Introduction

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Background

The Alberta Immunization Program (AIP) outlines guidelines and recommendations for the provision of immunization services in Alberta. These guidelines and recommendations have been developed through consultation, literature review and policy development. The Canadian Immunization Guide (www.phac-aspc.gc.ca/publicat/cig-nci/index-eng.php) and recommendations from the current supplementary statements by the National Advisory Committee on Immunization (www.phac-aspc.gc.ca/naci-ccni/index-eng.php) (NACI) are additional sources of immunization information. Providers of vaccines should be aware of the contents of the relevant biological product monographs. Provision of immunization services within Alberta is directed by the policies, guidelines and standards contained within the AIP, which take precedence over those found in the Canadian Immunization Guide.

This policy document is available as a reference for immunizers in Alberta and will be updated on an ongoing basis. Questions regarding interpretation of the AIP should be directed to Alberta Health, Public Health and Compliance Division, Immunization Program or the regional (Alberta Health Services Zone) Medical Officer of Health (MOH)/designate.

Immunization is one of the most effective medical interventions to prevent disease. Immunization recommendations are based on scientific knowledge about the vaccine and immune system, epidemiology and burden of disease, vaccine safety, and a cost analysis of preventive measures. The benefits of immunization far outweigh any risks to a vaccine preventable disease.

Benefits of vaccines include complete or partial protection against vaccine-preventable diseases for the individual, society as a whole through herd immunity and prevention of outbreaks. Vaccines reduce health-related costs associated with vaccine preventable diseases including visits to health care providers, antibiotic use, hospitalizations, premature deaths, and parents lost time from work to care for sick children. Recommendations for immunization balance the individual and societal benefits against the potential costs and risks of the vaccine. See Biological Products for vaccine-specific information.

Federal Leadership

The Health Products and Food Branch, Biologics and Genetic Therapies Directorate (www.hc-sc.gc.ca/ahc-asc/branch-dirgen/hpfb-dgpsa/bgtg-dpbtg/index-eng.php) (BGTD) of Health Canada regulates vaccines for humans in Canada. Like all medicines, vaccines must undergo several stages of rigorous testing before they are approved for use. Before a vaccine is licensed for use by the BGTD, there must be evidence (clinical trials) to support the safety, efficacy and quality of the vaccine. Vaccine efficacy is the ability of the vaccine to confer protection against the target diseases, either directly in terms of disease reduction or indirectly in terms of elicitation of protective antibodies. Once the efficacy of a vaccine is proven, its effectiveness in public health practice is determined. This measure reflects the direct and indirect effects of immunization in a population under possibly suboptimal “real-life” conditions.

The BGTD also supervises all aspects of vaccine production by manufacturers. Before any vaccine is licensed and approved for use in Canada, the factory where it is manufactured must be inspected to ensure that all stages of production meet the requirements for safety, sterility and quality control. Before release by the manufacturer, each batch of vaccines is tested for safety and potency. Most safety tests are carried out both by the manufacturer and independently by the laboratory of the BGTD.

The Public Health Agency of Canada (www.phac-aspc.gc.ca/index-eng.php) (PHAC) is primarily responsible for policies, programs and systems relating to prevention, health promotion, disease surveillance, community action and disease control.

Adverse events following immunization (AEFI) are monitored by the Vaccine Safety Section. The Canadian Adverse Events Following Immunization Surveillance System (www.phac-aspc.gc.ca/im/vs-sv/index-eng.php) (CAEFISS) was developed to provide a national monitoring system for the reporting of adverse events and suspected adverse events following immunization. Non-nominal case reports of events temporally related to the administration of a vaccine are submitted voluntarily by health care providers through their provincial/territorial public health authorities. The reports are reviewed to detect vaccine safety signals including any unexpected or unusual AEFI.
The Vaccine Vigilance Working Group (VWWG) includes representatives from all federal, Provincial/Territorial immunization programs, Health Canada regulators and Immunization Monitoring Program, ACTive (IMPACT) and whose activities include providing a national vaccine safety sentinel network that can rapidly share and disseminate information to appropriate stakeholders regarding vaccine safety issues or signals.

Additional surveillance to supplement the passive reporting system is also in place. Since 1990, IMPACT, an active, pediatric hospital-based surveillance program (www.cps.ca/impact) has searched admissions for events that may be related to severe vaccine-associated adverse events, vaccination failures and vaccine preventable infections. The pediatric centres involved encompass 90% of all pediatric admissions to Canadian academic centres.

