation input and research evidence around effective interventions to address these health priorities will inform Capital Health's new health plan.” This was a wonderful opportunity to connect with community leaders and to provide the Library perspective on the Community Health Board planning document.

A group of foreign-trained physicians who are studying for their Canadian credentials, are meeting regularly in one of the Infirmary Library meeting rooms. Also, a limited number of books are now held on ‘reserve’ which makes these items more available and less likely to go missing. This is the result of a relationship with Immigration Settlement and Integration Services (ISIS - formerly MISA), and is one of the Library’s successful community partnerships.

The Supportive Care group is developing a new patient waiting area inside the Cancer Care Nova Scotia centre on the first floor of the Dickson Building. This group wants to offer a selection of materials on cancer–related topics. The Library will help develop the list, order the books and ensure they are processed so that people can borrow them. It is hoped that the renovations will be complete by the end of the summer.
Capital Health Library Services
2009-2010

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<tr>
<td>Reference Questions</td>
<td>11,137</td>
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<tr>
<td>InterLibrary Loans</td>
<td>14,190</td>
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<tr>
<td>Online Searches</td>
<td>135</td>
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<tr>
<td>Consult hours</td>
<td>377.6</td>
</tr>
<tr>
<td>Traffic</td>
<td>162,004*</td>
</tr>
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</table>

*Total people counter numbers divided by 2

**Highlights**

Consult hours in this fiscal year were 377.6. In the previous fiscal year consult hours were 61. This is a 6-fold increase in the amount of consultation time people have needed to support their research efforts, systematic reviews and special projects. This is approximately 10 weeks ‘worth’ of time for a full-time Librarian. This is a nod to the success that Capital Health has achieved in changing the culture so that people understand the need for evidence-based decision making. This is also a very serious pressure on the Librarian staff.

Traffic to the Library continues to grow. This year’s number of 162,004 is an increase of 10,516 visitors over last year. That is a 6.94% year over year increase. We interpret this increase as showing that even as the Library moves to make material available online, people still need the Library space as an area to meet and to study.

**Facilities**

**Dickson Library**
Wooden shelving was moved in order to create two sitting areas. This is welcomed by our users, and gives the Library a more open and appealing look.

A very old and non-functional desk was removed and a new desk was purchased for Bill Fancy. All the office furniture is now the same style and colour, and with some re-arrangement, all Library staff are now able to see patrons at the front desk at all times. In addition, this provides for storage for supplies within a cupboard rather than on the floor, meeting occupational health and safety requirements and giving a generally tidier look.
An electrical outlet was installed in February, 2010 so that the scanner is accessible to all staff. Scanning documents is becoming an important part of the daily work in the Library especially for InterLibrary Loan activities.

**Halifax Infirmary**

The Infirmary carpenters repaired the frames on some photographs and created a wooden frame to hold the glass “Halifax Infirmary” sign that was donated to the Library from the Sisters of Charity. These items are on display in the public areas of the Halifax Infirmary Library.

**Nova Scotia Hospital Site**

New lights were installed in the Library which provides much better lighting. A surplus oak table was moved from the Dickson Library to the Nova Scotia Hospital Library. This provides much-needed space for the patient/family computers. A new printer was purchased that can be networked to all the patient/family computers. The entrance doors to the Library were painted to match the door frames, and three doors that were originally the entrance doors to the cafeteria, were removed so that there is direct access and line of sight to the Library entrance.

**Library Research**

Seana Collins and Verona Leslie created the Evidence-informed Decision Making module which includes both a pre- and post-test, narration, games and quizzes using Articulate Software. We hope the expertise learned from this project will be shared throughout Capital Health as more departments move to creating online learning opportunities. This module has also been accepted as one of the Capital Health “My Leadership Learning Experiences”.

**Personnel**

Verona Leslie was recognized for 30 years of service in 2009. (!) Verona started at the Camp Hill Hospital Library and has seen many changes in her job and her location during her career. Joan Briand received her certificate for 15 years of service with Capital Health this year. Joan, too, has seen much change in her work and has served the Nova Scotia Hospital Library in three different locations.

The Library and the Human Resources Department worked together to change the .5 FTE Library Clerk position at the Dickson Library to a .4 FTE Library Technician position. The budget remains the same, but this change reflects the changing role of that position to include cataloguing duties and support for the Librarian Educator.

Bill Fancy was hired as the Part time Library Technician in September, 2009 Bill is a graduate of the Nova Scotia Community College Library and Information Technology Program and is a welcome member of the team.
Library Staff, April 1, 2010:  
David Bartheaux, Library Technician – Dickson  
Joan Briand, Library Clerk – Nova Scotia Hospital  
Carrie Burke, Library Technician – Dickson  
Seana Collins, Librarian Educator – Dickson  
Bill Fancy, Library Technician – Dickson  
Kristina Holman, Library Technician – Infirmary  
Diane Lawson, Library Clerk – Infirmary  
Myrna Lawson, Library Technician – Nova Scotia Hospital  
Verona Leslie, Library Technician – Infirmary  
Penny Logan, Manager Library Services

Internal/External Committees and Activities

The Library continues to contribute to the Nova Scotia Cancer Patient Education Committee, the Atlantic Health Knowledge Partnership, the Dalhousie Library Committee, the Nova Scotia Hospital Mental Health Research Committee, and the Capital Health Educators Committee. Penny Logan was asked to sit on the Education & Research Committee of the Abbie J. Lane Master Program Planning group.

The Library was featured in the March 29, 2010 *Mental Health Happenings* Newsletter, as shown below. Joan Briand and Myrna Lawson supervise 15 volunteers in the Patient Library at the Nova Scotia Hospital Library.

**In Honour of Volunteer Supervisors**

Staff from the Mental Health Program Dartmouth, who directly supervise volunteers, were treated on March 26th to a special recognition breakfast at Cora's on Portland Street. Volunteer Services extends an enormous thank you to program supervisors for all the work they do in supporting volunteers attached to their respective work areas. Congratulations to: Karen Leyte, NSH Pharmacy; Dave Strickland, High School Co-op Education Coordinator; Shauna Coleman, ECFH; Joan Briand and Myrna Lawson, NSH Health Sciences Library who attended and each won a lovely potted plant!

Among the staff who enjoyed a delicious breakfast were Debbie Simmonds, Jan Palmer and Joan Briand.
Health Sciences Library Budget Fiscal 2010

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<th>Nova Scotia Hospital</th>
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<td>$1,079,613</td>
<td>$232,751</td>
<td>0</td>
<td>$1,374,721</td>
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* The Cost centre for Libraries outside metro (LIBT) supported a computer in Hants Community Hospital. That computer is now paid for by another, non-library cost centre. The cost centre LIBT is no longer used.

Looking Ahead to 2011

The Library is maturing, growing and strengthening ties with the community. We are hopeful that we may find a way to provide offsite access to our users in the coming year. Because Evidence-informed Decision Making is a building block for Capital Health’s Milestones, we are hopeful that there will be resources allotted to this area. Creating and refining online e-learning courses will be an emphasis for the coming year and we hope there will be a move to further support the Virtual Health Library of Nova Scotia.

Penny Logan, Manager Library Services, Capital Health
Appendix


December 2009

December 2009

Prepared by:
Amanda Stevens, MLIS
Virtual Health Library Survey Project Coordinator

For the Virtual Health Library Survey Project Committee,
Nova Scotia Department of Health, and the Academic Council
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1. Executive Summary
The Library Directors for the IWK, Capital Health, and Dalhousie University’s Kellogg Health Sciences Library, with funding from the Nova Scotia Department of Health and support from the Academic Council, are exploring the feasibility of establishing a provincial consortium of health libraries and knowledge services to provide access to key electronic resources to practitioners, students, and government employees in the health field in Nova Scotia. A Library consortium is a local, regional, or national cooperative association of libraries formed to share resources.

A web survey questionnaire was developed to collect information from potential members of the consortium to determine:

- if there is a need for a consortium
- if a consortium is feasible and
- to assist with planning

The questionnaire was sent to all organizations that were thought to provide health knowledge and information services to health care workers and health care students in Nova Scotia, including regional health authorities, Department of Health, post-secondary education institutions, associations for health professionals, and regulatory bodies for health professionals. Twenty-four valid questionnaires were received, making the response rate 55%. Response rate among health authorities, education institutions, and government was high while the response rate for professional associations and regulatory bodies was 33%. This indicates that further information needs to be collected from professional associations and regulatory bodies about the health knowledge services and resources they currently provide and would like to provide to their members.

