

Evolving Emergency Response Technology and its Impact:**AHS consolidates four EMS dispatch services.****By: Gabriel Hartzler****Abstract**

The paper analyzes Alberta Health Services (AHS) Emergency Medical Services (EMS) consolidation of four municipally run dispatch centres. The article focuses on the effective risk communication strategies employed by AHS EMS and the strategies that were not effective. The article utilizes work from Boholm (2019), Cannon (2013), Wray et al. (2006), and Covello et al. (1989) to analyze the risk communication methods used by AHS. The articles provide strong recommendations that could have improved AHS's overall risk communication during the six-month consolidation period, such as improving stakeholder engagement by acknowledging their needs and concerns, improving public trust, and being truthful and honest with interest groups.

Key terms: Dispatch consolidation, emergency medical services, risk communication.**Research Question**

What are the most effective risk communication responses for the successful implementation of a new emergency response system?

On August 4, 2020, Alberta Health Services (AHS) disseminated a news release indicating the organization's intention to consolidate four emergency medical services (EMS) 911 dispatch centres over a period of six months (Lawrence, 2020, p. 1). This major health announcement triggered an array of mixed reviews from a variety of publics with some voicing major concerns. The concerns came from four municipalities: Calgary, Lethbridge, Red Deer, and the Municipality of Wood Buffalo. The four cities would have to transition the control of the ambulance dispatch system to the provincial health authority and could no longer dispatch their local ambulances.

AHS and the Alberta Government began to receive criticism over the decision from the municipalities who were vocally opposed to the transition. The four municipalities began a coalition to fight back against the decision which garnered media attention, social media activity and raised concerns amongst citizens. This attention required a risk communication strategy from AHS EMS to respond to the opponents of the move to consolidated dispatch. In this paper, I argue that AHS EMS effectively communicated during this transition, but had the ability to improve their risk communication by acknowledging the needs and concerns of their stakeholders and responding accordingly (Wray et al., 2006, p. 46). The case study highlights both positive and negative qualities of AHS EMS's communication approach and provides recommendations for future criticisms.

Literature Review of Risk Communication Responses

The following literature review assesses government risk communication responses and assessment of the positives and negatives of a consolidated dispatch system. The literature review, organized chronologically, includes work from Boholm (2019), Cannon (2013), Wray et al. (2006), and Covello et al. (1989).

Boholm (2019) completed a qualitative study on risk communication at government agencies. The study completed in-depth interviews with employees from six different groups within the Swedish government (p. 158). The author broke down the interview questions to discuss good and bad examples of risk communication and discussed specific case studies determining their level of success. The results showed that the different government agencies utilized risk communication to engage with the public, share information with other government agencies about policy, and interact with stakeholders of interested organizations (p. 165). The interviews determined a set of themes that were interconnected with the successfulness of the risk communication. These themes included: organizational planning and decision making, collaboration and responsibility, knowledge and understanding, available resources, the message, public trust, and the media.

Cannon's (2013) paper analyzes the practicability of consolidated police dispatch centres in a rural county in Texas. The paper presents two positions on the issue, one in favour and one against. Research showed that consolidated dispatch centres have been successful in other regions and would provide improved coordination, resource allocation, and service quality for citizens (p. 15). Negatives indicated that the consolidation would be a large logistical challenge and would require additional planning, staffing, and equipment. Overall, Cannon (2013) argues that a consolidated dispatch system is more desirable as it supports the increasing amount of call volume by spreading call loads, utilizes advancing technology to improve service delivery, and will reduce costs over the long term (p. 2).

Wray et al. (2006) evaluate the role risk communication has during an emergency response after a terrorist event. The paper assesses the importance of trust and the perception of the government entity during a crisis. The authors noted that "effective risk communication calls

for an interactive approach; communicators need to acknowledge the needs and concerns of the public and respond accordingly.” (p. 46). An interactive approach allows the government to build public confidence, which is essential during an emergency. The study utilized focus groups which were used to comprehend messaging and the importance of trust. Trust is based on three elements: public perceptions of government, personal experience, and trustworthy organizations (p. 48). Ultimately, the focus groups indicated that there was distrust in government and required relationship rebuilding to increase trust between the government and its citizens (p. 67).

