

BC 2003 Forest Fires: *A Test of Quality Management in Health Services Delivery*¹

Executive Summary

Eighteen months after it was constituted under the Health Authorities Act of British Columbia (BC) the Interior Health Authority (Interior Health, IH) had to confront an emergency situation arising from forest fires during the summer of 2003. This emergency was unique from a health care administration perspective, as well as from a province wide perspective. Many aspects of the situation tested the newly formed relationship between the Interior Health and the Ministry of Health. Both organizations along with the BC Ambulance Services were interested in learning about their respective roles in the management of their response to the 2003 Fires. Seven objectives were developed as the terms of reference for this Quality Management (QM) review. This review was commissioned, November 10 2003 with the mandate to report back by end of January 2004.

Methodology of approach: The methodology of approach for this review involved defining a QM frame of reference. Within this frame a structured interview questionnaire was developed. Digitally recorded interviews were organized with IH personnel who were on the front line during the fires as well as other persons supporting them, forty-eight interviews in total.

A Quality Management Environment: Documentation shows that IH was active in developing an infrastructure to support an Authority wide emergency preparedness plan. When the 2003 Fires started, IH was retaining an emergency management consultant. This resource on site at the advent of the fires served to facilitate the establishment of an IH-wide Emergency Operations Centre (EOC) infrastructure. The EOC facilitated decision-making among Health Service Areas (HSAs) within IH and nurtured relationships with municipal EOCs and Provincial Regional Emergency Operations Centres (PREOCs).

Quality Management Criteria: Customized instrumentation was created to assess how IH and the Ministry of Health were able to achieve such QM criteria as: being in an anticipatory mode for such a crisis; optimal maintenance of programs; revisions or adjustments of program or job function; identification of sources of error, waste and redundancy; input from all stakeholders in clarifying problems; and decision-making in accordance with data interpretation. These criteria are analyzed and reported on in terms of how IH personnel responded to the situation.

Stakeholder analysis: Given the unique set of circumstance evolving around IH and the Ministry of Health during the 2003 Fires, new relationships were formed across all parts of the health sector, provincial emergency response organizations, and local and provincial government agencies, as well as federal level stakeholders. These relationships influenced program development, implementation, and management and were assessed in terms of such environmental considerations as culture, economics, politics, and social forces from a QM perspective.

Health Service Areas and Interior Health: The four HSAs that comprise IH were seen as being on the front line in managing health services during the 2003 Fires. An account is given of how each Service Area performed during the crisis and how it related to IH. Within twenty-four hours of deciding to constitute an EOC, IH had a fully functioning arrangement whereby all HSAs understood their roles. Communication was established through telephone conference calls twice a day. The role of IH and its formation of a region wide EOC is reviewed and financial accountability established.

A unique aspect of health services delivery during the 2003 Fires was the possible relocation of large numbers patients out of the district. Planning such events in a valley location with restricted road access needed a provincial strategy and a plan was developed entitled "Planes Trains and Automobiles." IH did evacuate and relocate clients in

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need of supportive care from Armstrong and Kelowna to Vernon. As with most parties involved in the 2003 Fires, IH planned for managing such situations just prior to plans being implemented. Air quality became a health care concern and threatened the Kelowna General Hospital (KGH). Plant Engineering at KGH monitored the situation. If needed, the evacuation plan, arranged between KGH and BCAS, and updated every 12 hours, would have been activated, and was expected to dovetail with the IH EOC plan regarding the availability of lower mainland beds.

Ministries of Health & BC Ambulance Services: This review explores how the relationship between IH and the Ministry of Health functioned in support of QM practices during the 2003 Fires and assesses the relationship of the BC Ambulance Services (BCAS) with the newly formed Health Authority structure.

The impression gained from the interviews is that the majority of IH personnel did not think about the Ministry of Health during their management of the situations arising from the fires. The focus in terms of a “chain of responsibility” was seen as an internal IH function. Persons working at the HSA level maintained that, given their proximity to the fires, they should be responsible. If the need arose they could request support at the corporate level. The IH Chief Executive Officer was recognized as the key decision maker in managing the situation.

