

Proposed Motion for ASBA FGM 2019

Regarding the mandatory vaccination of students in Alberta's publicly funded schools.

February 20, 2019

Sponsored by Holy Family Catholic Regional Division #37

WHEREAS there are students and staff in Alberta's publicly funded schools that, for medical reasons cannot receive protective vaccines against communicable diseases, or for medical reasons (such as immunodeficiency) may not form a protective immune response to vaccinations, and it is known that no vaccine is 100% effective and,

WHEREAS vaccine rates in Alberta and particularly certain regions such as the North Zone have declined in recent years for various reasons (including vaccine hesitancy) to below the level required for 'herd immunity' to protect the population from outbreaks and,

WHEREAS vaccination rates in other provinces such as Ontario and New Brunswick that mandate vaccination of students remain significantly higher than Alberta's and meet or exceed most herd immunity levels,

THEREFORE, BE IT RESOLVED THAT

The ASBA shall formally and actively lobby the provincial government to enact legislation requiring the mandatory vaccination of students attending publicly funded schools in Alberta. The list of diseases included in this vaccination protocol should include, at a minimum, diphtheria, tetanus, polio, pertussis, measles, mumps, rubella, and meningococcal disease. The legislation should allow for medical exemptions and objections based on religious grounds of parents. In cases of religious objection, parents should be required to attend an information session regarding vaccination prior to signing an affidavit of objection. An electronic vaccine registry should be created and accessible to schools so that unvaccinated children can be excluded from attending school during a disease outbreak.

BACKGROUND

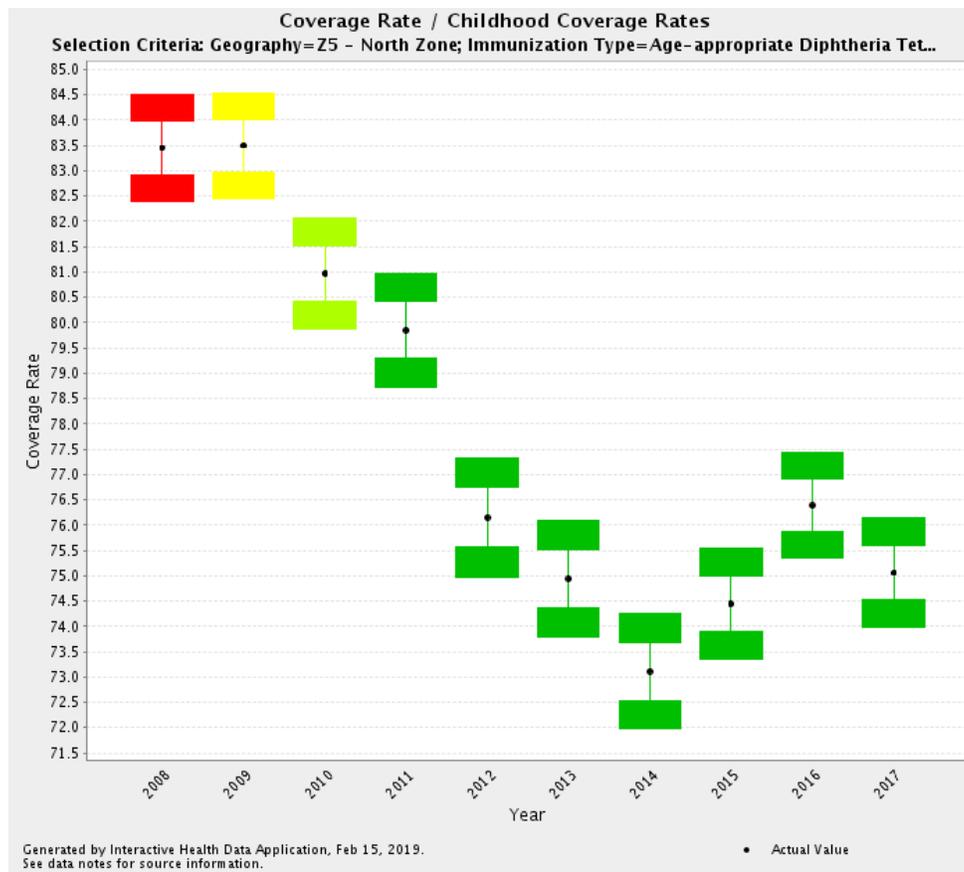
From the worldwide eradication of smallpox and the near-eradication of polio; to the reduction in Canada of measles cases and deaths from 300,000 and 300 per year to less than 50 and zero respectively; and pertussis cases and deaths from 50,000 and 100 to 3000 and 5, respectively, the evidence of the benefits of vaccination is abundantly clear.

