



**Education for Quality and Safety Leaders:
A Needs Assessment and Program Review**



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Purpose

This report is in support of the BC Patient Safety and Quality Council's (BCPSQC's) commitment to building capability for patient safety and quality improvement across BC's health system. As an initial step, this review focused on the development of health authority staff responsible for leading and supporting quality improvement initiatives. Specifically it describes:

- Education and professional development needs identified by BC health authority staff responsible for leading quality improvement and patient safety initiatives;
- Approaches to patient safety and quality training from 11 programs within Canada, the United States and the UK; and
- A description of key lessons learned and options to support the development of capability for this group.

This report provides findings and alternatives for consideration by the BCPSQC based upon the advice of the BCPSQC's Education & Capacity Building Working Group. The purpose is to identify current gaps in quality improvement capability in the Province and to present options for addressing them. While the initial focus is on a subset of health care professionals, it is anticipated that the findings in this report will also be relevant to support the development of a long-term education plan across the continuum of care.

From the outset, this report was guided by a number of considerations. The needs assessment and options presented are focused on a specific audience who are critical to a health authority's quality improvement capacity. The focus on this group should be considered a first step to building capability with the acknowledgement that a much wider audience, across a variety of sectors, will need additional skills and development to successfully create the capability for system-wide improvement. The BCPSQC also recognizes that there are existing professional development programs that contribute to current efforts to build skills in patient safety and quality improvement. The options presented in this report are not meant to replace existing opportunities, but rather to complement and build on the existing programs. Throughout this report, the potential for aligning with existing opportunities and expanding to wider audiences is considered.

Approach

This report is informed by a survey of individuals working in BC's health authorities who have leadership roles in quality improvement and patient safety. As well, interviews with leaders of training programs in Canada, the United States and the UK were conducted to provide insights into the types of education opportunities that could be applicable and feasible within the BC

environment. The survey provided data on education and professional development needs within BC's health authorities and the interviews explored solutions for professional development opportunities for consideration in BC.

Needs Assessment Survey

Between September 23 and October 26, 2009, the BCPSQC conducted an online survey of health authorities to identify quality and safety training/education needs. The BCPSQC enlisted the help of patient safety and quality directors to recruit respondents from within their organization. One hundred and four surveys were returned, including representation from all health authorities. Respondents were presented with questions related to 22 quality improvement and patient safety tools and knowledge areas and 14 skills including 10 from the Canadian Patient Safety Institute's (CPSI) Safety Competencies Framework.¹ For each, they were asked to rate their current skill, the frequency of use within the past 12 months and their level of learning need.

Interviews with Leaders of Quality Improvement and Patient Safety Training Programs

Between September 15 and October 15, 2009, the BCPSQC conducted interviews with leaders of 11 quality improvement and patient safety training programs within Canada, the United States and the UK. Ten of the interviews were conducted by phone and one organization (the Improvement Foundation) was given the opportunity to respond by email. Additional programs that are in the development process were investigated for future consideration including the University of Calgary's proposed Patient Safety and Quality Certificate (anticipated start date fall 2010) and the NHS's Productive Improvement Agent program (currently in the pilot testing phase).

Limitations

There are several limitations with both the survey and the interviews. First, the survey distribution methodology did not allow for a response rate to be determined. With the varying organizational structures in the health authorities and different interpretations of the appropriate roles that should be included in the survey, regions may have included a slightly different subset of staff and as a result some authorities had more responses than others. Second, with respect to the interviews, an exhaustive search was not conducted, nor was a complete environmental scan or inventory created. Rather, a variety of well-known educational programs were selected that appeared to have potential for the BC environment. Interviews were conducted to distil some key findings for practical application for BC health authorities' quality and safety professionals.

¹ Frank J R, Brien S, (Editors) on behalf of the Safety Competencies Steering Committee. *The Safety Competencies: Enhancing Patient Safety Across the Health Professions*. Ottawa, ON. Canadian Patient Safety Institute: 2008.

Education and Professional Development Needs in BC

Responses to the online survey were analysed to understand both immediate and short-term education and professional development needs. Forty-two respondents identified themselves as Quality Improvement Leaders; 34 respondents identified themselves as Patient Safety Leaders or Program Administrators/ Program Managers; 20 as Professional Practice Leaders or Clinical Nurse Educators, and a further five indicated Risk Management as their main role. Five physicians responded to the survey, with an additional 13 identifying themselves to be 'other' clinicians.

Immediate and Short-Term Training Needs

Overall, there was significant variation in the self-reported skill levels of respondents. Some survey respondents indicated they were well versed in quality improvement skills, knowledge and tools while the majority identified significant gaps. The specific tools and skill sets identified as needs were varied with many respondents indicating that they need additional training in a range of tools to be successful in their roles.

Quality Improvement and Patient Safety Tools

Respondents identified their immediate or short-term needs for learning quality improvement and patient safety tools (Figure 1). Although there is a general need for all of these tools, a few stand out as being in the greatest demand including process mapping/ value streaming and Failure Modes and Effects Analysis (FMEA).

Display of Data and Information is vital to monitoring the quality improvement process and clearly communicating key findings. The results of the survey indicate that many respondents, although familiar with some of the display methods, are not comfortable with their use. A significant need was identified for a number of these tools including Pareto charts, annotated run charts and tree diagrams with the single greatest data display need being flow charts.

Prospective quality improvement tools, those that are used for improving processes and eliminating inefficiencies, are also in high demand. Activities such as process mapping or value streaming define process improvement opportunities by looking at all of the actions required to deliver services to the patient. Failure Modes and Effects Analysis is another prospective methodology that looks

for potential "error traps" in order to address them before they cause harm to patients.

- Approximately 30% of respondents identified a need immediately or within the next two years to learn about Failure Mode and Effects Analysis and had less than a solid working knowledge of how to apply this methodology.
- Similarly, approximately 30% of respondents had a need for learning about process mapping and value streaming and reported less than a solid working knowledge of how to apply this methodology.

Learning from adverse events is another powerful opportunity to improve the delivery of health care and there are a number of **retrospective analysis tools** that provide a formal mechanism for doing so. Clinical chart audits and root cause analyses are commonly used to gain insight when adverse events occur.

- Root cause analysis (RCA) training was one of the most frequently mentioned training needs in the open-ended responses, with approximately 25% of respondents identifying a need for training and less than a solid working knowledge in RCA.

Quality Improvement and Patient Safety Skills

Just over one-third of all respondents identified a need for advancing their skills in leading difficult conversations, including the disclosure of adverse events. These respondents indicated that they had a less than a solid working knowledge of how to approach these situations yet a definite need for these skills. Project management was another area where respondents identified an immediate need with more than half identifying a need within two years.

Respondents also identified a need for developing leadership skills essential to quality improvement and patient safety. Respondents indicated considerable room to grow in most CPSI competency domains with the exception of interpersonal skills. As shown in Figure 2, the need for training was particularly high with respect to facilitation skills (82%) and cultural diversity (72%), indicating that respondents had an immediate or short-term need for these skills and less than a solid grasp on these competencies.

The specific tools and skill sets identified as needs were varied with many respondents indicating that they need additional training in a range of tools to be successful in their roles.

