

BCEHS Community Paramedicine Initiative (CPI)

A Snapshot Report of Early Findings

Prepared by Catalyst Research & Development

K. Woodman, PhD, CE

J. Krajnak, PhD

E. Krupa, PhD, CE

March 31, 2017



Table of Contents

A. Introduction.....	1
B. Evaluation of the CPI and this Snapshot Report	1
C. Progress, Achievements and Successes to Date	2
C.1. Who is receiving care from CPs?	2
C.2. CPI’s Strengths and Progress	3
D. Implementation Challenges and Recommendations.....	5
D.1. Program Vision and Focus	6
D.2. CP Recruitment, Selection and Orientation	6
D.3. Program Implementation	7
D.4. Integration With Local Health Care Teams	7
D.5. Operational Sustainment	8
E. Conclusion	8

Acknowledgements

We thank the many individuals who contributed to the implementation of the CPI:

- The regional training officers and Health Authority leaders for their thoughtfulness, timely observations and feedback on implementation issues;
- The communities that have welcomed community paramedicine;
- The local health professionals who serve residents and have accepted the CPs; and,
- The CPI project team for its input and guidance on the project.

Thank you for your willingness to work together to create positive change that will help patients and residents be as healthy as they can be.

A. Introduction

The Community Paramedicine Initiative (CPI) was launched in April 2015 with nine prototype communities, followed by a provincial rollout that began in late April 2016 with the announcement of the first rural and remote communities that will receive the services of community paramedics, including the prototype communities. By the end of 2018, the CPI will have enabled more than 80 full-time equivalent (FTE) community paramedics (CPs) to provide much needed primary care services in more than 75 rural BC communities¹. **BC Emergency Health Services (BCEHS) leads the CPI, working closely** with others to implement the initiative, including BC's Ministry of Health, regional Health Authorities, the Ambulance Paramedics of BC (CUPE Local 873), the First Nations Health Authority, the rural communities and their local health professionals, and others.

The two primary objectives for the CPI are:

1. Contribute to the **stabilization of paramedic staffing** in rural and remote communities by introducing community paramedics with the ability to augment additional shifts in emergency response capabilities.
2. **Bridge health service delivery gaps** in communities, identified in collaboration with local primary care teams and consistent with the paramedics' scope of practice.

Community paramedicine in BC is intended primarily for patients 65 years and older who are living with chronic conditions such as heart failure (HF), chronic obstructive pulmonary disease (COPD), and diabetes, or are at risk of falls.

B. Evaluation of the CPI and this Snapshot Report

BCEHS is using evaluation to improve the CPI, advance primary health care services in rural BC, and achieve its quadruple aims to contribute to improvements in: human resources and health system capacity; patient experience; health of populations; and potential for reduced cost. It is building its capacity to gather and use evidence to inform decisions.

The evaluation framework for the CPI was developed in 2015 and approved by the CPI Evaluation Advisory Committee in January 2016. The framework outlines all major evaluation components including: Theory of Change, program logic, methodology, specific data collection methods, draft data collection tools, and timelines.

This report provides a snapshot of progress, achievements and challenges in the 10 months of implementation (May 1, 2016 to February 28, 2017), based on the following:

- Records of services provided from May 1, 2016 to February 28, 2017 by community paramedics (CPs) and regional training officers (RTOs);
- Key informant interviews with Health Authority managers and administrators (n=6); and;
- A focus group with regional training officers (RTOs, n=5).

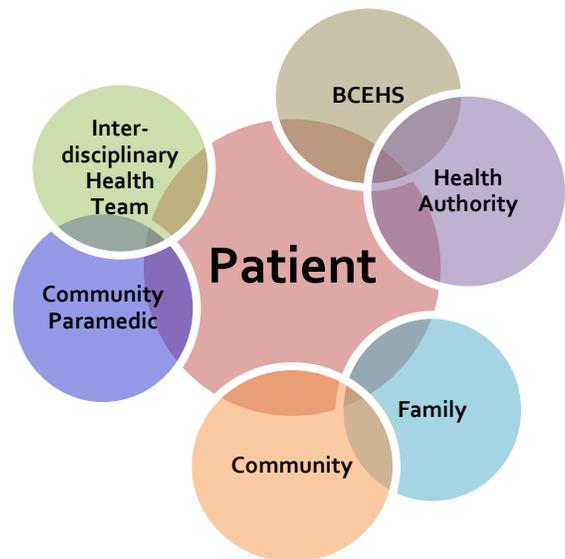
¹ By the end of 2017, 75 BC communities will be served by 107 part-time CPs (56.5 FTEs). An additional, 23.5 FTEs will be recruited by March 2018.

