



Project overview: Virtual Assessment for Paramedic Occupational Competency (VAPOC)

Organizational experience and expertise

The Saskatchewan College of Paramedics (SCoP) is the regulatory body responsible for licencing and regulating paramedical professions in the province. Paramedics working in Saskatchewan are self-regulated by the College under the authority within *The Paramedics Act*. The primary mandate of SCoP is to ensure public safety of patients receiving care from its members.

SCoP recently became the first paramedic regulator in Canada to have an online portal for internationally educated applicants (IEA). This project was only possible with the financial support that the College received from the Saskatchewan Ministry of the Economy (now Immigration and Career Training “ICT”) who provided a 40K funding envelope to develop and launch a framework for international applicants.

In 2016, SCoP in partnership with another regulator, evaluated assessment models/processes and developed an IEA assessment framework. The project was completed and constituted phase one of a multi-phase process where the overall goal was to provide IEAs access to Foreign Qualification Recognition (FQR) processes that are fair, transparent, consistent, and timely.

Subsequently in 2017 SCoP received additional funding (~30K) to complete the technology side of the project and launch the web-based portal, which was successfully achieved that year.

In 2018, SCoP leveraged its work on the IEA project to support a federal grant application to establish a national “point of entry” into paramedicine in Canada. The application was successful and generated significant multi-year funding for the Canadian Organization of Paramedic Regulators (COPR), of which SCoP is an active member and key project contributor.

The SCoP Executive Director is the Past-President/Chair of COPR and is currently the Chair of the National Examination Committee and Treasurer for the organization. SCoP leadership at the COPR table has influenced the push for harmonization of standards across the country. This project will provide another opportunity to create a national approach to technology use in applicant assessment.

SCoP has a proven track record in the successful completion of provincially (and federally) funded projects. These projects have also generated consequential benefit in the drafting of



legislation and policies that have been shared (and adopted by) other paramedic regulators across the country.

Additionally, SCoP provides mentorship for other health regulators (e.g.: Medical Radiation Technology and Respiratory Therapy) in the area of competency assessment and FQR as evidenced by successful co-funding agreements with the Ministry of the Economy.

In 2019, SCoP initiated discussions with ICT regarding options for bridging International Medical Graduates (IMG) that were unable to proceed to physician licensure in Saskatchewan. Equivalency and competency assessment as well as retraining formed a significant part of the “move forward” requirements for IMGs.

SCoP intends to establish committees/partnerships including:

- Project Advisory Board comprised of representation as follows:
 - COPR
 - Saskatchewan Health Authority (SHA)
 - Saskatchewan Ministry of Health
 - Ministry of Immigration and Career Training
 - Ministry of Advanced Education

- Content Expert Committee
 - Educators: Saskatchewan Polytechnic; Medavie Health Services
 - Network of Interprofessional Health Regulatory Organizations
 - Paramedic Services Chiefs of Saskatchewan (PSCS)

- Partnerships:
 - Saskatchewan Polytechnic
 - SHA
 - COPR
 - Technology vendor

Concept Objective

The project concept is intended to develop web-based (accessible) tools that will support internationally educated applicants (IEAs) in their demonstration of competency for licensure in paramedicine.

Currently one of the key hurdles in the successful licensing of IEAs is the demonstration of competency. Paramedicine applicants must currently be assessed by an approved



facility/person to meet the requirements for licencing, which often involves travelling to Canada for the evaluation. This is costly and onerous on applicants and is seldom timely.

Ideally IEAs should be able to self-assess readiness and provide evidence of competency prior to incurring licensing and travel costs. To achieve this objective, additional technology and tools are required.

Innovation

The use of technology (including Virtual Reality “VR”) in medicine (Immersive Medical Technologies) is not uncommon in both patient treatment and use by practitioners wanting to simulate patient experiences. Technology platforms offer individuals interactive learning opportunities with 24/7-access and objective evaluation. The use of VR specifically in regulation is a new concept, but one that deserves exploration.

This project is an opportunity to leverage existing (proven) technology in a new environment and streamline access to professional licensing in Canada. The proposed project will support paramedic professionals attempting to licence in Canada and would also provide a mechanism to assess IMGs that are un/under-employed or seeking opportunity in Canada.

Moving forward, these same tools can be leveraged by practitioners to access training, ongoing maintenance of competencies, and demonstration of skills. It is important to note that paramedic professionals are required to demonstrate specific competencies at regular intervals.

