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Evaluating an Upskilling Workforce Solution

An Educational Pathway to Employment for Internationally Trained Nurses in Alberta

AND implementation

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AND implementation inc. (AND) is a 100% queer women-owned Vancouver-based firm specializing in nimble and right-sized solutions that are feasible for busy teams and immediately useful to everyone - because insights only matter when they lead to action. Consultants Jennica Nichols and Maya Lefkowich offer over 20 years of experience and client-centred support for program evaluation, strategic planning, knowledge translation, and research. We also offer training in data collection & analysis, evaluation planning, and arts-based methods. Recognized for our creative approaches, we help purpose-driven organizations make confident decisions, build thriving relationships, and amplify their impact.

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Executive Summary

Alberta faces critical nursing shortages in rural acute care and continuing care settings. Internationally educated nurses (IENs) could help address this gap, but they face barriers to nursing employment[1]. Bow Valley College developed and piloted six employer-informed micro-credential courses across two educational pathways to help IENs increase job readiness and improve employability. Between July and September 2025, 46 IENs participated in the pilot. The evaluation documented the micro-credential design model, developed a logic model to understand intended outcomes, supported the pilot of the educational pathways, and explored the role of micro-credential courses within Alberta's nursing ecosystem.

Many participating IENs reported developing new skills and increased confidence working in Canadian healthcare contexts. They valued the accessible, self-paced online format. However, critical questions emerged about whether micro-credential courses can adequately build job-ready nursing skills and if employers recognize micro-credentials as indicators of competence. Moreover, findings suggest IENs face several systemic barriers to employment—including hiring biases favouring Canadian nursing experience, workplace racism, and resource constraints that make training new hires burdensome.

Important underlying assumptions around if/how micro-credential courses increase job readiness, employability, and job satisfaction remain untested. Future work is needed to test these assumptions, address accessibility concerns with the new hybrid model, meaningfully integrate reconciliation into the project, and understand whether the model meets upskilling needs for working RNs before scaling or recreating these educational pathways. Future work may also want to explore a more intersectoral approach to this workforce problem by combining upskilling with complementary interventions—such as clinical placements, employer incentives, professional networking opportunities, and/or anti-racism training—to address both individual competencies and systemic barriers simultaneously.

Key Insights

This evaluation resulted in numerous insights into the systems-level obstacles that prevent IENs from finding work as RNs in Alberta, what educational solutions are helpful for them, and

[1] This is based on findings from internal work Bow Valley College did through consultations with IENs who participated in their bridging program, industry leaders, and employers. This was not independently verified through the evaluation.

what interventions – beyond IEN training – may help to address barriers to employment.

1. 100% of IENs reported developing new skills for working in a healthcare context (continuing care or rural acute care) from participating in one of the educational pathways (n = 16)

2. Creating a bridge to RN employment for IENs requires an intersectoral and systems-level intervention that - in addition to upskilling or reskilling for IENs to address core competencies in the Canadian system – may also require key actors to advocate for the value of IENs in RN roles, create opportunities for IENs to gain Canadian clinical experience in paid nursing roles, enable employers to hire IENs without creating strain or stress for current RNs, and/or provide anti-racism training in clinical settings to promote inclusive and safe workplaces

3. Without consistent recognition in the nursing industry (what they are, how they facilitate real-world skill acquisition, and how they fit within the nursing education ecosystem relative to formal training and licensing), it was unclear to evaluation participants how micro-credentials increase the desirability of candidates' applications, support job readiness, and act as a pathway to employment. Testing the assumption that micro-credentials support job acquisition in the nursing field in Alberta through future work would be beneficial to better understand the bridge between micro-credential training and employment.

The Issue

Alberta's healthcare system is facing a critical nursing shortage, including in rural acute care and continuing care settings. The challenge is intensifying as Alberta's aging demographic increases demand for healthcare services, while the nurse workforce remains insufficient to meet current and projected needs. Without intervention, these shortages will compromise patient health outcomes, increase burnout among existing providers, and limit Albertans' access to essential medical services[2].

Internationally educated registered nurses (IENs) could help address this workforce problem. However, they face challenges integrating into Alberta's healthcare system. This is a wicked problem. As part of a myriad of employment barriers, Bow Valley College identified specific

[2] This description about the issue is based on work completed by Bow Valley College before the evaluation started. It was part of their rationale for the project that was the focus of the evaluation. The description was not independently verified by the evaluation.

skill gaps that often hinder IENs' employability. Traditional education pathways focus on licensure requirements without addressing the specific competency needs identified by employers. Bow Valley College facilitated conversations with Alberta Health System leaders and nurse employers to identify existing skill gaps in two high-demand healthcare settings: rural acute care and continuing care. To help address this workforce problem, Bow Valley College developed and piloted six micro-credential courses to train IENs in employer-identified competencies. This targeted, rapid upskilling solution aimed to prepare IENs more effectively to work in these critical health settings. In doing so, these micro-credential courses sought to build a new bridge to employment for IENs and help address this pressing workforce problem.

While it is too early to understand the impacts of this project, Bow Valley College aims to create a sustainable pathway to employment for IENs that helps to address both immediate and long-term workforce challenges in Alberta's healthcare system. Specifically, it is hoped these courses will help IENs gain meaningful employment in rural acute care and continuing care, resulting in improved job satisfaction, performance, and stability. Increased employment is expected to lead to a more diverse and skilled nursing workforce that can reduce nurse staffing gaps and improve healthcare access across the province. By continuing to offer these courses post-project, Bow Valley College aims to establish a sustainable pathway that addresses both immediate staffing pressures and long-term workforce planning in Alberta's healthcare system.

Beyond nursing workforce needs, this project represents a potentially scalable model. If the educational pathways prove effective in helping IENs gain employment, Bow Valley College will have developed a process for using targeted micro-credential courses to address employer-identified workforce challenges. Future work could help to scale this model to adapt the rapid upskilling solution to other healthcare specialties, regions, and workforce challenges across Canada.

Project Description

Bow Valley College runs a non-accredited bridging program to support IENs to meet the requirements necessary to practice in Canada. Through conversations with students and alumni, staff learned that many students had their registered nurse license when enrolling in the bridging program and, even after graduation, many struggles to obtain employment as a registered nurse in Alberta. Staff consulted with Alberta Health Service leaders and employers to understand barriers to hiring IENs, identifying rural acute care and continuing care as settings with high employment potential for IENs. Bow Valley College staff decided to create an upskilling solution to address upskilling barriers and increase IEN employability.

After receiving funding, Bow Valley College staff began developing two educational pathways between May and July 2025. Bow Valley College staff started by working with Alberta Health Service leaders, nurse employers, and nurse educators to identify key topics. Six topics were selected, three for the continuing care pathway and three for the rural acute care pathway. Next, Bow Valley College staff developed six micro-credential courses. For each course, staff worked with Subject Matter Experts to define one skill-based learning outcome based on real-world job performance. They broke the outcome into essential components (objectives), then created an assessment, activities, and learning modules for each objective. Staff iteratively curated content using Artificial Intelligence software while Subject Matter Experts reviewed, refined, and validated material. Course material was then converted into online courses hosted on a learning management system (Brightside by Desire2Learn) as part of Bow Valley College's Pivot-Ed Micro-Credentials (Pivot-Ed). Several design features aimed to support IEN learning: courses were asynchronous for accessibility and flexibility, only assessments were required (allowing learners to skip familiar content), assessments could be repeated so students could test competency and receive targeted feedback, and both technical and non-technical skills were taught through course content.

Staff piloted the pathways between July and September 2025. Two Subject Matter Experts served as instructors. Current and past bridging program students were invited via email and completed online registration, selecting their preferred pathway. Forty-six students enrolled: 16 in continuing care and 30 in rural acute care. Each pathway offered three concurrent courses, though implementation adaptations caused some courses to overlap. The pilot ran July–September 2025, with individual courses running 21–31 days. Staff used continuous quality improvement to address emergent challenges related to content, technology, logistics, and student and instructor experience. By completing role-specific competency training for specialized care through an educational pathway, learners were expected to gain increased applied knowledge and demonstrable skills, increased confidence working in Alberta, enhanced job readiness, and higher employability (see Appendix B for the logic model).

Several underlying assumptions shape this project's approach to supporting IEN workforce integration. First, it assumes that upskilling alone can address the challenge of IENs entering Alberta's nursing workforce. It presumes that micro-credential courses provide learners with all the necessary skills and confidence to perform competently in job settings without additional training or support. Additionally, it relies on the premise that course assessments can reliably test for demonstrable skill proficiency and that employers recognize micro-credentials as valid indicators of job readiness and employability. These assumptions reflect the project's

focus on educational solutions within a broader system of IEN workforce integration challenges.

Beyond the project evaluated here, Bow Valley College staff have begun refining the micro-credential courses and recruiting IENs currently enrolled in their bridging program to enroll in the next offering of the educational pathways (starting in October or November 2025). They have also initiated conversations with employers in Alberta to recruit employees to the next offering and/or provide one or more micro-credential courses from an educational pathway tailored to their specific needs. Future work will also include following up with alumni to understand training impacts over time.

Methodology

Working with Bow Valley College staff, we selected three of FSC's strategic questions and then developed three evaluation questions to provide insights into these strategic questions while also addressing questions important to project implementation (see Appendix C for evaluation sub-questions and elements of the strategic questions the evaluation was unable to answer):

FSC's Strategic Question 2 (Pathways to Jobs): What interventions are most effective in smoothing job transitions for people currently out of the labour market or those in precarious employment? What interventions are the most effective in addressing the diverse needs of workers who have been out of the labour market for varying lengths of time? What is the role of upskilling/reskilling training, micro-credentials, and/or technology-enabled learning? How can financial barriers to accessing services or training be relieved, particularly for women transitioning to or re-engaging with the workforce? Which wrap around supports are most effective, and in which combination(s)?

- **Evaluation Question**: What is a model for creating an employer-driven, rapid educational pathway?

FSC's Strategic Question 3 (Pathways to Jobs): What approaches are the most effective at equipping new labour market entrants with the skills that are most in demand by employers? How can work-integrated learning be improved or optimized to ensure learners develop the non-technical skills needed to transition successfully into employment? What new approaches are needed to overcome the long-standing barriers to entry into the skilled trades for people from groups that face systemic barriers?

- **Evaluation Question**: How effective was the educational pathway for training IENs?

FSC's Strategic Question 21 (Inclusive Economy): What aspects of Canadian work experience are key drivers for newcomer outcomes? What are the most effective ways to support newcomers to learn the transferable soft skills or employability skills that are in high-demand in Canadian workplaces? What are the key barriers preventing newcomer women from participating more fully in the labour force? What approaches would help overcome these barriers? How can we enable service providers to adopt more evidence-based practices? How can we increase awareness of newcomer support services?

- **Evaluation Question**: What is the perceived relevance, usefulness, and acceptability of Bow Valley College's micro-credential education pathways among prospective IENs?

The evaluation design described below is the final design (see Appendix C for details about how the evaluation evolved from the original Evaluation Learning Plan).

Data Collection & Analysis

This evaluation collected data through semi-structured interviews, an online survey, document reviews, an online registration form, online learning platform (D2L and Affinity), and monthly meetings (see Appendix C for a detailed methodology description and Appendix D for data collection tools). Data were collected from Bow Valley College project staff, course instructors, IENs from the pilot, RNs in Alberta, and staff from organizations that support RNs.

Quantitative data were analyzed using descriptive statistics in Excel. Qualitative data were analyzed using a deductive thematic analysis with codes aligned with the logic model, evaluation questions, and strategic questions. Documents and standing meeting minutes were systematically reviewed and synthesized with attention paid to key themes.

Data Sources by Evaluation Question

Evaluation Question	Data Sources (Sample Size)
What is a model for creating an employer-driven, rapid educational pathway?	• Semi-structured interviews with Bow Valley College staff (n = 5) • Monthly standing meetings with Bow Valley College staff (n = up to 5 per meeting) • Iterative program document reviews
How effective was the educational pathway for training IENs?	• Bow Valley College registration form (n = 44) • A post-pilot survey for IENs who registered for one of the educational pathways (n = 18, 39% response rate)

	• Post-pilot semi-structured interviews with IENs who registered for one of the educational pathways (n = 7) • Post-pilot semi-structured interviews with course instructors (n = 2) • Data capturing learner engagement from an online learning platform (D2L, Affinity) • Post-interview online survey to capture demographic information of interview participants (n = 10)
What is the perceived relevance, usefulness, and acceptability of Bow Valley College's micro-credential education pathways among prospective IENs?	• Semi-structured qualitative interviews were conducted with RNs (n = 9) and representatives of healthcare organizations that employ or support RNs (n = 5)

EDI&R

Bow Valley College staff designed the project in alignment with their Equity, Diversity, and Inclusion policy, with reconciliation not considered part of the project. Staff saw EDI principles enacted through: (a) providing a respectful and barrier-free learning environment; (b) offering free micro-credentials; and (c) targeting IENs. The evaluation honoured these EDI principles by assessing perceptions of the learning environment via post-pilot surveys and interviews and paying attention to systematic barriers when interviewing RNs and organizational staff.

For the evaluation, data collection activities were conducted with attention to accessibility and respect by (a) taking a strengths-based, care-first approach in data collection, (b) offering flexibility for interviews (e.g., phone or Zoom, morning/afternoon/evening), (c) using a semi-structured interview format, (d) minimizing required questions in the survey, (e) providing honoraria to interviewees, (f) ensuring anonymity and confidentiality in all data collection activities, and (g) collecting anonymous feedback about the data collection experience to improve remaining activities. These steps were taken to create an inclusive and ethical evaluation. To understand who participated in the evaluation, demographic information was collected for IENs, RNs, and organizational staff. Demographic questions were not asked of Bow Valley College staff due to concerns about confidentiality.

Limitations

Despite significant efforts, engaging IENs and RNs proved difficult. This had several consequences: (a) data presented here represents a small group and may not be generalizable, (b) only IENs who completed the pilot participated in the evaluation so experiences of those who dropped out or failed are unknown, and (c) we could not recruit IENs unconnected to Bow Valley College and thus their perspectives are missing from this work.

There were only two instructors for the pilot. To best protect confidentiality and anonymity, their reflections were combined with those of IEN interviewees to characterize IEN's experience. Nevertheless, the absence of a unique instructor perspective creates ambiguity.

No IENs from the pilot had secured RN employment during the evaluation. While not expected by the reporting deadline, this made it impossible to assess if/how the pilot contributed to job acquisition or to IENs' abilities to apply skills in practice. Whether the micro-credential courses successfully address employer-identified gaps remains unknown.

Finally, only Bow Valley College staff were interviewed in developing the model, as it was not possible to include other ecosystem members' perspectives. The impact of this limitation on the final model is unclear.

Evidence & Insights

We present the evaluation findings by strategic question below.

Job Transition and Workforce Re-Entry Interventions, Barriers, and Supports

This section addresses Strategic Question 2, which explores interventions, barriers, and supports for individuals seeking job transition or re-entering the workforce.

Upskilling Intervention

Design Process

Bow Valley College developed and piloted an upskilling solution to create a new pathway to RN employment for IENs who are unemployed or working in non-nursing positions. By enrolling and completing micro-credential courses (up to three in an educational pathway), it was expected that IENs would obtain high-demand skills that increase job readiness and employability in rural acute care and continuing care settings.

Bow Valley College staff used an employer-informed, rapid development model to create the six micro-credential courses that make up the two educational pathways (see Appendix E). Staff perceived their model had five unique features that differentiated it from traditional approaches and contributed to the efficiency of the process and employment relevance of each educational pathway. These design features were:

1. **Employers identified the skill each micro-credential course focused on**
   Rather than focusing on specific license criteria or general knowledge development, these educational pathways started with conversations with Alberta Health Service leaders and RN employers to identify (a) health care settings where IENs are more likely to be hired and (b) high-demand skills needed to work successfully within each setting. Having employers identify each course's main learning outcome represented a shift from traditional education models, with the aim being that the micro-credential courses would provide IENs with practical competencies that reduce the gap between training and employment readiness.

2. **Each micro-credential course was developed around a demonstrable skill**
   After defining one skill-based learning outcome per course, Bow Valley College staff defined the specific actions needed to demonstrate the skill in healthcare settings. These objectives were used to design the entire course content. This approach was seen as focusing the micro-credential course on real-world skill development that would enhance employability. Having each micro-credential course focused on a single skill was also seen by Bow Valley College staff as making each course more manageable, as each was intended to take less time than a traditional upskilling course.

3. **Assessments test for the application of skills rather than knowledge**
   Bow Valley College staff created an assessment for each course to determine if a learner passes or fails. The assessments were designed to evaluate demonstrable skills. For example, no multiple-choice and true/false question formats were used as these types of questions test knowledge rather than demonstrate a real-world skill. The assessments were designed to test the skill-based objectives, with the assumption that passing demonstrated job-ready competence—the ability to perform skills independently and to employer standards.

4. **Subject Matter Experts were tasked with reviewing and validating AI-curated content**
   The development process used Artificial Intelligence (AI) to curate content based on

the employer-identified skill and associated objectives. Bow Valley College staff perceived this as allowing them to better utilize the expertise of Subject Matter Experts during the development process, as they could review outlines, drafts, and final versions of course content rather than sinking time into developing content. The AI-curation approach was also perceived by Bow Valley College staff as increasing the speed and reducing the resources needed to create the six micro-credential courses.

5. **The development process utilized an existing online learning platform with some established processes**
   Bow Valley College staff had previously developed online micro-credential courses to support skills development in other industries for their Pivot-Ed ecosystem. This work resulted in existing templates and internal processes that streamlined the development process used in this project. For example, the user interface had an established style guide that facilitated a smoother translation of the course into an online format. Because the team did not have to start from scratch for everything, Bow Valley College staff perceived that the micro-credential courses were developed and deployed more rapidly.

The evaluation was unable to evaluate the development process as it was not possible to interview Subject Matter Experts or employers involved about their roles and experiences. It is therefore beyond the scope of this evaluation to assess the efficiency or effectiveness of the development process.

Micro-Credential Structure

Each micro-credential course shared a similar structure. When a course opened, enrolled students received an introduction email outlining expectations and providing a course link. Enrollment ranged between nine and 28 learners across the six micro-credential courses. Learners had a set amount of time to finish the course (ranging between 21 and 31 days per course during the pilot).

Upon first login, a welcome widget popped up providing logistical information (e.g., how to submit assessments). Once completed or closed, the learner was taken to the home screen with access to modules, the final assessment, and optional activities. While passing the final assessment was the only mandatory requirement, most students accessed all modules and the final assessment (range: 85% - 100% of learners across the six micro-credential courses in the pilot).

Final assessments comprised two to five parts (one part per course objective), with one to seven questions per part. Students responded to questions using a range of formats, including a written clinical assessment tool, audio-recorded responses to a simulated patient or colleague, written answers to a case study, and written interpretations of test results or simulated charts. Answers were submitted on the online learning platform, and students could retake assessments an unlimited number of times. During the pilot, students spent an average of 30% to 35% of total course time on final assessments across the six micro-credential courses.

Each assessment component was marked pass/fail with no partial marks. Instructors often provided personalized feedback via email and encouraged students to either resubmit the assessment or provide additional work via email (sometimes multiple times, depending on the student and course). Instructors reviewed all submitted work when grading the assessments. Students had to pass all parts before the close date to pass the course. No instructor manuals guided grading, so instructors used their own processes for marking assessments and providing feedback.

During the pilot, median course completion time ranged from 1.46 to 3.22 hours for the continuing care educational pathway and 3.76 to 5.71 hours for the rural acute care educational pathway. Students may have spent additional time outside the online learning platform, which may not be captured in these values. Pass rates exceeded 80% for five of the six micro-credential courses. Students who passed received a digital badge upon completion of the pilot. During the pilot, Bow Valley College staff supported students through regular email reminders, a monitored email for questions, and individualized emails when low engagement was noticed. No additional wraparound or post-pilot supports were provided.

Lessons Learned from Pilot

Bow Valley College staff utilized a continuous quality improvement cycle to identify and address challenges as they emerged during the pilot. Feedback was gathered from student and instructor emails, one-on-one conversations with students and instructors, and routine Bow Valley College staff meetings. Bow Valley College staff implemented solutions both during the pilot and immediately after in preparation for the next offering (October 2025). Based on lessons learned during the pilot, the educational pathway model changed in three ways:

1. **Changing to an assessment-first micro-credential design**
   To better support learners, Bow Valley College staff are now implementing an assessment-first micro-credential design for future iterations of the educational

pathways. At the start of each micro-credential course, learners will take a self-assessment that allows individuals to determine which modules they can skip based on their existing knowledge and experience. This is expected to create a personalized learning experience that better honours prior knowledge and focuses learning time on new content

2. **Integrating a hands-on, practical element to the micro-credential structure**
   Bow Valley College staff decided to shift the micro-credential structure from fully asynchronous online delivery to a hybrid model for future iterations. The revised approach now requires learners to attend scheduled, in-person sessions at the college for hands-on practical training. To do this, Bow Valley College staff reallocated project funds to purchase training equipment. While this reduces accessibility for those living far from campus or managing competing responsibilities, it creates valuable opportunities for learners to practice skills in simulated settings with feedback from RNs. For those able to attend in-person sessions, this adaptation is expected to improve student experience, skill attainment, and job readiness.

3. **Expanding course content to include additional learning modalities**
   The micro-credential courses piloted during this project shared course content through readings, written case studies, and other text-based materials. Based on student feedback, Bow Valley College staff decided to integrate non-written learning modalities into future iterations of the micro-credential courses. While the exact formats are not yet decided, it may include videos, demonstrations, and pre-recorded lectures. Diversifying learning modalities within the micro-credential content is expected to strengthen the model by improving student experience and learning outcomes.

The evaluation surfaced four important questions about the educational pathway model as an upskilling solution:

1. **Does completing a micro-credential course lead to job-ready skill attainment?**
   All IENs reported completing one or more micro-credential courses increased their knowledge and skills (n = 16). Without the opportunity to practice using these skills in real-world settings, it remains unclear to what extent completing one or more micro-credential courses leads to increased job readiness and employability. For example, it is unclear whether people who have passed the continuing care educational pathway can apply these skills in continuing care settings in an efficient, effective, and appropriate manner, as per employer-articulated expectations for the job. It is also unclear if they

can perform skills independently and without further training, supervision, or mentorship as aligned with both (a) the independent nature of working as an RN in continuing and rural care settings and (b) with the confidence and leadership qualities expected of RNs who oversee teams. The ability to complete skills independently and at employer standards are necessary steps to move from training completion to having increased job readiness and employability. Future work is needed to test this assumption.

2. **Can the micro-credential assessment test for job-ready skill attainment?**
   Assessments were designed to evaluate job readiness and assess real-world skill acquisition. It is unclear whether they test completion, knowledge, skills, or some combination. Moreover, rubrics made grading criteria ambiguous. For example, the rubric assigned one point for an assessment part containing multiple open-ended questions. It was not possible to provide partial marks. Without guidance on the necessary topics to be covered or what to do when some answers were complete while others needed additional work, it was unclear what earned full marks. This resulted in assessments being graded inconsistently across courses and instructors. Lastly, all assessments used asynchronous formats (written/audio responses, simulations, AI activities, case studies) without a hands-on component. Whether these formats can measure job-ready nursing skills remains unknown.

3. **How can attention to accessibility, inclusion, and reconciliation be integrated into the model?**
   Most pilot participants who completed the post-pilot survey reported that the training being online and asynchronous made it more accessible (88%, n = 11). Future iterations of the educational pathways will include in-person, hands-on elements. It is unclear what impact this change will have on the accessibility of the training. For example, a hybrid model requires participants to have the resources to cover transportation, take time off work, and/or arrange care for dependents. Will these new financial requirements create barriers for training participation? What supports are needed to address barriers and ensure the educational pathways remain accessible? Moreover, Bow Valley College staff acknowledged that the courses did not meaningfully engage with reconciliation in this project. How can reconciliation be meaningfully integrated into future work? For example, the Truth and Reconciliation Calls to Action include actions specific to health and education that can be a starting place for this work. Future work is needed to meaningfully integrate EDI&R into the training model and resulting educational pathways.

4. **Are there different learner needs, experiences, and outcomes for those already working as RNs?**
   Bow Valley College staff are recruiting working RNs for future educational pathway offerings. No pilot participants who participated in the evaluation were employed as RNs, so the evaluation cannot speak to how working RNs would experience the training. It's unclear if these micro-credential courses offer the same value for RNs already in the field. For example, IENs who participated in the pilot shared that learning Canadian healthcare standards and norms was an important learning outcome. Would this training benefit RNs already working in Canada? Would it meaningfully improve their job readiness or employability? Future work is needed to understand the acceptability, effectiveness, and impacts of using these educational pathways with working RNs.

