



SUMMER STUDENT INTERNSHIP PROGRAM

2018 Evaluation



**BC PATIENT SAFETY
& QUALITY COUNCIL**
Working Together. Accelerating Improvement.

Executive Summary

Over its seven years, the BC Patient Safety & Quality Council's Summer Student Internship Program has supported 66 students to join multidisciplinary improvement teams within the provincial health system. The goals of the program are to expand the students' knowledge of quality, provide valuable work experience and support the improvement of health care.

In 2018, we received 72 project proposals (a 22% increase from 2017), which likely reflects increased program promotion. 178 students (a 27% increase) applied for 10 internships, representing diversity in geographic region, areas of care and dimensions of quality.

All students who applied for the internships were invited to attend a student education day in Vancouver that introduced the fundamentals for improving care. Of the 23 students who attended, 90% agreed they could apply what they learned to future work. Highlights included the highly interactive structure of the day, applied learning activities and the opportunity to network with students and Council staff.

Interns were funded for up to 225 hours of work during the internship. After the internships finished, 90% of project leads and 80% of interns participated in a follow-up survey and many provided qualitative feedback.

All project leads felt the administrative processes were clear and efficient, and that the interns helped to advance the work of the project team. 90% of

the project leads felt the internship project was achievable and completed within the summer term, and that the Council provided adequate support during the internship. 100% of project leads would recommend the program to others and hire their intern into an appropriate position within their organization.

All intern respondents agreed the internship was a valuable and meaningful learning experience, that their project was achievable and completed within the allocated time, and that they would recommend the program. 100% of respondents indicated they developed knowledge and skills that helped them make changes within a complex system, 90% felt their role was clearly defined, and 90% felt well-supported by the project lead and the Council.

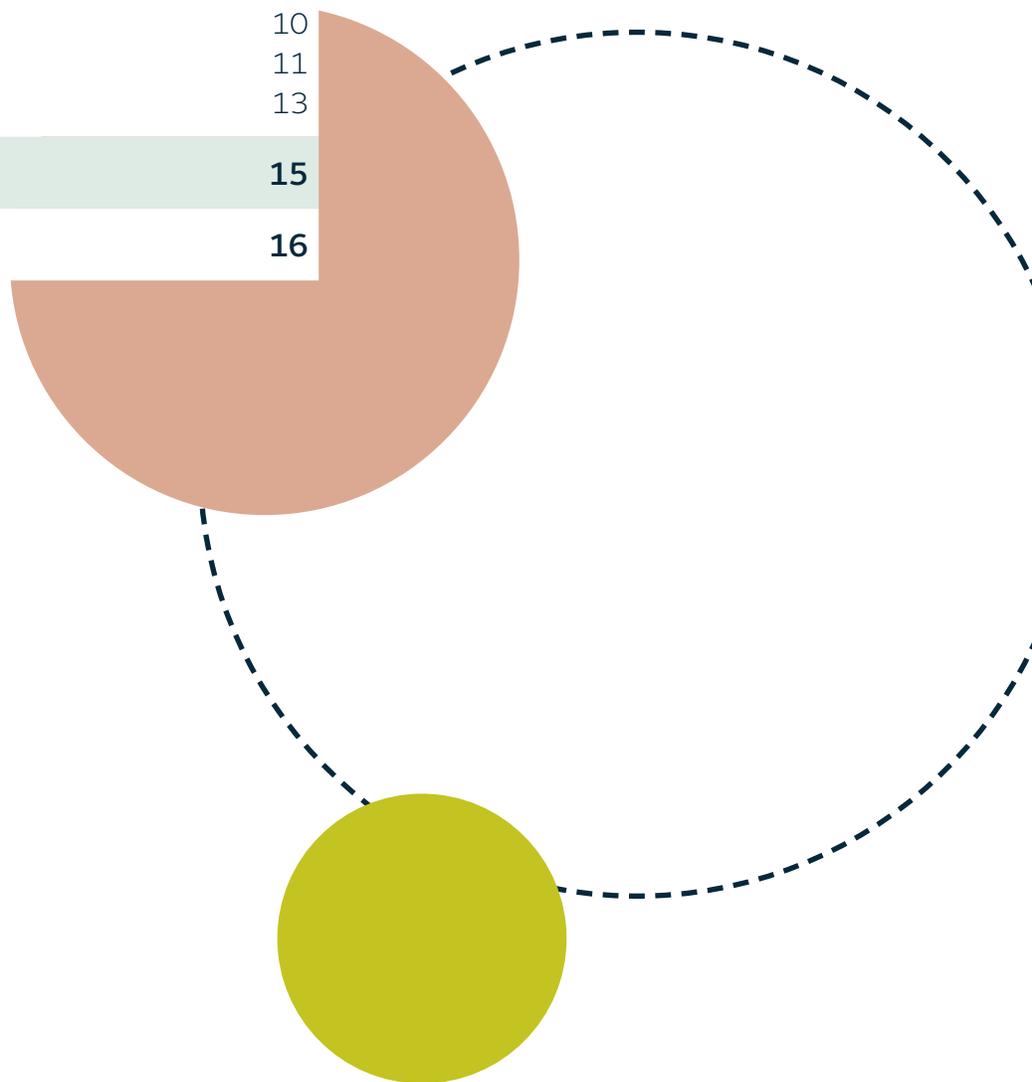
Opportunities for improvement include providing more clarity on what interns can expect during the work experience, and allowing more time to select project proposals and applications. Additional opportunities for peer-to-peer student learning will also enhance the program.