The concept of herd immunity is described as the protection against infectious disease, inferred to all individuals, most importantly, even those who are not immune, when a large proportion of the population is vaccinated. The Herd Immunity Threshold (HIT) of a certain disease is the proportion of the population that must be vaccinated to prevent the disease from being endemic or persistent in a population. It is dependent on how contagious a disease is (it's R_0 or basic reproduction number). This table (from https://en.wikipedia.org/wiki/Herd_immunity) lists the HIT values for common human diseases:

Disease	Transmission	R ₀	HIT
Measles	Airborne	12–18	92–95%
Pertussis	Airborne droplet	12–17	92–94%
Diphtheria	Saliva	6–7	83–86%
Rubella	Airborne droplet		
Smallpox			5–7
Polio	Fecal-oral route		
Mumps	Airborne droplet	4–7	75–86%
SARS		2–5	50–80%
Ebola (Ebola virus epidemic in West Africa)	Bodily fluids	1.5–2.5	33–60%
Influenza (influenza pandemics)	Airborne droplet	1.5–1.8	33–44%

The internet has made available an abundance of negative misinformation, posed as credible, regarding vaccination. This has led to increased ambivalence, ‘fence-sitting,’ and hesitation by parents regarding vaccination which serve as the most significant threat to maintaining vaccination rates (<https://www.cdhowe.org/public-policy-research/need-booster-how-improve-childhood-vaccination-coverage-canada>).

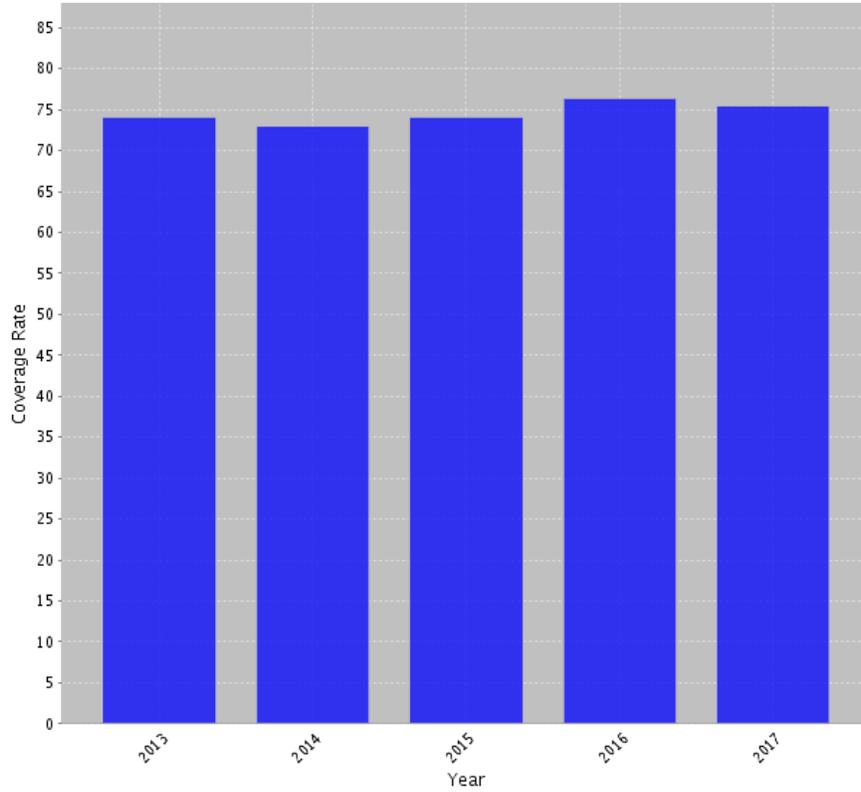
Vaccination rates in Alberta school aged children, particularly those in the North Zone have declined in recent years to well below the levels required for herd immunity. These charts, taken directly from Alberta Health’s online Interactive Health Data Application (http://www.ahw.gov.ab.ca/IHDA_Retrieval/selectCategory.do), demonstrate this trend:



Alberta North Zone Age Appropriate Diphtheria/Tetanus/Polio/ Pertussis vaccine rate by age 7

Coverage Rate / Childhood Coverage Rates

Selection Criteria: Geography=Z5 - North Zone; Immunization Type=MMR Dose 2 by Age 7