Need for a consortium
The survey found that organizations across Nova Scotia provide a wide range of health knowledge resources and services to their users and that there is a need for a health libraries consortium to fill gaps and equalize access to health information.

Results include:

- Twenty nine percent of organizations surveyed do not have a library and do not otherwise provide knowledge services to their staff or members
- Organizations with libraries or knowledge services employ between 0 and 30 full-time staff and between 0 and 19 part-time staff
- Collections budgets range from $0 to $1,000,000. Education institutions have the highest budgets and staffing levels and provide the most comprehensive health knowledge services and resources to their users compared to other types of organizations. This demonstrates that health professionals have good access to health knowledge resources and services when they undergo training but often lose that access when they graduate, despite having an equal need for information as professionals

Organizations would like to provide their users with increased access to all types of electronic resources:
• 79% would like to increase access to electronic journals
• 79% would like to increase access to journal article databases
• 79% would like to increase access to electronic books
• 78% would like to increase access to clinical decision support tools
• 70% would like to increase access to grey literature
• 67% would like to increase access to electronic drug information sources

Better off-site and mobile access to knowledge resources and services is needed, as 38% of organizations do not provide off-site access and only 19% provide mobile access. Organizations were also found to have duplicate subscriptions to selected electronic resources. There may be possible cost savings by sharing subscriptions.

Feasibility of a consortium
Survey results confirm that a health libraries consortium for Nova Scotia is feasible, as many respondents expressed a high degree of interest in joining a consortium.

• 46% of respondents are very interested
• 33% are somewhat interested
• 13% are not interested

Respondents perceived many advantages to participating in a consortium, if the staffing and financial issues can be addressed. 71% of organizations that do not have a library or a knowledge service selected the following issues as possible barriers to membership in a consortium.

• 42% of respondents indicated that they may not be able to meet the costs of shared licensing
• 33% indicated a lack of human resources as an obstacle
• Having the technological capacity to participate in a consortium is not a barrier, as 94% of respondents have a high speed Internet connection at their library and 83% of respondents said the majority of their users have high speed Internet connections at their workspaces.

Further research is necessary on the financial and staff resources needed to participate in the consortium to determine whether these will be obstacles for some organizations.

Planning a consortium
The survey collected information on membership, resources to purchase, and services to offer to assist in planning the consortium. Survey data showed that regulatory bodies differ from other organizations in the health knowledge resources and services they provide. Respondents in this category do not provide any of the services commonly offered by other organization types, including reference services, literature searches, document delivery, and current awareness. In the regulatory body group, 33% or less are interested in offering increased access to any types of electronic resources. And, 50% of the regulatory body group stated they are not interested in joining a health libraries consortium. This data suggests that regulatory bodies would not benefit from joining a health libraries consortium and should not be included in membership. However, because the response rate for regulatory bodies and professional associations was low, it is recommended that further information is gathered from these groups.
As discussed above, respondents expressed a need for further access to all types of electronic resources, but electronic journals and journal article databases were rated as slightly higher priority than the other types. Therefore, the consortium should look at purchasing subscriptions to a range of resource types, but focus slightly more on electronic journals and journal article databases. All proposed services that could be offered by a consortium were popular with respondents, but the following services were selected by the most respondents:

- A shared online catalogue of holdings at all health libraries in the province (92%)
- Web-based training modules (92%)
- Subscriptions to electronic resources (88%)

Other services were selected by 69-79% of respondents and included current awareness services, document delivery, training for users, training for staff, professional development opportunities, off-site access to resources, and access to resources from a handheld mobile device.

2. Background

Access to current, evidence-based health information and research is vital to providing quality health care services. Currently practitioners, students, and government employees in the health field in Nova Scotia have varied access to health information depending on the resources and services provided by the organizations with which they are affiliated. This results in inconsistent and inequitable access to health information by individuals in the health field working in different occupations, at different institutions, and in different geographic areas, as well as increased overall costs due to duplicate subscriptions.

The Library Directors for the IWK, Capital Health, and Dalhousie University’s Kellogg Health Sciences Library, with the support of the Nova Scotia Department of Health (NSDH) and the Academic Council, are exploring the development of a Virtual Health Library, or provincial consortium of health libraries and knowledge services which would potentially provide access to key electronic resources to practitioners, students, and government employees in the health field in Nova Scotia. The goal of this “one-stop shop” would be to provide equitable, easy-to-use, seamless access to health information to support decision-making and best practices.

Library consortia have become a popular way for libraries and information service providers to pool resources to offer a wider range of resources and services to their users while reducing costs. Library consortia are local, regional, or national cooperative associations of libraries for the purpose of sharing resources. In British Columbia, Alberta, Saskatchewan, and Ontario, regional consortia of health libraries and information services have successfully been established. All provide shared subscriptions to electronic resources and some additionally provide training, a shared union catalogue, virtual reference, document delivery, technical support, and literature searches. Evaluations of health library consortia report considerable benefits to members as a result of their receiving increased access to health information resources and services (e-HLBC Evaluation Sub-Committee, 2008; Sidlowsky, Tripp, and Bayne, 2003; Putnam and Schmidt, 2005).

Electronic information resources have become increasingly vital for library collections over the last ten years. Electronic information resources in the health field include the following:
• Electronic journals
• Journal indexes and databases
• Clinical decision making support tools
• Electronic books
• Grey literature

Most are provided by commercial publishers for a subscription fee, and these costs can be prohibitive for some organizations. The costs of journal subscriptions have risen astronomically over the last twenty-five years, as the commercial publishing industry has come to be monopolized by a few large companies (Panitch and Michalak, 2005). Libraries have responded to this in different ways, but one has been to form consortia to negotiate and share electronic resource subscription costs.

Responding to increasing user demand for more library resources, in 2008 a group of health librarians in Nova Scotia began investigating the concept of a health library consortium for Nova Scotia. In the summer of 2009 the NSDH provided funding to initiate a Virtual Health Library Survey Project and hire a Project Coordinator to help determine whether a consortium is feasible and gather background information to assist in planning.

The Virtual Health Library Project Committee provided oversight to the project and was comprised of the following members:

• Darlene Chapman, Manager of Information Services, Health Sciences Library, IWK Health Centre
• Patrick Ellis, Health Sciences Librarian, Kellogg Health Sciences Library, Dalhousie University
• Ruth Hart, Knowledge Management Officer, Nova Scotia Department of Health
• Penny Logan, Manager, Library Services, Capital Health Health Centre

3. Methodology
The Virtual Health Library Survey Project Committee and Project Coordinator developed a 32-question instrument that focused on respondents’ current and desired collections and services, technology and staffing capacity, and interest, benefits, and barriers to joining a provincial health libraries consortium. The full questionnaire is attached as Appendix A. The questionnaire was reviewed and approved by the NSDH’s Information Privacy and Access branch and transferred to a web survey tool by the NSDH’s Webmaster.

A total of 44 organizations that were identified as current or potential providers of health knowledge and information services to health care workers and health care students in Nova Scotia were surveyed, grouped into these categories:
• 6 post-secondary education institutions
• 1 government department
• 10 regional health authorities
• 9 associations for health professionals
• 18 regulatory bodies for health professionals
• 1 “other” organization

One individual from each organization was surveyed. This individual was the person who had the most complete knowledge of the health information and knowledge resources offered by the organization to its users and of users’ information needs. For some organizations this was their Executive Director or Registrar, while for others it was a Librarian or Library Director. While surveys were directed to particular individuals who were thought to be most appropriate, these individuals were invited to pass the survey on to a more qualified person if applicable. Respondents were contacted initially by mail to introduce the survey, and two weeks later on September 18, 2009 were sent a link to the web survey by e-mail. Respondents were given until October 2, 2009 to complete the survey. One reminder/thank you message was sent by e-mail on September 29, 2009 and a final reminder message was sent on October 2, 2009.