Skill Development and Barrier Reduction for New Labour Market Entrants

This section addresses Strategic Question 3, which explores questions about approaches to skills building and barrier reduction for new labour market entrants.

Perceptions & Efficacy of Approaches

Overall, IENs had positive perceptions of the educational pathway. Across all micro-credential courses, at least 80% of survey respondents reported that course content was relevant to their nursing practice, key topics were covered in sufficient detail, and completing assignments helped improve their nursing skills (see Pilot Report – Addendum D (Tables 8 and 12) for details). Some IENs employed in health fields, while completing the micro-credentials, reflected on being able to apply course content immediately. And, one IEN shared that they used course content to successfully answer a job interview question (they got a second interview). Across educational pathways, most IENs reported a confidence boost and increased readiness for working in team settings and with diverse populations (see Pilot Report – Addendum D (Tables 9, 10, 13, and 14) for details).

In terms of content, IENs identified case studies and assessments focused on real-world examples as the most effective approaches employed in micro-credential courses for building knowledge and skills. Regarding structure and delivery, IENs found the online platform and content delivery straightforward, accessible, and easy to navigate. All survey respondents

agreed it was easy to find what they were looking for on the online learning platform most or all the time (n = 17), and it was easy to track their progress through a course (n = 17). The asynchronous self-paced model was especially helpful for IENs balancing other commitments, such as school, work, and parenting/caring for dependents. Furthermore, the focus on building one skill at a time was seen as making learning more accessible and digestible. These sentiments were echoed by many RNs currently employed in Alberta, who perceived a self-paced course focused on a specific topic or skill as a desirable approach to upskilling.

Notwithstanding the notable benefits of a flexible format with digestible learning goals, data revealed five limitations in the efficacy of the approaches employed in the educational pathway. (1) Findings suggest that training without an in-person and tangible component may not be as effective as traditional nursing school programs. Interviewees reflected on the importance of being supervised and having someone offer feedback and adjustments to one's physical performance, tone and emotionality, and awareness of context. (2) Micro-credential course content was primarily written, and assessments required IENs to write long-form answers. Findings illustrate that reading/writing-focused content and activities may not be as inclusive of diverse learning styles or accommodating for IENs whose English skills may be limited. The requirement to imagine new contexts and how one might hypothetically respond to different information to serve clients/patients was perceived as ineffective in both fostering and measuring either understanding or skill development/application. (3) Concerns surfaced that building one skill in one micro-credential course may be artificially simplistic and not representative of both the complexity and holistic nature of health and well-being. Some participants worried that skills built in a vacuum may be less applicable or useful. (4) The assessments proved to be a challenging way to evaluate skill acquisition and job readiness. Data highlighted inconsistencies in grading and feedback, making it unclear whether IENs who completed the educational pathway had gained the employer-identified skills and could perform them in a manner deemed appropriate for the workplace. (5) Some participants raised concerns that the educational pathways were neither accredited nor affiliated with/overseen by any regulatory bodies. Given the pervasive concern that IENs are not as well-versed in Canadian standards, some questioned the efficacy of educational pathways that are not aligned with or verified as conforming to clear standards.

As a workforce solution, the efficacy of the educational pathway remains unknown. Findings suggest that there is value in the education pathway for the purposes of learning for its own sake, maintaining knowledge and skills, preparing for licensing exams, and staying curious and engaged in one's field. Many IENs were disappointed that micro-credentials were not immediately useful, recognized by employers, or a way to circumvent the requirement for

Canadian experience. Concerns arose that the skills acquired through the educational pathway may not be as robust, marketable, or useful as those gained from traditional nursing programs or on-the-job training. Barriers to and limitations of this educational pathway are uniquely related to nursing practice. Because nursing is a niche industry with high stakes and a complex regulatory body, the transferability of this educational pathway into other fields is also unknown. As a stand-alone intervention, it remains unclear if the educational pathway supports employability for IENs.

Overcoming Long-Standing Barriers

Perceived Barriers

Data across interviews with IENs, RNs currently employed across Alberta, and managers or representatives of healthcare organizations across Alberta consistently pointed to six long-standing, systemic, and interconnected barriers to employment.

1. **Knowledge of Alberta's health systems (and the Canadian health system more broadly)**
   Union membership, strict requirements for Canadian experience in clinical settings, and complex/opaque application processes are significant obstacles for IENs to gain entry. Once hired, many IENs are perceived as struggling to understand and navigate the structure, key players, norms, and protocols of the healthcare system. This was seen as limiting their ability to advocate for and connect clients/patients to resources.

2. **Knowledge of Canadian standards & practices**
   Once hired, IENs were perceived to face challenges with stricter infection control protocols, the use of technology (e.g., digital charting and EMRs), communication, and increased responsibility and autonomy with reduced supervision/support. These barriers were perceived as exacerbated in continuing care and rural acute settings, where RNs are responsible for more patients/clients with fewer resources/supports. As a result, fears surfaced about safety and patient/client well-being.

3. **Hiring preferences and biases**
   IENs without prior Canadian clinical experience were unanimously perceived as unlikely to find a nursing job. Data illustrated worries that providing IENs with their first clinical job would result in a strain on other nursing staff to train and compensate for the shortcomings of new hires, confusion around job expectations, mistakes and miscommunication, tension and resentment among colleagues, and a strain on already

scarce human resources.

4. **Familiarity and comfort with diverse cultures and communities**
   Data illustrated concerns that IENs may not be familiar with, knowledgeable about, or able to accommodate Alberta's diverse, sprawling, and aging population. Cultural nuances and norms – especially in rural and continuing care settings – were described as a steep learning curve.

5. **Structural racism and xenophobia**
   Pervasive stereotypes and biases, particularly related to the knowledge, capacity, and skills of IENs, combined with isolating work, contributed to what interviewees described as an unwelcoming workplace. Concerns also surfaced that white patients/clients would only want to be seen by white RNs – especially in rural and continuing care settings.

6. **Double-binds with transient or undesirable jobs**
   To gain Canadian clinical experience, IENs often take the first job they can secure to land the job they *actually* want. Resulting high turnover rates were seen as contributing to hiring and training fatigue and burnout among long-term staff. Transient work puts more pressure on the system. Furthermore, timing and natural fluctuations in the availability and need for RNs contributed to a sense that supply/demand dictate hiring.

Perceived Solutions

Data illustrate that the educational pathway may be able to address the following barriers:

1. **Knowledge of Alberta's health systems (and the Canadian health system more broadly)**
   Micro-credential courses include content about Alberta's health system, which IENs described as helping them to understand norms and unspoken rules (e.g., the responsibility, autonomy, and independence of the RN role within the healthcare system).

2. **Knowledge of Canadian standards & practices**
   IENs perceived the micro-credential courses as helping them build more familiarity with Canadian standards (e.g., use of personal protective equipment, charting, and communication). They saw this as a way to help them decrease the training burden on

colleagues once they are hired into clinical roles.

3. **Familiarity and comfort with diverse cultures and communities**
   Data illustrated that IENs increased their understanding of diverse cultures in Alberta and confidence to provide culturally-competent care – especially in the context of Indigenous communities.

Addressing these barriers was perceived as a way to decrease the human resources strain that IENs were seen to impose when hired and increase the efficacy of care provided through more consistent and high-quality service provision.

As a pathway to employment, however, the educational pathway raised questions about employers' clear preference for Canadian clinical experience. As the micro-credential courses are asynchronous and academic in nature, they do not encompass a hands-on, supervised, or clinical element that can translate into either (a) a strong reference from a clinical supervisor or instructor who can verify the IEN's performance or (b) real-world clinical experience. Data illustrated the importance of matchmaking, practicum, and volunteer programs as potential solutions. Educational offerings paired with a pathway to clinical experience were perceived as more valuable and effective than an educational offering alone, as RNs can immediately demonstrate their competence, gain access to strong references and a professional network, and leverage volunteer or temporary placements into longer-term employment.

Barriers regarding perceptions of IENs – either related to racism/xenophobia or the assumption of temporary employment – were seen as more difficult to address and unlikely to be solved through an educational pathway geared toward IENs. While there were some positive sentiments that decreasing the training burden on colleagues may increase the positive reception to working with IENs, many interviewees suggested that more complex and robust solutions are needed. Specifically, supporting and incentivizing (a) organizations to hire/train IENs and (b) IENs to stay in high turnover roles for a longer tenure were seen as ways to overcome the resource strain that fuels individual-level resentment and stereotyping. More substantial anti-racism education in organizations and among patients/clients was also seen as helpful in supporting a more welcoming and inclusive environment.

Improvements for Work-Integrated Learning

To develop technical and non-technical skills needed to transition successfully into employment, data in this evaluation surfaced the importance of the following strategies:

1. **Hands-on, technical, and supervised learning activities**
   In the field of nursing, time to practice, perform, and perfect hands-on skills while being supervised and corrected by instructors was deemed to be a pivotal aspect of job readiness. Demonstrating one's technical competence and independence in the role of an RN was perceived as key to transitioning to employment. Indeed, the Bow Valley College team has since adapted the educational pathway to include an in-person lab equipped with the necessary tools to create opportunities for hands-on learning. Others may consider the technical skills required in their field and what is needed to attain and demonstrate those skills prior to employment.

2. **Diverse learning modalities that illustrate what is expected of employees**
   Matching the learning modalities to both (a) learners' diverse needs, preferences, and styles and (b) the tasks associated with the job were perceived as helpful and wanted. Rather than imagining what new roles, skills, and work environments might be like through readings, case studies, and written assignments, IENs wanted access to demonstrations, videos, and simulations to gain familiarity and feel prepared to applying knowledge in real-world settings. Indeed, the Bow Valley College team is now exploring and integrating additional content creation opportunities such as videos and recorded lectures. Others may consider how to use educational material to simulate or build familiarity with workplaces so that potential employees understand what to expect and how to transition the skillsets they gain from a learning to a work environment. Making skill application more concrete through parallels in learning and work environments may support job readiness.

3. **Employer recognition and employer-identified job readiness**
   Assessments are a key aspect of learning – providing opportunities for feedback, correcting misinformation or improper technique, and ensuring quality in skill acquisition. Co-developing assessments with employers may be a helpful way to determine that potential employees are ready and desirable candidates. For instance, understanding not only which skills employers are looking for potential employees to develop, but also how they would gauge the quality of a candidate's skill (a) at the interview stage and (b) once employed, may help refine assessments to communicate expectations and support readiness. In evaluator-led interviews, employers' perspectives varied regarding the value of micro-credentials. Several stated they wouldn't notice micro-credentials on résumés or factor them into hiring decisions. Others viewed them as evidence of initiative and commitment to addressing knowledge gaps. However, micro-credentials alone were not considered sufficient proof of competency. To set

future employees up for success by cultivating high-quality skills that employers recognize as a sign of job readiness and desirability, it may be advantageous to involved employers in determining what is proof of competency. This may bolster the quality of an educational pathway as a workforce solution.

Supporting Newcomer Workforce Participation and Employability

This section addresses Strategic Question 21, which examines issues related to work experience, employability, and barriers to employment faced by newcomers in Canada.

Effective Ways to Learn Transferable Skills

Perceived Drivers & Inhibitors

To understand the perceived relevance, use, and acceptability of the educational pathway as a workforce solution, IENs, RNs currently employed in Alberta and representatives of healthcare organizations (i.e., managers and those who hire nurses) were asked about the micro-credential model and its perceived ability to bolster desirable and employment-ready skills for IENs. Perspectives were divided.

Though not a replacement for nursing school or bridging programs, many perceived the educational pathway as supporting IENs and currently employed RNs more broadly to:

- Refresh or top-up skills regarding a specific topic, health condition, or technique
- Transition to new or emerging technology
- Stay up-to-date with new assessments, unique or uncommon conditions, and health issues that are becoming more prevalent
- Study for licensing exams and renew nursing licenses
- Address feedback from potential employers following an unsuccessful job interview

Others were wary of the educational pathway to employment. With the increase of online trainings offered outside of formal accredited programs, findings suggest that there is an overall hesitancy or skepticism within the market regarding the micro-credential model. Some viewed micro-credential courses as being of low-quality, promoting misleading or over-promising employment outcomes, and being a cash-grab for vulnerable and precariously employed individuals. To overcome negative perceptions, findings suggest that proof of employment following the completion of micro-credential courses and employers buying into or formally

recognizing the merit of badges resulting from micro-credential courses may better demonstrate the relevance, use, and acceptability of the educational pathway.

Data also highlight that managing expectations regarding transferable skill development is desirable. Specifically, more clarity is wanted regarding the ways in which micro-credential courses fit within the educational ecosystem for nurses. Is this educational pathway considered comparable to, a replacement for, or supplemental to other kinds of training (e.g., nursing or bridging programs, practicum placements)? What are the learning outcomes (e.g., what skills are gained? What are expected employment outcomes?)? How does the micro-credential model support job readiness? Answers to these questions were seen as necessary in helping IENs make informed decisions about enrolling, what other training may be needed to boost desirability and employability, and how to use education as a strategic pathway to employment.

Accessibility

The most significant barriers identified in the data as preventing IENs or currently employed RNs seeking upskilling from enrolling in the educational pathway are: time, finances, employer buy-in (for employed RNs), and geography (especially for rural RNs). To overcome this, IENs currently enrolled in or just finishing bridging programs identified that this is an ideal time to enroll. The protected time for learning while in school or transitioning between school and employment served as useful periods to participate. The waived fee for IENs during the pilot was also perceived as a helpful consideration that promoted accessibility. Indeed, almost half (43%) of pilot participants reported their annual household income was less than $20,000. For context, the annual household income needed to meet the basic standard of living for a single person in Alberta is between $25,031 and $28,262[3]. Moreover, RNs currently employed in Alberta similarly indicated that registration cost – and whether they would have to pay out-of-pocket or receive financial support from their employer - would significantly impact their ability to enroll. No interviewee indicated that they would be willing or able to pay for the course from personal funds. Finally, organizational buy-in and awareness were seen as supporting accessibility for currently employed RNs. If managers were aware of the educational pathway, value of micro-credentials and the resulting badges, and were willing to approve time off or protected time to participate, RNs reflected on being more likely to enroll. Finally, being able to participate from rural/remote areas was important. Considerations for these RNs included having access to high-speed Wi-Fi, enough bandwidth to download/upload content, and take advantage of any in-person components without significant travel to urban areas.

[3] This range is derived from Statistics Canada's 2023 Market Basket Measure for Alberta's lowest and highest regions (Table E), adjusted to a single person using the square root scale. Values increase with each additional household member.

Relevant and Wanted Pathways

Findings illustrate that placement programs (tied to nursing schools) and volunteer work provide more practical employment pathways than education alone for IENs. These opportunities build organizational credibility, provide supervised clinical experience, generate strong references, and establish professional networks. While out of scope for the micro-credential model, data demonstrated the potential benefit of matchmaking components connecting newcomers to clinical placements or volunteer opportunities. However, unpaid work is not an ideal or long-term solution for IENs or newcomers, as this has the potential to perpetuate the devaluation of their work, further financial insecurity, and selectively privilege those with higher household incomes and fewer competing responsibilities. Notwithstanding the problematic nature of unpaid work, many RNs interviewed reflected that they were hired after volunteering and completing placements.

Limitations to High-Demand Transferable Skills

The notion of building and applying transferable skills for high-demand workplaces is contentious among IENs. There is already a well-established pathway for IENs into nursing-adjacent healthcare roles in high-demand rural and continuing care areas, such as health care aids, personal care attendants, private in-home care partners or companions, and personal support workers. Transferable nursing skills are desirable for employers who can hire over-qualified workers who are unable to find more meaningful, relevant, and well-paying positions as RNs. IENs and RNs alike did not perceive a clear pathway from a nursing-adjacent role into a nursing position, as employers still require prospective employees to demonstrate clinical experience in the role for which they are applying. Accordingly, there was resistance toward the notion of transferable skills, as the problem is not that IENs cannot find work in Canada, it is that they cannot find work as RNs in Canada without significant upskilling and a willingness to work in high demand, but nonetheless undesirable, areas. Efforts to help IENs develop or use transferable skills for non-nursing employment were perceived as problematic and predatory. Accordingly, the educational pathway's focus and priority on helping IENs access roles in nursing (rather than another healthcare position) was perceived as relevant and important.

Lessons Learned

Successes

This pilot resulted in numerous successes.

- The educational pathway was envisioned to support IENs in finding jobs as RNs in strategic areas of practice, rather than help IENs use transferable skills to find lower-paying nursing-adjacent roles. This lens was perceived as relevant and wanted.
- The Bow Valley College team engaged employers to identify skills and core competencies that would make IENs more desirable candidates, which helped keep content relevant and tailored to Alberta's healthcare sector
- Instructors and BVC team members (especially the program officer) fostered positive learning experiences for IENs who reported feeling respected and enjoying the course content
- The asynchronous online format was overall perceived as accessible, feasible, and easy to navigate. This made participation possible for IENs with other competing commitments (e.g., school, work, family).
- Because the pilot was free, IENs experiencing financial insecurity were able to participate when they would not otherwise be able to
- IENs reported feeling more confident and knowledgeable as a result of their participation in the educational pathway – especially with respect to leadership responsibilities, cultural competency, and Canadian healthcare contexts
- IENs perceived that their increased knowledge and competency would potentially decrease the training burden on their future colleagues and supervisors, making them more desirable and advantageous colleagues
- IENs who were unsure of career pathways in rural or continuing care settings developed familiarity in these contexts, making it easier for them to decide whether to pursue careers in these areas and strategize accordingly
- The Bow Valley College team was responsive to emergent questions, concerns, and feedback from IENs – making adaptations along the way to support engagement and completion. This was perceived as contributing to a supportive and nimble learning environment.

Challenges

Notwithstanding the positive experiences and perceptions that IENs had about the educational pathway, the pilot surfaced key challenges stemming from both the normal trial-and-error process of a pilot project and the untested assumptions in the program's logic model.

- The efficacy of course assessments for testing job-ready skills remains unknown.
    - It was unclear whether assessments were based on completion, effort, accuracy, and/or communication skills.
    - It was not possible to determine how the written assignments (whereby IENs described how they would perform a skill after reading about it) would result in

tangible skill acquisition and the ability to perform that skill (rather than describe it). Without supervised practice and simulated or real-world experience performing that skill, it is currently unknown whether IENs increased their knowledge/familiarity or gained tactile, job-ready skills.
    - Without grading guidelines, it is unclear how each instructor graded assessments and to what extent grading was consistent across courses and instructors.
- While the one-skill-per-course model was perceived as helpful for the digestibility of course content and the feasibility of course completion, there were concerns that micro-credentials oversimplify content. Specifically, without space to explore holistic and interconnected health topics, some worried that micro-credential courses may not adequately prepare learners for the actual workplace scenarios where they would be required to perform skills.
- Most participants were unaware of micro-credentials prior to the evaluation. Many raised questions about their usefulness in the job market. Specifically:
    - It was unclear to IENs how to communicate or promote their skills using the badges. Many perceived the badges as ultimately unhelpful in increasing their desirability or ranking among other competitive applications.
    - Employers interviewed indicated that they would not check for badges in an application and did not perceive micro-credentials to influence their decision-making during a hiring process.
- While practicum placements are beyond the scope of micro-credential courses, it remains unclear how the educational pathway can support job readiness and employment without helping IENs get Canadian experience in clinical settings.

Recommendations for Non-Profits and Governments

- When considering programming for immigrants, be thoughtful about the unintended consequences of promoting transferable skills. In the case of nurses, there is no shortage of job opportunities for IENs to work in other healthcare roles. The over-representation of IENs in healthcare aid and personal care positions allows employers to benefit from over-qualified workers who are unable to find meaningful work in their professions. This, paired with a lack of opportunities to transition into nursing positions, is perceived as predatory and fueling the precarious employment of IENs.
- Consider investing in more opportunities for paid clinical positions as part of upskilling or reskilling interventions that allow IENs to gain Canadian experience in nursing roles.

    - Practicum placements and match-making programs may help facilitate the transition from bridging programs into the workforce
    - Be wary of unpaid positions and programs that further the financial instability of IENs. While currently employed RNs interviewed recalled that unpaid volunteer positions and practicum placements helped them secure paid positions as new graduates, the expectation for nurses to volunteer their time and skills to qualify for jobs was perceived as demeaning, exploitative, and fueling vulnerability for IENs and new graduates alike.
- Consider creating financial incentive programs for organizations that hire IENs to help offset the human cost of mentoring and providing on-the-job training for new hires. The added resources may help alleviate the feelings of hesitancy or resentment that prevent employers and currently employed RNs from giving IENs their first chance.
- Consider creating employment pathways into nursing roles from the allied healthcare roles where IENs often work, so that IENs can leverage the Canadian experience they gain in nursing-adjacent positions to secure work as RNs

Recommendations for Interdisciplinary Workforce Solutions

- Consider investing in the creation of more IEN navigator roles to help broker relationships, advocate for, and match-make IENs with potential upskilling opportunities and employers. These roles can be hosted in clinical and academic settings (either to facilitate the successful recruitment of IENs into nursing roles or support successful prospecting for new graduates transitioning out of bridging programs)
- Consider pairing IEN upskilling solutions with complementary interventions to create workforce solutions that address both individual and systemic barriers to meaningful RN employment for IENs. Cross-sector collaboration can unlock opportunities beyond what individual organizations can achieve. Some ideas include:
    - Upskilling training that teaches job-ready technical skills, paired with funding for protected mentorship and supervision time during course work and/or practicum placements
    - Upskilling training coupled with financial incentives for organizations that hire IEN graduates as RNs within a defined timeframe
    - Upskilling training that teaches job-ready technical skills paired with wraparound supports, such as opportunities to build professional networks (e.g., mentorship program), develop job acquisition skills (e.g., resume writing,

interview practice), and secure employment (e.g., IEN navigator support, practicum).
    - Upskill training for IENs with work-integrated learning opportunities paired with anti-racism training for healthcare organizations to create more inclusive work environments that may be more likely to hire IENs.

Suggested Areas for Future Evaluation

Before scaling or recreating the educational pathway, it is important to test key assumptions in the logic model to provide a robust body of evidence that micro-credentials lead to increased job readiness, employability, and job satisfaction/performance. It may be beneficial to consider:

- Testing if micro-credential courses are able to facilitate job-ready skill acquisition for both internationally- and Canadian-educated RNs
    - In addition, test if internationally- and Canadian-educated RNs equally benefit from the courses to understand if they work across intended audiences as is
- Testing if course assessments are able to determine (a) skill acquisition (i.e., have learners gained the expected skills) and (b) job readiness (i.e., are learners able to perform the expected skills with the same competence/confidence expected of them in the workplace)
- Testing that completing micro-credential courses alone (without additional supports or interventions) are sufficient to increase employability. For example, testing if employers are more likely to hire IENs with badges achieved from completing micro-credential courses

To provide insights into the above assumptions, it may be helpful to engage in the following measurement activities:

- Follow up with alumni to understand (a) if/when they get hired into RN jobs (in what sectors and where in Alberta), (b) if they would attribute their successful job acquisition to the micro-credential course(s) that they completed, and (c) what else they did do to successfully land a job (e.g., what other strategies they employed)
- Elicit feedback from employers and colleagues of IENs who have been hired into RN roles to understand (a) to what extent IENs met employer expectations for skills and competence, and (b) if/how the micro-credentials supported a decreased training burden for colleagues
- Have employers review assessments and anonymized/collated responses (or a collection of comparable responses that are fictional vignettes) to understand if they perceived the

assessments to adequately test for/indicate (a) skill acquisition, (b) confidence to perform tasks independently, and (c) the ability to perform skills up to their standards

- Elicit feedback from IEN navigators and others who advocate for IENs to understand if perceptions and experiences of IENs have changed at all over time in the Alberta healthcare system

Appendix A: Glossary

The following table describes key terms used in this report to promote a shared understanding of these phrases.