Chapter one of Covello et al. (1988) highlights principles and guidelines for improving risk communication within government organizations. The authors break down the principles and guidelines into subcategories including communication philosophy, planning, evaluation, message sources, message design, delivery channels, and target audiences (p. 5). The principles highlighted throughout the text attempt to address the problems within government risk communication. Covello et al. (1988) note that, “in many cases, government agencies have simply not been effective in communicating risk information to the public.” (p. 16). The authors indicated that the use of these principles and guidelines will address risk communication problems, open new dialogue and debate within government agencies to improve on previous risk communication failures.

Dispatch Consolidation Case Study

In 2008, the Alberta Government made the decision to start Canada’s first province-wide, fully integrated health system known today as Alberta Health Services (AHS, n.d.a, p. 1). The new system had the goal of bringing the same healthcare quality to all Albertans no matter their geographic regions. This led to AHS EMS consolidating approximately 60 per cent of Alberta’s population under a single dispatch system the following year (AHS, n.d.b., p. 1). The new system

directed EMS 911 calls to three provincial communication centres (Appel, 2021, p. 1). The remaining 40 per cent of Alberta's population was dispatched by four municipally operated dispatch centres in Calgary, Lethbridge, Red Deer, and the Municipality of Wood Buffalo.

The initial consolidated dispatch system was touted as a success by AHS and the organization stated they had “an outstanding record of timely response and successful outcomes” (AHS, n.d.b., p. 1). Since the initial consolidation, AHS EMS had plans to bring the remaining four dispatch centres under the control of the provincial dispatch system. This was supported by the Ernst and Young AHS review which indicated that they should “consolidate regional dispatch operation into EMS communication centers” and terminate the municipally run dispatch centres (Ernst and Young, 2019, p. 69). Following the review, AHS announced in August of 2020 that they would consolidate the remainder of the dispatch system and begin the transition process over a period of six months.

Following the announcement, AHS EMS and the Alberta Government began to receive backlash on the issue. The four municipalities voiced their strong opposition against consolidation and joined together to fight against the new system. This began to draw increased media attention and social media activity that began to raise citizen concerns. The mayors of these cities effectively raised their worries through media scrums, social media, and formal letters that were sent to the health minister and premier. The City of Red Deer argued that citizens would notice the following impacts: Slower response times, inefficient use of resources, lack of integrated emergency response, non-locals taking calls, delayed rural response, strain on fire resources, no cost savings, and challenges with maintaining ambulance complement (The City of Red Deer, n.d., p. 1). These issues were common across all four municipalities and were refuted by AHS EMS.

AHS argued that dispatch consolidation would improve patient care, coordination of resources, and fiscal efficiency. Similar responses were mentioned as positives in Cannon's (2013) paper on police dispatch consolidation. In his paper, he states:

While research in this subject sometimes varies from positive to negative, the conclusion to be drawn from this paper will strongly support the desire and need for a consolidated dispatch operation. Such an effort would deliver significant benefits in resource sharing by spreading a call load across a pool of call takers and would provide for better resource coordination and crisis management. (Cannon, 2013, p. 2)

Resource coordination was a strong reason provided by AHS for consolidation. The organization highlighted the unnecessary coordination required for dispatching inter-facility transfers and the management of multiple resources from different jurisdictions (Lawrence, 2020, p. 1). It includes the better coordination of air medical transportation, community paramedics, and medical first responder partners such as fire departments. The removal of geographic borders was highlighted as a positive for patient care. It would allow for the nearest available ambulance to be dispatched regardless of geographic boundaries (AHS, n.d.b., p. 1). The consolidation would result in a significant cost savings of over \$6.2 million annually which would allow for funding to be directed elsewhere in EMS, such as frontline paramedics (p. 4).

Over the six-month transition period, the provincial health system and the four municipalities communicated back and forth sending letters to each other expressing each other's concerns and opinions. The first transition took place on January 12 with Red Deer and Lethbridge. On January 19, the Regional Municipality of Wood Buffalo lost control and finally, on January 26, the entire province of Alberta was now dispatched by three AHS communication centres located in Peace River, Edmonton, and Calgary. To this day, the four municipalities continue to fight for the reversal of the decision.

