

COVID-19 Vaccinations and Breakthrough Infections

Analysis based on new COVID-19 cases reported September 1-30, 2021

COVID-19 Vaccinations Work

- Measured at 21 day mark to allow for necessary immune response to first dose
- Two doses recommended for all vaccines currently offered in Saskatchewan
- It is anticipated that serious illness rates will decrease as residents receive second doses
- Two weeks after second dose is when optimum protection begins

New COVID-19 Cases – Sep 2021

Total	Unvaccinated or First dose <3 weeks	Vaccinated, First dose => 3 weeks	Vaccinated, Second dose =>2 weeks
13,141	9,324	913	2,904
% of cases	71.0%	6.9%	22.1%
Estimated SK case rate per 100,000 - denominator based on receipt of one dose or completed series			
Estimated cases/100,000	2220	1066	415

- There were 13,141 cases reported in September 2021. Of these, 21.9% (2,877) were aged 11 years or younger.
- Of the 913 cases with a first dose, 7.2% (66) had comorbid conditions, and 4.9% (45) cases were 70 years and older.
- Of the 2,904 cases with a second dose, 11% (320) had comorbid conditions, and 21.2% (616) cases were 70 years and older.
- Based on the cases in September, the estimated new case rates were 2,220/100,000 for the unvaccinated; 1,066/100,000 for residents with only a first dose; and 415/100,000 for those who completed their series.

COVID-19 Hospitalizations – Sep 2021

Total	Unvaccinated or First dose <3 weeks	Vaccinated, First dose => 3 weeks	Vaccinated, Second dose =>2 weeks
449	328	20	101
% of hospitalization cases	73.1%	4.5%	22.5%
Estimated SK hospitalization rate/100,000 - denominator based on receipt of one dose or completed series			
Estimated hospitalizations/100,000	78	23	14

- Among the cases reported in September, 449 individuals were hospitalized. Of these, 2.9% (13) were aged 19 years or younger, and 2.7% (12) were under 12 years of age.
- Of the 20 hospitalized cases with a first dose, 35% (7) had comorbid conditions, and 55% (11) cases were 70 years and older.
- Of the 101 hospitalized cases with a second dose, 34.7% (35) had comorbid conditions and 75.2% (76) cases were 70 years and older.
- Based on hospitalizations in September, the estimated rates were 78/100,000 for the unvaccinated; 23/100,000 for residents with only a first dose; and 14/100,000 for those who completed their series.

COVID-19 ICU Admissions – Sep 2021

Total	Unvaccinated or First dose <3 weeks	Vaccinated, First dose => 3 weeks	Vaccinated, Second dose =>2 weeks
83	71	2	10
% of ICU cases	85.5%	2.4%	12.0%
Estimated SK ICU rate/100,000 - denominator based on receipt of one dose or completed series			
Estimated ICU cases/100,000	17	2	1

- There were 83 individuals admitted to ICU of which 85.5% (71) were unvaccinated. Of the total, 5% (four) were aged 19 years or younger, and 2% (two) were under 12 years of age.
- Of the two ICU cases with a first dose, one case had comorbid condition.
- Of the 10 ICU cases with a second dose, two had comorbid conditions and three cases were 70 years and older.
- Based on the ICU admissions in September, the estimated rates were 17/100,000 for the unvaccinated; 2/100,000 for residents with only a first dose; and 1/100,000 for those who completed their series.

COVID-19 Deaths – Sep 2021

Total	Unvaccinated or First dose <3 weeks	Vaccinated, First dose => 3 weeks	Vaccinated, Second dose =>2 weeks
72	35	9	28
% of Death cases	48.6%	12.5%	38.9%
Estimated SK death rate/100,000 - denominator based on receipt of one dose or completed series			
Estimated deaths/100,000	8	11	4

- Among the cases reported in September, 72 individuals passed away. Of these, 48.6% (35) were in unvaccinated group.
- Of the nine (9) deaths with the first dose, 77.8% (7) were aged 70 years or older, and three (3) had comorbid conditions.
- Of the 28 deaths with the second dose, 92.9% (26) were aged 70 years and older, and 32.1% (9) had comorbid conditions.
- Based on the number of deaths in September, the estimated rates were 8/100,000 in the unvaccinated group; 11/100,000 for residents with only a first dose; and 4/100,000 for those who completed their series.

