BRITISH COLUMBIA | Office of the Provincial Health Officer

Provincial Ebola Virus Disease
Report on the Action Review

August 24, 2015

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Executive Summary

The 2014/2015 Ebola Virus Disease (EVD) epidemic is the largest in history, affecting a number of countries in West Africa. Nosocomial transmissions of the Ebola virus in Western hospitals were a wake-up call for the B.C. health system. Building on the province's experiences in managing the SARS outbreak in 2003 and the pandemic influenza outbreak in 2009, the B.C. Ministry of Health (MoH) and its partners undertook an extensive Ebola preparedness strategy. In the fall of 2014, the B.C. MoH formed a Provincial Ebola Task Force, which includes a number of working groups to make sure that the provincial health system is prepared in the unlikely event of a case of EVD in B.C. A significant amount of work has gone into the development of a suite of Ebola-specific policies, guidelines and algorithms that provide guidance across the full continuum of patient screening and care. B.C. is fortunate in having a strong foundation for this work.

The Action Review Process

On March 31, 2015, a group of Task Force members met at the B.C. Centre for Disease Control for a face-to-face interim review session. The purpose of this session was to build on the B.C. Ebola Interim Review Questionnaire and to gather additional information on what is going well in the early stages of the response, what needs to be improved longer term, what immediate course corrections may be required, and what should be captured to ensure the sustainability of the work done to date.

Prior to the March 31st session, a B.C. Ebola Interim Review Questionnaire was distributed to all task force members to obtain feedback regarding provincial Ebola planning activities undertaken during the period of October 2014 to March 2015. The questionnaire addressed a number of the health activities involved in EVD planning, and the results provided are categorized by subject matter area. Each section is further broken down into successes, challenges, and lessons learned and overarching themes of the responses. Appendix A describes the Ebola Interim Action Review Questionnaire Results.

On June 16, 2015, a webinar for frontline workers was conducted to facilitate the sharing of health care worker experiences, to identify and discuss strengths and gaps in planning, and provide recommendations for sustainability moving forward. The feedback provided during the webinar is included in Appendix B.

Appendix C describes the lessons learned from testing and care experiences in B.C. This document is a compilation of the experiences of Northern, Fraser and Interior Health.

Appendix D is a summary of Interior Health's engagement with returning health care workers and is meant to serve as a platform for discussion on developing a provincial approach to learning from the experiences of these health care workers.

Common Themes

Key themes in the feedback from all review processes include the following:

- Strong leadership, high levels of accountability and staff dedication have been essential to the success of this work.
- The task force structure was effective and should have been activated earlier in the Ebola outbreak.
- An enormous amount of collaborative work has been accomplished and is relevant for other communicable disease outbreak risks.
- The level of readiness achieved should be embedded and sustained in the B.C. health system, including the EVD unit, equipment and realistic training levels.
- The province should build on this and previous communicable disease experience to develop an integrated outbreak readiness and response plan under the direction of the provincial health officer.

Next Steps

There are two distinct phases for health emergency management communicable disease planning and response required over the short and longer term:

1) The continuance of EVD planning, training and response work.
2) The development of a transition plan to embed and sustain health emergency management preparedness and response into the health system.

Provincial Ebola Virus Disease Interim Review – March 31, 2015

Opening Remarks by Perry Kendall and Lynn Stevenson

The purpose of the EVD interim review session was to gather information on what went well in the early stages of the response, what needs to be improved longer term, what immediate course corrections may be required, and what should be captured to ensure the sustainability of the work done to date.

In retrospect, the EVD outbreak was well underway by the time B.C. established an EVD Task Force. Once established, a lot of work was accomplished in a relatively short period.

Nosocomial transmissions in Western hospitals were a wake-up call for the B.C. health system – the system was not as well-prepared as originally presumed. Preparedness needs to be integrated and embedded within regional health authorities going forward.

The Process

A summary of responses to the previous questionnaire had been circulated. Participants were divided into five groups, with equal representation from the range of organizations in attendance. Groups were asked to identify the top three items for each of the discussion topics. This led to a plenary discussion with the results recorded below.

What is going well?

Documentation

- Documentation map is helpful.
- Ethics framework is very helpful.
- Process for approving documents through Provincial Ebola Task Force was excellent.
- Interaction in creating the documents has been the most valuable element of the EVD planning and response.

Leadership / Governance / Engagement

- Strong leadership providing clear ministry decisions and support. The communication of an explicit structure for the response has offered a clear vision forward.
- Associate Deputy Minister's role in co-leading the task force is also extremely valuable.

- Task force structure, engagement and openness of the members have been refreshing and helpful.
- Health Shared Services B.C. has been very effective at quickly sourcing materials with the single access point being effective.
- Medical health officer role has been clearly identified and recognized.
- Extensive engagement within health authorities and across the province has built strong relationships.
- First Nations Health Authority: very inclusive and thorough. People felt cared for and included.
- Central access to clinical expertise within health authorities and provincially has been effective.

Facilities

- Facility designation (Type 1,2,3) is working well.
- Designating facilities early on allowed people to understand their roles.

Communication

- Communication had improved from previous infectious disease outbreaks, such as H1N1.

What needs to improve?

Documentation

- Recognition of the audience would make for better documentation focus- purpose, process and audience to be clarified.
- Better process/use of technology for sharing documents required.
- Approval process is not always clear and often there was a delay between completion and posting on the website.

Co-ordination

- The response was comparatively late which created a disconnect across regions.
- Need to explicitly relieve people of their day-to-day duties. Some organizations did that well, others less so.
- Timelier establishment of provincial role as there was some work happening at health authority level prior to provincial co-ordination.
- Need to clarify the role of emergency operation centres and the Health Emergency Coordination Centre.

- Challenges with national leadership and the slow direction and engagement from the Public Health Agency of Canada created confusion.

Communications

- A communication strategy is required to identify who can say what and when they are allowed to speak.

Logistics

- Transportation:
  - Needed to be co-ordinated sooner, especially outside of the Lower Mainland.
  - Transfer times for regions outside of the Lower Mainland were unrealistic as six to eight hours is not reasonable.
- Supply issues - Need to determine:
  - How to keep skills and readiness at an optimal level.
  - Who to train and how to train.
  - What is the optimal preparedness level.
- Supply issues – equipment:
  - Hoods have caused anxiety in health authorities.
  - Distribution for personal protective equipment and lack of labeling led to errors and potential occupational health risk.

Risk Assessment

- Exceedingly small risk of a very bad thing - response to be scaled to the level of risk.

Training

- It was a wake-up call for operations and the need to ensure staff has basic skills.
- Need to build in accountability factor for staff training.