A timeline of events that took place since August 2020 is imperative to showcase the response from AHS and the municipalities (see Figure One).

Figure 1: AHS Dispatch Consolidation Timeline

- *August 4, 2020:* Dispatch consolidation announced using a news release and information shared via social channels
- *September 16, 2021:* AHS responds to false claims of consolidated dispatch error
- *September 21, 2020:* Social media posts infographic of new system process
- *September 28, 2020:* Health Minister video released on AHS YouTube channel
- *September 29, 2020:* General information about consolidation shared through social media channels
- *October 2, 2020:* MFR alerting & OLMC explanation videos released on AHS YouTube channel
- *October 20, 2020:* FAQ on EMS dispatch released on website and in a news release
- *November 2, 2020:* AHS EMS officials present at Calgary City Council
- *January 11, 2021:* The four municipalities host a media event to highlight concerns
- *January 12, 2021:* Red Deer and Lethbridge dispatch transition with corresponding social media posts the following day
- *January 19, 2021:* Regional Municipality of Wood Buffalo dispatch transition with corresponding social media posts
- *January 26, 2021:* City of Calgary dispatch transition with corresponding social media posts
- *February 1, 2021:* Municipalities Mayors send letter highlighting consolidation failures
- *February 1, 2021:* AHS responds to consolidation failures letter using social media channels
- *February 10, 2021:* AHS statement on Wood Buffalo's intention to no longer transfer 911 calls
- *February 11, 2021:* EMS posts feature story about dispatch consolidation success
- *February 11, 2021:* AHS posts on social media about the Regional Municipality of Wood Buffalo injunction
- *October 13, 2021:* Official complaint filed with Alberta Ombudsman regarding consolidated dispatch

Risk Communication Response Analysis

Risk communication plays an important role when the government implements changes that are going to have an impact on people. After announcing the plans for an integrated dispatch model, AHS began utilizing different communication channels to engage with their key publics. This included the use of news releases and social media platforms such as Facebook and Twitter. This was a very important component of the consolidation process as it was a large change to the public health care system and was expected to affect 40 per cent of Albertans. Wray et al. (2006)

highlight the importance of engaging with stakeholders as “effective risk communication calls for an interactive approach; communicators need to acknowledge the needs and concerns of the public and respond accordingly” (p. 46). AHS followed this strategy and implemented a communication approach that involved the development of a website, YouTube videos, and frequently asked questions. The website included all these communication tactics and thoroughly described how the new system would work. They reiterated their key messages including the fact that 911 callers will notice absolutely no change when they call for an ambulance (AHS, n.d.b., p. 1).

Boholm (2019) says, “risk communication and its effectiveness are understood as an activity comprising particular organizational goals and the actions directed towards fulfilling those goals” (p. 165). To successfully reach AHS’s organization goal of integrating dispatch, they required public trust that included messages that reassured and created a sense of safety and security (p. 163). This was made difficult for them as the four municipalities began a campaign that strongly opposed consolidation and raised questions about public safety. These messages included the risk of delayed response times, dispatch errors, and lack of resource availability. AHS responded in a timely manner to these fears utilizing their social media feeds and website to address the apprehensions. For example, on February 1, 2021, the four municipalities’ mayors sent a letter to the provincial government indicating that there had been dispatch failures. AHS responded on their social media feed on the same day disputing those claims.

In November of 2020, AHS EMS presented to the Calgary city council on the proposed consolidation process. Calgary city council grilled the chief paramedic and one of the vice presidents of AHS on the proposed plan (Smith, 2020, p. 1). Council asked for tangible data that would indicate how the previous consolidation has affected other communities. AHS EMS was

not able to provide the data at that time. Wray et al. (2006) note that guidelines for crisis communication should be “truthful, honest, frank and open to ensure effective outcomes.” (p. 47). This was something AHS failed to do throughout the consolidation process. Many stakeholders requested more data to prove the claims AHS was promoting. AHS has made response time statistics available publicly online, but did not provide the specific data that the stakeholders requested. This caused their stakeholders to become even more agitated with the situation. This is something Covello et al. (1988) recommended against. For improved risk communication, organizations should “reduce levels of public outrage” and “better inform individuals and communities about agency procedures, processes, and decisions” (p. 4). By implementing the 12 guidelines, AHS EMS could have prevented unnecessary public criticisms.

