
DATE: January 10, 2011

REPORT TITLE: **PROVINCIAL AND NATIONAL POLICIES TO SUPPORT IMMUNIZATION RECORD SYSTEMS**

FROM: Janette Smith, Commissioner of Health Services
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RECOMMENDATION

That a renewed National Immunization Strategy, and particularly the formation of a national immunization registry, be endorsed;

And further, that the Medical Officer of Health be directed to pursue the issue of the unique identifier with the Chief Medical Officer of Health, the Privacy Commissioner and the Panorama information management system project team to establish feasible and acceptable uses of the identifier and to incorporate these into the new system;

And further, that the Regional Chair write to the federal and provincial Ministers of Health, the Chief Public Health Officer of Canada and the Canadian Public Health Association with a copy to Peel area MPs and MPPs to communicate the need for a National Immunization Strategy.

REPORT HIGHLIGHTS

- Immunization is widely considered one of the greatest achievements in public health in the 21st century and continues to protect our citizens from disease and death.
- The lack of a national immunization registry in Canada is a significant gap and should be addressed through leadership on the part of the federal government.
- The formation of a registry will serve as the foundation for other improvements such as harmonization of provincial schedules, improved equity and access, timeliness of new vaccine introduction and overall efficiency of the system.
- In the shorter term, use of a system of unique identifiers, such as the OHIP number, would increase the efficiency of the existing records system.

DISCUSSION

1. Background

Vaccination is widely considered one of the greatest achievements in public health in the past century. Diseases that caused widespread suffering and death such as smallpox, measles and polio have been eradicated or eliminated in Canada through the efforts of vaccination programs.

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Although Canada has well developed immunization delivery programs as part of our provincial health systems, there are no national standards or registry to measure our performance across the country. This leads to a patchwork of immunization schedules in different provinces, uneven access for children and adults, and ultimately an uncertain level of protection against disease in our population.

The absence of a national registry for immunization also significantly impact the resources required by Peel Public Health to collect and maintain immunization records and enforce requirements. A complex and labour intensive process requiring the engagement of parents, physicians and school boards is needed to ensure that students meet the immunization requirements and low risk for disease outbreaks is maintained.

To facilitate progress towards a national immunization strategy, the Canadian Public Health Association organized a roundtable discussion with stakeholders from government, industry and public health experts. Stakeholders agree that every child in Canada has the right to be protected against vaccine preventable diseases. They also agree that our current system could be improved for the betterment of all. Their perspectives have been collated in "Setting the Stage for Advancements in Immunization in Canada: Summary Dialogue" (Appendix I)

2. Findings

The following areas could be improved under a renewed National Immunization Strategy.

a) National Immunization Registry

The National Immunization Strategy was launched in 2003 and has been renewed once. It has primarily provided federal funding to provinces and territories to institute immunization programs for new vaccines. The impending renewal of the program presents an opportunity to integrate and harmonize provincial/territorial systems, particularly with respect to record systems.

The lack of a national immunization registry is a significant gap and should be addressed by federal leadership. A national registry, coupled to a reminder system, would improve coverage and ensure the accurate measurement of coverage, target setting, and cost benefit analysis. Any such national registry would require unique identifiers. A national registry would also significantly reduce the resources required at the local public health level to monitor coverage and enforce immunization requirements, by allowing for submission of records directly from physicians. Such a system is currently working effectively in Australia. The Panorama information management system, soon to be implemented across most of Canada, could form the basis of a national immunization record system. This system is compatible with the information architecture of the Electronic Health Record of Canada Health Infoway.

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Additional benefits of a National Immunization Strategy include:

(i) Harmonization of Vaccine Delivery and Equitable Access

Currently the immunization schedules differ in each province with select vaccines publicly funded for some Canadian children and not funded for others. A harmonized national schedule would improve equity across the country.

(ii) Efficient and Timely Introduction of New Vaccines

Although there are national oversight bodies for the regulation and recommendation of vaccines in Canada, the current system leads to redundant processes in each province and varying timelines for introduction of new vaccines. National oversight would improve efficiency and possibly reduce time taken for the introduction of vaccines into the publicly funded schedule.