Expected Results

Outputs - Anticipated project outputs include the following:

- Creation of readily accessible (24/7) web-based tool for applicant self-assessment of clinical skills; this will be important to internationally educated applicants as well as Canadian practitioners;
- Remote submissions of proof of competency; evidence of competency using (VR) video capture;
- Orientation to (Canadian) culture; practice settings including working on an ambulance, primary care practice, emergency room settings, roadside care, etc.;
- Reduced health system burden/resources associated with clinical skill signoff (current requirement);
- Reduced practitioner skill development (honing skills) on live patients;
- Reduced on-going assessment costs for applicant and regulatory body;



- Creation of a regulatory standard for use of technology in assessing practitioner competency
- Readily accessible (technology based) assessment tools for each of the 8 Paramedicine National Occupational Competency Profile (NOCP) Standard Areas:
 1. Professional Responsibilities
 2. Communication
 3. Health and Safety
 4. Assessment and Diagnostics
 5. Therapeutics
 6. Integration
 7. Transportation
 8. Health Promotion and Public Safety

Note: the NOCP has been adopted by the majority of the Canadian jurisdictions and is the current standard for accreditation of paramedic programs by Accreditation Canada.

- Pan-Canadian applicability based on the NOCP; Development of technology standards for paramedicine that can also be shared nationally;
- Future use opportunities including: Gap training/bridging; professional development; and refresher training;
- Application of the same technology for specific competency assessments or training that would be the same across professions (i.e.: insertion of airways is a skill that is utilized in multiple professions – Physicians; Respiratory Technologists; anesthetists; insertion of I.V. lines – physicians, nurses; venipuncture is also done by physicians, lab technologists, paramedics, phlebotomists, etc.).

Internationally Educated Applicant (IEA) Direct Benefits:

- Streamline the assessment of IEAs;
- Improve pre-arrival readiness assessments;
- Increase the (licencing) success rate of IEAs coming to Canada;
- Address the current backlog of IMGs in Saskatchewan that are unable to become licenced in their profession; provide an opportunity for employment in the healthcare system.
- Decreased cost for IEA and current members in certifying competency.



Outcomes

The project is expected to generate the following additional outcomes:

- Creation of collaborative partnerships with paramedic regulators across jurisdictions to develop technology standards;
- Sharing of assessment tools across jurisdictions and professions;
- Increase in number of Advanced Care Paramedics in Saskatchewan;
- Decreased pressure on the health system to certify practitioner competency;
- Initiate work towards national adoption of technology standards for competency assessment of paramedics;

Collaboration

To ensure that outcomes reflect current standards and clinical practice, the project will engage content experts from educational bodies as well as clinical practice areas and jurisdictions. A collaborative approach will be adopted to ensure that knowledge and tools are transferrable across jurisdictions, and where common clinical practice exists, tools will be shared across professions.

The project will be guided by a Project Advisory Board and a Content Expert Committee and will be underpinned by partnerships with key stakeholders.

SCoP will provide in-kind contributions to the extent that the organization is capable, including the provision of equipment, services, labour, administration, and meeting space as necessary. A Request for Proposals (RFP) will be initiated to support the project in technology development and project management.

Moving forward, the project intends to engage Canadian Organization of Paramedic Regulators (COPR) and link directly with their IEA project work currently underway. To ensure national compatibility over the longer term, SCoP is currently proceeding with a technology migration to a platform aligned with that of COPR.

In the future, the potential exists for COPR to access the SCoP technology modules and use them as a part of the IEA assessment that will be conducted via the “single point of entry portal” (project currently underway).



Sector needs

Currently Saskatchewan is struggling to address a significant shortfall of Advanced Care Paramedics in the province. Recent changes in the health system resulted in the amalgamation of twelve regions to form a single Health Authority.

In conjunction with the consolidation, the delivery of emergency medical services was also revised to introduce “Advanced Life Support” services province wide. In order to accommodate this change, Emergency Medical Service (EMS) providers must have Advanced Care Paramedics on staff, available to attend calls as required. In Saskatchewan there are just over 300 ACPs currently licenced to practice, which is insufficient to meet system needs.

As such, the College of Paramedics developed a framework and on-line application process for internationally educated paramedics in the hope that some of this shortfall may be addressed. What we discovered over time is that the process (although much improved) still required a considerable investment on the part of the applicant and the College. Further simplification of the process is important if we hope to encourage IEAs to come to the province.

In addition, we subsequently identified a significant number of International Medical Graduate physicians that currently reside in the province but are unable to obtain residency placements. These physicians could potentially retrain in paramedicine however we would still need to assess their competency. This is a significant barrier due to limited access to clinical sites and the priority that Canadian students have over international applicants.

The use of technology to expedite and streamline competency assessment opens a significant opportunity to fulfill a health system need, while at the same time re-deploying trained (and qualified) individuals into our health system.

In order to do this, technology standards must be developed and aligned with the current occupational requirements. Further, it is important that standards be developed collaboratively with other paramedic regulators providing input. This will pave the way for a broader adoption of the tool, and alignment of assessment approaches across jurisdictions.