Future Recommendations

Since the topic is controversial, it is recommended that AHS continues providing risk communication through various communication channels. The municipalities recently filed a formal complaint to the Alberta provincial ombudsman and are requesting a third-party review (Rieger, 2021, p. 1). The organization also continues to come under fire for EMS response times and ambulance shortages. The health authority must showcase that this is not from dispatch consolidation as EMS dispatch times continue to improve (Appendix A) as response times continue to increase (Appendix B) due to the lack of paramedics and ambulances.

Conclusion

Overall, AHS EMS was successful in consolidating the remainder of Alberta’s EMS dispatch system. Their risk communication strategy was effective but required closer attention to the needs of their stakeholders which included the four municipalities of Calgary, Red Deer, Lethbridge, and the Regional Municipality of Wood Buffalo. The three risk communication

papers by Boholm (2019), Wray et al. (2006), and Covello et al. (1989) provide recommendations for successful risk communication. AHS EMS followed many of these recommendations but could have improved in other areas. Organizations such as AHS EMS must understand that:

Citizens are often equally frustrated by the government's seeming disinterest in their concerns, unwillingness to take action, and reluctance or unwillingness to allow them to participate in decisions that intimately affect their lives. (Covello et al., 1988, p. 3)

If AHS EMS showed their stakeholders that they were interested in their concerns and were going to take action to address them, they would have had a smoother transition process to their new borderless dispatch system.

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Appendices

Appendix A

Time to Dispatch First Ambulance

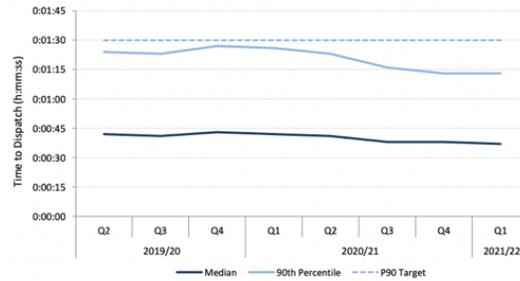
Time to Dispatch First Ambulance measures the time it takes the Dispatch Emergency Communications Officer (ECO) to verify the location of the emergency, identify the closest ambulance and alert the ambulance crew that they are required to respond. This time interval starts with the receipt of the call into the AHS EMS dispatch centre and ends with the notification of the closest ambulance crew. The Dispatch ECO will continue to gather information and provide further instructions while the ambulance is responding to the emergency. The data provided only represents emergency calls requiring a lights and siren response.

AHS has implemented target of 1 minute and 30 seconds at the 90th percentile (P90). The target is met when the 90th percentile line is below the dashed target line.

The Median is the value at which half the intervals are above and half are below.

The 90th percentile is the value at which 90% of the intervals are below.

HQCA quality dimension: Accessibility



SOURCE: Alberta Health Services. (n.d.c). Quarterly emergency medical services dashboard

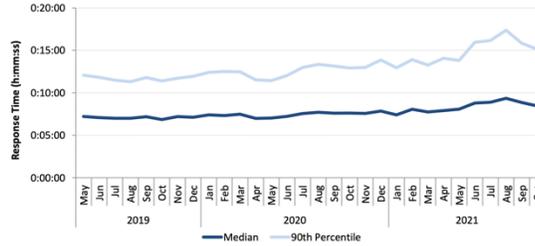
[Graph]. *AHS EMS*. Retrieved November 23, 2021, from

<https://www.albertahealthservices.ca/assets/info/ems/if-ems-dashboard.pdf>

Appendix B

Calgary Response Time for Life-Threatening Events

Response Time is the time elapsed from when a call is received at an EMS dispatch centre until the first EMS unit arrives on scene.
 Response time is calculated for events thought to be life-threatening at the time of the 9-1-1 call. These events are a subset of the total number of Emergency events.
 The median is the time at which half the response times are above and half are below.
 The 90th percentile is the time at which 90% of response times are below.



SOURCE: Alberta Health Services. (n.d.d). Montly emergency medical services activity summary

[Graph]. *AHS EMS*. Retrieved November 23, 2021, from

<https://www.albertahealthservices.ca/assets/info/ems/if-ems-event-calgary.pdf>