COVID-19 Hospitalizations – October 4, 2021

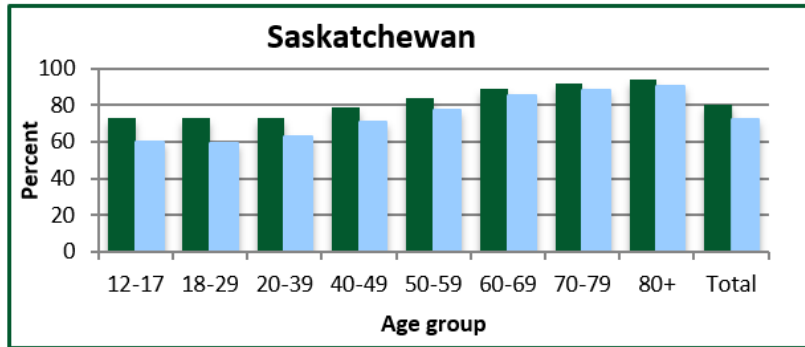
	Acute Care		ICU	
Age Group	COVID infectious	COVID Non-infectious	COVID infectious	COVID Non-infectious
11 and under	1	1		
12 to 19	2			
20 to 29	13	5		2
30 to 39	20	1	6	
40 to 49	25	5	9	3
50 to 59	18	10	7	2
60 to 69	26	11	20	8
70 to 79	41	12	9	2
80+	60	13	3	
total	206	58	54	17

As of 1:15 PM on October 4, 2021

- Thirty-six (17.5%) of the 206 infectious COVID-19 patients in acute care are less than 40 years old.
- Six (11.1%) of the 54 infectious COVID-19 patients in ICU are less than 40 years old.

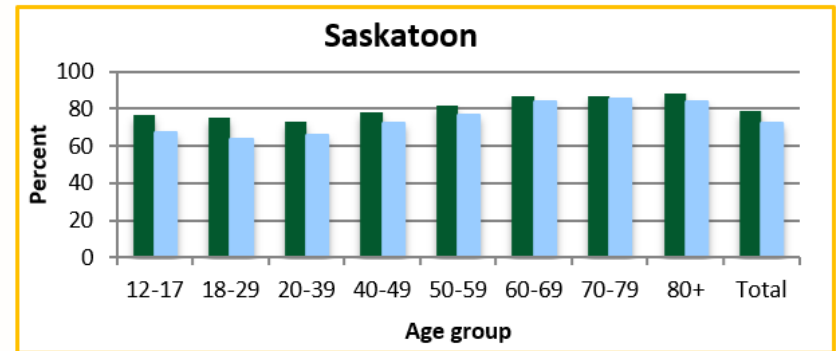
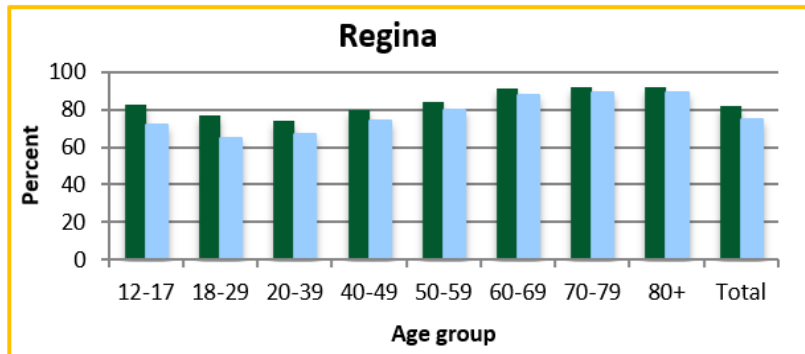
Data source: SHA dashboard, hospital census data