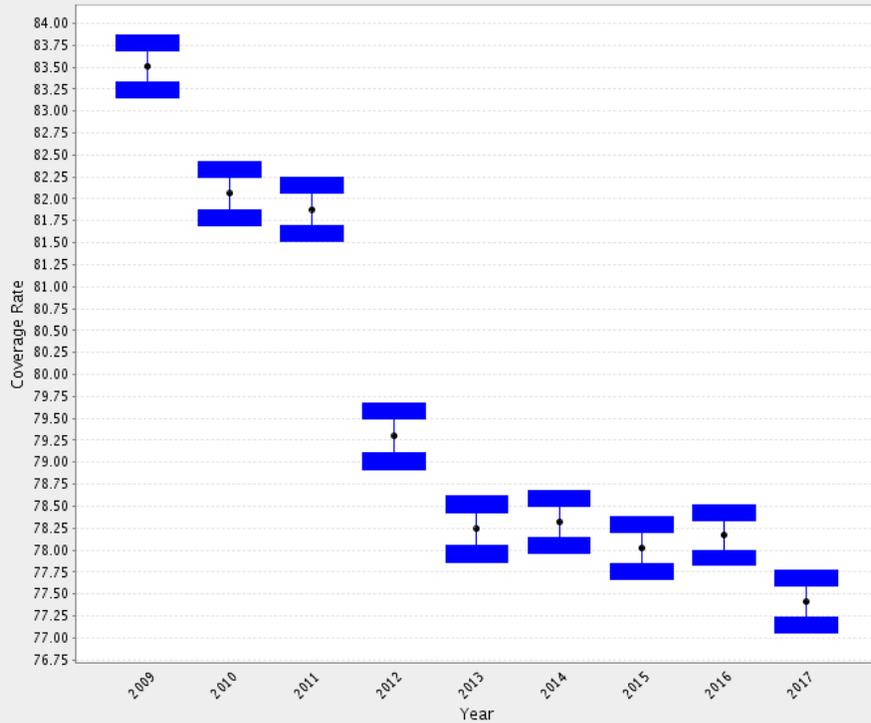


Generated by Interactive Health Data Application, Feb 15, 2019.
See data notes for source information.

Alberta North Zone Measles/Mumps/Rubella Vaccine Dose 2 by age 7

Coverage Rate / Childhood Coverage Rates

Selection Criteria: Geography=Alberta; Immunization Type=Age-appropriate Diphtheria Tet...



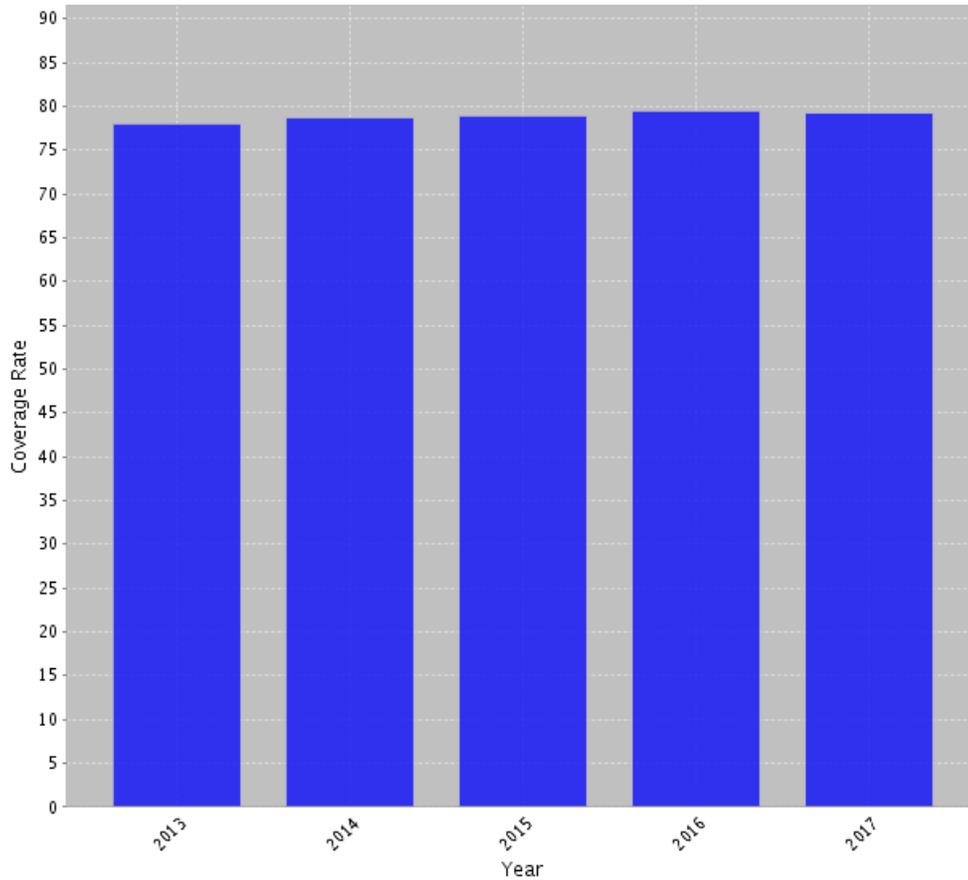
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• Actual Value