Following the survey close, data was generated using the web-based survey tool. The survey data was analyzed by the Project Coordinator and the Information Management branch of the NSDH.

Of the 44 organizations surveyed, 38 completed questionnaires were received by the October 2, 2009 deadline. Fourteen were omitted due to incomplete responses. Therefore, the response rate was 55%.

4. Survey Results

4.1. Demographic information

To get a picture of the demographics of the group being surveyed, the survey questionnaire asked respondents to give the name of their organization, type of organization, and geographic area served. Respondents were told that the names of their organizations would not be shared in this report in order to protect their privacy.

Types of organizations

Respondents were asked to identify the type of organization they represented from a list of options which included education institution, health authority, government department or agency, professional association, and “other” (question 30). Some respondents selected “other” and filled in “regulatory body.” During the analysis stage, the category regulatory body was added and some respondents who selected “professional association” were reclassified as “regulatory bodies.”

There was participation from all types of organizations in the survey, with higher participation coming from health authorities and regulatory bodies than the other groups. Numbers of respondents and percentages of overall respondents from each organization type category are shown in Table 1. The “other” organization identified itself as a provincial non-profit association focused on health promotion responded to the survey.
Table 1: Number of survey respondents by organization type

<table>
<thead>
<tr>
<th>Organization type</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health authority</td>
<td>9</td>
<td>38%</td>
</tr>
<tr>
<td>Regulatory body</td>
<td>6</td>
<td>25%</td>
</tr>
<tr>
<td>Education institution</td>
<td>4</td>
<td>17%</td>
</tr>
<tr>
<td>Professional association</td>
<td>3</td>
<td>13%</td>
</tr>
<tr>
<td>Government department</td>
<td>1</td>
<td>4%</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td>4%</td>
</tr>
<tr>
<td>Total</td>
<td>24</td>
<td></td>
</tr>
</tbody>
</table>

Table 2 shows the number of survey respondents in each organization type category compared with the total number of organizations of each type in Nova Scotia. Examining response rates in each category illustrates whether we can generalize survey results for different organization types. 90% of regional health authorities in Nova Scotia responded to the survey, so results regarding that organization type can be generalized to the whole population. This can also be said for education institutions, as 67% of education institutions with health or medical programs responded to the survey. 100% of government departments and “other” organizations responded to the survey. However, there is only one organization in each category. 33% of regulatory bodies and professional associations for health professionals responded to the survey, so results regarding those populations cannot be generalized. Results for regulatory bodies and professional associations will still be discussed in this report, but with the allowance that further information must be gathered from these groups before conclusive observations can be made. The survey data was analyzed according to type of organization to accommodate for these imbalances and acknowledge the varying needs of different types of organizations.

Table 2: Survey response rate by organization type

<table>
<thead>
<tr>
<th>Organization type</th>
<th>Number of organizations in Nova Scotia</th>
<th>Number of survey respondents</th>
<th>Response rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health authority</td>
<td>10</td>
<td>9</td>
<td>90%</td>
</tr>
<tr>
<td>Regulatory body</td>
<td>18</td>
<td>6</td>
<td>33%</td>
</tr>
<tr>
<td>Education institution</td>
<td>6</td>
<td>4</td>
<td>67%</td>
</tr>
<tr>
<td>Professional association</td>
<td>9</td>
<td>3</td>
<td>33%</td>
</tr>
<tr>
<td>Government department</td>
<td>1</td>
<td>1</td>
<td>100%</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td>1</td>
<td>100%</td>
</tr>
<tr>
<td>Total</td>
<td>45</td>
<td>24</td>
<td>53%</td>
</tr>
</tbody>
</table>

Geographic areas
Respondents were asked to describe the geographic region served by their organization (question 31). Responses to the survey were received from all across Nova Scotia, with equal coverage of urban and rural areas. Many organizations that responded serve all of Nova Scotia while others serve particular regions. The survey data was analyzed according to geographic area to see if geographic disparities in access to resources and services existed, but data was not conclusive in this area and thus will not be discussed in this report.
4.2. Need for a consortium

The survey aimed to measure whether there is a need for a health libraries consortium in Nova Scotia by asking respondents about their collections and services needs and gaps, collections budgets, staffing levels, and technological capacity.

Number of organizations with libraries or knowledge services

Respondents were asked whether their organizations have libraries or otherwise provide health knowledge services to their staff or members (question 1). Health knowledge services were defined to include print and electronic information resources (such as books or journals), current awareness services to inform users of new publications, reference services, literature searches, and training on the use of library or knowledge resources.

As shown in Figure 1, 71% of respondents reported that they have libraries or offer knowledge services, while 29% do not. Table 3 breaks this figure down by organization type. Education institutions were the most likely to have a library or provide knowledge services (100%), with health authorities and professional associations being less likely (78% and 67%, respectively) and regulatory bodies being least likely (33%). This demonstrates that health professionals have good access to health knowledge resources and services when they undergo training at a university or college but often lose that access when they graduate, despite having equal need for information as professionals. This was confirmed by a representative of a professional association, who commented, “Speech-language pathologists and audiologists enter practice with a Masters degree. While in university, students have access to all of the libraries at those universities and all of the resources they provide. Once they graduate, however, accessibility to such resources diminishes dramatically and varies from setting to setting. A virtual library would reduce the disconnect with research sources that professionals experience upon graduation.”

Figure 1. Percentage of organizations that have libraries or provide knowledge services
Table 3: Number of organizations that have libraries or provide knowledge services by organization type

<table>
<thead>
<tr>
<th>Organization type</th>
<th>Yes</th>
<th>Percent</th>
<th>No</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education institution</td>
<td>4</td>
<td>100%</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Government department</td>
<td>1</td>
<td>100%</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Health authority</td>
<td>7</td>
<td>78%</td>
<td>2</td>
<td>22%</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td>100%</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Professional association</td>
<td>2</td>
<td>67%</td>
<td>1</td>
<td>33%</td>
</tr>
<tr>
<td>Regulatory body</td>
<td>2</td>
<td>33%</td>
<td>4</td>
<td>67%</td>
</tr>
<tr>
<td>Total</td>
<td>17</td>
<td>71%</td>
<td>7</td>
<td>29%</td>
</tr>
</tbody>
</table>

Table 4. Number of full-time employees in libraries or knowledge services

<table>
<thead>
<tr>
<th>Organization type</th>
<th>Full-time employees</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
</tr>
<tr>
<td>Education institution</td>
<td>0</td>
</tr>
<tr>
<td>Government department</td>
<td>1</td>
</tr>
<tr>
<td>Health authority</td>
<td>2</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
</tr>
<tr>
<td>Professional association</td>
<td>1</td>
</tr>
<tr>
<td>Regulatory body</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>3</td>
</tr>
</tbody>
</table>

Respondents who indicated they do not have a library or provide knowledge services answered a limited set of survey questions, as some questions were not applicable to them.

Staffing levels
The survey asked respondents how many full-time and part-time employees work in their organization’s library or health knowledge service and how many employees have a Master of Library and Information Studies (MLIS) degree or library technician diploma (questions 16-19). Libraries and knowledge services in the organizations surveyed are staffed by a range of 0 to 30 full-time staff, with a median of 2 full-time employees, and a range of 0 to 19 part-time employees, with a median of 0.5 part-time employees. Table 4 shows full-time employees by organization type and Table 5 shows part-time employees by organization type. Education institutions have the highest numbers of full-time employees - employing between 20 and 30. One organization in this category is an academic health sciences library, and so all of its employees are focused on providing health knowledge resources and services. Other education institutions support a range of academic disciplines and only a portion of their staff are focused on providing health knowledge resources and services. The libraries or knowledge services of professional associations and regulatory bodies had fewer overall employees than other organizations.

“We hope to provide transparent virtual information and reference support, with a much smaller physical space and a much broader collection built at least partly on collaborative collection building.”
Similar patterns are seen in Tables 6 and 7, below, regarding education levels of library or knowledge service employees. Education institutions employ the highest numbers of employees with MLIS degrees (6 to 9) and professional associations and regulatory bodies employ the fewest numbers of employees with MLIS degrees or Library Technician diplomas (0 to 1).
Current awareness services are provided by only 59% of respondents and only 31% offer literature reviews. Other services provided that were mentioned in the “other” category included research support, knowledge translation, information management expertise, providing members with a list of required references for their libraries, training on how to get published, book orders, records management, and patient education.