Immediate Course Corrections

Briefing to Leadership Council

- CEOs need to be aware of the good work that has been done to date. Presentation to the CEOs through a briefing with a focus on engagement and recommitment.

Training

- Need to revisit the training schedule as there are challenges maintaining the current schedule.
- Look at personal protective equipment (PPE) options as there is still confusion regarding the low level of risk and changes in PPE and need to re-train are adding to the work load.

Maintaining Momentum

- Need commitment to keep vigilant on training and to keep the EVD unit operating. Ongoing operation of the EVD unit is not small or inexpensive; therefore, justification is required.
- The EVD issue continues to be on the frontline radar with people in the communities still being monitored (between three to seven people at any given time in B.C.). Emergency Operation Centres still running and EVD issues still in newsletters.

Communication

- Starting to lose pre-emptive work by not-for-profits who have been identifying returning staff from EVD regions. Médecins Sans Frontières/Doctors Without Borders and Red Cross have been good, but other agencies have not been as pro-active perhaps due to poor connections with community-level health services.

Documentation

- Shared document space was requested; however, there is a need to clarify the problem first before tasking. The request is for a shared environment for creating documents versus version control.
- Need to have a dedicated person or group who is just updating and tracking documents.

Human Resources

- Those in key roles need to have an alternate.
- A project lead associated with each working group is required with someone owning the process/documents.

Sustainability and Transition Planning

Co-Chairs' Remarks

It has been very helpful to reflect on what has gone well so far. Congratulations are offered to all those who were involved in co-ordinating the provincial response. This good work should now be documented and capitalized upon. The current state of readiness versus where we

were should be promoted, and new practices should be embedded with all organizations around the table.

Participants agreed that the current task force structure should shift to reflect a transition away from early Ebola response. Discussion focused on what the new co-ordinating structure would look like.

Governance

- From a governance perspective, a senior lead from the Ministry of Health may be best-placed to lead this work.
- It was agreed that a new committee or governance structure need not be created – the focus should be on quality improvement, not transformational change.
- Individuals within each organization should be identified as leads for the transition to ongoing planning.
- Accountability needs to be at the vice-president level. It can't be delegated down to someone without authority or currency to make real response happen.
- Use what has already been built and take it forward: provincial groups (in both the ministry and health authorities), with established membership and terms of reference to be activated in the event of an outbreak.
- Interior Health is transitioning its Ebola planning committees toward longer-term emerging pathogen/infectious disease planning groups. Sue Pollock to share drafted terms of reference and other related documentation with the group.

Reporting to Leadership Council

- Results of efforts to date, and the degree of progress made within the health sector, to be presented to Leadership Council, along with recommendations for how to capture best practices and improve resilience to future outbreaks.

Provincial Planning

- A provincial outbreak and readiness plan could be established under the direction of the provincial health officer. The plan would contain clear triggers and be designed to manage any outbreak. The existing provincial influenza plan could serve as a baseline.
- Any plan development should factor in both acute care and public health perspectives. A suggestion was made to move towards a more all-hazard approach to provincial planning: trauma vs. infectious/contagious diseases. System capacity challenges apply to both. This would need to be validated.
- Practitioner working groups could be formed to establish plans and guidelines to ensure alignment with the front line.

- A newly-developed response model following Ebola should be put into regular practice, not just for unusual events such as this one. Otherwise, it will not be widely understood and practiced across the health sector.
- The medical health officers, operations, infection prevention and control, and potential professional practice would be important to keep engaged, knowing the linkages to emergency management and provincial health officer still exist.
- Ensure primary health care remains engaged and informed as they were big players in other scenarios.
- Patient journey to be process mapped from entrance into the system to high-end treatment. That is a clinical operations role and requires buy-in from intensivists. Need commitment that this model can be sustained.

Training and Front-Line Preparedness

- The development of a framework from the Province should include a baseline for hospital types (1-3), with clarification of what training needs to be done.
- Need to better use the support of the College of Registered Nurses of B.C. and College of Physicians. Schools also need to consider including this in curriculums.
- Need to redefine infection prevention and control readiness at each level as current levels for EVD response may not be sustainable or appropriate.
- There continue to be outstanding questions regarding readiness and training and there is a need to define what state of readiness is expected going forward.
- Possibly use flu season as a catalyst for preparedness.

Stockpiling

- Consistent stockpile to be established to ensure outbreak stockpile is “plug and play” into any health authority and readily accessible.

Next Steps

A record of this meeting is to be generated and used to inform a high-level report for presentation to Leadership Council.

Front-line staff to be consulted regarding lessons learned and best practices.

Agenda for the upcoming Steering Committee meeting to include:

1. High-level record of discussion from interim review session.
2. Outline for update to Leadership Council.
3. Outline from each regional health authority regarding transition plans for the next six months.
4. Initial thoughts on what the training, readiness and refresh process could look like between now and September.

Support is to be sought from CEOs to engage and recommit to Ebola planning to facilitate a transition. A six-month retrospective will be brought to Leadership Council to outline progress and future expectations for support to ongoing readiness/capacity.

Provincial Ebola Interim Review, March 31, 2015: DRAFT Record of Decisions

As an immediate course correction, review the provincial framework for personal protective equipment, training and refresh levels.

The Ebola Task Force will make a presentation to Leadership Council on progress to date at the provincial level and in each health authority, to seek engagement and commitment to sustainability.

Interior Health will share its plans for transitioning Ebola readiness into existing structures.

Share the consolidated interim review questionnaire results with frontline staff and hold a similar review session with them.

Improve access to information on the status of guidelines etc. in the development/approval process.

Continue the collaborative development of a provincial plan for integrating EVD work into ongoing health system planning and response.

Include the following items on the next Task Force agenda (April 9, 2015):

- High-level record of decisions from March 31st session.
- Outline for an Ebola preparedness update to Leadership Council.
- Health authorities' transition plans for the next six months.
- Early transition thoughts on personal protective equipment, training and refresh levels.
- Planning for a similar session with frontline workers.

APPENDIX A:
B.C. Ebola Interim Action Review Questionnaire Results

Background

The following information reflects the feedback provided from the B.C. health authorities, health organizations, and working groups that were formed under the Provincial Ebola Task Force in October 2014. The task force structure was developed to lead Ebola Virus Disease (EVD) planning and preparation activities in B.C.. In March 2015, a B.C. Ebola Interim Review Questionnaire was distributed to all Task Force members to obtain feedback regarding provincial Ebola planning activities undertaken during the period of October 2014 to March 2015. Completed questionnaires were received from the Provincial Health Services Authority, Island Health, Vancouver Coastal Health and Providence Health Care, Interior Health, Northern Health, Fraser Health, B.C. Emergency Health Services, Health Shared Services B.C., B.C. Centre for Disease Control and the Ministry of Health.