Alberta Age Appropriate Diphtheria/Tetanus/Polio/Pertussis vaccine by age 7

Coverage Rate / Childhood Coverage Rates

Selection Criteria: Geography=Alberta; Immunization Type=MMR Dose 2 by Age 7



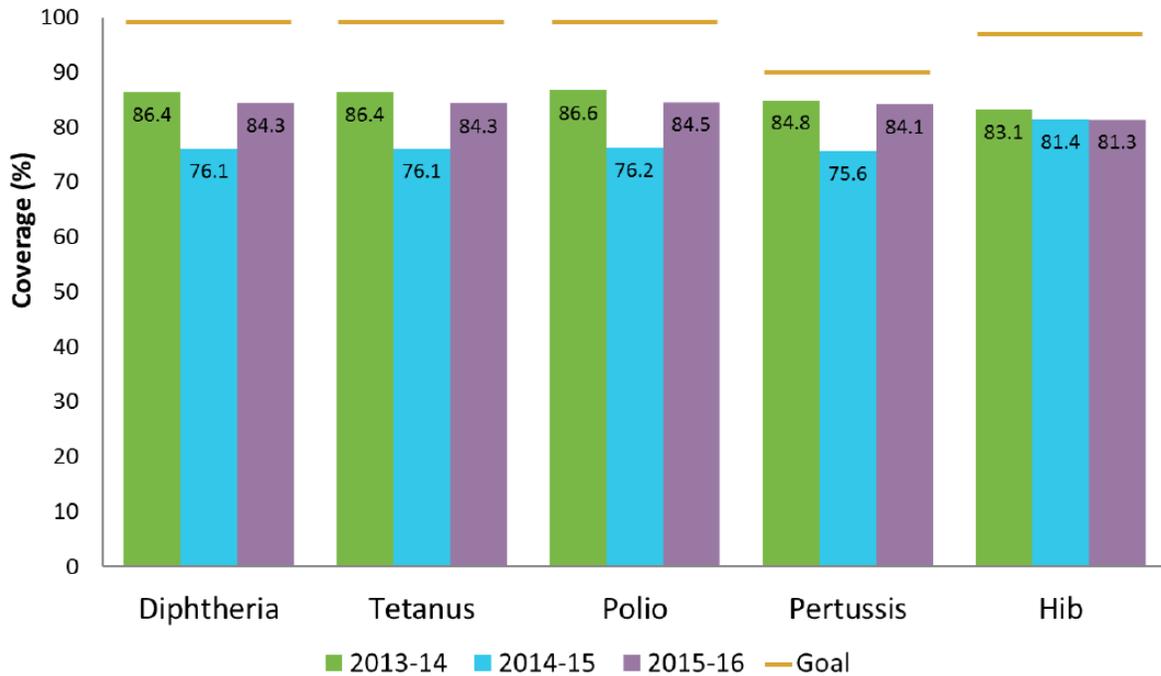
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Alberta Measles/Mumps/Rubella Vaccine Dose 2 by age 7