The quantitative “records of services” data shows the number of patients seen and types of services provided by CPs and RTOs through to February 28, 2017. The qualitative data, gathered during March 2017, illuminates aspects of progress and achievements, as well as challenges encountered, and identifies recommendations for addressing these challenges.

C. Progress, Achievements and Successes to Date

The CPI integrates a patient-focused approach to enable patients to receive specified care and support they need in their homes. This approach is embedded in the CPI orientation curriculum and reinforced in practice by mentors. As a result, the CPs are well positioned to work within their scope of practice (i.e., prevention, health promotion and primary health care services) to achieve the intended outcomes.

Figure 1. CPI Way of Working



The analysis presented below indicates promising trends that, when realized, will result in substantive contributions to the initiative’s intended outcomes.

C.1. Who is receiving care from CPs?

From May 1, 2016 to February 28, 2017, CPs and RTOs² provided care to a total of 243 British Columbians living in rural and remote communities selected for community paramedicine. Of the 243 unique patients:

- 147 patients were seen in 19 selected communities within Northern Health;
- 55 were seen in the two prototype communities within Interior Health; and,
- 41 were seen in the four prototype communities within Island Health.

On average, CPs visited patients six times and provided services including but not limited to blood pressure monitoring, physical assessment, medication review, diabetes follow-up and falls risk screening.

The majority of primary health care services provided to patients within their homes fall within these areas:

- **Health and Physical Assessments** (including vitals check, “friendly visits,” and weight checks) to support and stabilize patients with chronic conditions such as CHF and diabetes.
- **COPD-related Care** (including oxygen saturation checks and inhaler medication)
 - ✓ COPD exacerbation results in more hospitalizations than any other chronic disease³.

² CPs were hired into and began providing services in the nine prototype communities in mid-October 2016. Prior to this, CP services in the prototype communities were provided by appointed RTOs.

³ *The Human and Economic Burden of COPD: A Leading Cause of Hospital Admission in Canada*, February 2010

- **Falls Risk and Safety Assessments** (including home safety screening)
 - ✓ Falls are the main reason older adults lose their independence⁴.

CPs and RTOs also provided other services in rural communities, such as leading or participating in community health education and promotion sessions. From January 2016 to February 2017, CPs and RTOs participated in **638 community events**. In the first few months on the job, CPs actively promoted their presence and the program within their communities. As they became more established, CPs spent more time participating in community events (e.g., health and wellness fairs, car seat checks). This provided opportunities for collaboration with other health service providers and allowed CPs to become more engaged in community life, increasing CP program visibility amongst residents across the age continuum.

C.2. CPI’s Strengths and Progress

The respondents noted early signs of the initiative’s strengths and early contributions to progress in each of the four Quadruple Aim areas.

1. Improving Human Resources and Health System Capacity

Respondents believe the initiative is helping reduce gaps in service. Respondents described how community paramedicine is helping health system leaders and local health professionals to focus more on the people receiving care, and think about how care is provided. This has led to local health care teams changing their approach to providing services, and the ability to provide services they could not provide before the CPI.

Community paramedicine provided a forum for Health Authority (personnel) to look at the patient’s journey from different perspectives, and work to improve that journey . . . Community paramedicine brought staff together to discuss issues on a deeper level, and collaborate across disciplines and organizations.

Health Authority Interviewee

Most respondents indicated that the necessary supports for community paramedicine appear to be in place. Relevant administrators and service providers are aware of the program. They see the increase in human resources as a valuable addition to the health service system, as well as to communities in rural areas.

CPs are becoming a part of “the health care team” - not just people that pick-up and drop-off (patients).

RTO Focus Group Participant

Integrating community paramedicine into the health care system without replacing any other health care professionals has been a key consideration throughout the planning and implementation of the CPI. RTOs and Health Authority representatives agreed that CPs have collegial relationships and

Figure 2. Quadruple Aim projects are designed to contribute to improvement in four areas



⁴ Seniors’ Falls in Canada, Second Report, 2014

partnerships with other local professionals, including physicians. As they work together, the professionals are seeing one another's skills and commitment to improved care and patient health. Respondents report this is also improving communication between CPs and health care team members, along with team attitudes towards paramedics.

Some respondents noted that the morale of health care providers in remote areas has improved. They see that CPs enable vulnerable patients to receive the assistance and continuity of care they need. The services CPs provide are missed when absent (e.g., on holiday), and several respondents suggested that full-time coverage (including weekends) be considered as it benefits all involved.