COVID-19 Vaccinations

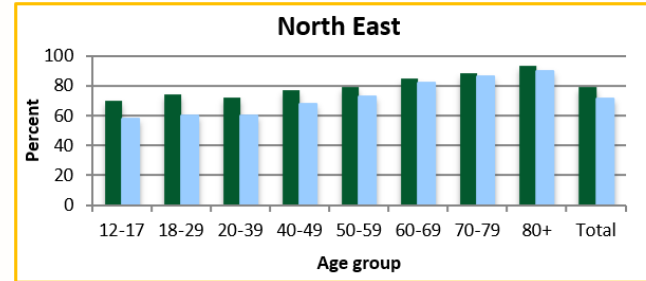
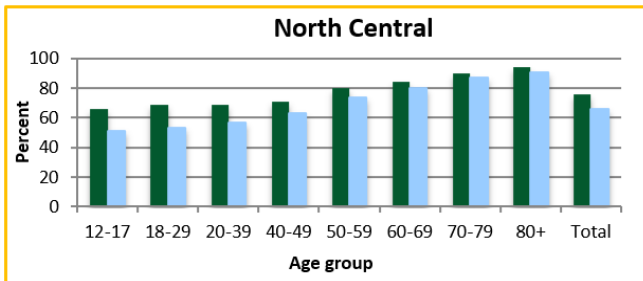
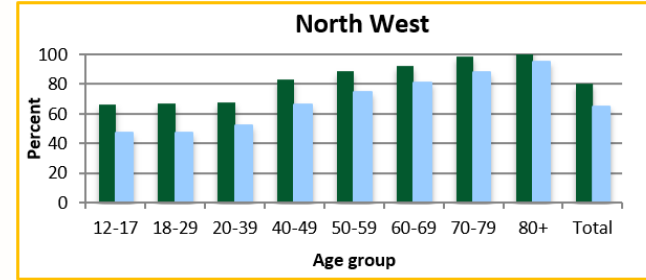
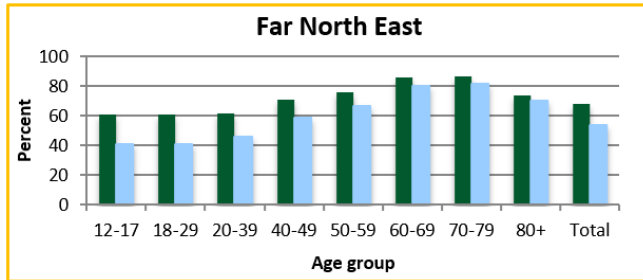
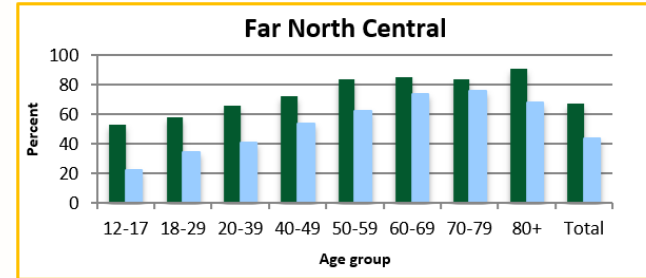
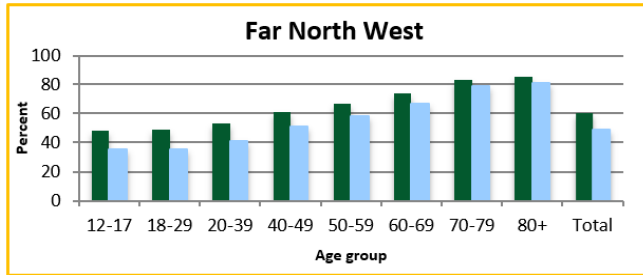


