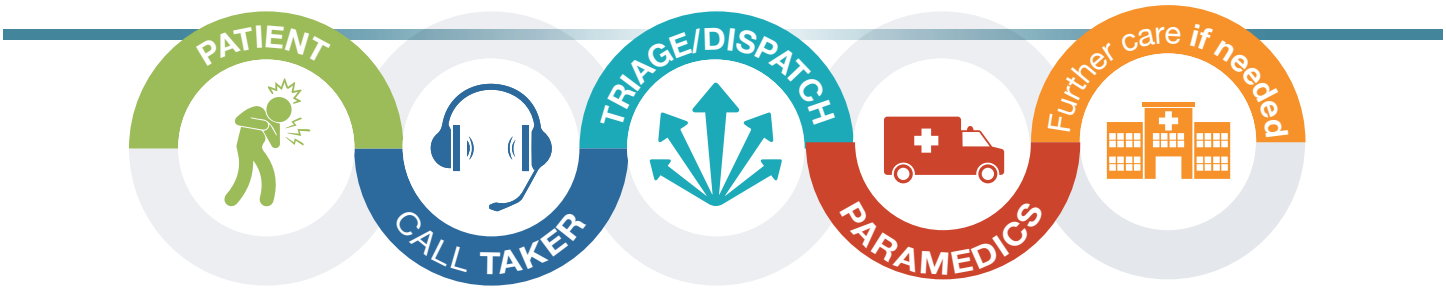
ACTION PLAN UPDATE

BCEHS | BC Emergency Health Services
Provincial Health Services Authority

The **BCEHS Action Plan** is a provincial strategy to transform how emergency health care services are delivered throughout BC. This regular update provides information on key project milestones as progress is made.



NEW RESOURCE PLANS IMPROVE SERVICE; WORK CONTINUES

Since the launch of the Action Plan, strategic resource reviews have been occurring across the province to better match our resources with local demand for emergency services. Seven regions and surrounding areas have now been reviewed and new plans have been established; these communities include: Metro Vancouver, Nanaimo and the surrounding area, Williams Lake, Trail and the surrounding area, the Dawson Creek and Fort St. John region, Kamloops and Kelowna. The implementation of new resource plans in these communities has added 119 full and part time paramedic positions.

New resource plans for the Kamloops and Kelowna areas are now fully implemented, including the addition of 43 additional full-time paramedic positions:

- + 18 **Kamloops**
- + 3 **Chase**
- + 16 **Kelowna**
- + 4 **West Kelowna**
- + 2 **Lake Country**

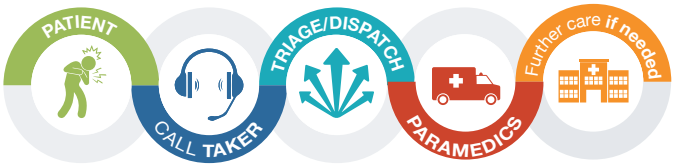
Developed by working groups consisting of BCEHS area managers, front line supervisors and CUPE 873 representatives, these new plans were developed from a strategic review of local demand data and created a solution to better meet patient need. A six-month review assessing the impact of the new plan will be undertaken and further changes will be considered, as necessary.

During October and November of last year a thorough review of the Nanaimo area was conducted to assess the impact of the new resource plan implemented last March.

The review involved area managers, unit chiefs and the Victoria dispatch centre, and looked at the impact of the changes that were made as a result of the new resource plan. The plan added 30 new full-time positions and two ambulances in Nanaimo, and two new regular full-time positions each in Parksville, Ladysmith and Qualicum Beach.

THE OBJECTIVES OF THE ACTION PLAN ARE TO

1. Improve emergency response time for high acuity patients in all communities
2. Improve service and provide sustainable employment in rural and remote communities
3. Provide more appropriate clinical responses to low acuity patients
4. Increase the resources available for emergency responses



The review identified the most significant impacts of the new plan:

- **Improvement in response times in Parksville for calls requiring lights and sirens**
- **Nanaimo response times remain significantly better than the provincial average**
- **Better balanced workload among crews and shifts**

"We now have a much more balanced workload for our crews which allows us to deliver the best care possible," said Lance Stephenson, Patient Care Delivery Area Director.

The new resource plan has made a marked difference in emergency service in our area.

Results from the six-month review, including feedback from front line staff, offered insight into opportunities for further improvement including additional shift time adjustments in Qualicum Beach, Ladysmith and Nanaimo. The group adopted these recommendations and the shift changes were implemented in January 2019.