Most respondents agreed that CPs are generally taking the initiative to understand and respond to their communities and colleagues, individuals in their care, and systems within which they work. They report the CPs appear to be satisfied in their roles and appreciate the importance of helping people stay healthy and remain at home. Respondents agreed that CPs bring benefits to residents, communities, the health system, and ambulance services.

2. Improved Patient Experience

We can do things we weren't able to do before . . . bringing benefits to residents and communities, and the health (system) . . . We improved discharge planning (and follow-up) . . . We think we are seeing a decline in the number of medically unnecessary 911 calls and ER visits.”⁵

Health Authority Interviewee

The respondents reported that the factors associated with improving patient experience are recognized and increasingly addressed.⁶ Resident awareness is growing through communications in advance of the CPs working in the community, the CPs' engagement in community events, and collaborative work with other local health care providers.

Respondents also reported that residents have expressed their appreciation for **access** to a familiar, local person to assist with health concerns.

In the past, the first thing folks said to a new health care provider was 'When are you leaving?' Now that the CPI is entrenched they won't have to think that way.”

RTO Focus Group Participant

Several respondents noted the following:

- CPs have regular contact with patients and monitor their conditions. Doing so reduces patients' anxiety about their health and helps them understand what to do.
- Patients appreciated having an additional health professional to provide appropriate assistance in their home, and are feeling less anxious and more secure in the knowledge a paramedic will come if needed.

⁵ This cannot be stated with certainty as this hasn't been proven yet; relevant data will be included in final reporting.

⁶ Note that we did not gather direct patient experience for this "Snapshot" report. This will be included in final reporting.

- First Nations communities have welcomed the services that CPs are providing. CPs are helping to reduce a sense of isolation from health services, and there appears to be great potential to further strengthen these relationships.

3. Improved Health of Populations

While it is premature to speak to the improvement of health outcomes of the communities served by CPs, this data shows a positive trend. For example, although CPs have only been in place a brief time, they are already seen as problem-solvers and key players in providing primary care services and addressing health barriers. Examples of problem-solving that were shared by those interviewed were a patient who was losing weight and the CP found it was not due to illness, but because the patient needed new dentures; and another patient was not taking their pills as prescribed because, as the CP discovered, they had difficulty swallowing.

CPs are generally seen as knowledgeable, trusted health professionals, and are appreciated for their service to patients outside of emergency situations.

The primary care team can now do more upstream in prevention, though still in the context of helping an individual manage their chronic condition. The team would like to do more in prevention, but are doing as much as they can with the resources available.

Health Authority Interviewee

4. Potential for Reduced Cost

Health Authority interviewees observed that the value of the services provided by CPs is already apparent and projected there will eventually be reduced costs to the health system. Those respondents working in the communities reported their impression that 911 calls and unnecessary visits to the ED have decreased for those using the service frequently. These perceptions will be explored through a review of health services utilization data.

D. Implementation Challenges and Recommendations

Overall, the evidence gathered indicates that the CPI is progressing well. Where relevant, the respondents noted challenges and suggested recommendations to reinforce the positive trend. Their responses are organized under five themes:

1. Program Vision and Focus
2. CP Recruitment, Selection and Orientation
3. Program Implementation
4. Integration with Local Health Care Teams
5. Operational Sustainment

D.1. Program Vision and Focus

Some respondents reported the following:

- The CPI focus on residents aged 65 years and over who are living with particular chronic conditions limits the CP's ability to respond to specific health concerns among other populations.
- Some respondents were concerned about the CP's role overlapping or replacing those of other care providers. For example, some respondents were told that home visits were the role of the home support team and not the CP.

Respondents' recommendations:

- Continue discussions among program stakeholders to gain a common understanding of the CPI focus on seniors and the reasons for it, and ways of improving or refining communications for consistent implementation.
- Ensure ongoing communications about the intended role of CPs in terms of bridging service delivery gaps, and not to replace or compete with other care providers in their communities.

D.2. CP Recruitment, Selection and Orientation

*Going from reactive, emergency service to a proactive one means staff have to change . . . It's a different job that needs a different skill set. . . Some good paramedics may not be good **community** paramedics. . . It's better to keep recruiting than hire the wrong person.*

RTO Focus Group Participant

Respondents reported that some CPs struggle with the following challenges:

- Building collaborative relationships with patients and health professionals. This ability is even more important when working in remote and First Nations communities.
- Working independently. Candidates need to be screened for their capacity to take the initiative necessary to build community networks and their relationship with patients.
- Knowing how to respond appropriately to older adults or when cultural sensitivity is required.
- Working effectively and efficiently with record keeping systems and communication devices.