All the education institutions, government libraries, health authorities, and “other” organizations provide interlibrary loan or document delivery services, reference services, and training for users, while services differ for professional associations and regulatory bodies. Regulatory bodies do not provide any of these services and only 50% of professional associations provide all services except literature reviews. However, only 2 professional associations and 2 regulatory bodies responded to this question, so further information needs to be gathered from these groups regarding services provided.

<table>
<thead>
<tr>
<th>Knowledge service</th>
<th>Overall</th>
<th>Education institution</th>
<th>Government department</th>
<th>Health authority</th>
<th>Professional association</th>
<th>Regulatory body</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Document delivery</td>
<td>82%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>50%</td>
<td>0%</td>
<td>100%</td>
</tr>
<tr>
<td>Current awareness</td>
<td>59%</td>
<td>50%</td>
<td>100%</td>
<td>71%</td>
<td>50%</td>
<td>0%</td>
<td>100%</td>
</tr>
<tr>
<td>Literature searches</td>
<td>76%</td>
<td>75%</td>
<td>100%</td>
<td>100%</td>
<td>50%</td>
<td>0%</td>
<td>100%</td>
</tr>
<tr>
<td>Literature reviews</td>
<td>35%</td>
<td>25%</td>
<td>100%</td>
<td>57%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Reference services</td>
<td>82%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>50%</td>
<td>0%</td>
<td>100%</td>
</tr>
<tr>
<td>Training</td>
<td>82%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>50%</td>
<td>0%</td>
<td>100%</td>
</tr>
<tr>
<td>Sample size</td>
<td>17</td>
<td>4</td>
<td>1</td>
<td>7</td>
<td>2</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

Respondents were asked to indicate which services they would like to offer their users that they do not currently offer, and to rate these as high priority, medium priority, or low priority (question 14). Literature reviews (46%) and current awareness services (38%) were the services that organizations would most like to offer to their users, as shown in Figure 2 below. However, reference services were ranked as highest priority with literature reviews and training for users following.

Results for this question varied quite a bit for those organizations that have a library or provide knowledge services and those that do not. Results for organizations that have a library or knowledge service followed closely with the overall results, while organizations with no library or knowledge service selected literature searches (71%) most often as a service they would like to offer and current awareness (43%) the least often. All of the other services were selected by 57% of respondents with no library or knowledge service. Reference services and current awareness services were ranked highest priority by this group, followed by literature reviews.
Figure 2. Percentage of organizations that would like to offer additional types of knowledge services

<table>
<thead>
<tr>
<th>Knowledge service</th>
<th>Percentage of respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Literature reviews</td>
<td>46%</td>
</tr>
<tr>
<td>Current awareness</td>
<td>38%</td>
</tr>
<tr>
<td>Literature searches</td>
<td>29%</td>
</tr>
<tr>
<td>Document delivery</td>
<td>25%</td>
</tr>
<tr>
<td>Reference services</td>
<td>25%</td>
</tr>
<tr>
<td>Training</td>
<td>25%</td>
</tr>
</tbody>
</table>

Knowledge resources provided
To understand what information or knowledge resources organizations have and what they are lacking, respondents that have libraries or knowledge services were asked to indicate what types of information resources they currently provide to their users (question 2). As is shown in Table 9, electronic journal article databases and indexes available electronically by subscription, electronic journals available by subscription, and grey literature are the most commonly held resources at 82%, 76%, and 76%, respectively, and clinical decision support tools and institutional repositories the least common at 53% for both.

Interesting data emerged when analyzed by organization type.

- Between 71% and 100% of health authorities indicated having all of the resources listed except for an institutional repository (57%).
- Education institutions and government departments were much less likely to provide patient handouts and electronic drug information sources than the other organization types.
- Only 33% or less of professional organizations offer any of the resources listed except for patient handouts (67%).
• The “other” organization does not offer any of the types of resources listed except for grey literature, reference management software, and an institutional repository.
• Only one regulatory body responded to this question, so the data for that organization type is not statistically significant.

<table>
<thead>
<tr>
<th>Knowledge resource</th>
<th>Overall</th>
<th>Education institution</th>
<th>Government department</th>
<th>Health authority</th>
<th>Other</th>
<th>Professional association</th>
<th>Regulatory body</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electronic journals</td>
<td>76%</td>
<td>100%</td>
<td>100%</td>
<td>86%</td>
<td>0%</td>
<td>33%</td>
<td>100%</td>
</tr>
<tr>
<td>Journal article databases</td>
<td>82%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>0%</td>
<td>33%</td>
<td>100%</td>
</tr>
<tr>
<td>Clinical decision support tools</td>
<td>53%</td>
<td>50%</td>
<td>0%</td>
<td>71%</td>
<td>0%</td>
<td>33%</td>
<td>100%</td>
</tr>
<tr>
<td>Electronic books</td>
<td>65%</td>
<td>75%</td>
<td>0%</td>
<td>86%</td>
<td>0%</td>
<td>33%</td>
<td>100%</td>
</tr>
<tr>
<td>Electronic drug information sources</td>
<td>59%</td>
<td>25%</td>
<td>0%</td>
<td>100%</td>
<td>0%</td>
<td>33%</td>
<td>100%</td>
</tr>
<tr>
<td>Patient handouts</td>
<td>59%</td>
<td>25%</td>
<td>0%</td>
<td>86%</td>
<td>0%</td>
<td>67%</td>
<td>100%</td>
</tr>
<tr>
<td>Grey literature</td>
<td>76%</td>
<td>75%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>0%</td>
<td>100%</td>
</tr>
<tr>
<td>Institutional repository</td>
<td>53%</td>
<td>50%</td>
<td>0%</td>
<td>57%</td>
<td>100%</td>
<td>33%</td>
<td>100%</td>
</tr>
<tr>
<td>Reference management software</td>
<td>65%</td>
<td>100%</td>
<td>100%</td>
<td>71%</td>
<td>100%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Sample size</td>
<td>17</td>
<td>4</td>
<td>1</td>
<td>7</td>
<td>1</td>
<td>3</td>
<td>1</td>
</tr>
</tbody>
</table>

Respondents were asked to indicate the types of resources for which they would like to provide increased access (questions 3-9). Seventy percent (70%) of respondents, or more, indicated they would like to provide their users with increased access to journal databases and indexes, electronic journals, electronic books, clinical decision support tools, and grey literature. Electronic drug information sources were selected by 67% (see Figure 3). For some this would mean gaining access to a type of resource they do not currently have while for others it would mean additional resources in this category. Regulatory bodies expressed limited interest in gaining access to resources overall, with 33% or less of respondents indicating a need for all types of resources.
Question 12 on the survey asked respondents to state their institutions’ approximate annual collections budget. The responses were categorized and are shown in Table 10. Collections budgets for organizations that have a library or provide knowledge services ranged from $0 to $1,000,000. The median collections budget was $140,000. The highest budgets were held by education institutions, which ranged from $500,000 to $1,000,000. For education institutions that support a range of academic disciplines this may refer to overall collections spending and not necessarily spending in the area of health information. No other patterns emerged in collections budgets according to type of organization. Total spending on collections among respondents is $3,458,500.

<table>
<thead>
<tr>
<th>Annual collections budget</th>
<th>Number of respondents</th>
<th>Total spending on collections</th>
</tr>
</thead>
<tbody>
<tr>
<td>$0 - $50,000</td>
<td>3</td>
<td>$46,000</td>
</tr>
<tr>
<td>$51,000 - $100,000</td>
<td>2</td>
<td>$131,500</td>
</tr>
<tr>
<td>$101,000 – $200,000</td>
<td>3</td>
<td>$480,000</td>
</tr>
<tr>
<td>$500,000 – $700,000</td>
<td>3</td>
<td>$1,801,000</td>
</tr>
<tr>
<td>$701,000 – $1,000,000</td>
<td>1</td>
<td>$1,000,000</td>
</tr>
<tr>
<td>Total</td>
<td>12</td>
<td>$3,458,500</td>
</tr>
</tbody>
</table>
Duplicate resources

The survey asked respondents with libraries or knowledge services to indicate which resources they subscribe to from a list of seven resources that were thought to be common resources (question 10). The results shown below in Table 11 demonstrate that there are many duplicate subscriptions to electronic resources among organizations in Nova Scotia that provide health knowledge services. 15 or 88% of respondents indicated they subscribe to the Cochrane Library. They likely receive access to this resource through an existing consortial purchase.