Additional funding was supplied to support interns to disseminate the results of their projects. Six interns submitted abstracts to the 2019 Quality Forum, several created multi-media tools or presentations, and one is working on a publication.

Overall the 2018 Summer Student Internship Program successfully met intended goals and we anticipate continued increase in popularity over future iterations.

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Program Objectives and Structure

The BC Patient Safety & Quality Council started its internship program in 2012 to support health care organizations to hire a fully-funded student who could advance projects aimed at improving the health care system. To date, 66 student interns have received summer employment embedded within multidisciplinary improvement teams in a variety of organizations throughout the province. Project topics vary year to year, align with local, provincial, regional or local health priorities, span all areas of care, and focus on making improvement within multiple dimensions of quality.

The goals of the internship program are to:

1. Expand student knowledge of quality while providing practical experience as part of an interdisciplinary team working on a specific quality improvement project; and
2. Provide organizations throughout the province with a short-term, fully-funded resource to advance their quality improvement projects.

Each spring, the Council calls for project proposals that have a clearly defined role for the intern and offer a meaningful learning opportunity about the process of improving care. Project teams must have a designated supervisor and are responsible for providing the intern with space, supplies and any other resources necessary to complete the project. Project proposals are then evaluated based on selected weighted criteria (Table 1).

Table 1: Criteria Used to Evaluate 2018 Project Proposals

Criteria	% Weight	Description
Patient Impact	15	Preference will be given to projects that will have a tangible impact on patient care and outcomes
Team Composition	10	Preference will be given to proposals that involve the intern as part of a larger multidisciplinary team
Scope of the Role & Project	45	The extent to which the scope of the intern's role in the project is clearly defined and achievable within the timeframe
Educational Benefit	20	The extent to which the project would provide a meaningful learning opportunity about the process of improving health care quality
Topic	10	Priority will be given to project topics that align with health system priorities

Ten project proposals are selected by an internal committee, and job postings for each are advertised on the Council website and within academic institutions. Medical, nursing and allied health students, both graduate and post-graduate, are eligible to apply. Student applications are reviewed by a Council staff member and a member of the project team, with the final hiring decision made jointly.

Interns are hired by the Council as casual employees and funded for up to 225 hours of work between June and August. In addition, interns are paid to attend an education day in June, hosted by the Council, in which they learn the foundational skills necessary to be part of a quality improvement team. Students report directly to a supervisor on the project team and are supported through bi-weekly calls with a Council staff member. Funding is also provided to support the dissemination of project results so that students can share their work at conferences or through publication opportunities.

Program Timeline

Based on feedback received from students and project leads who participated in the 2017 program, the timeline for the 2018 program was adjusted to lengthen the respective periods for promotion of the program, submission of project proposals and the application process (Figure 1).