The questionnaire addressed a number of health activities involved in Ebola planning, and the results provided in this document are categorized by subject matter area. Each section is further broken down into successes, challenges and lessons learned and overarching themes of the responses have been included.

Governance and Co-ordination

Successes

- Task Force delegates appropriate and engaged.
- Organized structure of Task Force and working groups, and leadership and project management were keys to success.
- The Office of the provincial health officer website was an invaluable resource for all policies and guidelines.
- Cross-disciplinary and cross-health authority work was very valuable.
- Structure created for Ebola can be used for any new pathogens.

Challenges

- Frequent changes to the guidelines, often very minor in nature, were difficult to keep up with and implement on the frontlines in a timely fashion.
- Achieving consensus is a very time-consuming process and time required should not be under-estimated.

- Overlap between health authority level and provincial level planning led to wasted effort in the health authorities.
- Planning activities, including implementing Task Force/structure, were required earlier on.
- Information to clinical areas sometimes came through different channels, causing some confusion.
- The intensity of the work involved in planning activities at many levels was not sustainable on top of regular workload.

Lessons Learned

- Clear roles and responsibilities need to be documented for working groups to eliminate duplication of effort.
- The roles of the Task Force and clinical working groups need to be better delineated to ensure that the correct body is informing decisions.
- Ensure clear processes for how information is requested/shared, Task Force representatives need to ensure they communicate necessary information to their organization as the point of contact on this subject matter.
- Valuable to have a central planning team to make early decisions on which types of guidance/policy will/will not be issued from the Ministry of Health. This allows health authorities to focus on developing materials that will not be later superseded by provincial materials.
- There is an inherent tension between the desire to have documents quickly, and the desire to create definitive documents which do not require subsequent revision. It is necessary to issue interim or preliminary guidance, with the understanding that these documents will evolve with the accumulation of evidence and experience.
- The structures and processes developed to address EVD should be maintained to ensure readiness in the event of a future threat. This includes maintaining defined “tiers of service,” balancing resource allocations to maintain sufficient emergency response, adequate personal protective equipment (PPE) supply, ongoing training/refresh sessions on infection control and PPE, and standing committees.
- Materials developed for EVD should be used to develop a comprehensive set of templates for future use with new pathogens. One organization should be identified to take the leadership role for this work. Triggers for moving into a full response structure should be developed so that all stakeholders understand their roles and when they would be activated.
- Ongoing EVD work to be integrated into provincial infectious diseases planning process, including an established leadership for sustainment.

- Recommend the ministry have an emergency fund for surge capacity for extraordinary responses like this, similar to that required for large outbreaks or other emergency responses.
- It would be beneficial to have a designated central repository for documents (e.g., B.C. Centre for Disease Control, Office of the provincial health officer and Public Health Agency of Canada website information).

Communications

Successes

- Pro-active dissemination and sharing of information from the PHO and Ministry of Health.
- Co-ordination between Government Communications and Public Engagement and health authority communications appeared seamless.
- Regular Task Force meetings provided consistent communications to the representatives.

Challenges

- Difficult to communicate broadly across so many geographies and interest groups.
- Difficult to review and adapt plethora of ministry documents to health authority websites.
- Concerns regarding adequately conveying information to frontline staff.
- The first communications/policies that came out addressed adult population, so it was a challenge to apply to the maternal-child population.

Lessons Learned

- Valuable to keep a reference place for most current decision status on a variety of subjects.
- Need to delegate ongoing web maintenance for all sites, and enable them to stay coordinated.
- Need to consider using more than on-line methodologies to communicate to care providers.
- Necessary to provide communications/policies for adult and maternal-child population.
- Consistent materials must be used at all frontline locations.
- Improved risk communication to health care workers required.
- More succinct communication required. Ministry (provincial health officer) should take lead for the external communication, especially to the public.

- Ensure co-ordinated communications plans are in place ahead of time, with standardized messages to staff and the public.
- Consider the role of the health authority Emergency Operations Centres in communication strategy.
- Ensure information and messaging is disseminated internally before it is shared with the public.
- Speed of approval for communications is important to support the maintenance of local media relations.
- Clearly communicate location/type of changes when distributing updated protocols/policies.
- Over-communication with staff, public and key stakeholders (e.g. unions) is needed to ensure correct information is available, and to minimize fear.
- Increased linkages with frontline staff would be beneficial, both in terms of providing feedback on guidance documents, and in terms of clear and timely communication out to the front lines.
- Enhance role of stakeholder liaison from Task Force to more proactively manage all stakeholder groups.

Personal Protective Equipment Policy and Guide Development

Successes

- Defining, procuring, distributing, training, practice and proficiency in personal protective equipment (PPE) were assisted through provincial co-ordination.
- Beneficial to have high and low risk standards defined.
- Checklists helped clarify roles and PPE steps accordingly.

Challenges

- PPE protocols updated faster than the organization's ability to order/stock items.
- Policy development was slow due to unavailability of the PPE, resulting in re-work for training.
- The main principles of the PPE guidelines needed to be articulated earlier to avoid damaging educator credibility and undermining frontline staff confidence.

Lessons Learned

- Important to have standardized process in place and access to the right equipment early on.
- Need to have the clinical experts set PPE standard that is achievable and available in the future.

- Maintain structure of PPE Working Group, but adjust meeting frequency. Consider one in-person meeting annually.
- PPE checklists and other documents could reside with PICNET.
- Recommend that changes to PPE protocol be categorized (e.g., routine or critical) and ensure changes are clearly conveyed.
- Keep a database of product status for all products considered, accepted or ruled out for all scenarios with rationale stored that can be accessed by all interested.
- Maintain minimum stock levels of high and low risk PPE in health authorities at all times.
- Have supply of maximal PPE available for early implementation in a future potential epidemic.
- Need co-ordinated process for ordering and receiving PPE across health authorities.
- In some cases, new documents were created, despite best practices already being known to front-line providers.
- Guidance development would be improved by having greater involvement of frontline staff who could bring forward their knowledge of local practices and feasibility of various actions. This could be accomplished by freeing up people actively engaged in the work to participate, rather than relying on individuals in administrative roles.
- Improve basic infection control training and create standard tools to prepare for new or emergent pathogens.
- Set up structures early to enable mandated PPE proficiency and interdisciplinary practice scenarios.
- Ensure that centrally produced policies and guidelines reflect the actual PPE supplied, even if this requires the creation of different versions.
- Health authorities to establish roster of core personnel for each site.
- Would have liked provincial standards for education and training.
- Ensure Health Shared Services B.C. has a plan for storage of PPE for extraordinary precautions.
- Need for clinical group to be involved in establishing appropriate PPE criteria.
- Close ties with clinical expert group is essential.
- Provincial working groups and leadership are keys to success.

