Influenza Immunization Data: Can We Make Order Out of Chaos?

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The 2009 H1N1 pandemic vaccination campaign was an excellent opportunity to witness the many benefits of collecting individual-level immunization data at the point of vaccination. Most provinces and territories required the reporting of at least partial demographic vaccination data from their local public health agencies, so timely vaccine coverage data were available to inform operational planning and infection prevention activities.

Many provincial and local public health agencies are now building on this momentum and are incorporating similar data-collection approaches into their seasonal influenza vaccination campaigns. However, our research has shown a disconcerting lack of uniformity across the country in the collecting and reporting of data elements. We have reviewed related literature and consulted with various provincial and territorial ministries and healthcare professional organizations, and our findings confirm that this issue is even more pronounced in non-public health settings, where provincial and territorial standards mandating the systematic collection and central reporting of immunization data from physicians' offices, hospitals, pharmacies and private clinics are either absent or not enforced. Further, where physicians report immunization data to their local public health agencies, these do not typically extend beyond the number of doses administered (Carolyn Sanford, Prince Edward Island's Department of Health and Wellness, personal communication, August 23, 2010).

In jurisdictions where pharmacists have authorization to administer vaccines, immunization information (date, vaccine name/lot number) must be documented in each client's profile (Alberta College of Pharmacists 2009), but there are a lack of provincial standards around reporting to health authorities (Cheryl McIntyre, BC Centre for Disease Control, personal communication, April 19, 2011). In other pharmacy-based and workplace clinics across the country, privately funded vaccines are administered by nurses who report aggregate dose data to the employer and retain the client records (Nan Cleator, Victorian Order of Nurses Canada, personal communication, April 20, 2011). Where vaccines are publicly funded for these clinics, specific provincial and territorial reporting requirements vary broadly, ranging from an extensive list of data elements to aggregate counts for specific risk groups (Nan Cleator, Victorian Order of Nurses Canada, personal communication, August 9, 2010).

As well, we have observed substantial variation in the collection of immunization data for hospital-based healthcare workers, ranging again from aggregate counts of total immunizations to individual-level records containing medical history and immunization data (Russell and Henderson 2003). Therefore, it remains nearly impossible to ascertain whether vaccine coverage estimates are truly representative, particularly where vaccines are primarily delivered by community-based providers; without accurate and timely coverage data, it is immensely challenging to understand the nature of infection spread and mount a coordinated response.

Over the next five years, several provinces and territories will adopt Panorama, a public health application whose need was identified in the aftermath of the outbreak of severe acute respiratory syndrome (SARS). This initiative will *support the collection, analysis and dissemination of immunization and surveillance data for the management of infectious diseases* (KPMG 2009). At the same time, an increasing number of physicians are adopting electronic medical records, recognizing the advantages of storing client information electronically (Canadian Medical Association 2009). It is expected that infrastructure to link information from these two sources will ultimately be developed, providing an opportunity for the benefits of collecting comprehensive individual-level data to be realized at a population level.

In order to capitalize on these advancements, federal and provincial public health authorities must become actively engaged in discussions around these clinical data system functionalities to ensure they address present and future public health needs. The benefits of accurate vaccine coverage data can only be realized through the development of systematic data collection processes for common data elements at all public and non-public health vaccination settings across the country or, at the very least, the establishment of provincial-level immunization data collection standards.

The 2009 H1N1 pandemic reinforced the value of comprehensive and timely immunization data availability. Making changes to optimize data collection and the reporting of immunization information during seasonal campaigns across all vaccination settings will allow us not only to make better decisions about seasonal influenza control but also to strengthen our capacity to respond to the next public health emergency. HQ

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Primary Care Networks: Alberta's Primary Care Experiment Is a Success – Now What?

Dave A. Ludwick

Both Ontario and Alberta have undertaken fundamental health system changes in the past decade. Now, both provinces find themselves at a point where prudent consideration of the next steps is required. Ronson (2011) has summarized a prescription for Ontario's local health integration networks. Now, the same needs to be considered for Alberta's primary care networks (PCNs).