<table>
<thead>
<tr>
<th>Name of resource</th>
<th>Number of respondents</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cochrane Library</td>
<td>15</td>
<td>88%</td>
</tr>
<tr>
<td>E-CPS/E-Therapeutics</td>
<td>9</td>
<td>53%</td>
</tr>
<tr>
<td>Micromedex</td>
<td>9</td>
<td>53%</td>
</tr>
<tr>
<td>Refworks</td>
<td>9</td>
<td>53%</td>
</tr>
<tr>
<td>MD Consult</td>
<td>8</td>
<td>47%</td>
</tr>
<tr>
<td>CINAHL</td>
<td>7</td>
<td>41%</td>
</tr>
<tr>
<td>PsycINFO</td>
<td>6</td>
<td>35%</td>
</tr>
<tr>
<td>None of the above</td>
<td>1</td>
<td>6%</td>
</tr>
<tr>
<td>Sample size</td>
<td>17</td>
<td></td>
</tr>
</tbody>
</table>

Technology and access

The survey asked respondents if they provide their users with access to information resources from an off-site computer or handheld mobile device.

- 38% of organizations that have a library or provide knowledge resources do not provide off-site access.
- Only 19% of organizations provide access from a mobile device.
- 62% of organizations are unsure whether they provide access from a mobile device.
- 100% of education institutions provide off-site access, while numbers were split among other types of organizations.

A large majority of respondents said off-site access to resources (79%) and mobile access to resources (71%) are services they would like to have from a provincial health libraries consortium. Providing off-site access to resources was also rated as the highest priority service from a provincial health libraries consortium. Respondents also referred to the need to deliver electronic information and remote access to their users in their responses to question 28, which asked, “Five years from now, where do you want your organization to be in the delivery and support of health knowledge resources and services?” One respondent commented, “Hopefully, most items will be accessed electronically remotely and through hand held devices.”

“Off-site access to the library’s collection is our number one priority and the question we get asked most often. We also have great demand for wireless access to our resources.”
4.3. Feasibility of a consortium

The survey explored the feasibility of a health libraries consortium for Nova Scotia through inquiring about respondents’ technology capacity, interest in joining a consortium, and potential benefits and obstacles to participating in a consortium.

Technology capacity

Respondents were asked whether they have high speed Internet connections in their libraries and whether the majority of their users have high speed Internet connections at their workspaces (questions 20 and 21). The purpose of these questions was to determine whether potential members of the consortium would have the required technological capacity to participate in the consortium, assuming most of the consortium's resources and services would be provided electronically. Responses were highly positive for these questions.

- 94% of respondents noted their libraries have high speed Internet connections
- 0% do not have high speed Internet connections in their libraries
- 6% are unsure if they have high speed Internet connections in their libraries
- 83% said the majority of their users have high speed Internet connections at their workspaces
- 0% said their users do not have high speed Internet connections
- 17% are unsure if their users have high speed Internet connections

This suggests technological capacity is not an issue. This was further confirmed by responses to question 26 regarding potential barriers to joining a provincial health libraries consortium, where only 8% of respondents indicated their organization may lack the technology resources needed to participate in a consortium. This should be confirmed with potential members of the consortium as the technological infrastructure is being designed.

Interest in joining a consortium

An important part of measuring the feasibility of establishing a health libraries consortium is determining whether potential members are interested in joining a consortium. Respondents were asked to state their level of interest in question 24. As is shown in the figure below,

- 79% are very interested or somewhat interested in joining a health libraries consortium
- 46% are very interested
- 13% are not interested
- 8% are unsure

Those organizations that do not have a library or provide knowledge services to their members were less interested than those that do.

- 14% of organizations with no library or knowledge service are very interested in joining a health libraries consortium
- 43% of organizations with no library or knowledge service are somewhat interested
- 43% of organizations with no library or knowledge service are not interested
Regulatory bodies were also less interested than other types of organizations, with 50% not interested in joining a health libraries consortium. One regulatory body that answered “Not interested” to this question commented, “It is not consistent with our organization’s mandate to deliver health resources/services. That is the role of the profession’s advocacy body. Our organization establishes the required professional library and the advocacy body facilitates access to these required resources for its members.”

Figure 4. Percentage of organizations interested in joining a provincial health libraries consortium

“We need a shared buying strategy to curtail duplication. We need to ensure that any system includes health care providers who are not based solely at an institution. As healthcare moves into the community, we need to be able to support workers who are community-based. The end result should be that all healthcare providers in the province have access to a core set of evidence-based materials upon which to base their clinical decisions.”

Potential benefits to joining a consortium
Respondents were asked to indicate potential benefits they perceive in joining a health libraries consortium (question 25). The largest number of respondents (92%) saw gaining access to additional resources as a potential benefit, while gaining remote access to electronic resources (67%), saving money on electronic subscriptions (62%), gaining access to additional services (58%), and networking with other libraries and knowledge services (58%) were also perceived benefits.
“Five years from now I want our organization to be able to provide off-site access to our resources. Our collection will be 80% electronic. Our services will be more sophisticated - with Clinical Librarians supporting systematic reviews and having an integral role in all research that is done at my institution.”

Potential obstacles to joining a consortium
To acquire a further sense of the feasibility of establishing a Virtual Health Library for Nova Scotia, the survey asked respondents what potential obstacles might exist to prevent them from joining a consortium (question 26). As is shown in Figure 5, the most common potential obstacle is not being able to afford the shared costs of licensing electronic resources (42%), followed by lack of staff resources to participate in the consortium (33%). These obstacles were rated as especially significant by organizations with no library or knowledge service, where 71% of respondents selected each of these as potential obstacles.
Feasibility of the consortium will depend on whether these potential barriers can be addressed. Whether shared licensing costs are a true barrier cannot be determined until costs have been negotiated with vendors and a cost-sharing agreement among members has been established. Ideally, participating in a consortium would lead to cost savings for members, because they would be sharing the costs of licensing electronic resources instead of carrying the burden alone. It is recommended that cost savings be demonstrated in the next stage of planning and assessing the feasibility of the consortium. Even if cost savings are demonstrated for members who have existing subscriptions to electronic resources, the same savings may not apply for members who currently do not have a library or provide health knowledge services to their users because they would likely not have any current subscriptions to electronic resources and thus would only be facing increased costs by joining a consortium. Their ability to participate in a consortium may be limited by funding issues.

Further information will need to be gathered to determine whether potential members have sufficient staffing levels to participate in a consortium. Although this survey inquired about the number of full-time and part-time employees at organizations and their education levels, this information is not sufficient to determine whether staff have enough time and resources to participate in a consortium. In addition, it will not be known what staff resources will be required to participate in a consortium until further planning is done.
4.4. Planning a consortium

The survey sought information from respondents about their desired collections and services to assist with future planning for the consortium, including the following:

- Selecting types of resources to purchase
- Selecting specific resources to purchase
- Selecting services to offer
- Determining whether different organization types share enough resource and service needs to be included in a consortium

Types of knowledge resources needed

To determine what types of resources respondents need, the survey asked respondents to indicate whether they would like to provide their users with increased access to certain types of resources and to rate them by priority (questions 3-9).

Table 12 displays overall preferences for increased access to specific resources among respondents, as well as preferences analyzed by organization type. As discussed above, there is a significant need for all types of resources except reference management software. It should be noted that with all other types of resources it can be useful and desirable to have many titles of one type. With reference management software, however, an organization will typically support only one tool. Thus, organizations that already have a reference management software tool they are happy with are unlikely to state that they would like additional tools. That does not mean that reference management software is not a desirable type of resource.

Electronic journals, journal article databases, electronic books, and clinical decision support tools were selected most often, and electronic journals and journal article databases were given the highest priority ratings. It is recommended, then, that the consortium provide access to a range of resource types, with a focus on electronic journals and journal article databases.