Personal Protective Equipment Training

Successes

- Quick to develop training which proved difficult as the equipment has continued to evolve.
- Training greatly improved once correct personal protective equipment (PPE) received.
- Province now has a core of trained experts and will focus on expansion and sustainability.

Challenges

- Retraining and refresh training difficult to maintain and to measure.
- Difficult to complete training without having the appropriate PPE available.
- Requirement for repeated training posed challenges related to resources and staff participation.

Lessons Learned

- Key staff should maintain competency over time, to ensure readiness for future threats.
- Need to develop a sustainable training schedule that is cost efficient and effective.
- PPE videos need to be timely and capable of being used by all the testing and receiving facilities.
- Training and ongoing drills are essential for staff to feel confident donning, doffing, and wearing PPE.
- Drills have been valuable, and should continue, including external partners.
- There is a need to monitor compliance to mandatory training.
- Regular training and refresh training necessary.
- On-line training modules made available.
- Recommend that training and PPE be formalized. Plan to educate and train regularly. Should be built into the required Regional Intensive Care yearly training.

Clinical Care

Successes

- The core clinical expert groups were effective and responsive.

Challenges

- Provincial documents lacked local context; unexpected effort and time was needed to add local details prior to distribution.
- Timelines were too long to achieve final documents.

Lessons Learned

- Need for quicker turnaround of key clinical guidelines.
- The importance of having in person real time help and resources from multidisciplinary teams when needed to support clinical care.
- There are varying levels of awareness regarding lab requisitions for EVD testing within the GP community.
- Pandemic stockpiles are necessary for all health authorities.
- Provincial documents should include suggestions for local implementation.
- Provincial direction on minimal staffing levels / hours of operation to help designate a site as a Type 1 facility would be helpful.
- A designated lead whose only priority would be to ensure provincial documents are followed would be beneficial for the safety of staff and patients.
- Identification of key clinical leaders early is required.
- Expert clinical groups should meet three to four times per year to review policies and guidelines and amend if needed.
- Valuable to debrief to evaluate and strengthen current processes after performing care on a patient suspected with EVD.

Infection Control Policy and Guide Development

Successes

- The establishment of a core clinical expert group.

Challenges

- There were delays in agreeing to provincial infection control guidelines.
- Frequency of changes and the amount of information was overwhelming at times.
- Challenges in communicating protocol and in staff reception of protocol, resulting in potential damage to employer-employee relations and infection control to unit relations.

Lessons Learned

- Important to have guidelines developed by a community of practice.
- The need to have a core clinical expert group that could be convened as global situations arise, to provide support and guidance in a timely manner.
- Need for a faster turnaround time for developed policies.
- Where possible, provide immediate infection control guidelines based on known transmission characteristics and share policy/processes with all levels of staff.

- Ensure provincial guidelines are followed consistently across all regions and organizations.
- Use one source of information (i.e., ministry guidelines) to develop and revise internal documents.
- Early involvement of primary care, public health and B.C. Emergency Health Services is needed, in recognition that disease entities do not only present at hospitals.

Infection Control Training

Lessons Learned

- Establish an infection control training schedule for normal operations, including regular training and on-line training modules.
- Consistent training in basic infection control can improve staff confidence when new organisms appear.
- Ongoing support for annual training, particularly pertaining to donning and doffing of personal protective equipment and levels of precautions required for infections that staff come into contact with on a daily basis, and provision for how these precautions will be escalated or applied for a serious new or emerging infection threat.
- Training and refresh training required for sustainability.
- Additional funding for human resources (infection control, workplace health, educators) would have been helpful.
- Recommend that the ministry have an emergency fund for surge capacity.
- Staff presented with a high level of anxiety due to the lack of understanding of the risks of such a serious infection. This was further escalated through messages in the media. A consistent provincial approach to education and understanding would help to provide staff with a level of confidence that they are safe and able to provide care to their patients.
- Discrepancies in equipment and training led to lack of confidence from clinicians.

Laboratory

Successes

- Community of practice took ownership of policy and guide development.
- Excellent support from the Provincial Health Services Authority public health lab and Mel Krajden.

Challenges

- Phlebotomy resources at smaller sites created challenges.
- Inability of phlebotomy staff to draw blood due to lack of training initially created challenges.
- Maintenance of personal protective equipment training for laboratory staff is resource intensive. Difficult to maintain engagement when the perceived risk is low and resources within the laboratory are already constrained.

Lessons Learned

- The protocol should be made more general for other pathogens and the contact information updated yearly.
- Need to have clearly laid out roles and responsibilities for all staff involved in planning.
- There needs to be a clear method to continually evaluate procedures and seek ways to improve them.
- Continue ongoing personal protective equipment and lab training.
- Need to ensure clear communication of processes to health authorities.
- Need to maintain a core clinical group that meets regularly and plans for outbreak situations.
- B.C. needs to maintain a broad threat response capacity that can be managed through a co-ordinated spoke-and-hub laboratory network, likely through public health laboratory.
- The threat response capacity needs to be linked to international, national and provincial surveillance systems so that we can anticipate/plan to respond to potential threats via the Canadian Public Health Laboratory Network.
- The B.C. laboratory system needs to ensure adequate public health scientific/technical and medical content leaders.
- Should an EVD positive case be identified, there is a potential risk to the laboratory staff managing a case and testing a positive case could negatively impact the facility's ability to support routine laboratory testing for non-EVD patients within the facility.
- B.C. needs to maintain a broad threat response laboratory capability that can be managed through a coordinated laboratory network, likely through public health laboratory.
- There needs to be physical containment capacity, technological infrastructure, and scientific and technical capacity.
- If laboratories are to be further consolidated to improve testing efficiencies, consideration needs to be given to the design/set up of where EVD testing is performed, so as not to jeopardize the routine patient care.

Contact Management

Successes

- Excellent guidelines created by a community of practice.
- Good working relationship and information exchange with federal quarantine.
- Provincial public health case studies around contact management were beneficial.

Challenges

- There is a need to better inform staff on their roles and responsibilities regarding contact with patients.
- Waiting for national guidance/other inputs influenced ability to put out timely information.
- Need to have timely and consistent messaging. Reliance on case-by-case decision-making opens room for variation.

