

EVALUATION OF @YOURSIDE COLLEAGUE®
E-learning and Support Initiative
for Manitoba, Saskatchewan and British Columbia
First Nations



FINAL REPORT

Centre for Rural and Northern Health Research
Lakehead University

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EVALUATION OF @YOURSIDE COLLEAGUE®
E-learning and Support Initiative
for Manitoba, Saskatchewan and British Columbia
First Nations

Prepared For:

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Home and Community Care Program

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2009

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MAIN MESSAGES

- First Nations staff who used @YourSide Colleague® and community leaders appreciated the advantages of e-learning, which centered on accessibility, convenience, and knowledge gains. There was, however, considerable variability in the extent to which providers used the system. Most of the home and community care workers who took part in the evaluation had used @YourSide Colleague® intensively at some time, but now seldom accessed the program.
- Variable levels of usage were confirmed in the analysis of @YourSide Colleague® administrative data. While a majority of First Nations workers logged into their SEHC accounts at least once each year, depending on the courses chosen, they might spend from minutes to hours online. Some courses drew fewer than 50 learners; others attracted more than 150. Provincially, SEHC activity was concentrated in Manitoba; Saskatchewan and British Columbia had considerably lower enrollments and online hours.
- Staff who had stopped using @YourSide Colleague® attributed infrequent use of the program to factors such as lack of time, difficulties accessing computers and poor Internet connectivity, with connectivity issues being a serious barrier to e-learning in rural and remote areas. People also often lost interest in the system after courses were completed and learning needs met. Although improved client care was thought to be a probable outcome from the knowledge gained, there was no firm data on which to judge these effects.
- The fact that @YourSide Colleague® currently was available at no cost was seen as a primary advantage by First Nations health care workers and community leaders. Should special funding cease, leaders voiced concern that the program will not be affordable, especially for smaller First Nations. Given the variability in usage, leaders also felt the e-learning system's popularity and potential was only starting to develop and that it might be too soon to truly evaluate its success.

EXECUTIVE SUMMARY

First Nations communities experience a multitude of challenges in the area of health care, including varying degrees of isolation from urban centres where large hospitals operate. Consequently, it is important to develop new and innovative ways of supporting health care providers in these communities, particularly the more remote places.

The electronic learning tool, @YourSide Colleague®, developed by Saint Elizabeth Health Care, offers First Nations home and community care staff in Manitoba, Saskatchewan and British Columbia the opportunity to access work-related training *via* the Internet. This report, based on survey, focus group and interview data collected during 2008-09 and an analysis of SEHC administrative data from 2007- 2009, evaluates this tool's effectiveness and evidence around its successes and challenges to date.

Providing a "snapshot" of an e-learning system that is continually evolving, the report also offers insights into the factors that facilitate or impede the use of web-based educational resources in First Nations communities, outlining the organizational and technological supports required. As such, the information may be useful in a number of contexts, giving guidance to First Nations health directors and political leaders who are considering using @YourSide Colleague® or other e-learning resources to improve the skills of local home and community care staff.

Experiences Using @YourSide Colleague®

Seventy-eight health care providers from across all three provinces participated in the evaluation's online surveys, focus groups, or individual interviews. About two-thirds were managers or nurses; the remainder were health care aides or personal support workers, who served clients in isolated or non-isolated locations. Nearly all had learned about @YourSide Colleague® by attending face-to-face learning sessions or through tutelage

from co-workers. Most had accessed learning modules; some also had taken part in online discussion groups or consultations.

As evidence of program success, a majority of First Nations staff who took part in the evaluation recognized the value of @YourSide Colleague® in providing new information about needed skills, knowledge, and care techniques. There were, however, considerable differences in the frequency with which they used the program. Most people fell into one of two groups: regular users, who accessed the program on a consistent basis, at least twice a month, and infrequent users, who logged onto the website only a few times during the year.

Analysis of Saint Elizabeth Health Care administrative data confirmed that use of @YourSide Colleague® was variable. While a majority of First Nations staff who were registered with SEHC logged into their accounts at least once a year, their online activity differed, depending on the topics chosen. Learners enrolled some courses, on average, could spend as little as 36 minutes or as much as 8 hours online. Over the 30 months evaluated, some specialized courses drew fewer than 50 learners; topics of more general interest attracted more than 150 enrolled learners.

Equally distinctive patterns of content choices and activity emerged when e-learning data were compared provincially. There was a strong concentration of SEHC activity in Manitoba, which accounted for 47% of the enrollments and 57% of the online hours. Saskatchewan and British Columbia each were responsible for about 25% of the enrollments; however, 13% of the online activity occurred in Saskatchewan as compared to 30% in British Columbia.

Constraints

Although results indicated strong support for @YourSide Colleague® as a learning tool, several serious constraints prevented use of the system. Lack of access to computers in the workplace, poor Internet connectivity, or absence of on-site technical assistance, made it difficult for staff to log on and stay connected for an entire learning session. But, not having sufficient time in the workday to use the system was a primary barrier.

The message was clear: to be able to use @YourSide Colleague® one needs to have access to computers and time, ideally in the workplace and during the workday. One must also be knowledgeable enough about computers to use the system confidently and have technical assistance on hand to help with computer and Internet connectivity issues. Beyond that, the content must be seen as applicable to work roles and relevant to the needs of First Nations communities and organizations.

Sustainability

The nine community leaders who took part in the study voiced serious concerns over the sustainability of the system, specifically around First Nations communities' ability to support the @YourSide Colleague initiative in the future, should current special funding cease. Concern was primarily for smaller communities, where the cost to participate in e-learning would be far beyond local resources.

Because many staff had only recently begun to use @YourSide Colleague®, there was a strong feeling that the e-learning system's popularity was only starting to develop. Considering the variable utilization of the SEHC system, there also was consensus among community leaders that @YourSide Colleague® may not yet have fully realized its potential and perhaps it was too soon to truly evaluate the program's success.

BACKGROUND

This report has been prepared by the Centre for Rural and Northern Health Research (CRaNHR), on behalf of First Nations in Manitoba, Saskatchewan and British Columbia. Supported by funding from Health Canada, First Nations and Inuit Health, Home and Community Care Program, the project documents First Nations health care providers' and community leaders' experiences with Saint Elizabeth Health Care @YourSide Colleague® e-learning and support system. The goal of the evaluation was to create a decision-making guide to inform First Nations communities who may be considering future investments in @YourSide Colleague® or similar e-learning systems. The focus was on discovering whether users and community representatives find the system valuable, whether it makes a difference in their health care practices, and whether it appears to make a difference in client outcomes.

Objectives and Research Questions

The objectives, developed in consultation with the project's Evaluation Advisory Group, were to: (i) understand the e-learning application's benefits and any unintended positive or negative outcomes; (ii) identify the technical, human resource and program capacity or development conditions which maximize positive outcomes and minimize negative effects; and (iii) compare the initiative with alternative approaches.

To meet these objectives, the study explored the opinions of health care providers and community leaders, on five research questions: (i) how does the use of e-learning help to build community capacity in health care? (ii) how does it improve the capacity of staff to manage and deliver health services? (iii) from a technical and service point of view, does the system work in a First Nations community context? (iv) is there any evidence of cost savings? (v) is there any evidence of improved client services?

Methodology

Informed by our most recent evaluations of Aboriginal health issues,¹ a previous evaluation of the @YourSide Colleague® pilot program³ and a brief literature review,⁴ the research team developed a mixed-method evaluation strategy to document health care provider and community stakeholder experiences with the system. This strategy involved surveys, focus groups and individual interviews, along with analysis of Saint Elizabeth Health Care (SEHC) administrative data. The focus was on examining how the system supports health care providers in their work and whether it has produced improvements in their ability to care for clients at home. The evaluation also assessed technical, service and human resource issues, including provincial and local contextual factors, and documented opinions on how well e-learning performs in comparison to available educational alternatives.

Analysis of Usage Data

At the request of the research team, e-learning staff from Saint Elizabeth Health Care compiled anonymized data on utilization of @YourSide Colleague® from 2007 until 2009. This information covered user

¹ Minore, B. Hill, M., Kuzik, R., Macdonald, C. and Rantala, M. (2008). *Aboriginal Health Human Resources in Ontario: A Current Snapshot*. Health Canada: Government of Canada. Catalogue No. H34-200/208E.

² Minore, B., Hill, M.E., Boone, M., Katt, M., Kuzik, R., Gauld, T., and Lyubechansky, A. (2007). *Community Mental Health Human Resource Issues Pertaining to Aboriginal Clients*. Report prepared for the Ontario Mental Health Foundation and Ontario Ministry of Health and Long-Term Care. Centre for Rural and Northern Health Research, Lakehead University: Thunder Bay, ON.

³ Attack, L. (2004). *Remote Education and Support of Health Care Providers: A Demonstration Project with First Nations of Manitoba*. Independent evaluation prepared for Saint Elizabeth Health Care. Attack Associates; Toronto, ON.

⁴ The literature review employed PubMed, CINAHL, Native Health, Teoma, and Google Scholar Internet search engines to identify Canadian and international material on e-learning for professional and paraprofessional workers in Indigenous communities.

registrations, active learners, as well as course-specific online hours and enrollments, aggregated at the provincial level. The data provided baseline information on e-learning utilization, as well as data on trends for up to three years. Analyses of data variability, along with contextual information supplied by SEHC, helped interpret the experiences that First Nations health care providers had with the system.

Focus Groups, Individual Interviews and Surveys

A common set of questions was developed for primary data collection, involving the focus groups, individual interviews and surveys, with two versions, one for @YourSide Colleague® users and another for community leaders (Appendices A and B). A web-posting and a fax or email invitation were prepared to assist in the distribution of information about the evaluation. Questions asked individuals about their experiences with @YourSide Colleague®, including technical and operational supports; their opinions on e-learning's usefulness and their intentions to continue using the program. Items for community leaders also explored resource issues, including technology and funding, in more depth.

Cultural Modifications

All data collection procedures followed the Canadian Institutes of Health Research guidelines for research involving Aboriginal peoples and were approved both by the Evaluation Advisory Group and by the Lakehead University Research Ethics Board. Potential participants were given information about the purposes of the research and any potential risks and benefits, so they could make an informed decision about whether or not they wished to take part. They were assured that their participation was voluntary, that they could answer the questions in any way that they wished, and that all recordings and other original data from the study would be securely stored for seven years, and, after that time, destroyed.

As well, respondents were given the option of contacting the research team at a later date if they wished to correct or add additional information

to their surveys or individual interviews. All participants were assured that their responses would be kept confidential by the research team and their name or other identifying information would not be linked in any way to the data or presentation of the results. They were informed, upon completion of the project, that they would be able to access the full report, posted on the CRaNHR website.

In keeping with First Nations traditions and preferences, oral rather than written consent procedures were developed for the focus groups and individual interviews.⁵ The Evaluation Advisory Group also requested that all letters of invitation to take part in the research and consent scripts for the focus groups and interviews substitute the phrase “agreement to participate in research” for the term “informed consent.” The reason being that the latter term is considered culturally inappropriate and has historically negative connotations⁶ for many of the First Nations who are participating in the @YourSide Colleague® initiative.

Individuals who chose to complete the online Internet survey were asked to indicate their understanding of the research procedures and their agreement to participate by filling in a checkbox next to the statement “*in completing this questionnaire, I confirm that I have read and understood the letter provided to me by the researchers and agree to participate in the research.*” Once participants checked the box, they could move to the next page of the survey and begin answering the questions. Although this procedure has not yet been formally incorporated into most institutional ethics protocols, it is widely accepted and recommended as an “online equivalent” to formal written consent procedures for Internet surveys.⁷

⁵ Canadian Institutes of Health Research. (2007). CIHR Guidelines for Health Research Involving Aboriginal People. Retrieved January 20, 2008 from <http://www.cirhr-irsc.gc.ca> .

⁶ Davison, C., Brown, M., & Moffitt, P. Student researchers negotiating consent in Northern Aboriginal communities. *International Journal of Qualitative Methods*. 2006; 5(2): Article 7. Retrieved March 1, 2008 from <http://www.ualberta.ca>.

⁷ Duffy, M.E. Methodological issues in web-based research. *Journal of Nursing Scholarship*. 2002; 34(1): 83-88.

Dissemination of Information

After consultation with representatives of the Evaluation Advisory Group and Saint Elizabeth Health Care (SEHC), the research team developed several strategies to disseminate information about the study to current and former users of the e-learning system, as well as to health directors and political leaders in the participating communities. Invitations to take part in the evaluation, along with a poster advertising the study were delivered via Internet postings on the SEHC website and through that organization's email distribution lists, three times over a period of six months. SEHC also provided a list of participating First Nations communities and organizations, which the research team used as the basis for extending invitations, *via* telephone and email, to community political leaders and health directors. As well, the Evaluation Advisory Group assisted in disseminating information about the study in their respective provinces.

Multiple options were offered to encourage response rates.⁸ Surveys could be accessed *via* email, fax or the Internet, the latter through a link to a dedicated page on CRaNHR's website. Interviews could be done either as part of a focus group or on a one-to-one basis. Although it was initially planned that focus groups would be done through videoconferencing, thereby accommodating the oral and visual communication styles preferred by most First Nations peoples,⁹ inter-provincial bridging issues precluded use of this technology. As an alternative to videoconferencing, the team delivered focus groups and individual interviews using a toll-free dial-in teleconferencing service. This service allowed participants to connect to the focus group or interview session simply by dialing into the service at a pre-arranged time. The teleconferencing option gave focus group participants

⁸ Truell, A.D. Use of Internet Tools for Survey Research. *Information Technology, Learning, and Performance Journal*. 2003; 21(1): 31-37.

⁹ Meadows, L.M., Lagendyk, L.E., Thurston, W.E., & Eisener, A.C. Balancing culture, ethics and methods in qualitative health research with aboriginal peoples. *International Journal of Qualitative Methods*. 2003; 2(4), 1. Retrieved March 1, 2008 from <http://www.ualberta.ca> .

added security and privacy for talking about sensitive issues,¹⁰ as individuals could join in the group without revealing their name, their community, phone number or other identifying information to the interviewers. Teleconferencing also was more convenient for busy health care providers, who could join the focus groups or complete an individual interview from any location.¹¹ The ease of using the technology also encouraged people from smaller rural or remote communities to participate.¹² Separate sessions for front-line personnel, managers and community leaders were offered to encourage open discussion of issues around the operation of the @YourSide Colleague® program.¹³

Response Rates

Overall, the 78 home and community staff who participated represent 17.6% of the 444 learners who used @YourSide Colleague® during September 2008,¹⁴ when the data collection began. This corresponds closely to the return rates found in other key informant surveys.¹⁵ We also achieved our goal of recruiting sufficient numbers^{16 17} of individuals who had used @YourSide Colleague® in each province and community type to meet the threshold for information saturation in major categories and sub-categories.

¹⁰ Tolhurst, H. and Dean, S. Using teleconferencing to enable general practitioner participation in focus groups. *Primary Health Care Research and Development*. 2004; 5, 104.

¹¹ Cooper, C., Jorgenson, C., & Merrit, T. Telephone focus groups: an emerging method in public health research. *Journal of Women's Health*. 2003; 12(10), 945-951.

¹² Robinson, A., Burley, M., McGrail, M., Drysdale, M., Jones, R., & Rickard, C. The conducting and reporting of rural health research: rurality and rural population issues. *Rural and Remote Health*. 2005; 5, 417. (Online). Retrieved March 16, 2008 from <http://rrh.deaking.edu.ca>.

¹³ Krueger, R. and Casey, M.A. (2000). *Focus Groups: A Practical Guide for Applied Research*. (3rd ed.). Sage Publications, Inc.: Thousand Oaks, CA.

¹⁴ Data provided by Saint Elizabeth Health Care.

¹⁵ Gupta, N., Shaw, J. & Delery, J. Correlates of response outcomes among organizational key informants. *Organizational Research Methods*. 2000; 3(4): 323-347.

¹⁶ Guest, B., Bunce, A. & Johnson, L. How many interviews are enough? An experiment with data saturation and variability. *Field Methods*. 2006; 18(1): 59-82.

¹⁷ Jackson, W. (2003). *Methods: Doing Social Research*. (3rd ed). Toronto, ON: Pearson Education.

Only in one category, community leaders, did the evaluation fall short of its recruitment goals, with just nine individuals responding. Telephone contacts with health directors and community leaders in the 117 First Nations communities and organizations which had staff using the SEHC e-learning system during 2008¹⁸ suggested the primary reason for non-participation was lack of knowledge. Just two local representatives from among the more than 200 First Nations health directors and community leaders contacted were aware of @YourSide Colleague® and its educational role.

Data Analysis and Reporting

Reflecting accepted practices for culturally appropriate research,¹⁹ analysis and reporting of data was conducted under the direction of the Evaluation Advisory Group. Data from the survey, focus groups and individual interviews were analysed separately, then subjected to cross-sectional analysis. Overall, the goal was to differentiate experiences of current users and those who have discontinued use of the system and explore factors which may affect utilization. Systematic triangulation of qualitative and quantitative findings²⁰ was used to confirm and elaborate results and identify any limitations. Analysis of @YourSide Colleague® administrative data explored indicators²¹ of utilization, enrollments, and online activity.

All materials from the study were synthesized into a final report, which was presented to the Evaluation Advisory Group for review and approval. This final version of the report was submitted to Health Canada, First Nations and Inuit Health, Home and Community Care Program, and disseminated to members of the Evaluation Advisory Group. At the end of the project, the report will be posted on the Centre for Rural and Northern Health Research website at Lakehead University.

¹⁸ List containing names of First Nations and organizations provided by Saint Elizabeth Health Care.

¹⁹ Castellano, M.B. Ethics of Aboriginal Research. *Journal of Aboriginal Health*, 2004; January: 98-114.

²⁰ Farmer, T., Robinson, K., Elliott, S. and Eyles, J. Developing and implementing a triangulation protocol for qualitative health research. *Qualitative Health Research*. 2006; 16(3), 377-394.

²¹ Australian Government Department of Education, Science and Training. *Australian National Training Inventory: E-Learning Indicators*. Report Prepared by I & J Management Services, Melbourne: April 2005. Retrieved March 6, 2008 from <http://www.dest.gov.au>.

EXPERIENCES USING @YOURSIDE COLLEAGUE®

The @YourSide Colleague® system for First Nations home and community care staff which was evaluated in this initiative is “a web-based learning and knowledge sharing product.” Accessible *via* the Internet on a 24 hours a day, 7 days a week basis, it includes courses, practice quizzes, knowledge tests, a library of documents, tools and templates, discussion boards, a help function, and a search engine. Additional learning supports, in the form of study groups and webinars, are also available periodically.

Although the program was implemented at different times in each province, with Manitoba piloting the program in 2001, British Columbia joining in 2006 and Saskatchewan in 2007, the initiative was publicized using similar peer marketing processes. In each province, SEHC staff used conferences and regional meetings to inform home and community care program managers, nurses, community health representatives, personal support workers and health care aides about forthcoming courses available through @YourSide Colleague®. Once individuals had tried the program, they were encouraged to share information about the website with their coworkers and colleagues. Announcements about new courses, study groups and webinars was delivered *via* the SEHC quarterly newsletter.

Eligibility to Use @YourSide Colleague®

Learners are eligible to register for an @YourSide Colleague® First Nations program account if they work in, with, or for a First Nations community or organization in Manitoba, Saskatchewan and British Columbia. Once eligibility has been determined, each learner is provided with unlimited access to all courses, resource materials, study groups and webinars, as long as they are registered with @YourSide Colleague®. To ensure that learners from rural and remote locations can participate, the system is designed to work on broadband, dial-up and satellite Internet connections.

SEHC assesses account activity for individual learners on an annual basis and contacts learners who have not accessed the program within the preceding six to twelve months to determine continuing eligibility for the program. If it is determined that an individual is no longer employed with a First Nations community or organization in any of the three provinces, their account and registration are removed and they can no longer access the system.

Courses and E-Learning Supports

During the period covered by this evaluation, First Nations home and community care staff using @YourSide Colleague® had access to 15 different courses and related learning resources. These included two orientation modules (General and Manitoba-specific²²), basic skills for Personal Support Workers and Health Care Aides (Personal Support Worker), nine clinical courses (Clinical Skills; Cancer Care;²³ Cardiac Care; COPD; Diabetes; Palliative Care; Seniors Care; Wound Care and its successor Wound Management²⁴), and three administrative courses (Human Resources; Program Planning and Evaluation; Quality and Risk Management).

Each course, including learning topics and subtopics, is designed to be completed within an average time of 2.5 hours. Case studies, scenarios, and reflective questions, practice quizzes and knowledge tests are embedded in course materials. On-line access is also provided to online discussion boards, where students can post questions and share information with other users. A document library, including tools and templates referenced in the courses, is also accessible to users on a 24 hour a day basis. There also are options for program materials to be printed, to allow individual learners to work through the courses at their own pace.

Additional learning supports, in the form of study groups and webinars, are available on a periodic basis. Virtual study groups, delivered *via* telephone conferencing and web conferencing have been offered for

²² Released May 2009.

²³ Released January 2009.

²⁴ Wound Care ran September 2006 - February 2009; Wound Management released February 2009.

Personal Support Worker (2007), Palliative Care (2008), Wound Management (2009) and Cancer Care (2009) courses. Each study group is run, on average, for six weeks, with one session per week. Webinars, stand-alone sessions on specialized topics, such as Diabetes Practice Guidelines or use of the electronic Health Human Resources Template, are offered occasionally. Each study group or webinar session, facilitated by a SEHC Advanced Practice Nurse, lasts about 60 to 90 minutes.

Evaluation Participants

The project achieved its goal of obtaining information from First Nations home and community care providers in all three provinces, including non-isolated, semi-isolated, isolated and remote-isolated locations. A total of 78 respondents who had used @YourSide Colleague® took part in the evaluation, completing the online survey (41) or focus group and individual interviews (37). Their practice locations, the length of time that people had used the system, how they learned about the website, their computer experience, the learning supports that they accessed and their intentions for continued use of the e-learning system are described in the following sections.

Analysis by province revealed that, of the 68 participants who indicated their practice location, the largest number were from Manitoba (39), followed by Saskatchewan (16) and then British Columbia (13) (Figure 1). One of every two were from non-isolated areas (35); the remainder were from semi-isolated (10), isolated (6), or remote communities (16) (Figure 2).

While comparatively few people were currently working in isolated or remote First Nations, most were familiar with the situation in these locations. Some staff who were now working in urban settings had previously worked in remote communities; several supervised the delivery of home and community care programs to isolated First Nations. As a manager explained, “although [her team’s] office is in a non-isolated area, they are actually supervising isolated communities.”