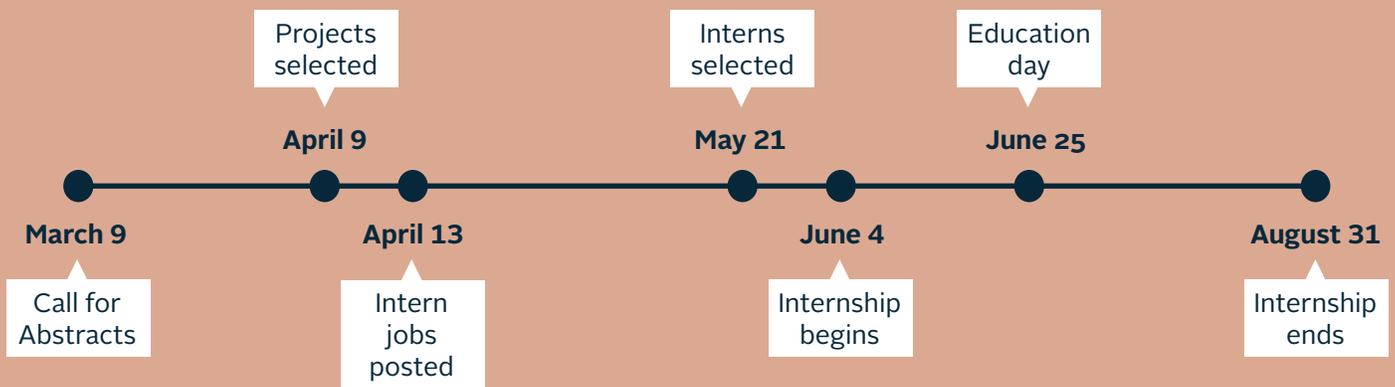


Figure 1: Timeline for 2018 Program

Project Categories

72 project proposals were received (an increase of 22% from last year). 10 projects were selected, representing each health authority and one Division of Family Practice (Table 2). Projects were geographically dispersed across the province and represented a variety of dimensions of quality across several areas of care (Figure 2).

178 students applied for the 10 intern positions (a 27% increase) (Figure 3). Many of the students applied for more than one position. 83% of applicants were in undergraduate programs, with Bachelor of Arts, Bachelor of Science and Bachelor of Science in Nursing programs being the most common. Students from diploma programs, medical schools, and post-graduate programs were also represented (Figure 4).

Applicants from UBC's Vancouver campus made up the largest number of applicants, at 35%. An additional 28% of students were from SFU, 11% came from BCIT, 19% came from other colleges and universities within BC, and a smaller minority came from outside BC (Figure 5).