(iii) Sustainable Funding

Creation of national oversight bodies for the establishment and functioning of registries, harmonization and vaccine introduction would require stable funding at the federal level. The renewal of the Health Accord in 2014 provides an opportunity to ensure a new national approach to immunization in Canada.

b) Need for a Unique Identifier

A national immunization registry will take some time to implement. Considerable gains could be made in the shorter term if a unique identifier were available for use in the current provincial data base. The most reliable and readily available identifier is the OHIP number however privacy legislation has not allowed its use for non-billing purposes. This increases the resources required to ensure that information for each individual is accurate and privacy of health records are maintained. As a result of advocacy efforts from Peel Public Health and other health units in the province, the Privacy Commissioner recently has allowed local public health units to consider using the OHIP number however the language remains vague with respect how to meet the requirements for use.

Rather than attempt to amend legislation to provide a clear mandate to use OHIP numbers as the unique identifier for immunization records, it would be easier to work with the Chief Medical Officer of Health, the Privacy Commissioner and the Panorama project team to establish feasible and acceptable uses of the identifier and to incorporate these into the new system.

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Proposed Direction

It is proposed that Council endorse the long term and short term directions described above, namely the renewal of the National Immunization Strategy, including a National Immunization Registry, and a clear mandate for the use of a unique identifier, such as the OHIP number, respectively.

It is recommended that support for the National Immunization Strategy be communicated to the federal and provincial Ministers of Health, the Chief Public Health Officer of Canada, and the Canadian Public Health Association, and that the Medical Officer of Health be directed to pursue the issue of the unique identifier with the Chief Medical Officer of Health, the Privacy Commissioner and the Panorama project team.



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Commissioner of Health Services



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Approved for Submission:



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c. Legislative Services

Canadian Public Health Association

Setting the Stage for Advancements in Immunization in Canada: Summary Dialogue

The following insights and recommendations are a result of an ongoing dialogue between the CPHA and key stakeholders from government, industry and the public health and health care sectors on the topic of Canada's current immunization environment, Canada's readiness for new developments in immunization and optimizing health benefits to all Canadians for future vaccine developments.

National Immunization Registry

The lack of a national immunization registry in Canada is a significant gap and should be addressed through federal government leadership.

An immunization registry that would connect provincial registries and act as a critical overall surveillance tool should be an integral part of any effective national immunization strategy. The registry—especially when coupled with a reminder system—would help increase uptake and ensure that universal mass vaccinations reach all segments of the population. It would also facilitate the transfer of patients' immunization histories to other regions, should patients move within Canada. It would also enhance national surveillance of vaccine-preventable diseases and help track adverse reactions to vaccines.

A national registry should record target rates, impact, surveillance, delivery and funding. Necessary steps include deciding on the keeper of the registry, identifying the necessary technology or software to capture the desired information and deciding on common definitions. Possible challenges to a national registry include funding and organizational structure.

Some Canadian jurisdictions have systems in place to keep track of immunization records, but communication among provinces and territories is non-existent. Despite the momentum for a national approach, stakeholders have identified the integration of provincial systems as a significant challenge.

Harmonization of vaccine delivery and equitable access

Canada currently lacks a harmonized cross-country routine immunization schedule. Stakeholders agree that one of the most important problems to be addressed in the federal/provincial/territorial (F/P/T) environment is the patchwork of vaccine scheduling across the country. In addition, some routine vaccines and vaccines for special circumstances are publicly funded in some jurisdictions but not in others.

Immunization schedules should be harmonized across jurisdictions; harmonization could still allow provinces to address localized outbreaks separately.

Living in a "have-not" region should not affect access to a routine NACI-recommended vaccine; nor should a move from one jurisdiction to another put a child or youth at increased risk for missing a vaccine because of regional variations in vaccine schedules.

The scheduling variability among the provinces is a holdover from the past, reflecting events that occurred before some vaccines became available. For example, when a variety of a particular new vaccine was introduced several years ago, some regions only came on board once they saw the federal government was ensuring that everyone could afford them.