First and second dose uptake by population, provincially and by zone

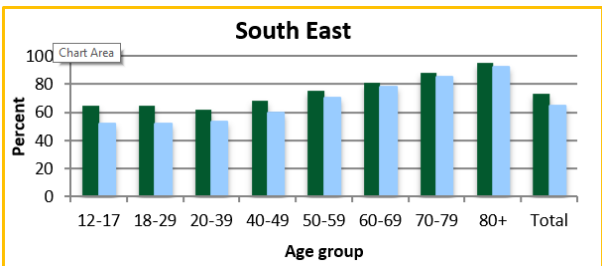
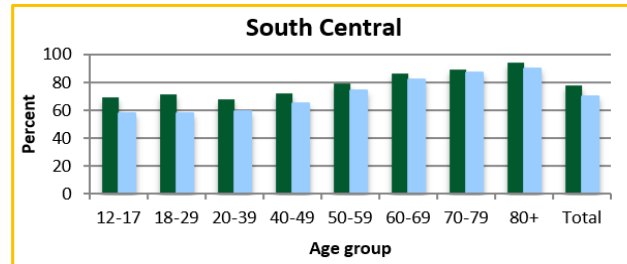
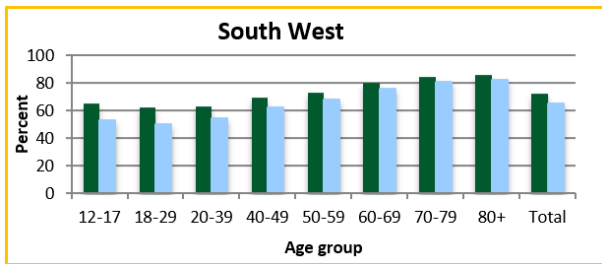
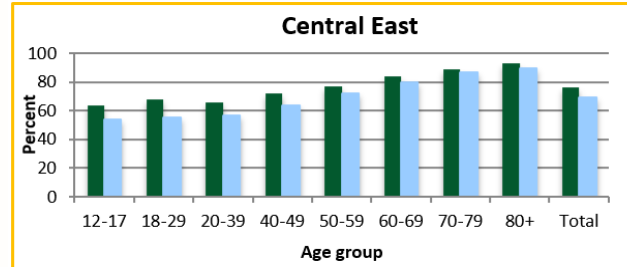
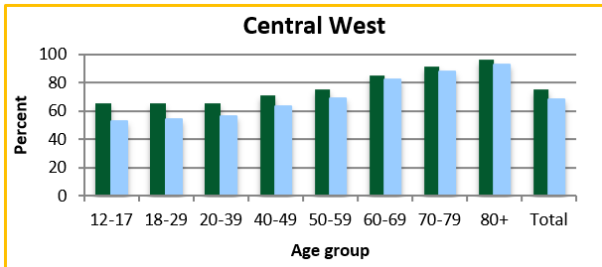
- 1 dose of a two-dose series
- 2 doses of a two-dose series or 1 dose of a one-dose series (fully vaccinated)



As of September 26, 2021 - last week's integrated report date.
Data source: Panorama September 28, 2021.



- 1 dose of a two-dose series
- 2 doses of a two-dose series or 1 dose of a one-dose series (fully vaccinated)



- 1 dose of a two-dose series
- 2 doses of a two-dose series or 1 dose of a one-dose series (fully vaccinated)

Notes:

Comorbidities include hypertension, cardiovascular disease, diabetes, lung disease, pregnancy, obesity.

Data sources:

Numerator data source: Panorama, IOM and RRPL. Results are by reported date; *As of September 30, 2021*

Denominator data source: Panorama immunization registry extract September 3, 2021 for doses administered up and including September 1, 2021.

Caveat:

- The estimated rates are based on cases reported from September 1 to 30, 2021 and the estimated populations by vaccination status, which are based on immunization data captured as of September 3, 2021 for doses administered up to and including September 1, 2021.
- Although the dates between cases and immunized are not perfectly aligned, it will provide an estimate of the share of cases among each vaccination group.
- Please note these proportions cannot be used to describe infection after immunization because time to build immunity has not been taken into account.
- A completed series is receipt of one dose of a one-dose vaccine or receipt of two doses of a two-dose series where the minimum interval criterion is met.
- ICU admission proportions and death proportions are based on small numbers and therefore will be subject to considerable variability.

The actions taken by the people of Saskatchewan collectively will determine the outcome.

Simple measures reduce the risk of infection:

- Get the vaccine as soon as you are eligible to receive it
- Mask whenever you are away from your home
- Physically distance
- Stay home with even the mildest symptoms and get tested
- Reduce close contacts and non-essential travel
- Outdoors is better than indoors
- Wash hands/sanitize often

COVID-19 information is available at saskatchewan.ca/COVID19