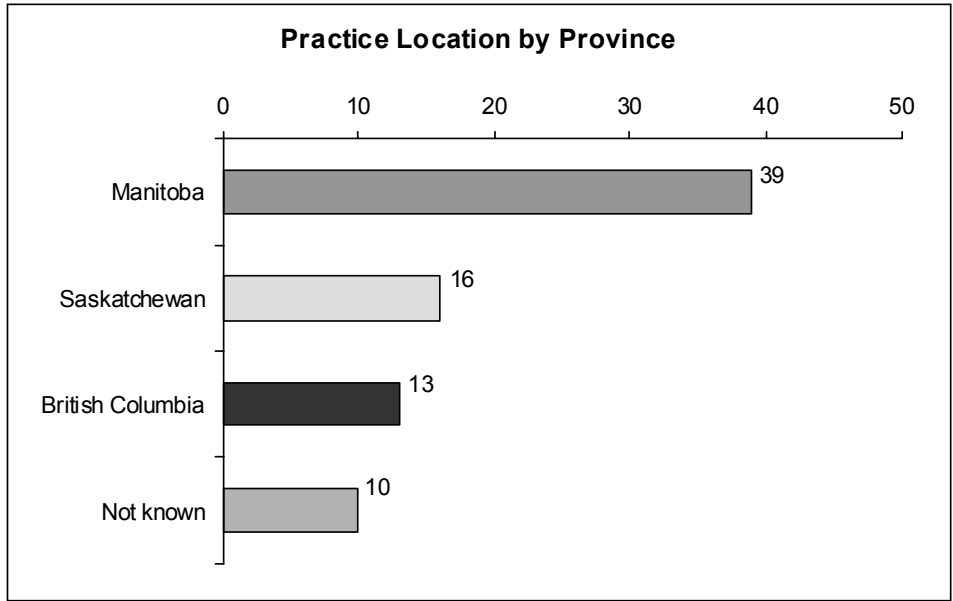


Figure 1 - Practice Location by Province (Source: Survey, Focus Group and Interview Data)

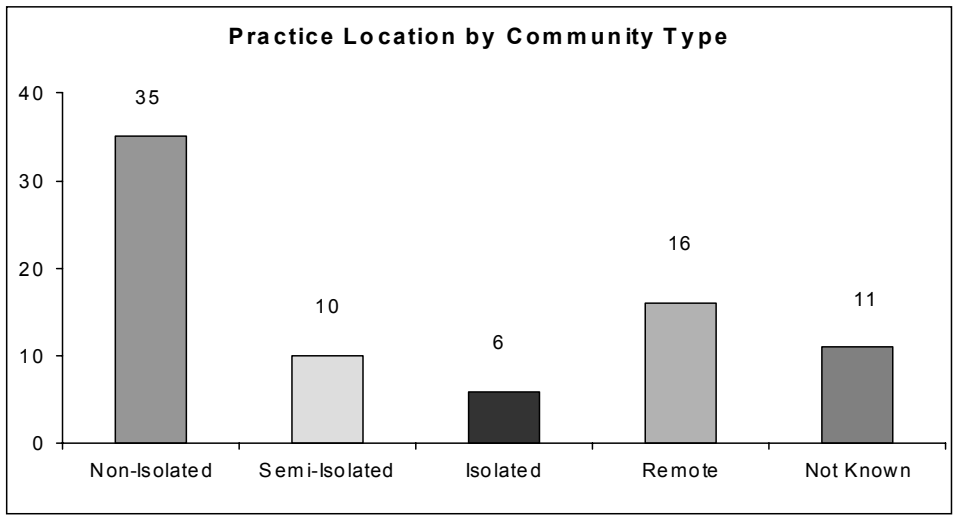


Figure 2 - Practice Location by Community Type (Source: Survey, Focus Group and Interview Data)

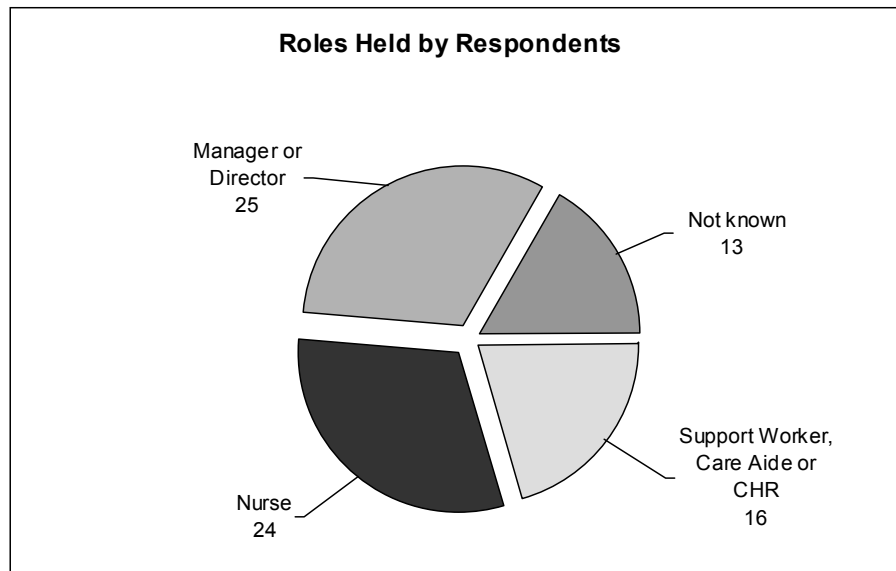


Figure 3 - Roles Held by Respondents (Source: Survey, Focus Group and Interview Data)

Roles

With regard to roles in providing home and community care, evaluation participants were employed in diverse occupations (Figure 3). The most commonly-reported roles were managerial (25) or nursing (24). Health care aides (12), support workers (4) and community health representatives (1), however, also took part in the study.

Many First Nations employees worked in more than one setting and had multiple responsibilities in their respective work places. For instance, a nurse could be employed both as a community health nurse and as director of a health program or facility. Dual roles and working for more than one program or facility also were reported by personal support workers, health care aides and community health representatives.

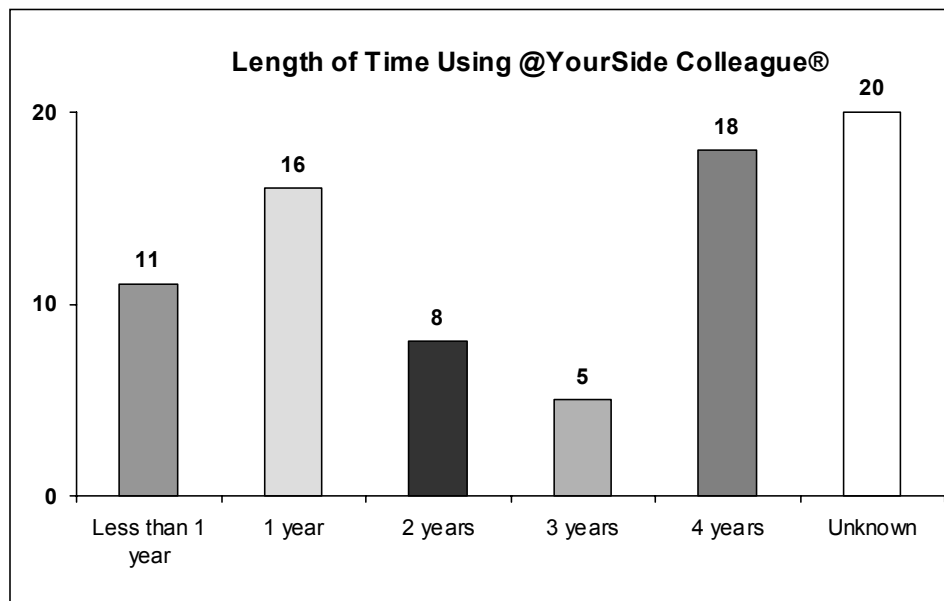


Figure 4 - Length of Time Using E-Learning System (Source: Survey, Focus Group and Interview Data)

Length of Time Using the System

As shown in Figure 4, those who were currently using the @YourSide Colleague® system represented both experienced users and novices. Among experienced users, those had been using the system for at least four years (18) predominated; others had been accessing the program for two years (8) or three years (5). Close to one-half of the study participants were novices, who had used the Saint Elizabeth Health Care system for just a year (16) or less than a year (11). Included in the latter group were people who had “just started to use it in the last few months.” A number of regular users did not recall when they began to use the system as part of their work activities. As one of the interviewees commented: “you know, I started when we started the pilot ... and I don’t remember how long ago that was.”

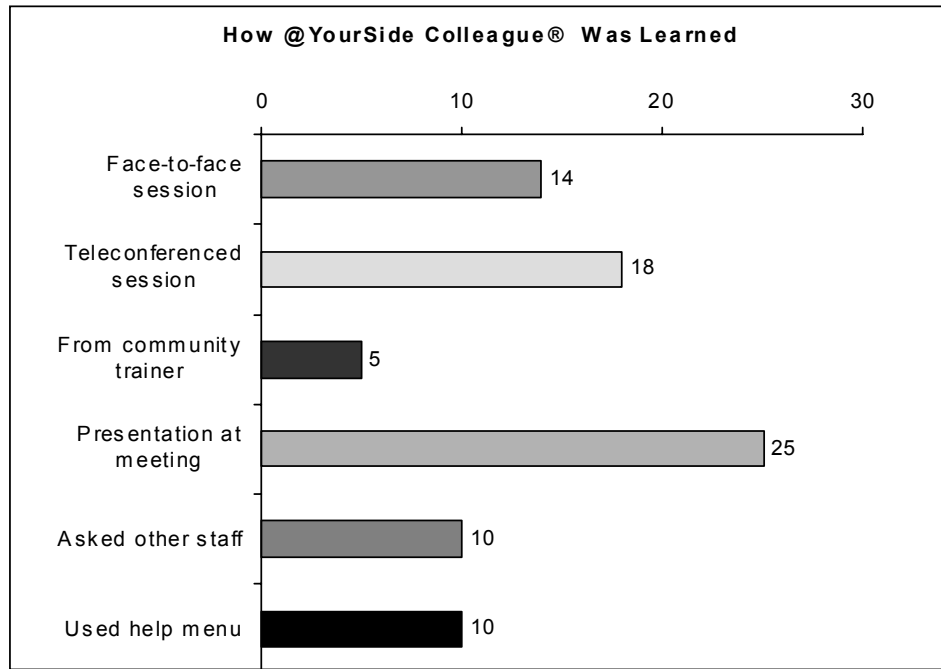


Figure 5 - How Participants Learned to Use the System (Source: Survey, Focus Group and Interview Data)

Learning How to Use the System

As might be expected, instruction on how to use @YourSide Colleague® took many forms (Figure 5). The most common method of learning was through presentations at a meeting or conference (25), followed by teleconferenced (18) or face-to-face (14) sessions. Learners also had asked questions of other home and community care staff (10) or made use of @YourSide Colleague® help menus (10). Very few accessed community training supports (5). The delivery of instructions also differed; some respondents received “one-on-one” personalized training in how to access the website, register and access courses, study groups or webinars; others noted that they and their colleagues had taken part in a “workshop” or “group training” session.

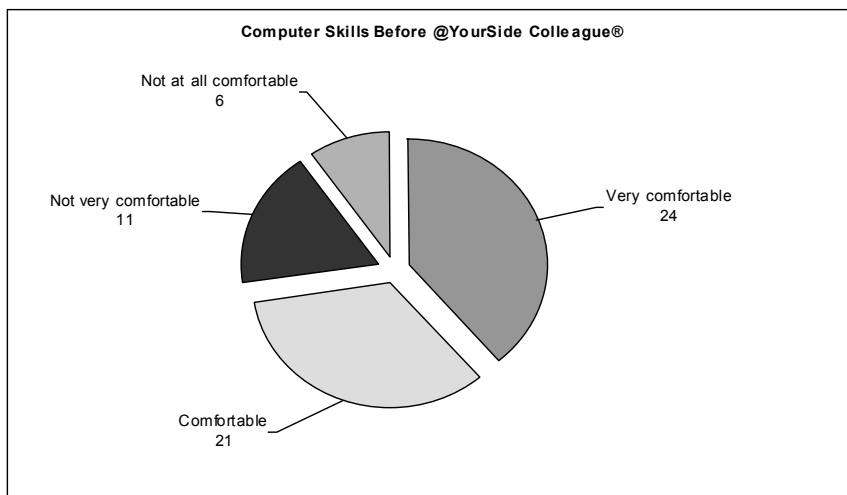


Figure 6 - Comfort With Computers Before Using E-Learning System (Source: Survey, Focus Group and Interview Data)

Comfort With Computers

As with any e-learning system, @YourSide Colleague® required some familiarity with computers and Internet procedures. As shown in Figure 6, about one-third had little or no experience with computers, reporting that they were “not very comfortable” (11) or “not at all comfortable” (6). The remainder judged themselves as being experienced users who were “comfortable” (21) or “very comfortable” (24) with these media.

Comments suggest that it took some time before novices gained enough experience with technology to access the website with confidence. A support worker, who had been using the system for three months, said: “I still need to get comfortable; I have very little experience.” Another front-line provider said that she simply “didn’t have any experience at all with computers.”

Several managers confirmed that they were personally “very comfortable” with computers, but their staff were “not at all comfortable” with the idea of e-learning. As a program director said, one of the major disadvantages to using SEHC or similar Internet-based programs was “always the comfort level with the use of computers.” Another supervisor

liked “the idea of @YourSide Colleague® but ... found it difficult to find any personal care worker applicants with the necessary tools or basic education to use the program effectively.”

Reasons for Deciding to Use the System

Varied reasons were given for using @YourSide Colleague® (Figure 7). Nearly one-half of study respondents made the decision independently to access SEHC, citing a desire “to upgrade skills and knowledge” (41). Many used the system because “the opportunity was there” (31). Others wanted “additional clinical support” (16). Some tried the system on the recommendation of others; specifically, because “managers encouraged it for work purposes” (9) or “coworkers advised that they try it” (7). Just a few reported “continuing education requirements for nursing certification” (4). As a support worker said, she accessed SEHC “because the opportunity was there and one needs to upgrade skills and knowledge ... my supervisor just asked us if we wanted to take this online course, so we agreed to it.”

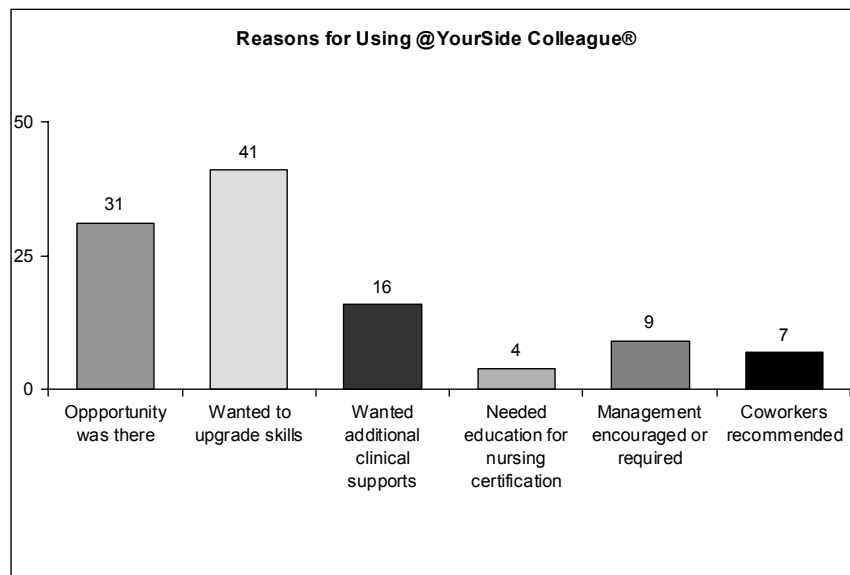


Figure 7 - Reasons for Using E-Learning System (Source: Survey, Focus Group and Interview Data)

@YOURSIDE COLLEAGUE® AS AN EDUCATIONAL RESOURCE

Given the diversity in the backgrounds of evaluation participants, there was a range of opinions about the usefulness of @YourSide Colleague® as a source of workplace information. About one-half of the evaluation participants offered their views on whether the @YourSide Colleague® system offered more, less, or the same amount of content than they had available to them previously. Some also indicated whether the knowledge gained had positive or negative effects.

As well as documenting possible effects on care, the study investigated how health care providers acquired on-the-job training and information before and after @YourSide Colleague® was introduced. Although a limited number of individuals answered these questions, their responses provide evidence of some significant trends.

Effects on Knowledge and Skills

In three of the five subject areas for which data was available (Figure 8), users reported that they had a greater amount of information following introduction of the e-learning system. For the remaining two areas, slightly more individuals reported that the levels were the same. Most of the effects were viewed positively. In some areas, however, individuals were unable to say if positive or negative effects had occurred as a result of the knowledge gained through the e-learning system. Others felt that it was too soon to assess any changes which might have resulted from their use of @YourSide Colleague®.

First Nations staff saw the most benefit of @YourSide Colleague® in areas involving individual learning (e.g., developing basic and advanced skills and knowledge, along with up to date information about treatment and care techniques). Some also agreed that using @YourSide Colleague® has encouraged knowledge sharing with other First Nations home and

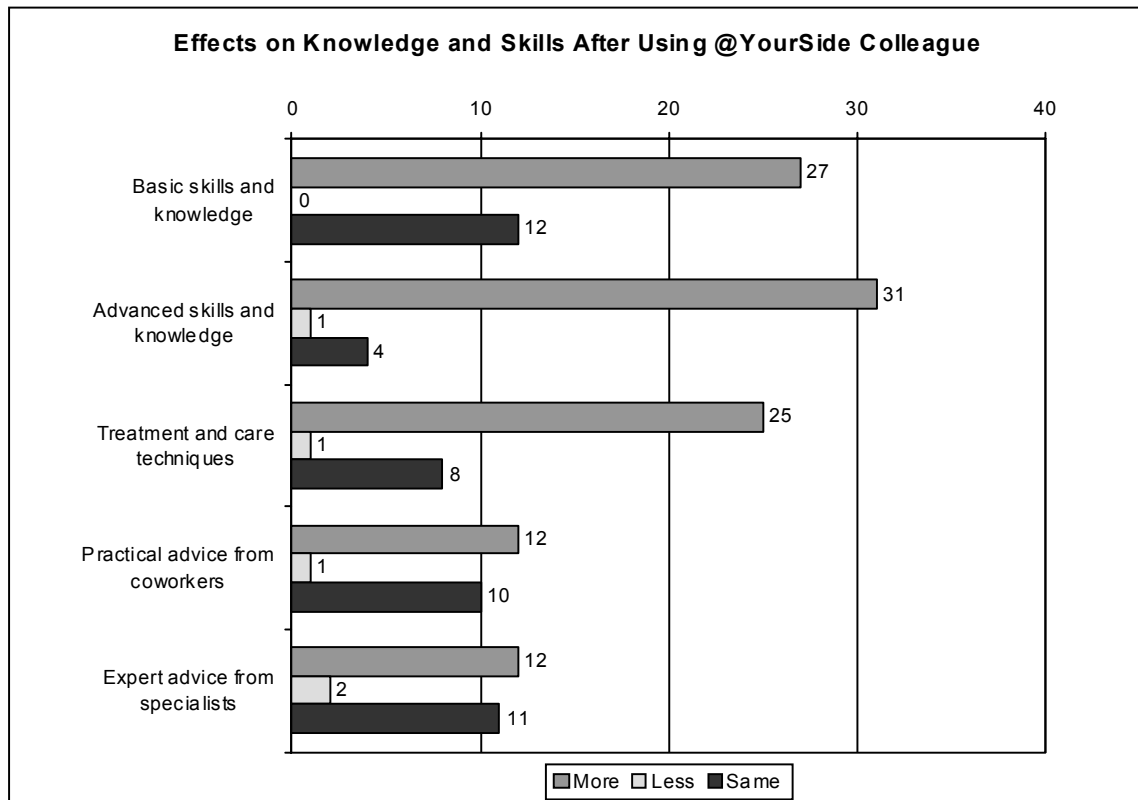


Figure 8 - Effects of E-Learning on Knowledge and Skills (Source: Survey, Focus Group and Interview Data)

community care providers, given them access to expert advice and developed their interest in continuing education.

Particular emphasis was placed on the basic skills and knowledge that staff had gained through using @YourSide Colleague®, with more knowledge being reported by two-thirds of respondents (27). Gains in palliative care were especially appreciated. As a care aide reported, she now had much better understanding of the basic skills required in her daily work with clients who were terminally ill: “When I took the palliative course, it gave me more knowledge and advanced my skills on what I could do and what I couldn’t as a health care aide.”

Another worker gave an example of increased confidence: “We know how to treat the families. We’re more confident in being with the family and can go out and support the grieving family.” A community support worker

said: "It made me to understand more of what to watch out for in our clients and report to our [manager] for advice."

There was even stronger agreement on the gains made in advanced clinical skills and knowledge. Almost everyone who answered this question believed they had benefited (31). Comments relating to wound care were especially illustrative of the ways that e-learning could expand specialized knowledge. Health care aides, for example, are now aware that complications can occur, can recognize problems and know what they should do: "We see a wound, we describe how it looks and how to treat it before it gets worse. We are aware of what to do. If it gets worse, then we call our RN to assist us." Nursing staff were equally appreciative of the knowledge gained. As a community nurse said: "It gave me more advanced skills in wound care. Wound care is set up well ... it is really worth it."

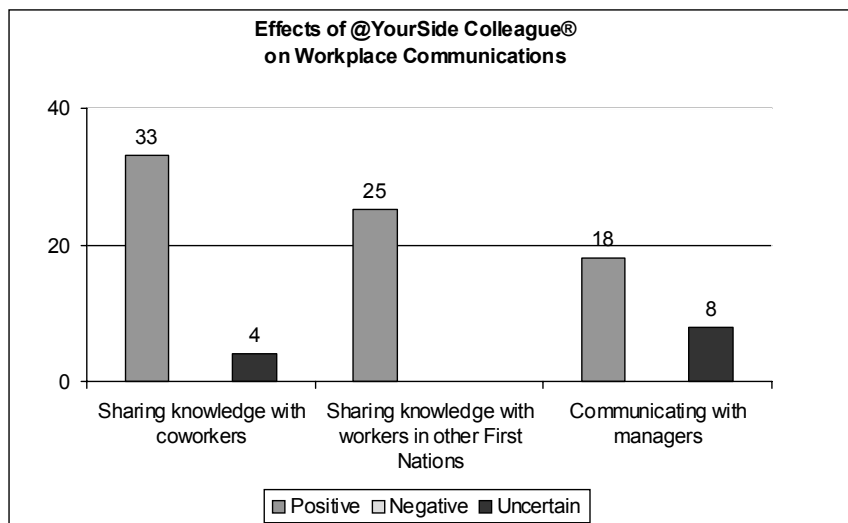
A majority of care providers appreciated the fact that @YourSide Colleague® content on treatment and care techniques was current (25). Content that was current supported efforts to keep basic skills and knowledge up-to-date: "I learned more on basic skills and knowledge and how to look after my clients." A community health nurse, comparing the system's module on Wound Management with a course that she had taken some years previously, said: "The modules I did were more up to date. People really knew what they were talking about." Clarity of presentation was also identified as an advantage: "The content, the way it's presented and format of @YourSide Colleague was so clear."