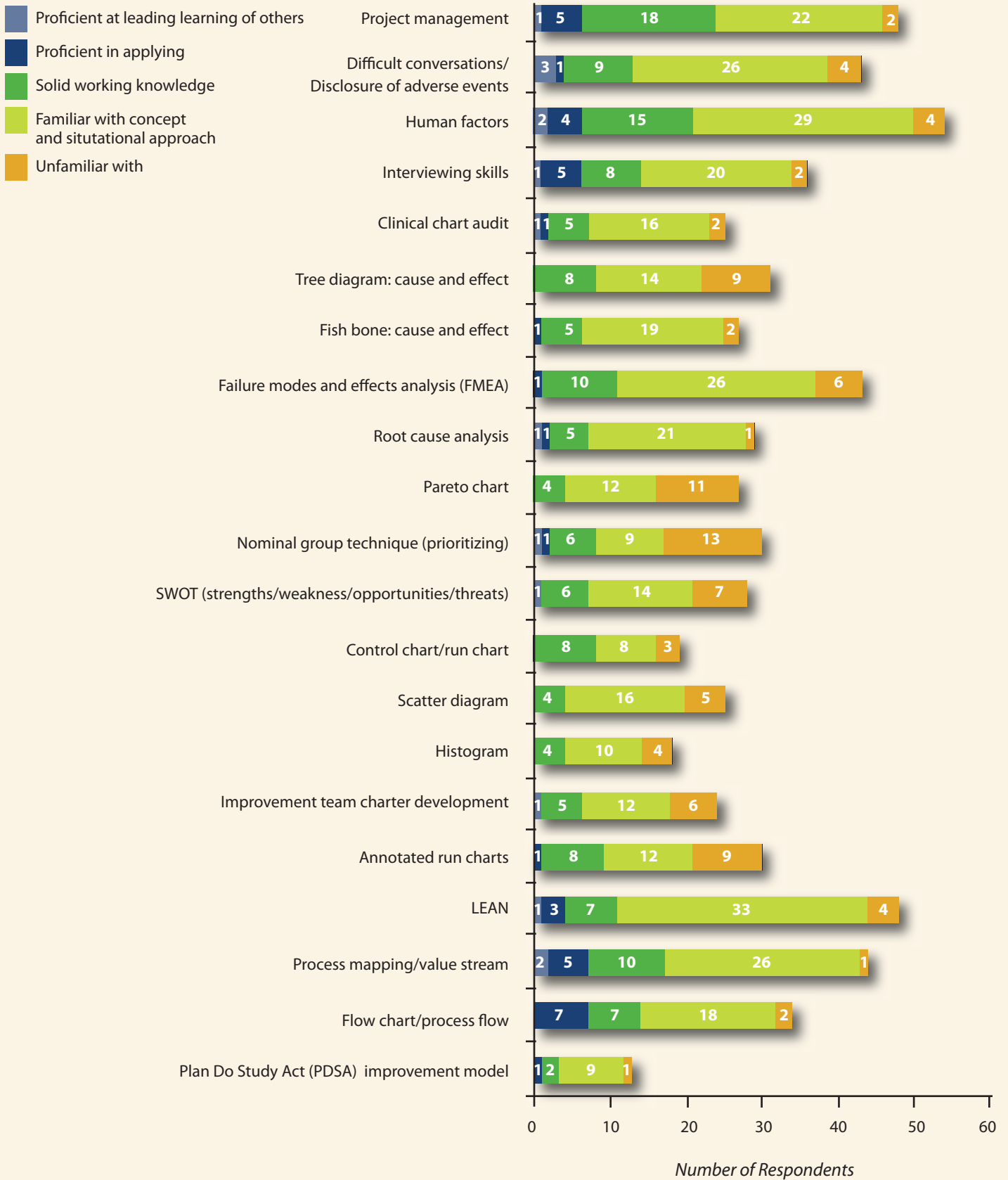


Figure 1: Learning Needs for Quality Improvement and Patient Safety Tools and Skills

The number of respondents that identified an immediate or short-term need for the listed skills and tools, grouped according to self-rated skill level (N=104)

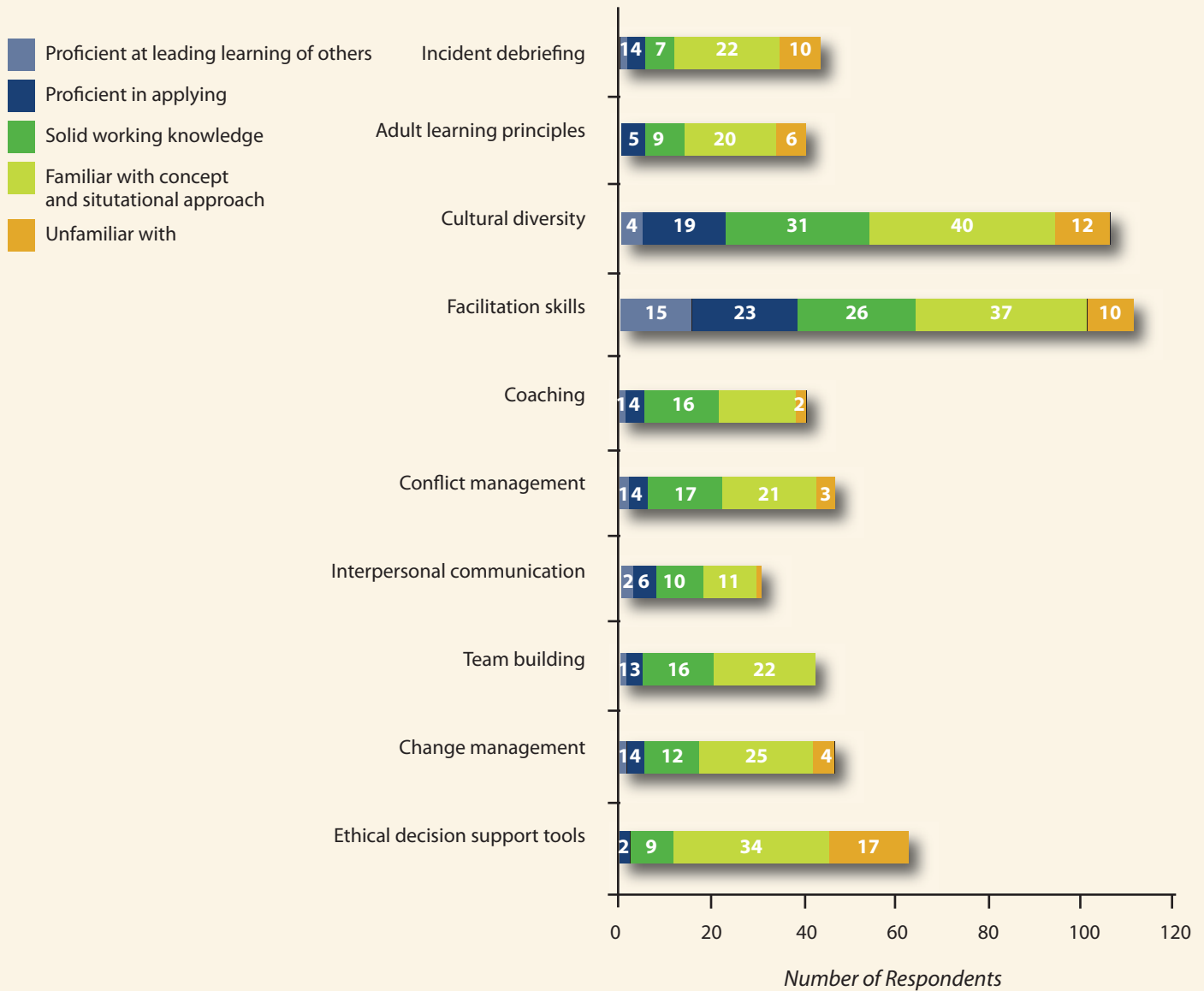


Figure 2: Development needs for CPSI competencies

The number of respondents (n=104) who identified an immediate or short term need for development of the listed CPSI competencies grouped according to self-rated skill level.

Quality Improvement and Patient Safety Knowledge Areas

Respondents also identified the need to learn about human factors, Lean methodology², incident and disclosure policies and the role of risk management.

- Over a third of all respondents (38%) had less than a solid working knowledge of incident policy and decision trees and needed this knowledge immediately or within the next two years.

- Approximately 40% of respondents identified a need immediately or within the next two years to learn about Lean methodology and had less than a solid working knowledge of how to apply this methodology.
- Over 30% of respondents identified a need for human factors training and had less than a solid working knowledge with another 15% identifying a training need despite having a solid working knowledge.