Defining the Report's Acronyms

Acronym	Definition
AI	Artificial intelligence
EDI&R	Equity, diversity, inclusion, and reconciliation
IEN	Internationally educated nurses
RN	Registered nurses

Appendix B: Logic Model

Advancing IEN Care Pathways Logic Model – v3

	Inputs	Activities	Outputs	Immediate Outcomes (end of the project)	Mid Outcomes (Up to 1 Year after)	Long Outcomes (Up to 3 Years after)	Impact
IENs	• Time • Expertise • Enrolled in or completed an RN bridging program	• Enroll in one of two learning pathways • Complete up to three micro-credential courses in the pathway	• Digital badges	• ↑ applied nursing knowledge & skills • ↑ confidence working in Alberta • Enhanced job readiness • Higher employability	• Better RN credential recognition for alumni • Increased employment in acute and critical care RN roles in Alberta • Increased RN job acquisition (3-12 months post) • Increased job satisfaction • Improved job performance • Improved job stability	• Improved access to career advancement opportunities • Continued job satisfaction and stability • Continued recognition & merit in credentials	IENs obtain meaningful nursing jobs Increased recognition of existing RN credentials among IENs in Alberta Increased retention of IENs in Alberta (resilient workforce pipeline) Demand- driven inclusive workforce better addresses healthcare demands Better health for patients, staff, and communities
Bow Valley College	• Expertise in workforce development & supporting immigrants to transition into the workforce • Pivot-Ed • Staff • IEN bridging program • School of Health and Wellness team • Instructors • IT	• Conduct a needs analysis and training resource review • Create six micro-credential courses with iterative feedback from SMEs • Pilot the micro-credential courses with IENs • Conduct continuous quality improvement to refine the courses during the pilot • Refine an employer-driven training development model	• Needs analysis and training resource report • Six micro-credential courses • Pilot results report • Final evaluation report	• Successfully launched two educational pathways that are training IENs on an ongoing basis • Improved course content and implementation because of continuous quality improvement • ↑ expertise in creating rapid, employer-driven micro-credential courses • New relationships with employers who want their employees to participate in an educational pathway	• More IENs complete the educational pathways • Increased demand for micro-credential courses • Sustained funding • Model is replicated to create micro-credentials for RNs working in mental health and primary care	• Ongoing demand and funding for program • Leader in rapid employer-driven training ecosystem • Suite of trainings & refreshers from a proven model with interest & recognition	
Health System	• Time and expertise of collaborators (e.g., AHS staff, SMEs)	• Employers help identify workforce gap and course topics • SMEs give feedback on (and validate) course content	• N/A	• Micro-credential courses help address an upskilling barrier, creating a new employment pathway for IENs to work in Alberta • More employers seek out training from Bow Valley for IEN upskilling	• More IENs hired in Alberta • Improved IEN retention • Reduced nursing staffing gaps (esp. In rural areas) • More diverse and skilled workforce • Collaborate with BVC to extend rapid training model to mental health and primary care training at AHS	• Continued reduction in nursing staffing gaps • Model addresses other employer-identified workforce challenges • More demand- driven diverse and inclusive healthcare workforce • Rapid training becomes the norm of care upskilling	

AHS = Alberta Health Services; SMEs = Subject Matter Experts; IENs = Internationally Educated Nurses; RN = Registered Nurse

Appendix C: Methodology

This section describes the evaluation methodology, including strategic and evaluation questions, data collection and analysis methods.

Strategic and Evaluation Questions

The evaluation employed a mixed-methods approach to answer evaluation questions that were meaningful for Bow Valley College and provided insights into the Future Skill Centre's strategic questions. The following table maps the evaluation questions to three Strategic Questions.

Evaluation Questions Mapped to Strategic Question

Strategic Question (provided by FSC)	Evaluation Question	Notes
Strategic Question 2 Interventions, barriers, and supports for individuals seeking job transition or workforce re-entry		
What interventions are most effective in smoothing job transitions for people currently out of the labour market or those in precarious employment? What interventions are the most effective in addressing the diverse needs of workers who have been out of the labour market for varying lengths of time? What is the role of upskilling/reskilling training, micro-credentials, and/or technology-enabled learning? How can financial barriers to accessing services or training be relieved, particularly for women transitioning to or re-engaging with the workforce? Which wrap around supports are most effective, and in which combination(s)?	1. What is a model for creating an employer-driven, rapid educational pathway? a. What were key ingredients? b. What was unique about this educational pathway compared to bridging programs? c. What lessons were learned during implementation to refine the model?	The evaluation was unable to address aspects of Strategic Question 2 related to financial barriers or wraparound supports as these elements were not included in either educational pathway.
Strategic Question 3 Approaches to skills development and barrier reduction for new labour market entrants		

Strategic Question (provided by FSC)	Evaluation Question	Notes
What approaches are the most effective at equipping new labour market entrants with the skills that are most in demand by employers? How can work-integrated learning be improved or optimized to ensure learners develop the non-technical skills needed to transition successfully into employment? What new approaches are needed to overcome the long-standing barriers to entry into the skilled trades for people from groups that face systemic barriers	2. How effective was the educational pathway for training IENs? a. What are IENs experiences of a micro-credential educational pathway? b. How effectively does the micro-credential educational pathway equip IENs with the clinical knowledge and skills wanted by employers? c. What are the perceived barriers and facilitators to completing a micro-credential educational pathway? d. What non-technical core competencies do IENs gain through taking one or more micro-credential courses? e. How does taking one or more micro-credential courses improve IEN's confidence working within Alberta's healthcare system? f. What is the perceived role of micro-credentials and technology-enabled learning in addressing IEN's knowledge and skill gaps?	The evaluation did not address work-integrated learning or financial barriers, as these elements were not part of the educational pathways. The short evaluation timeline prevented assessing longer-term employment outcomes
Strategic Question 21 Issues related to work experience, employability, and barriers to employment faced by newcomers in Canada		
What aspects of Canadian work experience are key drivers for newcomer outcomes? What are the	3. What is the perceived relevance, usefulness, and acceptability of	Newcomer support and addressing

Strategic Question (provided by FSC)	Evaluation Question	Notes
most effective ways to support newcomers to learn the transferable soft skills or employability skills that are in high-demand in Canadian workplaces? What are the key barriers preventing newcomer women from participating more fully in the labour force? What approaches would help overcome these barriers? How can we enable service providers to adopt more evidence-based practices? How can we increase awareness of newcomer support services?	Bow Valley's micro-credential education pathways among prospective IENs? a. What are key barriers for IENs to participating more fully in the healthcare system? b. How relevant and acceptable are the micro-credential education pathways to employed registered nurses working in Alberta? c. How relevant and acceptable is the micro-credential education pathways to IENs not currently connected to Bow Valley College?	gender-specific barriers to employment were not part of how the educational pathways were designed and therefore are not explored in this evaluation.

Data Collection Methods

To provide a robust evaluation, several activities took place to collect meaningful data. Data collection methods, corresponding participants, and data analysis strategies are listed below by key aspect of the evaluation.

Model Development

1. Semi-structured interviews with Bow Valley College staff (n = 5) to document the steps used to develop the educational pathway. Qualitative data were recorded using the AI notetaker in Zoom and checked by the evaluator and participants for accuracy.
2. Iterative program document reviews were performed by evaluators to track the evolution of the educational pathway development process and pilot. Documents retrospectively documenting pilot activities and adaptations were provided by the Bow Valley College team and uploaded to a shared drive (May – Sept 2025).

Micro-credential Pilot

3. The Bow Valley College registration form was used in June 2025 to collect information about the demographics of IENs enrolled in the pilot (n = 44). The Bow Valley College team collected, anonymized, and shared data with evaluators for a secondary analysis.
4. A post-pilot online survey was distributed to all IENs registered in the pilot in September-October 2025, with four reminder emails to encourage participation. The survey measured perceptions of the usefulness and relevance of individual micro-credential courses and accessibility of the online platform. IENs who completed the survey (n = 18, 39% response rate) were invited to enter a draw for 1 of 2 $65 cash prizes.
5. Semi-structured qualitative interviews lasting between 30-60 minutes were conducted with IENs (n = 7) enrolled in the educational pathway upon completion (September - October 2025). Interviews were conducted to understand IEN's experiences with the courses and their perceptions of the educational pathway overall. Qualitative data were recorded using the AI notetaker in Zoom or manually recorded by hand for phone calls and checked by the evaluator for accuracy. After the interview, participants received an honorarium of $75 as a thank-you for their time.
6. Semi-structured qualitative interviews lasting approximately 30 minutes were conducted with course instructors (n = 2) upon completion of the pilot (September 2025). Interviews were used to understand instructors' perceptions and experiences of the educational micro-credential courses. Qualitative data were recorded using the AI notetaker in Zoom or manually recorded by hand for phone calls and checked by the evaluator for accuracy. After interviews, instructors were invited to change or remove any of their responses if they believed anything shared would be identifiable or put them at risk. Notes were updated accordingly. After the interview, participants received an honorarium of $50 as a thank-you for their time.
7. Data from D2L and Affinity tracking learners' navigation through the courses, time spent on course content and assessments, and completion were pulled by Bow Valley College staff into anonymized data tables for a secondary data analysis performed by evaluators (September 2025). These data were used to understand trends in learner's experiences. Anomalies in the data were brought to the Bow Valley College team and instructors for clarification.
8. Standing meetings with Bow Valley College staff were held monthly to document how the pilot was going from the perspective of staff, emerging successes, and emerging challenges/solutions. Data were recorded through real-time notetaking and checked by Bow Valley College staff in real-time to ensure accuracy.

Ecosystem Relevance

9. Semi-structured qualitative interviews lasting between 30-60 minutes were conducted with RNs across Alberta (July – September 2025). Of the 9 RNs interviewed, 6 had experience in continuing care, 3 had experience in rural acute care, and 1 had experience in corrections. Interviews were used to understand the perceived relevance and acceptability of both (a) the micro-credential model and (b) chosen topics among nurses. RNs were also asked about barriers and facilitators to participating in continued professional development while employed in the healthcare system and considerations for hiring or working with IENs. Qualitative data were recorded using the AI notetaker in Zoom or manually recorded by hand for phone calls and checked by the evaluator for accuracy. After the interview, participants received an honorarium of $50 as a thank-you for their time.
10. Semi-structured qualitative interviews lasting between 30-60 minutes were conducted with representatives of healthcare organizations across Alberta that employ RNs and/or focus on the rural acute care/continuing care (n = 5). Interviews were used to understand the perceived relevance and acceptability of both (a) the micro-credential model and (b) chosen topics among organizational leaders. Participants were also asked about barriers and facilitators to continued professional development for their staff and perceptions of the employability of IENs. Qualitative data were recorded using the AI notetaker in Zoom or manually recorded by hand for phone calls and checked by the evaluator for accuracy. After the interview, participants received an honorarium of $50 as a thank-you for their time.

To interview RNs and representatives of healthcare organizations across Alberta, the evaluators reached out and sent personalized invitations to participate in the evaluation (as well as follow-up reminders) to:

- 10 Alberta-based nursing organizations
- 10 Alberta-based nursing programs across eight schools (with a request to share an invitation to participate with alumni)
- 166 Alberta nursing union chapters
- 10 rural hospitals
- 9 nurse recruitment organizations
- The evaluators' own personal and professional networks

Additionally, one Bow Valley College staff member sent personalized emails to individuals within their professional networks.

Evaluation Participation

11. Demographic information was collected from people who participated in interviews anonymously using a post-interview survey that was shared via email immediately after the interview (n = 10, 43% response rate).

Data Analysis

Quantitative data from surveys, the registration form, and the D2L and Affinity data tables were cleaned and subsequently analyzed using descriptive statistics in Excel.

Given the predetermined scope of the final report and existing project logic, qualitative data from interviews were analyzed using a deductive thematic analysis. The deductive approach helped to balance the evaluation scope and depth of understanding. An initial coding framework was developed with codes grounded in the logic model, evaluation questions, and strategic questions. One evaluator systemically applied codes to all interview notes. Emergent themes were documented, and refinements were made in iterative passes for consistency. A second evaluator performed a secondary review to check the validity and completeness of the analysis. Findings were then organized by key theme and question within the unique scope of each report (i.e., the Ecosystem Summary Report, Pilot Report, and Final Report).

A comprehensive and systematic review was conducted for program documents and minutes from monthly staff meetings. A review protocol was created, aligning with key themes from the logic model and evaluation/strategic questions. Data were reviewed with attention paid to alignment, patterns, contradictions, underpinning logic and assumptions, and expectations. Ambiguities and gaps were addressed in standing meetings with Bow Valley College to ensure completeness and resolve confusion.

Data across the three domains were triangulated to create a fulsome account. First, findings were organized and mapped to the evaluation and strategic questions. Then, a comparison was made across data sources to identify commonalities or convergence, emergent questions, contradictions or inconsistencies, and irregularities. Findings were then synthesized and organized across sub-themes corresponding with each question to create a multi-dimensional account. Gaps in understanding were noted and represented in the Findings section.

The emergent and evolving program model and iterative quality improvement process made it difficult to consistently pinpoint and articulate expected processes and outcomes across data sources. Inconsistencies surfaced where data from different sources or at different points in

time during the evaluation did not correlate with each other or with the logic model. This resulted in an inability to answer some aspects of the evaluation and strategic questions.

Evaluation Evolution

The evaluation design was initially articulated through an Evaluation Learning Plan, which was co-created by Bow Valley College and AND implementation. The evaluation design evolved during the evaluation to address emergent challenges and opportunities.

The evaluation's focus largely did not shift from the original Evaluation Learning Plan to the final report. The elements from the FSC's strategic questions that the evaluation was unable to answer were unanswerable due to the evaluation timeline or intervention design (see the table at start of Appendix C for details).

Two changes were made to data collection activities in the original Evaluation Plan. First, it was not possible to recruit prospective IENs who were not connected to Bow Valley College as originally planned. After several failed recruitment activities, this group was removed from the evaluation. Second, Bow Valley College withdrew permission to interview those involved in the development process, but not involved our work together (e.g., Subject Matter Experts, industry leaders). Despite exploring alternatives, this data collection activity was ultimately dropped. As a result, the evaluation model is based solely on Bow Valley College staff perceptions. While both design changes narrowed the number of groups involved in the evaluation, neither affected the Evaluation Learning Plan's focus.

Beyond these design changes, one evaluation question was revised relative to the original Evaluation Learning Plan. Rather than evaluating the effectiveness of the developmental model used by Bow Valley College staff, the evaluation focused on describing the model and refining it based on lessons learned during the pilot. This narrowed the evaluation's focus (see the table below for details).

Evaluation Questions Mapped to Strategic Question

Original Evaluation Question (Evaluation Learning Plan)	Final Evaluation Question (Final Report)	Explanation of Changes
What is an effective model for creating a rapid, employer-driven micro-credential training program?	What is a model for creating an employer-driven, rapid educational pathway?	The evaluation timeline prevented us from assessing the effectiveness of the development process. The focus was therefore narrowed to describing the development model and lessons learned from the pilot. Additionally, it was not possible to interview members of the Bow Valley College ecosystem who contributed to the development process. The evaluation thus focused on Bow Valley College staff experiences and perceptions to define the model, narrowing the number of perspectives used to define the model.
How effective are the micro-credential courses?	How effective was the educational pathway for training IENs?	Because the pilot offered two educational pathways (each comprising three courses), we revised the evaluation question to focus on the overall educational pathway rather than on individual courses. This meant data collection focused one level higher than originally conceptualized.
What is the perceived relevance, usefulness, and acceptability of Bow Valley's training program among prospective IENs?	What is the perceived relevance, usefulness, and acceptability of Bow Valley's micro-credential education pathways among prospective IENs?	The only change was wording, where the intervention name evolved from "training program" to "micro-credential education pathways" during project implementation. This did not impact the evaluation focus or design.

Appendix D: Data Collection Tools

The data collection tools used in the evaluation are presented below.

Model Development

To develop the model, we reviewed documentation and hosted two planning meetings with Bow Valley College staff. We used this information to develop a semi-structured interview guide asking about grant application, needs assessment, course development process, and overall.

Grant

1. Where you involved in the project when it was initially being designed and the grant application being written?
2. Where did the idea for this project come from?
    a. This project is an extension of another project. What is the original project?
    b. How was it decided to extend the project? Who was involved in making this decision?
3. What steps did you take to move from the idea stage to the grant application?
    a. Chief Nursing Officer, senior practice leads, and nurse educators from AHS were involved in deciding the trainings would focus on continuing care and rural acute care. Can you describe how this decision was made?
    b. Chief Nursing Officer, senior practice leads, and nurse educators from AHS were involved in deciding the trainings would focus on continuing care and rural acute care. Can you describe how this decision was made?
    c. Once the two areas were decided on, how did you settle on the specific topics (e.g., geriatric assessment, rural mental health)?
4. A few questions about how different people were involved in this work
    a. Beyond CNO, practice leads, and nurse educators, were other employers involved in this work? If so, how?
    b. Was the Advisory Council involved in the project ahead of the grant application? If so, how?
    c. How did you include CRNA in this part of the project?
    d. Was the FCRP involved in this part of the project?
    e. Was anyone else involved in the initial project involved in planning and grant application?

   f. To confirm, IENs were not involved in this process, right?
5. In what ways is the above process being responsive to workforce needs?
   a. How is this progress similar to how other micro-credential courses are decided upon?
   b. How is this progress different than how other micro-credential courses are decided upon?
6. Looking back, what went well in this process?
7. Looking back, would you change anything if you could start the project over?

Needs Analysis

1. What questions were you hoping to answer from the needs analysis and technology review?
2. What steps were taken to complete the needs analysis and tech review completed?
3. How are you planning to use the needs analysis and tech review?
   a. Beyond a deliverable for FSC, how will you use the findings of this report?

Course Development

1. Have you been involved in designing or validating the courses?
2. What is the process for creating each course?
   a. Previously a framework was mentioned. What is this? How was it used to create and/or validate the courses?
   b. How it decided that you'd create single outcome courses?
   c. How did you decide on three course, two pathways as the format?
   d. How are you ensuring alignment with workforce needs?
3. Who are the learning experts (i.e., instructional designers and/or course developers)?
   a. How did you recruit them to be part of this work?
   b. How are learning experts involved in the development process?
4. Who are the SMEs?
   a. How did you recruit them to be part of this work?
   b. What was their role in curriculum development?
5. Who are the media designers?
   a. How did you recruit them to be part of this work?
   b. What was their role in curriculum development?
6. What is the process for validating course content?
   a. Who is involved?

   b. How was feedback from IENs used to inform training design?
   c. How was feedback from community-serving organizations used to inform training design?
7. How is each course structured?
   a. How are you designing the curriculum to ensure clinical knowledge and skills are being taught?
   b. How are you designing the curriculum to teach expected non-technical skills (e.g., increased confidence, better communication skills)?
   c. Are there any differences in course structure between the six courses?
   d. How much time does a learner need to invest to complete a course?
   e. How are you working to align the courses with the Canadian Nurses Association critical care certification pathways?
8. Who has to approve the course before it goes live?
   a. Is the Advisory Council involved in this process? If so, how?
   b. Is the FCRP involved in this part of the project? If so, how?
   c. Is the CRNA involved in this process? If so, how?
9. How is this course development and validation process similar to how other micro-credential courses are developed?
10. How is this course development and validation process different to how other micro-credential courses are developed?
11. Looking back, what went well in this process?
12. Looking back, what would you change if you could start over?

Pilot

1. What is your role in getting the courses onto Pivot-Ed?
   a. What is the process for uploading course content to Pivot-Ed and going live?
   b. How long does this take?
   c. How do people register to participate in a course?
2. Go Live has a series of communication that they will provide to participants (when they have to register, due date, access date, general information about the access to the platform). Plan to provide help desk & platform (e.g., reset password).
3. How are the courses going to be rolled out?
   a. Any time limits to completion?
   b. How is the pilot structured?

Overall

1. How did you get involved in this project?
2. What is unique about this process for developing micro-credential trainings?
3. Do micro-credential programs ever provide wraparound supports?
4. How are these single-outcome courses similar/different to other bridging micro-credentials?
5. What have been the strengths of the process to date?
6. What have been some challenges of the process to date?
7. How did the BCV team's expertise working with immigrant populations and underrepresented groups in health care inform the training course development?
8. Is there anything about the process so far that I haven't asked about and you think is important for me to know about?

Micro-Credential Pilot

For the micro-credential pilot, data were collected from IENs through a registration form, post-pilot online survey, and post-pilot semi-structured interviews. Data were collected from instructors through a post-pilot semi-structured interview.

IEN Survey

The below questions were asked on the IEN survey. Questions with an asterisk were mandatory questions. The survey tool below does not include branching logic, display logic, or page breaks that were used to improve user experience.

Consent

You are being invited to participate in a survey about your experience taking the micro-credential pilot offered by Bow Valley College. This survey is being conducted as part of an external evaluation by AND implementation (learn more at www.ANDimplementation.ca) to improve the quality of this and future micro-credential courses.

Important Information:

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- This survey will take up to 15 minutes to complete
- Your participation is completely voluntary (if you don't want to participate, close this window now)
- No one at Bow Valley College will know whether you are participating in this evaluation or not
- Your answers are anonymous and confidential – your name will not be associated with your responses
- If you choose to participate, you will be invited to enter a draw at the end of the survey for one of two prizes of $65

If you have any questions about this survey, please contact Jennica Nichols at jennica@andimplementation.ca.

Do you consent to be part of this survey? *

- ○ Yes, I consent to participate in this evaluation
- ○ No, I do not consent to participate in this evaluation

About You

Are you currently licensed as an RN in Alberta? *

- ○ Yes
- ○ No

Are you currently working? *

- ○ Yes, as an RN (causal, temporary, part-time, or full-time)
- ○ Yes, not as an RN but in a health care setting
- ○ Yes, but not in health care
- ○ No
- ○ Other

We know that identity is complex and personal. A survey is limited in its ability to understand all the amazing facets of being a human. That said, we would like to gain a better understanding of who participated in this evaluation. Please let us know how you identify (select all that apply): *

- ☐ Immigrant
- ☐ Indigenous person
- ☐ 2SLGBTQ+ person
- ☐ Newcomer (arrived to Canada in the last 5 years)
- ☐ Person living in a rural, remote, or northern community
- ☐ Person with a disability or disabilities
- ☐ Racialized person
- ☐ Woman
- ☐ Youth (aged 15-29)
- ☐ Older adult (65 years or older)
- ☐ None of these categories apply to me
- ☐ I prefer not to answer

We know you are more than a checkbox. If none of the above options worked for you, you'd like to identify differently, and/or you'd like to add more details about your identity, please do so below.

(Open text box)

Micro-Credential Pathway

Which pathway(s) did you enroll in? *

- ○ Continuing Care
- ○ Rural Acute Care

Dementia, Delirium, and Depression

This is the first micro-credential course in the continuing care pathway.
How much of the Dementia, Delirium, and Depression course did you complete? *

- ○ None, I did not participate in this course
- ○ A little, I did some course work but less than half
- ○ Some, I did about half of course work
- ○ A lot, I did most of the course work but did not finish
- ○ All, I completed the course

Dementia, Delirium, and Depression (Part 1)

This section asks you about the **first** micro-credential course you took in the continuing care pathway.

For each question, please select the answer that best represents your experience taking the Dementia, Delirium, and Depression course

Question	Strongly disagree	Somewhat disagree	Neither disagree or agree	Somewhat agree	Strongly agree
The modules I completed had content that was mostly or all new to me.					
Course material covered key topics in sufficient detail					
The course content was relevant to my nursing practice					
Assignment instructions were clear and					
Completing the assignments helped me improve my nursing skills					
I received helpful feedback on my progress during the course					
The final assessment was unfair					

Overall, was this course a good use of your time?

- ○ Yes
- ○ No
- ○ Not sure

Dementia, Delirium, and Depression (Part 2)

This section asks you about the **first** micro-credential course you took in the continuing care pathway.

For each question, select the answer that best represents your experience after taking the **Dementia, Delirium, and Depression** course:

Questions	Strongly disagree	Somewhat disagree	Neither disagree or agree	Somewhat agree	Strongly Agree
I am better able to use clinical indicators to assess the cognitive and emotional health of older adults because if this course					
Because of his course, I am more confident in engaging family caregivers in care planning for patents in continuing care settings					

I am better able to create and implement individualized care strategies for people in continuing care settings because of this course					

Are you able to differentiate between dementia, delirium, and depression to ensure patients receive appropriate care in continuing care settings?

- ○ Yes, this course helped me develop this skill
- ○ Yes, this course enhanced a skill I already had
- ○ Somewhat, I made progress but need more skill development
- ○ No, this course did not help me develop this skill
- ○ Other

How confident are you in your ability to differentiate between dementia, delirium, and depression to ensure patients receive appropriate care in continuing care settings?

- ○ Extremely confident
- ○ Somewhat confident
- ○ Neutral
- ○ Somewhat not confident
- ○ Extremely not confident

Is there anything you **loved** about the Dementia, Delirium, and Depression course that Bow Valley College must keep? Is there anything you **hated** about the course you'd want Bow Valley College to change before offering the course again? If so, tell us below.