The working group for the Fraser Valley, including Abbotsford, Mission, Chilliwack and Agassiz is completing further analysis and discussion to finalize the resource plan for the area.

For more information on resource changes occurring across the province, email **actionplanideas@bcehs.ca**.

COMMUNITY PARAMEDICINE REDUCES 9-1-1 CALL VOLUME

In collaboration with health authorities across the province and with the Ambulance Paramedics of BC, BCEHS launched a Community Paramedicine (CP) program that has transformed paramedicine practice from a sole emphasis on out-of-hospital emergency care to a model that also includes primary health care, prevention and health promotion. The first of its kind in Canada to be introduced province-wide, the program is being delivered in 99 rural and remote communities in British Columbia and has taken paramedic care into the homes of seniors who are often living with little or no support.

A recent study conducted on a group of patients enrolled in the CP program in nine prototype communities measured the impact the program has had on 911 call volume. Analysis compared the number of calls made by this group prior to receiving CP services and post discharge. Results show a 39% drop in the number of calls made by patients who received CP services.

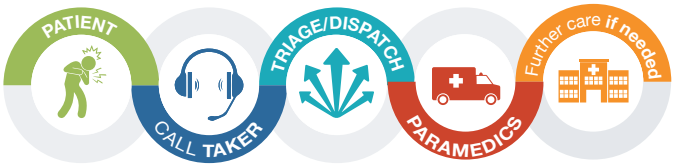
"The strong partnership between all of the health authorities has helped us to develop a program that has made a definite difference in the lives of patients in rural and remote BC," said Nancy Kotani, Chief Transformation Officer, BCEHS "This incredible drop in 9-1-1 volume supports our belief that this model of patient care works."

39% drop in the number of calls made by patients who received CP services.

Provincial evaluation of the program started in 2016 and results from interim reports have indicated that the program is meeting its objectives of bridging health care gaps identified by local primary care teams, and stabilizing paramedic staffing in rural and remote BC.

Patients in the community paramedicine program are referred by their physicians, discharge nurses or other community health care providers. Community paramedics visit patients in their homes and provide services as outlined in the patient's care plan established by the referring health care provider. In addition, they provide community outreach and health promotion services such as seminars on cardiopulmonary resuscitation (CPR) and on the use of automated external defibrillators (AED).

Community level and health system data is being collected for a final valuation report on the program which is set to be released in early spring 2019.



SIX-MONTH REVIEW OF NEW CLINICAL RESPONSE MODEL SHOWS POSITIVE PROGRESS

Last May BCEHS introduced the Clinical Response Model (CRM), a more robust means of reviewing and prioritizing 9-1-1 calls, to better match patient need with most appropriate response. Replacing BCEHS's former system, which had only three levels of prioritization that assumed ambulance transport for every patient, the CRM offers six colour-coded levels that allows for patient concerns to be better categorized and matched with the best care.

When a 9-1-1 call is received, it is assessed based on the internationally recognized Medical Priority Dispatch System (MPDS) to determine the patient's primary concern. The call is then assigned a MPDS code based on the call assessment. For example, if a patient is having a suspected cardiac arrest, the call would receive a 09E01 code indicating a cardiac arrest without breathing. Each code is assigned a colour including Purple, Red, Orange, Yellow, Green or Blue.

The colour assigned triggers a resource response along with the relative level of urgency appropriate for the particular code. A cardiac arrest would be given a Purple, or most urgent response, and would receive the highest level of paramedic and first responder support. Each code has been clinically reviewed to determine the necessary response to provide the best care.

Data from a six-month review of CRM implementation showed positive improvements in response times in the majority of the highest volume communities across the province, including reductions of up to a minute in Red response times, which include events such as chest pains and overdoses.

"The Clinical Response Model provides BCEHS with the foundation necessary to put our patients on the right path to receiving the care they need when and where they need it," said Neil Lilley, Senior Provincial Executive Director, Patient Care Communications and Planning.

> We are better able to help patients with minor concerns get the care they need in a timely manner while our most urgent cases get the immediate attention they require.

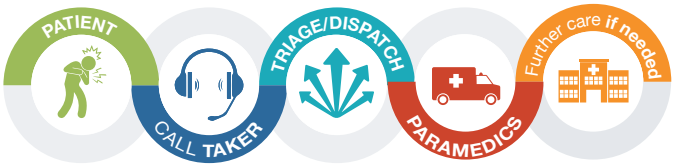
Lilley also noted that the improved response times are the result of the new model, the addition of extra resources and the positive impact of improved secondary triage, known as CliniCall. Clinicall is the clinical team in dispatch, consisting of paramedic specialists and nurses. The team assists patients with minor concerns which may include solutions that don't require paramedic transport to hospital.