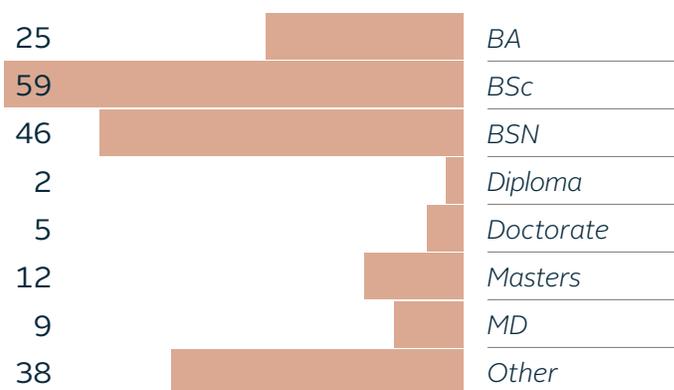


Figure 4: Internship Applicants by Program

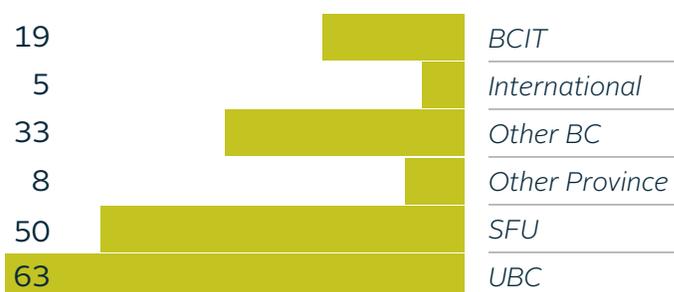


Figure 5: Internship Applicants by Post-Secondary Institution

Table 2: 2018 Projects

Project Title	Organization	Location
Exploring the Challenges of Cognitive Screening in Our Frail Elderly Population on Admission to Hospital	Island Health	Cowichan District Hospital
Improving Access to Care by Understanding Emergency Department Workflow	Fraser Health	Fraser Valley
Identifying the Impact of Diagnostic Testing in Residential Care Patients on Hospital Emergency Departments	Fraser Health	New Westminster or Surrey
The Prehab Project: Use of Online Resources to Establish a Culture of Prehabilitation at Penticton Regional Hospital	Interior Health	Penticton
Improving the Way Prince George Provides Perinatal Care	Northern Health	Prince George
Overdose Reduction by Building Trust Amongst Family Doctors	Fraser Health and Surrey & North Delta Division of Family Practice	Surrey and North Delta
Increasing the Efficiency of the Admission Process to Holy Family Hospital for Stroke Rehabilitation	Providence Health Care	Vancouver
Support Staff Wellness and Positively Impact Patient Care through a Comfort Dog	Vancouver Coastal Health	Vancouver
Identifying Opportunities for Accreditation to Reflect Indigenous Philosophies & Cultural & Traditional Approaches to Wellness	First Nations Health Authority	West Vancouver
Improving the Process for Patient Appointment Reminders in Forensic Regional Clinics	Provincial Health Services Authority	Victoria

AREAS OF CARE	DIMENSIONS OF QUALITY				
	ACCEPTABILITY	APPROPRIATENESS	ACCESSIBILITY	SAFETY	EFFECTIVENESS
	Care that is respectful to patient and family needs, preferences, and values	Care provided is evidence based and specific to individual clinical needs	Ease with which health services are reached	Avoiding harm resulting from care	Care that is known to achieve intended outcomes
STAYING HEALTHY Preventing injuries, illness, and disabilities	✗	✗		✗	
GETTING BETTER Care for acute illness or injury		✗	✗		
LIVING WITH ILLNESS OR DISABILITY Care and support for chronic illness and/or disability	✗	✗ ✗	✗		
COPING WITH END OF LIFE Planning, care and support for life-limiting illness and bereavement					
✗ EQUITY Distribution of health care and its benefits fairly according to population need EFFICIENCY Optimal use of resources to yield maximum benefits and results					

Figure 2: 2018 Student Internship Projects by Dimension of Quality and Area of Care

72 Project Proposals

178 Student Applications

Students were shortlisted by the project leads and interviews were conducted by a Council staff member in partnership with the project lead. All applicants were invited to attend the student education day and provided with information on joining or starting an IHI Open School Chapter at their campus. In addition, student applicants received information about reduced registration rates at the Quality Forum, student contests, future careers in quality and how to stay in touch with the Council through social media or newsletter connections.



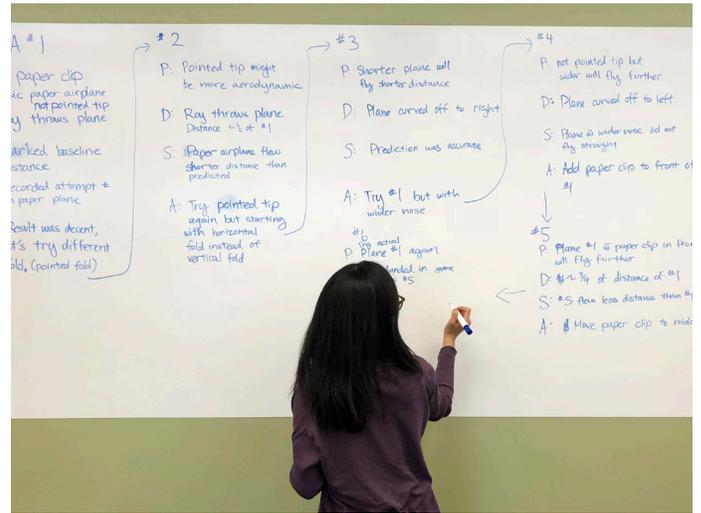
Figure 3: Number of Internship Project Proposals Received by Year

2018 Student Education Day

23 students, including all 10 interns, attended the student education day held at the Council's office location in downtown Vancouver. Travel expenses were covered for the interns and registration was free.

The student education day aimed to provide students an opportunity to explore the meaning of quality and enhance capability for making improvements within a complex system. Building on foundational knowledge, students enjoyed content on the fundamentals of change and a framework for improvement, as well as lessons on how to apply it in a real-world setting.

