DISCUSSION AND DEBATE

How Good Reforms Fail: The Warning Example of Alberta's Borderless EMS System

Comment les bonnes réformes échouent : l'avertissement du système des SMU sans frontière de l'Alberta

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Abstract

When ill, many Albertans' first interaction with their healthcare system is Alberta's centralized emergency medical services (EMS) system operated by Alberta Health Services (AHS). The media has become saturated with articles articulating concerns about lagging response time, limited ambulance availability and poor work conditions. As Alberta undergoes restructuring of the EMS system by Alberta Health and AHS, there are lessons to be learned from prior EMS restructuring. It is crucial that front-line paramedics are heard and

their concerns addressed regarding implemented policies. Several policy recommendations focus on optimizing operations and improving the working environment for paramedics in the long term.

Résumé

Lorsque les Albertains sont malades, leur première interaction avec le système de santé est le système centralisé des services médicaux d'urgence (SMU) de l'Alberta, géré par les Services de santé de l'Alberta (SAA). Les médias sont saturés d'articles faisant état de préoccupations au sujet du retard dans le temps de réponse, de la disponibilité limitée des ambulances et des mauvaises conditions de travail. Alors que les SAA et Santé Alberta procèdent à une restructuration du système des SMU, il y a des leçons à tirer des restructurations antérieures. Il est crucial que les ambulanciers paramédicaux de première ligne soient entendus et que leurs préoccupations concernant les politiques mises en œuvre soient prises en compte. Plusieurs recommandations de politiques sont axées sur l'optimisation des opérations et l'amélioration à long terme de l'environnement de travail pour les ambulanciers paramédicaux.

Introduction

Across Canada, long emergency medical services (EMS) response times continue to make headlines. The reality beyond the headlines is the implications of not getting emergency care when you need it most. With the current restructuring of Alberta Health Services (AHS) and Alberta Health, there are important lessons to be learned from prior EMS restructuring. Red alerts (Raymond 2024) and long EMS response times are visible and concerning indicators of increasing workloads and inadequate capacity but also of broader governance failures in the health system overall (Kreindler et al. 2022). A fundamental lack of staffed ambulances is a predominant driver of deterioration in these indicators, but this challenge also reflects broader inefficiencies that compromise staffing or appropriate use of available resources. The challenges within EMS have a longer-standing history (particularly with increasing call volumes and staffing shortages), and provincial health systems have for some time been adjusting and adapting practices in an effort to reduce wait times and maintain quality of care. In this commentary, we discuss Alberta's implementation of a borderless EMS system as a case study. First, we focus on how policy decisions targeting restructuring can fail to generate expected improvements when broader issues remain unaddressed. Based on analysis of interviews with paramedics in Alberta (Newton et al. 2024), we then discuss how this current crisis in EMS service delivery can be addressed with more comprehensive operational enhancements, measures to empower paramedics to deliver more efficient and effective care, as well as supports to create a more sustainable and resilient staffing model.

The Shift to a Borderless EMS System in Alberta

In 2009, Alberta implemented a borderless, provincially funded EMS system. This restructuring was aimed at significantly enhancing service delivery by optimizing resource availability and use across the province, formally integrating EMS into the healthcare system and assuming management of services from disparate municipalities. Instead of geography determining which municipal ambulance would respond to an emergency, a borderless EMS system meant that the closest ambulance would respond to an emergency regardless of the municipality it originated from. This reform also standardized treatment practices across Alberta, an important step to ensuring that patients across the province received consistent and appropriate care. Under AHS, resource management became more efficient and responsive, with one unified system sharing scarce healthcare resources. Finally, this policy also brought the benefit of online medical consultation, improving data management and eliminating the need to compile disparate data from different regions, enabling performance to be better tracked (Rusjan and Kiauta 2019) and audited by AHS.

Unfortunately, even seemingly sound health system reforms can fail to achieve the intended impact when broader issues remain unaddressed. These common-sense reforms were designed to enhance integration, standardization and efficiency by eliminating regional resource disputes and response time discrepancies with improved province-wide service delivery (AHS 2009). The borderless system explicitly aimed to efficiently optimize use and distribution of ambulances across the province: ambulances would now *flex* or move to cover other communities when their ambulances are out on calls or unavailable due to staffing shortages.