Opinions about the effects of having access to advice *via* the supports provided through @YourSide Colleague®, however, were less certain. About one-half of the people who responded to this question reported knowledge gains (12); almost as many felt their knowledge was the same (11); two saw negative effects. Comments confirm that staff who did tap into the expertise available through the system, for example, through the webinars and study groups facilitated by advanced practice nurses, believed that it improved their delivery of care. Speaking from a smaller community, a nurse said: "One thing that I really like about @YourSide Colleague® is they do have the experts there that keep us current on this practice." Another worker said that such resources improved their confidence: "You are not alone when you are @YourSide Colleague®; you have specialists there."

Effects on Workplace Communications

On the subject of workplace communications, about one-half of the staff surveyed believed that e-learning activities improved communications (Figure 9). Positive effects on sharing knowledge with coworkers (33) and with workers in other First Nations (25) were widely recognized. Some staff saw beneficial effects on communication with their managers (18).

Moreover, the system's ability to link home and community care staff *via* bulletin boards and discussion groups was generally thought to be growing. Although one person had "emailed [ie., posted a question on a bulletin board for] other @YourSide Colleague® users, but never got anything back," several people had successfully connected with colleagues in other First Nations and were continuing to do so. Additionally, the system was used to access "expert advice or expert endorsement ... from the people locally within our province." Some saw the potential to use the SEHC system for broader networking, connecting them "with other health professionals across Canada." As a manager noted, "making personal contact with each other seems to be a really positive aspect of the platform that they have."



*Figure 9 - Effects of E-Learning on Workplace Communications
(Source: Survey, Focus Group and Interview Data)*

Effects on Attitudes Towards Work

There was a sense that staff who used @YourSide Colleague® felt more confident in their work (Figure 10). About one-third saw positive effects on confidence (30) and perceptions of support (25). The knowledge gained built their confidence that they could deliver good care: “You gain so much knowledge ... confidence in making decisions that would impact on the care of your client.” Opportunities to participate in discussion groups with staff who had similar roles also made people feel more supported in their work: “We’ve all become comfortable in our roles. It was interesting to talk to and hear other people ... who are in the same role.”

At the same time, there was uncertainty around whether e-learning lessened negative workplace experiences. Very few respondents felt that e-learning could reduce feelings of isolation (8) or stress (7). Others were unsure about effects on worker retention, specifically whether such supports could influence their thoughts about changing jobs (16). Several commented it was “too soon to know” if such effects would be produced, because most First Nations staff had limited experience with the SEHC system.

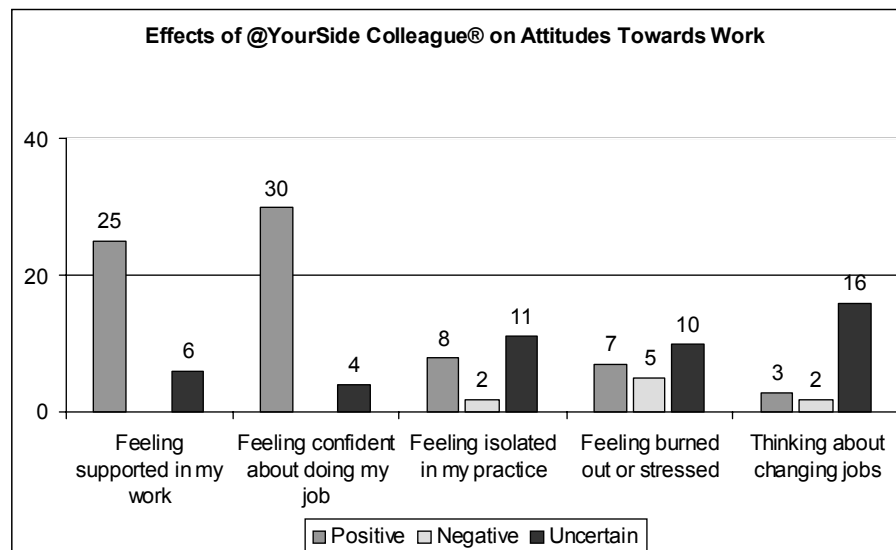


Figure 10 - Effects of E-Learning on Attitudes Towards Work (Source: Survey, Focus Group and Interview Data)

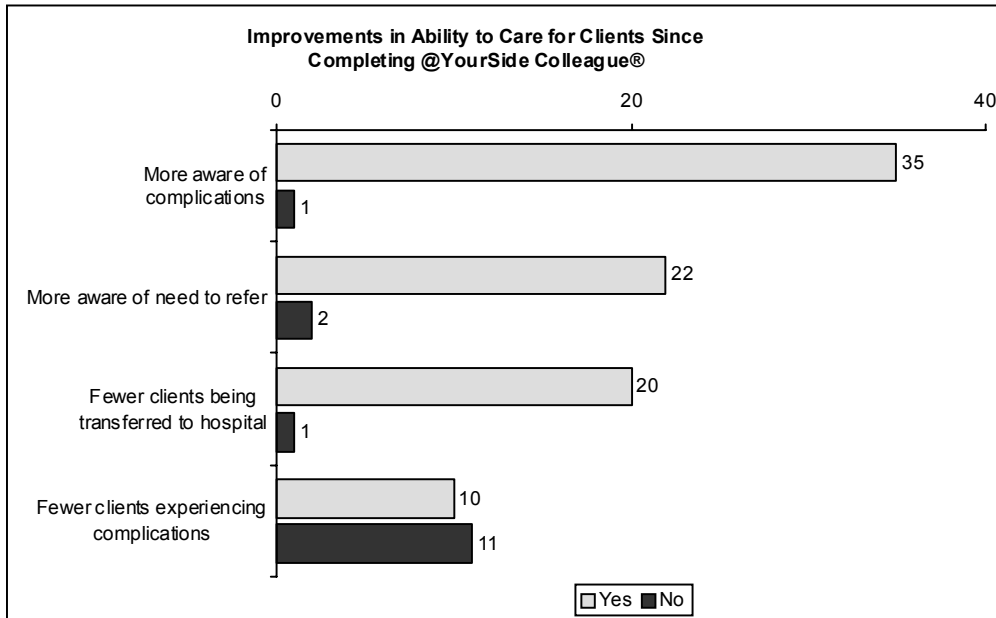


Figure 11 - Improvement in Caregiving Abilities After Completing E-Learning
(Source: Survey, Focus Group and Interview Data)

Improvement in Caregiving Abilities

Even at this early stage, there was agreement that access to e-learning resources had produced improvement in First Nations home and community care workers' abilities to care for clients (Figure 11). Both increased awareness of complications (35) and the importance of referring clients for more specialized care (22) were viewed as producing improvements in care. Although no firm data was available, some providers reported a reduction in the number of clients being transferred to hospital because of serious complications (20).

Opinions were divided, however, on whether or not the knowledge acquired had produced any reductions in the number of clients actually experiencing complications. Interviewees suggested that increased awareness of issues around medication and medical conditions was primarily responsible for observed improvements in care. A community support worker, for example, reported that her ability to care for terminally ill clients had improved because she had learned: "What to watch out for ... with the

chemotherapy and like the pain management, and how if someone is taking too much pain medication, what to be able to do.” Although no client data were available to substantiate these improvements, there also was a sense that fewer complications were occurring, largely because staff were “able to catch things sooner.”

Access to Other Educational Resources

Participants’ access to educational resources was examined for the period before and after @YourSide Colleague® came into effect. Results revealed that participants used a broad range of educational resources both before and after the advent of the SEHC system. When multiple response analysis was used to dissect the data and identify trends, however, some key differences emerged.

Among the 53 people who provided information on resources used *before* @YourSide Colleague® (Figure 12), train-the-trainer presentations, whereby staff were sent out of the communities for workshops and shared information on their return, predominated (44). Other important resources included books or manuals and distance education courses (38 for each), inservice education (36), hands-on learning from managers (33), Internet information (31), mentoring (28) or travelling workshops (28). Some had access to workplace instruction, such as skill-training sessions (23). The least-commonly used educational resource prior to the introduction of the e-learning system was teleconferencing or videoconferencing (22).

Among the 48 people who provided information on resources used *after* the SEHC system was introduced (Figure 13), a majority continued to have access to the same types of educational supports that they had previously accessed, including train-the-trainer presentations (31), other distance education (31), mentoring (30), hands-on-learning from managers (29), other Internet sources (28), inservices (25), and books or manuals (25). A minority also had access to other resources, including videoconferences and teleconferences (21), travelling workshops (18) and various types of workplace instruction (18).

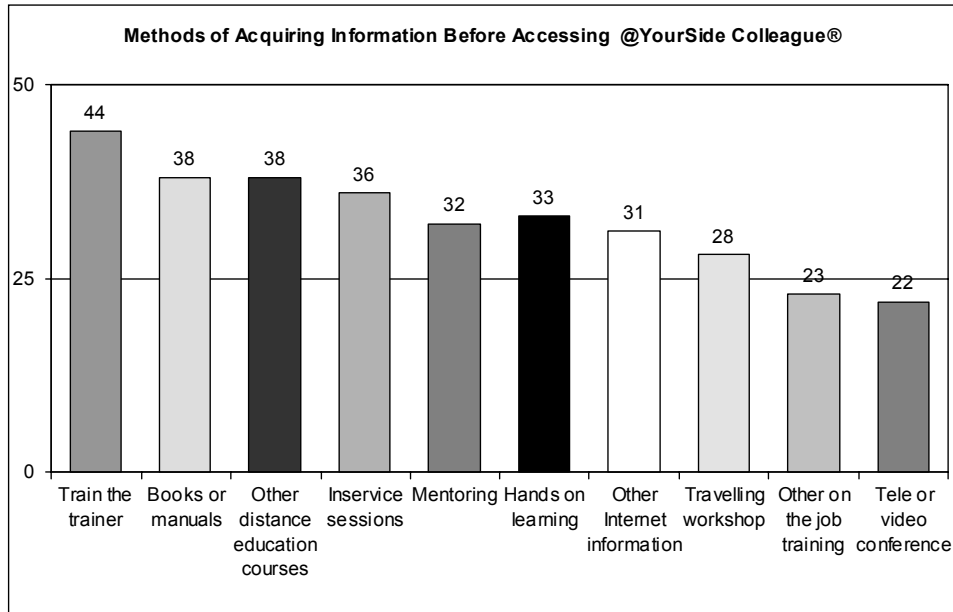


Figure 12 - Educational Resources Before Using E-Learning System (Source: Survey, Focus Group and Interview Data)

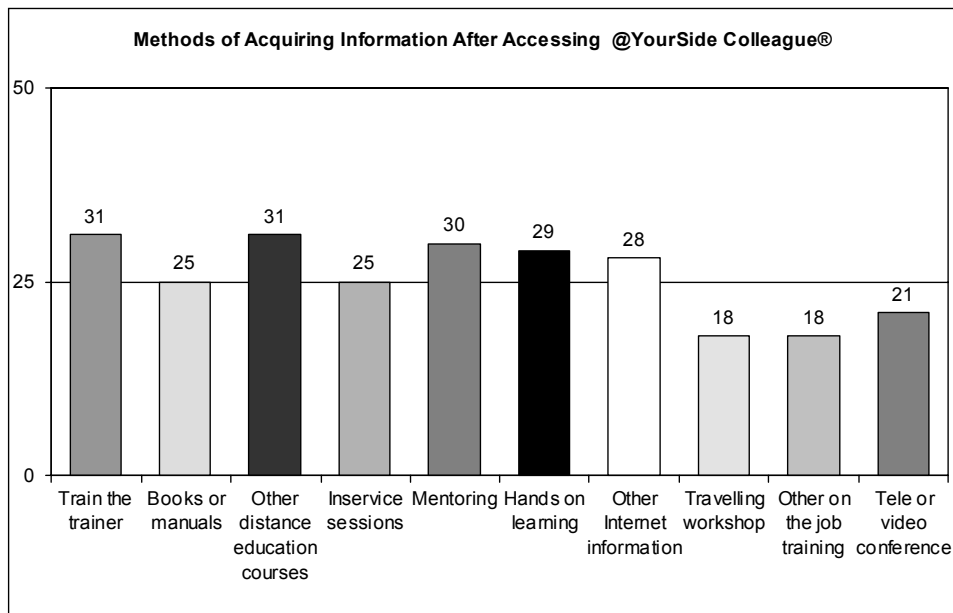


Figure 13 - Educational Resources After Accessing E-Learning (Source: Survey, Focus Group and Interview Data)

Comparing the number of people using specific types of educational resources *before* and *after* the SEHC system was introduced, some noticeable trends emerge. In particular, there was a decline in the numbers of individuals citing the use of train-the-trainer sessions (decreased from 44 to 31); books and manuals (from 38 to 25); inservice sessions (from 36 to 25); and travelling workshops (from 28 to 18). Relatively small changes were seen in the numbers of people using other resources, however, before and after the SEHC system was made available.

From a management perspective, encouraging staff to use e-learning was viewed as being a cost-effective alternative to other educational methods. Comments from the surveys, focus groups and interviews, moreover, confirm that some managers were using the SEHC program as a substitute for inservice education sessions, by regularly scheduling time for staff "to complete more modules." Others were using the system to reduce their community's reliance on train-the-trainer initiatives, workshops, books and manuals: "We've cut down on those now as we try to access @YourSide Colleague®."

Interest in Continuing Education

There also was some evidence that, once people have a satisfactory experience with e-learning, they may increasingly turn to the Internet and programs such as @YourSide Colleague® to supplement or enhance other educational resources (Figure 14). Among the 32 participants who expressed an opinion on this issue, almost all (30) believed that experience with the e-learning system had positive effects on interest in continuing education. A manager observed that SEHC system "built confidence ... that they could accomplish that and it is never too late to do more learning." An individual, who was initially "sceptical about online study," said:

By doing it with @YourSide Colleague®, you think if it is like that then you can further your studies online and you don't need to go to a site or school to do a course. It increases your interest to take further courses ... I took a course online ... and it was because of @YourSide Colleague® ... online course is no longer a taboo for me.

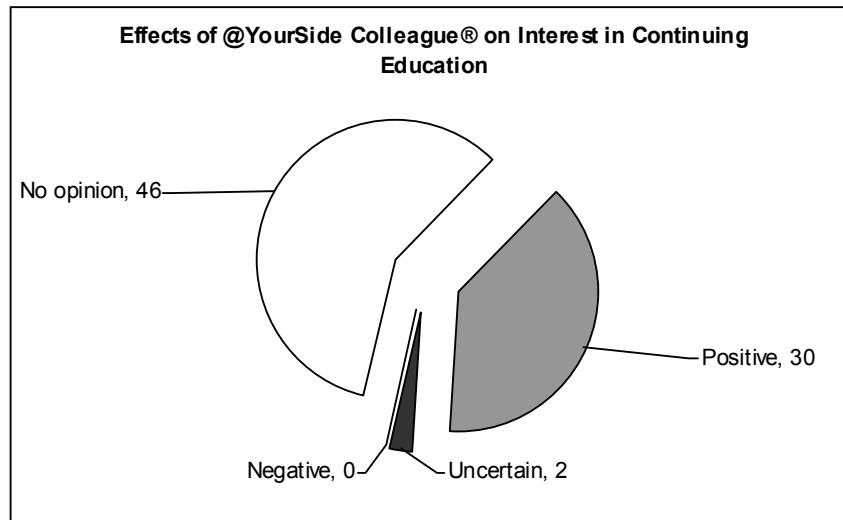


Figure 14 - Effects of E-Learning on Interest in Continuing Education (Source: Survey, Focus Groups and Interview Data)

Comparing E-Learning to Other Education Resources

When asked to comment on the advantages of using @YourSide Colleague® as compared to other education resources, the consensus was that e-learning was advantageous in terms of accessibility and affordability. Several respondents commented on the range of content that was available “at your finger tip” with online resources. As a nurse said:

Before @YourSide Colleague®, I used to go to workshops sometimes, maybe once a year, so the learning wasn’t there at all. But now with @YourSide Colleague®, you don’t need to worry about it.

Ease of access for home and community care staff, who could try the system on a 24/7 basis, was also important. Several respondents noted that the SEHC system gave them the opportunity to schedule their education at a time which was convenient for them. This was essential, considering their workplace demands and continuing responsibilities: “You can do it at your own pace ... you can pick the appropriate time that works for your

community, for your workplace, when you can hook up to @YourSide Colleague®.”

As a community support worker stated, the only requirement was a computer with the required Internet connections: “Anybody who wants to have access to it can have access: you only have to have access to a computer basically.” Another provider said: “All you had to do was to click!” Easy access *via* the Internet was especially advantageous to staff from remote areas, who otherwise had limited opportunities for continuing education. Reflecting on her experiences with @YourSide Colleague® while she was employed in an isolated area, a nurse said:

There was the need for education because at the time I was in a remote community. There was opportunity to learn because living away from the big city centres one needs to take classes.

Another person summed up her experience by saying: “Versus going out for training ... it is more accessible to do it in the community and effective.” Not having to travel out of your community to access education was seen as being advantageous, particularly in the time saved:

It still saves you travelling. In our communities, you can spend a day or two getting out of your community; spend a day on training and spend a day or two getting back and that’s not very cost effective or time wise either.

The @YourSide Colleague® initiative also was appealing because it was “free,” i.e., there were currently “no registration costs” for First Nations staff who wanted to use the program and no direct costs to participating First Nations communities or organizations. This was a major advantage for smaller First Nations, who otherwise could not afford to send staff elsewhere for education:

Often, in these small communities, there’s such a limited budget for continuing education. At the same time, it often these communities that need the most support, so the fact that it’s not financially limiting to access the course [through SEHC] is huge.

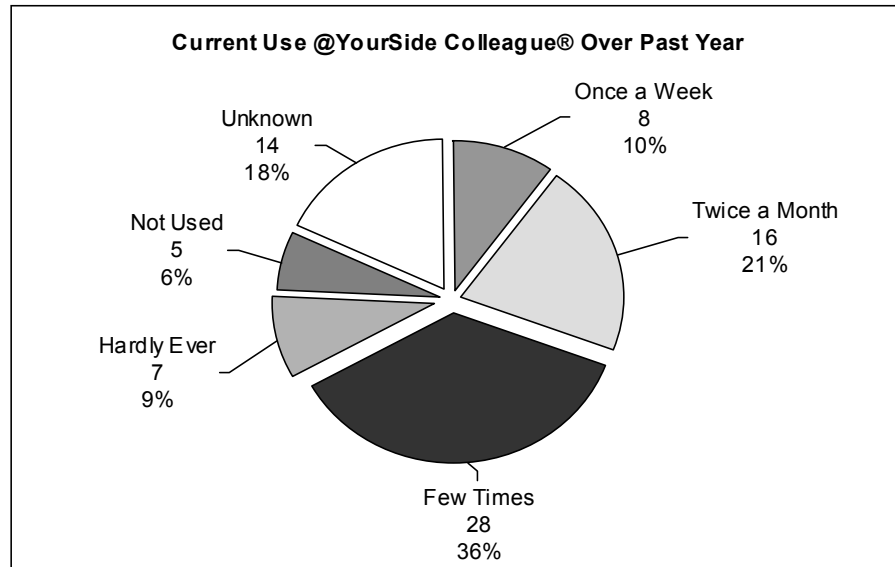


Figure 15 - Use of E-Learning System Over Past 12 Months (Source: Survey, Focus Group and Interview Data)

Current Usage

Once staff had accessed @YourSide Colleague®, there were a variety of patterns of use. Figure 15 presents a summary of how often respondents had used the system over the past year. Most people fell into one of two groups: regular users, who accessed the program either weekly (8) or about twice a month (16); and infrequent users, who might check the website only a few times during the year (28) or who hardly ever used the application (7). Several staff had not used the system at all during that period of time (5). The remainder (14) did not provide any estimate of current utilization.

Focus group and interview data confirmed that individual usage patterns frequently were established relatively soon after people started accessing the website. Consistent users often stated that they had used the system on a regular basis from the time it was introduced into their First Nation community or organization. Other staff, who now rarely used the program, had accessed the website quite intensively at first; after a brief period, their use of @YourSide Colleague® diminished. Looking back, a program manager said: “It changed through the year ... I started out using

it fairly quickly and now I hardly ever use it.” Course completion also affected utilization and people generally lost interest in the system once learning needs were met: “When I was taking the course, I was on once a week and then periodically; I just check what their latest courses are ... a few times during the year.” Others were “looking forward to new modules ... because they sharpen [our] skills.”

Supports Used

In addition to the core learning modules, the @YourSide Colleague® e-learning system offers various supports to its users, such as participation in online course discussion groups. As well, people can seek advice about using the system from @YourSide Colleague® tutors through a dedicated email-based response system. They can also post messages and questions on bulletin boards to obtain information from co-workers who are more experienced. About one in every two respondents (Figure 16) reported that they had accessed learning modules (39) or participated in discussion groups (34). One in five individuals emailed @YourSide Colleague® tutors for advice on accessing the website (16) or posted questions on the online bulletin board for other users to answer (10).

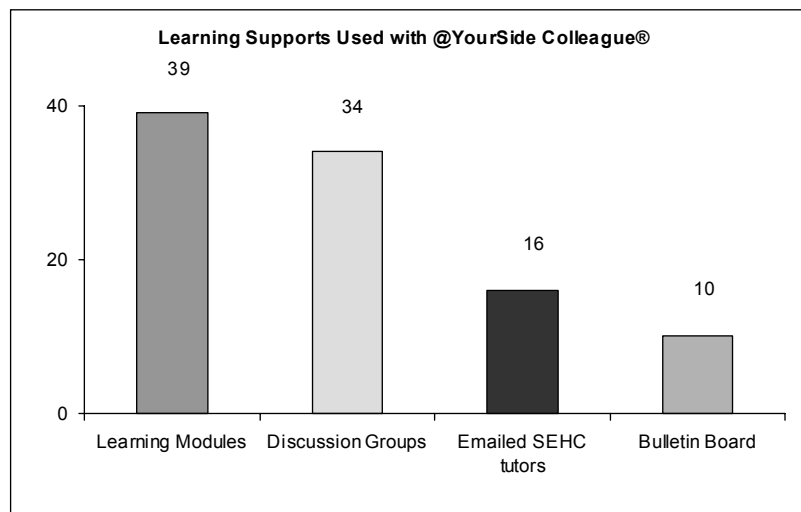


Figure 16 - E-Learning System Supports Used (Source: Survey, Focus Group and Interview Data)

Focus group discussions revealed that learners were often very selective in the supports they used, accessing @YourSide Colleague® courses, study groups or email supports on an “as needed” basis. Some turned to the system occasionally “just to see what their latest courses were.” Others appreciated the opportunity to take part in additional learning activities, such as study groups or webinars, that allowed them to interact with their coworkers and learn from the SEHC advanced practice nurses who facilitated the sessions: “It’s really nice to have the coworkers there and also to get the advice from the specialists.”