² In this context, Lean is meant to include the whole range of structured process improvement methodologies including: Toyota Production System (TPS), Re-engineering, 6 Sigma, PICOS, TPS-Lean, TPS-6 Sigma.

Opportunities for Broadening Tool and Skill Sets

Also of relevance to building capability within BC are those respondents that were unfamiliar with and uncertain if they needed quality improvement and patient safety tools and skills. These responses, shown in Figure 3, point towards an opportunity to expose health care professionals to a broader set of tools and skills for improving health care.

These results also highlight an important point regarding the skills and abilities of individuals working in quality and safety leadership roles. While not surprising that there would be tools respondents are unfamiliar with, the results indicate that there are individuals working in these roles without the requisite support. The sheer numbers of individuals who responded that they were unaware of some fundamental quality improvement tools such as PDSA cycles underscores the importance of providing appropriate professional development opportunities to enable individuals to be effective in their roles.

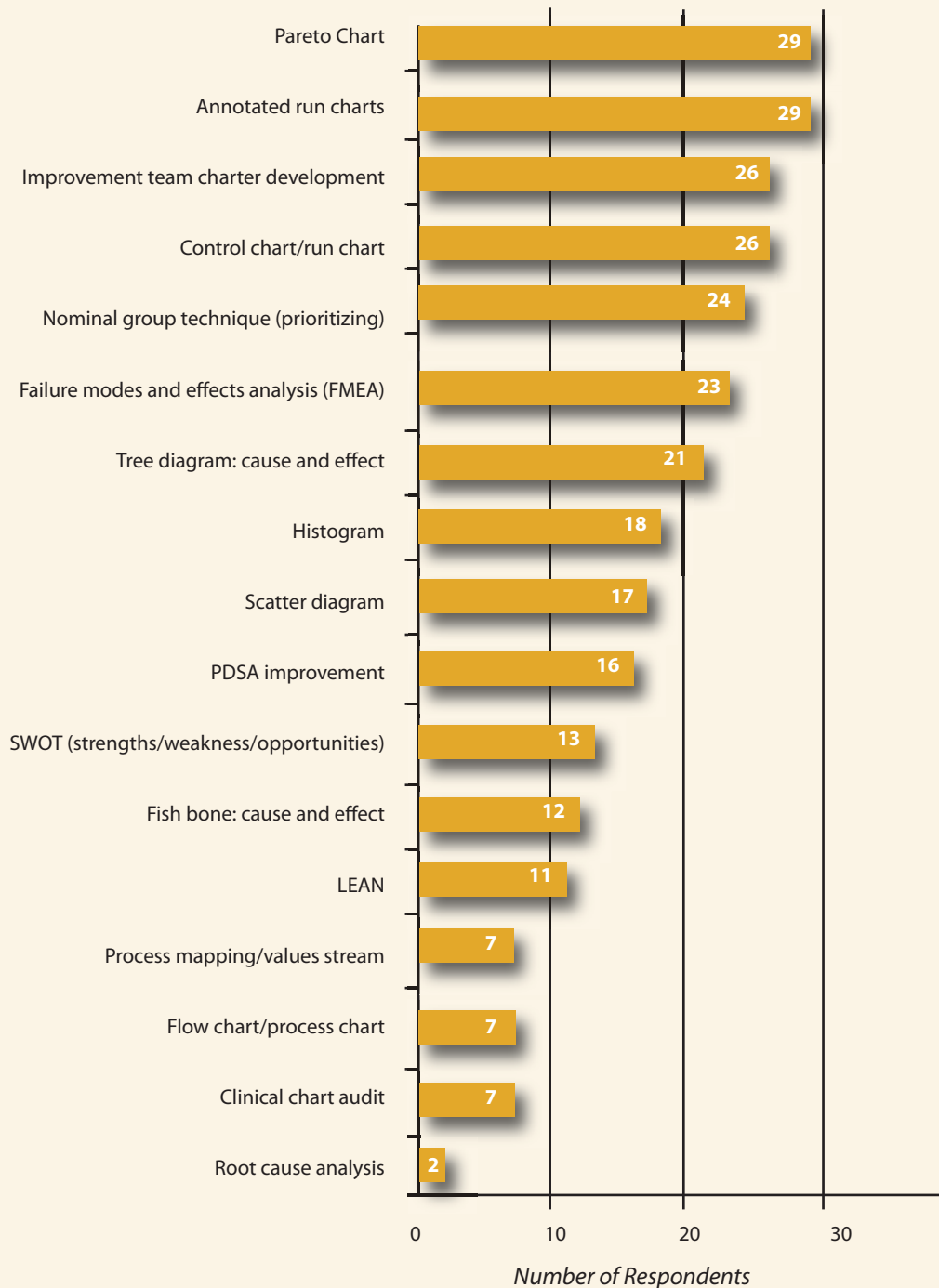


Figure 3: Tools Unfamiliar to Respondents

The number of respondents both unfamiliar with and unsure if they need training with the listed tool (N=104).

Types of Safety and Quality Programs

In order to address the needs identified in the survey, quality improvement programs were reviewed with the intention of identifying some key aspects of successful initiatives. Eleven programs were included in this review, each of which varied significantly in length, curriculum and format. Generally, the programs can be categorized as those that have a broad curriculum focused on the full range of quality improvement theory and those that cover more specific aspects.

Courses for Specific Aspects of Quality Improvement and Patient Safety

These shorter programs are typically between three to five days in length. While the content differs between programs, the purpose is to broaden learners' quality improvement and patient safety skills by exposing participants to a variety of topics.

- The Canadian Patient Safety Officer Course, offered by CPSI, approaches patient safety and quality from the standpoint of senior leaders. Its major goal is to help leaders identify safety challenges and build a patient safety framework and strategy within their organization.
- Based in the UK, the Improvement Foundation's Quality Improvement Skills Programme attracts front-line health care workers who can be involved in quality improvement as part of their day-to-day responsibilities.
- The Institute for Healthcare Communication Canada also targets clinicians through courses that focus on communication (i.e. course on Disclosure of Unanticipated Medical Outcomes).

These programs often include curriculum on building leadership/management capability, understanding systems and identifying quality issues, and leading teams and organizational change – key themes that repeatedly came up in respondent open-ended comments from the skills needs assessment survey. These courses provide participants with a foundational knowledge base from which to further develop subject matter expertise.

The most common response was the need to apply lessons for maximum knowledge and proficiency.

Broad-Curriculum Programs in Quality Improvement and Patient Safety

These courses are divided into two groups: those which integrate the completion of a quality improvement project into the curriculum and those that focus on more traditional methods.

Traditional courses

These programs are typically longer (over 50 hours of instruction) and are often offered through formal academic institutions.

- The University of Toronto's Certificate in Patient Safety and Quality Improvement covers a range of tools and theory related to quality improvement. The target audience for this program are physicians and most participants are involved in the academic community.
- BCIT's Health Care Quality Manager Certificate attracts health care professionals such as nurses, laboratory and medical imaging technologists. The online curriculum includes a considerable focus on building leadership competencies.
- The University of Calgary's proposed Patient Safety and Quality Certificate would be modeled on traditional education programs.
- The Canadian Healthcare Association's Continuous Quality Improvement program involves traditional distance learning in addition to an in-person component.

Courses with project-based learning

The following programs emphasize applied learning through a quality improvement project in addition to theoretical instruction. These courses tend to place a more significant emphasis on selection and application of quality improvement methodologies and tools. They also equip learners to lead change within their organization.

- Intermountain Healthcare's Advanced Training Program couples a series of four week-long classroom sessions covering the theory of quality improvement with the completion of a project at the participant's place of employment.
- IHI's Improvement Advisor program has a similar structure to the Intermountain program with the curriculum covering a range of quality improvement methodology in addition to the application through a project.
- Saskatchewan Health Quality Council's Quality Improvement Consultant (QIC) program is modeled after the IHI program and has recently looked to the Intermountain program to enhance its curriculum.