(Open text box)

Comprehensive Geriatric Assessment

This is the **second** micro-credential course in the continuing care pathway

How much of the *Comprehensive Geriatric Assessment* course did you complete? *

- ○ None, I did not participate in this course
- ○ A little, I did some course work but less than half
- ○ Some, I did about half of course work
- ○ A lot, I did most of the course work but did not finish
- ○

All, I completed the course

Comprehensive Geriatric Assessment (Part 1)

This section asks you about the **second** micro-credential course you took in the continuing care pathway.

For each question, please select the answer that best represents your experience taking the Comprehensive Geriatric Assessment course:

Question	Strongly disagree	Somewhat disagree	Neither disagree or agree	Somewhat agree	Strongly agree
The modules I completed had content that was mostly or all new to me.					
Course material covered key topics in sufficient detail					
The course content was relevant to my nursing practice					
Assignment instructions were clear and					
Completing the assignments helped me improve my nursing skills					
I received helpful feedback on my progress during the course					
The final assessment was unfair					

Overall, was this course a good use of your time?

- ○ Yes
- ○ No
- ○ Not Sure

Comprehensive Geriatric Assessment (Part 2)

This section asks you about the **second** micro-credential course you took in the continuing care pathway.

For each question, select the answer that best represents your experience after taking the **Comprehensive Geriatric Assessment** course:

Questions	Strongly disagree	Somewhat disagree	Neither disagree or agree	Somewhat agree	Strongly agree
Because of this course, I am more confident in conducting a physical assessment to identify common geriatric concerns and use this information in care planning					
I am better able to collect medical history and medication information to identify risks for an older adult because of this course					

Are you able to complete a Comprehensive Geriatric Assessment (CGA) with older adults in continuing care settings?

- ○ Yes, this course helped me develop this skill
- ○ Yes, this course enhanced a skill I already had
- ○ Somewhat, I made progress but need more skill development
- ○ No, this course did not help me develop this skill
- ○ Other

How confident are you in your ability to complete a Comprehensive Geriatric Assessment (CGA) with older adults in continuing care settings?

- ○ Extremely confident
- ○ Somewhat confident
- ○ Neutral
- ○ Somewhat not confident
- ○ Extremely not confident

Is there anything you **loved** about the Comprehensive Geriatric Assessment course that Bow Valley College must keep? Is there anything you **hated** about the course you'd want Bow Valley College to change before offering the course again? If so, tell us below.

(Open text box)

Leadership & Case Management

This is the **third** micro-credential course in the continuing care pathway

How much of the *Leadership & Case Management* course did you complete? *

- ○ None, I did not participate in this course
- ○ A little, I did some course work but less than half
- ○ Some, I did about half of course work
- ○ A lot, I did most of the course work but did not finish
- ○ All, I completed the course

Leadership & Case Management (Part 1)

This section asks you about the **third** micro-credential course you took in the continuing care pathway.

For each question, please select the answer that best represents your experience taking the **Leadership & Case Management** course:

Question	Strongly disagree	Somewhat disagree	Neither disagree or agree	Somewhat agree	Strongly agree
The modules I completed had content that was mostly or all new to me.					
Course material covered key topics in sufficient detail					
The course content was relevant to my nursing practice					
Assignment instructions were clear and					
Completing the assignments helped me improve my nursing skills					
I received helpful feedback on my progress during the course					
The final assessment was **unfair**					

Overall, was this course a good use of your time?

- ○ Yes
- ○ No
- ○ Not sure

Leadership & Case Management (Part 2)

This section asks you about the **third** micro-credential course you took in the continuing care pathway.

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For each question, select the answer that best represents your experience after taking the **Leadership & Case Management** course:

Question	Strongly disagree	Somewhat disagree	Neither disagree or agree	Somewhat agree	Strongly agree
Because of this course, I am better able to identify the scope of practice for an RN in an interdisciplinary care team working in a continuing care setting					
I am better able to delegate nursing tasks across an interdisciplinary care team in a continuing care setting because of this course					
I am more confident in coordinating care across an interdisciplinary team for a patient in a continuing care setting because of this course					
I am better able to manage conflict in interdisciplinary teams to maintain team cohesion in continuing care settings because of this course					
Because of this course, I am more confident in relaying patient information accurately across shifts and roles and continuing care setting					

Are you able to lead case management for patients in continuing care settings?

- ○ Yes, this course helped me develop this skill
- ○ Yes, this course enhanced a skill I already had
- ○ Somewhat, I made progress but need more skill development
- ○ No, this course did not help me develop this skill
- ○ Other

How confident are you in your ability to lead case management for patients in continuing care settings?

- ○ Extremely confident
- ○ Somewhat confident
- ○ Neutral
- ○ Somewhat not confident
- ○ Extremely not confident

Is there anything you **loved** about the Leadership & Case Management course that Bow Valley College must keep? Is there anything you **hated** about the course you'd want Bow Valley College to change before offering the course again? If so, tell us below.

(Open text box)

Overall Pathway (Part 1)

This section asks you questions about the overall continuing care pathway (i.e., all three courses you took).

Please tell us the extent to which you agree or disagree with the following statements about the overall continuing care pathway:

Question	Strongly disagree	Somewhat disagree	Neither disagree or agree	Somewhat agree	Strongly agree
This pathway helped me develop new skills for working in continuing care settings					
This pathway made me better able to provide care two people in continuing care settings					
this pathway increased my confidence for working in a continuing care setting					

Did you complete the pathway (i.e., passed the three courses)? *

- ○ Yes
- ○ No
- ○ Not sure

Critical Care in Rural Settings

This is the **first** micro-credential course in the rural acute care pathway

How much of the *Critical Care in Rural Settings* course did you complete? *

- None, I did not participate in this course
- A little, I did some course work but less than half
- Some, I did about half of course work
- A lot, I did most of the course work but did not finish
- All, I completed the course

Critical Care in Rural Settings (Part 1)

This section asks you about the **first** micro-credential course you took in the rural acute care pathway.

For each question, please select the answer that best represents your experience taking the **Critical Care in Rural Settings** course:

Question	Strongly disagree	Somewhat disagree	Neither disagree or agree	Somewhat agree	Strongly agree
The modules I completed had content that was mostly or all new to me.					
Course material covered key topics in sufficient detail					
The course content was relevant to my nursing practice					
Assignment instructions were clear and					
Completing the assignments helped me improve my nursing skills					
I received helpful feedback on my progress during the course					
The final assessment was **unfair**					

Overall, was this course a good use of your time?

- Yes
- No
- Not sure

Critical Care in Rural Settings (Part 2)

This section asks you about the **first** micro-credential course you took in the rural acute care pathway.

For each question, select the answer that best represents your experience after taking the **Critical Care in Rural Settings** course:

Question	Strongly disagree	Somewhat disagree	Neither disagree or agree	Somewhat agree	Strongly agree
Because of this course, I am more confident in documenting symptoms and the medical history of a patient having an acute care emergency in a rural setting					
I am better able to adapt standard care protocols to account for resource constraints to deliver good care to critically ill patients in rural settings because of this course					
I am more confident in coordinating medical interventions and transfers for a person having an acute care emergency in a rural setting because of this course					
I am more confident in communicating with family members and interdisciplinary teams during high-stress emergency care in resource limited settings because of this course					

Are you able to manage critically ill patients in resource-limited, rural health settings?

- ○ Yes, this course helped me develop this skill
- ○ Yes, this course enhanced a skill I already had
- ○ Somewhat, I made progress but need more skill development
- ○ No, this course did not help me develop this skill
- ○ Other

How confident are you in your ability to manage critically ill patients in resource-limited, rural health settings?

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- ○ Extremely confident
- ○ Somewhat confident
- ○ Neutral
- ○ Somewhat not confident
- ○ Extremely not confident

Is there anything you **loved** about the Critical Care in Rural Settings course that Bow Valley College must keep? Is there anything you **hated** about the course you'd want Bow Valley College to change before offering the course again? If so, tell us below.

(Open text box)

Mental Health in Rural Settings

This is the **second** micro-credential course in the rural acute care pathway

How much of the *Mental Health in Rural Settings* course did you complete? *

- ○ None, I did not participate in this course
- ○ A little, I did some course work but less than half
- ○ Some, I did about half of course work
- ○ A lot, I did most of the course work but did not finish
- ○ All, I completed the course

Mental Health in Rural Settings (Part 1)

This section asks you about the **second** micro-credential course you took in the rural acute care pathway.

For each question, please select the answer that best represents your experience taking the **Mental Health in Rural Settings** course:

Question	Strongly disagree	Somewhat disagree	Neither disagree or agree	Somewhat agree	Strongly agree
The modules I completed had content that was mostly or all new to me.					
Course material covered key topics in sufficient detail					
The course content was relevant to my nursing practice					
Assignment instructions were clear and					
Completing the assignments helped me improve my nursing skills					
I received helpful feedback on my progress during the course					
The final assessment was **unfair**					

Overall, was this course a good use of your time?

- ○ Yes
- ○ No
- ○ Not sure

Mental Health in Rural Settings (Part 2)

This section asks you about the **second** micro-credential course you took in the rural acute care pathway.

Evaluating an Upskilling Workforce Solution

For each question, select the answer that best represents your experience after taking the **Mental Health in Rural Settings** course:

Question	Strongly disagree	Somewhat disagree	Neither disagree or agree	Somewhat agree	Strongly agree
I am better able to identify the signs and symptoms of a mental health crisis in patients in rural health settings because of this course					
I am more confident in caring for someone having a mental health crisis without on-site mental health specialist because of this course					
Because of this course, I am better able to de-escalate a mental health crisis successfully in a rural setting					
I am more confident in creating an appropriate post-crisis care plan for someone having a mental health crisis in a resource-limited health setting because of this course					

Are you able to manage care for a person having a mental health crisis in a rural, resource limited health setting?

- ○ Yes, this course helped me develop this skill
- ○ Yes, this course enhanced a skill I already had
- ○ Somewhat, I made progress but need more skill development
- ○ No, this course did not help me develop this skill
- ○ Other

How confident are you in your ability to manage care for a person having a mental health crisis in a rural, resource limited health setting?

- ○ Extremely confident
- ○ Somewhat confident
- ○ Neutral
- ○ Somewhat not confident
- ○ Extremely not confident

Is there anything you **loved** about the Mental Health in Rural Settings course that Bow Valley must keep? Is there anything you **hated** about the course you'd want Bow Valley College to change before offering the course again? If so, tell us below.

(Open text box)

Maternity Care in Rural Settings

This is the **third** micro-credential course in the rural acute care pathway

How much of the *Maternity Care in Rural Settings* course did you complete? *

- ○ None, I did not participate in this course
- ○ A little, I did some course work but less than half
- ○ Some, I did about half of course work
- ○ A lot, I did most of the course work but did not finish
- ○ All, I completed the course

Maternity Care in Rural Settings (Part 1)

This section asks you about the **third** micro-credential course you took in the rural acute care pathway.

For each question, please select the answer that best represents your experience taking the **Maternity Care in Rural Settings** course:

Question	Strongly disagree	Somewhat disagree	Neither disagree or agree	Somewhat agree	Strongly agree
The modules I completed had content that was mostly or all new to me.					
Course material covered key topics in sufficient detail					
The course content was relevant to my nursing practice					
Assignment instructions were clear and					
Completing the assignments helped me improve my nursing skills					
I received helpful feedback on my progress during the course					
The final assessment was unfair					

Overall, was this course a good use of your time?

- ○ Yes
- ○ No
- ○ Not sure

Maternity Care in Rural Settings (Part 2)

This section asks you about the **third** micro-credential course you took in the rural acute care pathway.

For each question, select the answer that best represents your experience after taking the **Maternity Care in Rural Settings** course:

Question	Strongly disagree	Somewhat disagree	Neither disagree or agree	Somewhat agree	Strongly agree
I am more confident in providing high-quality antepartum care to pregnant people in a resource-limited health setting because of this course					
Because of this course, I am more confident managing labour and delivery for a pregnant patient in a rural setting					
Because of this course, I am better able to coordinate a medical transfer for a pregnant or postpartum patient in a rural setting					
I am more confident providing postpartum care for the parent and baby in a resource-limited health setting because of this course					

Are you able to assess and appropriately manage patients with maternal health conditions in rural acute care settings?

- ○ Yes, this course helped me develop this skill
- ○ Yes, this course enhanced a skill I already had
- ○ Somewhat, I made progress but need more skill development
- ○ No, this course did not help me develop this skill
- ○ Other

How confident are you in your ability to assess and appropriately manage patients with maternal health conditions in rural acute care settings?

- ○ Extremely confident
- ○ Somewhat confident
- ○ Neutral
- ○ Somewhat not confident
- ○ Extremely not confident

Is there anything you **loved** about the Maternity Care in Rural Settings course that Bow Valley must keep? Is there anything you **hated** about the course you'd want Bow Valley College to change before offering the course again? If so, tell us below.

(Open text box)

Overall Pathway (Part 1)

This section asks you questions about the overall rural acute care pathway (i.e., all three courses you took)

Please tell us the extent to which you agree or disagree with the following statements about the overall rural acute care pathway:

Question	Strongly disagree	Somewhat disagree	Neither disagree or agree	Somewhat agree	Strongly agree
This pathway helped me develop new skills for working in resource limited, rural contexts					
This pathway made me better able to provide care to people in rural health settings					
This pathway increased my confidence for working in a resource limited, rural health setting					

Did you complete the pathway (i.e., passed the three courses)? *

- ○ Yes
- ○ No
- ○ Not sure

Overall Pathway (Part 2)

For each question, please select the answer that best represents your overall experience taking the pathway (including all three courses):

Question	Strongly disagree	Somewhat disagree	Neither disagree or agree	Somewhat agree	Strongly agree
This pathway was a useful training program that I would recommend to another nurse looking to upskill					
This pathway took longer to complete than I expected					
This pathway was an effective way to learn practical nursing skills					
The training being online and asynchronous made it more accessible to me					
The workload was manageable alongside my other responsibilities					
I feel more ready to work in Alberta as an RN because of taking this pathway					

Overall Pathway (Part 3)

Did you get adequate help when you had a question or encountered a technical difficulty?

- ○ Yes
- ○ Sometimes
- ○ No
- ○ I didn't ask for help during the pilot

Is there anything about the content, format, support, or overall experience that would be important for Bow Valley to know to improve future offerings of this pathway?

(Open text box)

Pivot-Ed (Part 1)

These questions relate to the online learning platform used to deliver the three courses you took (Pivot-Ed)

For each question, please select the answer that best represents your overall experience using Pivot-Ed:

Question	Strongly disagree	Somewhat disagree	Neither disagree or agree	Somewhat agree	Strongly agree
I could easily find what I was looking for on Pivot-Ed most or all of the time					
It was easy to submit assignments on Pivot- Ed					
It was easy to interact with other learners on Pivot-Ed					
Icons and buttons were clearly labelled and easy to understand					
I could easily track my progress through a course on Pivot-Ed					
I experienced technical errors or glitches often					
I prefer the online learning format over in-person classes					
I prefer being able to complete modules whenever I can rather than having to attend a class at a specific time					

Pivot-Ed (Part 2)

These questions relate to the online learning platform used to deliver the three courses you took (Pivot-Ed)

Was Pivot-Ed a better experience than other online learning platforms you have used?

- ○ Yes, Pivot-Ed was better
- ○ Somewhat - some things were better and some things were worse
- ○ No, Pivot-Ed was worse
- ○ Not sure, I have never used another online learning platform

Final Questions

Is there anything about your experience taking the three courses as part of this pilot that you have not mentioned above? If so, please let us know here.

(Open text box)

Survey End (this question only appears if someone does not consent to participate in the survey)

No worries! We appreciate you considering participating in the evaluation. If you'd like to tell us why you did not want to participate in this study (no judgement - this just helps us learn), please do so below. Otherwise, please close this window now. *

(Open text box)

IEN Semi-Structured Interview Guide

The following data collection tool was used to guide interviews with IENs about their experiences of the micro-credential courses. As a semi-structured interview format was used, some questions and probes emerged during the interviews and are not reflected in the guides. Oral consent was obtained prior to the start of the interview to participate and record notes (manually for phone calls and using the AI notetaker over Zoom). Interviews lasted between 30 and 60 minutes depending on the participants' responses.

1. Tell me a little bit about yourself?
2. Can you tell me a little bit about yourself and what motivated you to sign up for this pilot?
    - What pathway did you take?
    - Are you already a licensed nurse?
    - Are you currently working - as a nurse or in the healthcare system (e.g., as a care support worker)
3. Thinking back to the start of the course, what did you hope you learn/gain coming into to course(s)?
4. Overall, how was your experience?
    - How did the online and asynchronous format work for you?

- Do you have any feedback about how user-friendly or intuitive the Pivot-Ed platform was?
- How well did the self-pacing structure work for you and your schedule?
- How relevant or helpful was the content?
- How helpful and insightful were the instructor(s)?
- What were the best aspects of the course?

5. In terms of clinical skills, what are your key takeaways from the course (e.g., any standout skills or nuggets of wisdom that you gained)
    - In terms of non-clinical skills, did you gain anything from the course that you think enhanced your soft skills (e.g., bedside manner, familiarity with Canadian contexts, confidence as a nurse or job-seeker)
6. What barriers did you encounter that prevented you from being able to participate fully? (e.g., time constraints, financial barriers, language, access to tech)
    - Did you access to any resources to overcome these barriers?
    - Would you have benefited from any other resources that were not accessible or available?
    - What wraparound supports did you access from Bow Valley to participate in this course?
7. How respectful was the online learning environment?
    - Can you give me an example of something that contributed to or got in the way of a respectful learning environment?

Now that you have completed the course…

8. How helpful was:
    - This micro-credential model of taking one course to gain one skill?
    - Engaging in a pathway with a bundle of three courses to build thematic familiarity?
9. How effective do you think this micro-credential course is in:
    - building attractive skills for the job market?
    - building your confidence in working within Alberta's healthcare system?

- As a learning structure, relative to a bridging program (like the one you enrolled in before this) or more traditional nursing education program offered through a college or university? Or relative to practicum or co-op placements?

10. Did you have adequate time needed to do all of the trainings and activities in the course?
11. How well did the course structure meet you where you are at in your learning journey and guide you through an individualized learning pathway?
12. Knowing what you know now about the course:
    - Did the course meet your expectations? How so/why not?
    - Given the chance to go back and enrol, would you?
    - Would you recommend this course to a colleague? Why/not?
    - Would you take another micro-credential course through Bow Valley in another learning pathway or about a future topic?
        - If not, is there anything they could do to improve the experience?
    - Do you have any suggestions to improve the micro-credential course for future cohorts?
13. Is there anything I haven't asked you that you would like to share about your experience?

Instructor Semi-Structured Interview Guide

The following data collection tool was used to guide interviews with instructors about their experiences of the micro-credential courses. As a semi-structured interview format was used, some questions and probes emerged during the interviews and are not reflected in the guides. Oral consent was obtained prior to the start of the interview to participate and record notes (manually for phone calls and using the AI notetaker over Zoom). At the end of interviews, participants were invited to change or remove any responses they felt may be identifiable or risky to include. Summaries were adapted accordingly. Interviews were about 60 minutes in length.

1. Can you tell me a little bit about yourself and what motivated you to become an instructor for the micro-credential course?
2. Which course(s) did you teach?

3. Overall, how was your experience teaching this course?
    - How well did the orientation prepare you for teaching?
    - How well did the online and asynchronous format work?
    - How did marking assignments go?
    - How did your interactions with students go?
4. Overall, how do you think the course went for students enrolled?
    - Do you think students had enough time to get through the content in a meaningful way?
    - Did you observe any barriers that students experienced during the course that prevented them from understanding or moving through the content?
    - Were there any times that students asked for support that was out of scope or that you were unable to provide as part of this course?
    - Are there any wraparound supports you think students would benefit from?
5. How did Bow Valley support you in creating a respectful learning environment for students?
    - What resources, supports, or guidance did they provide to you to uphold DEI principles?
    - What did you do on a personal level based on your own skills as an instructor to make the learning environment respectful?

Now that the course is over….

6. How helpful do you think:
    - This micro-credential model of taking one course to gain one skill is for the learners?
    - Engaging in a pathway with a bundle of three courses to build thematic familiarity for the learners?
7. How effective do you think this micro-credential course is in:
    - Building attractive skills for the nursing job market?
    - Building non-technical skills for the nursing job market?
    - Building students' confidence in working within Alberta's healthcare system?

8. How did teaching a micro-credential course compare to teaching a more traditional course at Bow Valley?
    - What was similar?
    - What was different?
    - Were there any unique strengths/weaknesses of the micro-credential format?
9. Was anything missing from this course that you think is vital in helping IENs get ready for the job market or work as a nurse in Alberta that should be included in future courses or learning pathways aimed at rural or continuing care?
10. How well do you think the assessment work in individualizing a learning experience for students enrolled in your course?
11. How did the assessments allow you to understand students' skillsets coming into and moving through the course?
12. How did assessments help you give personalized feedback to students?
13. Knowing what you know now about the course,
    - What (if any) do you think is the role of micro-credentials in upskilling or reskilling for nurses?
    - Would you want to teach again in the next cohort?
    - Would you recommend this course to a colleague looking to upskill as an IEN?
    - Is there anything that you think worked really well that Bow Valley should sustain in future iterations of the course?
    - Is there anything you think didn't work that should be adapted or improved before the next cohort?
14. Is there anything I haven't asked you that you would like to share about your experience?

Registered Nurse Ecosystem Interviews

To better understand the perceptions of micro-credential courses as a workforce solution within the broader registered nurses ecosystem in Alberta, data were collected from employed RNs and representatives of organizations that employ and/or represent nurses in Alberta (see data collection tools below).

Registered Nurse Semi-Structured Interview Guide

The interview guide was used to conduct semi-structured interviews with registered nurses employed in rural critical care or continuing care settings in Alberta. As a semi-structured interview format was used, some questions and probes emerged during the interviews and are not reflected in the guides. Oral consent was obtained prior to the start of the interview to participate and record notes (manually for phone calls and using the AI notetaker over Zoom).

1. Can you tell me a little bit about yourself and your role as an RN?
    - Where were you trained?
    - Where do you work now?
    - Do you have a specific practice area or specialty?
2. What is the best nursing course or professional development training that you have ever taken?
    - What made it effective and useful for you?
3. Overall, what do you think are the key components of a useful upskilling training for nurses in general?
    - Content
    - Structure
    - Instructors
    - Credibility of the organization/group delivering training
    - Time commitment
    - Credits/accreditation
    - Assessments
    - Any specific considerations for IENs
4. Have you heard of micro-credentials for nurses before?
    - If yes,
        - What have you heard
        - Have you ever taken a micro-credential course yourself?
        - Does your organization offer or endorse any micro-credential courses currently?

- If not – [explain the model]
    - How relevant and useful do you think the micro-credential model is for you or your colleagues?

5. How effective do you think a micro-credential course is for:
    - building attractive skills for the nursing job market?
    - Building non-technical skills for the nursing job market?
    - building students' confidence in working within Alberta's healthcare system?
6. What do you think course providers often get wrong when it comes to providing upskilling or reskilling courses to nurses?
    - Do you have any examples you could share of a terrible course you took and what made it a waste of your time?
    - Content
    - Structure
    - Timing
    - Instructor
    - Assessments
7. In your experience, what barriers do you think prevent:
    - Licensed and employed nurses from taking up-skilling or re-skilling courses?
    - Unemployed nurses from taking up-skilling or re-skilling courses?
    - IENs from taking up-skilling or re-skilling courses?
8. What do you think an organization offering micro-credential courses do to ensure that participation is accessible for nurses?
    - Anything specifically for IENs?
9. When it comes to training nurses in rural acute care, what do you think are the most important topics or competencies that nurses must be familiar with?
10. What do you think of a learning model where nurses can take one stand-alone course on any of these topics or take all 3 to complete a learning pathway on rural acute care?
11. When it comes to training nurses in continuing care, what do you think are the most important topics or competencies that nurses must be familiar with?

- What do you think of a learning model where nurses can take one stand-alone course on any of these topics or take all 3 to complete a learning pathway on continuing care?

12. What do you see as the most significant barriers for IENs in gaining meaningful employment in Alberta?
    - Are there specific areas of nursing that you think are easier or harder to find employment?
    - How do you think capacity-building or skills-development fits into the solution to the barriers you outlined (above)?
13. Are there specific areas of nursing that you think are experiencing more of a nursing shortage?
14. These micro-credential courses are being offered by Bow Valley College.
    - Have you ever heard of them?
    - Their micro-credential program for IENs?
15. If yes, what did they hear?
16. Would you ever take a micro-credential course?
    - If not, why not?
    - If yes,
    - What topics would be of interest?
    - What would need to happen for you to participate?
17. Is there anything I haven't asked you that you'd like to share?