Several individuals, however, acknowledged that they had “dropped out” of learning modules due to work pressures: “I never completed the learning module but I participated in discussion groups and emailed [other learners] ... for advice.” Another provider reported a similar experience; while not having time to go completely through a module, she had used some of the reference materials: “I haven’t completed the learning module but I have read some of the things in there.”

Continuing to Use E-Learning

More than one-half of the home and community care staff who took part in the evaluation, 48 individuals in all, intended to continue accessing the system’s supports during the next year (Figure 17). Others had difficulty in assessing their e-learning intentions: many had no opinion (24); some were unsure or felt that it was too soon to make that decision (4); and two individuals did not intend to use the system at all.

Decisions to continue using the system, of course, were contingent on the applicability of content to work roles. Comments reveal that resource materials were especially appreciated: “I plan on continuing to use @YourSide Colleague® because I find that it is a good, available resource [and] I like accessing the library.” Other staff said that they would keep using the system simply because they “enjoy upgrading [their] knowledge.” As a manager said: “When we are stuck on anything, we just turn on the computer and go to @YourSide Colleague® to get what we want – pretty well all the answers are there.”

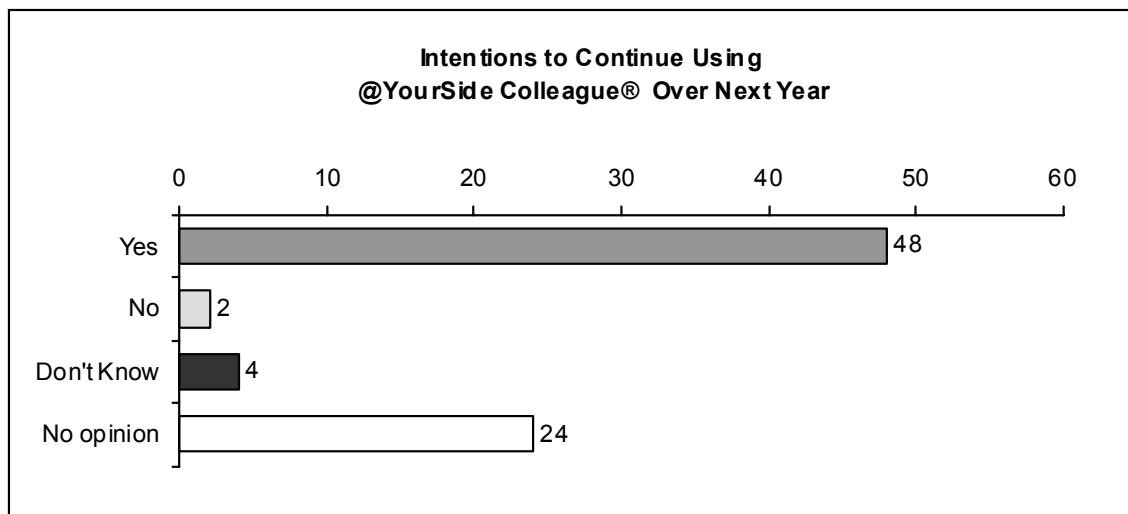


Figure 17 - Intentions to Continue Using E-Learning System Over Next Year (Source: Survey, Focus Group and Internet Data)

The ability to enhance job performance was an additional reason for continuing to access e-learning. A nurse said: "If another course becomes available and it's going to enhance my job performance, absolutely." Another professional, recently returned to work, remarked: "I want to brush up and to make sure that I was still on top of what best practices ... are out there." Newly-hired workers also intended to access the system: "I am just recently employed ... so I probably will ... use it," said a nurse.

Several managers reported that both they and their staff would use the program. One said: "We definitely plan on continuing to use @YourSide Colleague® ... because of the accessibility and quality of the program." Another emphasized: "What I want to do next year (for me and my staff) is to schedule time ... and I expect the staff to spend that time to learn @YourSide Colleague®." Some people, however, felt that they hadn't had enough exposure to the system and its resources to express a firm opinion regarding intentions. One participant who said: "Personally, I don't know right at this point ... it is too soon for me to decide." Another staff member said, "I would just say it's a little too soon yet." She added that she hoped to do more courses in the future: "I still want to try another one or two."

@YOURSIDE COLLEAGUE® USER DATA

Administrative data on use of the Saint Elizabeth Health Care e-learning by First Nations health care providers offers insights into overall utilization of the program and specific courses. Aggregated data, with breakdowns by year and by province, was available on the following indicators for the period January 2007 through June 2009:

- *“Account Holders”* (the number of First Nations staff holding e-learning accounts, i.e., who were registered with Saint Elizabeth Health Care);
- *“Active Learners”* (the number of individual learners who have accessed the SEHC system at least once during a given year);
- *“Utilization Rate”* (the percentage of account holders who accessed the SEHC First Nations website at least once during a given year);
- *“Course Enrollments”* (number of active learners annually accessing any SEHC courses,²⁵ as well as related study groups and webinars);
- *“Online Hours”* (number of hours that First Nations workers spent online while accessing specific courses).

This information was used to calculate three additional indicators of course-specific utilization, which offer insights into the way that First Nations home and community care staff use course content on the SEHC site between 2007 and 2009:

- *“Overall Enrollments”* (Sum of all course enrollments);
- *“Overall Hours Online”* (Sum of online hours for all courses);
- *“Average Online Hours”* (Average number of hours, per active learner, online for specific course, study group or webinar).
- *“Average Usage”* (Average number of hours, per active learner, online, for all course, study group or webinars for calendar year).

²⁵ Data tracking use of the Wound Care course 2006- January 2009 was lost due to technical issues.

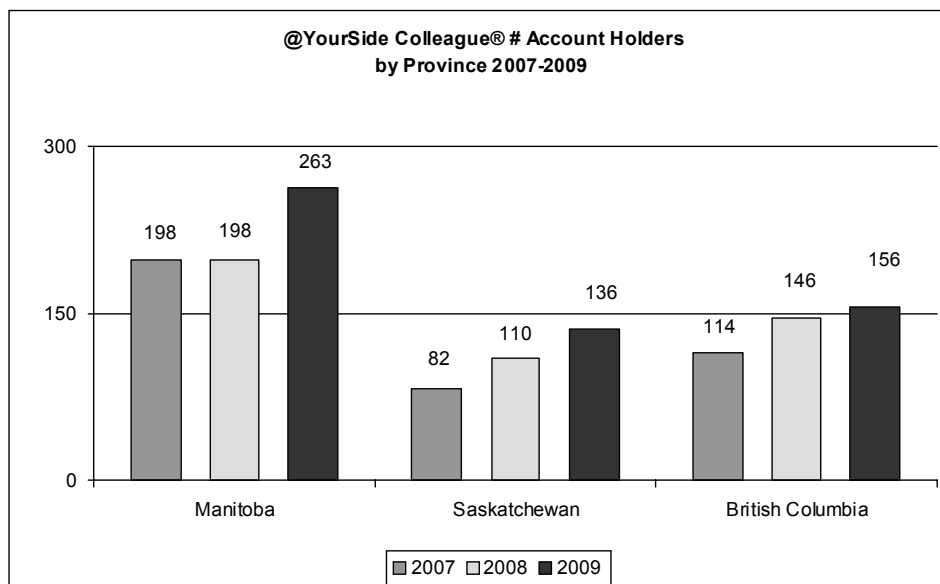


Figure 18 - Number of E-Learning Accounts by Province and by Year (2007-2009) (Source: SEHC Data)

Account Registrations

As might be expected, the overall number of First Nations staff holding accounts with @YourSide Colleague® has gradually increased as additional learners registered with the SEHC system. The number of learners with SEHC accounts across all three provinces rose from 394 to 454, then to 555 for the years 2007,²⁶ 2008 and 2009.²⁷ Comparing 2007 to 2009 figures, this represents an increase of approximately 40% in the number of First Nations staff who had SEHC accounts.

Looking at provincial-level data, there is a strong concentration of SEHC accounts in Manitoba (Figure 18). Almost one-half of the First Nations staff registered with the e-learning system in 2007, 2008 and 2009 lived in that province. Among the 555 people holding @YourSide Colleague® accounts in 2009, for example, 47% lived in Manitoba (263), 24% in

²⁶ Due to transitioning between SEHC versions, only 4-6 weeks of data was available for 2006, which produced insufficient numbers to permit comparisons.

²⁷ 2009 registration totals reflect January 1, 2009 to June 30, 2009 figures.

Saskatchewan (136), and 28% in British Columbia (156). When each province is examined separately, however, it is clear that the most noticeable growth in the First Nations e-learning system has occurred in Saskatchewan. The total number of account holders in Saskatchewan has increased by almost two-thirds since that region joined the SEHC system in April 2007. Manitoba and British Columbia registrations have increased more slowly; as of June 30, 2009, both provinces had about one-third more staff registered with the e-learning system than they did during the year 2007.

Account Activity

Although large numbers of First Nations home and community care staff hold SEHC e-learning accounts, their use of the accounts varies significantly from year to year and from one province to another. Comparing 2007 and 2008 data,²⁸ 250 of the 394 staff who had accounts in 2007 logged onto the SEHC system at least once; the remainder did not use the system at all (194). The following year, 326 of the 454 staff with accounts checked into the website; again, the rest were inactive (128). This means that the utilization rate (percentage of account holders accessing the system at least once each year) increased from 63.4% in 2007 to 71.4% in 2008. Again, there are substantive differences in the percentage of First Nations staff accessing the system by province (Figure 19):

- Manitoba, with no change in the number of accounts 2007-2008 (198 people registered each year), had a strong increase in activity (117 to 155), which in turn produced a substantial increase utilization rate from 2007 to 2008 (59.1% to 78.3%).
- Saskatchewan saw growth in registrations (82 to 110, which was offset by increasing activity (63 to 81), resulting in a slight decline in the utilization rate from 2007 to 2008 (76.8% to 73.6%).
- British Columbia registrations (114 to 146) and activity (70 to 90) rose proportionately, so utilization rates in both 2007 and 2008 were equivalent (61.4% and 61.6%).

²⁸ Account activity based on calendar year estimates, so 2009 data was unavailable.

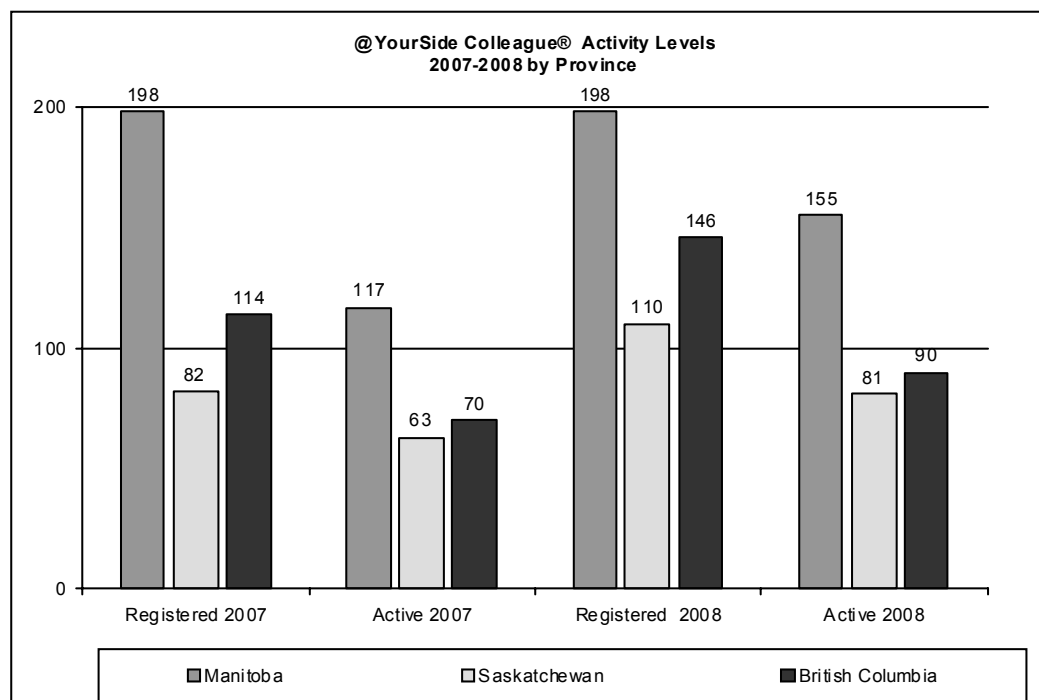


Figure 19 - Account Activity by Province (2007-2008) (Source: SEHC Data)

Overall Course Enrollments

Another way of examining how First Nations staff use @YourSide Colleague® is to look at the number of learners accessing any type of course content (“overall enrollments”). Although overall enrollment in any given year typically exceeds the number of active learners, because learners often enroll in more than one course during a given year or access a specific course during more than one year, this data is useful as another indicator of course-based activity. Looking at 2007-2009 data, there is evidence that enrollments vary considerably from year to year, with some trends being evident:

- There was a noticeable decline in overall enrollment between 2007 (563) and 2008 (340); the first six months of 2009, there were 283 enrollments, which suggested that activity was again increasing, perhaps in response to three new courses that SEHC offered.

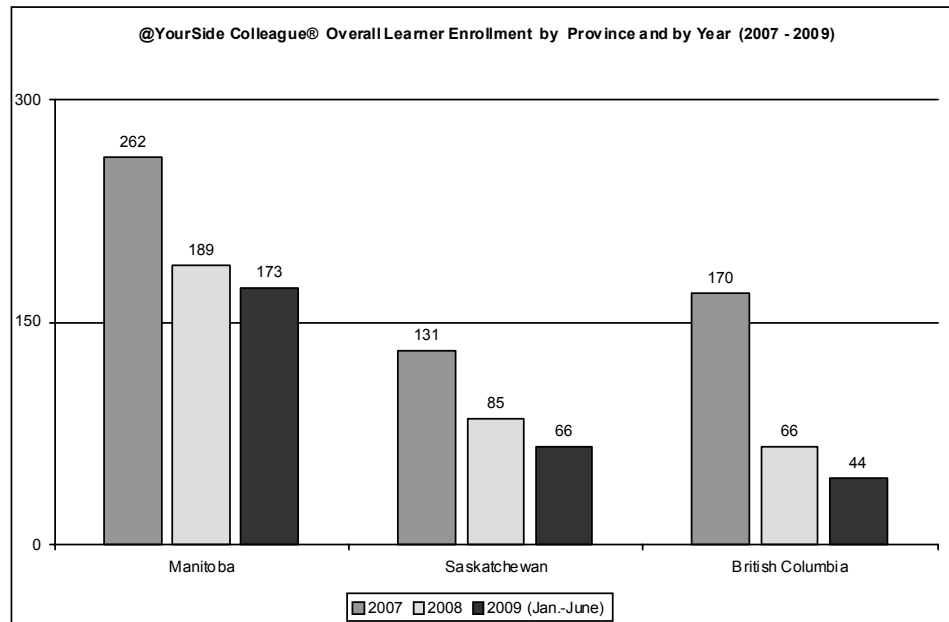


Figure 20 - Overall Learner Enrollments by Province and by Year (Source: SEHC Data)

- Although all provinces experienced a decline in enrollments between 2007 and 2009 (Figure 20), there were differences in the degree to which enrollments changed in each province; Manitoba declined by 25% (262 to 189); Saskatchewan by 35% (131 to 83); and British Columbia by 61% (170 to 66). During the first six months of 2009, enrollment levels were rising in Manitoba (173), Saskatchewan (66), and British Columbia (44).
- Looking at the data across the three provinces, Manitoba enrollments exceed those in Saskatchewan or British Columbia. In 2007, enrollment in Manitoba (262) was twice as high as Saskatchewan (131) and one and one-third times higher than British Columbia (170). Enrollments for 2008 showed similar patterns, with Manitoba enrollment (189) exceeding Saskatchewan (85) or British Columbia (66). Data for the first six months of 2009, also shows higher enrollment in Manitoba (173) than in Saskatchewan (66) or British Columbia (44).

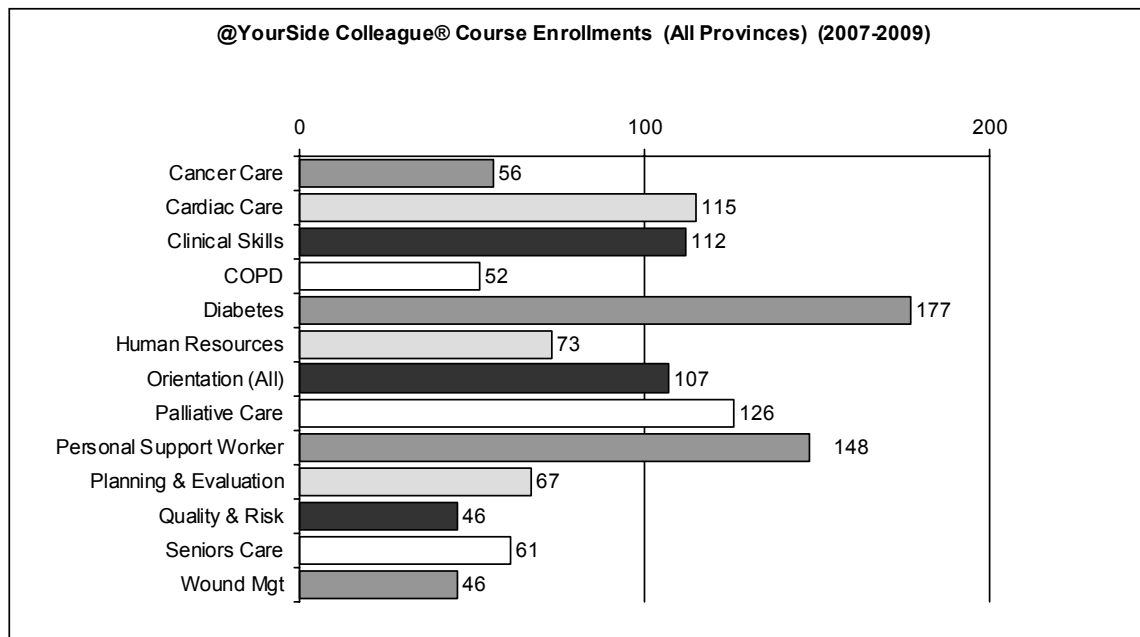


Figure 21 - Course Enrollments (All Provinces) (2007-2009) (Source: SEHC Data)

Interest in Specific Courses

The number of learners accessing specific courses (“course enrollments”) provide additional insights into the way that First Nations staff have used the SEHC system, revealing how often particular topics were accessed. The data also underscores the great diversity in learning needs among home and community care staff, highlighting topics that are of particular interest. Examining overall enrollments for all three provinces combined for the 2007-2009 period (Figure 21), the Diabetes (177) and Personal Support Worker (148) topics had the largest enrollments. At the same time, Palliative Care (126), Cardiac Care (115), Clinical Skills (112) and Orientation (107) modules attracted many learners. Human Resources (73), as well as Planning and Evaluation (67), and Seniors Care (61) also drew learners. More specialized topics had enrollments of between 46 and 56 staff each.

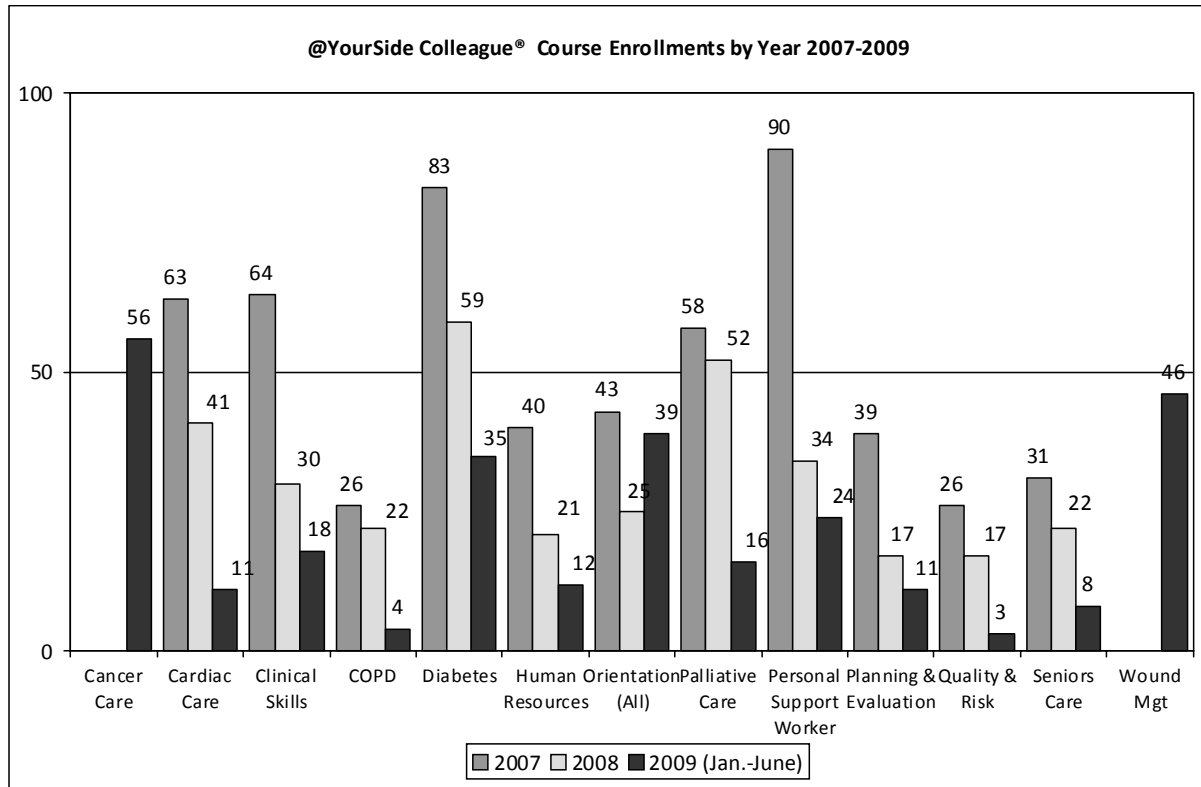


Figure 22 - Course Enrollments by Year (All Provinces) (2007-2009) (Source: SEHC Data)

Course Enrollments by Year

When enrollment figures are examined by year (Figure 22), the data suggest that interest in particular courses seems to be strongest when courses are introduced, with lower enrollment shown the following years. In the Diabetes course, enrollments were higher in 2007 (83) than in 2008 (59). Enrollment for the Personal Support Worker course also was greater in 2007 (90) than 2008 (34). Similar patterns were shown for the Palliative Care module in 2007 (58) and 2008 (52). All three courses continued to attract learners during the first six months of 2009 (35 learners each for Diabetes and Personal Support Worker courses; 16 for Palliative Care); these enrollments, however, were below that for two new topics: Cancer Care (56) and Wound Management (46).