Following the six-month review, further changes to the CRM were implemented in February 2019. To ensure the highest level of responses for patients who require the most urgent care, a number of codes for overdose and poisoning have been re-categorized to higher CRM colour levels, to better align with global best practices.

In addition, when response time is expected to be greater than 10 minutes for a subset of Orange codes, an automatic notification will now be sent to fire first responders. With dispatchers no longer needing to take this additional step manually, the entire process is simplified and notification errors are reduced.

Overall, the introduction of the CRM system has helped refine criteria for co-responses, or times when both BCEHS and fire first responders are called to a scene, and as a result fire first responders have seen a reduction in call volume, thereby freeing up this important resource.

With plans underway to further expand treatment options delivered by BCEHS, including in-home palliative support, the Clinical Response Model is a critical part of ensuring patients receive the best possible care.



CLINICALL SECONDARY TRIAGE TRIAL A SUCCESS

Last June, BCEHS launched a trial that brought nurses into dispatch to undertake clinical assessment over the telephone for some 9-1-1 callers with non-urgent concerns.

Given 30% of 9-1-1 calls are not urgent, the trial reviewed whether the nurses could offer clinical advice and support and resolve the patient's issue without paramedic care. Calls that are unquestionably non-urgent are directly transferred to HealthlinkBC (8-1-1) for advice and health system navigation services.

Trialing more detailed clinical assessment in dispatch was expected to not only give patients with non-urgent issues alternative care and support when appropriate, but also identify patients where further questioning may uncover the need for more urgent care.

The trial started with one nurse, expanded to two in December and to four recently, and focused on non-urgent calls in the Lower Mainland. Following an initial assessment by a call taker, nurses call patients with non-emergent concerns back to gather further information to better identify the most appropriate response. Depending on the assessment, nurses upgrade calls to ensure a more urgent response when necessary and also downgrade calls and offer alternative solutions to concerns.

When appropriate, nurses provide direction regarding the use of local community and primary care providers, offer self-care advice and suggest alternative transportation options when paramedic response isn't required.

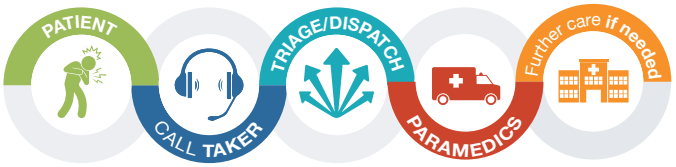
"Tailoring our response to individual patient need allows us to provide the right kind of response where and when each patient needs us," said Rene Bernklau, BCEHS Clinical Operations Manager.

The six-month results of the trial show that an average of 32% of non-urgent calls in the lower mainland were captured and reviewed by nurses. Of the patients who were assessed through secondary triage, 15% were upgraded to a more urgent response and 16% did not require a paramedic response. BCEHS nurses spent an average of 10 minutes with each patient and the most common concerns addressed were dizziness, nausea, vomiting and abdominal pain.

"The clinical expertise the nurses brought into dispatch helped us to be better at determining the right path to help patients with minor concerns – the trial was definitely a success," continued Bernklau.

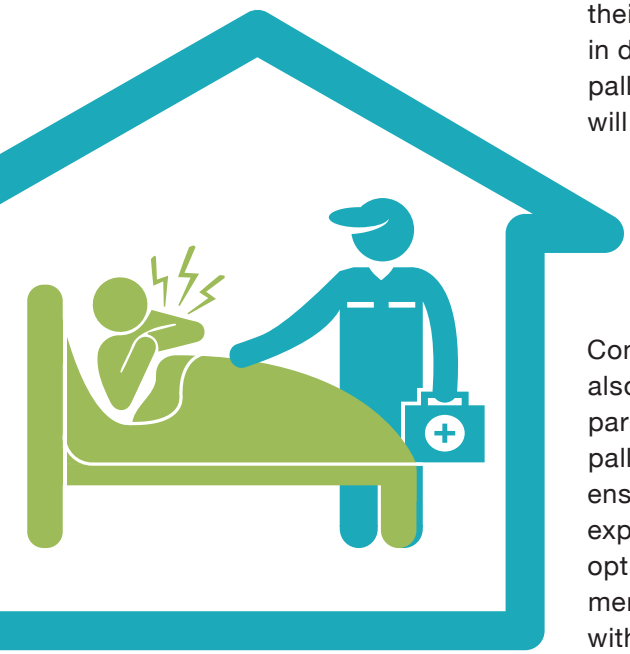
Given the positive impact of the trial, nursing staff will remain in CliniCall and the program will look to expand geographical coverage beyond the lower mainland.