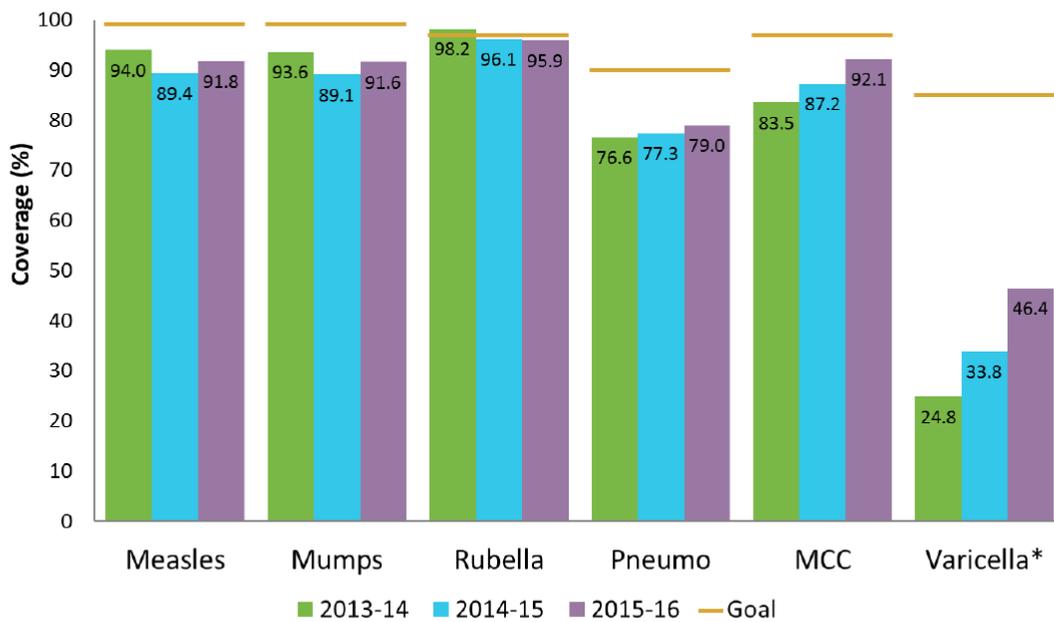
These vaccination rates are significantly lower than those in most other provinces in Canada, including those in Ontario and New Brunswick, two provinces which legislate mandatory vaccination of school children. The following charts, taken from a report on vaccination rates on the Ontario Health website

(https://www.publichealthontario.ca/en/LearningAndDevelopment/EventPresentations/Immunization_Coverage_Ontario_since_implementation_Panorama_Bunko_Wilson_2017.pdf) demonstrate the much higher rates of vaccination. The rates have not shown the decline seen in Alberta and are much closer to protective Herd Immunity Thresholds.

Immunization coverage among children 7 years old in Ontario



Immunization coverage among children 7 years old in Ontario



PROVINCE/ TERRITORY	7 YEARS OF AGE - COVERAGE % (95% CI)*		
	MEASLES (≥ 2 DOSES)	MUMPS (≥ 2 DOSES)	RUBELLA (≥ 1 DOSE)
Newfoundland and Labrador	84.3 (79.9-87.9)	84.3 (79.9-87.9)	97.8 (95.4-98.9)
Prince Edward Island	84.2 (77.4-89.3)	83.4 (76.5-88.6)	96.5 (94.0-98.0)
Nova Scotia	71.7 (66.1-76.7)	71.6 (66.0-76.7)	93.6 (90.0-96.0)
New Brunswick	92.3 (88.3-95.0)	92.3 (88.3-95.0)	96.4 (92.9-98.2)
Québec	91.1 (88.2-93.3)	90.5 (87.7-92.8)	96.2 (94.1-97.6)
Ontario	88.7 (85.0-91.6)	88.3 (84.5-91.2)	96.1 (93.5-97.7)
Manitoba	76.6 (71.4-81.2)	75.4 (70.0-80.1)	93.2 (89.6-95.5)
Saskatchewan	78.9 (73.4-83.5)	78.2 (72.7-82.8)	90.7 (86.2-93.8)
Alberta	75.2 (70.2-79.7)	74.1 (69.0-78.7)	90.9 (87.4-93.5)
British Columbia	83.5 (79.2-87.0)	82.5 (78.1-86.1)	93.1 (89.9-95.3)
Yukon	77.5 (73.7-80.9)	73.4 (69.3-77.2)	86.7 (83.3-89.5)
Northwest Territories	88.4 (83.8-91.8)	88.4 (83.8-91.8)	95.6 (92.2-97.6)
Nunavut	64.8 (55.4-73.3)	63.5 (54.1-72.1)	75.7 (66.1-83.3)
Canada	85.7 (83.9-87.3)	85.1 (83.3-86.7)	94.8 (93.6-95.7)

TABLE 8: Estimated vaccination coverage for measles, mumps, and rubella by seven years of age across provinces and territories—childhood National Immunization Coverage Survey, 2013 **Source:** http://publications.gc.ca/collections/collection_2018/aspc-phac/HP40-156-2018-eng.pdf (page 13)

While exemption clauses would not make vaccination 100% mandatory, the principles and compelled education associated with such legislation would make vaccination a mandatory choice by an informed citizenry. Most importantly, it would ensure that those vulnerable students and staff who don't have the choice to receive vaccines, are properly protected.