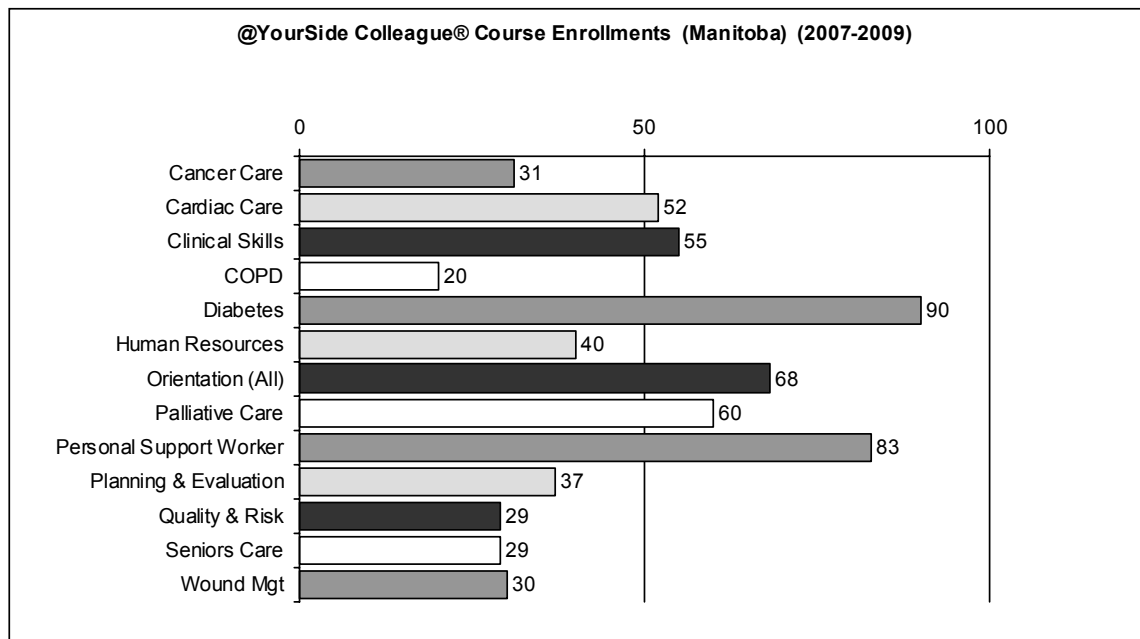


Figure 23 - Course Enrollments (Manitoba) (2007-2009) (Source: SEHC Data)

Course Enrollments by Province

- In Manitoba (Figure 23), the largest concentration of learners was found in Diabetes (90) and Personal Support Worker (83) courses, which accounted for one-quarter of the 2007-2009 enrollment. Orientation (65)²⁹, Palliative Care (55), Clinical Skills (52), Cardiac Care (44), Human Resources (40), and Planning and Evaluation (37), also were of interest to many learners. Between 29 and 31 staff accessed Seniors Care, Wound Management, as well as Quality and Risk Management modules. The lowest enrollment in Manitoba was for the COPD course, which only 20 learners used.

²⁹ Includes enrollment for Manitoba-specific module (22) introduced in May 2009.

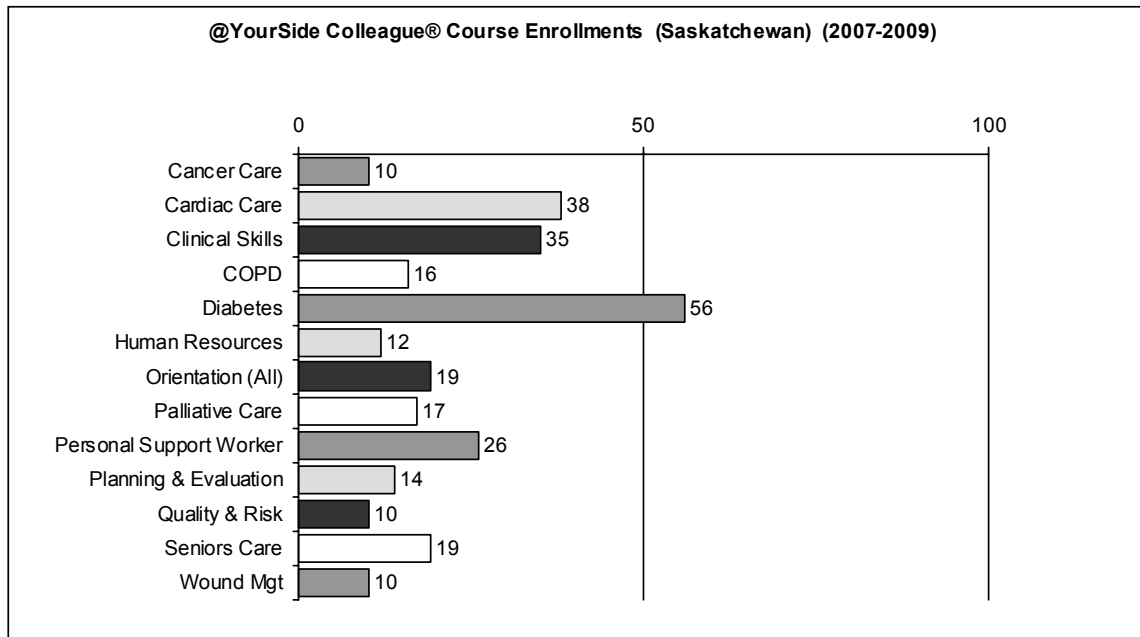


Figure 24 - Course Enrollments (Saskatchewan) (2007-2009) (Source: SEHC Data)

- Among Saskatchewan First Nations learners (Figure 24), the strongest interest was shown in the Diabetes (56) module, which represented one-fifth of the province's overall enrollment between 2007 and 2009. Learners also made use of Cardiac Care (38), Clinical Skills (35), and Personal Support Worker (26) modules. Specialized topics, such as Orientation (19), Seniors Care (19), COPD (16), and Palliative Care (17), attracted fewer staff. Between 10 and 14 Saskatchewan home and community care staff accessed each of the remaining five courses (Human Resources, Planning and Evaluation, Quality and Risk Management, Wound Management, and Cancer Care).

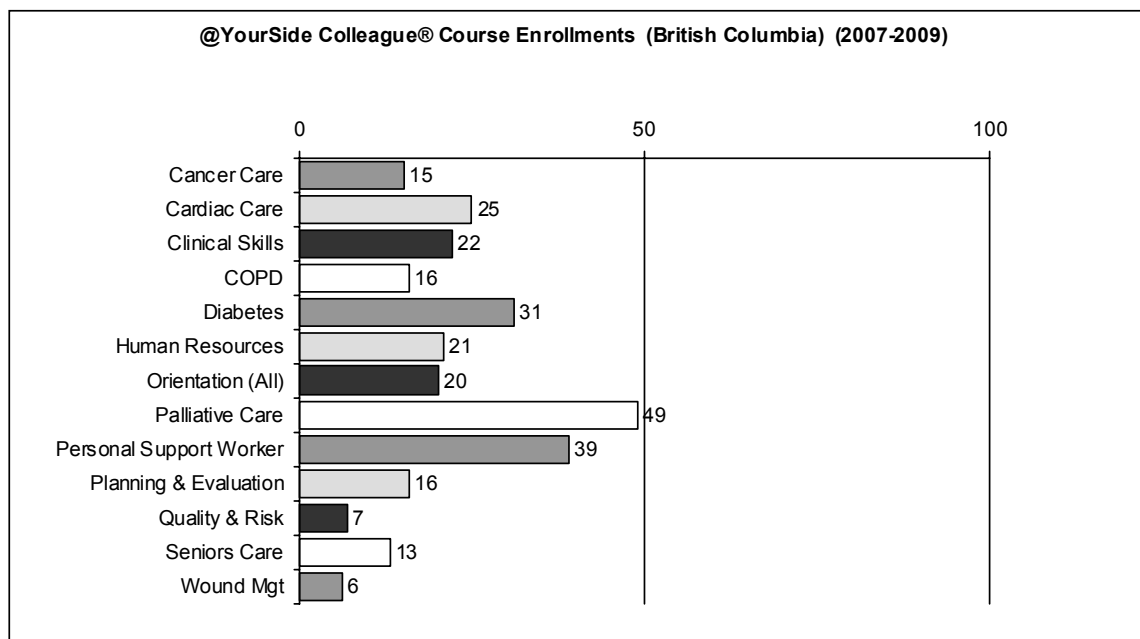


Figure 25 - Course Enrollments (British Columbia) (2007-2009) (Source: SEHC Data)

- British Columbia staff (Figure 25) were primarily interested in three areas: Palliative Care (49), Personal Support Worker (39) and Diabetes (31) topics. Together, the learners taking these courses represented almost one-half of the overall 2007-2009 enrollment total. British Columbia workers also made good use of Cardiac Care (25), Clinical Skills (22), Human Resources (21), and Orientation (20) courses. Between 13 and 16 staff accessed more specialized materials, including the Planning and Evaluation module, along with the COPD, Cancer Care, and Seniors Care courses. Two areas, Quality and Risk Management and the Wound Management module, were of interest to a small group of learners.

Provincial Patterns of Online Activity

More detailed information on the way that First Nations staff used @YourSide Colleague® and its learning information was provided by looking at the time which learners spent online in pursuit of particular course topics. Overall, during the 30 month period for which data was available, First Nations home and community care staff logged 2975 hours on the website in specific course areas, exclusive of study groups or webinars:

- Most of the online activity originated in Manitoba; staff from that province were responsible for 1701 hours (57%) of the total online course-specific usage on SEHC between 2007 and 2009.
- During the same period, British Columbia learners spent 895 hours (30%) and Saskatchewan First Nations workers logged 379 hours (13%) online.
- Overall, course-related online activity declined by about 36% from 2007 (1439 hours) to 2008 (915). For the first six months of 2009, learners were again using the system extensively (620 hours).

Although all provinces experienced a decline in activity between 2007 and 2008 and some evidence of an increase in activity during 2009, the degree to which usage changed differed from one province to another (Figure 26). This can be best examined by focussing on trends in the provincial data:

- From 2007 to 2008, online hours in Manitoba decreased by 33% (858 to 597 hours); for the first six months of 2009, usage (245 hours) was at about 35% of the 2007 level.
- In Saskatchewan, online hours declined by 47% from 2007 to 2008 (146 to 78 hours). The province's learners, however, showed strong gains in the first six months 2009 (152 hours), exceeding total usage for 2007.
- British Columbia's online hours dropped by 45% during 2007 - 2008 (433 to 239 hours); the province's online activity during the first six months of 2009 (221 hours) was about 51% of 2007 levels.

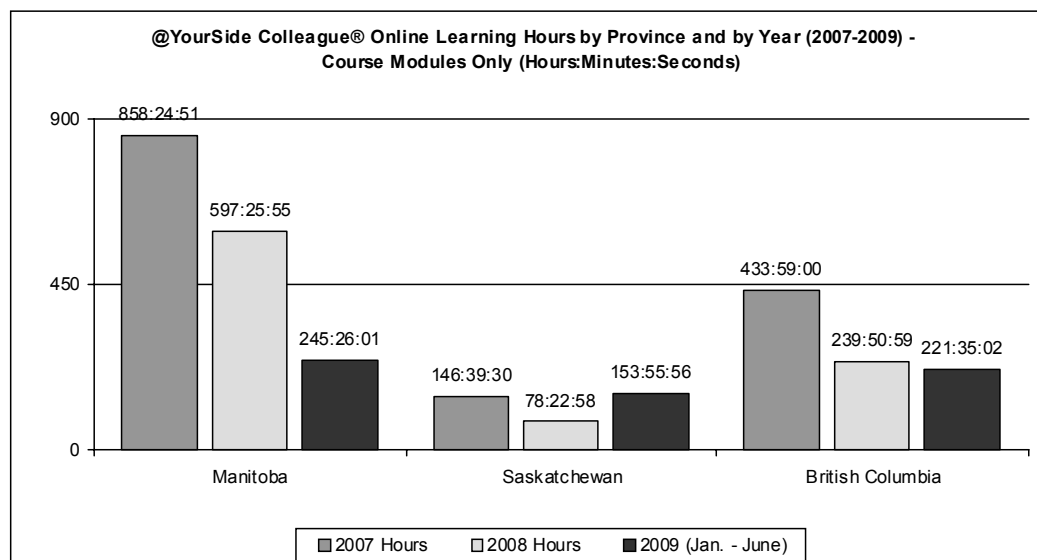


Figure 26 - Overall Online Activity by Province and by Year (Source: SEHC Data)

SEHC staff suggested that the observed year to year variations in the time spent on the @YourSide Colleague® site reflect the different ways that learners use the system. Year to year reductions in overall learning hours, such as were observed between 2007 and 2008, can be accounted for by the fact that active students in a given year may have taken courses in prior years and return to the SEHC website only occasionally to refresh their knowledge of specific topics or check to see if material has been updated, so their online hours are greatly reduced.

Personnel at SEHC also indicated that provincial patterns could reflect the timing of learner engagement activities, such as presentations or workshops which are designed to give people information about the website and new courses, study groups or webinars. The launch of the current version of the @YourSide Colleague® website, for example, occurred in Manitoba and British Columbia during September 2006, so learners from those provinces were actively using the SEHC system in October 2006. The Saskatchewan launch, however, did not take place in March 2007, so the province's First Nations home and community care staff did not start using the system actively until April 2007.

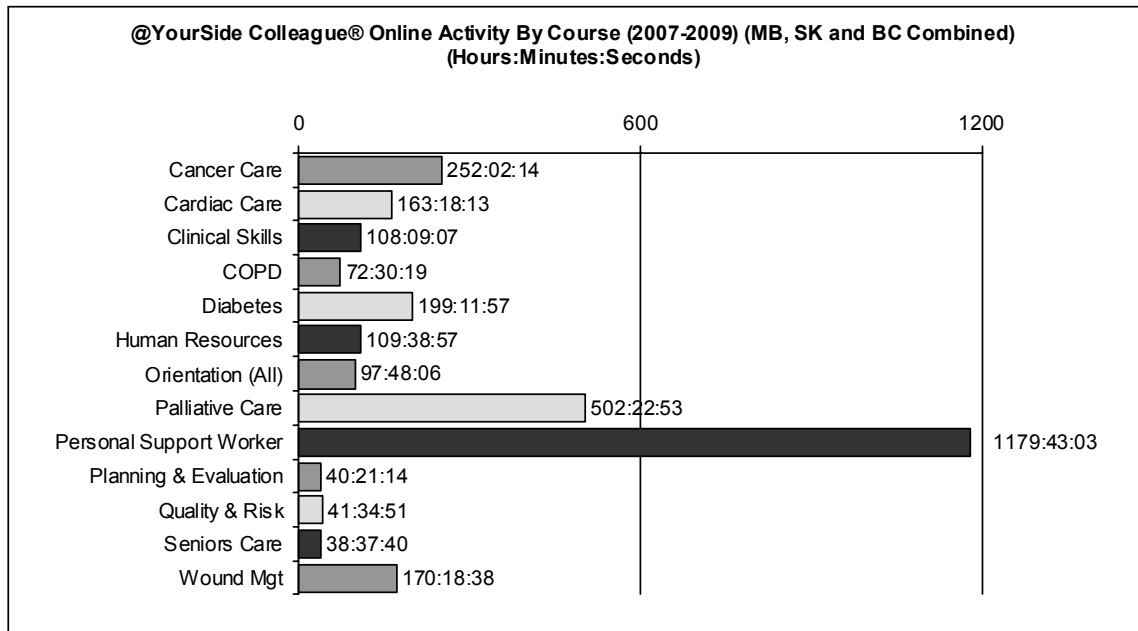


Figure 27 - Online Hours by Course (All Provinces) (2007-2009) (Source: SEHC Data)

Online Hours by Course Topic

Given the diversity in learning needs among First Nations staff, there was considerable variation in the number of hours that they spent online accessing specific topics through the @YourSide Colleague® website (Figure 27). These differences provide another indicator of the degree to which home and community care workers focussed their attention on selected subjects. The data also underscores the fact that much of the SEHC activity was concentrated in relatively few topic areas:

- The greatest number of hours was spent on the Personal Support Worker material; across all provinces, 1179 hours, or about one-third of the course-specific activity, was devoted to this content area.
- The next highest number of hours were found in the Palliative Care (502 hours), Cancer Care (252), Diabetes (199), Wound Management (170), and Cardiac Care (163) modules.

- Specialized topics, such as Human Resources (109), Clinical Skills (108) and Orientation (97) materials had lower levels of usage. The remaining courses, Quality and Risk Management (40), Planning and Evaluation (41), and Senior Care (38) generated relatively low levels of online activity.

Online Course Activity by Province

- In Manitoba (Figure 28), one of every two online hours were spent on Personal Support Worker (717) content. Much less time was expended on Palliative Care (264 hours), Diabetes (131), Cardiac Care (106), Orientation (78), Clinical Skills (70), Cancer Care (70), Human Resources (64), or Wound Management (53). More specialized areas, such as COPD (42 hours), Quality and Risk Management (39), Planning and Evaluation (32), and Seniors Care (29), accounted for just a small fraction of online hours logged on the SEHC e-learning system by First Nations home and community care workers.

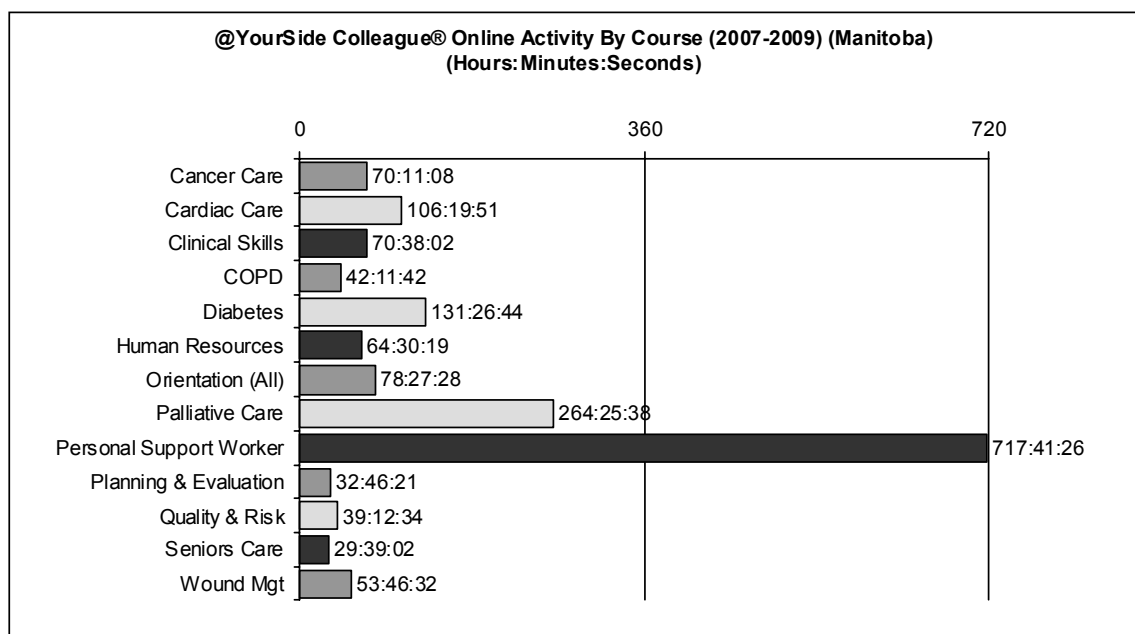


Figure 28 - Online Hours by Course (Manitoba) (2007-2009) (Source: SEHC Data)

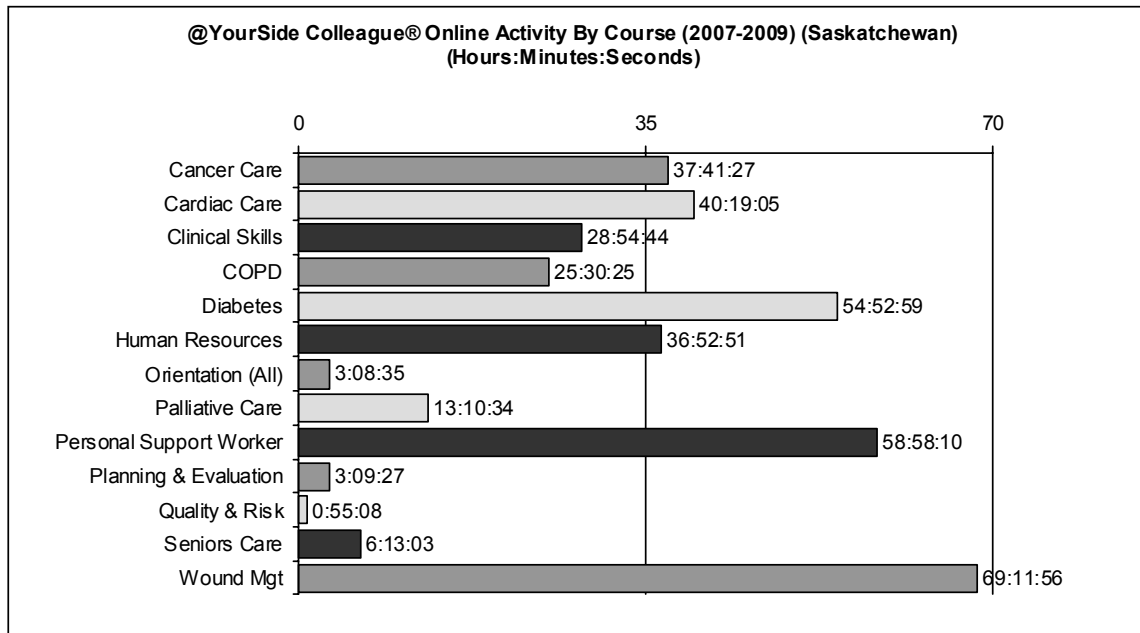


Figure 29 - Online Hours by Course (Saskatchewan) (2007-2009) (Source: SEHC Data)

- Online learning in the province of Saskatchewan (Figure 29) was focussed mainly on three course modules: Wound Management (69 hours), Personal Support Worker (58) and Diabetes (54 hours). Together, these areas accounted for about one-half of the overall course-specific activity between 2007 and 2009. Other topic areas accessed by Saskatchewan learners included Diabetes (54 hours), Cardiac Care (40), Cancer Care (37), Human Resources (36), Clinical Skills (28), COPD (25), and Palliative Care (13). Compared to the other modules, few hours were spent on Seniors Care (6 hours), Planning and Evaluation (3), Orientation (3) and Quality and Risk Management (55 minutes).