The relationship of BCAS to the newly formed Health Authority (HA) structure during an emergency was reviewed. BCAS was highly respected and achieved the reputation of “always responding when called.” The working arrangements between IH and BCAS prior to the 2003 Fires served to establish respect for each other’s role. This review suggests that the BCAS resources were not fully optimized in managing the health care delivery crises during the 2003 Fires. Primarily the role of BCAS personnel seemed to be a liaison function between IH EOC, the HSA EOCs and the local municipal EOCs. This situation was sustained because IH was able to muster an efficient HA-wide EOC structure very rapidly and because the fires all occurred within the IH boundary. Had the fires involved two or more HAs a more provincial role would likely have been necessary. This review raises the need to clarify the role of BCAS as a provincial emergency first responder service within the Health Authority’s integrated community health services mandate.

In Praise of Devolution: BC is recognized as one of the most aggressive Canadian provinces in implementing the policy of devolution of authority from the provincial health ministry to the regions. One of the consequences of the 2003 Fires is recognition of how the devolution infrastructure supported management of health services in the emergency. Frequent comparison was made with the way the SARS situation in Toronto was managed. In the absence of a devolved health service delivery system, Ontario’s Health Ministry assumed a commanding role, which contrasted sharply with the BC model. Confidence in the devolution model was evident among staff in IH, who could count on the other Health Authorities for organized support if requested. Health’s Leadership Council, chaired by the Deputy Minister and comprising the CEOs from the six Health Authorities was seen as being able coordinate how other parts of the province could serve to accommodate the part that needed help.

In considering the way health services are organized in BC from a QM perspective, albeit a micro QM perspective, this review shows that the system is able to respond to unusual situations. It has been shown that programs are optimally maintained, with input from all stakeholders, and utilizing data interpretation during decision-making. These “best practices” are evident at the provincial level within the Ministry of Health and the Leadership Council as well as at the regional level.

Physician Involvement in Regional Emergency Management: During the 2003 Fires IH hospitals and medical staffs were on a state of standby. Elective surgeries were cancelled and some patients were transferred to other facilities in order to have extra capacity in the hospitals. One of the concerns was that large numbers of injured persons, possibly firefighters could be brought in anytime. Indicative of the professionalism of firefighters this did not happen. The emphasis for IH was serving the needs of its clients in the communities whose homes were being threatened or on fire. Consequently patient / client care management during the 2003 Fires was accomplished through administrative decision-making.

The first objective of this review is: *To assess the state of preparedness of BC health services for all hazard response.* Meeting this objective resulted in discussions about differences in managing other types of emergencies

such earthquakes and pandemic diseases relative to forest fires. These discussions raised concerns about the involvement of physicians in regional emergency management.

Within the hospital setting the Emergency Department head usually assumes medical leadership in management of a health care emergency. No similar physician leadership role was identified in a regional context for physicians. The extent to which such a role is important was seen as depending on the emergency situation at hand. Medical staff was well rehearsed in the implementing emergency Code Orange, which identifies a need when physicians are called to the hospital and when patients are delivered to the ER. The implementation of Code Green, the emergency code for evacuation did not seem to be as familiar. The establishment of Healthcare Emergency Access Centres (HEACs) during an emergency is seen as offering a spectrum of clinical assessment and intervention, including psychosocial support services, thereby better controlling possible surges of emotionally traumatized people impacting ERs.

A Concluding comment: The 2003 Fires personally affected many of the people interviewed for this report. They worked extra hours, some sacrificing their vacation time, and experienced severe stress in managing the frightening and unexpected. There were reports of IH staff working when being evacuated from their homes and when their homes were burning. This QM review provides an overview of the management decisions taken and the options considered within IH during the 2003 Fires. It does not begin to do justice to the bravery and dedication shown by IH staff in serving the communities in their care under most unusual circumstances.