About Primary Care Networks

PCNs are Alberta's reform program for the province's primary care system. In 2003, Alberta Health and Wellness (AHW), the Alberta Medical Association and the then nine regional health authorities (now amalgamated into Alberta Health Services [AHS]) signed an eight-year trilateral master agreement to create PCNs (among other health programs) (Alberta Medical Association et al. 2003). Forty PCNs have since blossomed into nimble, effective healthcare organizations. Aggregately, PCNs receive just over $130 million per year in funding from public sources.

PCNs are funded through a capitation-based model. Using the four-cut method (Murray et al. 2007), AHW allocates patients to PCNs, paying them a fixed fee on a per-patient basis to operate locally developed programs. PCNs are joint ventures between the AHS local zone and local primary care physicians. Family doctors incorporate a private non-profit corporation to provide their suite of programs. The networks' day-to-day operations are governed by physician boards of the non-profit corporations at the city, town or county level. PCNs acquire approval for their funding by developing a business plan that describes the programs that physicians will put in place to improve local services. Programs most often focus on chronic disease management, mental health, women's health, and cancer care among many other programs. PCNs use most of their funding to hire an interdisciplinary team of nurses, pharmacists, dietitians, social workers and other professionals to deliver the programs. Business plans are renewed every three years by gaining approval from the provincial Primary Care Initiative Committee.

Many PCNs boast records demonstrating improvements in patients' health outcomes, reductions in wait times and improved integration with other local private and public health services (Alberta Medical Association 2011; Jones et al. 2011a, 2011b; Ludwick et al. 2010; R.A. Malatest and Associates Ltd 2011). Evidently, PCNs and their business plans are working. PCNs have facilitated significant improvements in patient attachment to family doctors, dramatic reductions in the use of

emergency room services, better use of screening tools in health promotion and disease and injury prevention and far greater patient satisfaction with regards to wait times (R.A. Malatest 2011). With the end of the trilateral master agreement, the question now becomes, what's next for PCNs?

Source of Success

PCNs' source of success can be found in the province's governance model, which focuses on trilateral governance. Localized decision-making is devolved directly to local primary care physicians who have been practising in the community for years. This decentralized approach has led to the creation of cost-effective, relevant programs that make sense for the local population. The local AHS zone co-governs PCNs with the physician boards to integrate services with those already provided locally by AHS and to oversee the fiduciary use of public funds. AHW, as the payer, focuses on value for money. Its role has centred on the development of policy and the assurance of PCN accountability to the public as demonstrated through reporting, research and evaluation. Alberta PCNs' "local solutions to local problems" approach, facilitated through trilateral governance, has resulted in physician-led, interdisciplinary team–based programs that positively impact local health issues.

Source of Constraint

Despite their success, PCNs have been frustrated by fiscal limitations. PCNs have been limited to the same funding amount since the program's inception eight years ago. Of course, the healthcare sector is no stranger to fiscal restraint, and PCNs would seem to be no different in this regard. Nonetheless, if funding followed performance, the track record would warrant further prudent investment in the model.

So, What's Next?

The Alberta primary care reform model has proven to be successful. Local physician boards have developed programs that have improved the health of their patients while reducing wait times. Primary care programs have offloaded patients from busy emergency rooms by attaching patients to family physicians and improving office operations so that family doctors can accommodate new patients. In my opinion, Alberta should adopt the "if it ain't broke, don't fix it" approach. The trilateral governance model has resulted in agile, efficient healthcare companies operated by physicians and their teams who know the needs of the local population. Still, there is opportunity to wring more from this innovative approach to primary care reform. A funding model indexed to the cost of living would permit PCNs to compete for needed health human resources to grow their success. With greater funding, PCNs would have the financial resources to assume other parts of the primary care domain. PCNs have done well to provide chronic disease and mental health programs as well as integrating with other local public and private health services. There is opportunity to leverage PCNs' winning formula by delegating responsibility for public health, home care, localized addictions services, ambulance services and other programs to the networks.

The Timing Is Right

The 2003 trilateral master agreement expired in March 2011. Both the Alberta Progressive Conservative party and the Liberal party have new leaders. With party leadership now in place, negotiations for a new trilateral agreement empowering PCNs with more scope could extend their success to other parts of the primary care sector. With more funding and more responsibilities, more Albertans would benefit. HQ

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