Students had a chance to practice testing change ideas within a short period of time as they took part in a fun applied learning exercise where they created multiple iterations of paper airplanes to apply the concepts of a 'Plan-Do-Study-Act' cycle. Many of the students identified this key concept as the most valuable thing they learned during the education day.

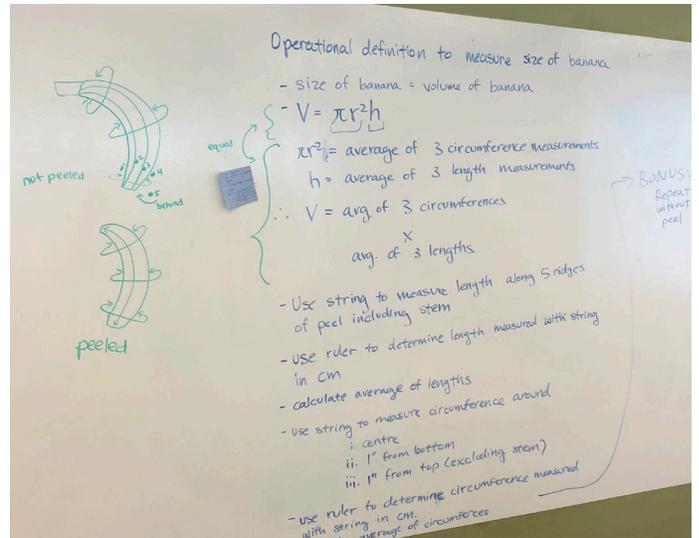


"The talk on data collection was really interesting and relevant to my project."

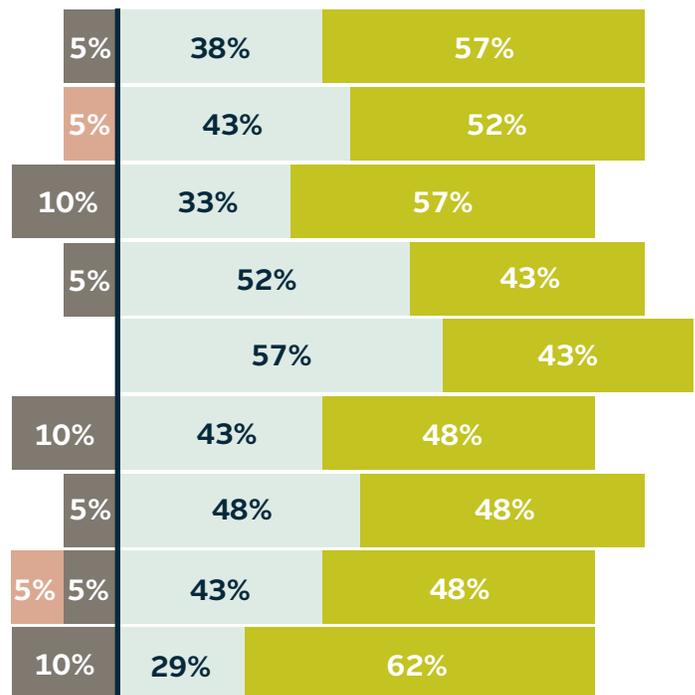
Student Education Day participant



Students learned about setting an aim and the importance of collecting data over time for improvement purposes. They explored strategies to collect, display and analyze data in a health improvement context and, during one exercise, students worked in small groups to develop an operational definition for the measurement of a banana. The exercise drew parallels to the importance of using clear and consistent definitions in health system measurement. The results clearly showed they had some impressive mathematical abilities!



- Met the objective: Defining quality and understanding quality improvement within a complex system
- Met the objective: Understanding the model for improvement and its application to an improvement project
- Met the objective: Identifying measures and the collection/display of data over time for improvement work
- Met the objective: Generating creative ideas and the spread/sustainment of change
- I learned something new today
- The education day was interactive and engaging
- The information was clearly delivered
- The handouts and additional materials were relevant and useful
- I can apply what I learned today in my future work within the health system



Disagree Neutral Agree Strongly Agree



During the education day, students also had an opportunity to tour the office space at the Council during which they learned about the organization's current work. Students had an opportunity to view the open offices, training areas and creative informal gathering spaces within the downtown Vancouver office.