Lessons Learned

- A need for enhanced education and training, including refresh courses and reinforcing the training/education.
- In order to improve timeliness, would need to have dedicated fulltime staff working on guideline development.
- Have identified working group that can continue to be dedicated to this type of work when need arises.
- Clear expectations on the role of that lead or the chair/co-chairs of such groups – and sustainable smaller committee.
- Need to integrate PicNET into this work (and other stakeholders).
- Need better information dissemination to key groups (e.g., those travelling abroad or working in designated facilities).
- Small groups, appropriate membership, clear roles responsibilities and reporting relationship/linkage to ministry, etc.
- Ensure that guidelines can be translated into other scenarios (e.g., shifting core Ebola working group into Emerging Pathogens Committee).
- Ensure there is recognition of hardship on individuals (i.e., patients) as a result of monitoring guidelines and ensure that this is addressed.
- Develop linkages with aid organizations around social supports for returning travelers.
- Develop supporting documents to help guide medical health officer decisions (e.g., mass gatherings, medical procedures, travel, etc.).
- Need for earlier education dissemination for medical health officers and other public health staff.

- Messaging on reasons for decision-making around restrictions and considerations for contacts; communication on principles of why restrictions are in place if you have been a contact.
- Currently relies on quarantine process to identify incoming travellers. Need to broaden to future state/alternate disease when this would not be in place.

Medical Health Officer Orders

Successes

- Provincial document was useful to align the health authority documents.

Challenges

- Provincial final documents and the subsequent revisions were often delayed.

Lessons Learned

- Necessary to have joint planning and an earlier development of orders and understanding of requirements.
- Need to communicate regular updates as to the requirements and the level of preparedness.
- Communication with individual prior to departure is important for compliance and to avoid issuing orders.
- Need to understand how to translate medical health officer orders for use during other scenarios that may arise.

Occupational Health

Successes

- There are newly developed online courses and videos on emerging infectious diseases, and infection control and hand washing.

Challenges

- There was confusion regarding returning health care workers from infected countries, and whether they were allowed to return to work during their 21-day follow up period.
- Differentiation between employed staff and others not covered by workplace health is barrier to providing consistent care and follow-up to all staff who may be exposed. Working towards long-term solution of bringing all those who work in a health authority facility under workplace health.

Lessons Learned

- Need to develop exposure/breach process.
- Need to know more about medical health officer or provincial call centre role.
- The existing reporting process set up by the provincial Workplace Health Call Centre for communicable disease or blood and body fluid exposure also worked for possible Ebola exposure with minor adjustments.
- Regular review and updates of process and training refresh for pandemic/epidemic situations we know will arise in the future.
- Ensure occupational health is embedded in all exposure control plans.
- Need to link with ongoing N95 fit testing. Health authority occupational health and safety services could have convened provincially to reduce duplication and benefit from others' lessons learned.
- Keep health authority informed on ETA for personal protective equipment distribution, and expected impacts to training.
- Determine expected timeline for reaching readiness state.
- Need to maintain qualified trainers and build a network of available instructors.
- Make occupational health and safety a part of everyday conversations and reflections on learning and practice.
- Engaging workplace health immediately is necessary and will sustain our now excellent relationships.

Transportation of Patients

Successes

- Provincial Working Group absolutely for making progress and decisions.

Challenges

- Did not have a transportation policy in place early, and took time to resolve issues and complete agreements.
- Transfer times and processes vary in rural and remote areas and are difficult to estimate.

Lessons Learned

- Specialty vehicles and aircraft, equipped with appropriate equipment, are required for appropriate transport of patients.
- Maintain transportation committee structure and policy and update annually.
- Continue with regular training of staff, and with joint training with the health authorities.

- Staff needs to be adequately trained in the transport of patients, use of specialized equipment and in the donning and doffing of personal protective equipment.
- Escalation protocols for health authority emergency staff and B.C. Emergency Health Services staff required to address any issues on arrival / handover at hospital.
- Clear and immediate notification needed when HA is considering testing/transporting a person under investigation.
- Transportation exercises should be included in site planning.
- In addition to remote considerations, Island idiosyncrasies in transfer have to be considered early and marine and air transport issues remedied early.

Ethics and Related Issues

Successes

- Early discussions around specific scenarios was useful to help guide future work, it helped identify a process and principles that could be used to guide ethical decision making as needed.

Challenges

- Need better consideration of preventing returning health care workers from returning to work in follow-up period when they pose no risk to patients. This creates an unnecessary financial burden and stigma and may prevent future volunteering.

Lessons Learned

- Helpful to have an expert group look at this as opposed to relying exclusively on those involved in the preparedness planning.
- Important to involve clinical experts in ethics conversations.
- There is support needed to develop the ethics guidance.
- Ensure that a process is identified for physicians to direct questions to regarding safety, involvement, compensation.
- More communications and education opportunities regarding ethics required.

First Responders

Lessons Learned

- Better co-ordination and clarification of roles and responsibilities required between all the responding agencies.
- Identify provincial lead to manage stakeholder engagement and provide resources to health authorities to use with local area fire and police.

- Identify forums where fire and police can receive information through one channel.
- Engage first responder agencies in understanding the learning needs, opportunities and suitable formats for education, and evaluation of the effect of education on practice.

Waste Management

Challenges

- The regulations for containing and transporting infectious waste limit the opportunities to change processes.
- Confusion persists at smaller sites where waste collection processes differ from major acute care sites.
- Difficult to finalize documents in timely manner since dependent on hospital documents and dependent on external partners (e.g., funeral directors), which were difficult to access.

Lessons Learned

- Appropriate equipment be available for waste management. Implications for a hazardous spill need to be taken into account for planning.
- Being a new process, testing how the decontamination drums are best used was important and will need to be reviewed.
- Could provide alternate strategies for the waste management protocols that meet the intent of the protocols for all environments.
- Should not spend a large amount of time on local planning until provincial guidelines and plans established.
- Engage the industry experts as early as possible in the process.
- Legacy documents need to be preserved for droplet borne contaminants. This effort does not need to be reproduced for the next contaminant.

Primary Care, Community Care, and Home Health

Successes

- Planning activities brought internal and external teams/stakeholders together and expedited response.
- Developed algorithms and training requirements that resulted in higher level of preparedness.

Challenges

- High intensity of anxiety from community care and home health that did not match level of risk.
- Actions were being undertaken at the provincial level without communication or collaboration from the HAs.
- Difficult getting infection control practitioners out to rural sites with emergency departments in order to provide initial training.