These best-laid plans resulted in negative impacts on rural communities. Larger communities are structurally inclined to poach resources of smaller ones: larger centres such as Calgary and Edmonton had higher overall call volumes and were a natural magnet for units in the surrounding communities. This meant small communities did not have emergency units positioned to respond. Data from 2023 show that rural emergency ambulances surrounding Calgary were called into Calgary 1,178 times in a year, or 98 times a month, just for non-urgent inter-facility transfers alone (Offin 2024). Considering paramedics can generally respond and transport up to four emergency calls in a 12-hour shift, this number represents considerable non-urgent EMS utilization. With only one or two ambulances, rural communities were left vulnerable, with potential response times getting dangerously long once their home units were diverted elsewhere.

With respect to the borderless system resulting in frequent and prolonged diversions of units away from their home communities, this continues to have outsized counterproductive effects on costs, efficiency and staff burnout. The reforms were also a strong contributor to worsening staffing issues and burnout, as being drawn far from home for the majority of their 12-hour shifts is needlessly and frequently pushing paramedics into overtime, because after providing care to those in urban centres, these crews need to restock and return to their home communities. As a result, economic efficiency is reduced because of increased

staff costs (Ryan 2021). The strain on paramedics has led to more than 80,000 vacant hours according to data from January 1, 2023, to October 27, 2023, and full-time staff leaving positions to work part-time or casual, which reduces the reliability of the workforce (Villani 2024). For paramedics, increasing call volumes, staffing shortages and emergency department (ED) waits have all contributed to a more difficult work environment and increased expectations that EMS serves as a catchall backfilling other healthcare gaps across the province (Bellefontaine 2023; Rumbolt 2018). The specific challenges that paramedics in Alberta face highlight the nature of most other pressing multifactorial health system challenges in Canada. Health professionals consistently report being overworked (Jones 2022), unable to adequately fill their intended roles and struggling to provide quality care because of broader system factors.

As a paramedic working in this system, JN (the lead author) experienced first-hand the challenges and consequences of system dysfunction and ever-longer response times. This led the lead author to ask why conditions seemed to worsen after this reform was implemented. Our 60- to 90-minute virtual interviews with front-line providers (Newton et al. 2024) suggest that today's perceived failures (Ryan 2021) of the borderless system mostly do not reflect fundamental flaws in the policy itself but rather an ongoing lack of resources and support for EMS providers overall, which is not just limited to Alberta. Worsening metrics include evidence from December 2021 showing that in Calgary and Edmonton, there were 695 red alerts – meaning no available ambulances in either city for a portion of time (Easton 2022). Such critical shortages likely reflect inadequate accommodations for increases in call volumes – up by 39% since 2017, with a disproportionate increase in rural Alberta (PWC 2022). Research suggests that the predominant drivers of these increases in call volumes are (presumably predictable variables of) population growth and an aging population (Toloo et al. 2011).

Addressing Core EMS Policy Issues

Addressing the long EMS response times is a critical issue that requires action. While a reversion to fractured service and inefficient local municipal fiefdoms is clearly undesirable, re-institution of some guardrails (at least temporarily) to address these identified shortcomings of the borderless system is likely necessary before long-term solutions can be formally put into place. Participants in our qualitative research referenced First Nations communities (with independent EMS services) responding outside their geographic area only for higher acuity calls, as well as considering more thoughtful minimums for safe coverage of specific geographic areas before dispatching the remaining available units to other areas (Newton et al. 2024). This specific policy at least helps ensure that First Nations communities have an available ambulance. For EMS, thoughtfully deploying new resources to directly increase staffing and unit availability across all areas of the province is a crucial first step to ensuring efficient service delivery and patient safety, but special attention needs to be directed at

the deeper compounding problems that nullify or undermine any benefit of new or redeployed resources.

Broader solutions, expected to be more durable and impactful, again need to concurrently address a multitude of interconnected factors (Government of Alberta 2022; Newton et al. 2024). Often, these measures will be part of broader health reforms to address issues like ED overcrowding with knock-on effects that put timely and effective EMS service in peril. One recent example highlighted by our research participants was AHS's implementation in March 2023 of improved monitoring and enforcement of a targeted 45-minute hospital offload time where hospital EDs were obligated to assume appropriate patient care rapidly so that paramedics could return to the community within the 45-minute timeframe. Early indications from our research suggest that the change has been transformative in improving the availability of EMS resources and in boosting morale (Newton et al. 2024). However, participants were aware of how this then shifts the workload to staff in the ED. Some evidence has shown that this can improve the length of stay and reduce the time to treatment, possibly translating to improved patient-centred outcomes (Crilly et al. 2020).