Overall, 90% of the students agreed or strongly agreed they could apply what they learned during the education day in their future work within the health system. When asked what they enjoyed most during the session, students reported the highly interactive nature of the education, the applied learning activities and the opportunity to network with other students. One student noted, “Learning about others’ projects and past projects as examples of concepts put into practice – [it] contextualized and grounded the theory”.

During the evaluation and in follow-up conversations, several students mentioned the event was very useful and timely for those beginning work on their internship projects. Students also provided valuable feedback about what could have made the day better, including more examples of quality improvement projects and additional interactive exercises. One student reported it would be useful to have a baseline test of knowledge before and after the education day to help them measure their own progression in learning.

Students also said they they were interested in a career in quality and would like to hear Council staff elaborate on how they gained the education and experience required for their role.

Evaluation Results

After the internships finished, an online evaluation survey was sent to the project leads and interns. 90% of the project leads and 80% of interns completed the survey, and qualitative comments were also collected.

Project Lead Results

100% of project lead respondents agreed that the processes to submit project proposals, select and hire students were clear and efficient. 100% agreed that having an intern helped to advance their quality improvement project and felt the intern work was an asset to the project team. 90% of project leads felt the project (or portion thereof) was achievable, the Council's support was appropriate, and the intern received adequate training in quality improvement knowledge and skills.

Results from the nine project lead respondents are included below:

The process to submit project proposals was clear and efficient

The student hiring and selection process was clear and efficient

Having a student intern helped to advance our quality improvement project

The student's work was an asset to the project team

The project (or portion of) that the student was assigned to work on was achievable and completed within the summer term

The level of support BCPSQC provided for the project lead was appropriate

The student intern received adequate training in QI knowledge and skills for this project



100% of project lead respondents would recommend the internship program to other project teams and felt their intern would be a good fit for hiring into an appropriate position within their organization. One leader observed it was an "excellent opportunity for our health authority and for the intern. They will have an easier time finding a job after they graduate due to the connections they have made."

When asked what they would recommend, one project lead suggested we look at ways to compensate interns for expenses occurred during employment. Another suggested it would help the interns to have a follow-up training or check-in partway through the summer to discuss how the concepts and tools introduced in the education day were being applied within the projects.

Project Lead

"It was a very positive experience. Our student had a great work ethic and was a huge asset to our team. I would recommend her for further positions."

"I really enjoyed working with this student and very much valued the opportunity to have her contribute to our project. I would definitely engage in this process again."

Project Lead

Student Intern Results

Results from the eight intern respondents are included below:

The internship placement was a valuable learning experience

My role in the project was clearly defined

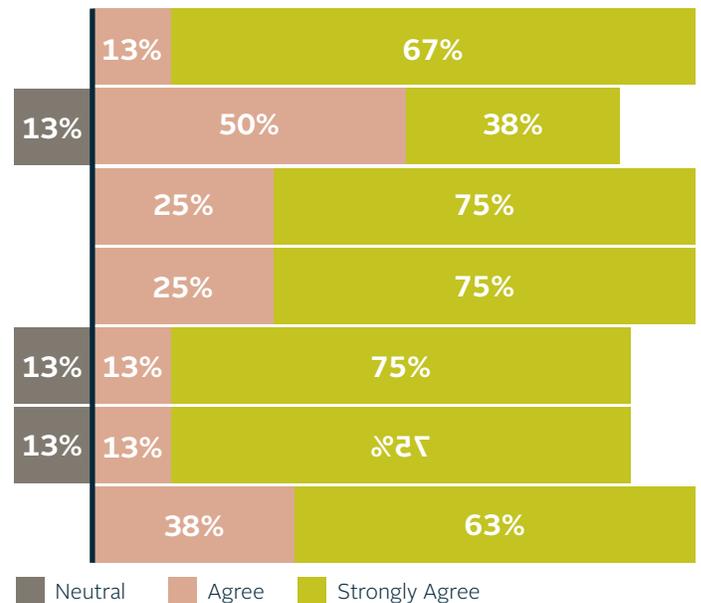
My role in this project was important and meaningful

The project (or portion of) that I was assigned to work on was achievable and completed within the summer

I felt supported by the project lead during the internship

I felt supported by the interdisciplinary team during the internship

I developed knowledge and skills about the process of improving health care quality that I can apply in the future



When asked about the biggest learning or takeaway from the program, interns referenced the benefits of gaining real-world experience embedded within a quality improvement project. They spoke of gaining an understanding of the complexity in the health system, and the benefits of working with an interdisciplinary improvement team. Several of the interns appreciated being able to apply the knowledge, skills and tools they learned in the student education day.