Lessons Learned

- Better communication to community care and home health needed to address risk level.
- Need to incorporate local family physicians in the process.
- Some sites are designated as a Type 1 facility, however may have very limited chance of having a patient arriving at the site with potential EVD symptoms, consider a 4th site designation for health care sites with very limited exposure with protocols for screening patients/visitors and basic preparedness/education/reporting requirements.
- Require more collaboration and communication across the groups that connect with primary care.
- Information needs to be delivered via a variety of methods and strategies to ensure that all staff are aware.
- Better communication needed to address the anxiety from community care and home health.
- Need for better general practitioner representation for developing communications and messaging.
- Need more linkage between community and primary care providers in order to address contact methods and information sharing.
- Need for clear and concise key messaging to prevent misinformation from spreading.
- Community care needs to be engaged at the outset, particularly when community surveillance is required.
- A network for communicating with walk in clinics is required.
- Too many changes in policy cause confusion.
- Early training of these groups key to managing community concerns. General challenges in meeting infection prevention and control in the community.

Designated Sites

Successes

- Beneficial to have designated sites coordinated centrally for the whole province.

- Having designated sites helped to focus resources and training.

Challenges

- Early confusion regarding the desired patient location resulted in development of expensive isolation room that is no longer necessary for this illness.
- Many local documents were created only to be made redundant by provincial efforts.
- There was some confusion among staff about treatment and testing sites.
- The confusion regarding which patients should be transferred to the designated site(s) is still an issue with some staff.

Lessons Learned

- Important to finalize provincial approach before consolidating health authority planning to avoid time required to change health authority policies.
- Important for leaders to carefully consider pros/cons of having two sites, single site impacts ability to supply/train/support, etc.
- Necessary to include operational personnel at the outset of planning.
- Websites need to have documents that relate to practitioners' situations and are easy to follow.
- In order to alleviate fear, there is a need to educate staff regarding the necessity for a designated site.
- Requirement for over-communication to ground level staff at Type 1 sites provided in more operational language.
- There is a need to finalize and disseminate policies and have a core group update it in future.
- There is a need to create a library of legacy documents for droplet spread contaminants.
- Consolidation could have gone further (e.g., fewer testing sites), supplemented by availability of outreach testing, and combining treatment sites with other provinces.
- There is a need for staff to understand that public health would follow-up with incoming travellers, so that those presenting to the emergency department will not be unknown.
- Walk-throughs with the entire team are incredibly useful to understand care delivery and identify opportunities for improvement. Debriefs are equally beneficial to share learnings.
- Early involvement of clinical leaders in the designated sites is essential to ensure they are clear on their roles.
- Important for health authorities to be linked into EVD activity spanning the province as there are impacts that affect other health authorities regarding persons under investigation and patients that might require transfer.
- Necessary to designate sites early in order to focus resources.

- Early decisions on facility roles within the tiers of service model would have assisted facilities in targeting preparedness activities.
- Assignment of facilities to specific tiers of service must be based on actual capacity of the facilities to deliver the needed services, without disrupting access to services for routine patient care.

Public Health

Successes

- Excellent communication on national and provincial situation.
- A community of practice developed the guidance.
- Routine epidemiology reports useful including WHO reports and BCCDC reports.
- The Panorama Working Group worked quite well as the membership was appropriate, membership.

Challenges

- Risk ratings were confusing at times.

Lessons Learned

- Local medical health officers need to serve as point personnel for immediate, accurate information.
- Suggested to rename the risk scale (e.g., low, medium, high) and clarify risk of transmission versus risk of actually having EVD (the latter is how many were interpreting the risk scale).
- Family physician offices need to be informed immediately. Review opportunities to improve communication to both family physician offices and to private laboratories.
- Need for a central team to manage a large scale exposure and contact tracing.
- Need for provincial standards on types of communication methods that can be used (e.g., texting, email) for managing and sharing information on clients/contacts.

Stakeholder Engagement Relations

Successes

- The virtual Emergency Operations Centre was a good structure for open communication with unions and allowed us to address issues, respond to fears, internal and inter health agency co-ordination and communication.
- Able to quickly pull together a high functioning surveillance working group that developed requirements in a timely manner.

- Able to co-ordinate use of Panorama.

Challenges

- Panorama surveillance system takes too long for a rapid outbreak.

Lessons Learned

- Important to have close communication and relationship with the Quarantine Office for situation and surveillance reports.
- Establishing Panorama surveillance system process and supports was successful but takes too long for a rapid outbreak.
- There is a role for stakeholder relations in maintaining connection with professional associations such as colleges and unions and soliciting meaningful input to integrate into working group activities.
- Clear communication and regular updates delivered in a standard format.
- Ongoing and consistent communication of key messages necessary.

Person Under Investigation Case Management

Successes

- Now existing protocols are well written and targeted appropriately.
- Effective communication between acute and public health.
- Table top exercise very useful for person under investigation (PUI)/case management protocols.

Challenges

- If the disease was airborne or more virulent or prevalent, the process would have been inadequate.
- Frontline staff did not understand the level of risk associated with a PUI (e.g., they assumed this was a high risk situation and did not understand that this was a patient who almost certainly had another condition that required care).

Lessons Learned

- There is a need to schedule a full site mock exercise for PUI management.
- There is a need to improve risk definitions and explanations.
- A key learning is that the site must plan to care for a patient for a minimum of three days.
- Early involvement of medical health officer and Med Micro in decision-making key to managing early suspect cases; establishing 'who needs to know what when.'

- Limiting points of entry for PUI's even further to decrease risk of entry to a Type 1 facility.
  increased capacity for 'all-hazards' approach in all facilities.

Legal and Risk Management Support

Lessons Learned

- Recommend a better risk assessment. It was felt that the large effort for the small risk was very out of proportion.
- Create an Emergency Operation Centre template to be followed in the future.
- Legal and risk assessment are key to understanding what the risks are for the health authority and the province.

Exercises, Workshops and Events

Successes

- Interior and Northern Health shared experience was invaluable.
- Many successful exercises were completed across the province that spanned the health system and its organizations which served to identify gaps and inform future planning.

Lessons Learned

- Sharing lessons learned with other health authorities is invaluable.
- Need to ensure volunteers learn and practice in a four hour period and in the patient environment.
- Important for the province and health authorities to develop a gap analysis.
- Important for health authorities to engage B.C. Emergency Health Services to exercise pre-notification, transportation and handover to hospital.
- Valuable to have exercises co-ordinated by emergency management.
- Planning of exercises needs to involve public health practitioners to ensure the scenarios reflect reality.
- A provincial learning event could provide a sharing venue with a focus on how learning could be applied to other potentially infectious pandemics.
- There is a need to complete functional drills and full scale exercises.
- There will be a need for additional exercises/simulations if there are significant changes to processes, or if staff turn-over is significant.
- Important to distribute invitations to the appropriate exercise participants.