Regulatory bodies were least similar in the types of resources they would like to have, with only 33% or less of respondents indicating interest in any of the resources, while respondents in other categories of organization type were often in 100% agreement in wanting types of resources. By comparing data from questions 2 and questions 3-9, it was possible to see whether a respondent does not currently provide the resource and would like to, does not currently provide the resource and does not want to, does currently provide the resource but would like to provide more of it, or does currently provide the resource and does not require more. This data showed that in most cases regulatory bodies do not currently provide the resources and do not want to, with the exception of clinical decision support tools. This suggests that collections needs for regulatory bodies differ from the other organization types, based on the sample that took the survey.

The Project Coordinator received one response from a representative of a professional association that began the survey but did not complete it. The individual expressed interest in participating in the consortium but had difficulty responding to questions regarding what types of information resources they would like to provide to their members because they had not sought this information from their members. It is possible that this reflects the experiences of other regulatory bodies and professional associations as well.
Table 12. Percentage of organizations that would like to provide increased access to resources

<table>
<thead>
<tr>
<th>Knowledge resource</th>
<th>Overall</th>
<th>Education institution</th>
<th>Government department</th>
<th>Health authority</th>
<th>Other</th>
<th>Professional association</th>
<th>Regulatory body</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electronic journals</td>
<td>79%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>67%</td>
<td>33%</td>
</tr>
<tr>
<td>Journal article databases</td>
<td>79%</td>
<td>100%</td>
<td>0%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>33%</td>
</tr>
<tr>
<td>Clinical decision support tools</td>
<td>78%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>0%</td>
<td>100%</td>
<td>33%</td>
</tr>
<tr>
<td>Electronic books</td>
<td>79%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>67%</td>
<td>33%</td>
</tr>
<tr>
<td>Electronic drug information sources</td>
<td>67%</td>
<td>75%</td>
<td>100%</td>
<td>89%</td>
<td>0%</td>
<td>100%</td>
<td>17%</td>
</tr>
<tr>
<td>Grey literature</td>
<td>70%</td>
<td>75%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>33%</td>
<td>20%</td>
</tr>
<tr>
<td>Reference management software</td>
<td>41%</td>
<td>33%</td>
<td>0%</td>
<td>67%</td>
<td>0%</td>
<td>33%</td>
<td>0%</td>
</tr>
</tbody>
</table>

Specific knowledge resources needed

To identify specific knowledge resources that could be purchased by a health libraries consortium, the survey asked respondents the following:

- To identify specific titles or collections of electronic resources they would like to access in the categories of electronic journals, journal article databases, clinical decision support tools, electronic books, electronic drug information sources, grey literature, and reference management software (questions 3.3, 4.3, 5.3, 6.3, 7.3, 8.3);
- To select from a list of 8 electronic resources those to which the organization currently subscribes (question 10);
- To identify the five electronic resources most used by staff and users of the organization's library or knowledge service, other than those listed in the previous question (question 11).

Responses were compiled electronic resources that were named by more than one respondent were noted. There was not enough consistency in responses in the categories of journal article databases, electronic books, or grey literature to identify specific resources. In the category of electronic journals, Lancet and Journal of the American Medical Association were requested by 2 organizations. In the category of clinical decision support tools respondents across all different types of organizations except regulatory bodies expressed interest in subscribing to the following tools:

“I want our organization to stay in line with technology and available services.”
Table 13. Clinical decision support tools requested

<table>
<thead>
<tr>
<th>Name of resource</th>
<th>Number of requests</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dynamed</td>
<td>6</td>
</tr>
<tr>
<td>BMJ Point of Care</td>
<td>3</td>
</tr>
<tr>
<td>UpToDate</td>
<td>3</td>
</tr>
<tr>
<td>Clinical Evidence</td>
<td>2</td>
</tr>
</tbody>
</table>

In the category of electronic drug information sources, respondents across all different types of organizations except regulatory bodies expressed interest in subscribing to the following tools:

Table 14. Electronic drug information sources requested

<table>
<thead>
<tr>
<th>Name of resource</th>
<th>Number of requests</th>
</tr>
</thead>
<tbody>
<tr>
<td>E-CPS</td>
<td>4</td>
</tr>
<tr>
<td>Lexi Comp</td>
<td>4</td>
</tr>
</tbody>
</table>

In the reference management software category, RefWorks was the only tool named and it was requested by 3 respondents. Others commented that their organizations already have subscriptions to RefWorks.

Table 11 above shows responses to question 10, which asked respondents to select which resources they subscribe to from a list of seven resources. The Cochrane Library was the most frequently selected resource, with 15 or 88% of respondents having access to it. Between 6 and 9 or 35% and 53% of the respondents subscribe to the other resources listed.

28 different electronic resources were named in responses to question 11, which asked respondents to list the 5 electronic resources used most by staff and users. All resources that were named more than once by respondents are listed in Table 15. PubMed/Medline, UpToDate, Web of Science, and EBSCO databases were the most commonly named resources.

Table 15. Electronic resources most used by staff and users

<table>
<thead>
<tr>
<th>Name of resource</th>
<th>Number of respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>PubMed/Medline</td>
<td>6</td>
</tr>
<tr>
<td>UpToDate</td>
<td>4</td>
</tr>
<tr>
<td>Web of Science</td>
<td>4</td>
</tr>
<tr>
<td>EBSCO Databases (Health Business, other health databases, Academic Search Premier)</td>
<td>3</td>
</tr>
<tr>
<td>BMJ Point of Care</td>
<td>2</td>
</tr>
<tr>
<td>Clinical Evidence</td>
<td>2</td>
</tr>
<tr>
<td>Embase</td>
<td>2</td>
</tr>
<tr>
<td>Google</td>
<td>2</td>
</tr>
<tr>
<td>PEN – Practice Based Evidence in Nutrition</td>
<td>2</td>
</tr>
<tr>
<td>Science Direct</td>
<td>2</td>
</tr>
</tbody>
</table>

The data collected for questions 10 and 11 was not analyzed by organization type because sample sizes for some organization types were too low for these questions. In particular, most regulatory bodies and associations did not respond to these questions.
It is recommended that before the consortium selects specific electronic resources to purchase, more comprehensive research is done on member preferences and a collections policy is developed. However, after compiling the information collected on specific electronic resources in this survey, the following resources were found to be most commonly used or needed by the largest number of respondents:

- E-CPS/E-Therapeutics
- RefWorks
- Micromedex
- MD Consult
- UpToDate
- CINAHL
- Dynamed
- PsycINFO
- BMJ Point of Care
- Clinical Evidence
- Lexi Comp
- Web of Science
- EBSCO databases

“In five years I’m sure that our entire collection would be electronic, and available wherever is most convenient for our clients (at the bedside, from home, from away, etc.).”

**Knowledge services needed**

Respondents were given a list of possible services that could be offered by a provincial health libraries consortium and asked to mark them as high priority, medium priority, low priority, or not needed (question 15). The results are shown in Table 16. All services listed were noted to be desirable by at least 67% of respondents, but the following services were selected by the most respondents:

- Shared online catalogue of holdings at all health libraries in the province (92%)
- Web-based training modules (92%)
- Subscriptions to electronic resources (88%)

All services were rated, on average, between medium and high priority, but the following services were rated as highest priority by a small margin:

- Subscriptions to electronic resources
- Off-site access to electronic resources
- Web-based training modules
Table 16. Services desired from a provincial health libraries consortium

<table>
<thead>
<tr>
<th>Knowledge service</th>
<th>Number of respondents</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shared online catalogue</td>
<td>22</td>
<td>92%</td>
</tr>
<tr>
<td>Web-based training modules</td>
<td>22</td>
<td>92%</td>
</tr>
<tr>
<td>Subscriptions to electronic resources</td>
<td>21</td>
<td>88%</td>
</tr>
<tr>
<td>Professional development</td>
<td>19</td>
<td>79%</td>
</tr>
<tr>
<td>Off-site access to resources</td>
<td>19</td>
<td>79%</td>
</tr>
<tr>
<td>Training for end users</td>
<td>18</td>
<td>75%</td>
</tr>
<tr>
<td>Current awareness</td>
<td>17</td>
<td>71%</td>
</tr>
<tr>
<td>Training for staff</td>
<td>17</td>
<td>71%</td>
</tr>
<tr>
<td>Mobile access to resources</td>
<td>17</td>
<td>71%</td>
</tr>
<tr>
<td>Document delivery</td>
<td>16</td>
<td>67%</td>
</tr>
</tbody>
</table>

4.4. Summary and conclusions

Overview of survey results on the need for a consortium
The survey results in this section demonstrate that organizations across Nova Scotia provide their users with varied access to health knowledge resources and services and have wide-ranging collections budgets and staffing levels. Some organizations provide no knowledge services or resources at all. Education institutions provide the more comprehensive services and resources than other organization types. Consequently, health care professionals typically receive excellent access to health information when they are undergoing training at post-secondary institutions, then often lose that access when they graduate and begin to practice. Most organizations would like to provide their users with additional resources and services. In particular, they would like to provide their users with off-site and mobile access to electronic resources. Many organizations also hold duplicate subscriptions to electronic resources and could benefit from sharing subscription costs.