“I learned the impact of connecting with people and understanding the perspectives of different stakeholders – nothing is one-sided, and it is really important when making decisions to take into consideration the full picture.”

“I am so grateful to have had this internship opportunity! I loved working with the project team and learned a lot from the project lead about both quality improvement and project management. I felt the team trusted me with a significant but manageable amount of responsibility and that I was able to contribute meaningfully to the project.”

Student Intern

Student
Intern

“Valuable!! Meaningful work to help the system help people get better, and a great opportunity to begin working in health care. Gained data analysis skills and communication/ leadership skills.”

Interns were also asked to comment on the challenges they faced, as well as what helped and would have helped them overcome the challenges. Four interns suggested their projects felt too large in scope or limited by the number of hours they had to work on them.

Interns were very appreciative of the support provided by the project leads and interdisciplinary teams. One stated the project lead was particularly helpful in identifying realistic goals for completion of milestones. Another intern described her internship as “a very positive experience because of extremely supportive supervisors.” For another intern, the greatest challenge was in engaging patients to participate in the project – and that the project team was very supportive by helping to write an informative cover letter that was effective in building patient engagement.

Three of the interns said they really liked the flexibility of the program’s structure, including the variable start date. Several of them recommended we continue with the periodic check-ins by phone with the Council program lead. One respondent suggested that knowing ahead of time that they may receive less structured guidance during the intern period than if they were in an office setting for a work placement would have been useful.

100% of the intern respondents would recommend the program to other students and expressed interest in working for their respective project organization.

“It was highly valuable and has taught me about the inner workings of the health care system and just how much work must be done in order to achieve real change.”

Student
Intern

Project Dissemination

The interns were encouraged to disseminate results from their projects, and funding was set aside for each of them to support the cost of travel, event registration or materials. Six submitted abstracts to Quality Forum 2019 in collaboration or with support from their project leads – two were accepted to present rapid-fire presentations and one was accepted to display a storyboard. Other interns created videos or websites as part of their project deliverables or final reports and presentations that were shared with senior leaders within their placement organizations. At least one intern is writing a manuscript for publication in a peer-reviewed journal.

Two interns were partnered with physician project leads from the third cohort of the [Clinician Quality Academy](#). One of these projects focused on developing a multidisciplinary, team-based pre-operative model to engage with patients early in their surgical pathways, establishing a culture of prehabilitation to optimize surgical outcomes. The intern was able to develop a website for the project (Figure 6) and engaged with patients to enhance their experiences.

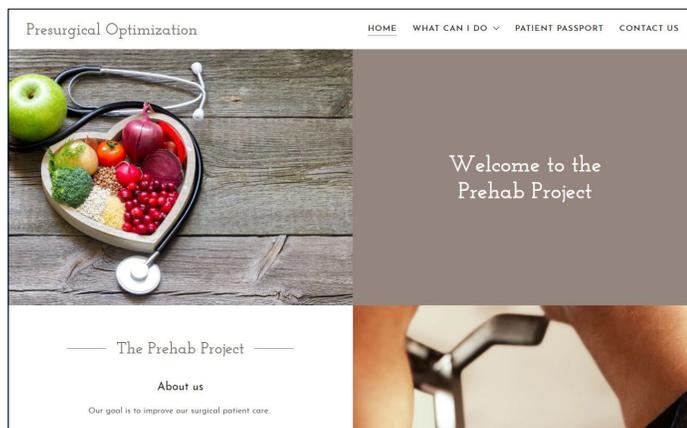


Figure 6: A website created by an intern for a project promoting prehabilitation for patients waiting for surgery



Figure 7: The video created by an intern for the 'Overcoming Stigma' project explored experiences from providers, patients and families in the opioid crisis

The other pairing worked on a project to reduce the stigma of opioid addiction in family physician offices. The intern assisted with the project design and conducted small tests of change to develop a dialogue with physicians towards an aim of increasing the number of clinics offering opioid agonist treatment. The intern developed a video that used storytelling to highlight the experiences of providers, family members and peers in providing or receiving care for substance use (Figure 7). At the end of the internship, a second co-operative job placement was secured, and the intern has been able to continue work in this area with the project team.