- There is a need for a patient simulation that runs through the entire patient experience from PUI to discharge from treatment.
- Suggested yearly and training schedule developed that includes exercises.
- Valuable to have exercises focusing on the transport of patients between designated sites that involves participation from all key players (i.e., Type 2 to Type 3 transport using ground and/or air).

APPENDIX B:
B.C. Ebola Webinar for Frontline Workers

Background

The opinions and recommendations of frontline staff directly involved in the Ebola planning, training, and response in B.C. are an essential piece of the action review process. A webinar was conducted on June 16, 2015 to facilitate the sharing of health care worker experiences, identify and discuss strengths and gaps in planning, and provide recommendations for sustainability moving forward.

The following information reflects the feedback provided during the B.C. Ebola Webinar for Frontline Workers that took place on June 16, 2015 from 9:00am-12:00pm. The webinar was broken into three back-to-back sessions, each focusing on the same series of questions, designed to accommodate the busy and varying schedules of frontline workers. The sessions were co-facilitated by Lynn Stevenson, Associate Deputy Minister of Health, and Bonnie Henry, deputy provincial health officer. The attendees (approximately 90 in total) included the Provincial Health Services Authority, Island Health, Vancouver Coastal Health and Providence Health Care, Interior Health, Northern Health, Fraser Health, B.C. Emergency Health Services, Health Shared Services B.C., B.C. Centre for Disease Control, and the Ministry of Health. Each organization was asked to provide feedback on Ebola planning activities to date and suggestions for sustainability planning. The overarching themes of this feedback are provided below.

Governance/Co-ordination

Lessons Learned

- Helpful to have periodic meetings like the webinar to provide feedback and ask questions.
- Experienced overall good communication between higher levels of government and local staff.
- Need to provide more opportunities for feedback and earlier on in the planning phase.
- Health authorities would like a better understanding of the provincial strategy for keeping unions informed.

- Health authority representative needs to ensure that information is being distributed far enough, as that is the only connection to the task force. At times information did not reach the frontline workers.

Clinical

(Including clinical care, laboratory testing, infection control, ethics, contact tracing etc.)

Lessons Learned

- Drills were valuable and helped to identify easy fixes.
- The lab guidance, infection control documents, and checklists were beneficial.
- Provincial documents were useful to inform local practice, the generic information that was provided could then be localized based on the specific facility.
- Lab work was resource intensive and expensive for health authorities to take on.
- Some critical information did not filter down to the frontline workers.
- Physician engagement was low throughout the province.
- Increased infection control awareness would be beneficial, suggested having regular updates that include important information on emerging pathogens sent from a reliable source.

Additional Comments

- Valuable to have a champion at each site that can be contacted to answer questions, as informal communication within the health authorities is important.
- Important to tap into the knowledge of clinicians who have worked in West Africa.

Environmental

(Including cleaning, supplies, personal protective equipment, etc.)

Lessons Learned

- Challenging to standardize personal protective equipment (PPE) and maintain training with different PPE options.
- Constant change of PPE protocol caused a lot of resource use and confusion with frontline staff.
- Difficult to provide PPE that fit a variety of body types properly.
- Difficult to ensure that there were trained staff on every shift.
- Basic infection control education is not where it should be. Additional training is required.

Logistics

(Including ordering of supplies, emergency operation centre processes, transportation etc.)

Lessons Learned

- Concern regarding the length of time taken to develop the transportation plan.
- Need to explore options for storage of all the PPE that has been acquired.
- Difficult for B.C. Ambulance Service to manage different practices and protocols with all the different facilities in the province.

Additional Comments

- Mobile "scoop-and-run" team suggested – having a specialized team trained instead of trying to keep staff in every region up to date with training.
- On the other hand, the danger in specialized teams is that a patient may be put at risk if resources are lost at local sites. Sites will still have to be able to manage for eight hours without the team.
- Request to re-assess the designation of facilities.

Training

Lessons Learned

- Monthly refresh training is challenging and resource intensive.
- Fitting training into already busy schedules is difficult; incentives such as paying for staff to come in on their day off will result in more meaningful feedback and engagement.
- Ongoing training and education is a challenge in rural areas

Next Steps

Governance and Co-ordination

1) Ebola planning activities need to evolve into a sustainability phase and continue for other emerging pathogens
2) The cost of the Ebola planning activities in B.C. should be included in the Task Force Report to Leadership Council in summer 2015.

Clinical

3) A training framework for basic infection control education is currently being drafted by the Ministry of Health.
4) Provincial health officer to draft a regularly occurring update to provide increased infection control awareness and include emerging pathogen information to share with staff. The update will be delivered at a routine date and time from a recognized address and include potential cases that may arrive in B.C. and the current threat level in the province.

Environmental/Logistics

5) The Provincial Pandemic Stockpile Supply strategy requires a more streamlined approach that does not vary by health authority.
6) Health Shared Services B.C. is addressing ongoing issues with PPE sizing and will be delivering a roll-out plan for PPE distribution that will be finalized in fall 2015.

Training

7) An in-person training strategy has been requested for rural communities and small hospitals.

APPENDIX C:
Lessons Learned from Testing/Care Experiences in B.C.[1]

Training and Simulations

- Much practice of donning/doffing processes is needed for proficiency. Health care workers, doffing assistants and trained observers must repeat processes at least five times before they are proficient, and at least 10 times before mastery.
- Need to start training with the basics, and then work toward increased levels of fidelity as stress and realism of practice situations increase.
- Simulations help staff learn safe donning/doffing and clinical practices while wearing personal protective equipment (PPE). Simulations also allowed for testing and implementation of subtle improvements in PPE and changes in practice to increase staff safety.
- Simulations led to many adjustments of processes, as what looked good on paper did not necessarily work in practice.
- Not all team members will be familiar with equipment, kits and practices at a specific facility – requires some additional training and practice.
- To develop consistency between physicians, all must participate in simulations and collaborate to agree on best procedures and methods in environment. Need to switch roles of physicians between simulations to cover all expected procedures.

Planning for Arrival of Patients under Surveillance

- Aim for early notification of the hospital that a returning worker is being monitored in the vicinity – this puts the facility on alert and encourages all departments to review their plans.
- Need careful planning of the patient's arrival at hospital for testing (ideally give hospital at least four hours' notice). Include provincial health officer in initial notification of a potential case by the medical health officer – to alert other provincial resources which may be needed (e.g., lab, B.C. Emergency Health Services).

[1] This list is a compilation of lessons learned from experiences in Northern, Fraser and Interior Health.