The Institute for Healthcare Improvement's (IHI) Open School is in a category to itself. This program is designed to attract students interested in learning more about patient safety and quality improvement and is meant to supplement existing health professions formal education. The IHI created this program in response to the slow uptake of quality improvement methodology into medical school curricula in the United States and around the world.

Regardless of the length and type of program, the issue of certification was brought up during interviews. Recognition of completion and associated certification varied widely between courses and was largely dictated by the organization offering the training. While programs affiliated with universities offered formal diplomas or certificates, other organizations offer a certificate of completion. However, a key consideration is that the value of certification is in the value it carries for participants and employers. For example, a certificate from the ATP will often be valued by

employees of Intermountain Healthcare more than a similar course from an accredited university simply because of the recognized value in that organization. Several courses also offered continuing medical education credits although this was often based on the target audience. Programs that were targeted towards physicians often went to the extra effort to ensure they were recognized for these credits.

One size doesn't fit all. Courses vary from one day to formal university-level training. When respondents were asked in the needs assessment survey on what educational opportunities they had previously taken that were most valuable, the responses ranged from day workshops to more formal training opportunities. The most common response that ran across the varying lengths of courses, however, was the need to apply lessons for maximum knowledge and proficiency.

Program Comparison

Eleven programs are detailed below, providing a brief description of the program, the target audience, cost, delivery format, length of the program and note whether a certificate is gained upon successful completion of the program. Summaries of individual programs are provided at the end of the report.

| Program | Description | Target Audience | Cost | Delivery Format | Program Length* | Certificate |
|---|--|---|---|--|--|---|
| Canadian Healthcare Association Continuous Quality Improvement Program | <ul style="list-style-type: none"> Continuous quality improvement as a management strategy, approach to operational planning, tools and and measurement/evaluation | New or aspiring QI managers and/or directors | \$1,475+\$300 (books) + travel/accommodation to session | 7 home study units, a research paper, a five-day intramural session in Ottawa and a final exam | 1 year (max 5 years) | Certificate of Canadian Healthcare Association |
| Saskatchewan Health Quality Council | <ul style="list-style-type: none"> Definition of QI problem Choosing best improvement sciences theories methodologies and tools Leading health care team toward achievement of a QI aim Project charters Spread and sustainability | Anyone working in the healthcare system that has a direct role in quality improvement | \$15,000 for out-of-province students + travel/accommodation at session | 4 x five day face-to-face sessions and online webinars | 12 months | Internal certificate |
| Quality Improvement Consultant (QIC) School | | | | | | |
| IHI Improvement Advisor Program | <ul style="list-style-type: none"> Basics of improvement Understanding systems and processes Using data, gathering and organizing information Generating ideas for change Scoping, testing and implementing change Working with individuals | Quality improvement specialists/facilitators/coaches | \$16,000 USD | Monthly calls, 3 x four day workshops | 9 months | Offers Continuing Medical Education credits |
| Intermountain Healthcare – Advanced Training Program | <ul style="list-style-type: none"> Background of QI, tools and techniques as well as policy and non-clinical process management | Executives and QI leaders | \$8,500 USD + travel/accommodation | 4 x 5-day face-to-face sessions | 20 days (Estimated 160 instruction hours) | Certified Continuing Medical Education credits |
| BCIT – Healthcare Quality Manager Certificate | <ul style="list-style-type: none"> Manage and lead quality improvement initiatives Develop systems for organizing/analyzing quality, utilization and risk management information Analyze problems and issues related to quality Determine appropriate personnel, organizational structures and teams to implement quality solutions Accountability measures Facilitate organizational change | Mostly health care professionals, nurses, labs imaging techs, range of different individuals (ie; IMIT/Accounting/non-health/etc) | \$5,860 | 8 online courses | 2 years | Advanced certificate, University level course credits |
| Certificate in Patient Safety and Quality Improvement, University of Toronto | <ul style="list-style-type: none"> Core definitions and epidemiology in patient safety Quality measurement and performance indicators Methods for assessing quality/safety problems Unique methods in patient safety (i.e., Human factors engineering, RCARCA & FMEA) Quality assurance research design/evaluation of interventions Core concepts in studying and improving communication, discontinuities in care, and teamwork | Physicians and other healthcare professionals, usually academics | \$2,000 for faculty, \$500 for residents, fellows, post-grad students | Didactic lectures and interactive small group activities project | 8 months (Estimated 64 instruction hours) | Certificate through University of Toronto |
| Intermountain – Mini Advanced Training Program | <ul style="list-style-type: none"> Background of QI, tools and techniques, emphasis on process management | Practicing clinicians | \$4,500 USD + travel/accommodation | 3 three day sessions | 9 days (Estimated 54 instruction hours) | Certified Continuing Medical Education credits |
| Improvement Foundation's Quality Improvement Skills Programme (QuISP) | <ul style="list-style-type: none"> The improvement model Analysing information and data Measuring improvement Process mapping, RCA Build teams & engage colleagues and patients to improve services The spread and sustainability of change | Frontline health care workers | Depending on delivery format | 3 one day in-person workshop | 3 months (Estimated 24 instruction hours) | Certificate available through a UK University |
| IHI Open School | <ul style="list-style-type: none"> Role of human factors, teamwork and communication in patient safety Operations management, monitoring variability Dealing with adverse events Safety culture, the human side of QI and organizational change | Students and anyone interested in learning about safety and quality improvement | Free (may change) | Online courses | | Certificate of completion |
| Canadian Patient Safety Officer Course (CPSI) | <ul style="list-style-type: none"> Creating, implementing, and maintaining a patient safety management system (recognizing events & near misses) and program (tools & techniques) Developing detailed, customized patient safety strategies and implementation plans Incorporating patient safety concepts into their interprofessional curriculum | Ideally for Health Authority directors of Patient Safety and Quality Improvement | \$6,300 | In person | 5 days (Estimated 20 instruction hours) | CPSI certificate |
| Institute for Healthcare Communication Canada | <ul style="list-style-type: none"> Enhanced communication skills (i.e., Disclosure of Unanticipated Medical Outcomes) | Clinicians | Depending on delivery format | Classroom | CE workshop: 1/2 day Faculty Course: 3 days | Accredited College of Family Physicians |

*Instruction hours estimated based on days.

Key Lessons Learned

Each program leader from organizations across Canada, the US and the UK was asked to share lessons learned in the development and ongoing delivery of their program. While a number of lessons were identified, a few key themes relevant for the BCPSQC emerged.

Projects were viewed as a very powerful, yet challenging way to deliver on learning objectives. Key informants identified projects as critical to the success of programs and shared how they had improved the structure of projects to allow for maximum practical application. One of the lessons learned within the Saskatchewan Health Quality Council's Quality Improvement Consultant (QIC) program was that participants were not ready to identify projects at the beginning of the program. Now, QIC learners identify a project after completing a session in problem identification. Both the Saskatchewan Health Quality Council and IHI noted that a prospective program must plan to allocate resources to monitoring learner progress both within the program and during the course of projects.

Regular checkpoints help adult learners succeed. Adult learners themselves often believe that they will self-manage their learning. The Saskatchewan Health Quality Council, among others, found that learners are more successful when they have additional structure. As a result, each learner is assigned a faculty member to monitor and support their progress, a strategy that has been used by Intermountain for many years.

Furthermore, **learners must have the support of their organizations.** Saskatchewan's QIC School noted that learners, and consequently the program, will not succeed if their direct supervisors are not supporting them by ensuring they have 0.25 FTE available to complete course work. This finding was echoed by a number of other organizations that identified participant time as a key barrier to full participation. Programs such as the Canadian Patient Safety Officer Course require an indication of senior leadership support when the learner applies for admission. Support is also critical for projects as the participants' sponsor may need to work with them to create momentum/culture and help to mitigate barriers within the organization to help the student successfully complete their project.