Another intern developed a video to explore the current state of perinatal care within Northern Health; results were presented to senior leaders in an effort to highlight gaps and areas for improvement within the system for patients throughout all stages of pregnancy and post-partum care (Figure 8).

Each of these interns expressed a desire to stay involved or connected with the project teams in some way after their internships, either by the sharing of results or staying in touch with team members with whom they had established relationships (Figure 9).

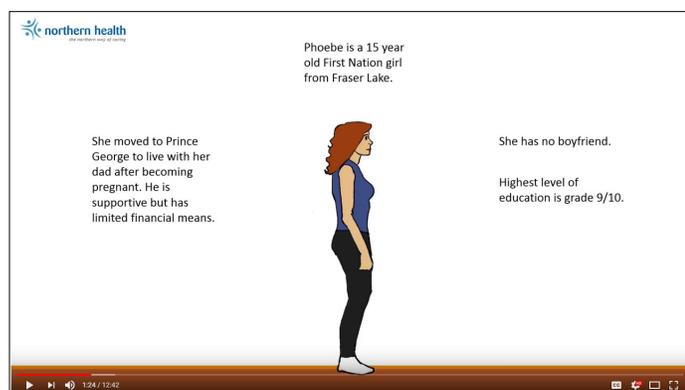


Figure 8: A video created by an intern to explore current the state of perinatal care in one health authority



Figure 9: 'Dr. Snuggles' with Natasha Caton, a 2018 intern working with a comfort dog to support staff wellness in acute care

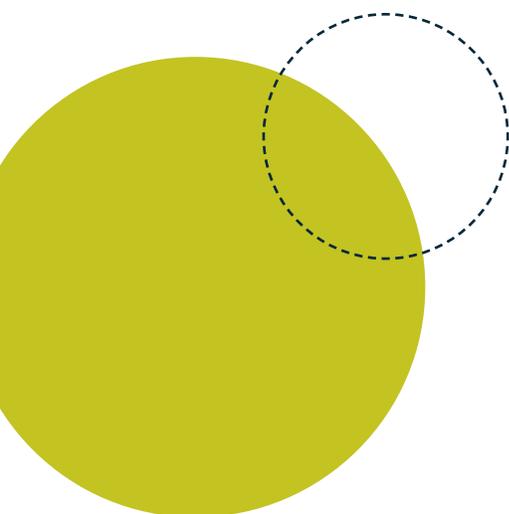
Improvement Ideas for 2019

Given the increasing popularity of the program, the call for abstracts will be adjusted next year to provide a longer period for project proposal submissions and selection. We predict even more project proposals to review in 2019, so an external selection committee will be created. The application process for process for students will be transitioned to an online submission to standardize the uploads and create efficiencies in the review process.

In addition, the time for promotion of job postings will be lengthened to allow intern opportunities to be circulated on campus job boards. This will give students enough time to submit their applications after completing final exams and to determine summer employment in a timely manner.

Feedback from project leads and students will be used to improve the student education day, including providing a better overview of work happening to improve BC's health care system. Timing of the day will be considered as some students were not able to attend due to summer employment commitments.

During the internship, some interns said that providing clarity about who their employer was when interacting with staff and patients at their job placement sites was sometimes difficult. Next year, administrative details such as providing ID tags or business cards will help to aid communication. Group calls will be considered for the interns to enhance peer-to-peer learning, particularly as students begin to apply their new skills and knowledge.



Summary

Based on evaluation results, the internship program successfully met its objective of providing a resource to help advance quality improvement projects. All project leads reported that the project was a positive experience for them individually, as well as their teams, and that they would endorse the program to others. From a learner perspective, interns reported that the program expanded their knowledge of quality and the practical experience gained through the job placement was valuable.

With an increase in the number of project proposals and student applications year to year, the program is rapidly gaining popularity within the province and will need additional time and resources to manage program requirements.

With over 66 student intern alumni, the program is helping the Council meet its strategic goal to build capability for health care system transformation and improvement by embedding quality within the foundations of learning for post-secondary students. Providing students with practical tools and opportunities to lead change in a real-world setting establishes a strong foundation of confidence, skills and abilities to make changes within a complex system when they transition from academia and become a part of the health care workforce.



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