For more information on the trial or the expansion of the program, email **actionplanideas@bcehs.ca**.



PROJECT SUPPORTS PARAMEDICS IN PROVIDING PALLIATIVE CARE

To improve the quality of life for patients with life-limiting conditions in British Columbia, a new paramedics and palliative care project has been launched. With the goal to reduce suffering and increase comfort for palliative patients and their families, the project will support paramedics in providing enhanced in-home palliative care. The project will also provide patients across the province, regardless of location and time of day, with accessible palliative care until regular care teams are available.



"Many palliative patients call 9-1-1 with emergent issues arising from their medical condition," said Nancy Kotani, Chief Transformation Officer, BCEHS.

> This project will help us provide support in these moments of crisis, allowing patients to avoid unwanted emergency department visits and stay at home with their family and loved ones.

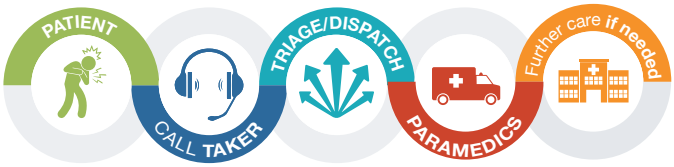
Working with palliative care partners in the health authorities and primary care providers, paramedics will receive education to increase their knowledge and confidence in delivering enhanced in-home palliative treatment. The education will include pain and symptom management, as well as training for some of the more challenging conversations regarding their patient's wishes and needs.

Communication mechanisms will also be established to enable paramedics to connect with patient palliative care support networks to ensure appropriate on-site support, explore next steps for treatment options and to inform care team members of all visits and changes with their patients. The project will also identify more appropriate locations, other than the emergency department, where patients can be transported when symptoms cannot be managed in the home.

In rural and remote communities, the project will increase access to palliative support when care teams can be a significant distance away. Community paramedics in these areas currently support patients with life-limiting illness during scheduled appointments and will continue to work with and support existing palliative care networks such as nurses and palliative-care physicians.

Funded through a partnership between the Canadian Foundation for Healthcare Improvement and the Canadian Partnership Against Cancer, BCEHS is one of seven organizations across Canada to receive funding over the next four years to build a paramedic approach to palliative care. The project will integrate learnings from similar projects previously launched in Nova Scotia, Alberta and Prince Edward Island.

Phase I of the BCEHS roll-out is underway with plans to establish a working prototype in a select few communities across the province representing both rural and urban settings, with the first set to be launched this summer.



NEXT STEP FOR RESOURCE REVIEW: DEPLOYMENT MANAGEMENT

As part of the BCEHS Action Plan a provincial review of resources was launched to determine how best to meet local demand, and to help ensure sustainable workloads for paramedics in high-demand regions of the province. This review resulted in the addition of 119 full and part time paramedic positions, several ambulances, and shifts that better align with peak demand.

During the provincial review, many questions arose about how best to position and deploy existing and new resources to optimize emergency coverage. Questions like:

- **Are our stations in the best locations to provide emergency coverage, and do we need additional locations to better serve our communities?**
- **How do we ensure ambulances are in the right place to respond, thereby minimizing the need to dispatch ambulances to assist in neighbouring communities?**
- **How do we assign inter-facility transfer work to minimize the impact on emergency coverage?**
- **What role can our dispatch processes play in balancing workload across crews and better identifying and managing fatigue risks?**

To address these important questions, new regional working groups, including representatives from Patient Care Delivery and Patient Care Communications and Planning, along with BCEHS leadership, are determining how to make the best use of our resources to maximize emergency coverage.

This approach, called deployment management, requires the development of organization-wide protocols and procedures to guide dispatch. Regional variables will be taken into account while a consistent provincial approach will be taken. In addition, the analysis of where 9-1-1 calls originate from will also inform longer-term facility strategies.

The first working groups have been established on the Island and in the Interior and will continue in the spring with Vancouver and Fraser Valley.

Watch the Action Plan Update for more news on deployment management.

QUESTIONS / MORE INFORMATION
please email us at **actionplanideas@bcehs.ca**
or visit our website, **bcehs.ca**