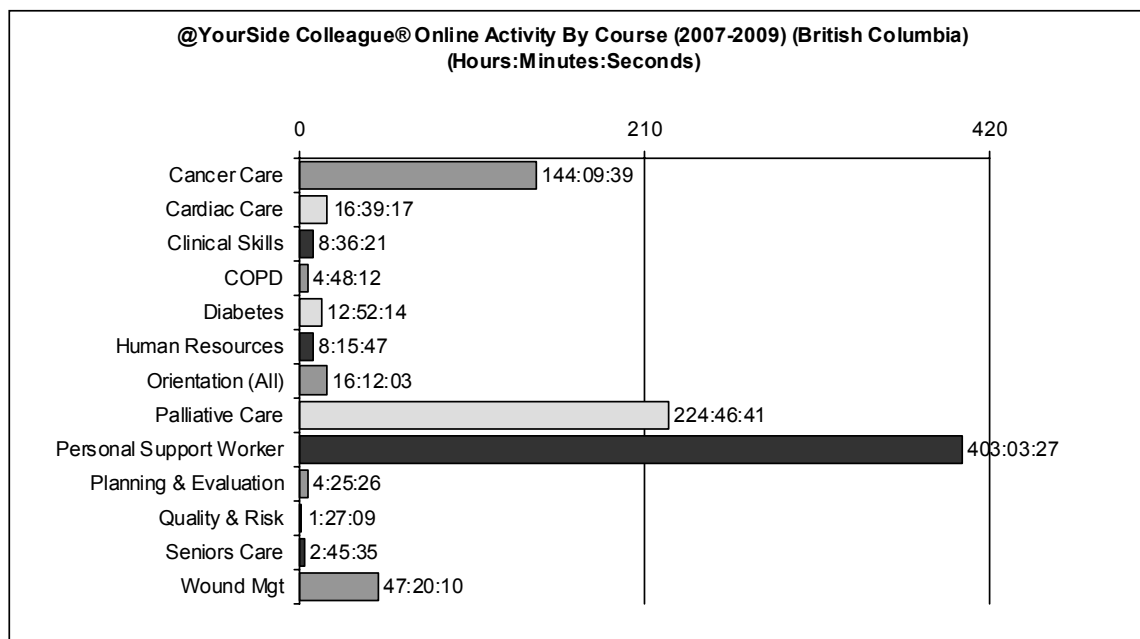


Figure 30 - Online Hours by Course (British Columbia) (2007-2009) (Source: SEHC Data)

- British Columbia staff (Figure 30) spent almost all of their online learning time on three courses: Personal Support Worker (403 hours), Palliative Care (224), and Cancer Care (144). Among the other topics available, only Wound Management (47 hours) had noticeable usage; the Cardiac Care (16), Orientation (16), Diabetes (12), Clinical Skills (8 hours), Human Resources (8 hours), Planning and Evaluation and COPD (4 hours each), represented just a small proportion of the overall online activity by British Columbia learners. The lowest level of online usage was found for two topics: Seniors Care (2 hours) and Quality and Risk Management (1 hour).

Study Groups and Webinars

To enhance the learning experiences for First Nations workers, SEHC offered study groups and webinars for four courses between 2007 and 2009, specifically, to accompany the Personal Support Worker (2007), Palliative Care (2008), Cancer Care (2009), and Wound Management (2009) courses. SEHC staff estimated that people who take part in these learning activities would spend about 60 minutes online for one study group or webinar session and about 9 hours for a series of six study group sessions.

Overall, a total of 927 hours of online time was logged on these activities. Much of this activity was associated with Palliative Care (420 hours) study groups; learners spent much more time on this topic than they did on study groups for the Personal Support Worker (214 hours), Cancer Care (170) or Wound Management (114) courses. At a provincial level (Figure 31), there were noticeable differences in the degree to which each province's First Nations home and community care workers participated in specific study groups or webinars:

- Manitoba workers were responsible for almost two-thirds of the overall online activity around study groups and webinars; they logged a total of 600 hours on these activities, mainly on Palliative Care (300 hours) and Personal Support Worker (154) topics. Manitoba staff also were responsible for about one-half of the study group hours in the Cancer Care (93) and Wound Management (52) areas.
- Saskatchewan First Nations staff had minimal involvement in the study groups and webinars, recording a total of 43 hours online. They took part in the Wound Management (23 hours), Personal Support Worker (18 hours) and Cancer Care (2) activities; no activity was shown for the Palliative Care study group in Saskatchewan.
- British Columbia workers, in comparison, were responsible for 284 hours of study group and webinar activities. They focussed their attention on Palliative Care (120 hours) and Cancer Care (84), with fewer hours were spent on the Personal Support Worker (42) or Wound Management (38) activities.

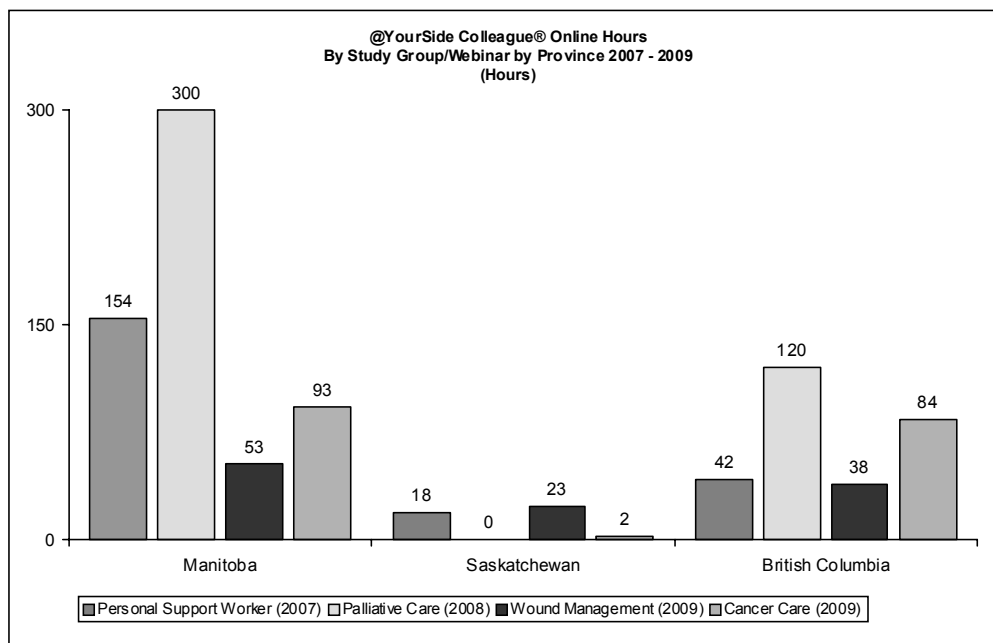


Figure 31 - Online Hours for Study Groups and Webinars by Province (2007-2009) (Source: SEHC Data)

Average Online Hours for Courses

Calculating the “average online hours” per enrolled learner for specific @YourSide Colleague® courses (total number of online hours, divided by total number of learner enrollments) provides a useful estimate on the staffing hours and online Internet access which might be required should First Nations home and community care staff choose to complete specific modules. Expressed in hours and minutes, the average hours online that learners spend on topics (Figure 32) can be far above or below the 2.5 hours that SEHC estimates as the average time required for course completion:

- Four courses had average online hours above 2.5 hours: Personal Support Worker (7 hours: 58 minutes), Cancer Care (4 hours: 30 minutes), Palliative Care (3 hours: 59 minutes), and Wound Care (3 hours: 40 minutes).

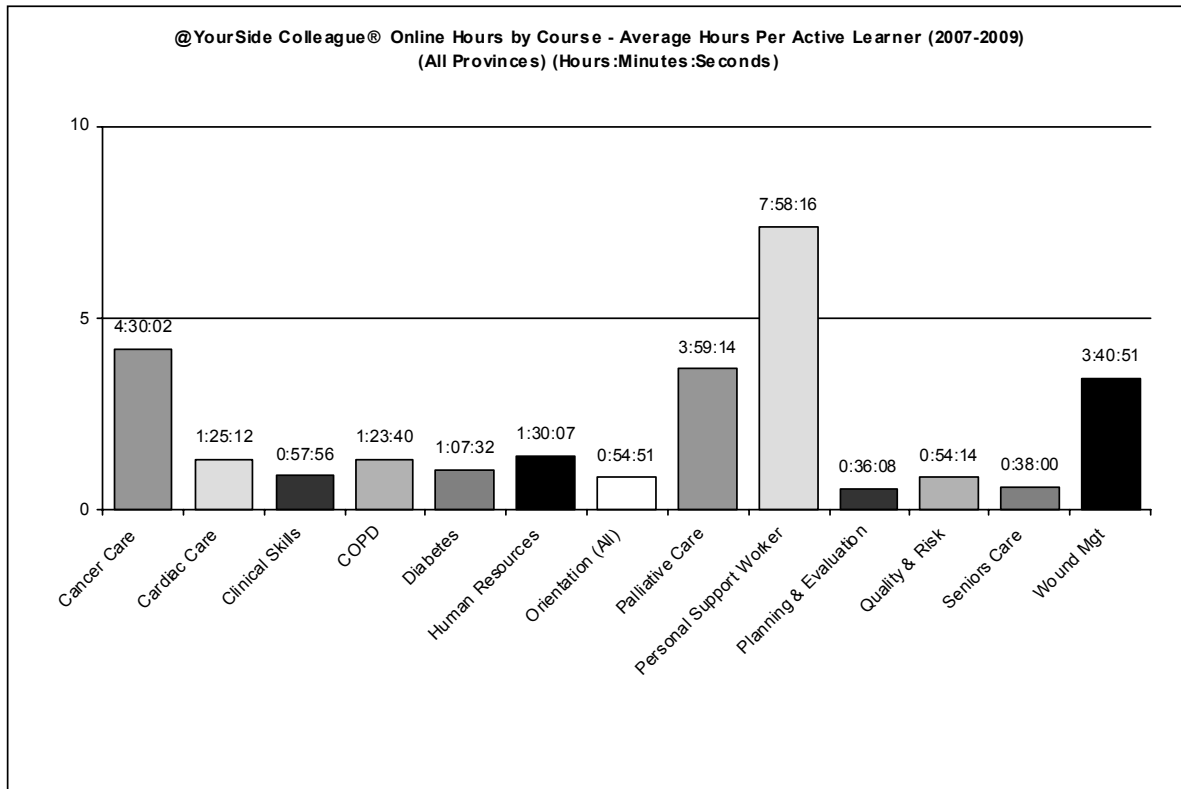


Figure 32 - Average Online Hours Per Active Learner by Course (All Provinces) (2007-2009)
(Source: SEHC Data)

- Nine courses were well below the estimated average: Human Resources (1 hour: 30 minutes), Cardiac Care (1 hour: 25 minutes), COPD (1 hour: 23 minutes), Diabetes (1 hour: 7 minutes), Clinical Skills (57 minutes), Quality and Risk Assessment (54 minutes), Orientation (54 minutes), Seniors Care (38 minutes), and Planning and Evaluation (36 minutes).

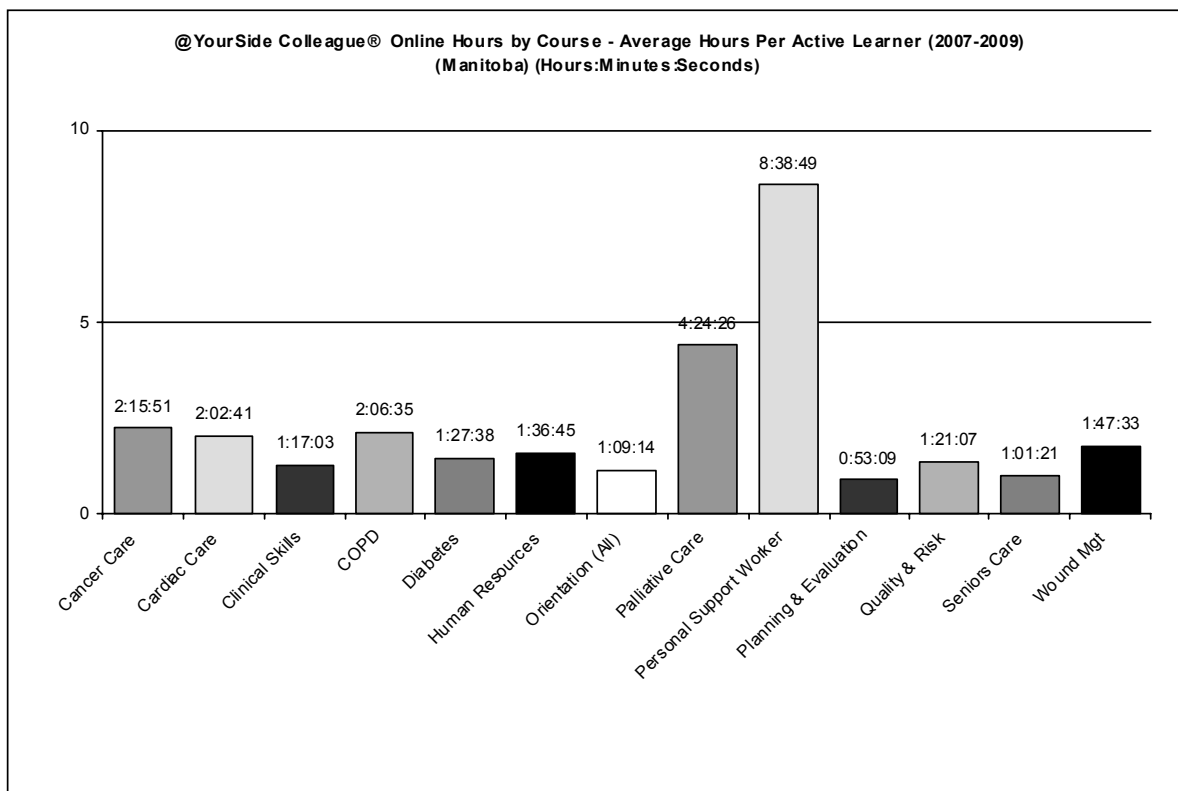


Figure 33 - Average Online Hours For Courses (Manitoba) (2007-2009) (Source: SEHC Data)

Average Online Hours For Courses by Province

- Learners from Manitoba (Figure 33), expended much more time, on average, on the Personal Support Worker (8 hours: 38 minutes) and the Palliative Care (4 hours: 24 minutes) topics than they did on anything else. Four courses, Cancer Care (2 hours: 15 minutes), COPD (2 hours: 6 minutes), Cardiac Care (2 hours: 2 minutes), and Wound Management (1 hour: 47 minutes) required around two hours of online activity. The remaining courses, on average, took from about 1-1.5 hours of online time per learner. The lowest averages were found in the Planning and Evaluation (53 minutes) and the Seniors Care (1 hour: 1 minute) modules.

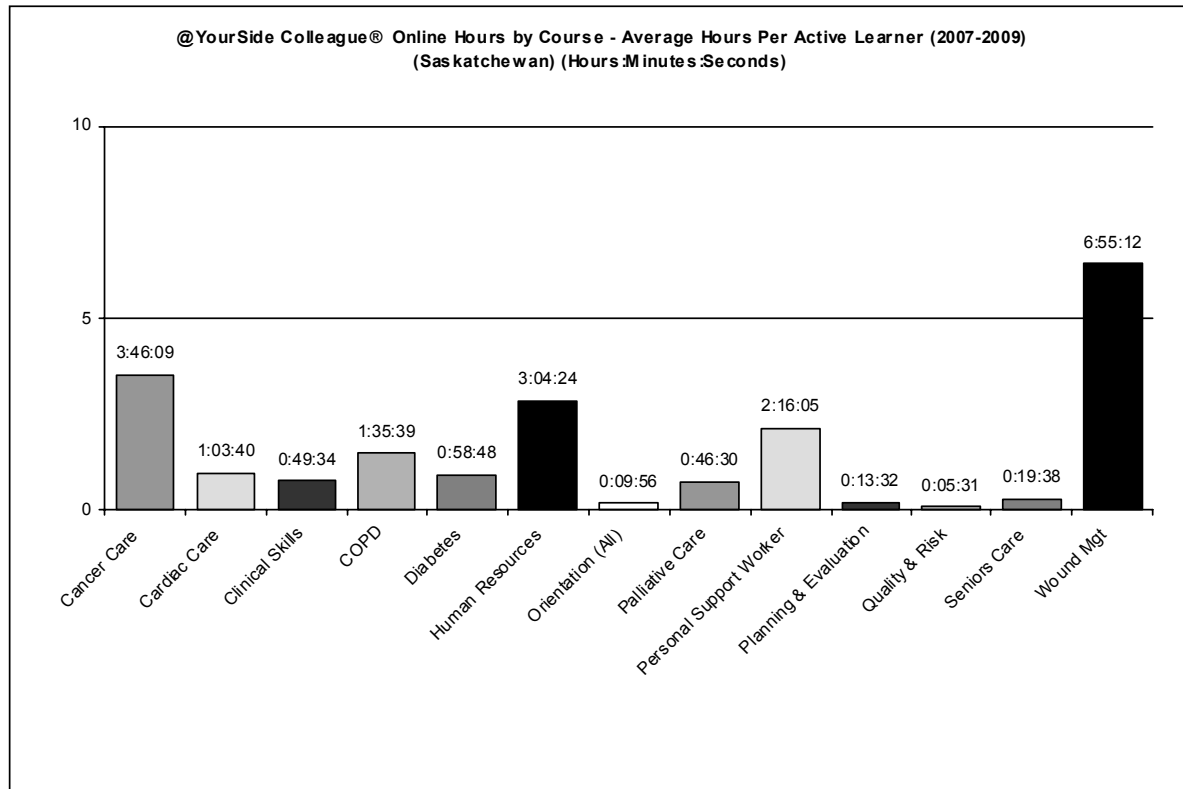


Figure 34 - Average Online Hours for Courses (Saskatchewan) (2007-2009) (Source: SEHC Data)

- Saskatchewan First Nations staff (Figure 34) concentrated their online learning time, on four main topic areas: Wound Management (6 hours: 55 minutes), Cancer Care (3 hours: 46 minutes), Human Resources (3 hours: 4 minutes) and Personal Support Worker (2 hours: 16 minutes) modules. Among the rest of the courses, only the COPD (1 hour: 35 minutes), Cardiac Care (1 hour: 3 minutes), Diabetes (58 minutes), Clinical Skills (49 minutes) and Palliative Care (46 minutes). Saskatchewan learners who logged into the SEHC website's other courses, including Orientation, Planning and Evaluation, Quality and Risk Management, or Seniors Care, spent minimal amounts of time online, averaging between 5 minutes and 19 minutes per course.

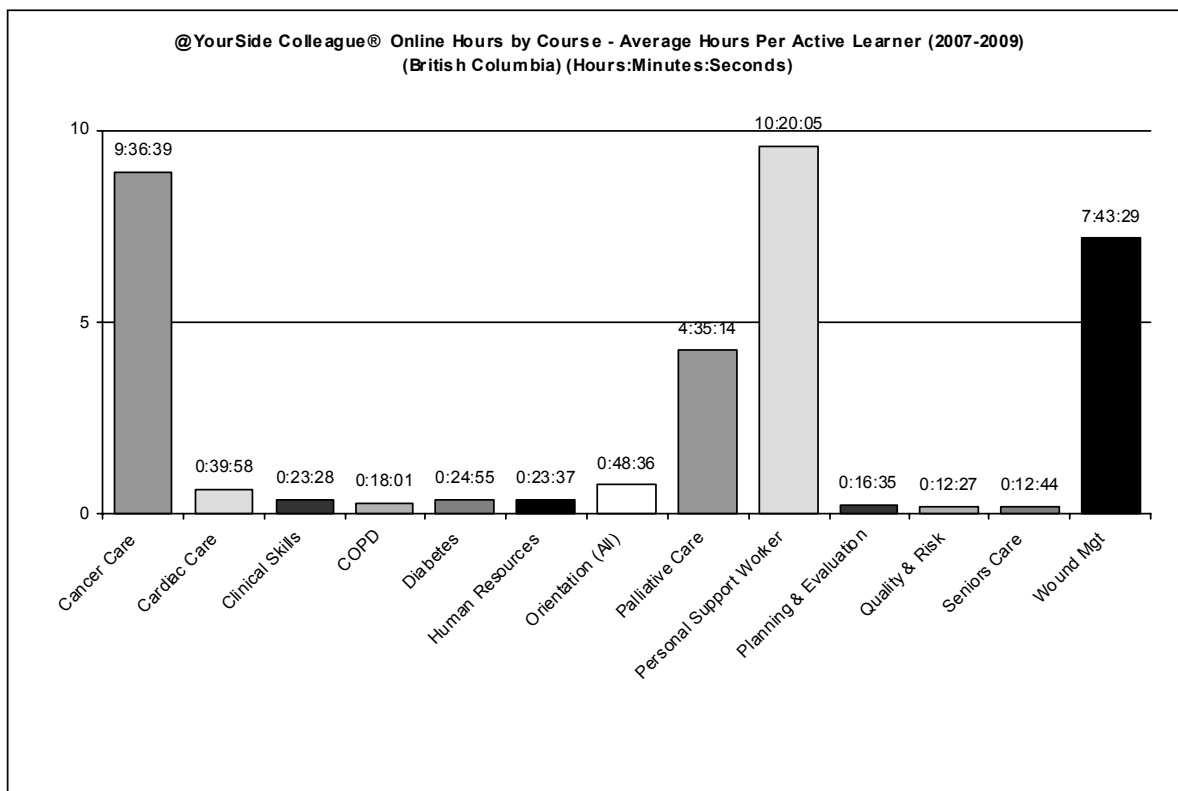


Figure 35 - Average Online Hours for Courses (British Columbia) (2007-2009) (Source: SEHC Data)

- British Columbia (Figure 35) learners focussed their online time on four courses: the Personal Support Worker (10 hours: 20 minutes), Cancer Care (9 hours: 36 minutes), Wound Management (7 hours: 43 minutes) and Palliative Care (4 hours: 35 minutes). Average hours online for all of these courses were equivalent to or exceeded the averages online times for the same modules in the other provinces. Among the other topics, only Orientation (48 minutes) and Cardiac Care (39 minutes) showed considerable online usage. The remaining areas accessed by British Columbia learners, on average, required between 12 and 24 minutes each.

Average Online Time for Study Groups and Webinars

Although SEHC staff estimated that people who take part in these learning activities might spend as little as 60 minutes (for one study group or webinar session) or as much as 9 hours (for a series of six study group sessions) online, there was considerable variation in the average amount of time that learners invested in these activities:

- The Palliative Care group, for example, was at the upper end of the estimated range for this type of learning (9 hours: 20 minutes per learner).³⁰
- Only about one-third as much time was expended on other topics: Cancer Care (3 hours: 11 minutes), Diabetes (2 hours: 22 minutes), and Personal Support Worker (2 hours: 22 minutes).

There were also differences between learners in each province, in the amount of time they expended on specific study groups and webinar topics (Figure 36):

- Manitoba learners' average times ranged from a low of 1 hour: 46 minutes (Wound Management) to 10 hours: 42 minutes (Palliative Care); online time for Personal Support Worker (3 hours: 4 minutes) and Cancer Care (3 hours) were approximately equal.
- British Columbia average hours varied from 1 hour: 45 minutes (Personal Support Worker) to 7 hours: 3 minutes (Palliative Care); however, considerable time was spent on Cancer Care (5 hours: 36 minutes) and Wound Management (6 hours: 20 minutes).
- Saskatchewan staff averaged from 12 minutes (Cancer Care), to 1 hour: 7 minutes (Personal Support Worker) to 2 hours: 18 minutes (Wound Management) on these activities.