Organization Staff Semi-Structured Interview Guide

The following interview guide was used to conduct semi-structured interviews with staff working at Alberta-based organizations that employ and/or support registered nurses. Because a semi-structured interview format was used, some questions and probes emerged during the interviews and are not reflected in the guides. Oral consent was obtained prior to the start of the interview to participate and record notes (manually for phone calls and using the AI notetaker over Zoom).

1. Can you tell me a little bit about yourself and your role at your organization?

- What is your background (e.g., do you come to this role from nursing, education, or administration)?

2. What do you see as the most significant barriers for IENs in gaining meaningful employment in Alberta?
    - Are there specific areas of nursing that you think are easier or harder to find employment?
    - Are there specific areas of nursing that you think are experiencing more of a nursing shortage?
3. How do you think capacity-building or skills-development fits into the solution to the barriers you outlined (above)?
    - If this is not a capacity-building issue, what do you see as the most significant intervention needed?
4. Overall, what do you think are the key components of a useful upskilling training for nurses in general?
    - Content
    - Structure
    - Instructors
    - Credibility of the organization/group delivering training
    - Time commitment
    - Credits or accreditation
    - Any specific considerations for IENs?
5. Have you heard of micro-credentials for nurses before?
    - If yes,
        - What have you heard
        - Have you ever taken a micro-credential course yourself?
        - Does your organization offer or endorse any micro-credential courses currently?
6. If not [explain the model]
    - How relevant and useful do you think the micro-credential model is for nurses?
7. How effective do you think a micro-credential course is for:

- Building attractive skills for the nursing job market?
- Building non-technical skills for the nursing job market?
- Building students' confidence in working within Alberta's healthcare system?

8. What do you think course providers often get wrong when it comes to providing upskilling or reskilling micro-credential courses to nurses?
    - Common mistakes
    - Common misunderstandings
    - Complaints or feedback that you've heard from other nurses in your network?
    - Issues or concerns with AI?
    - Issues or concerns with assessments?
9. In your experience, what barriers do you think prevent:
    - Licensed and employed nurses from taking up-skilling or re-skilling courses?
    - Unemployed nurses from taking up-skilling or re-skilling courses?
    - IENs from taking up-skilling or re-skilling courses?
10. What do you think an organization offering micro-credential courses should do to ensure that participation is accessible for nurses?
    - Anything specifically for IENs?
11. When it comes to training nurses in rural acute care, what do you think are the most important topics or competencies that nurses must be familiar with?
    - What do you think of a learning model where nurses can take one stand-alone course on any of these topics or take all 3 to complete a learning pathway on rural acute care?
12. When it comes to training nurses in continuing care, what do you think are the most important topics or competencies that nurses must be familiar with?
    - What do you think of a learning model where nurses can take one stand-alone course on any of these topics or take all 3 to complete a learning pathway on continuing care?
13. Before this interview, had you ever heard of:
    - Bow Valley College
    - Their micro-credential program for IENs?

- If yes, what did they hear?

14. What would it take for your organization to endorse or refer to a micro-credential program for nurses in your community?
15. Is there anything I haven't asked you that you would like to share?

Demographic Survey

The following online survey was distributed via email after completing an evaluation interview for IENs, RNs, course instructors, and organizational staff. The survey below does not include display and skip logic. This data collection method was chosen to ensure that the data were collected anonymously and voluntarily.

Learning about Who Participated in this Evaluation

* Required

Hi, my name is Jennica Nichols and I work at AND implementation with Maya. Please take 5 minutes to fill out this short survey, which asks one focused demographic question and one question about your experience participating in this evaluation.

Why we're asking: Federal funding requires me to collect demographic information to assess accessibility and inclusion in this work. I also wanted to create a space for you to share any feedback about your experience participating in this interview.

How we'll use it: The demographic information will be included in our final evaluation report to the government. I will summarize your feedback on the evaluation and give it to Maya to inform her future work. This will not be included in the final evaluation report.

Your privacy matters: Your responses are completely confidential and anonymous. Nothing you share here will be connected to your name or interview responses.

Do you consent to participate in this survey? *

- ○ Yes
- ○ No

Identity is complex and personal. A survey is limited in its ability to understand all the amazing facets of being a human and, I acknowledge this limitation. That said, I would like to gain a

better understanding of who participated in this evaluation. Please let me know how you identify (select all that apply): *

- [ ] Immigrant
- [ ] Indigenous Person
- [ ] 2SLGBTQ+ person
- [ ] Newcomer (arrived to Canada in the last 5 years)
- [ ] Person living in a rural, remote, or northern community
- [ ] Person with a disability or disabilities
- [ ] Racialized person
- [ ] Woman
- [ ] Youth (aged 15-29)
- [ ] Older adult (65 years or older)
- [ ] None of these categories apply to me
- [ ] Prefer not to answer

I know you are more than a checkbox. If none of the above options worked for you, you'd like to identify differently, and/or you'd like to add more details about your identity, please do so below.

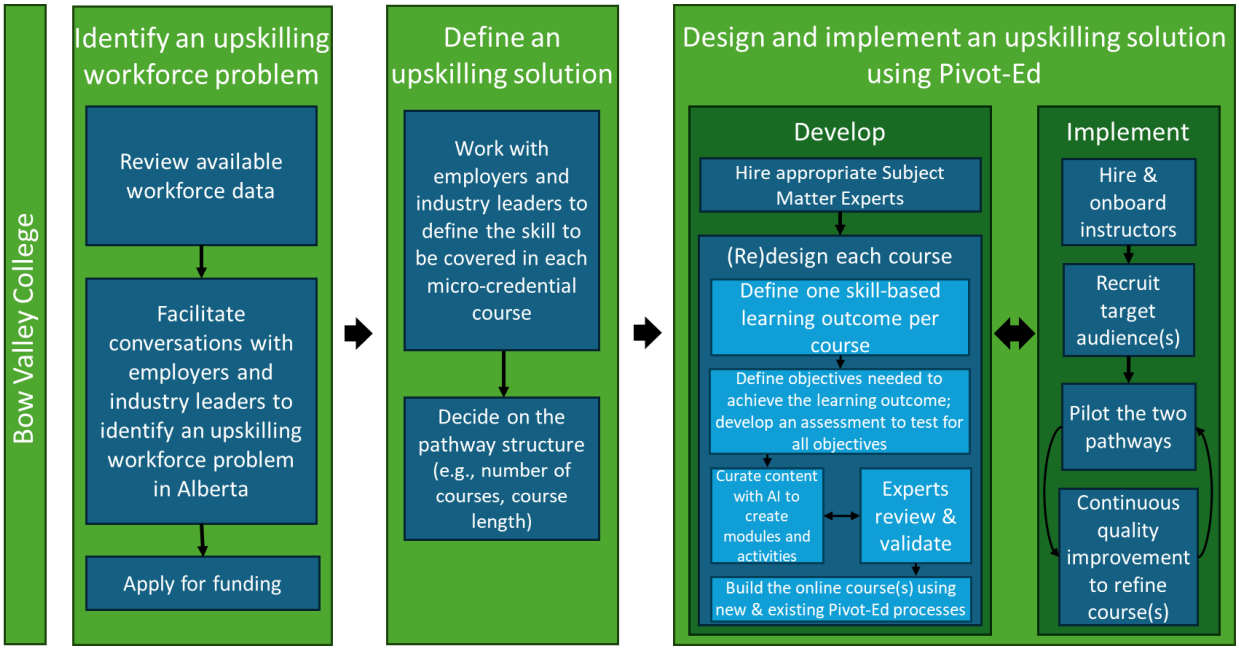
(Open text box)

Is there anything about your experience with the evaluation that you loved or hated? If so, please tell me here and I promise Maya & I will use your feedback to inform our future evaluation work (future interviewees thank you!).

(Open text box)

Appendix E: Micro-Credential Development Model

Bow Valley College's model starts with working with industry leaders and employers to identify an upskilling workforce problem and define an upskilling solution. The team then moves to an iterative design and implementation process to facilitate an upskilling solution hoped to address the identified problem (see the model below).



Bow Valley College Upskilling Solution Model

Problem Identification

Bow Valley College staff began by reviewing workforce data, including organizational documents and interviews with IEN graduates from their bridging program. They then met with Alberta Health Services leaders and RN employers to identify hiring barriers for IENs. Discussions centered on identifying an upskilling challenge, which aligns with Bow Valley College's expertise and capacity to develop solutions. This process identified rural acute care and continuing care as high-demand settings where IENs are more likely to find employment.

Upskill Solution Definition

After securing Future Skills Canada funding, Bow Valley College staff collaborated with Alberta Health Services leaders and RN employers to identify target skills for the intervention. They

prioritized skills that were in high demand, specialized (i.e., not covered in existing bridging programs), and essential to employability. Six skills were selected.

Bow Valley College staff created two educational pathways using a micro-credential structure. Each micro-credential course focused on one employer-identified skill, required up to 20 hours to complete, and could be taken independently of the other micro-credential courses. Three courses were sequenced to form each educational pathway—one for rural acute care, one for continuing care. Students enrolled in a pathway but could complete any combination of courses. For instance, one student might finish only the first course while another completes the first and third courses.

Upskill Solution Design and Implementation

Develop

After defining the pathway structure, Bow Valley College staff hired Subject Matter Experts to support course development. Each micro-credential followed the same design process: (a) translate the employer-identified skill into a skills-based learning outcome; (b) break down that outcome into component skills needed for real-world job performance (objectives); (c) create an assessment that tests of the objectives; (d) curate content using AI to develop course content, with Subject Matter Experts reviewing and providing feedback iteratively; and (e) convert the written content into an online course using existing and new Pivot-Ed processes.

Implement

Bow Valley College hired and onboarded some Subject Matter Experts as instructors, then invited IENs currently enrolled in or graduated from their bridging program to enroll in one of the educational pathways. The two pathways were piloted simultaneously, with each of the three courses offered sequentially during the pilot. Each course was open to students between 21 and 31 days. During the pilot, students could contact Bow Valley College staff or instructors with questions or concerns. Staff sent regular reminder emails and reached out individually to students who were missing deadlines, which was considered important for ongoing engagement and course completion.

Return to Develop

Bow Valley College is committed to continuous improvement. Bow Valley College staff shared that, for each course, they are reviewing and updating the assessment, refining and adding content, and

reassessing the course structure to improve alignment with skills-based learning outcome. This process integrates implementation lessons to enhance the effectiveness of each subsequent iteration.

Appendix F: Micro-Credential Course Pilot Evaluation Report

This report was previously submitted to Bow Valley College as an evaluation deliverable and appears below in its entirety. Note that some formatting follows the original style guide (e.g., tables) and may not match the rest of this report.

Introduction

Bow Valley College staff worked with employers in Alberta to identify healthcare workforce gaps and develop six micro-credential courses for internationally educated nurses (IENs) to build skills and confidence in two areas: Continuing Care and Rural Acute Care. Micro-credential development took place between May and July 2025. To pilot these courses, staff created two online educational pathways for IENs enrolled in or who had completed their bridging program. Each pathway bundled three asynchronous micro-credential courses, which were offered concurrently (see Addendum A for micro-credential course details). In June 2025, Bow Valley College recruited current and past IEN students to enroll in the pilot via email. Interested students completed an online registration form and selected their preferred educational pathway. A total of 46 students enrolled in the pilot: 16 in the Continuing Care pathway and 30 in the Rural Acute Care pathway. The pilot ran between July and September 2025, with individual courses running between 21 and 31 days see Addendum B for pilot details).

AND implementation was hired to work as an evaluation partner with Bow Valley College on this project. This report summarizes the methodology and findings from a mixed-methods evaluation designed to answer the following questions:

- How was the pilot implemented?
- What are IENs experiences of the training (e.g., content, delivery, required time)?
- What are the perceived barriers and facilitators to completing the pathway?
- How effectively does the training program equip IENs with the expected clinical skills?
- What non-technical core competencies do IENs gain through the program?
- How does the training improve IEN's confidence working in Alberta's healthcare system?
- What is the perceived role of micro-credentials and technology-enabled learning in addressing IEN's knowledge and skill gaps?

Methods

Data Collection

The evaluation employed the following data collection activities:

Activity	Description
Registration form	An online survey was distributed to current and past IEN students by Bow Valley College staff via email during pilot enrollment (June 2025). Data were collected using Microsoft Forms. Bow Valley College staff de-identified data and shared it with the evaluators (n = 44).
Team reflections and feedback	Bow Valley College staff shared their experiences and perceptions of the pilot during the pilot's enrollment and implementation phases through monthly meetings facilitated by the evaluators (May – Sept 2025). Data were captured through Zoom's AI-assisted note-taking and simultaneous notetaking.
Post-pilot survey	IENs who registered for one of the two pathways were invited by Bow Valley College staff to participate in an online survey via email at the end of the pilot (Sept 2025). Four reminder emails were later sent (Sept – Oct 2025). Data were captured using Microsoft Forms. IENs who completed the survey (n = 18, 39% response rate) were invited to enter a draw for 1 of 2 $65 cash prizes.
Post-pilot interviews with IENs	IENs who registered for one of the two pathways were invited to participate in a 45-minute semi-structured interview via the same email described above. Interviews were conducted on the telephone or Zoom (depending on the individual's preference). Data were captured via AI-assisted notetaking on Zoom or via simultaneous notetaking during phone calls. All interviewees (n = 7) received a $75 cash honorarium after their interviews.
Post-pilot interviews with instructors	The evaluators invited instructors who taught one or more micro-credential courses during the pilot to participate in 30-minute semi-structured interviews via email (Sept 2025). Interviews were conducted on the telephone or Zoom (depending on the individual's preference). Data were captured via AI-assisted notetaking on Zoom or via simultaneous note-taking during phone calls. Both interviewees (n = 2) received a $50 cash honorarium after their interviews.
Activity tracker	Bow Valley College staff retrospectively documented pilot activities, lessons learned, and pilot adaptations in a Microsoft Word document shared with evaluators (Sept 2025).

Activity	Description
Education platform analytics	De-identified raw quantitative and qualitative data collected on the online education platform during the pilot were compiled by Bow Valley College staff into a Microsoft Excel file and shared with external evaluators (Sept 2025).

Data Analysis

Quantitative data collected through the registration form, online survey, and education platform were analyzed using descriptive statistics in Microsoft Excel. Detailed notes collected during interviews and team meetings were cleaned and synthesized in Microsoft Word. All qualitative data (activity tracker, interviews, team reflections, registration form, online survey) were coded using a deductive thematic analysis (with key themes aligning with the evaluation questions).

Limitations

Despite significant efforts to recruit IENs, along with a monetary honorarium, it proved difficult to engage IENs in the evaluation. Bow Valley College staff shared they also had participation challenges, as IENs are often overworked and balancing multiple commitments. As such, the data presented here are representative of a small group of IENs and may not represent the population who participated in the pilot project. Moreover, the evaluation was only able to recruit IENs who successfully completed the pilot. Accordingly, it is unknown what prevented IENs from successfully completing the micro-credential courses, what would have enabled them to finish, and whether there were any trends in who did or did not complete the pilot.

Despite asking for balanced feedback on the micro-credential courses, survey responses were exceptionally positive with little critical feedback. It is unclear whether this reflects genuine satisfaction with the micro-credential courses, a reluctance to provide criticism, or other factors such as response bias among participants who chose to complete the feedback. Survey findings may therefore not fully represent the full range of student experiences with the micro-credential courses.

In interviews, some IENs enrolled in or who had recently completed the bridging program had difficulty attributing distinct learning experiences to the micro-credential pilot. For example, when asked about motivations to enroll in the pilot, barriers to participation, wrap-around supports, characteristics of a respectful learning environment, and key aspects of the micro-credential courses that supported learning, many IENs provided answers that related to both the pilot and the bridging program. When asked clarifying questions, some struggled to recall which experiences were unique to the pilot. As such, some data may apply more broadly to the bridging program or reflect IENs' experiences completing the micro-credential pilot as part of their bridging program overall.

None of the IENs recruited to the evaluation had become employed as an RN by the time of their participation. While it was not expected that IENs would successfully land a job prior to the reporting deadline, it was nevertheless not possible to understand either (a) how the pilot contributed to job acquisition, or (b) their ability to apply key skills and core competencies in practice. It remains unknown (at this time) whether and to what extent the micro-credentials successfully fill the gaps identified by employers based on job acquisition and subsequent on-the-job performance.

There were only two instructors for the micro-credential courses. To best support confidentiality and anonymity in the data, their reflections were combined with IEN interviewees to characterize IEN's experience – both IEN's own accounts and instructors' perceptions of student experiences. In doing so, evaluators were better able to provide a balanced account of feedback without singling out or creating the potential for additional risk to instructors. Nevertheless, the absence of a unique instructor perspective in this report creates ambiguity.

Pre-Pilot Findings

Pilot Participant Demographics

Of the 46 people who enrolled in the pilot, 44 completed the registration form[4] (96%) (see Addendum E for details about all demographic metrics by educational pathway). Across the two pathways, 91% of participants identified as women (n = 40) and 95% reported being between 25 and 54 years old (95%, n = 42). Of the 43 people who answered this question, 49% reported being Southeast Asian (n = 21), 37% reported being Black (n = 16), and 5% reported being Latino (n = 2). No one reported being born in Canada; 64% moved here between 2020 and 2025 (n = 28), and 80% reported having Canadian citizenship or permanent residence (n = 35).

All participants reported living in Alberta at the time of registration (n = 44). Of the 40 people who reported their annual household income, 43% reported less than $20,000 (n = 17) and 8% reported $80,000 or more (n = 3). Although household size data was not collected, the annual household income to meet the basic standard of living for a single person is between $25,031 and $28,262 in Alberta[5]. Everyone enrolled reported having post-secondary degrees, with 98% completing their highest level of education outside Canada and the US (n = 43).

[4] 46 people filled out the registration form initially; two people withdrew during the first week of the pilot and were removed from the registration data provided to the evaluators by Bow Valley Collage staff

[5] This range is based on the 2023-base Market Basket Measure reported by Statistics Canada for the lowest and highest regions of Alberta for a single person (see Statistics Canada website for more details). These values increase with each additional household member.

Expected Outcomes

Across the two pathways, motivations for enrolling in the pilot were similar. IENs wanted to increase their knowledge or address a skill gap, with many emphasizing the value of flexible, focused professional development that could be applied directly to their current or future work. One person explained their motivations as, "*Enhance my skills and knowledge in focused practical and time-efficient way,"* (Continuing Care participant). For some, the pilot offered an opportunity to bridge their existing experience with Canadian healthcare practice. For example, one person signed up, "*…to strengthen my understanding of how to effectively integrate my nursing background within the Canadian healthcare system. I see this as an opportunity to bridge my existing skills with local practices, enhance my confidence, and contribute more meaningfully to patient care in Canada*" (Pilot Registrant).

For some IENs preparing for their nursing license, the micro-credentials were also seen as a beneficial way to refresh existing knowledge, brush up on skills, and understand Canadian terminology and contexts. These nurses were optimistic that by being better prepared for licensing exams, they would become successfully licensed. Ultimately, many hoped the training would help them gain meaningful employment as a nurse in their preferred setting.

IEN's motivations for enrolling align with the expected goals of the micro-credential courses. Bow Valley College staff designed the micro-credential courses to provide an educational pathway to employment. Each micro-credential course targets a specific employer-identified skill gap and uses an assessment encompassing real-world scenarios to test understanding and determine pass or fail. Bow Valley College expects students to complete these competency-based micro-credential courses with enhanced practical skills and confidence to work in Alberta, thereby improving job-readiness. Staff hope that within one year of completing the micro-credential courses, graduates will have increased employment in acute and continuing care RN roles within Alberta. In these ways, student motivations for enrolling in the pilot align with the pilot's expected outcomes.

Pilot and Post-Pilot Findings

Micro-Credential Course Enrollment and Completion

Micro-credential course enrollment for the Continuing Care courses ranged from 10-13 people (15 initially registered) and from 21-28 people for the Rural Acute Care courses (29 initially registered). Students were generally successful in the micro-credential courses, with pass rates ranging from 62% to 100% across the six courses (see Table 5 in Addendum D for details).

Each micro-credential course was initially estimated to take a learner up to 20 hours to complete. The pilot found that less time was spent logged into the online platform. The median time spent on a micro-credential course was between 1.46 hours and 3.22 hours for Continuing Care courses and between 3.76 hours and 5.71 hours for Rural Acute Care courses. Learners spent approximately a quarter of this time completing the course assessment (the median ranged 22%-28% for Continuing Care courses and 21%-28% for Rural Acute Care). Of those who completed all three micro-credential courses, the median total course time was 5.8 hours for the Continuing Care pathway and 16.3 hours for the Rural Acute Care pathway. These values may be lower than the actual time students spent engaged in the courses as they do not account for time spent communicating with Bow Valley College staff and instructors via email.

Bow Valley College Staff's Experiences and Perceptions

Pilot

Students participated in the pilot between July and September 2025. Bow Valley College staff reported using a continuous improvement process to address emergent challenges. For example, many students experienced technical issues using the online learning platform and sent queries to staff and instructors requesting help. Using instructor feedback, the team created a process to delegate technical inquiries to staff – allowing instructors to better focus on academic support. The micro-credential course deadlines posed another challenge. Many students (especially those unfamiliar with a self-paced structure) were unclear about due dates and submission requirements. Others struggled to balance the micro-credential course's time commitment with other responsibilities (e.g., school, work, caregiving). Bow Valley College staff responded with two strategies: (a) weekly email reminders to help students keep up the pace and (b) an extension on the initial two-week course timeline. Upon reflection, Bow Valley staff felt that these strategies increased student satisfaction and pass rates. Other challenges arose from the micro-credential course activities and AI-assisted technology. For example, some students reported unusual experiences while engaging with a voice memo activity. In response, Bow Valley College staff worked internally and with their software consultant to adapt or remove activities to mitigate risks of confusion and ensure that students could complete assessments through an alternative modality. Throughout the pilot, staff reported making iterative changes to content and learning activities while maintaining alignment with micro-credential course assessments. While staff expected challenges to occur during the pilot, they perceived that (a) their continuous improvement strategy was both responsive and effective and that (b) emergent glitches or points of confusion decreased over time.

All micro-credential courses closed by September. Reflecting on the pilot, Bow Valley College staff shared that they realized IENs did not find continuing care to be as appealing a career as acute care. Based on student and instructor feedback, Bow Valley College staff identified that many IENs see

acute care as “Where the action is.” There may also be a cultural disconnect between the medicalized practice of continuing care in Canada compared to aging-in-place norms in their countries of origin. This was seen as a contributing factor to lower registration, engagement, and completion of the Continuing Care courses. Bow Valley College staff are now using these insights to inform micro-credential course recruitment for the forthcoming cohort.

Post-Pilot

Based on learning from this pilot, Bow Valley College is now adapting forthcoming iterations of the micro-credential courses in three important ways. First, the micro-credential courses will become more assessment-forward. In the current iteration, students clicked through all modules or returned to the homepage to access assessments. Most students accessed all modules and assessments in the pilot (86% to 100% of learners across the six micro-credential courses). Moving forward, each micro-credential course will start with a self-assessment that allows students to identify strengths and weaknesses and develop an individualized learning pathway. Staff anticipate that this design change will encourage students to take the assessment whenever they are ready.

Second, Bow Valley College staff purchased hands-on training equipment for in-person use. This equipment will transition certain aspects of the micro-credential courses from case-based learning scenarios to experiential practice opportunities. This change is expected to enable future learners to demonstrate their clinical competencies more effectively. Accordingly, this addition will transform the micro-credentials from an online model to a hybrid model with an in-person component that supports the development, performance, and assessment of tactile skills. Because the equipment will be integrated after the pilot, its acquisition, implementation, and impacts are out of scope for this evaluation.

Third, Bow Valley College staff are considering how to adapt micro-credential course content to address student feedback. Some decisions may include reducing the need for cameras and microphones to make future micro-credential courses more accessible for learners who are less familiar or comfortable with technology. Adaptations may also include adding prerecorded lectures, demonstrations, and other videos to help students better understand the course material and how to apply it in real-world contexts. IEN and instructor feedback collected through this evaluation (see below) is also expected to inform future design choices, with the aim of improving learner satisfaction and micro-credential course outcomes.