Most programs used multiple methods for delivery with one being e-learning. While face-to-face formats are often the most desirable, the practical benefits of e-learning for participants who are

working professionals and geographically dispersed, as well as the cost-effectiveness for organizations, are certain. As with any delivery mode, keeping learners engaged requires a concerted effort. The key to making the e-learning format successful is **optimizing online delivery methods.** E-learning can be made highly interactive; for example most training software includes options for voting/polls, breakout sessions, collaborating on documents and whiteboards, and chats. Deploying these tools in an effective manner, however, requires practice. If BCPSQC delivers learning online, it will be important to ensure that program leaders and instructors are very comfortable with the software (such as WebEx Training Center, Elluminate, or Live Meeting) used to deliver the program and methods of on-line instruction.

Considerations

In addressing the identified professional development needs of health authority quality and safety leaders, three key factors must be considered:

Curriculum Depth. The needs assessment identifies an immediate need for opportunities that develop learners' proficiency in applying quality improvement and patient safety skills and subject matter expertise. The curriculum must provide learners with the theoretic background and skill to apply the best approach from a wide-ranging set of quality improvement and patient safety methods and tools. A key success factor in developing proficiency is applying learning opportunities, typically through a supervised project. Ideally, after completing the program, learners will be proficient enough to lead the learning of others.

Feasibility. In the current fiscal climate, the cost of the program is increasingly a significant consideration. At the time of this review, health authorities around BC have and are continuing to re-define their operations to meet their budgets. As a result, the health authority's ability to contribute to tuition and free up health care providers' time to participate in the program may be constrained. Developing a program that minimizes the barriers to entry is essential. In addition, program delivery is limited by these same constraints because the faculty may be a part of the health authority working as health care providers. A focus must be maintained on minimizing the impacts of tuition fees and time for faculty working in the health system.

Potential for Inclusion of a Wider Audience. Regardless of the eventual design, a training program for quality improvement and patient safety leaders will require a significant investment of relationships and human and financial resources from both the BCPSQC and health service delivery partners. In the future, as a

Support is also critical for projects as the participant's sponsor may need... to navigate barriers within the organization.

longer-term objective, developing and/or investing in a program that has potential to give a wider range of healthcare professionals (i.e., senior leaders to front-line) the opportunity to develop patient safety and quality improvement skills will translate into a better return on investment for BC's capacity and expertise in patient safety and quality improvement – one of the BCPSQC's long-term goals.

Options for BC

Anecdotally, individuals working in quality improvement roles have been charged with the training of others and leading quality improvement initiatives but have not been supplied with the professional development to support them in these tasks. Health authority staff have performed admirably despite this lack of formal training by virtue of intuition, trial and error and ingenuity in accomplishing their roles. With the rapid evolution in this field, this lack of training is simply a matter of insufficient opportunities being available, not a lack of commitment from the health authorities to support this work.

Based on the needs identified by the survey of health authority quality and safety professionals, there appears to be a wide range of skill sets and knowledge required to support quality improvement. This includes a range of tools for both prospective quality improvement and retrospective methods to learn from adverse events, a list that is expected to grow as new ways of improving health care are discovered and adapted from other industries.

The options presented here are specifically directed to meet the needs of this subset of health care professionals; those responsible for leading quality improvement initiatives. Despite this, they are proposed with a view to the broader needs of the health care system for building capability for quality improvement and are meant to provide a foundation for education across the system.

Based on the diverse needs, it is proposed that a variety of educational opportunities will be required. The options presented below outline four potential avenues for BCPSQC to support the delivery of quality improvement education. Each of these options will address unique components of the identified needs and are meant to be complementary, providing training in a variety of formats and depths to ensure that professional development can meet the needs and the limitations of students. They also provide a framework that can be expanded upon and supplemented as knowledge in the field grows and evolves.

A variety of educational opportunities will be required to address unique components of the identified needs.

The first option is to offer a **comprehensive in-depth quality improvement education program**. As mentioned above, key components of such a program should include a broad curriculum focused on the full range of quality improvement and patient safety skills and include the completion of a project to help translate the knowledge into practice. The program should also support participants to be successful by ensuring employer support and monitoring learning progress.

To address this option, it is recommended that the Council assess the feasibility of introducing a modified version of the Intermountain Healthcare Advanced Training Program. This program gives participants the understanding and tools necessary

to conduct state-of-the-art clinical practice improvement projects, use quality improvement methods to manage and integrate non-clinical processes, implement quality improvement programs, and conduct internal quality improvement training.

A distinguishing feature of this program is the inclusion of clinical quality improvement training to complement the non-clinical or process quality improvement training and is also based around a project to reinforce the theoretical learning with practical application. This additional information

makes it a more robust training program and will have benefits when looking to address a broader audience. In addition, the Mini-Advanced Training Program also provides an abbreviated version of this program which would be useful for ensuring that the training meets the specific demands of individual students. Intermountain Healthcare, a recognized world leader, has indicated a willingness to work with the Council to explore delivery options in BC.

To supplement this intensive program, it is also proposed that the Council support **education opportunities provided by other organizations**. These include, but are not limited to, the offerings from Impact BC, Safer Healthcare Now!, and the Canadian Patient Safety Institute. The Council can play a valuable role in supporting participants to take part and spreading the awareness of these opportunities.

In addition, there are programs developed by health authorities that may be valuable to others. The Council can play key role in **facilitating the spread** of these programs to other audiences where there is a need. This same facilitated spread methodology can also be used across health sectors and takes advantage of the talented innovators who have already improved care in certain settings. An example of this type of initiative is the spread of the Global Trigger Tool that the Council has recently begun, working in

conjunction with the Vancouver Coastal Health Authority and Providence Health Care.

The needs assessment survey also identified some specific needs for basic knowledge and skills that would aid people in their roles. Examples include a lack of knowledge around the fundamentals of human factors and a variety of data display and statistical tools. While expertise in some of these areas may not be required or possible, there appears to be a gap in understanding that is not being addressed by other learning opportunities. To address this, it is proposed that the Council organize education sessions to support some of these discreet knowledge areas. It is anticipated that there is existing knowledge of many of these topics in the BC health care system already. To help share this knowledge, the Council can **host a series of short webinar sessions**. Any of these educational topics would be carefully selected to ensure that efforts are not being duplicated and can make use if the expertise that already exists.

Used in conjunction, it is hoped that offering these four streams of activity will help to build quality improvement and patient safety capability in BC's health authorities. It should be noted, however, that these options are not meant to replace existing professional development opportunities but rather to add to them. These options are also not meant to be a complete solution but a first step to developing quality improvement capacity in BC. As expertise grows in the targeted subset of quality and safety leaders, it is anticipated that educational opportunities will change and expand to meet a broader audience and the evolving knowledge of health care quality improvement.

Conclusion

This report focused on health authority quality and safety leaders; those responsible for leading and supporting improvement initiatives. It provides a snapshot of their skills, abilities and professional development needs and explores some of the ways these needs are being met in other jurisdictions. Based on these findings, some options are presented for the BCPSQC to consider to support the health authorities as they build capacity for patient safety and quality improvement.

Program Summaries

For each of the programs interviewed as part of this report, a one page overview was created. This information is meant to provide some additional details about the relevant programs but is not exhaustive. Please see the websites of the individual programs for more information.

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ADVANCED SPECIALTY CERTIFICATE IN HEALTH CARE QUALITY MANAGEMENT

British Columbia Institute of Technology

DESCRIPTION

The advanced certificate in health care quality management is an online part-time distance education program comprised of 8 courses. The stated goal is to “prepare managers and health care professionals to plan, develop and implement successful continuous quality improvement/management programs in their organizations and health care regions”.

CURRICULUM

The courses included in this program include:

- Information Systems in Health Care
- Performance Management and Measurement
- Integrating Quality, Risk and Utilization Management
- Integrative Project
- Project Management in Health Care
- Total Quality Management and Continuous Quality Improvement Tools
- Organizing Teams for Innovation
- Leading Technological Change

The Integrative Project course offers students an opportunity to select one of the available issues that would be relevant to their workplace and conduct a systematic review of the issues and present a fully justified recommendation for solving the problem.