The data from this section demonstrates there is a need for a provincial health libraries consortium that could provide consistent resources and services to all practitioners, students, and government employees in the health field across Nova Scotia and balance inequities in access.

Overview of survey results on the feasibility of a consortium
The survey results in this section demonstrate that a provincial health libraries consortium is feasible based on technological capacity, interest level, and potential barriers and benefits, although participation in the consortium may be limited for some organizations that lack funding and staffing resources.

Overview of survey results on planning a consortium
The survey results in this section provide guidance toward planning a health libraries consortium for Nova Scotia. Regulatory bodies were seen to have different collections and collection needs than other types of organizations, and this could mean they would not benefit from joining a consortium. Further information needs to be gathered on desired collections and services for regulatory bodies and professional associations. While further information should also be gathered before selecting electronic resources to license for a consortium, the data from the survey indicates popular desired resources in the categories of clinical decision support tools,
electronic drug information sources, and reference management software. In terms of services that could be offered by a consortium, respondents are most interested in a shared online catalogue of holdings at all health libraries in the province, web-based training modules, and subscriptions to electronic resources, so exploring and developing these services should be the focus in future planning.

“I'd like our library to be one of the Canadian leaders in promoting and providing evidence based health care.”

5. Recommendations
Below are two sets of recommendations. The first set follows directly from the objectives of the survey and the survey results, while the next set makes recommendations for the next stage of planning a provincial health libraries consortium.

5.1. Recommendations based on survey results

1. Establish a health libraries consortium called the Nova Scotia Virtual Health Library.

2. Membership in the consortium will initially be health authorities, education institutions, government departments, and professional associations with staffed libraries or knowledge services.

3. The consortium will provide a range of services that will be prioritized by the membership.

4. The consortium will purchase subscriptions to a range of types of electronic resources. The consortium will be developed as an opt in or opt out model in which members can choose subscriptions that they can support.

5. The consortium will emphasize the provision of off-site access and mobile access to resources and services.

6. The consortium will investigate:

   - Members’ preferences and costs for specific electronic resources
   - Staffing and financial resources needed to participate in the consortium for organizations that don’t currently provide library or knowledge services
   - Types of knowledge services and resources provided by regulatory bodies that are necessary for their members
5.2. Recommendations for business planning and implementation

**Stage One - Business Planning (six months):**  **Budget: $100,000**

1. Establish an advisory board with representatives from stakeholder groups and potential member organizations. The board will manage and advise a project manager through the next stage of the project.

2. Hire a full-time project manager for six months to coordinate and implement this stage of planning and research.

3. Conduct an environmental scan of health library consortia to focus on the following:
   - governance, funding, and administrative models
   - technology infrastructure (e.g. one portal with authentication and proxy access)

4. Identify and consult with partners and stakeholders. This would include potential funding bodies, partners, and groups and individuals who would be impacted by the project. Determine initial membership of the consortium.

5. Develop a mission statement, objectives, and goals for the consortium, and a membership contract.

6. Develop a business plan for the implementation of the Nova Scotia Virtual Health Library which includes developing content, technology, and human resources strategies.

7. Secure funding for implementing stage two of the business plan

**Stage two – Implementation (One year):**

1. The advisory board will hire a full-time project manager for one year to coordinate implementation of the Nova Scotia Virtual Health Library.

2. Develop an opt in/opt out collections policy and process for selecting electronic resources to purchase.

3. Develop a cost-sharing model for licenses among consortium member institutions

4. negotiate licensing costs for electronic resources with vendors

5. Implement the technology infrastructure for the consortium e.g. access through one portal with authentication and proxy access

6. Secure administrative funding e.g. personnel and technology for the consortium’s first two years of operation

7. Develop evaluation plan
7. Glossary of Terms

Clinical decision support tool: Electronic tool that provides clinicians with information resources at the point of care.

Consortium: a local, regional, or national cooperative association of libraries for the purpose of sharing resources

Current awareness: A service provided to alert people of new publications related to a particular topic or field.

Document delivery: also referred to as interlibrary loan, document delivery is a service that allows a user of one library to borrow books or receive copies of documents from another library.

Electronic journal index: Searchable database of bibliographic information about journal articles, but not full-text articles.

Full-text journal article database: Searchable database of full-text electronic journal articles.

Grey literature: Documents produced by governments, businesses, academics, and other organizations that have not been commercially published, such as technical reports, working papers, business documents, and conference proceedings.

Institutional repository: An archive or repository of an organization’s publications.

Library technician diploma: A diploma from a community college that trains individuals to perform the practical tasks involved in daily library operations.

Literature review: A summary and synthesis of research on a given topic.

Literature search: A comprehensive search for relevant publications on a given topic.

Master of Library and Information Studies (MLIS) degree: A graduate-level degree that is required for professional librarian positions. This degree can also be called Master of Library Science, Master of Library Studies, and other variations. Professional librarians are responsible for the managerial, supervisory and administrative functions of a library.

Reference management software: Also referred to as citation management software and bibliographic management software, reference management software allows you to store, manage, and generate bibliographies from your citations or references.

Reference services: Services provided to users of a library or knowledge service to help them use library resources and find information.
6. Literature Search

The literature search was conducted by searching scholarly databases and grey literature for evaluations, assessments, and planning documents related to library consortia and virtual libraries.


Appendix A: Survey Questionnaire

1. Does your organization have a library or otherwise provide health knowledge services to its staff or members? Knowledge services can include print and electronic information resources (such as books or journals), current awareness services to inform users of new publications, reference services, literature searches, and training on the use of library or knowledge resources.
   a. Yes
   b. No

Current and desired collections

1. Which of the following types of health knowledge resources do you currently provide to your users? Please mark all that apply.
   a. Electronic journals available by subscription (such as New England Journal of Medicine)
   b. Full-text journal article databases and journal indexes available electronically by subscription (such as CINAHL)
   c. Clinical decision support tools, or tools that provide clinicians with information resources at the point of care (such as Dynamed)
   d. Electronic books (such as Harrison’s online)
   e. Electronic drug information sources (such as e-CPS)
   f. Patient handouts, including pamphlets, brochures, and consumer health information
   g. Grey literature (i.e. government documents or technical reports)
   h. Archive or repository of your organization’s publications
   i. Reference management software for storing and using bibliographic citations (such as RefWorks or EndNote)

2. Electronic journals

2.1. Would you like to provide your users with electronic journals available by subscription, or with additional electronic journals if you already provide some?
   a. Yes
   b. No

2.2. How would you rate the importance of electronic journals available by subscription to your users?
   a. High priority
   b. Medium priority
   c. Low priority
   d. Not needed

2.3. Are there specific electronic journal titles you would like to provide to your users that you do not currently provide? If so, what are they?
___________________________________________________________________
3. **Full-text journal article databases and journal indexes**

3.1. Would you like to provide your users with full-text journal article databases and journal indexes available electronically by subscription, or with additional full-text journal article databases and journal indexes if you already provide some?
   a. Yes
   b. No

3.2. How would you rate the importance of full-text journal article databases and journal indexes available electronically by subscription to your users?
   a. High priority
   b. Medium priority
   c. Low priority
   d. Not needed

3.3. Are there specific full-text journal article databases and journal indexes you would like to provide to your users that you do not currently provide? If so, what are they?