IENs' Experiences of Pilot

Content

Overall, IENs had positive perceptions of the content across both pathways. Across all micro-credential courses, at least 80% of survey respondents reported that course content was relevant to their nursing practice, key topics were covered in sufficient detail, and completing assignments helped improve their nursing skills (see Tables 8 and 12 in Addendum E for details). IENs who participated in an interview similarly described the content as relevant, detailed, and informative. For example, one IEN reflected that the Dementia, Delirium, and Depression micro-credential course helped them understand how to take a history, involve the family, evaluate and identify causes, and recommend treatment – all things that they saw as relevant and helpful for practice. Across micro-credential courses, content related to cultural competency, leadership, Canadian history and contexts, and communication was seen as most helpful; many IENs shared examples of learning to adjust to Canadian mannerisms, tone, and nuanced interactions. Understanding their role as an active leader in a care team (rather than as a background helper to assist a doctor) helped many IENs feel more prepared for the level of responsibility that they would have on the job. As such, the Leadership and Case Management micro-credential course was seen as particularly useful for IENs who had not previously had to delegate responsibilities or manage teams. Some nurses currently employed in health fields reflected on being able to apply course content immediately. And, one IEN shared that they used course content to successfully answer a job interview question (they got a second interview). Across micro-credential courses and pathways, most IENs reported a confidence boost and increased readiness for working in team settings and with diverse populations.

Other benefits also surfaced from the pilot. For IENs who are licensed nurses and/or currently working in health-related jobs (e.g., care aids), the content was perceived as a helpful refresh and opportunity to revisit existing knowledge and skills that they had not used in some time. As one IEN reflected on the Comprehensive Geriatric Assessment micro-credential course, *"It was very enlightening and it also refreshed my memory on comprehensive geriatric assessment"* (Survey Respondent). Furthermore, each micro-credential course allowed IENs to explore what it might be like to work in rural or continuing care settings before jumping in. For many, the content helped either nurture an interest in or clarify a preference for or against working in either area. This was seen as useful in expanding or narrowing their job search strategy. For example, some IENs reflected that while they perceived there to be more job opportunities in continuing care, after taking micro-credential courses in that pathway, they either (a) were less likely to apply for continuing care roles or (b) saw continuing care as a short-term step on the way to a preferred position. Similarly, some IENs in the rural care pathway shared that this was a more viable option to gain clinical experience as a first step before applying to work in an urban hospital or clinic setting. As such, the micro-credential courses fit within or helped them refine their job-acquisition strategy.

Interviewees had mixed perceptions of (a) the micro-credential course's focus on developing one skill and building familiarity with one topic at a time, and (b) their ability to perform skills outlined in the micro-credential course on the job without other specialized training. For some IENs, especially those still enrolled in the bridging program, the micro-credential's compact scope made the courses more palatable and easier to complete while juggling other courses. Keeping one topic in mind at a time helped them focus, which supported understanding. Other interviewees raised concerns with the micro-credential model that isolates key skills and content from other interconnected and more robust curricula. Specifically, they worried that the micro-credential model is helpful as an introduction to, or a refresh of, complex material. But, without additional context, information, and alignment with regulatory standards (as per a traditional accredited course), the pilot may have artificially depicted some health issues as straightforward or misled IENs by suggesting that they are prepared to address a health issue by the end of the micro-credential course when they are not. Furthermore, some worried about IENs' own ability to recognize if they need more training to perform key skills in practice. When comparing the pilot to other training experiences, several interviewees commented that the greater depth and more spacious material contributed to a sense that more traditional courses (such as the Bow Valley bridging program) offer a higher quality learning experience.

For example, some IENs reflected that the maternity and mental health micro-credential courses both required more detail and information to make them feel ready to practice. One IEN shared that after successfully completing the Mental Health in Rural Settings micro-credential course, they are still unsure how to support people with mental health issues. They explained that mental health is confusing and not something they have had prior experience with. So, despite moving through the assessments and receiving helpful feedback, they do not feel comfortable or ready to provide care for mental health. Similarly, another IEN reflected that the Maternity Care in Rural Settings micro-credential course was a helpful overview, but not sufficient to provide care for a pregnant person across their pregnancy and delivery or if they had complications/ comorbidities. As working in rural and continuing care settings require a heightened level of independence and problem-solving, some interviewees worried about how to prepare not only to apply skills from the micro-credential courses in practice but also to do this work with a smaller team and greater responsibility. If additional training is required beyond the micro-credentials to develop and apply core skills, interviewees wanted the purpose of the courses to be clearer to (a) better understand how micro-credentials are envisioned to fit alongside, or in place of, other training and (b) mitigate risks of underpreparing IENs for practice.

Delivery & Technology

For the most part, IENs found the platform and content delivery straightforward, accessible, and easy to navigate. All survey respondents agreed it was easy to find what they were looking for on the online learning platform most or all the time (n = 17), and it was easy to track their progress through a course (n = 17). Interviewees noted that staff's introductory and subsequent emails helped them understand how to use the platform. In a few cases, IENs suggested that a video tutorial would have been more useful than a long list of instructions. While 59% of survey respondents reported experiencing technology glitches or errors often (n = 10), most interviewees had no complaints with the platform and shared that any issues they raised were resolved.

Some IENs noted that the delivery of content could be improved by adding more diverse modalities (e.g., video lectures, demonstrations, and visuals). The amount of reading was described as daunting and exhausting for some IENs. As one IEN from the Rural Acute Care pathway explained, "*I really loved the Critical Rural Care course. It gave me a better understanding of how to provide effective care in rural settings where medical resources are limited. I found it especially helpful to learn strategies for managing patients with minimal equipment and how to handle safe and efficient transfers from rural health centers to larger hospitals. It definitely opened my eyes to the challenges and importance of rural healthcare"* (Survey Respondent).

To cultivate an applied skillset, many IENs expressed wanting to see more examples and case studies whereby the instructor demonstrates how to both (a) apply the content to the assignments or assessment to illustrate what meeting expectations means, and (b) apply the content in real-world scenarios where more critical thinking and problem-solving are required. Some interviewees reflected that, in some ways, the format of reading and then asking IENs to apply concepts from the text to the assessment was unfair. Specifically, some interviewees shared that this step requires IENs to imagine what it would be like to work in a Canadian setting, to perform a new skill or technique, and to support a specific population they likely have not worked with. Being able to imagine a new scenario, technique, and client without seeing it or practicing in these spaces was perceived by some interviewees as problematic and unlikely to result in either a clear understanding or the ability to perform the skill. Simulations, video case studies or examples, and in-person practice paired with supervision and feedback were perceived as being more effective to support knowledge acquisition and help IENs build familiarity across new contexts.

While IENs for the most part enjoyed the assessments and found them helpful, many wanted more diversity in format. Many IENs liked the audio recording format as it was an alternative way to communicate that did not rely on open-ended written answers. Including more non-writing assignments was seen as better for demonstrating knowledge and skills for folks who are less confident in writing, and when writing becomes repetitive or arduous. Furthermore, some IENs

struggled with the platform's submission function. It was not immediately clear to some if their work had been uploaded or submitted. Furthermore, in at least one class, there was confusion about the system and grading, as one IEN outlined, "*The automated system will initially score everyone Zero, and the instructor did not respond till the last day. Some people had to redo the course, not knowing it was a system error"* (Survey Respondent). Indeed, the Bow Valley Staff's anticipated changes to content delivery and technology use appear aligned with IEN preferences and learning styles.

Asynchronous Structure & Timing

The asynchronous format was ideal for IENs who were working, in school, and/or who had additional responsibilities (e.g., parenting) during the pilot. Being able to manage one's own schedule and pace was seen as both useful and accessible. Most survey respondents (88%, n = 14) preferred completing modules asynchronously rather than attending a class at a specific time. Across both educational pathways, 67% of ENs who completed the survey agreed they preferred online learning over in-person classes (n = 10) and 88% agreed that the training being online & asynchronous made it more accessible (n = 11).

IENs were divided about whether sufficient time was allocated for the micro-credential courses. Of the IENs who completed the survey, 59% agreed that the pathway they participated in took longer to complete than expected (n = 10). Many requested extensions, which were ultimately awarded. Some IENs shared that managing time, prioritizing or selectively skimming content, and downloading content for future reference (rather than reading during the allotted time) were some strategies they employed to finish on time. Those who did not struggle with time noted that more time could lead to a loss of momentum in finishing. However, other IENs shared that the quick pace prevented them from digesting the material, finding opportunities to practice, or thinking deeply and critically about what they had read. Rushing to finish and taking shortcuts were identified as barriers to comprehension. While the ability to complete micro-credential courses while working or caring for families was seen as a plus, many interviewees expressed concern that there is no substitute for clinical training, in-person simulations, and classroom-based experience – all of which require a longer time commitment. Many interviewees expressed a strong desire for these components, even though they require a greater commitment.

Many IENs wanted to participate in both learning pathways and were disappointed that there was only time in the pilot for them to complete one. Being able to have more choices in future to fully participate in the a la carte model was perceived as desirable. Indeed, several IENs expressed an interest in enrolling in the other pathway in the next iteration of the program.

Instruction, Assessments & Feedback

The majority of IENs found the instructors to be helpful, as one IEN shared, *"I appreciated the layout of this course and the supportive instructor, who stayed active and encouraged us through reminders and emails."* Many characterized the instructors as kind and generous with their feedback over email. When IENs made mistakes or did not complete assessments properly, instructors took the time to clarify expectations in simple terms and help students use feedback to complete them successfully. IENs commented that instructors were generally responsive to emails, which contributed to a respectful learning environment. This aligns with survey findings, where between 78% and 100% respondents across the micro-credential courses agreed they received helpful feedback on their progress during the course (see Tables 8 and 12 in Addendum E for details).

Some IENs wanted more frequent and personal touchpoints with instructors to make the feedback, email communication, or connections feel useful or comfortable. For instance, some IENs explained feeling more comfortable contacting the program officer to ask questions about the micro-credential course or request help, rather than the instructor. The program officer would then relay the question to the instructor, and the instructor would either relay the answer back or communicate directly with the student. Without having met the instructor in person or having a face to accompany the name, some IENs felt there was a distance or awkwardness to being assessed by an anonymous or absent expert. Some IENs wanted a live component of the micro-credential course, such as office hours or a drop-in Q&A session, to both build familiarity with the instructor and provide an opportunity to better understand key concepts.

The interviews and survey also surfaced mixed reflections about the efficacy of the assessments. Most survey respondents perceived the assessments to be fair, ranging from 80% to 100% of people across the six micro-credential courses (see Tables 8 and 12 in Addendum E for details). Indeed, many IENs interviewed also perceived the assessments to be adequate overall and appreciated (a) the opportunity to think critically about content, (b) feedback and support to answer questions completely, and (c) opportunities to re-do assessments until successful. This was an affirming learning experience for IENs, particularly those who had previously had negative learning experiences in which making mistakes was punitive or shaming. Other interviewees perceived the assessments to ultimately be an inaccurate measure of understanding and skill. For some, the instructions and expectations were unclear. IENs described not knowing how to apply concepts from the reading to assessment scenarios, write in sufficient detail, or submit assignments on the platform. Without examples to set expectations or detailed rubrics with points corresponding to the required level of detail, it was unclear how to complete assessments effectively. Some interviewees explained that marking felt subjective, as no documentation described essential criteria needed to pass an open-ended answer and multiple questions were mapped to a single mark in the rubric. Combined with the fact that partial

marks were not possible, it remains unclear the extent to which assessments accurately and reliably measured skill acquisition.

Some IENs reported finishing micro-credential courses without receiving any insights into their performance or guidance to improve their practice. Feedback was often characterized as helping IENs to complete assignments by clarifying expectations for what constitutes a correct or complete answer. This raised questions about the assessments and whether IENs were graded on their understanding, communication skills, and/or level of effort. Some IENs were left wondering how to use feedback to improve their skills and job performance. Other interviewees questioned whether this assessment model helped IENs in developing and performing on-the-job skills at all. For instance, one IEN did not receive any feedback and was unaware that there was any feedback or individualized learning component to the pilot. Ultimately, most IENs wanted more hands-on activities to practice skills rather than to describe what they would do in certain situations. Demonstrating rather than describing a skill or core competency was seen as a more valuable assessment format.

Barriers and Facilitators

Many IENs interviewed did not perceive any barriers to participating. Of those who completed the survey, 69% agreed that the workload was manageable (n = 11). Some interviewees reflected that time and language capacity were the two most significant barriers to successful completion. Already stretched thin with the bridging program, work, and/or personal obligations, finding the time to complete all reading and assessments was stressful. As one IEN shared, *"Everything about the course was top notch except the time frame for completing the course. Students should be allowed more time to complete the course"* (Survey respondent).

Additionally, participating in a non-native language created challenges for IENs in both reading the content and providing strong written answers. Many IENs commented that they are not strong writers. So, the requirement to complete assessments by providing long-form written descriptions of how they might handle a situation was seen as both stressful and not an accurate reflection of their understanding. Although the pilot was free, some IENs explained that to dedicate enough hours to the micro-credential course to study, they had to reduce their hours or quit their jobs. So, there was an implicit financial cost to participating for those who could not manage regular working hours and the pilot. These IENs explained that they took the micro-credential course hoping that completing it would land them a better and higher-paying job than the one they left or had reduced hours with.

IENs commented that the most impactful facilitator to pilot completion was the program officer. Regular communication and updates, reminders to complete material on time, and personalized notes of encouragement (especially when assessments were not completed) were all identified by IENs as contributing to their success. Moreover, the personal connection to and friendly interactions with the program officer made the experience feel respectful, encouraging, and positive.

Efficacy in Equipping IENs with Expected Clinical Skills

Across all micro-credential courses, most or all survey respondents reported that taking the course helped them develop a new skill or develop a skill they already had (see Tables 9 and 13 in Addendum E for details). Moreover, all survey respondents agreed that each course achieved its expected objectives (see Tables 10 & 14 in Addendum E for details). For example, 100% of survey respondents agreed, "I am better able to use clinical indicators to assess dementia, delirium, and depression in older adults because of this course" (n = 6, 3Ds from the Continuing Care pathway) (n = 6) and "because of this course, I am better able to de-escalate a mental health crisis successfully in a rural setting" (n = 11, Mental Health in Rural Settings from the Rural Acute Care pathway).

IENs who participated in an interview shared mixed perceptions about whether the micro-credential course content was more theoretical or skills-based. Some interviewees characterized the micro-credential courses as both awareness-building and applied-skills training. Others raised some concerns that it was not immediately obvious to IENs how to (a) apply content to assessments to bring concepts into a scenario and then (b) bring techniques into real-world on-the-job work. These interviewees characterized the micro-credential courses as more theoretical or an introductory course —still helpful, but not a direct throughline to job-readiness. To remedy this, some IENs shared examples of practicing skills at work, in other courses through the Bow Valley bridging program, or of asking the instructor for more clarity regarding expectations and strategies to translate content into the assessments to demonstrate skill acquisition. Of those who completed the survey, 94% felt the pathway was a useful training they would recommend to another nurse looking to upskill (n = 16).

Efficacy in Equipping IENs with Expected Non-Technical Core Competencies

Overall, many IENs interviewed described gaining a greater awareness of Canadian settings and cultural competency and feeling more confident in their leadership skills and ability to contribute to a clinical team. As one IEN reflected, *"I really loved the Critical Rural Care course. It gave me a better understanding of how to provide effective care in rural settings where medical resources are limited. I found it especially helpful to learn strategies for managing patients with minimal equipment and how to handle safe and efficient transfers from rural health centers to larger hospitals. It definitely opened my eyes to the challenges and importance of rural healthcare"* (Survey Respondent). Some IENs reported being able to apply transferable skills in their current healthcare roles. A better understanding of patient experiences, non-verbal communication cues, tone and language nuances, and strategies to engage families or care partners were identified as core competencies that IENs gained and applied in non-nursing roles to enhance their job performance. No other non-technical skills were identified as being gained from participating in the pilot.

Efficacy in Building Confidence to Work within Alberta's Healthcare System

Of those who completed the survey, 94% reported feeling more ready to work as an RN in Alberta because of the educational pathway (n = 16). For many IENs, the pilot helped them develop a better understanding of Alberta's healthcare system and the differences between rural and urban contexts. Examples and case studies were seen as helpful in illustrating the limitations or complexities of the healthcare system and their role in it as an RN. Nevertheless, many IENs commented that without a practicum or clinical placement, they were not immediately confident about their ability to navigate the system or prove their familiarity and comfort level to a potential employer. Some expressed frustration that employers in Alberta require IENs to have prior clinical experience in Alberta to demonstrate their knowledge, confidence, and ability to navigate the healthcare system. But without a clinical component, many interviewees felt the micro-credential would neither fully prepare IENs to work within Alberta's healthcare system nor set them up for success in job applications that require clinical experience.

The Role of Micro-credentials and Technology-Enabled Learning in Addressing IEN's Knowledge and Skills Gaps

For many IENs, this pilot increased familiarity with settings perceived as more likely to hire IENs. The content, and specifically the examples and case studies, helped several IENs feel more prepared for RN roles in rural clinics or continuing care facilities. And, for nurses in the process of applying for or renewing their licenses, the micro-credential courses served as a helpful refresh. The low-stakes and lower-commitment structure allowed some IENs to dabble or explore career pathways in either direction without uprooting their lives or experiencing a significant financial burden. When considering what their future employment may look like, some IENs shared that the knowledge gained from this pilot could reduce the training burden on their future colleagues. With a baseline familiarity established through the micro-credential courses, nursing staff in their future teams would not need to spend as much time bringing them up to speed or filling in their skills gaps.

Although the above benefits contribute to most IENs characterizing the pilot as a valuable experience, interviewees, for the most part, did not perceive the micro-credentials as able to adequately address a skill gap. Without an accompanying program (like the bridging program) that provides more comprehensive instruction and wrap-around support, clinical hands-on training with supervision, and a clinical placement that provides IENs with Canadian experience, interviewees were skeptical that the micro-credential model addresses requirements for successful job acquisition and placement. Indeed, many IENs were upset that after finishing the pilot, they were no closer to meeting the criteria for RN positions in Alberta. Some IENs believed that the lack of certification or

recognition from a regulatory body would make it difficult to both describe the value of the micro-credential courses to potential employers and perform on the job at a level comparable to that of nurses with recognized credentials in specialized areas (e.g., mental health, maternity care, geriatric care). Other IENs reflected that their time would have been better spent in a practicum placement or match-making program that connects IENs to clinical experience. As IENs were unable to apply the knowledge and skills gained from the micro-credentials in a clinical setting as an RN, they were unable to determine whether the micro-credential model addresses key skill gaps. In lieu of evidence from job performance reviews or feedback from clinical supervisors, most interviewees speculated that the micro-credential courses may have helped them to somewhat, but not completely, address skills gaps identified by employers. Because most IENs enrolled in the pilot to support job acquisition, many were disappointed or angry that they finished without seeing an immediate change in their job prospects. As such, many did not feel that the micro-credentials made them more desirable candidates to employers.

Evaluator Reflections & Conclusions

Overall, there were many aspects of the pilot that were successful. A strong alignment between the micro-credential courses' intended purpose and IEN's motivations to enroll suggests that these micro-credential courses are relevant, timely, and wanted. Bow Valley's responsive and nimble approach to both communicating with learners and addressing emerging challenges contributed to IEN's enjoyment and successful completion of the micro-credential courses. Additional benefits were also identified through the pilot. IENs preparing for licensing exams or renewals found the micro-credential course content to be a helpful refresher and study aid. And, IENs currently employed in allied health roles were able to apply concepts into non-nursing roles to improve job performance and better care for clients. Furthermore, the ability to explore or dabble in either pathway allowed IENs to envision life as a continuing care or rural nurse. Being able to better assess fit for their career goals and preferences helped many IENs refine their job search and career planning strategy. Across pathways and micro-credential courses, IENs found the courses to be beneficial and appreciated the care and consideration offered by instructors, the program officer, and the rest of the Bow Valley team.

The data highlight lingering questions about the efficacy of the micro-credential model in being able to meaningfully address employer-identified skills gaps and act as a catalyst for improving employability among IENs after completing a bridging program. A key limitation of this evaluation is the timeline. It is too soon to tell (a) if IENs successfully acquire jobs as RNs in Alberta, and (b) whether and to what extent the micro-credentials contributed to successful job acquisition and

retention. Nevertheless, data pinpoint four aspects of the pilot that may act as barriers to the primary goal of being a workforce solution.

First, the intentionally narrow scope of content raised questions about the purpose of each micro-credential course as either (a) a refresher or high-level topic overview or (b) comprehensive training and a throughline to high-quality job performance. Many participants perceived the micro-credential courses as the former, which raised questions about their role as stand-alone offerings rather than as part of a nursing program that provides more in-depth training. While there was a perception that building familiarity with these workplaces ahead of employment could decrease on-the-job training burdens, making IENs more desirable candidates, data suggest that micro-credential courses do not replace the need for additional training to support job readiness and adherence to Alberta's standards and regulations.

Second, the delivery of primarily text-based content online raised questions about ideal learning modalities for skill-building. Notwithstanding the benefit of the flexible self-paced model, data highlighted a clear preference for and potential benefit of (a) hands-on experiential learning in clinical settings and with quality supervision, and (b) more diverse modalities for both receiving information and completing assessments. Indeed, these findings align with anticipated changes that are already underway for future cohorts. As changes made after the end of the pilot were out of scope for the evaluation, it is not possible to determine the efficacy of proposed solutions. But, given the strong alignment between Bow Valley's intended upgrades and learners' preferences and feedback, there is reason to believe that forthcoming strategies are appropriate for addressing these questions.

Third, data revealed ambiguity in the purpose and effectiveness of the assessments and personalized feedback model. Understanding that language was a barrier for many IENs, assessments had to account for (a) communication skills, (b) depth of understanding, and (c) ability to demonstrate skill acquisition. While data showed that instructors were overall generous, helpful, and encouraging with their feedback, questions surfaced about how well feedback balanced (a) helping IENs complete assessments and (b) providing insights that improve skill acquisition and readiness to perform core competencies on the job. Furthermore, the current rubric grading format, support documentation, and grading process made it difficult to determine whether successful completion of assessments reliably indicated skill acquisition.

Finally, data highlighted the perceived importance of clinical placements as a throughline to employment. While a practicum placement is not in scope for a micro-credential course, data highlighted that most IENs believe that experience working in a clinical setting in Alberta is a requirement for employment. This raised questions for IENs about the purpose and value of micro-

credentials on the road to employment if employers value clinical experience over supplemental education. As such, it was not clear to IENs if/how micro-credentials act as a bridge to employment.

Considerations for Future Iterations

Based on the data presented in this evaluation report, the following considerations are for the Bow Valley team as they continue to iterate to translate lessons learned from the pilot into possible next steps.

1. Clarify the role of micro-credential courses in job acquisition to help IENs manage expectations and understand the unique purpose and value of the micro-credential courses, separate from clinical experience. This information could be communicated in course promotion, before IENs commit to enroll, and at the beginning of the course to help IENs set an intention for their learning experience.

2. Define the intended audience for the micro-credentials in terms of:
    a. Who might be ideally suited to participate (e.g., time commitments, life circumstances, proximity to licensing, geographical location, experience level)
    b. Who may stand to benefit most from the micro-credential courses and in what ways
    c. Under what circumstances these micro-credential courses are appropriate for Canadian-educated nurses (if the goal remains to expand registration to include Canadian-educated nurses and IENs)

3. Adapt existing assessments and grading rubrics by:
    a. how Bow Valley expects instructors to balance the level of effort and completeness with the demonstration of skills and understanding
        i. Working with instructors to identify what is a reasonable demonstration of understanding and skill acquisition for IENs and for Canadian-educated nurses (should enrollment expand). This may help with more consistent grading across instructors and micro-credential courses.
    b. Matching the components of a grading rubric with those of the assessment to clarify (a) the amount of content expected in answers, (b) what constitutes a complete answer, and (c) what level of quality is expected in assessments
        i. This may include expanding the number of points for each assessment component, allowing partial points to be awarded, clarifying key points required to receive partial/full marks, and/or providing a more detailed rubric to instructors.

ii. Working with instructors to identify a strategy for accommodating learners whose performance may be hindered by language barriers. Consider creating a shared strategy across instructors for assuming best intentions and being lenient around written or oral language assignments to promote consistency and fairness across micro-credential courses and learners.