³⁰ Averages were calculated based on the number of learning hours and number of active learners enrolled in each course during the time period when the study group or webinar was offered.

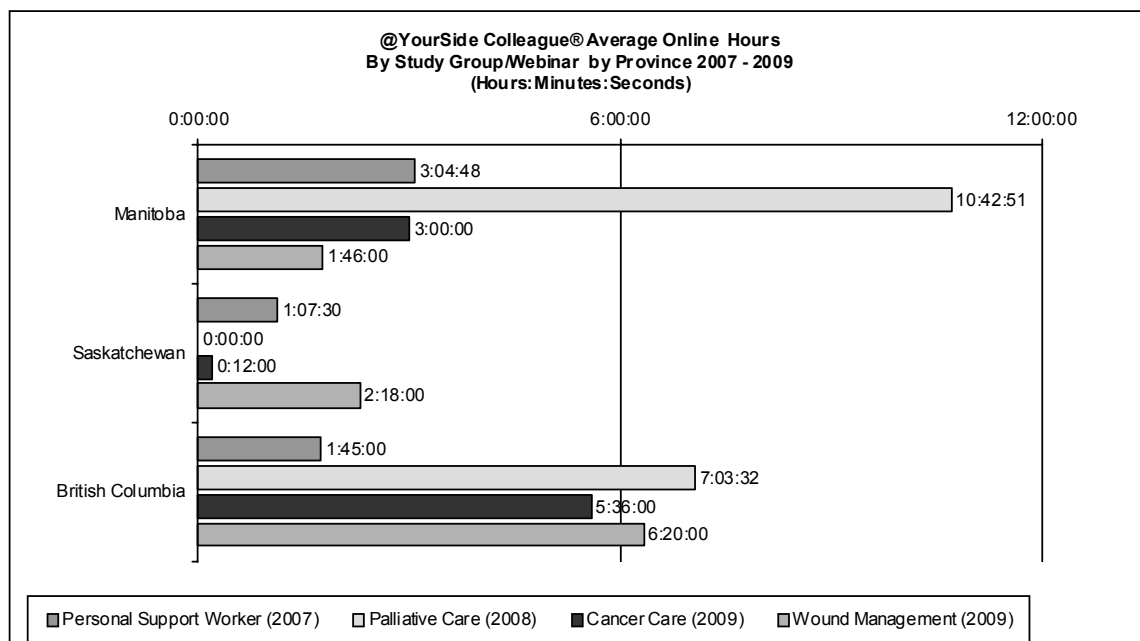


Figure 36 - Average Online Hours for Study Groups and Webinars by Province (Source: SEHC Data)

The data on average online usage for specific study group and webinar topics underlines the fact that the presence of these enhanced learning activities have the potential to significantly increase the amount of staff time and related Internet resources that First Nations workers would need, should they have the opportunity to participate. The additional time required, however, would vary by the topic chosen:

- Participation in study groups for Palliative Care, for example, could more than double the average online time, from 9 hours: 52 minutes (course only) to 19 hours: 12 minutes (course and study groups).
- Similar effects could occur for Cancer Care (4 hours: 30 minutes to 7 Hours: 41 minutes) and Wound Management topics (from 3 hours: 40 minutes to 6 hours: 9 minutes).
- Study group participation for the Personal Support Worker module, however, would have a minimal effect, increasing the time required by about one-fifth (13 hours: 26 minutes to 16 hours: 5 minutes).

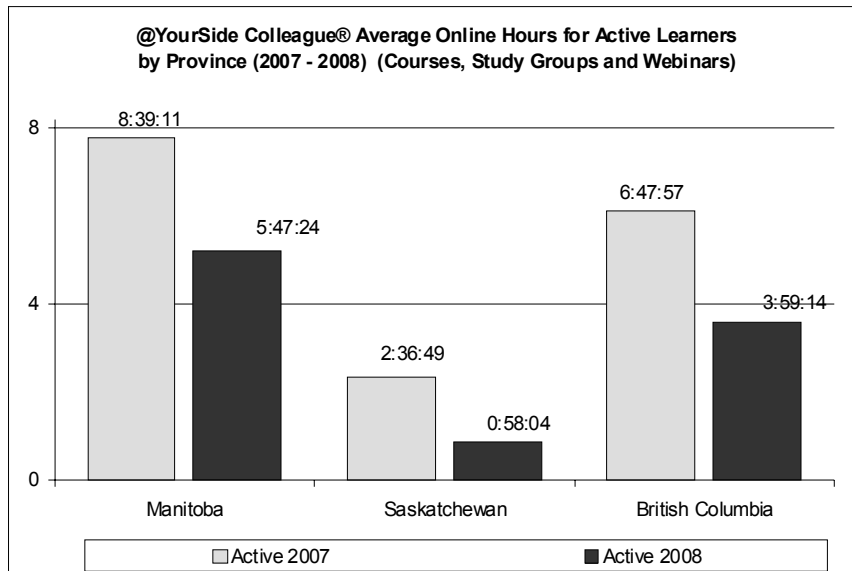


Figure 37 - Overall E-Learning Activity - Average Hours per Learner (2007-2008) (Source: SEHC Data)

Assessing E-Learning Uptake

To provide an overview of the uptake of the @YourSide Colleague® e-learning system by First Nations staff, the SEHC data on online hours for courses, study groups and webinars was summed and averages calculated for active learners. Across the three provinces, there was a noticeable decline in average online hours between 2007 (6 hours: 36 minutes) and 2008 (4 hours: 6 minutes). Strong differences emerged when the data is examined provincially (Figure 37):

- Manitoba's average hours per learner declined by 33% between 2007 (8 hours: 39 minutes) and 2008 (5 hours: 48 minutes).
- Saskatchewan's average hours were reduced by 63% from 2007 (2 hours: 36 minutes) to 2008 (58 minutes).
- British Columbia's e-learning activity diminished by 41% over the 2007 (6 hours: 47 minutes) to 2008 (3 hours: 59 minutes) period.

Provincial Utilization Summary - Manitoba

- Current version of SEHC website launched in September 2006.
- Among the 555 people holding @YourSide Colleague® accounts in 2009, 47% lived in Manitoba. Between 2007 and 2008, there was no change in number of Manitoba accounts (198 per year), but increasing activity (117 to 155) increased the utilization rate (59.1% to 78.3%).
- Overall enrollments declined by 25% between 2007 and 2008 (262 to 189); 2009 enrollment was strong (173). “Top five” courses, based on 2007-2009 enrollments, were Diabetes (90), Personal Support Worker (83), Orientation (65), Palliative Care (55), and Clinical Skills (52).
- Manitoba staff were responsible for 1701 hours (57%) of the total course-specific activity on the SEHC website 2007-2009. Online hours decreased by 33% from 2007 to 2008 (858 to 597); 2009 (245 hours).
- Most of online activity occurred around eight course areas: Personal Support Worker (717 hours), Palliative Care (264), Diabetes (131), Cardiac Care (106), Orientation (78), Clinical Skills (70), Cancer Care (70), Human Resources (64), and Wound Management (53).
- Manitoba was responsible for 600 hours or two-thirds of the 2007-2009 study group activity, around Palliative Care (300 hours), Personal Support Worker (154), Cancer Care (93) and Wound Management (52).
- Average online time per learner, were highest for five course areas: Personal Support Worker (8 hours: 38 minutes) and Palliative Care (4 hours: 24 minutes), Cancer Care (2 hours: 15 minutes), COPD (2 hours: 6 minutes), Cardiac Care (2 hours: 2 minutes), and Wound Management (1 hour: 47 minutes). Remaining courses averaged between 53 and 90 minutes each.
- Average online time per learner, for study group and webinars, were: Palliative Care (10 hours: 42 minutes), Personal Support Worker (3 hours: 4 minutes), Cancer Care (3 hours), to (Wound Management) (1 hour: 46 minutes). Average online usage per active learner, for all learning activities, was 5 hours: 48 minutes in 2008.

Provincial Utilization Summary - Saskatchewan

- The Saskatchewan launch of the current version of the SEHC website took place in March 2007, so staff began using system in April 2007.
- Among the 555 people holding @YourSide Colleague® accounts in 2009, 24% resided in Saskatchewan (136). Between 2007 and 2008, growth in registrations (82 to 110) was greater than activity (63 to 81), resulting in a slight decline in the utilization rate (76.8% to 73.6%).
- Overall enrollments declined between 2007 and 2008 by 35% (131 to 83); strong enrollment during first six months of 2009 (66). “Top five” courses in Saskatchewan, based on 2007-2009 enrollments, were the Diabetes (56), Cardiac Care (38), Clinical Skills (35), Personal Support Worker (26), and Orientation (19), and Seniors Care (19).
- Saskatchewan First Nations staff accounted for 379 hours (13%) of the total course-specific activity on the SEHC website 2007-2009. Online hours declined by 47% from 2007 to 2008 (146 to 78); 2009 (153 hours).
- Online activity was focussed on eight course topics: Wound Management (69 hours), Personal Support Worker (58), Diabetes (54), Cardiac Care (40), Cancer Care (37), Human Resources (36), Clinical Skills (28), COPD (25), and Palliative Care (13).
- Saskatchewan First Nations had minimal involvement in the study groups and webinars (43 hours), including Wound Management (23), Personal Support Worker (18) and Cancer Care (2).
- Average online time per learner was highest for four courses: Wound Management (6 hours: 55 minutes), Cancer Care (3 hours: 46 minutes), Human Resources (3 hours: 4 minutes) and Personal Support Worker (2 hours: 16 minutes). Other courses required between 5 -95 minutes.
- Average online time per learner, for study group and webinars, were: Wound Management (2 hours: 18 minutes), Personal Support Worker (1 hour: 7 minutes), and Cancer Care (12 minutes). Average online usage per learner, for courses, study groups and webinars combined, was 58 minutes in 2008.

Provincial Utilization Summary - British Columbia

- Current version of website launched in September 2006.
- Among the 555 people holding @YourSide Colleague® accounts in 2009, for example, 28% lived in British Columbia (156). Between 2007 and 2008, accounts (114 to 146) and activity (70 to 90) rose proportionately, so utilization rates were equivalent (61.4% to 61.6%).
- Overall enrollments declined by 61% (170 to 66) between 2007 and 2008; 2009 activity continued (44).
- British Columbia learners were responsible for 895 hours (30%) of the total course-specific activity on the SEHC website 2007-2009. Online hours 2007-2008 declined by 45% (433 to 239); 2009 usage (221).
- Online activity was focussed on four course modules: Personal Support Worker (403 hours), Palliative Care (224), Cancer Care (144), Wound Management (47 hours). Between 1 and 16 hours of online activity were recorded for each of the remaining course modules.
- British Columbia was responsible for 284 hours or about one-half of study group and webinar activities: Palliative Care (120 hours), Cancer Care (84), Personal Support Worker (42) and Palliative Care (38).
- Average online time per learner was highest for four courses: Personal Support Worker (10 hours: 20 minutes), Cancer Care (9 hours: 36 minutes), Wound Management (7 hours: 43 minutes) and Palliative Care (4 hours: 35 minutes). Remaining topics averaged between 12 and 48 minutes of online activity.
- Average online time per learner, for study groups and webinars: Palliative Care (7 hours: 3 minutes), Wound Management (6 hours: 20 minutes), Cancer Care (5 hours: 36 minutes), and Personal Support Worker (1 hour: 45 minutes). Average online usage per learner, for courses, study groups and webinars combined, was 3 hours: 59 minutes in 2008.

BARRIERS TO USING @YOURSIDE COLLEAGUE®

Variability in use of @YourSide Colleague®, as was documented in the survey, focus group and interview data and confirmed through the analysis of SEHC administrative data, can be interpreted through closer examination of the experiences and opinions of First Nations workers who took part in the survey, focus groups and interviews. While both current and former users of the e-learning system acknowledged that their online activity was affected by interest in course content, availability of activities such as study groups or webinars, and the applicability of content to work roles, they identified a number of barriers that prevented home and community care staff from making full use of the resources available on the SEHC website.

Although e-learning barriers can be encountered in any type of workplace, they are especially significant for First Nations, where organizational and technological resources required to solve such problems are limited. As a recent report on Aboriginal learning concluded, technological barriers are an especially serious constraint for First Nations who want to access e-learning: only 17% of First Nations in 2007 had broadband Internet connections, accessible through digital lines or cable.³¹ Most communities are dependent on much slower and often unreliable dial-up or satellite Internet services, which means that they experience ongoing difficulty in accessing distance education and online learning resources.

Issues around such challenges, described in greater detail in the following sections, emerged in evaluation participants' responses to questions about why they stopped using the SEHC system and what they perceived were the disadvantages associated with e-learning. They emphasized the importance of understanding both the organizational and technological barriers that impede use of @YourSide Colleague® and by extension, any other e-learning resources that are available to First Nations home and community care workers.

³¹ Canadian Council on Learning. (2009). *The State of Aboriginal Learning in Canada: A Holistic Approach to Measuring Success*. Ottawa: ON: p. 5

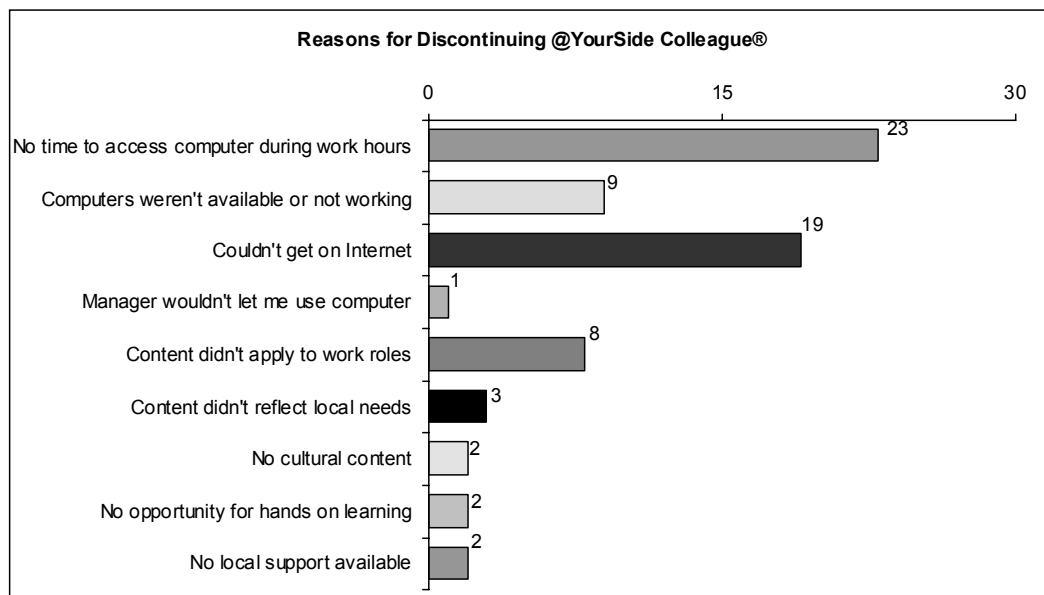


Figure 38 - Why Staffed Stopped Using the E-Learning System (Source: Survey, Focus Group and Interview Data)

Why Staff Stopped Using The System

Fully two-thirds of the study participants (52) indicated that they had stopped using @YourSide Colleague®, at least for a period of time. As shown in Figure 38, the reasons they gave were varied, but three issues predominated: time constraints (23), poor Internet connectivity (19) and related computer problems (9). Some respondents also noted that they stopped using the system because of content concerns, specifically around the application of SEHC course material to their work roles (8), local needs (3) or First Nations culture (2). Some people also discussed that they discontinued using the e-learning system because of lack of opportunity for “hands-on” learning (2) or local support (2).

Time Constraints

During a busy workday, home and community care providers remarked that there often wasn't any time to sit down at the computer, log-on and complete an e-learning session. "Lack of time" was expressed as the primary reason preventing many people from using @YourSide Colleague®. About one-half of evaluation participants who had stopped using the program indicated they didn't "have the time to access the computer during working hours." Managers reported that some front-line workers did not even have the time to try the program to see if they liked it:

Their work is just so busy, difficult for them to be able to ... fit learning into your daily day job so... that's one of the barriers we've heard right now for people to be able to get on and try it and use and see if it's going to work for them or not.

Finding an uninterrupted block of time to complete a learning module or set of readings was especially difficult. As a program director remarked: "you have to make the time at your office or at work ... you sort of have to shut the door and lock it and that isn't always possible." Often, the only option open was taking resources home and "doing it on their own time." Another supervisor commented: "Sometimes you have to take it home and work on it. There is just not enough time to do further reading of the materials [at work]." As a nurse stated, "the time is probably the biggest factor" that prevented use of the system.

The key to solving time issues was organizational support. A home and community care coordinator, for example, encouraged personal support workers who were out in the field to use the time between clients to access @YourSide Colleague®: "If you finish early you come into the office and the computer is here for you to use." She also recommended that workers who had free time and "a satellite dish at home ... to go home and access it that way." Another participant cited the example of managers who reimbursed staff for the "hours that they were at home to participate in the learning." Commenting on organizational support, a community health nurse said the need was for:

Support from your Health Directors and Home Care Coordinators to make that part of your day ... and say 'okay from 3-4 in the afternoon, that is your education part of the day, you take that time and no one will disturb you,' then I think it would work out okay.

Given the difficulties that some workers had in using the e-learning system during their work day, it also was suggested that wider utilization of the e-learning system would occur if SEHC offered its additional learner engagement activities, such as study groups or webinars, on a schedule that included sessions during the workday and "after work hours." Some staff suggested that more First Nations home and community care workers could take part in these learning activities if sessions were accessible to staff on evenings or weekends, as well as during work hours.

Poor Connectivity

Poor Internet connectivity emerged as the second strongest barrier to using @YourSide Colleague®. Participants told us that many First Nations communities had limited Internet services; some locations had none at all. Limited Internet connections, particularly *via* dial-up or satellite services, were a serious constraint. As several respondents pointed out, smaller and more remote First Nations often had just one or two telephone lines into nursing stations; out of necessity, these lines were dedicated to home and community care programming and, because programs were the priority, it was difficult to schedule time for e-learning.

Speaking about such difficulties, a community support worker said: "One of the things that's an issue here is that the First Nation community that I'm in, we only have two lines into the health centre and so I'm tying up one of the lines for every Thursday [to take a course and participate in a study group]." She added, however, that her manager was very supportive: "When I spoke to the Health Director about it she just said, 'well it is for the betterment of the community so go ahead and do it.' So there was definitely the support there."

In other cases, computer access was the problem. Some workplaces had only one computer with Internet connections, which made it difficult if

there were several staff who wanted to use the system. As a health care aide reported, she and her coworkers often: "Couldn't get on the Internet because we have only one computer working with the @YourSide Colleague® here. We don't have enough computers." In some cases, computers were present but not functional: "We don't have enough working computers." Local computer systems that required "special access for computer security systems" before the Internet could be accessed also were a barrier to use.

Unreliable Satellite or Dial-Up Services

The unreliability of satellite or dial-up connections often caused frustration for those who were trying to access @YourSide Colleague®. Service disruptions were common, especially in isolated communities that were dependent on satellite-based connections, because satellite services only worked when the weather was favourable. As a personal support worker said: "The Internet is bad when the weather is really bad." Dial-up connections, which caused the system "to falter a little bit in some places" were equally aggravating to work with: "There are a lot of communities that don't have access to Internet and if they do, [it is] still through the phone line, so it takes them long to log on." Another support worker said: "I find the dial-up [is] not keeping up with the connection."

The slowness of satellite or dial-up Internet services also meant that the time required to log on and stay logged on long enough to complete a learning module was a significant barrier to using the SEHC system. Some people felt that the large size of the @YourSide Colleague® learning resource files was an impediment when connections were slow: "There is not always time to stay on the computer ... to find the time because some of the courses are lengthy." Another home and community care staff member suggested: "The modules are lengthy ... [it would help if] they could make them shorter."

It was especially frustrating when the Internet disconnected just as staff were in the middle of a learning module. A health care aide who was currently completing a module with her coworkers reported: "Sometimes [after] you start ... the Internet would go off and we would have to wait for a couple of hours, maybe three hours, before it's on again!" Once problems

were resolved, it often took awhile for staff to find their way back through the @YourSide Colleague® website to resume their studies. As a manager acknowledged: “Sometimes we had computer glitches and that can be a bit frustrating.” She added: “Just takes a little bit of learning curve for people to realize how to navigate the system.”

Lack of Local Technical Expertise

Front-line staff who had stopped using @YourSide Colleague® because of connectivity issues reported that lack of technical assistance to fix computers or repair Internet linkages was another barrier to using e-learning. Most First Nations did not have the required level of expertise on site, so had to rely on services being brought into the community. Remote locations were especially disadvantaged because it often took weeks, sometimes months, to have technicians flown into the community to make repairs. Summarizing her experiences, a nurse who had worked in isolated First Nations said:

Sometimes computers shutdown and the Internet is not working. It can take about three months for the connection to come back. The last community I was in, I remember it was shutting down in November and we came back in January and we [still] didn't have connection at all.

Content Issues

Although content was not a central focus of this evaluation, comments from the surveys, focus groups and interviews revealed that content and its applicability to work roles had a strong influence on whether or not people continued to use @YourSide Colleague®. Often, staff were only interested in the system as a means of completing courses that addressed learning needs specific to their current work roles. Once courses were completed, and if no new courses were available on the website in their area of practice, they saw no need to visit @YourSide Colleague®. As a community support worker stated: “Since we completed our course, I have not been on.” A few felt that the content was not what they needed to address their community's health

issues: “I didn’t necessarily think that the content reflected what our needs and priorities were.”

The limited cultural content in @YourSide Colleague® was viewed by some providers as a constraint on its use. Although there was appreciation for the First Nations content that had been introduced, for example, in cancer care modules, or in virtual graduation ceremonies, some respondents believed that it would be beneficial for the program to include additional cultural material. The creation of a “specific module pertaining to First Nations culture,” including history, residential schools and effects, was suggested as a resource which would help newly-hired staff, especially those who have moved from an urban centre. As a nurse remarked, it was important that providers be properly prepared: “You need a lot of First Nation cultural awareness about how different it is working out here ... different from working in a big city.”

Another limitation of @YourSide Colleague® was the fact that the system did not provide opportunities for supervised clinical skills practice to reinforce the content provided through e-learning. As a program manager said, “the only disadvantage is that you are not able to do direct hands on training; that ... could really prepare you for [clinical situations] when they do occur.” This type of training, usually provided through workshops or one-on-one instruction, was needed to reinforce the knowledge and skills acquired through the SEHC e-learning system. As a personal support worker emphasized:

It is hands on, before and after [@YourSide Colleague®]. I think it is still the same hands on, because you learn and you go ... Like the palliative care [course] ... if we had problems we went to see our supervisor.