Some Stakeholders have suggested that Canada adopt an immunization approach similar to that of the U.S. Centers for Disease Control and Prevention (CDC), combined with effective planning and outreach efforts. The CDC sets a national schedule for all 50 states and provides almost immediate funding once recommendations are made to use a particular vaccine.

On the issue of implementation, health care providers and parents remain confused regarding immunization schedules and service delivery. Targeting special populations is another concern.

Stakeholders have identified some issues that could stand in the way of harmonization:

- The federal government's ability to act will be limited if the provinces and territories do not agree.
- Without enough data, evidence and analysis, experts cannot achieve consensus on methods to harmonize schedules while accommodating local epidemiological conditions.
- The government tends to introduce new immunization programs when existing ones are problematic.

An optimal objective for harmonization would be to achieve consensus on a national schedule model by January 1, 2012. Implementation should be phased in afterwards, as two years does not allow enough time to both agree upon and implement the schedule.

Sustainable funding

Sustainable funding and service delivery vary across jurisdictions. Some jurisdictions have yet to harmonize their own internal processes. Public health funding is an important factor—provinces with the most financial support have the highest uptake on immunization.

Funding constraints can drive decisions regarding which vaccines to offer, as well as preferred delivery mechanisms. Many stakeholders feel the federal government should provide adequate and conditional funding to play an effective coordinating role. One suggestion was that provinces fund maintenance and upkeep of the immunization program while the federal government funds upfront costs.

Sustainable funding also constrains both pre and post-marketing surveillance, underscoring the need for joint efforts between government and industry.

Administration of the vaccine and resources

While school-based immunization is a viable vaccine delivery method for children and adolescents, reaching adults remains a challenge.

Interactions among various health care systems would make vaccination more convenient. If pharmacists, nurse practitioners or licensed practical nurses were allowed to prescribe, dispense and administer vaccines, outreach could be improved. While some stakeholders agree that public health provides a more

efficient immunization delivery system because of its consistency, others believe this would depend on factors such as volume, area and frequency.

Stakeholders suggest that vaccines be treated in the same manner as pharmaceuticals—they should be included in both public and private drug plans, albeit with strict parameters.

Stakeholders also note the difficulty in obtaining adequate funding for immunization delivery, which includes costs related to staffing, education and training in addition to the cost of vaccines.

Storage, packaging and shipping can also be complex and expensive—often more so for vaccines than for other products. Infrastructure challenges include the heavy-duty refrigerators and freezers required for storing vaccines, the alarm systems needed to monitor temperature and other factors such as the logistics and costs related to vaccine distribution and storage. Stakeholders agree that storage is a joint concern shared by industry and public health providers.

Alignment of timelines and committees

Since Canadian vaccines undergo a rigorous screening process before they are approved, overlaps and duplication in the work of review bodies tend to extend the approval process for new vaccines.

Some stakeholders have called for alignment of the various F/P/T committees' activities, noting that these could occur simultaneously, potentially speeding up the vaccine licensing process.

A shorter processing time is needed for vaccine evaluation. Currently, the process can remain in the first stage with Health Canada's Biologics and Genetic Therapies Directorate (BGTD) for up to two years, and then potentially spend the same amount of time with NACI, CIC, and the provincial review committees. Some stakeholders recommend concurrent evaluations, rather than the current linear process.

International best practices should be examined and case studies should compare approaches among major jurisdictions; data-sharing will be critical to reduce the vaccine evaluation timeline.

Fostering partnerships and communication between industry, government and public health stakeholders

Issues facing industry, such as funding and uptake, are similar to those faced by public health and government. It was generally felt that a more coordinated approach to vaccine development would engage all partners at an early stage, rationalize the development of vaccines, their use in public programs and foster greater collaboration among stakeholders.

Immunization programs should be based on disease epidemiology, the need for intervention and the public sector should support pre- and post-market research. This approach would create a true partnership "where we all have a say right from the start."