4. As new assessments are developed to align with the in-person activities and equipment, consider working with instructors to identify reasonable expectations for in-person performance and what key components or characteristics of a learner's performance demonstrate expected understanding and skill acquisition.
    a. Ensure expectations are comparable across micro-credential courses to minimize inconsistencies or confusion across courses and instructors

5. Consider adding additional touchpoints or strategies to build familiarity and comfort with instructors so that learners feel comfortable engaging with instructors rather than relying on the program officer as a go-between (e.g., recorded sessions with the instructor to put a face to the name, live or pre-recorded feedback sessions, an in-person session connected to the new equipment).

6. Develop an intentional and ongoing feedback strategy that supports iterative improvement by:
    a. Gathering feedback from future cohorts to understand the extent to which program assumptions and expectations are being met in future iterations (e.g., do the in-person sessions improve the learning experience? Do learners perceive added videos as useful?)
    b. Creating more opportunities for accessible, comfortable, and anonymous feedback from IENs, instructors, and staff alike to ensure that there are equitable opportunities for people to share ideas (not just those who are most comfortable speaking up)
    c. Coming up with a strategy for acting on feedback that allows the micro-credential courses to strike a balance between being agile and sturdy so the continued evolution of the micro-credential courses maintain clear alignment to intended learning goals and experiences
    d. Communicate the value of feedback to learners and everyone involved in the team to (a) maintain a strong learning culture and (b) demonstrate how feedback has been used in student-centred decision-making (thereby further encouraging feedback)

7. To support continuous quality improvement, develop a process to collect and analyze student engagement and success data by micro-credential course and cohort over time. This could

include using Pivot-Ed and Affinity data to track total time per micro-credential course, proportion of time spent on assessments, number of completed assessment attempts, and proportion of completed assessments that were successful. It could also include having the program officer track metrics of interest at the beginning and end of each micro-credential course, such as the total number of students enrolled and the total number who pass. Defining relevant metrics, assigning roles and responsibilities, and creating a regular review schedule will help increase the utility of this process and support more data-driven decision-making around micro-credential course design and marketing.

8. Continue elements of the micro-credential pilot that were identified as supporting learners' satisfaction and success, including using a continuous quality improvement model to address emergent challenges, hiring instructors with prior experience working with IENs, having a proactive and kind program officer, and fostering a strong connection between the program officer and staff who are responsible for addressing technical glitches.

Pilot Report Supplementary Materials

Addendum A: Micro-Credential Course Descriptions

Bow Valley College created six micro-credential courses. Each course was created by first defining a skill-based competency that learners would achieve by taking the micro-credential course and then identifying the skills needed to demonstrate this competency in real-world situations (called objectives). The assessment, activities, and content were then created in line with the objectives. Bow Valley College grouped micro-credential courses into two educational pathways, and participants were invited to take one during the pilot. The table below describes each micro-credential course's competency and objectives by educational pathway.

Table 1: Micro-Credential Course Competency and Objectives by Educational Pathway

Course	Competency	Objectives
Continuing Care		
Dementia, Delirium, and Depression	Be able to differentiate between dementia, delirium, and	1. Use clinical indicators to assess dementia, delirium, and depression in older adults

Course	Competency	Objectives
	depression to ensure patients receive appropriate care in continuing care settings	2. Confidently engage family caregivers in care planning for patients in continuing care settings 3. Create and implement individualized care strategies for people in continuing care settings
Comprehensive Geriatric Assessment	Be able to complete a Comprehensive Geriatric Assessment (CGA) with older adults in continuing care settings	1. Complete ADL and IADL assessments to identify areas of independence and need for an older adult 2. Confidently conduct a physical assessment to identify common geriatric concerns and use this information in care planning 3. Collect medical history and medication information to identify risks for an older adult 4. Create a holistic care plan for older adults
Leadership and Case Management	Be able to lead case management for patients in continuing care settings	1. Able to identify the scope of practice for an RN in an interdisciplinary care team working in a continuing care setting 2. Able to delegate nursing tasks across an interdisciplinary care team in a continuing care setting 3. Confidently coordinate care across an interdisciplinary team for a patient in a continuing care setting 4. Able to manage conflict in interdisciplinary teams to maintain team cohesion in continuing care settings 5. Able to relay patient information accurately across shifts and roles in a continuing care setting 6. Able to mentor others on an interdisciplinary team because of this course
Rural Acute Care		
Critical Care in Rural Settings	Be able to manage critically ill patients in a resource-limited, rural health setting	1. Confidently document symptoms and the medical history of a patient having an acute care emergency in a rural setting 2. Able to adapt standard care protocols to account for resource constraints to deliver good care to critically ill patients in rural settings

Course	Competency	Objectives
		3. Confidently coordinate medical interventions and transfers for a person having an acute care emergency in a rural setting 4. Confidently communicate with family members and interdisciplinary teams during high-stress emergency care in resource-limited settings
Mental Health in Rural Settings	Be able to manage care for a person having a mental health crisis in a rural, resource-limited health setting	1. Able to identify the signs and symptoms of a mental health crisis in patients in rural health settings 2. Confident in caring for someone having a mental health crisis without on-site mental health specialists 3. Able to de-escalate a mental health crisis successfully in a rural setting 4. Confident in creating an appropriate post-crisis care plan for someone having a mental health crisis in a resource-limited health setting 5. Able to provide trauma-informed care to
Maternity Care in Rural Settings	Be able to assess and appropriately manage patients with maternal health conditions in rural acute care settings	1. Provide high-quality antepartum care to pregnant people in a resource-limited health setting 2. Manage labour and delivery for a pregnant patient in a rural setting 3. Able to coordinate a medical transfer for a pregnant or postpartum patient in a rural setting 4. Provide postpartum care for the parent and baby in a resource-limited health setting 5. Able to provide grief and bereavement support to a postpartum patient in a rural setting

Addendum B: Pilot Implementation Details

Piloting the two educational pathways took place between May and September 2025, with students participating in the courses between July and September 2025. This work was led by Bow Valley College with support from the external evaluators from AND implementation. The table below details the activities that took place during the implementation phase.

Table 2: Pilot Implementation Activity by Time

Time Period	Pilot Activities
May & June	• Applied (and was granted) for an ethics approval exemption from their Research Ethics Board • Conducted a gap analysis and defined the skill-based competency each course will address • Adapted an existing development model to fit this project (e.g., defined the approach to defining outcomes and objectives) • Recruited and submitted onboarding for 5 Subject Matter Experts to develop curriculum for 6 courses. • Developed courses, curated content, and designed assessments; iteratively collected feedback from Subject Matter Experts and refined materials • Developed a learner orientation "welcome widget" that pops up when students log in to highlight essential information for learners (e.g., course outcomes, technology access) • Onboard two Subject Matter Experts as instructors • Hire a Research Assistant • Started to procure a portable recording device (hardware and software) for courses, but the process was stopped due to increased costs and it failed the College's cybersecurity assessment. Funding was reallocated to buy equipment to replace the portable recording device, where the first equipment arrived in June • Finalized master shells on Pivot-Ed D2L (6 total) • Built connections between the development team and the Project Officer to establish a process for providing technical support for students • Obtained Dean's Council Committee approval for all six courses • Created registration form, got feedback from the project team and evaluators, and updated for better usability • Emailed invitations sent to eligible participants with the registration form • Created live shells on Pivot-Ed D2L for each course (6 total); registered participants and shared access with instructors and learners • Requested creation of digital badges
July & August	• Welcome emails sent to students and instructors with shell links, instructor names, and technical support details. • Launched the pilot on July 7th with 46 participants

Time Period	Pilot Activities

	• First course piloted (July 7th – August 4th) and second course piloted (July 21st - August 11th); during the pilot:
	  o Answered questions emailed by students
	  o Instructors supported students via email
	  o Conducted instructor check-ins via email
	  o Conducted student check-ins via email
	  o Sent weekly reminder emails to learners regarding deadlines
	  o Implemented multiple course end date extensions based on student feedback that the initial two-week period is too short
	  o Held regular team updates regarding course progress
	  o Course 2 only: Managed textbook loan requests
	  o Instructors marked assessments
	  o Instructors provided learners with feedback via email and the chance to revise failed assessment components
	• Four learners completed the Rural Acute Care pathway and were invited to participate in one Continue Care course (Leadership and Case Management)
	• Conducted continuous quality improvement cycles to improve the course and/or address emergent challenges (e.g., glitches related to AI-based activities or assessment components, Affinity not working)
	• Worked with evaluators to develop an email to recruit participants to participate in the evaluation
	• Additional equipment is secured
	• Requested creation of badges for courses

September & October	• Third course pilot ended (September 5th) • Instructors provided learners with feedback and the chance to complete missing assessment components • Course results finalized and grades (pass/fail) released. • Requested and released digital badges to successful learners from Bow Valley College records for each course. • Conducted continuous quality improvement cycles to refine course content for next iteration • Some equipment for future hands-on learning activities arrived • Canceled some purchase requests as vendors could not deliver on the offered date and the new delivery is outside the project timeline. • Learners invited to participate in post-pilot evaluation activities (September 4th) • Reminder email sent to learners about participating in the post-pilot evaluation activities (September 18th) • Answered questions and provided materials to the evaluators (samples of assessments, rubrics, etc.)

Evaluating an Upskilling Workforce Solution

The table below describes the micro-credential course order and final schedule used during pilot for both educational pathways.

Table 3: Micro-Credential Course Order and Schedule for Each Educational Pathway

Course Number	Start Date	End Date	Continuing Care Course Title	Rural Acute Care Course Title
1	July 7th	August 4th	Dementia, Delirium, and Depression	Critical Care in Rural Settings
2	July 21st	August 11th	Comprehensive Geriatric Assessment	Mental Health in Rural Settings
3	August 5th	September 5th	Leadership and Case Management	Maternity Care in Rural Settings

Addendum C: Pilot Registration Data

To enroll in the pilot, interested IENs were asked to fill out a registration form. A total of 44 people completed it. The registration form included key metrics required by the Future Skills Centre as part of the funding agreement. The table below describes the analysis of these metrics by educational pathway.

Table 4: Pilot Registrant Demographic Data by Educational Pathway

Participant Demographics	Continuing Care (n = 15)	Rural Acute Care (n = 29)
Key Identity Markers	Of the 15 participants, • 80% identify as an immigrant (n = 12) • 60% identify as a women (n = 9) • 47% identify as a newcomer (n = 7)	Of the 29 participants, • 76% identify as an immigrant (n = 22) • 62% identify as a women (n = 18) • 55% identify as a newcomer (n = 16) • 24% identify as a person with essential skills gaps (n = 7) • 14% identify as a racialized person (n = 4) • 3% identify as a youth, person with a disability or disabilities, 2SLGBTQ+ community member, or refugee (n = 1)
Gender	• 80% identify as a woman (n = 12) • 20% identify as a man (n = 3)	• 97% identify as a woman (n = 28) • 3% identify as a man (n = 1)
Age	• 0% are 18 – 24 years old (n = 0) • 47% are 25 – 34 years old (n = 7) • 40% are 35 – 44 years old (n = 6) • 7% are 45 - 54 years old (n = 1) • 7% are 55 – 64 years old (n = 1)	• 3% are 18 – 24 years old (n = 1) • 14% are 25 – 34 years old (n = 4) • 59% are 35 – 44 years old (n = 17) • 24% are 45 - 54 years old (n = 7) • 0% are 55 – 64 years old (n = 0)
Ethnicity	• 79% reported being Southeast Asian (Filipino, Vietnamese, Cambodian, Thai, Indonesian, other Southeast Asian descent) (n = 11)	• 48% reported being Black (African, Afro-Caribbean, African-Canadian descent) (n = 14) • 34% reported being Southeast Asian (Filipino, Vietnamese, Cambodian, Thai, Indonesian,

Participant Demographics	Continuing Care (n = 15)	Rural Acute Care (n = 29)
	• 14% reported being Black (African, Afro-Caribbean, African-Canadian descent) (n = 2) • 7% reported being Latino (Latin American, Hispanic descent) (n = 1)	other Southeast Asian descent) (n = 10) • 3% reported being Latino (Latin American, Hispanic descent) (n = 1) • 3% reported being Middle Eastern (Arab, Persian, West Asian descent, e.g. Afghan, Egyptian, Iranian, Lebanese, Turkish, Kurdish, etc.) (n = 1) • 3% reported being Indian, East Asian (Chinese, Korean, Japanese, Taiwanese descent), or European (n = 1)
Identify as First Nation, Métis, and/or Inuit	100% said no (n = 15)	100% said no (n = 29)
Born in Canada	100% said no (n = 15)	100% said no (n = 29)
Arrived in Canada	• 53% arrived between 2020 and 2025 (n = 8) • 40% arrived between 2010 and 2019 (n = 6) • 7% arrived between 2000 and 2009 (n = 1)	• 69% arrived between 2020 and 2025 (n = 20) • 26% arrived between 2010 and 2019 (n = 8) • 3% arrived before 2000 (n = 1)
Canadian Immigration Status	• 53% reported being a permanent resident (n = 8) • 33% reported being a Canadian citizen (n = 5) • 13% reported being a temporary resident (n = 2)	• 45% reported being a permanent resident (n = 13) • 31% reported being a temporary resident (n = 9) • 24% reported being a Canadian citizen (n = 7)
Providence of Residence	100% live in Alberta (n = 15)	100% live in Alberta (n = 29)
Annual Household Income	• 27% reported under $20,000 (n = 4) • 13% reported between $20,000 and $40,000 (n = 2) • 7% reported between $40,000 and $60,000 (n = 1) • 27% reported between $60,000 and $80,000 (n = 4)	• 45% reported under $20,000 (n = 13) • 21% reported between $20,000 and $40,000 (n = 6) • 14% reported between $40,000 and $60,000 (n = 4) • 10% reported between $60,000 and $80,000 (n = 3)

Participant Demographics	Continuing Care (n = 15)	Rural Acute Care (n = 29)
	• 13% reported between $80,000 and $100,000 (n = 2) • 0% reported over $100,000 (n = 0) • 13% reported not knowing (n = 2)	• 0% reported between $80,000 and $100,000 (n = 0) • 3% reported over $100,000 (n = 1) • 7% reported not knowing (n = 2)
Conversational in English and/or French	• 93% reported being conversational in English only (n = 14) • 7% reported being conversational in English and French (n = 1)	• 97% reported being conversational in English only (n = 28) • 3% reported being conversational in English and French (n = 1)
Highest Level of Education	• 87% reported having a university bachelor's degree or diploma (n = 13) • 7% reported having a college, CEGEP, or other non-university certificate or diploma (n = 1) • 7% reported having a Master's degree (n = 1)	• 86% reported having a University bachelor's degree or diploma (n = 25) • 0% reported having a college, CEGEP, or other non-university certificate or diploma (n = 0) • 14% reported having a Master's degree (n = 4)
Highest Level of Education Setting	• 93% reported completing their highest education outside Canada and USA (n = 14) • 7% reported completing their highest education level in Canada (n = 1)	• 97% reported completing their highest education outside Canada and USA (n = 28) • 3% reported completing their highest education level in the USA (n = 1)

Addendum D: Pivot-Ed Data Tables

Data were captured on two online platforms used to run the micro-credential courses: Affinity and D2L Brightspace Learning Platform (called Pivot-Ed). Data were collected as part of the normal micro-credential course implementation. After the pilot was completed, Bow Valley College staff compiled available data into a Microsoft Excel file, de-identified it, and shared it with the evaluators. The evaluators conducted the data analysis independently. The tables below outline the results of this analysis.

Table 5: Student Enrollment and Completion by Micro-Credential Course

Course	Number of Students Enrolled	Number who Passed	% who Passed
Continuing Care			
Dementia, Delirium, and Depression (3Ds)	13	8	62%
Comprehensive Geriatric Assessment (CGA)	9	8	89%
Leadership and Case Management	13	13	100%
Rural Acute Care			
Critical Care in Rural Settings	28	26	93%
Mental Health in Rural Settings	23	22	96%
Maternity Care in Rural Settings	21	21	100%

Table 6: Time Spent on Each Micro-Credential Course and Overall by Students Who Did Not Withdraw

Course	Avg. Time Spent on Course in Hours (Median)	Range for Avg. Time Spent on Course (Hours)	Avg. % of Time Spent on Assessments in Hours (Median)	Range of % of Time on Assessments (Hours)	% who Spent 20 or more Hours on the Course	% who spent 10 or more Hours on the Course	% who Spent 5 or more Hours on the Course	% who Spent 2.5 or more Hours on the Course
Continuing Care								
3Ds (n = 10)	2.22 (1.74)	0.73 - 4.46	35% (28%)	2% - 86%	0%	0%	0%	30%
CGA (n = 9)	2.93 (1.46)	0.52 - 9.92	31% (22%)	13% - 69%	0%	0%	11%	44%
Leadership (n = 13)	4.50 (3.22)	0.68 - 11.48	32% (29%)	0%-69%	0%	15%	38%	62%

Course	Avg. Time Spent on Course in Hours (Median)	Range for Avg. Time Spent on Course (Hours)	Avg. % of Time Spent on Assessments in Hours (Median)	Range of % of Time on Assessments (Hours)	% who Spent 20 or more Hours on the Course	% who spent 10 or more Hours on the Course	% who Spent 5 or more Hours on the Course	% who Spent 2.5 or more Hours on the Course
Total Pathway (n = 9)	8.6 (5.8)	2.4 – 23.2	N/A	N/A	N/A	N/A	N/A	N/A
Rural Acute Care								
Critical Care (n = 26)	7.35 (5.71)	1.17 - 24.27	33% (25%)	4% - 94%	4%	23%	62%	92%
Mental Health (n = 23)	5.75 (5.53)	0.32 - 19.91	30% (21%)	9% - 100%	0%	9%	61%	87%
Maternity Care (n = 21)	4.90 (3.76)	1.01 - 11.18	38% (28%)	15% - 95%	0%	14%	38%	67%
Total Pathway* (n = 21)	18.6 (16.3)	5.6 – 36.7	N/A	N/A	N/A	N/A	N/A	N/A

* This was calculated only for students who enrolled in all three courses in the pathway

Addendum E: Post-Pilot Survey Data Tables

The online survey was shared with all students who registered for the pilot (n = 46). A total of 18 completed the survey, giving a response rate of 39%. The table below presents the demographics of survey respondents by educational pathway.

Table 7: Post-Pilot Survey Participant Demographics by Educational Pathway

Demographics	Continuing Care (n = 7)	Rural Acute Care (n = 11)
Licensed as an RN in Alberta	• 71% reported Yes (n = 5) • 29% reported No (n = 2)	• 55% reported Yes (n = 6) • 45% reported No (n = 5)
Currently Working	• 43% reported working in healthcare, but not as an RN (n = 3) • 43% reported not working (n = 3) • 14% reported Yes, but not in healthcare (n = 1) • 0 % reported working as an RN (n = 0)	• 45% reported not working (n = 5) • 18% reported working as an RN (n = 2) • 18% reported working in healthcare, but not as an RN (n = 2) • 9% reported working but not in healthcare (n = 1) • 9% reported Other (n = 1)
Key Demographics	• 71% identified as a woman (n = 5) • 57% identified as an immigrant (n = 4) • 57% identified as a newcomer (n = 4) • 14% identified as a racialized person (n = 1) • 14% identified as a member of the 2SLGBTQ+ community (n = 1)	• 91% identified as a newcomer (n = 10) • 82% identified as an immigrant (n = 9) • 73% identified as a woman (n = 8) • 9% identified as a person living in a rural, remote, or Northern community (n = 1)

Continuing Care

The table below describes the extent to which students' perceptions of a micro-credential course in the Continuing Care pathway aligned with key assumptions embedded into the micro-credential course design.

Table 8: Survey Respondents' Perceptions of Continuing Care Micro-Credential Courses by Design Assumption

	Dementia, Delirium, and Depression		Comprehensive Geriatric Assessment		Leadership and Case Management	
	Agree % (n)	Disagree % (n)	Agree % (n)	Disagree % (n)	Agree % (n)	Disagree % (n)
The modules I completed had content that was mostly or all new to me.	80% (4)	20% (1)	80% (4)	20% (1)	71% (5)	29% (2)
Course material covered key topics in sufficient detail	100% (6)	0% (0)	100% (6)	0% (0)	100% (7)	0% (0)
The course content was relevant to my nursing practice	100% (6)	0% (0)	100% (6)	0% (0)	100% (7)	0% (0)
Assignment instructions were clear and easy to understand	100% (5)	0% (0)	100% (5)	0% (0)	86% (6)	14% (1)
Completing the assignments helped me improve my nursing skills	100% (6)	0% (0)	100% (6)	0% (0)	100% (7)	0% (0)
I received helpful feedback on my progress during the course	100% (4)	0% (0)	100% (5)	0% (0)	100% (6)	0% (0)
The final assessment was unfair	17% (1)	83% (5)	0% (0)	100% (6)	17% (1)	83% (5)

The table below describes the extent to which students' perceptions of a micro-credential course in the Continuing Care pathway aligned with the expected outcomes.

Table 9: Survey Respondents' Perceptions of Continuing Care Micro-Credential Courses by Expected Outcome

	Dementia, Delirium, and Depression	Comprehensive Geriatric Assessment	Leadership and Case Management
Overall, was this course a good use of your time?	• 100% Yes (n = 6) • 0% No (n = 0)	• 100% Yes (n = 6) • 0% No (n = 0)	• 100% Yes (n = 7) • 0% No (n = 0)
Are you able to do the expected competency? (see Table 1 for course competencies)	• 83% reported the course helped them develop the skill (n = 5) • 17% reported the course enhanced a skill they already had (n = 1)	• 67% reported the course helped them develop the skill (n = 4) • 33% reported the course enhanced a skill they already had (n = 2)	• 67% reported the course helped them develop the skill (n = 4) • 23% reported the course enhanced a skill they already had (n = 2) • 14% reported they made progress but more skill development is needed
How confident are you in your ability to do the expected competency? (see Table 10 for course competencies)	• 100% reported being confident (n = 6) • 0% reported being not confident (n = 0)	• 100% reported being confident (n = 6) • 0% reported being not confident (n = 0)	• 100% reported being confident (n = 6) • 0% reported being not confident (n = 0)
% of the course objectives where 80% or more students agreed it was achieved (see Table 10 for course-specific objectives)	• 100% (n = 3)	• 100% (n = 4)	• 100% (n = 6)

Each micro-credential course was designed to achieve specific objectives. The table below describes the extent to which students perceive that taking micro-credential courses in the Continuing Care pathway helped them achieve these objectives.

Table 10: Survey Respondents' Perceptions of Continuing Care Micro-Credential Courses by Course Objective

Course-Specific Objectives	Agree % (n)	Disagree % (n)
Dementia, Delirium, and Depression		
I am better able to use clinical indicators to assess dementia, delirium, and depression in older adults because of this course	100% (6)	0% (0)
Because of this course, I am more confident in engaging family caregivers in care planning for patients in continuing care settings	100% (6)	0% (0)
I am better able to create and implement individualized care strategies for people in continuing care settings because of this course	100% (6)	0% (0)
Comprehensive Geriatric Assessment		
I am better able to complete ADL and IADL assessments to identify areas of independence and need for an older adult because of this course	100% (6)	0% (0)
Because of this course, I am more confident in conducting a physical assessment to identify common geriatric concerns and use this information in care planning	100% (6)	0% (0)
I am better able to collect medical history and medication information to identify risks for an older adult because of this course	100% (6)	0% (0)
I am better able to create a holistic care plan for older adults because of this course	100% (6)	0% (0)
Leadership and Case Management		
Because of this course, I am better able to identify the scope of practice for an RN in an interdisciplinary care team working in a continuing care setting	100% (7)	0% (0)
I am better able to delegate nursing tasks across an interdisciplinary care team in a continuing care setting because of this course	100% (6)	0% (0)
I am more confident in coordinating care across an interdisciplinary team for a patient in a continuing care setting because of this course	100% (7)	0% (0)
I am better able to manage conflict in interdisciplinary teams to maintain team cohesion in continuing care settings because of this course	100% (7)	0% (0)
Because of this course, I am more confident in relaying patient information accurately across shifts and roles in a continuing care setting	100% (7)	0% (0)
I am more able to mentor others on an interdisciplinary team because of this course	100% (7)	0% (0)

Students were asked the extent to which the goals of completing the Continuing Care pathway were achieved (see the table below).