________________________________________________________________

4. **Clinical decision support tools, or tools that provide clinicians with information resources at the point of care**

4.1. Would you like to provide your users with clinical decision support tools, or with additional clinical decision support tools if you already provide some?
   a. Yes
   b. No

4.2. How would you rate the importance of clinical decision support tools to your users?
   a. High priority
   b. Medium priority
   c. Low priority
   d. Not needed

4.3. Are there specific clinical decision support tools you would like to provide to your users that you do not currently provide? If so, what are they?

________________________________________________________________

5. **Electronic books**

5.1. Would you like to provide your users with electronic books, or with additional electronic books if you already provide some?
   a. Yes
   b. No
5.2. How would you rate the importance of electronic books to your users?
   a. High priority
   b. Medium priority
   c. Low priority
   d. Not needed

5.3. Are there specific electronic book titles or collections you would like to provide to your users that you do not currently provide? If so, what are they?

___________________________________________________________________

6. Electronic drug information sources

6.1. Would you like to provide your users with electronic drug information sources, or with additional electronic drug information sources if you already provide some?
   a. Yes
   b. No

6.2. How would you rate the importance of electronic drug information sources to your users?
   a. High priority
   b. Medium priority
   c. Low priority
   d. Not needed

6.3. Are there specific electronic drug information sources you would like to provide to your users that you do not currently provide? If so, what are they?

___________________________________________________________________

7. Grey literature (i.e. government documents or technical reports),

7.1. Would you like to provide your users with grey literature, or with additional grey literature if you already provide some?
   a. Yes
   b. No

7.2. How would you rate the importance of grey literature to your users?
   a. High priority
   b. Medium priority
   c. Low priority
   d. Not needed

7.3. Are there specific grey literature sources you would like to provide to your users that you do not currently provide? If so, what are they?

___________________________________________________________________
8. Reference management software for storing and using bibliographic citations

8.1. Would you like to provide your users with reference management software or with a different reference management software tool than what you currently provide?
   a. Yes
   b. No

8.2. How would you rate the importance of reference management software to your users?
   a. High priority
   b. Medium priority
   c. Low priority
   d. Not needed

8.3. Are there specific reference management software tools you would like to provide to your users that you do not currently provide? If so, what are they?

___________________________________________________________________

9. Which of the following electronic resources do you currently subscribe to? Please mark all that apply.
   a. Cochrane Library
   b. CINAHL
   c. PsycINFO
   d. Micromedex
   e. MD Consult
   f. E-CPS/ E-Therapeutics
   g. RefWorks
   h. None of the above

10. What 5 electronic resources other than those listed above are used most by staff and users of your organization’s library or knowledge service?
    1. ____________________
    2. ____________________
    3. ____________________
    4. ____________________
    5. ____________________

11. What is the approximate annual collections budget for your organization’s library or knowledge service? This information will be kept confidential.
    $____________________
**Current and desired services**

12. What services are currently provided by your organization’s library or health knowledge service? Please mark all that apply.
   a. Document delivery/interlibrary loan
   b. Current awareness service to inform users of new publications
   c. Literature searches
   d. Systematic reviews or literature reviews
   e. Reference/information services
   f. Training on use of library or knowledge resources
   g. Other (please specify): __________________________

13. Of the services listed below, which would you like to offer your users **that you do not currently offer**? Please indicate whether the service is high priority, medium priority, low priority, or not needed.

<table>
<thead>
<tr>
<th>Service</th>
<th>High priority</th>
<th>Medium priority</th>
<th>Low priority</th>
<th>Not needed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Document delivery/interlibrary loan</td>
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<td>Other (please specify):</td>
<td></td>
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</tbody>
</table>

14. What services would you desire from a provincial health libraries consortium? Please indicate whether the service is high priority, medium priority, low priority, or not needed.

<table>
<thead>
<tr>
<th>Service</th>
<th>High priority</th>
<th>Medium priority</th>
<th>Low priority</th>
<th>Not needed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subscriptions to electronic resources</td>
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<tr>
<td>Shared online catalogue of holdings at all health libraries in the province</td>
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<tr>
<td>Current awareness service to inform users of new publications</td>
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</tr>
<tr>
<td>Document delivery/interlibrary loans service</td>
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<td></td>
</tr>
<tr>
<td>Training for library or knowledge service staff on use of library or knowledge resources</td>
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</tr>
</tbody>
</table>
Training for end users on use of library or knowledge resources
Web-based training modules
Professional development opportunities for library or knowledge service staff
User access to electronic resources from a home computer
User access to electronic resources from a handheld mobile device
Other (please specify): ______________________________________

Human resources capacity

15. How many full-time employees are there in your organization’s library or health knowledge service?

_______

16. How many part-time employees are there in your organization’s library or health knowledge service? Please include employees who work part time in the library or health knowledge service and part time doing other work for the organization.

_______

17. How many employees in your organization’s library or health knowledge service have a Master of Library and Information Studies (MLIS) degree from an ALA-accredited institution?

_______

18. How many employees in your organization’s library or health knowledge service have a Library Technician diploma?

_______

Technological capacity

19. Does your library or knowledge service have a high speed Internet connection?
   a. Yes
   b. No
   c. Unsure

20. Do the majority of your users have high speed Internet connections at their workspaces?
   a. Yes
   b. No
   c. Unsure
21. Do you provide your users with electronic access to information resources? This can include providing links to electronic journals or other electronic resources on a webpage or providing access to an electronic catalogue or database containing records for items in your collection.
   a. Yes
   b. No
   c. Unsure

22. Does your system currently allow your users to access your library or knowledge service’s electronic resources from a home computer?
   a. Yes
   b. No
   c. Unsure

23. Does your system currently allow your users to access your library or knowledge service’s electronic resources from a handheld mobile device?
   a. Yes
   b. No
   c. Unsure

Feasibility of consortium

23. How interested are you in joining a provincial health libraries consortium?
   a. Very interested
   b. Somewhat interested
   c. Not interested
   d. Unsure

24. What potential benefits do you perceive in joining a provincial health libraries consortium? Please mark all that apply.
   a. My users will gain access to additional resources.
   b. My users will gain access to additional services.
   c. My organization will save money on electronic subscriptions by sharing licensing costs with other organizations.
   d. My users will gain remote access to electronic resources.
   e. My users will receive training on use of library or knowledge resources.
   f. Staff at my organization’s library or knowledge service will receive training on use of library or knowledge resources.
   g. I will be able to network with other health libraries and knowledge services.
   h. None of the above
   i. Other (please specify): ________________________________
25. What potential obstacles do you perceive in joining a provincial health libraries consortium? Please mark all that apply.
   a. My collection needs differ from other health libraries and knowledge services.
   b. My organization cannot afford shared licensing costs.
   c. My organization does not require any additional resources or services.
   d. Senior leadership will not support joining the consortium.
   e. My organization lacks the staff resources needed to participate in a consortium.
   f. My organization lacks the technology resources needed to participate in a consortium.
   g. None of the above
   h. Other (please specify): ____________________________________________

Future plans

26. What initiatives will your organization’s library or knowledge service be undertaking in the next five years? Please mark all that apply.
   a. Hiring staff member(s) to fill new position(s)
   b. Purchasing subscription(s) to new journal article database(s) or electronic journal(s).
   c. Creating or redesigning a website
   d. Implementing a new catalogue or database of resources
   e. Forming partnerships with other institutions to share collections
   f. Moving to a new physical location or renovating physical space
   g. Creating a digital repository or digitized collection of your institution’s publications
   h. None of the above
   i. Other (please specify): ________________________________

27. Five years from now, where do you want your organization to be in the delivery and support of health knowledge resources and services?

____________________________________________________________________

Additional information

28. What is the name of your organization? This information will be kept confidential.

____________________________________________________________________

29. What type of organization is it?
   a. education institution
   b. health authority
   c. professional association
   d. government department or agency
   e. other (please specify): ________________

30. Please describe the geographic area served by your organization.

____________________________________________________________________