Further recommended reforms also supported by the Alberta EMS Provincial Advisory Committee include education and resources to reduce low-acuity calls and to find ways to empower paramedics to safely and efficiently connect patients with appropriate alternate venues for more urgent (but not emergent) care (Government of Alberta 2022; Newton et al. 2024; Sporer 2017). Supporting EMS in this manner by providing the capability for operational flexibility improves efficacy and also helps avoid crippling bottlenecks like ED offloads. Solutions like this that integrate with the broader health system require careful investment in staff and resources beyond the most traditional of EMS roles. The expansion of community care paramedics is a crucial option to directly provide urgent care (instead of the emergent care, which EMS is designed to respond to) and has shown to be a cost-effective strategy in Ontario (Xie et al. 2021).

In addition to these operational enhancements, addressing the EMS working environment is also critically important for ensuring a sustainable prehospital health system (Cash et al. 2019). In the context where burnout and attrition are prominent contributors to the staffing issues most EMS systems face (Basnawi 2024), our research participants frequently highlighted how informal expectations of being a touchstone for patients unable to otherwise access community services was a major contributor to increased workload, frustration and stress (Newton et al. 2024). Conversely, properly equipping, supporting and empowering providers promises to be a powerful intervention to counter this burnout that is compromising staffing levels (Ericsson et al. 2022). Supports that can alleviate the workload and concurrently enhance morale for EMS include effective shared 811 response, mobile outreach teams, more innovative and flexible scheduling and utilizing the full scope of practice. If progress can be made in this regard, a virtuous circle may be able to take hold where enhanced staffing supports an arrest in attrition that allows the system to function in the manner intended.

To support and complement this imperative of empowering providers, front-line providers also recommended that mentorship programs and allowing rotation through more diverse EMS positions could further reduce burnout and attrition. With a large and constant influx of young practitioners, mentorship programs are needed to support new hires with clinical knowledge and also to create a supportive, safe environment to ask questions (Burgess et al. 2018). Diversifying positions to incorporate more education, training and (perhaps most critically) consistent alternative daytime clinical work (such as community paramedicine) into regular schedules could dramatically alleviate provider stress. The steps to achieve this involve EMS system administrators, consulting with front-line staff and developing positions that incorporate new roles progressively and effectively into daily operations. Harnessing these existing desires within the profession to provide more diverse and effective care must therefore concurrently use human resource management strategies that explicitly look beyond short-term crises and instead focus on the (more critical) longer-term health of the EMS workforce. Administrators need to be supported in being less reactionary and avoid chasing short-term metrics (or placating political pressure) by placing undue demands on providers (such as not limiting involuntary overtime), especially vulnerable junior paramedics whose retention is essential to the health of the prehospital care system.

System Reform Cannot Happen in Isolation

System-level reforms that fall short in achieving the intended impact is a common experience across many Canadian health systems. Policies aimed at restructuring should be proactive in thinking through unintended consequences. Recent failures to accommodate broader stresses on the emergency response system turned strengths of the streamlined province-wide borderless approach into a weakness – namely, the seemingly obvious benefits of breaking down borders.

This EMS case study highlights that effective change is hard and multiple strategies are needed to address the multifactorial problems plaguing Alberta's and other provinces' EMS systems.

Conclusion

Overall, the current predicament that Alberta's borderless EMS system finds itself in is a strong example of how even advantageous and seemingly common-sense health system reforms can still fail to make more substantial impacts when broader issues remain unaddressed. Effective reforms must always work to identify structural impediments to their intended mechanisms of success and strive to mitigate factors that could attenuate or sabotage hoped-for improvements. For this example, we have discussed the potential efficacy of more ambitious operational and cultural changes in supporting staffing and allowing the implemented borderless system to function as effectively and as intended. In EMS and other health sectors, policy makers in Alberta and across Canada need to demonstrate that they can learn from similar experiences with past reforms and address such complexities. Albertans and Canadians do not have the time to wait.

Declaration of Interest

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