COMMUNITY LEADERS

Nine community leaders provided feedback on the implementation of e-learning in their communities. Although leaders generally had limited personal experience with @YourSide Colleague®, they were favourably disposed to the idea of e-learning as an accessible resource for their communities. Several themes emerged in their discussions of the challenges and opportunities of e-learning, regarding the operations, benefits and sustainability of the system in a First Nations context.

Consultations

One of the major issues that can affect a community's reaction to a new educational tool involves initial consultation. Leaders in the focus group were uncertain regarding which specific First Nations communities had been consulted during the initial implementation of @YourSide Colleague® within their own provinces. Some felt, however, that sufficient consultation had taken place at the managerial level among those responsible for delivering home and community care services. One leader, for example, mentioned that a regional working group of home care managers had been informed of the opportunity and that their willingness to try the @YourSide Colleague® e-learning system was a major deciding factor contributing to its current implementation and availability.

Operations

The leaders, however, had limited knowledge about the way that @YourSide Colleague® was operating in First Nations communities. None who took part in the evaluation felt they could estimate the proportion of home and community care staff currently using the @YourSide Colleague® tool. Although they were aware that difficulties in accessing the system *via* the Internet occurred, the majority seemed to feel that "difficulty connecting

... wasn't an issue" for most First Nations communities. There was a sense that @YourSide Colleague® was being used and, as such, would be universally helpful for staff in a variety of ways. Besides being used by home care workers, a leader mentioned that @YourSide Colleague® "has certainly crossed over to community health and that's another real positive because it brings home and community health together."

Benefits

Several major benefits from @YourSide Colleague® were identified: the availability of up-to-date content; peer supports that were accessible through the discussion board and study groups; and support for nurses who required continuing education. Another significant advantage was seen in the ability of @YourSide Colleague® to connect First Nations health care workers across their province and, ultimately, across Canada. Despite working hundreds of kilometers away, staff could use the program for instantly communicating with peers and accessing new knowledge and best practices.

The resulting "network of peers" was seen as having great potential, offering a way of providing ongoing "decision support" and creating "confidence" among workers that they could "do their daily job." A community leader suggested that their First Nations had used the e-learning system "beyond its regional intentions" as an educational tool. She went on to say that the resulting access to information and current practices was positively "affecting client care." The e-learning system also was credited with making "people feel connected when they're working in remote locations" which was beneficial "in terms of recruitment and retention."

Funding

From a resource perspective, the fact that @YourSide Colleague® was accessible at "no cost" to participating health care providers or local First Nations was believed to be one of the primary advantages of this educational initiative. Leaders pointed out that any First Nations community or

organization within the three participating provinces could access the e-learning system “no matter how large or small ... or how many workers [they have].” Under the present funding system, @YourSide Colleague® was “very accessible” to First Nations home and community care staff and that accessibility was seen as a large part of the benefit for communities. It was: “A big advantage to anybody working alone in a small place, they can use it. It is available to them. They don’t have to worry about where they’re going to find the resources or the budget.”

From a cost perspective, the system also was viewed as being effective because it significantly “saves on travelling” expenses that communities incurred when they brought people together for workshops, conferences or other educational events. Although it was acknowledged that cost analyses had not been done, several individuals held the view that there would be “absolutely a cost benefit to be doing online education.” In their opinion:

The educational value itself is huge. It’s huge and if you were to cost it, I don’t think it could provide this amount and quality education any other way for the same price. You couldn’t.

Sustainability

Community leaders held a variety of opinions on whether or not First Nations communities would be able to continue to use @YourSide Colleague® if special funding were no longer available. Several respondents felt that this type of e-learning initiative “does not work at the community level” and that First Nations “wouldn’t be using it, if we had no funding support.” Others believed that it was “too soon” to judge whether or not their communities would continue to use @YourSide Colleague® if external funding wasn’t provided.

There were, however, serious doubts expressed about the capacity of First Nations to support @YourSide Colleague® should funding responsibilities be downloaded to the community or regional level. Leaders emphasized that “any cost attached to individual First Nations could potentially be a barrier in the future.” Concern was primarily for smaller communities, where resources were so restricted that any type of education was prohibitively expensive. Reflecting on this issue, a focus group

discussant said that small First Nations, regardless of the value in the @YourSide Colleague® product, would find that the cost to participate was far beyond their means:

My concern is some of them would be too small to find those resources. So it's not that this isn't invaluable to them, but [it's just that] any education is expensive for some of our small First Nations.

Moving to a community-based or regional funding model for @YourSide Colleague® or similar e-learning initiatives also would require additional levels of administrative approval, making it more difficult for individual home and community care providers to access the system. As a community representative commented, there would be "so many administrative things that ... the course would be over by [the time they got approval]."

It was anticipated that as long as @YourSide Colleague® was externally funded, First Nations home and community care providers would continue to use the system. There was a strong feeling, moreover, because many staff had only recently begun to use @YourSide Colleague®, that its popularity was just starting to develop. Considering the variable utilization of the system, there also was consensus that @YourSide Colleague® may not yet have fully realized its potential and that it was perhaps too soon to truly evaluate the program's success. As a First Nations community leader remarked, many First Nations communities hadn't "seen the full benefit yet" and that fact in itself should "weigh heavily on the decision to keep this [e-learning system] or not."

SUMMARY

The purpose of this study was to evaluate First Nations home and community care providers' and community leaders' experiences with Saint Elizabeth Health Care @YourSide Colleague e-learning program, in three provinces, Manitoba, Saskatchewan and British Columbia. The specific objectives were to understand the e-learning application's benefits and any unintended positive or negative outcomes; identify the technical, human resource, program capacity and development conditions which maximize positive outcomes and minimize negative effects; and compare the application against alternative approaches to continuing education.

Methodologically, this study involved analysis of survey, focus group and individual interview results, along with SEHC administrative data. It explored issues related to the utilization of the @YourSide Colleague e-learning system, examining how it supports health care providers in their work, and whether it has produced improvements in the ability to care for clients at home. It also assessed technical, service and human resource issues, including provincial and local factors, and how well e-learning performs in comparison to available alternatives.

Five original research questions guided this analysis of the experiences and perceptions of health care providers and First Nation community leaders: (i) how does the use of e-learning help to build community capacity in health care? (ii) how does it improve the capacity of staff to manage and deliver health services? (iii) from a technical and service point of view, does the system work in a First Nations community context? (iv) is there any evidence of cost savings? and (v) is there any evidence of improved client service? The following sections provide insight on the extent to which these questions have been addressed and answered.

(i) *Does e-learning help to build community capacity in health care?*

The most important reasons given for using @YourSide Colleague® were to upgrade skills and knowledge. The availability of content on the system, furthermore, has enhanced the capacity of most First Nations communities to provide effective health care. Community leaders, managers and staff reiterated several times that one of the most valuable improvements following the introduction of @YourSide Colleague® was that smaller communities could now access training and attain a level of expertise that had previously only been available in larger communities. Furthermore, they could do so without incurring the costs and inconvenience associated with travelling to larger urban areas for education.

The usage of an online tool to support home and community care staff was considered a major factor in helping staff to feel connected to workers outside their immediate field and beyond the workplace into their communities. E-learning also encourages a level of interaction that might be new in some settings; in fact, there was some evidence that communications improved as learners used the system. Moreover, the system's ability to link staff *via* email and discussion groups was generally thought to be growing.

(ii) *Does e-learning improve capacity of staff to deliver health services?*

One of the most significant benefits of the @YourSide Colleague® system is the increased access to health care information; this was considered important to most respondents. In three of five subject areas, most users reported that a greater amount of information was available to them following introduction of the e-learning system.

Many respondents held the opinion that using @YourSide Colleague® had produced positive results, enhancing both their basic and advanced skills, along with giving them up-to-date information about treatment techniques. Comments relating to wound care and palliative care, for example, were especially illustrative of the ways that the information provided through the e-learning system has both reinforced and expanded workplace skills.

Home and community care staff who regularly used @YourSide Colleague® appreciated its networking capabilities, specifically the ease with which they could connect and exchange information with colleagues in other First Nations. As a result, they felt more supported in their work and more confident in their ability to deliver good care to clients. Using @YourSide Colleague® also had increased interest in continuing education, especially online formats. Many of the people currently using the system planned to continue accessing its resources, primarily to upgrade skills and knowledge. Some stated they would turn to the system for specialized information that would enhance job performance.

(iii) Does the system work in a First Nations community context?

In spite of the fact that many participants in this evaluation had used @YourSide Colleague® as an avenue to upgrade skills and knowledge, a majority of people indicated that they now seldom used the program. Still, there were regular users who accessed the program on a consistent basis, at least twice a month, as well as occasional users, who might check the website only a few times during the year.

The variable levels of usage reported by evaluation participants were confirmed in analysis of @YourSide Colleague® administrative data. While as many as 78% of First Nations workers logged into their SEHC accounts at least once a year, depending on the topic chosen, they could spend as little as 36 minutes or as much as 8 hours online. Over the 30 months evaluated, some courses on more specialized topics drew fewer than 50 learners; other courses that were of general interest, such as Diabetes, attracted more than 150 staff.

Equally distinctive patterns of activity and content choices emerged when e-learning data were compared provincially. There was a strong concentration of SEHC activity in Manitoba, which accounted for 47% of the enrollments and 57% of the online hours. Saskatchewan and British Columbia each were responsible for about 25% of the enrollments; however, only 13% of the online activity occurred in Saskatchewan as compared to 30% in British Columbia.

Infrequent usage of @YourSide Colleague® was primarily attributed to factors such as lack of time and poor Internet connectivity. In order to maximize benefit, the @YourSide Colleague® tool requires considerable time to read, understand, question, comprehend, and apply the knowledge available. In First Nations where each health care worker plays many diverse roles, a major barrier to using this system is the issue of time. Many respondents reported that it was rare for them to be able to devote a portion of their workday to sit down at the computer, log-on and complete an e-learning session. Although some managers tried to allocate regular times for e-learning activities, “in the middle of the day to stop everything to get online with a course,” was considered very difficult to do.

Problems with technology also discouraged staff from using @YourSide Colleague®. Analysis showed that, of those who stopped using the system for any reason, approximately one-half cited “poor or unreliable Internet connections.” While technological issues were experienced across all settings, they were especially serious for isolated places, where Internet services were delivered *via* dial-up or satellite linkages, which were vulnerable to connectivity problems and equipment breakdowns. When problems occurred, delays in restoring service were often lengthy, because technicians have to be brought into the community. Given the level of difficulty reported, connectivity issues represent a serious constraint that limits the use of @YourSide Colleague® and other e-learning systems, particularly for rural and remote First Nations.

(iv) Is there any evidence of cost savings?

Although conducting a cost-benefit analysis was beyond the scope of the current evaluation, the fact that @YourSide Colleague® was accessible at no personal cost to the workers and at no cost to First Nations communities who participated was seen as a “huge advantage” by home and community care staff and managers. Although many staff continued to access a broad range of learning resources much as they had before @YourSide Colleague® came into effect, there was a decline in the numbers of individuals citing the use of train-the-trainer sessions; books and manuals; inservice sessions; and travelling workshops *after* the SEHC system was introduced. There also was

evidence that some managers were using the SEHC program as a substitute for inservice education sessions, by regularly scheduling time for e-learning; other were using the system to reduce their community's reliance on train-the-trainer initiatives, workshops, books and manuals.

Community leaders, however, voiced serious concerns over First Nations' ability to support the @YourSide Colleague initiative in the future, should current special funding cease and the costs be downloaded to individual First Nations or regional organizations. If that happens, the inability to find funding to support e-learning at local levels will make the program inaccessible. As the leaders pointed out, smaller communities with limited resources will be most disadvantaged, as the cost to participate in e-learning would be far beyond their means.

(v) Is there any evidence of improved client service?

Improved client service was mentioned by about one in every two health care providers as a potentially significant outcome of using the @YourSide Colleague® tool. Citing completion of online courses, they emphasized that newly acquired knowledge and "confidence in making decisions" had already translated into better client care. Knowledge gains, particularly increased awareness of complications and the importance of referring clients for more specialized care, were generally viewed as contributing strongly to improvements in care.

While a difference is perceived, both health care providers and community leaders acknowledged that there is no firm data on client outcomes on which to judge the success of the program in improving care in their First Nation communities. Given the variable utilization of the program, there also was a sense that it might be "too soon" to assess such effects, because many First Nations staff had only recently begun to use @YourSide Colleague® and e-learning system's popularity and potential was only starting to develop.

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Appendix A - Community Providers - Questionnaire

This survey is part of a larger study about First Nations' communities' experience with the Saint Elizabeth Health Care @YourSide Colleague® (aYSC) e-learning initiative which we are conducting on behalf of the First Nations in Manitoba, Saskatchewan and British Columbia, with support from Health Canada. As a health manager or front-line provider caring for First Nations people, we would like to ask you a few questions about your experience with using aYSC.

IN COMPLETING THIS QUESTIONNAIRE, I CONFIRM THAT I HAVE READ AND UNDERSTOOD THE LETTER PROVIDED TO ME BY THE RESEARCHERS AND AGREE TO PARTICIPATE IN THE RESEARCH.

YOUR COMMUNITY:

- 1a. In which province is your First Nation located?
- 1b. Thinking about your community, would you describe it as non-isolated semi-isolated, isolated or remote isolated?
- 1c. What is your current role in providing continuing care to First Nations people? (Health Services Director or Manager; Home and Community Care Manager; Nurse; Personal Support Worker; Health Care Aide; Homemaker; Community Health Representative; Respite Worker; Other Home and Community Care Worker)

YOUR EXPERIENCE WITH aYSC:

- 2a. How long is it since you first started using aYSC? (At least 4 years; 3 years; 2 years; 1 year; Less than 1 year)
- 2b. When you first started using aYSC, how comfortable were you with using computers? (Very comfortable, considerable experience using computers; Comfortable, some experience using computers; Not very comfortable, very little experience using computers; Not at all comfortable, no experience using computers)
- 2c. How did you learn how to use the aYSC system? (Face-to-face learning session with training team; Teleconferenced learning session; Learned from community trainer; Presentation by aYSC support team at meeting or conference; Learned by asking questions of other home and community care staff; No training available, just used aYSC help menus; Other)
- 2d. Why did you start using aYSC? (Opportunity was there; Wanted to upgrade skills and knowledge; Wanted additional clinical supports; Needed education to support application for Canadian Nursing Certification; Wanted to prepare for provincial Personal Support Worker exams; Wanted to prepare for provincial Health Care Aide exams; Management encouraged/required it; Coworkers recommended it; Other)
- 2e. Which of the following aYSC supports have you used? (Completed learning modules; Participated in online discussion groups; Emailed support team for expert advice; Emailed other users for advice)
- 2f. Thinking about the past year, how often have you used aYSC? (At least once a week; About twice a month; Only a few times during the year; Hardly ever; No longer using aYSC)

- 2g. If you stopped using aYSC at any time, reasons? (Didn't have time to access computer during work hours; Computers weren't available in workplace or weren't working; Couldn't get on Internet; Manager wouldn't let me use computer for aYSC during work hours; Didn't feel content applied to work roles; Didn't feel content reflected local needs and priorities; Content not culturally appropriate; No opportunity for practical hands-on learning and follow-up; No local support available; Other)

YOUR OPINIONS ABOUT THE USEFULNESS OF aYSC:

- 3a. Do you think that using aYSC gave you access to more, less or the same information than you otherwise would have had available? (Basic skills and knowledge; Advanced skills and knowledge; Up to date information about treatment and care techniques; Practical advice and support from coworkers; Expert advice from specialists)
- 3b. Which positive or negative effects on skills, knowledge and supports, if any, have you seen from you and your coworkers using aYSC? (Basic skills and knowledge; Advanced skills and knowledge; Sharing knowledge with coworkers; Sharing knowledge with workers in other First Nations; Interest in continuing education or upgrading; Communicating with managers; Feeling supported in my work; Feeling isolated in my practice; Feeling confident about doing my job; Feeling burned out or stressed; Thinking about changing jobs; Other positive or negative effects; Too soon to know any effects)
- 3c. Thinking about the training that you have had through aYSC, do you think it has made a difference in the ability of you and your coworkers to care for clients? (More aware of complications that can occur; More aware of need to refer for specialist care; Fewer clients being transferred out to hospital; Fewer clients experiencing serious complications; Any other differences)
- 3d. Thinking about the next year, do you plan to continue using aYSC? (Yes, plan on continuing to use aYSC; No, do not plan on using aYSC; Don't know; too soon to make a decision; Why or why not?)

YOUR VIEWS ON aYSC AS A COMMUNITY EDUCATIONAL RESOURCE:

- 4a. Thinking about both before and after aYSC was introduced to your community, how did you and your coworkers get on-the-job training and information? (Experienced staff supported and shared knowledge with new employees *Mentoring*; One-on-one learning from supervisor or manager *Hands on Learning*; Sent staff members out of community for workshop and they shared information *Train the Trainer*; Workshop delivered in community by local managers *Inservice Sessions*; Workshop delivered in community by trainers brought in from outside *Travelling Workshop*; Information sessions via distance learning *Teleconference or Videoconference*; Turned to books or manuals *Health Centre/Nursing Station*; Looked up information on the Internet *Other Websites*; Continuing education or certificate courses *Other Distance Education*; Other on-the-job training available)
- 4b. If you were advising other First Nations front-line providers, who were considering using aYSC, what would you tell them about: Advantages of using aYSC? Disadvantages of using aYSC? Other things to think about if a First Nation home and community care worker is considering using aYSC?

Appendix B - Community Leaders - Questionnaire

This survey is part of a larger study about First Nations' communities' experience with the Saint Elizabeth Health Care @YourSide Colleague® (aYSC) e-learning initiative which we are conducting on behalf of the First Nations in Manitoba, Saskatchewan and British Columbia, with support from Health Canada. As a community political leader or health manager, we would like to ask you a few questions about your First Nations' experience with using aYSC as a support for home and community care workers.

IN COMPLETING THIS QUESTIONNAIRE, I CONFIRM THAT I HAVE READ AND UNDERSTOOD THE LETTER PROVIDED TO ME BY THE RESEARCHERS AND AGREE TO PARTICIPATE IN THE RESEARCH.

YOUR COMMUNITY:

- 1a. In order to help us understand more about your community, please tell us what province is your First Nation located?
- 1b. Thinking about your community, would you describe it as non-isolated semi-isolated, isolated or remote isolated?
- 1c. What is your current leadership role in the community? (Chief/Band Council with health portfolio; Administrator/band manager; Health director/manager; Other leadership role)

YOUR COMMUNITY'S USE OF aYSC:

- 2a. In order to help us understand more about how your community has used aYSC, please tell us how long has your community been using aYSC? (At least 4 years; 3 years; 2 years; 1 year; Less than 1 year)
- 2b. Did your community hold consultations prior to starting to use aYSC? (Yes, held consultations with community leaders, managers and front-line providers; No, did not hold consultations with community leaders, managers or front-line providers; Other comments regarding consultations)
- 2c. How many home and community care staff in your First Nation are currently using aYSC? Not currently using aYSC? (Managers; Nurses; Personal Support Workers; Health Care Aides; Homemakers; Community Health Representatives; Other Community Workers)
- 2d. If you are a manager, do you monitor staff use of aYSC?
- 2e. If you are a manager, do allow staff to use aYSC during work hours? Why or why not?
- 2f. Where in your community can front-line providers access the Internet? If available, are connections through broadband landlines, telephone dial-up or satellites? (Administration Or Band Office; Health Centre/nursing Station; Education Centre/school; Community residents' home; Other locations)
- 2g. Have your staff had any difficulty accessing the aYSC system? (If any difficulties, was it because: Didn't have time to access computer during work hours; Computers weren't available in workplace; Computers weren't working; Couldn't get on Internet; Other difficulties)

- 2h. Did your staff have any problems with the computer skills needed to use aYSC? (If any, was it because: Some staff did not have basic computer skills; Some staff were not familiar with using the Internet) (If your staff experienced any problems with accessing aYSC, how did they solve the problem? Solved problem themselves, through aYSC website help menus; Talked to other home and community care workers locally; Talked to local computer support person, for technical help; Emailed/phoned aYSC support person; Emailed/phoned home and community care workers in other First Nations)

YOUR COMMUNITY'S EXPERIENCE WITH aYSC:

- 3a. In order to understand how your community has used aYSC, please tell us, to the best of your knowledge, have any workers in your community used the following? (Completed learning modules; Posted question on discussion board or chat room; Emailed support team for expert advice; Emailed other users for advice; Participated in online study group)
- 3b. Have any of your staff used the aYSC learning modules to: Review basic skills and knowledge during orientation; Support application for Canadian Nursing Certification; Prepare for provincial Personal Support Worker exams; Prepare for provincial Health Care Aide exams; Used aYSC as a tool to communicate with other First Nation provider; Other upgrading)
- 3c. What positive or negative effects on staff skills, knowledge and supports, if any, have you seen from having your staff use aYSC? (Basic skills and knowledge; Advanced skills and knowledge; Sharing knowledge with coworkers; Sharing knowledge with workers in other First Nations; Interest in continuing education or upgrading; Communicating with managers; Feeling supported in their work; Feeling isolated in their practice; Confident about doing their jobs; Feeling burned out or stressed; Turnover and retention; Other positive or negative effects; Too soon to know any effects)
- 3d. Thinking about the training that your staff has accessed through aYSC, do you think it has made a difference in their ability to care for clients? (More aware of complications that can occur; More aware of need to refer for specialist care; Fewer clients being transferred out to hospital; Fewer clients experiencing serious complications; Other differences)

YOUR VIEWS ON aYSC AS A COMMUNITY EDUCATIONAL RESOURCE:

- 4a. Thinking about both *before* and *after* aYSC was introduced to your community, how did your staff get on-the-job training and information? (Experienced staff supported and shared knowledge with new employees *Mentoring*; One-on-one learning from supervisor or manager *Hands on Learning*; Sent staff members out of community for workshop and they shared information *Train the Trainer*; Workshop delivered in community by local managers *Inservice Sessions*; Workshop delivered in community by trainers brought in from outside *Travelling Workshop*; Information sessions via distance learning *Teleconference or Videoconference*; Turned to books or manuals *Health Centre/Nursing Station*; Looked up information on the Internet *Other Websites*; Continuing education or certificate courses *Other Distance Education*; Other on-the-job training available)
- 4b. Thinking about your community's resources, has supporting aYSC meant more, less or the same? (Funding for other types of education; Resources required to train people in computer use; to maintain or upgrade computers; to maintain or upgrade Internet; Other resources)

- 4c. Thinking about the next 2 years, does your community plan to continue using aYSC? (Why or why not?)
- 4d. Would your community continue using aYSC, if special funding was no longer available? (Yes, would find resources for aYSC elsewhere; No, unable to use aYSC, would not have enough resources, if no special funding available; Don't know; too soon to make a decision. Why or why not)

OTHER THOUGHTS ABOUT aYSC:

- 5a. If you were advising other First Nations communities who were considering using aYSC, what would you tell them about Advantages of using aYSC? Disadvantages of using aYSC? Other things to think about if a First Nation is considering using aYSC or a similar e-learning and support system?

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