Management of Isolation Room

- Need a clear process for controlling access to isolation room (signs were not necessarily effective).
- Planning of health care worker entry and exit times is required (see Personal Protective Equipment section). To help plan health care worker's exit from the patient room write name and target exit time on front/back of personal protective equipment.
- The role of the patient care co-ordinator (PCC) is essential for keeping order and quiet outside EVD patient room, and for coordinating activities inside the patient room, warm room, and the area outside the patient room. The PCC is the health care workers link to services, supplies etc. outside EVD patient room, and therefore this role must have 24/7 coverage to provide constant support to health care workers inside the room.
- It is important that equipment is complete for the team working in the room, and that processes are in place to monitor if supplies are running low. Checklists required to ensure all parts and supplies are taken into the room together. Need to balance what will live in the room versus need to be brought in as needed.
- Checklists with a conductor are required to guide even experienced staff through some procedures inside the EVD room to ensure steps are done in the right order and the right way the first time.

Communication

- Communication is difficult in the biocontainment environment due to personal protective equipment and noise from PAPRS; therefore, need to develop multiple communications solutions for various situations (e.g., between health care workers inside and outside the patient room, between health care workers and patient/family, and between health care workers in warm room).
- Have to test each solution through multiple simulations to find one which works as expected. Need range of solutions to facilitate different scenarios:
    - Technical solutions (e.g., speakerphone, radios, video chat, etc.)
    - Communications protocols (e.g., one person speaking at a time, repeating back instructions)
- Communication with EVD patients is different than with usual ICU patient. ICU patients are usually uncommunicative whereas EVD patients are mostly lucid and health care workers themselves. As a result, EVD patients require more communication and explanation, and a greater need for registered nurses to play social worker role. It can

be easy to forget the patient due to concerns about breaching, communications, performing unfamiliar tasks, etc.

- Need communication protocols for communicating situation updates to staff and media. Need to ensure test results are communicated to patient before media.

Clinical Care Processes

- Need algorithm to facilitate decision-making around test results (Note: This is in place – see Emergency Department Guidance document).
- Plan early for patient transfer as B.C. Emergency Health Services must draw staff from lower mainland to perform the transfer.
- Need handover or check-in process when care team in patient room changes.
- Specific role clarity is critical for team members.
- Team members need to get to know each other. Continual practice working together is needed as team grows and changes. Need to be aware of personalities and leadership styles on team dynamics, and impact of having different skill mixes working together.
- Team members need to act consistently and predictably inside the EVD patient room and warm exit room – the time for discussion of options is during "tweaking" processes.
- Clearly label medications and have some pre-drawn medications in EVD patient room.
- Physicians should remain in room for 15 minutes post-procedure in case complications occur.
- Core physician team needs to be consistent in clinical approach.
- A standard admission order set required.
- Hand hygiene still required but difficult to remember because already wearing gloves.

Personal Protective Equipment

- Working in full PPE is difficult. Very important to eat right and properly hydrate before shifts.
- Accurately plan for time to don PPE (people tended to underestimate time needed).
- Time and resources required for doffing are very significant:
    - Significant challenge getting health care workers out of the EVD patient room when there are multiple health care workers exiting at the same time – better to stagger entry/exit times to keep time in PPE to maximum four hours
    - Takes 45 minutes to doff safely for one health care worker and to reset room in preparation for next health care worker to exit patient room. It saves time by

collecting items for reprocessing until warm room is idle, rather than wiping down between health care workers exiting EVD patient room

- Simulations and practice have been critical to safe donning/doffing and performing clinical tasks in PPE.
- Need a clear process for action after a PPE breach (Note: this is included in existing published posters and checklists).
- Make sure to retain PPE donning and doffing checklists for purposes of contract tracing if needed.
- Use work-around to ensure that lead apron does not tear PPE.

Housekeeping and Waste Management

- Need simple checklists for housekeepers.
- Blue biohazardous waste drums require special handling:
    - Need clips on the bags or the bags collapse into the barrel when heavy items put in the barrel.
    - Remove air from behind the bags (because pushing the waste down is discouraged, the drums already have little capacity).
    - Need a pole or something long in the room to push down the personal protective equipment when you drop it into the drum, as waste tends to sit at the top of the drum.
    - Check that drums include all needed products (e.g., zip ties, markers) and that bags fit.
    - Need a rubber mallet to close the blue barrels (can't do it by hand).
- Estimate needing three to four blue drums per day if dealing with a sick patient who could not do self-care. Also make sure enough space for storage of barrels in a secure area. The drum trucks require lots of space to move and are awkward.

APPENDIX D:
Interior Health Lessons Learned from Engaging Returning Health Care Workers

Health care workers who have returned from responding to the Ebola outbreak in West Africa can provide valuable intelligence to B.C. health authorities and health care workers. With their combined experience working in the B.C. health system and treating people with EVD overseas, these individuals provide opportunities to collaborate and strengthen our local efforts.

Interior Health has provided a summary of their engagement with returning health care workers (including a returning health care worker who was tested for Ebola) to serve as a platform for discussion on developing a provincial approach to learning from the experiences of these health care workers.

Ways in which Interior Health has engaged returning health care workers, to date:

- Returning health care worker Facebook profile linked by Interior Health/staff while they were working with Ebola patients: www.facebook.com/InteriorHealth
- Returning health care worker interviewed by IH communications for staff newsletter.
- Media interviews tracked by the health authority. Returning health care worker was interviewed by a local videographer in her community.
- Medical health officer talked with returning health care worker before work experience, during work experience, during quarantine/monitoring period, and while co-ordinating return to work/home community. Incorporated into Interior Health preparedness discussions, lessons learned and shared provincially.
- Communicable disease unit made day-to-day contact with the returning health care worker during the monitoring period.
- Chief of Staff held 1:1 conversations directly with returning health care worker while at hospital.
- Returning health care worker talked with Kelowna General Hospital health service administrator for lessons learned at designated Type 2 Facility, which was shared with Interior Health Emergency Operations Centre and Provincial Ebola Task Force.
- Returning health care worker was invited, but declined, to speak to the patient experience with the Type 2 Site Ebola Task Force Team.
- Feedback from returning health care worker was also used in Interior Health grand rounds materials, as well as in a presentation to the Interior Health Board.

Interior Health suggests the following to engage returning health care worker:

Undertake a formal assessment of their Ebola patient experience. Perhaps four or five simple questions structured around:

1. Contact and communication at point of quarantine.
2. Supports and communications during period of isolation.
3. Integrity of process when admitted to hospital.
4. Care and support provided during care and testing.