

Technical Appendix

Health Status Reporting Series Two

Immunizations

Saskatoon Health Region

Definitions

Coverage means percent of the population receiving the recommended number of doses for this age group. Coverage percentages are recorded at the same time each year and remain static for reporting purposes (in spite of mobility of immunized and unimmunized persons moving in and out of the area in subsequent years). Human Papilloma virus vaccination (HPV), a new vaccine program in which “catch up “ is added over several years, is an exception to this rule and is updated annually for previous years.

Where data is not displayed for a given year the data has not been collected or the vaccine/program is new.

Up to date means having received the recommended number of doses by birth date of the individual. All coverage percentages are considered up to date unless otherwise indicated. The number of vaccines doses is indicated in parenthesis. *Seven year old pertussis coverage is 4 or 5 doses depending on the age when the fourth dose is given. For the number of recommended doses for each vaccine by age see the Saskatchewan Immunization Manual (chapter 5: Schedules)
<http://www.ehealthsask.ca/services/manuals/Pages/SIM.aspx>

Geographic Area refers to Rural Planning Zone (RPZ), a designated area comprised of rural municipalities and towns/villages. The population base of each zone is roughly equivalent. Selected indicators are also shown by urban Saskatoon geography or neighbourhood.

Medically at risk individuals have medical conditions that put them at risk of complications of disease. Risk varies by disease and condition. For a description of the specific medical conditions eligible for cost-free vaccination see the Saskatchewan Immunization Manual (chapter 7: Special Populations)
<http://www.ehealthsask.ca/services/manuals/Pages/SIM.aspx>. The denominator for this at-risk group is estimated to be 8.3 % of the covered population of the age group described.
http://www.ecdc.europa.eu/en/publications/Publications/0808_GUI_Priority_Risk_Groups_for_Influenza_Vaccination.pdf

OH & S is Occupational Health and Safety.

Long term care residents include over and under 65 years living in SHR long term care homes (owned and operated and affiliates).

Calculations

Percentage is the numerator (all persons receiving the recommended number of doses) divided by the denominator (all eligible persons receiving the recommended number of doses). All denominators are active clients entered into Panorama (Saskatchewan's electronic immunization management system) unless otherwise specified by an alternative data source. Where other data source is indicated the denominator is the covered population for the specific age group and geography, or a denominator provided by Saskatoon Health Region Occupational Health & Safety.

In 2015 immunization data from the Saskatchewan Immunization Management database was migrated to Panorama. Declines in coverage are explained in part by the change in the immunization registry. For example, in the early months after conversion to Panorama, some regions were unable to run recall and reminder reports out of Panorama. Therefore, not all the children who were behind in their immunizations were notified. SIMS-based coverage statistics included all doses administered to a child, regardless of timing or appropriateness. Panorama-based statistics include only valid doses. Valid means the antigen or agent was given within the recommended guidelines (i.e., meets the minimum or maximum age and interval requirements) and is deemed to have provided protection. However the percentage of invalid doses is very small. The calculation of Panorama-based regional rates uses the child's JORG or jurisdictional organization. This field is populated by a front-line worker. In contrast, the calculation of SIMS-based regional rates used the child's community of residence to assign the child's health region and both were updated automatically from the Person Health Registry System. Therefore some children may be attributed to a region differently in 2015 than in previous years.

-Ministry of Health, Technical Appendix, Immunization Quarterly Report Dec 2015

Data Sources

[Panorama](#) is the Saskatchewan immunization database that was implemented between February and July 2015. Historical immunization records from SIMS were migrated to the system and all records are now entered in this database.

The *influenza coverage percentage* of Saskatoon Health Region employees includes physician immunization and the Saskatoon Cancer Agency employees, as well as immunizations delivered by OH & S. The numerator and denominator do not include long term care affiliates. Coverage of long term care facilities is reported separately. General population percentage includes OH & S, Public Health, Physician, SIMS and Third Party nursing services.

Data Limitations

Children immunized in First Nations clinics may not be updated in Panorama and this may lead to an underestimation of coverage percentages in some geographic areas. This underestimation is believed to be small. Children with postal code mapped to the Social Services building are excluded to prevent these children from being included in the Central Business area neighbourhood.

Disparities in neighbourhood coverage percentages may not be statistically significant. Confidence intervals are not presented here.