DELIVERY FORMAT

Courses are delivered in an online distance learning format with each course completed in 3 months with approximately 45 hours of instruction for each course.

EVALUATION

Evaluation of students is similar to normal university level courses at the third and fourth year level. This includes assignments, essays, exams, etc. There is no formal method of evaluating the effectiveness of students in applying the lessons in practical situations.

CERTIFICATION

Graduates receive a certificate from BCIT. Participants also receive university credits for courses (valid at universities that recognize the courses).

NOTES

BCIT intends to re-evaluate course content in the near future to ensure it remains current. Several of the courses are components of other programs not exclusively focused on quality and safety in health care.

ESTABLISHED

2000

FUNDING MODEL

Courses are funded through student fees. Each course costs approximately \$730 with the entire program costing approximately \$6,000.

TARGET AUDIENCE

All health care workers. Many participants have previously taken technical training at BCIT. All students must have a health care degree/diploma or be employed in health care for at least 2 years.

KEY FINDINGS

The BCIT advanced certificate program offers extensive training using university level courses following a distance education model.

WEBSITE

www.bcit.ca/study/programs/7670ascert

ADVANCED TRAINING PROGRAM

Intermountain Healthcare

DESCRIPTION

The Advanced Training Program (ATP) gives participants the understanding and tools necessary to conduct state-of-the-art clinical practice improvement projects, use quality improvement methods to manage and integrate non-clinical processes, implement quality improvement programs, and conduct internal quality improvement training. The Mini-ATP is a scaled down version designed specifically for clinical leaders.

CURRICULUM

The curriculum covers a range of quality improvement theory including:

- Guideline/protocol development and implementation
- Outcome measurement
- Health services research methods
- Health policy and economics
- Cost-based accounting
- Medical informatics
- Severity of illness measurement and application
- Total Quality Management/Continuous Quality Improvement
- Teams and teamwork

As part of the course, each ATP participant must select, complete, and report an improvement project under the guidance of faculty.

DELIVERY FORMAT

Participants attend 20 days (ATP) or 9 days (miniATP) of classroom instruction spread over 4 sessions approximately a month apart. Each student also completes a quality improvement project in their workplace with support between sessions from faculty members.

EVALUATION

Course evaluations are filled out by students and quality improvement project presentations are evaluated to determine the degree to which QI methodology has been applied. In addition, a network of past students allows the qualitative evaluation of ongoing quality improvement efforts.

CERTIFICATION

Continuing medical education credits are offered (US).

NOTES

The group at Intermountain has tracked the financial benefits of the quality improvement work that ATP has helped support. The significant savings as a result of system improvements have helped provide the business case for quality improvement training. The ATP has trained 2500 individuals and the course has now been successfully spread to over 30 organizations and is increasingly being recognized as a world leader in teaching quality improvement.

ESTABLISHED

Mid 1980's. Has been offered to external participants since the '90s.

FUNDING MODEL

Funded through course fees on a cost recovery basis. ATP: \$7,500 to \$8,500 MiniATP: \$3,500 to \$4,500 plus the cost of travel and accommodation.

TARGET AUDIENCE

ATP: targeted to senior leaders and clinical managers. MiniATP: targeted specifically to clinicians. Despite the target audience, all staff are encouraged to take the ATP.

KEY FINDINGS

The ATP curriculum takes a fairly unique approach by applying quality improvement methodology not only to non-clinical and clinical processes but also to clinical decision making.

WEBSITE

www.intermountainhealthcare.org/about/quality/institute/courses/Pages/home.aspx

CERTIFICATE IN PATIENT SAFETY

University of Toronto

DESCRIPTION

The University of Toronto course provides a series of seminars that mix the didactic teaching of a traditional academic course with presentations of current quality improvement projects and small group activities. Initially, the course required participation in a quality improvement project but has gradually moved away from this requirement and instead offers the opportunity to present and learn from projects.

CURRICULUM

The curriculum covers a range of patient safety topics. Some of the learning objectives of the course include:

- Core definitions and epidemiology in patient safety
- Approaches to measuring healthcare quality and performance
- Basic quality improvement and knowledge translation
- Methods for assessing quality/safety problems
- Unique methods in Patient Safety such as:
 - Human factors engineering
 - Root cause analysis
 - FMEA
- Evaluating Interventions (experimental & quasi-experimental designs)
- Qualitative methods in Safety/Quality
- Topics of special interest to Safety/Quality, such as communication, transitions in care, and teamwork
- Health Informatics
- Making Change Happen
- Research ethics in patient safety and quality improvement
- Getting Out There: Presentations and Publications

DELIVERY FORMAT

The course is offered over a period of approximately 8 months and consists of 14, 4 hour classroom sessions. Time is split between didactic lecture and small group discussions and presentations of existing quality improvement projects.

EVALUATION

Evaluation is limited to a needs assessment prior to the course to help tailor the material to specific identified needs. Informally, course organizers have also noted a number of grants and publications that have arisen from the course.

CERTIFICATION

Students that meet some formal requirements that can include independent study, project participation and presentations, receive a certificate from the University of Toronto, Faculty of Medicine.

NOTES

This program provides physicians with a respected source of quality improvement education. This is in direct contrast with most courses where physicians are often identified as the least likely to attend.

ESTABLISHED

2006

FUNDING MODEL

Funding is provided through student fees with some limited in kind support from a variety of organizations such as hospitals and the University of Toronto. The course costs \$2000 per participant.

TARGET AUDIENCE

Initial participants were primarily physicians involved in the academic setting. Many participants still have some sort of academic affiliation although the audience has expanded to include more primary care and community hospital physicians as opposed to those from academic hospitals. Have also been slowly getting students from other health professions with 10 – 15% of participants non-physicians.

KEY FINDINGS

This course has successfully demonstrated a model of engaging physicians in patient safety and improvement projects. Course content and delivery has been specifically designed with the target audience in mind.

WEBSITE

www.deptmedicine.utoronto.ca/Faculty/patient_safety.htm

CONTINUOUS QUALITY IMPROVEMENT PROGRAM

Canadian Healthcare Association

DESCRIPTION

The Continuous Quality Improvement (CQI) for Healthcare Professionals program is designed for managers and staff in health services who wish to expand their knowledge of continuous quality improvement tools and techniques and to integrate them with their regular programs and operations.

CURRICULUM

The curriculum consists of seven structured study units, each with a corresponding assignment. These units are:

- CQI – the basics
- CQI as a management strategy: CQI and strategic planning
- CQI as an approach to operational planning and management
- Teamwork
- CQI tools and approaches
- Measurement in CQI : A close look at indicators
- CQI and evaluation

Students also complete a paper detailing the implementation of a best practice to address an issue in their place of work and attend a five day intramural session in Ottawa.

DELIVERY FORMAT

The course is primarily delivered using a traditional distance learning model. Students are responsible for completing assigned readings and written assignments. At the conclusion of the course, students attend a five day intramural session in Ottawa with a final examination on the last day. The program is self-paced but is typically completed in one year.

EVALUATION

Feedback on the delivery of the course is sought from students. Students are also formally evaluated using assignments, a written paper and a final examination. Certificates are dependent on satisfactory completion of these evaluations.

CERTIFICATION

Certificate from the Canadian Healthcare Association, course credit is also formally recognized by the Ontario Long Term Care Association, the Canadian Society for Medical Laboratory Science and the Canadian Association of Medical Radiation Technologists.

NOTES

The CHA is looking to expand the target audience of the course to encompass more front-line staff rather than those who have had primarily administrative roles.

ESTABLISHED

1994

FUNDING MODEL

Self funding. Course costs \$1,675 plus \$300 for books and travel/ accommodation for the five-day session in Toronto.

TARGET AUDIENCE

Generally manager/director level professionals who are working in quality improvement. Many are new hires or those who aspire to work in those positions. Have had 230 graduates, 10 to 20 per year.