Recommendations

RECOMMENDATION 1: The Interior Health Authority establish an emergency management culture within its organization that will see: (Fourteen operationally specific bullets presented in report specifying requirements for adopting an emergency preparedness culture.)

RECOMMENDATION 2: The Ministry of Health in conjunction with HAs, should establish Health Emergency Management Assistance Teams based on a provincial cadre of experienced health emergency managers to assist or augment local health emergency management organizations.

RECOMMENDATION 3: Interior Health should fund a dedicated full time Authority-wide emergency planner.

RECOMMENDATION 4: The Interior Health Authority should ensure that its state of preparedness plan includes a quantified Risk Management assessment that ranks the likelihood of emergency situations arising, their relative impact in terms of program disruption and cost of not being prepared.

RECOMMENDATION 5: The Interior Health Authority should ensure that key personnel in each Service Area become acquainted with persons responsible for handling emergency situations in their communities and officials responsible for managing their PREOC.

RECOMMENDATION 6: The Ministry of Health should clarify how the BC Ambulance Services should optimally relate to the Health Authority structure and how both organizations can complementarily serve a continuum of health and social service needs at the community level during an emergency situation.

RECOMMENDATION 7: The Interior Health Authority should articulate its mission of serving clients in the community as well as patients under medical care in the community and in its hospitals among community leaders involved in emergency management.

RECOMMENDATION 8: The Ministry of Health Services should assess and define the relative roles, responsibilities and liabilities between Health Authorities and licensed private care providers in times of emergency.

RECOMMENDATION 9: The Interior Health Authority, in collaboration with the PHSA should institute discussion / research to learn about how the BC Cancer Agency utilized its skills in managing its incident command structure during the 2003 Fires.

RECOMMENDATION 10: The Interior Health Authority in consultation with the PHAS should include all BCCA facilities in its emergency preparedness plans.

RECOMMENDATION 11: The Ministry of Health Services should, possibly in association with the Justice Institute of British Columbia, develop a comprehensive emergency management education program for the BC health sector.

RECOMMENDATION 12: The Ministry of Health should formulate a policy around reimbursement arrangements relating to the involvement of fee-for-service physicians in emergency preparedness and management at the regional level.

RECOMMENDATION 13: The Ministry of Health should develop a marketing strategy for informing British Columbians about how to use BC Nurseline during an emergency and according structure BC Nurseline to fulfill such a role.

RECOMMENDATION 14: Interior Health Authority should explore the feasibility of creating an IH wide network of physicians who have a professional interest in emergency management.

RECOMMENDATION 15: The Interior Health Authority should develop a strategy for defining how front line physicians could serve in an IH-wide emergency preparedness strategy that builds on and complements the prevailing disaster site plans available in IH hospitals for utilization in “non-traditional” settings for healthcare.

RECOMMENDATION 16: The Interior Health Authority should include in its emergency plan arrangements for establishing non-traditional health settings that provide psychosocial support for persons who have been traumatized but are not physically sick, including first aid / stabilization function as part of a regional triage system.

RECOMMENDATION 17: The Ministry of Health should clarify the interface relationship between Health and the Emergency Social Services (ESS) during an emergency.

RECOMMENDATION 18: The Ministry of Health in collaboration with the BCMA should explore the opportunities for establishing a professional network of Emergency Medicine specialists across the province that can serve as physician leaders in times of crisis.

RECOMMENDATION 19: The Ministry of Health should explore the opportunities for using Voice Over Internet Protocol (VOIP) as an option for improving communications during an emergency as an alternative to use of teleconferencing technology.

RECOMMENDATION 20: The Ministry of Health should review relationships among BC Ambulance Services, BC Bedline and BC Nurseline so that all agencies serve to optimally complement each other during a provincial emergency situation.

RECOMMENDATION 21: The Ministry of Health should develop a province wide emergency response capability that is recognised as taking advantage of the new organizational structures and relationships arising from devolution of its authority to the regions without being seen as interfering in Health Authority jurisdiction.