Alberta guidelines pertaining to the management and reporting of adverse events following immunization are provided separately in Adverse Events Following Immunization (AEFI) Policy for Alberta Immunization Providers.4

The National Advisory Committee on Immunization (NACI) is composed of experts from across the country in areas such as public health, infectious diseases and pediatrics. This committee provides the PHAC with ongoing and timely medical and scientific advice related to immunization. Recommendations from the NACI on the use of vaccines in Canada are published in the Canadian Immunization Guide.1 Regular supplementary statements by the NACI are published in the Canada Communicable Disease Report (www.phac-aspc.gc.ca/publicat/ccdr-rmtc/) (CCDR). Adjustments to vaccine schedules and selection of vaccines are based on NACI recommendations.

The Canadian Immunization Committee (CIC) is a Federal, Provincial and Territorial (F/P/T) committee reporting to the Communicable Disease Control Expert Group operating within the Public Health Network of the PHAC. The mandate of the CIC is to provide a national forum for public health to implement the objectives of the National Immunization Strategy, provide policy guidance on immunization programs, address emerging immunization issues, and foster F/P/T cooperation, collaboration and engagement of non-governmental stakeholders.

**Provincial Leadership**

In Alberta, the Minister of Health, through the Health System Accountability and Performance Division of Alberta Health, provides leadership in disease control and prevention, wellness strategy development and health surveillance. The OCMOH and the Public Health and Compliance Division are responsible for developing policies and high-level program guidelines for the provincial immunization program. Alberta Health provides budgetary support for immunization programs by providing vaccines without charge to Alberta Health Services (AHS) and participating community providers for administration to Albertans in accordance with the guidelines in the AIP.

Through the Immunization/Adverse Reactions to Immunization (IMM/ARI) electronic repository, Alberta Health collects individual immunization events, which help determine immunization rates for the province. IMM/ARI also collects and monitors all reported AEFI. The non-nominal AEFI are forwarded electronically to CAEFISS, thereby contributing to the national monitoring system of adverse events and to the continued safety of our immunization system.

The Alberta Public Health Physicians are composed of the Medical Officers of Health from AHS representing AHS Zones in discussions pertaining to immunization programs. The Alberta Advisory Committee on Immunization is a multidisciplinary committee composed of clinical experts from AHS Zone MOHs, AHS Province-Wide group, infectious diseases, ethics, and public health laboratory. The mandate of this committee is to provide ongoing and timely medical, scientific and public health advice related to immunization to Alberta Health.
Alberta Immunization Strategy (AIS)

Alberta Health has developed a 10-year immunization strategy to minimize the risk of vaccine-preventable diseases by increasing immunization rates. The *Alberta Immunization Strategy: 2007–2017* contains seven evidence-based innovative directions to achieve this goal, as listed below:

- Enhance accessibility
- Improve enabling technology
- Strengthen parental education and counselling
- Strengthen partnerships
- Strengthen provider training and education
- Strengthen public education and awareness
- Strengthen research and evaluation.

The Alberta Immunization Action Plan (currently in draft) is an evergreen and transitional document that complements the ten-year Alberta Immunization Strategy. It provides a common and collective guide to streamline efforts and facilitate collaborative action over the next three to five years. The Action Plan identifies the following strategic priority objectives:

- Engage Albertans and stimulate demand for immunization
- Reinforce immunization policy and legislative support
- Optimize vaccine supply and inventory management
- Strengthen immunization monitoring and surveillance
- Develop a strong evidence base to support immunization decision making.

Legislative Authority

The *Public Health Act, Revised Statutes of Alberta 2000* and the *Communicable Diseases Regulation, Alberta Regulation 238/1985* provide the authority for Alberta’s Immunization Program. Under this legislation, the Chief Medical Officer of Health (CMOH) is responsible for monitoring the health of Albertans and making recommendations to the minister and AHS (the regional health authority established under the *Regional Health Authorities Act* on measures to protect and promote the health of the public and to prevent disease and injury. This legislation requires the CMOH to act as a liaison between the government and AHS, MOHs and executive officers in the administration of the act. AHS Zones are required to operationalize Alberta’s immunization programs. Public health nurses, under the auspices of the MOH, are accountable for the implementation of immunization programs at the AHS Zone level according to provincial requirements.

References

7. Province of Alberta (2000). *Regional Health Authorities Act, RSA 2000, c R-10*. [canlii.ca/t/5292c](http://canlii.ca/t/5292c)