KEY FINDINGS

The Continuous Quality Improvement Program follows a traditional distance education model and has a fairly robust student evaluation framework. The course includes a “best practice” paper where students are expected to draw from the course lessons.

WEBSITE

www.learning.cha.ca/educ/management/cont_quality_improvement_for_hs.aspx

IMPROVEMENT ADVISOR PROFESSIONAL DEVELOPMENT PROGRAM

Institute for Healthcare Improvement

DESCRIPTION

The Improvement Advisor program provides students with an in-depth curriculum with the objective of developing the skills to lead quality improvement projects. Program participants are required to be responsible for one or more improvement projects that are connected to their organization's business plan. These projects provide a real-time application of content, an opportunity to cement the participant's learning and are the focus of the workshops and support activities.

CURRICULUM

The curriculum is built around the theoretical framework of W. E. Deming's System of Profound Knowledge and the Model for Improvement as a roadmap for completing improvement initiatives. Specific topic areas include:

- The Science of Improvement
- Model for Improvement
- Scoping Improvement Efforts
- Understanding Systems and Processes
- Using Data for Improvement
- Understanding Relationships
- Gathering Information
- Organizing Information
- Developing Powerful Ideas for Change
- Testing Changes
- Implementing Changes
- Decision Making
- Working with Individuals
- Planned Experimentation

DELIVERY FORMAT

The course is delivered primarily through a series of 4-day workshops (3 in total) and monthly calls. The program is 9 months in length and participants must complete a quality improvement project as part of the course.

EVALUATION

A self-rated evaluation of 72 skills is completed before the course and re-assessed afterwards. This is complemented with a six month follow-up that asks a number of questions about the progress seen

and ongoing efforts to implement what they have learned in addition to many anecdotal stories of the benefits.

CERTIFICATION

The program is certified for continuing education credits in the U.S.

NOTES

The Improvement Advisor program has served as a guide for a variety of other programs including the Saskatchewan Health Quality Council's Quality Improvement Consultant program.

ESTABLISHED

2004

FUNDING MODEL

The course is fee based. While some organizations receive discounts due to prior association with IHI, the course typically costs \$16,000(USD) plus travel and accommodation to the workshops.

TARGET AUDIENCE

Program is targeted to individuals who currently have responsibility for leading quality improvement initiatives in their organization and are looked to as a source of expertise. 342 individuals have now completed the course.

KEY FINDINGS

The IHI identified the ability to walk away from the program with the skills to accomplish their work goals of successful improvement projects as the biggest benefit of the program. Learning is geared towards adult learners and is focused on the real life logistical steps of putting these things into action.

WEBSITE

www.ihi.org/IHI/Programs/ProfessionalDevelopment/ImprovementAdvisorProgramSeptember2009.htm?TabId=0

INSTITUTE FOR HEALTHCARE COMMUNICATION COURSE CATALOGUE

Institute for Healthcare Communication – Canada

DESCRIPTION

The Institute for Healthcare Communication offers a variety of programs aimed at developing communication skills for health care providers in order to optimize the healthcare experience and the quality of patient care through effective communication.

Of specific interest, the Disclosing Unanticipated Medical Outcomes course provides an understanding of organizational, ethical, and risk management aspects of disclosure along with practicing communication skills related to disclosure to patients and families.

CURRICULUM

Course curricula are focused on communication skills for health care providers.

The disclosure course aims to provide the background and rationale for greater openness with patients and families when there has been disappointment with care.

Clinicians, patients and families are able to acknowledge, forgive, and move on, with less emotional distress when the process of working through adverse outcomes is handled sensitively, ethically and equitably.

DELIVERY FORMAT

Courses are delivered in a classroom setting and make use of a mix of didactic teaching and practical application of skills.

Teaching includes train-the-trainer formats, workshops and grand rounds-style teaching methods.

EVALUATION

Courses are evaluated using participant surveys to assess the delivery of course content.

CERTIFICATION

All courses are currently accredited by the College of Family Physicians of Canada.

NOTES

The Institute for Healthcare Communication – Canada has established a home base within the College of Family Physicians of Canada.

Courses are offered in both a continuing education version and a faculty development version. The faculty development version is meant to prepare participants to deliver the continuing education version.

New courses are currently being developed centered around teamwork communication and communicating with underserved populations.

ESTABLISHED

1987

FUNDING MODEL

Courses are offered on a fee recovery basis. Program costs depend on delivery options and course selection.

TARGET AUDIENCE

Courses are specifically targeted to any clinician working with patients in a healthcare setting. There are also courses available that are applicable to front-line staff, not directly responsible for patient care.

KEY FINDINGS

The Institute for Healthcare Communication-Canada has a variety of courses that support improved communication in health care settings. Communication is widely recognized as a significant contributor to high quality health care.

WEBSITE

www.ihcc.ca

IHI OPEN SCHOOL

Institute for Healthcare Improvement

DESCRIPTION

A series of free online courses offered in quality improvement, patient safety and leadership. The courses are meant to supplement individuals' formal health care education due to a lack of these topics in current undergraduate curriculum.

CURRICULUM

The courses currently offered are in the areas of:

- Patient Safety – 4 courses
- Quality Improvement – 6 courses
- Leadership – 1 course

These are expected to be supplemented in mid-2010 with additional courses in patient safety (3), patient and family centered care (1) and operations management (1). Other courses are in development and will be completed in the near future.

DELIVERY FORMAT

The online courses are offered on-demand and are broken down into smaller lessons to make it easy to complete. Most lessons are approximately 15-30 minutes, with a varying number of lessons per course (generally 3 to 5).

EVALUATION

Knowledge is assessed at the end of each lesson through a series of multiple choice questions. Seventy-five percent must be answered correctly before the participant completes the lesson.

CERTIFICATION

The IHI Open School currently offers a certificate of completion. In Spring 2010, IHI will also offer continuing education credits in medicine, nursing, and pharmacy.

NOTES

The Open School was created in response to the slow uptake of quality and safety into undergraduate medical curricula. The vision of Dr. Donald Berwick, president of IHI, was to create a critical mass of students coming out of school who are engaged in quality improvement and patient safety to act as change agents once they reach the workforce.

The Open School has also created a series of "chapters" at educational institutions across the world. The chapters provide a chance for engaged students to meet and share their common interest in quality and safety. The chapters support the work of the courses by providing a forum for discussion and support.

ESTABLISHED

2008

FUNDING MODEL

Currently, the IHI Open School is offered free of charge to all participants through funding from a number of charitable organizations. The courses will always be free for students, faculty, and residents. However, in Spring 2010, the courses will be available on a subscription-only basis to other types of users and organizations.

TARGET AUDIENCE

Initially targeted primarily to undergraduate students, the IHI has found that half of all users are health care professionals. The courses have been completed more than 23,000 times.

KEY FINDINGS

The Open School provides an excellent overview of quality and safety in healthcare and succeeds in doing so in a very engaging manner. The on-demand, self-paced learning format is an ideal adjunct to more formal educational opportunities.

WEBSITE

www.ihl.org/IHI/Programs/IHIOpenSchool/IHIOpenSchoolforHealthProfessions.htm?TabId=0

PATIENT SAFETY COURSE

Ontario Hospital Association

DESCRIPTION

The aim of this course is to provide both theoretical knowledge regarding patient safety as well as tools, best practices, and examples of applications of both in a variety of health care settings. Patient safety principles and evidence-based patient safety practices and tools are presented to assist health care providers and organizations in developing customized patient safety plans and programs.

CURRICULUM

Curriculum content is exclusively focused on safety and some small aspects of risk management. While many of the tools and topics covered are the same as those in most quality improvement focused courses, the specific application to safety is examined. The course is practical in nature and predominantly covers the application of tools and models rather than the theoretical background commonly covered in other courses.

The learning objectives of the course are:

- to provide evidence-based patient safety tools, processes and practices;
- to develop strategies for increasing the impact and effectiveness of patient safety activities;
- to identify issues/trends in patient safety in health care;
- to understand the role of the Patient Safety Officer or person accountable/responsible for patient safety; and
- to be able to develop a patient safety plan/program for your organization.