Sharing the data where possible and appropriate could help streamline the process.

Public confidence is the key to increased immunization uptake and coverage. Decisions on vaccines and their intended use must be free of political considerations—or the public perception of them. If the public

perceives that the pharmaceutical industry is playing an overly influential role, confidence will be damaged and will be difficult to rebuild. Participants agreed that a transparent partnership would be beneficial.

Industry members identified issues with the current purchasing process that treats vaccines as commodities. They noted that vaccines bring enormous value to Canadian society, but this value is not always recognized in the purchasing process. They suggested that public health should focus on the value vaccines provide, as well as their price.

Education and promotion

Although vaccines have provided tremendous benefits, public acceptance is the key to effectiveness for existing and new immunization programs. Unfortunately, public opinion has been increasingly challenged by concerns regarding vaccine safety.

In particular, anti-science lobby groups such as the anti-vaccine lobby have challenged the need for vaccines and have made strong, widely disseminated public statements about the alleged dangers of immunization. The media has picked up on this controversy, in many cases fuelling it, and creating a negative impact on vaccine knowledge, attitudes and coverage rates.

Recently, the balance has shifted away from recognizing the true benefits of vaccination, toward increased suspicion of adverse effects resulting from immunization. Dr. Butler-Jones commented that many discussions about the HPV vaccine are not about the vaccine itself but about surrounding social and ethical issues. Unfortunately, public misconceptions regarding vaccination tend to persist, despite the overwhelming body of scientific evidence demonstrating both efficacy and safety.

Effective vaccine education and advocacy programs are needed to help overcome resistance to vaccine acceptance. These programs would promote greater public confidence in immunization as the single safest and most effective public health intervention, especially when weighed against the health risks associated with many serious vaccine-preventable illnesses.

However, stakeholders agree that most jurisdictions currently lack the capacity and capability to effectively counter negative messaging and promote the importance of immunization. To overcome the effects of misinformation, information must be both accessible and visible—organizations should use social media tools and web pages to effectively disseminate key messages.

Moving Forward

During ongoing discussions, a number of issues were raised by stakeholders that have set the stage for further discussion on immunization in Canada:

- A national immunization registry should be implemented to connect provincial registries and act as an overall surveillance tool. Ideally, this registry would be backed by federal funding and would be accepted by all P/Ts.
- It was generally felt that consideration should be given to improving the national vaccine recommendation process by seeking ways to reduce redundancy between different administrative bodies, examining opportunities for point of engagement with key stakeholders and undertaking analysis simultaneously.

- There was a general desire to better empower NACI, especially given that its members act on a volunteer basis.
- Many stakeholders agree that sustained financial support from both levels of government would help achieve better results in immunization.
- Pharmacies can play a vital role as a locus of vaccine delivery, since pharmacists are uniquely placed to work directly with members of the public. They already use computers for record keeping and could communicate information electronically.
- There was general agreement that F/P/T government officials, public health authorities, vaccine manufacturers, researchers, and health care professionals, should work toward a comprehensive, coordinated framework for communicating with the public and other health providers regarding the benefits and potential risks of vaccination.
- Strategic public communication plans can help overcome negative perceptions of vaccines and enhance recognition that vaccines represent a worthwhile, responsible public health intervention.
- Evaluating a number of delivery systems would help establish a baseline for staffing and other resources required to implement immunization programs.

Conclusion

Stakeholders agree that every child in Canada has the right to be protected against vaccine-preventable diseases. Although Canada has a well-developed immunization system, some of the system's remaining challenges could be resolved through a strengthened national immunization strategy. This could include the creation of a national registry that would be backed by funding and accepted by the provinces.

A strengthened national immunization strategy, endorsed across all sectors, would facilitate multiple improvements to the current system and increased efficiencies. Improvements would include harmonization of childhood immunization schedules across the country, efficient introduction of new vaccines, sustainable funding, and improvements in public access to vaccines.

A strengthened national immunization strategy would also promote more and better opportunities for vaccine and immunization research, vaccine promotion and improved education of health care providers and the general public.