Respondents' recommendations:

- Recruitment and selection processes should continue to emphasize good people skills, the ability to work independently, and the ability to build relationships with both patients and health professionals.
- Continue to recruit CPs with backgrounds that enable effective work with First Nations and remote communities.
- CPs should gain competencies in record keeping, information management systems, and communication devices prior to community work.
- CPs may benefit from ongoing support and training in working with First Nations communities and a long-term perspective (e.g., combining traditional medicine with medical treatment).

D.3. Program Implementation

Respondents reported the following challenges:

- Factors that contribute to successful implementation for BCEHS and Health Authorities are: building good relationships and communication; engaging all key stakeholders in planning and developing processes, and ensuring clarity of the CPI vision.
- Some respondents had the understanding that BCEHS would lead implementation, but felt there is an expectation the Health Authority will drive it.
- In a few cases, the Health Authorities needed more time to set CPI-related processes fully in place before implementation.
- In some cases, additional consultation with respondents might have smoothed the process for implementing the program in their community.
- The absence of a single record system results in reduced efficiency and increases the difficulty of achieving seamless, quality care for patients. It also means that CPs are spending considerable time completing multiple data entries.

Respondents' recommendations:

- At the outset of introducing the program to a community, establish a shared understanding, role clarification, communication processes, timelines, and a commitment to collaboration.
- Identify local champions and continue to support them (i.e., through teleconferences and webinars).
- Resolve referral, assessment and data quality issues.
- Implementation of a common electronic medical record would be ideal. Although it is not within the control of the CPI, it would greatly benefit both patients and service providers.
- Assessments and safety checks need to be reviewed by BCEHS and Health Authorities to clarify and confirm responsibilities.

D.4. Integration with Local Health Care Teams

Factors that respondents identified as facilitating local integration were:

- Mentoring for new CPs by RTOs
- Participation in inter-professional team meetings
- Co-locating CPs with other health team members
- Including CPs in continuing education

While respondents felt the process has generally been successful, the following local-level challenges were identified:

- The referral process appears to be working well with discharge and community care teams. However, primary care physicians in private practice are not yet as engaged and in some cases do not understand how referrals are to be made or the role of CPs in their community.
- It was noted that some physicians prefer that nurses refer to CPs, and in some cases nurses are positioned to do so.

Respondents' recommendations:

- Continue to work on engaging primary care physicians.
- Continue to work on sorting out the referral process to ensure that differences among communities can be accommodated.

D.5. Operational Sustainment

In 2018, community paramedicine will transition from an initiative to an integrated service of BCEHS Operations.

Sustainment-related challenges described by the respondents included the following:

- Some unit chiefs, RTOs and union representatives have different views about the roles and procedures for CPs (particularly regarding supporting CPs, performance reviews, and assignment to home visits)

Respondents' recommendations:

- Clarify the roles of RTOs and unit chiefs, and procedures in relation to CP support and performance reviews.
- Ensure job descriptions are in place for CPs and RTOs.
- It is important that RTOs, unit chiefs and district managers continue to build relationships, share concerns, and resolve issues at the earliest possible time.

E. Conclusion

The consensus among respondents was that the CPI to date is achieving its intended outcomes.

The processes of creating partnerships among major stakeholders, and engaging all appropriately, are well underway. BCEHS' supports have been helpful as well. These include stakeholder advisory committees, regional steering committees, prototype communities, the CP orientation program, RTOs to support CPs, communications, support teleconferences and webinars, and more. BCEHS staff are beginning to think and work differently, create new processes, and shift roles and expectations. There is evidence of organizational learning and responsiveness.

The interview and focus group participants were engaged, articulate individuals who seemed to be deeply committed to advancing the CPI.

Looking to the future, all respondents agreed that the CPI can expand to serve different populations and communities (given the necessary resources being available). CPs have worked successfully with diverse populations and may be able to help identify and address barriers due to social determinants of health.

Respondents felt that, in the future, consideration should be given to expanding the CPs' scope of practice to include additional services, such as initiating intravenous treatments, providing minor stitches and wound care, delivering subcutaneous and intramuscular injections, contributing to immunization clinics, or doing blood draws to speed diagnosis. CPs could also do more in the areas of prevention and health promotion.



As stated on page 2, this report is intended as a **snapshot** of progress, achievements and challenges in the 10 months (May 1, 2016 to February 28, 2017) of implementation on the Community Paramedicine Initiative. A comprehensive Interim Evaluation Report will be delivered in November 2017 and a Final Report prepared for June 2018.