DELIVERY FORMAT

Students attend a three day classroom session where the material is covered. On the last day, participants are given an assignment with respect to patient safety in their organization, for example, the development/review of the organization's patient safety plan.

EVALUATION

Formal evaluations are limited to participant feedback and the completion of an assignment which is assessed for the application of the course material.

CERTIFICATION

A certificate from the Ontario Health Association (OHA) is given to all participants. This course can also be used for credit towards a diploma in health care management from the OHA.

NOTES

Given the current economic situation, the OHA is exploring the possibility of offering the patient safety course through distance education or the role that virtual sessions and videoconferencing could play in course delivery.

ESTABLISHED

2003

FUNDING MODEL

Student fees are charged. Cost is \$700 per participant plus accommodation or the OHA will deliver the course at alternate locations for \$11,000 plus instructor travel costs.

TARGET AUDIENCE

The program was initially designed with the acute care sector in mind but has increasingly seen more long-term care and home care staff taking the course. Most participants are in management roles and typically have formal responsibility for patient safety.

KEY FINDINGS

The OHA course provides a practical approach to patient safety by illustrating the use of a range of tools, techniques and practices.

WEBSITE

www.oha.com/Education/Pages/CalendarofEventDetails.aspx?eventid=CP701

PATIENT SAFETY OFFICER COURSE

Canadian Patient Safety Institute

DESCRIPTION

The Patient Safety Officer Course is a five day program aimed at providing individuals responsible for safety in their organizations the skills required to develop and implement a comprehensive patient safety strategy.

CURRICULUM

The curriculum teaches participants key aspects of:

- Components and functions of a patient safety management system
- Development of a patient safety program (tools and techniques)
- Recognition of system-induced adverse events and near misses
- Human factors
- High risk clinical processes
- Development of influencing strategies to enhance the patient safety culture
- Communication and teamwork
- Organizational culture
- Special and emerging topics in patient safety

The curriculum is primarily designed to enable participants to create and enact a patient safety framework for their organization.

DELIVERY FORMAT

Five day classroom session which includes interactive workshops, case studies, team building activities, networking, media skill training, and coaching by patient safety leaders.

EVALUATION

Course evaluations consist of daily assessments of speakers and topics, and assessments of overall course teachings. Currently there is no assessment of the ability of students to translate teachings into practice improvements.

CERTIFICATION

The course is accredited by the Canadian Council of Health Services Executives and the Royal College for continuing education credits.

NOTES

In partnership with Northwestern University (Chicago), the Canadian Patient Safety Institute will offer an additional patient safety focused educational opportunity. This program is expected in April 2010 and is based on a 'train-the-trainer' model aimed at front-line patient safety/quality improvement staff.

ESTABLISHED

2006

FUNDING MODEL

Course is funded through student fees; \$6,300 per participant plus travel and accommodation. Approximately 100 individuals have completed the course.

TARGET AUDIENCE

The program is aimed at individuals who have a direct responsibility for patient safety. Students often have titles such as "patient safety officer" and tend to be in leadership roles.

KEY FINDINGS

The Canadian Patient Safety Institute course provides an ideal foundation for developing a comprehensive patient safety framework for an organization. The course is framed around the CPSI patient safety competencies and aims to provide senior leaders with the tools to develop patient safety programs.

WEBSITE

www.patientsafetyinstitute.ca/English/education/psoc/Pages/default.aspx

QUALITY IMPROVEMENT CONSULTANT PROGRAM

Saskatchewan Health Quality Council

DESCRIPTION

The Quality Improvement Consultant Program (QIC Program) provides an intensive year-long course to develop both the theoretical knowledge of quality improvement methodology and the skills to apply the lessons taught in a real world setting. The aim is to ultimately produce students who have the skills to nurture, coach and mentor quality improvement projects.

CURRICULUM

The curriculum is based largely on the successful IHI Improvement Advisor course. The content aims to allow participants to:

- Identify and define a quality improvement problem
- Facilitate and support a health care team toward achievement of a quality improvement aim
- Complete and implement/work with a project charter
- Compare and contrast improvement sciences theories, methodologies and tools
- Understand how to approach spread and sustainability

DELIVERY FORMAT

The course is primarily delivered through a series of three day classroom sessions (four in total spread over nine months). This classroom learning is supplemented by periodic webinars. Students are also expected to spend a significant amount of additional time on course work (estimated at 0.25-0.3 FTE)

EVALUATION

The evaluation process for this course is currently being re-examined. Initially, participants were asked to evaluate the progress of their quality improvement projects on a monthly basis.

CERTIFICATION

Course participants currently receive a certificate from the Health Quality Council (HQC). HQC is currently exploring continuing medical education credits.

NOTES

The QIC Program is based largely on the IHI's Improvement Advisor course but has more recently looked to incorporate aspects of the Intermountain Healthcare ATP course.

The course is seen as a key part of the Accelerating Excellence strategic direction for building capacity for quality improvement in Saskatchewan's health care system.

ESTABLISHED

2008

FUNDING MODEL

Course is funded through student fees for out-of-province participants. The cost is \$15,000 plus travel and accommodation per student.

TARGET AUDIENCE

The course is directed to anyone working in the health care system that has a direct role in quality improvement. Twelve individuals have completed the course to date.

KEY FINDINGS

The QIC Program offers a robust quality improvement education that couples classroom learning with the practical application of knowledge through a mentored quality improvement project.

Organizers identified a couple of key changes they will be making to the next offering of the program including the need to more closely monitor students' progress and shifting the selection of projects until after the first didactic teaching session to ensure appropriate project selection.

WEBSITE

www.hqc.sk.ca

QUALITY IMPROVEMENT SKILLS PROGRAMME

Improvement Foundation – UK

DESCRIPTION

The Quality Improvement Skills Programme is a short, practical course to help small groups learn how to apply quality improvement to their organizations. The target audience includes front-line staff involved in quality improvement projects.

CURRICULUM

Participants explore and learn practical applications of:

- The psychology of change
- The improvement model
- Measurement for improvement
- Lean
- Statistical Process Control
- Six Sigma
- Analyzing information and data
- Process mapping
- Spreading and sustaining change
- Root Cause Analysis (RCA) and other quality improvement methods
- Building effective teams
- Applying improvement skills focused on specific priorities
- Utilizing a range of quality improvement skills and tools to use, sustain and embed improvement
- Engaging colleagues to work together to improve services
- Engaging and working with patients to improve services
- Being more empowered to respond to and implement change more effectively

DELIVERY FORMAT

The course is delivered through 3 one day class room sessions. The course is generally offered to entire teams together rather than individual members who are then responsible for bringing the lessons back to the work setting.

EVALUATION

It is unknown how the course is evaluated.

CERTIFICATION

Participants are given a certificate from the University of Teeside in the United Kingdom.

NOTES

The course is designed to be focused around a specific quality improvement project in the contracting organization. The Improvement Foundation targets this course to all public sector organizations.

ESTABLISHED

Unknown

FUNDING MODEL

The course costs \$18,000 for delivery in the UK to 20 participants. Costs in Canada would likely need to be negotiated.

TARGET AUDIENCE

The course is targeted to front line health care workers not working in quality improvement specific roles. Over 1,000 students have participated.

KEY FINDINGS

The Improvement Foundation offers a basic course aimed at the front line health care employee aimed at supporting them to take part in quality improvement initiatives.

Their delivery format is based on the work environment and a key benefit is the direct applicability of the teachings to the correct setting.

WEBSITE

www.improvementfoundation.org/theme/qualityimprovement-training/quality-improvement-skills-programme

BC Patient Safety & Quality Council

650 West 41st Avenue

Suite 610, North Tower

Vancouver, BC V5Z 2M9

T: 604.668.8210 • F: 604.668.8220

Toll-Free: 877.282.1919

info@bcpsqc.ca

www.bcpsqc.ca