Table 11: Survey Respondents' Perceptions of the Continuing Care Pathway Overall

	Agree % (n)	Disagree % (n)
This pathway helped me develop new skills for working in continuing care settings	100% (6)	0% (0)
This pathway made me better able to provide care to people in continuing care settings	100% (6)	0% (0)
This pathway increased my confidence for working in a continuing care setting	100% (6)	0% (0)
This pathway was a useful training program that I would recommend to another nurse looking to upskill	86% (6)	14% (1)
This pathway took longer to complete than I expected	67% (4)	33% (2)
This pathway was an effective way to learn practical nursing skills	83% (5)	17% (1)
The training being online and asynchronous made it more accessible to me	71% (5)	29% (2)
The workload was manageable alongside my other responsibilities	57% (4)	43% (3)
I feel more ready to work in Alberta as an RN because of taking this pathway	83% (5)	17% (1)

Rural Acute Care

The table below describes the extent to which students' perceptions of a micro-credential course in the Rural Acute Care pathway aligned with the key assumptions embedded in the course design.

Table 12: Survey Respondents' Perceptions of Rural Acute Care Micro-Credential Courses by Design Assumption

	Critical Care in Rural Settings		Mental Health in Rural Settings		Maternity Care in Rural Settings	
	Agree % (n)	Disagree % (n)	Agree % (n)	Disagree % (n)	Agree % (n)	Disagree % (n)
The modules I completed had content that was mostly or all new to me.	27% (3)	73% (8)	75% (6)	25% (2)	33% (3)	67% (6)
Course material covered key topics in sufficient detail	100% (11)	0% (0)	90% (9)	10% (1)	100% (10)	0% (0)

	Critical Care in Rural Settings		Mental Health in Rural Settings		Maternity Care in Rural Settings	
	Agree % (n)	Disagree % (n)	Agree % (n)	Disagree % (n)	Agree % (n)	Disagree % (n)
The course content was relevant to my nursing practice	**100% (11)**	0% (0)	**100% (11)**	0% (0)	**100% (10)**	0% (0)
Assignment instructions were clear and easy to understand	**100% (10)**	0% (0)	**91% (10)**	9% (1)	**100% (10)**	0% (0)
Completing the assignments helped me improve my nursing skills	**100% (11)**	0% (0)	**100% (10)**	0 (0)	**100% (10)**	0% (0)
I received helpful feedback on my progress during the course	**90% (9)**	10% (1)	**78% (7)**	22% (2)	**100% (10)**	0% (0)
The final assessment was unfair	10% (1)	**90% (1)**	20% (2)	**80% (8)**	20% (2)	**80% (8)**

The table below describes the extent to which students' perceptions of a micro-credential course in the Acute Rural care pathway aligned with the expected outcomes.

Table 13: Survey Respondents' Perceptions of Rural Acute Care Micro-Credential Courses by Expected Outcome

	Critical Care in Rural Settings	Mental Health in Rural Settings	Maternity Care in Rural Settings
Overall, was this course a good use of your time?	• 100% Yes (n = 11) • 0% No (n = 0)	• 100% Yes (n = 11) • 0% No (n = 0)	• 100% Yes (n = 10) • 0% No (n = 0)
Are you able to do the expected competency? (see Table 1 for course competencies)	• 55% reported the course helped them develop the skill (n = 6) • 27% reported the course enhanced a skill they already had (n = 3) • 18% reported they made progress but	• 73% reported the course helped them develop the skill (n = 8) • 18% reported the course enhanced a skill they already had (n = 2) • 9% reported they made progress but more skill	• 60% reported the course helped them develop the skill (n = 6) • 40% reported the course enhanced a skill they already had (n = 4)

	Critical Care in Rural Settings	Mental Health in Rural Settings	Maternity Care in Rural Settings
	more skill development is needed (n = 2)	development is needed (n = 1)	
How confident are you in your ability to do the expected competency? (see Table 1 for course competencies)	• 100% reported being confident (n = 10) • 0% reported being not confident (n = 0)	• 100% reported being confident (n = 10) • 0% reported being not confident (n = 0)	• 100% reported being confident (n = 6) • 0% reported being not confident (n = 0)
% of the course objectives where 80% or more students agreed it was achieved (see Table 14 for course-specific objectives)	• 100% (n = 4)	• 100% (n = 4)	• 100% (n = 6)

Each micro-credential course was designed to achieve specific objectives. The table below describes the extent to which students perceived that taking courses in the Rural Acute Care pathway helped them achieve these objectives.

Table 14: Survey Respondents' Perceptions of Rural Acute Care Micro-Credential Courses by Course Objective

Course-Specific Objectives	Agree % (n)	Disagree % (n)
Critical Care in Rural Settings		
Because of this course, I am more confident in documenting symptoms and the medical history of a patient having an acute care emergency in a rural setting	100% (11)	0% (0)
I am better able to adapt standard care protocols to account for resource constraints to deliver good care to critically ill patients in rural settings because of this course	100% (11)	0% (0)
I am more confident in coordinating medical interventions and transfers for a person having an acute care emergency in a rural setting because of this course	100% (11)	0% (0)

Course-Specific Objectives	Agree % (n)	Disagree % (n)
I am more confident in communicating with family members and interdisciplinary teams during high-stress emergency care in resource-limited settings because of this course	100% (11)	0% (0)
Mental Health in Rural Settings		
I am better able to identify the signs and symptoms of a mental health crisis in patients in rural health settings because of this course	100% (11)	0% (0)
I am more confident in caring for someone having a mental health crisis without on-site mental health specialists because of this course	100% (11)	0% (0)
Because of this course, I am better able to de-escalate a mental health crisis successfully in a rural setting	100% (11)	0% (0)
I am more confident in creating an appropriate post-crisis care plan for someone having a mental health crisis in a resource-limited health setting because of this course	100% (10)	0% (0)
I am more capable of providing trauma-informed care to someone having a mental health crisis because of this course	100% (11)	0% (0)
Leadership and Case Management		
I am more confident in providing high-quality antepartum care to pregnant people in a resource-limited health setting because of this course	100% (9)	0% (0)
Because of this course, I am more confident managing labour and delivery for a pregnant patient in a rural setting	100% (10)	0% (0)
Because of this course, I am better able to coordinate a medical transfer for a pregnant or postpartum patient in a rural setting	100% (10)	0% (0)
I am more confident providing postpartum care for the parent and baby in a resource-limited health setting because of this course	100% (10)	0% (0)
I am better able to provide grief and bereavement support to a postpartum patient in a rural setting because of this course	100% (10)	0% (0)

Students were asked the extent to which the goals of completing the Rural Acute Care pathway were achieved (see the table below).

Table 15: Survey Respondents' Perceptions of the Rural Acute Care Pathway Overall

	Agree % (n)	Disagree % (n)
This pathway helped me develop new skills for working in resource-limited, rural contexts	100% (10)	0% (0)
This pathway made me better able to provide care to people in rural health settings	100% (10)	0% (0)
This pathway increased my confidence for working in a resource-limited, rural health setting	90% (9)	10% (1)

	Agree % (n)	Disagree % (n)
This pathway was a useful training program that I would recommend to another nurse looking to upskill	100% (11)	0% (0)
This pathway took longer to complete than I expected	55% (6)	45% (5)
This pathway was an effective way to learn practical nursing skills	91% (10)	9% (1)
The training being online and asynchronous made it more accessible to me	100% (10)	0% (0)
The workload was manageable alongside my other responsibilities	78% (7)	22% (2)
I feel more ready to work in Alberta as an RN because of taking this pathway	100% (11)	0% (0)

Online Education Platform

Students were asked to share their experiences with Pivot-Ed, the online education platform that hosted the six micro-credential courses. Data were analyzed across both educational pathways (see table below).

Table 16: Student Perceptions of the Online Learning Platform

	Agree % (n)	Disagree % (n)
I could easily find what I was looking for on Pivot-Ed most or all of the time	100% (17)	0% (0)
It was easy to submit assignments on Pivot-Ed	94% (17)	6% (1)
It was easy to interact with other learners on Pivot-Ed	86% (12)	14% (2)
Icons and buttons were clearly labelled and easy to understand	100% (18)	0% (0)
I could easily track my progress through a course on Pivot-Ed	100% (17)	0% (0)
I experienced technical errors or glitches often	59% (10)	41% (7)
I prefer the online learning format over in-person classes	67% (10)	33% (5)
I prefer being able to complete modules whenever I can rather than having to attend a class at a specific time	88% (14)	13% (2)

Appendix G: RN Ecosystem Report

This report was previously submitted to Bow Valley College as an evaluation deliverable and appears below in its entirety.

Background

Key informant interviews with employed RNs and representatives of organizations that employ and/or represent nurses in Alberta were conducted to understand:

1. The perceived fit and acceptability of the micro-credential courses within Alberta's nursing ecosystem
2. The perception of micro-credential courses as a workforce solution – bridging the gap between education and employment for IENs
3. Barriers that prevent IENs from accessing meaningful employment in Alberta

Recruitment & Participation

To recruit participants, evaluators contacted:

- 10 Alberta nursing organizations
- 10 Alberta nursing programs across 8 schools
- 166 nursing unions in Alberta
- 10 rural hospitals in Alberta
- 9 nurse recruitment organizations
- Personal colleagues who are nurses or work in Alberta healthcare settings

Between July and September of 2025, evaluators sent initial and follow-up requests to speak with organizational representatives or currently employed RNs about the micro-credential program. In late August, the Bow Valley staff also shared invitations in their networks to boost participation. Evaluators conducted 30-minute semi-structured qualitative interviews (n=13) via telephone or Zoom (depending on participant preference). Many interviewees held multiple roles (i.e., are RNs and hold leadership, management, or administrative roles). Of these interviewees:

- 10 were RNs
    - 7 had experience in continuing care
    - 4 had experience in rural care
    - 1 had experience in corrections

- 5 were representatives of nursing organizations (e.g., continuing care facility leadership, staff at nursing associations or colleges, managers at healthcare organizations, an IEN navigator)
- 2 were IENs and several were trained out-of-province

In appreciation of their time, all interviewees received a $50 cash gift after their interviews.

Data Analysis

Interview data were captured through AI-assisted note-taking over Zoom or through simultaneous note-taking for phone calls. Detailed notes were cleaned, synthesized, and coded using a deductive thematic analysis (with key themes aligning with the guiding evaluation questions and the above goals).

Limitations

Despite significant efforts to recruit nurses and health staff, along with a monetary honorarium, it proved difficult to find participants. It is notoriously challenging to find time to interview healthcare providers as they are commonly overworked and understaffed. As such, the data presented here are representative of a small group of healthcare providers, administrators, and leaders who have a strong commitment to education.

Findings

Perceived Barriers for IENs Gaining Meaningful Employment

Across interviews, the following were the most significant barriers that interviewees perceived IENs to face when trying to gain meaningful employment in Alberta.

Knowledge of the Alberta (and Canadian) Health System(s)

Most interviewees agreed that IENs struggle with getting into the system. Interviewees outlined a vicious cycle whereby a nurse needs to be in the union to access job boards and secure an interview. But, to get into the union, a nurse needs to get a job. The need for Canadian experience to secure a nursing job was perceived as a significant barrier. Some interviewees outlined loopholes and alternative strategies to bypass this system. However, they reflected that understanding how to game a system requires significant knowledge of that system, mentorship, and access to resources that IENs often lack.

After being hired, some interviewees commented that many IENs struggle to excel in the Canadian health system. Some shared that their IEN colleagues were less knowledgeable in navigating the system on behalf of clients/patients (e.g., understanding how to make a referral; connecting patients with resources; advocating on behalf of patients/residents and their families; and contacting partners, vendors, or contractors). Knowing who to call for what, understanding different roles, and navigating the complex web of healthcare actors were perceived as common issues. In continuing care facilities, some interviewees shared that being able to advocate for quality improvement (QI) efforts is an important – though often unwritten – aspect of the job. This requires an understanding of what needs to change and how to bring about that change within a complex system. Interviewees shared that even when IENs come from countries with social and cultural norms like Canada's (e.g., the USA, UK, and New Zealand), navigating the Canadian health system is still a significant struggle.

Knowledge of Canadian Standards & Practices

Understanding and adapting to Canadian standards and practices was perceived as another common struggle for IENs. Many interviewees – especially fellow RNs who have worked alongside IENs – explained that Canada has higher standards than many other countries (especially when it comes to public health and infection control) and higher expectations for nurses (e.g., more autonomy and leadership requirements). They shared examples of IENs, much like new graduates, not taking initiative or responsibility, cutting corners or being less disciplined about infection control (often stemming from limited access to PPE and resources back home, rather than negligence), lacking experience with digital technology, having difficulty adhering to charting standards, experiencing miscommunication with colleagues, struggling to navigate dynamics with physicians, and finding the pace of work and expectations for independence to be challenging. As such, many interviewees perceived IENs as unable to adapt to Canadian workplaces as quickly or effectively as employers expect. Furthermore, some interviewees shared that hiring IENs into positions with a high degree of responsibility, leadership, and critical thinking is potentially unsafe for the IEN, their nursing colleagues, and residents/patients unless there is adequate supervision and resources to onboard, mentor, and supervise them.

Hiring Preferences & Biases

Stemming from the section above, some interviewees explained that they do not hire IENs until they have had a few jobs in Alberta, can demonstrate comfort and familiarity with the Alberta healthcare system, and have strong references from Canadian employers. Many shared "lesson learned" stories of taking a chance on IENs without prior experience, running into issues, and subsequently firming up stricter requirements. For example, several interviewees shared that offering IENs their first job in Canada resulted in a strain on other nurses who had to work harder to compensate, confusion around expectations for on-the-job training and mentorship, mistakes and miscommunications, and

resentment and tension among colleagues. This contributed to a preference for locally educated nurses or IENs who had already been employed. With limited financial and human resources, many interviewees reflected that even if they wanted to take a chance on IENs, they wouldn't have the support available to set them up for success.

Familiarity & Comfort with Diverse Cultures & Communities

Many interviewees commented that Alberta has a vast, sprawling, and diverse population. As a result, it is important for nurses – not just IENs – to be familiar with and able to provide culturally competent, tailored, and affirming care to folks of all genders, backgrounds, ages, and cultures. Specifically, nurses practicing in rural areas commented that they often serve clientele from First Nations communities and isolated religious groups (e.g., Mennonites, Mormons, Hutterites) either in local clinics or through house calls. Building familiarity with these groups, cultural customs, and language was seen as a significant aspect of providing good care. While interviewees explained that building familiarity requires learning for all nurses, it was perceived as a steeper learning curve for IENs, who may not have previously encountered these groups.

Some interviewees explained that continuing care is a nuanced and context-specific area of nursing that may be new to some IENs. Whereas it is a cultural norm for older adults in Canada to live, decline, and eventually die in long-term care, assisted living, and palliative care facilities, this is not the case in many other countries. In places where the cultural and social norm is for adult children, relatives, or community members to care for older adults with minimal medical interventions, IENs may not have prior experience caring for older adults who are not related and through a medical lens. Interviewees shared that it can be both a culture and skillset shock to adjust to roles that require an intimate knowledge of care in later life, and when there are varying levels of engagement from families.

Structural Racism and Xenophobia

Several interviewees explained that the highly independent nature of nursing work can be isolating and lonely. Some interviewees recalled cold, stand-offish, or hostile work environments and explained that IENs may be particularly singled out, othered, or made to feel unwelcome. Interviewees shared lingering stereotypes that are pervasive in the healthcare system, making it difficult for IENs to prove their qualifications and value as team members. This was seen as especially heightened in continuing care facilities, where older adults receiving care may refuse to be seen by IENs, explicitly state preferences to only receive care from white care staff, and/or become verbally or physically abusive.

Outside of work, some interviewees shared that – depending on where IENs live – different parts of Alberta can be more or less inclusive of immigrants. Many interviewees worried that even if IENs secure good jobs, they or their families might experience racism or xenophobia in the community, struggle to find community with folks of similar backgrounds, or develop meaningful friendships. This can contribute to isolation and regret over the decision to move to Canada.

Double-Binds, Transient/Undesirable Jobs & Timing

Rural interviewees explained that IENs are often caught in a double bind. They need a first job to get the job they *actually* want. So, they take open positions in facilities that are more desperate for nurses, such as rural and remote clinics. Once IENs work the minimum hours required or prove their tenure in the Canadian health system, they apply for more desirable jobs and leave. As a result, many rural and remote nurses are both responsible for training IENs and then carrying the additional workload once they leave. After years of working with a revolving door of IENs that do not pan out as long-term colleagues, many nurses become jaded, skeptical, and resentful. These nurses explained that they did not want to be overly helpful or friendly because the emotional and educational investment in their new colleagues is often not reciprocated, making the relationship feel precarious and transactional. Rural nurses explained that it is not IEN's fault for pursuing job opportunities in a system that discriminates against them. Nevertheless, they get burned in the process.

Interviewees in continuing care described similar challenges that can lead to overwhelm and burnout. Over the last ten years, nurses in continuing care have seen a dramatic increase in the number of residents admitted to long-term or assisted living facilities, the complexity of physical and mental health conditions, and the level of responsibility required. Interviewees commented on unsustainable workloads, such as being responsible for 30-40 residents or running simultaneous inpatient and outpatient clinics. While the workload and skills required to do the work are increasing, budgets are not. As a result, continuing care facilities are often short-staffed – leading to heightened stress, isolation, and vulnerability. While all interviewees expressed a deep commitment to the work, they also reflected on burnout, turnover among colleagues, and a growing sense that the work they are doing isn't what they signed up for. As a result, jobs in continuing care are either scarce (due to tight budgets) or unappealing to qualified candidates. They further commented that nurses (regardless of where they are from) are often afraid to work in continuing care facilities and leave shortly after starting.

Finally, some interviewees also explained that the biggest barrier to finding jobs is timing. Many nurses and organizational representatives alike shared that there are natural fluctuations in the job market. When there are more nurses than jobs, it is harder for nurses to find meaningful employment – and as a result, it is harder for IENs. But, when there are nurse shortages, many interviewees

similarly commented that “any warm body” will be hired, and IENs are more likely to find work (even if there is a strong preference against hiring them).

Perceived Value of Micro-credentials Overall as a Bridge to Job Acquisition

Few RNs and representatives from nursing organizations were familiar with micro-credentials prior to the interviews, with only one having completed a micro-credential course focused on foot care (the organization providing this training was not specified). Another interviewee commented that they had taken several LinkedIn micro-training sessions and perceived this as a comparable training experience. Of the few interviewees familiar with micro-credentials, some had previously heard of rural offerings (usually from posters in the area), palliative care training (from colleagues who had participated), or skills-based courses offered by Beats and Breath Academy Ltd. Most perceived micro-credentials as a novelty, capitalizing on post-COVID budget constraints and shortened attention spans. While participants acknowledged micro-credentials could help build skills, they disagreed on their value for helping IENs secure employment. Many interviewees expressed doubts that completing a micro-credential course could demonstrate to a potential employer that an IEN is capable of performing the skills and tasks associated with the course. The gap between knowing how to do something theoretically and being able to do it in a high-stress environment with minimal supervision and support was a concern for many.

Employer perspectives varied significantly. Several stated they wouldn't notice micro-credentials on résumés or factor them into hiring decisions. Others viewed them as evidence of initiative and commitment to addressing knowledge gaps. For example, one employer routinely refers unsuccessful applicants they interview to relevant courses as feedback, suggesting they reapply after developing their skills. However, micro-credentials alone were not considered sufficient proof of competency, and clinical experience consistently ranked higher than course participation across both continuing care and rural acute care.

Some interviewees emphasized that placement programs (tied to nursing schools) and volunteer work provide more practical employment pathways. These opportunities build organizational credibility, provide supervised clinical experience, generate strong references, and establish professional networks. Several suggested that micro-credentials would benefit from matchmaking components connecting learners to clinical placements or volunteer opportunities. Yet, many interviewees included the caveat that unpaid work is not an ideal strategy for nurse applicants, but rather a necessary evil to prove oneself in a lower-stakes arrangement for the employer. Indeed, many interviewees condemned this practice, as it is only feasible for RNs who have financial stability and

can afford to work for free. Notwithstanding the problematic nature of unpaid work, many RNs interviewed reflected that they got their jobs after volunteering and completing placements.

Organizational or Leadership Level Buy-In & Uptake for Skills Development

Interviewees described diverse organizational learning cultures with significant political nuance around how professional development is viewed by leadership. Some participants described working in environments where there is a nurse educator (or similar role) who curates and recommends training throughout the year for staff. In these environments, if there is a dedicated staff person responsible for education, there is (often) buy-in for nurses to participate in professional development. Others described working in smaller teams without a dedicated education person, but with more autonomy to seek out and participate in whatever training they deem relevant. Even with a nurse educator on staff, many interviewees explained that taking time for professional development can be a struggle. Specifically, getting time off, protecting time during breaks, having access to private and quiet spaces with computers and Wi-Fi, and avoiding animosity from colleagues covering their shifts were identified as barriers.

Additionally, interviewees described varying sources of information about new course offerings. Some refer only to the AHS My Learning Link or newsletter for information, while others are part of other professional listservs, topic interest groups, communities of practice, and informal WhatsApp groups for updates on upcoming educational resources. Professional groups also serve as a vetting process, whereby courses recommended by friends, colleagues, and professional associations or colleges were seen as more likely to spark interest.

There was debate among interviewees regarding the perceived acceptability of micro-credential courses among organizational leaders. Some participants believed that the quick and self-paced features would make it easier to make the case for participation – especially when working in small teams or when professional development time is scarce. Others thought that the lack of accreditation or affiliation with the AHS or any nursing college may make the courses less of a priority than mandated or endorsed training. Some interviewees shared that the most valuable professional development offerings are centred around both skill acquisition and a project, initiative, or quality improvement (QI) assignment to support both learning and application in the workplace.

Perceptions of Micro-credentials

Interviewees explained that the micro-credential model would be relevant for:

- Current RNs looking for a refresher, top-up, or specific skill (in addition to, not in place of nursing school and/or a bridging program)

- Those needing help with new and emerging technology
- Staying up-to-date with new assessments, unique or uncommon conditions, and health issues that are becoming more prevalent
- IENs looking to refresh skills to keep their licenses up-to-date
- New graduates or those out of work, needing to fill perceived gaps outlined by potential employers who had offered feedback after an unsuccessful job interview

Some interviewees were wary of micro-credentials. Past negative experiences with online learning led many participants to outline fears that courses:

- "Shove knowledge down someone's throat to tick a box"
- Prioritize online simulations or proxy activities that don't attend to the real people who will be the recipients of care
- Will have low-quality media components (e.g., long, single-shot, talking-head lectures)
- Will require unattainable bandwidth for rural and remote nurses
- Rely on self-pacing and self-discipline (which is a struggle for many people who have difficulty with unstructured learning)
- More in-depth, nuanced, and technical training would be glossed over to fit the short structure (leading to lower-quality learning, mistakes in practice, or a lack of critical thinking)
- Mislead nurses by promising job attainment or career advancement without being able to deliver
- Are a cash-grab

Evaluator Reflections & Conclusions

From interviews with currently employed RNs and representatives from organizations that hire nurses in Alberta, several reflections emerged on the potential benefits of micro-credentials. Supporting currently employed RNs to access refresher material with limited time, supporting nurses when transitioning to rural or continuing care from acute settings, and contributing to well-rounded practice were seen as potential highlights. As most nurses interviewed valued continuing education, many were interested in taking the courses themselves. Yet, interviewees did not perceive micro-credentials as being best positioned to close the gap between education and employment for IENs. While the courses may better prepare IENs for working in Canadian contexts, interviewees did not

perceive an educational solution as being able to address key hiring barriers and most notably the requirement for IENs to have Canadian work experience and references who can attest to their hands-on skills, critical thinking, and leadership/independent qualities. Rather, placement and match-making programs were seen by some as better able to address this barrier. Due to the surge in online and asynchronous courses made available since the COVID-19 pandemic, many healthcare professionals interviewed expressed concerns about the micro-credential model. Some worried that micro-credentials are a trend, a cash-grab scheme, or a low-quality offering that attempts to shortcut important hands-on learning for the benefit of the company producing educational content, rather than learners. Furthermore, some interviewees shared that because of the amount of content available, relationships with the educational vendors, a strong reputation and vetting by the AHS or nursing colleges/associations, and incentives to participate are important features they look for before enrolling.

Appendix H: Evaluation Participant Demographics

To report on Future Skill Centre's mandated metrics, we invited people who participated in an evaluation interview to complete an online survey via email after the interview. This allowed us to collect demographic information in an anonymous and confidential way. Of the 23 people interviewed, 10 people completed the survey (43% response rate).

Of the 10 people who completed the survey,

- 90% reported being a woman (n = 9)
- 20% reported being an immigrant (n = 2)
- 20% reported having a disability or disabilities (n = 2)
- 10% reported being a newcomer (n = 1)
- 10% reported being a member of the 2SLGBTQ+ community (n = 1)
- 10% reported living in a rural, remote, or northern community (n = 1)