

COVID-19 Integrated Epidemiology Situation Report

Week of March 6 - 12, 2022

Purpose

This report provides COVID-19 surveillance information at the provincial and COVID-19 reporting zone levels on a weekly basis. Surveillance information is used for a variety of public health purposes including public communications and decision-making, both strategic and operational. The reporting week for most public health surveillance data runs from Sunday to Saturday and the data are analysed early the following week. The hospital census data are compiled on a Wednesday to Wednesday cycle to ensure the most up-to-date information is available.

The report provides a snapshot of key indicators for the previous week. Where appropriate, longer term comparisons are offered to provide context on the profile of COVID-19 in Saskatchewan. New information is also introduced in this report, such as sentinel surveillance. Sentinel surveillance involves the collection of information about respiratory illness from a variety of sites across the province. For example, analysis of visits to emergency departments for COVID-like illness provides information about community transmission of respiratory illnesses in the province.

Highlights for the week

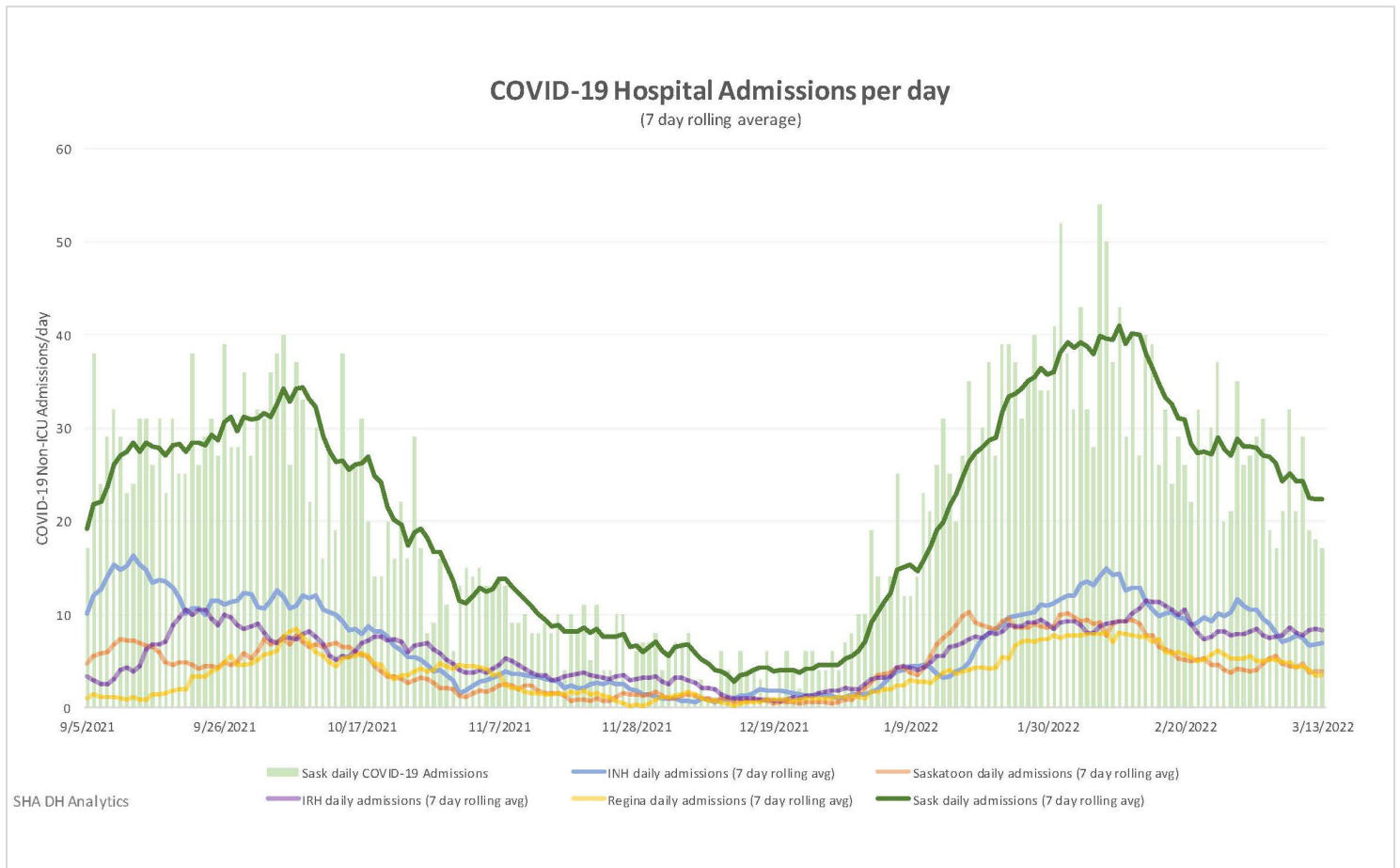
- 6,826 laboratory tests were performed in Saskatchewan reflecting 5.7 tests performed per 1,000 population.
- The number of tests was about 90% of the number of tests in the previous week (7,518).
- About one in nine of laboratory tests were positive (weekly test positivity of 11.8%).
- Percentage of positive tests (11.8%) was lower than in the previous week (12.7%).
- 832 new cases were confirmed reflecting about 0.7 laboratory-confirmed cases per 1,000 population.
- The number of new laboratory-confirmed cases was about four-fifths of the number of new cases in the previous week (1,013).
- There were 350 new lineage results reported this week. Of the 350 variants of concern identified by whole genome sequencing, 99.7% were Omicron.
- There were 28 newly reported COVID-19 deaths compared to 13 in the previous week.
- There were 27.1 COVID-like illness patients (CLI) per 1,000 emergency department (ED) visits which is lower than the average weekly rate in the previous six weeks (38.9 per week/1,000 visits).
- Ten (10) confirmed COVID-19 outbreaks in long-term care and care home settings were reported this week.
- As of March 12, of the population five years and older, 85.6% received at least one dose of a two-dose COVID-19 vaccine and 80.5% completed a series.
- Among the population 18 years and older, 51.0% had received at least one booster vaccination.

Weekly COVID-19 Hospitalization Indicators: March 9, 2022 as compared to March 16, 2022

	9-Mar	16-Mar	Change from last reporting period
Total Covid Hospitalized	336	299	-40
Total Covid Adult ICU/ICU Surge	24	18	-6
Average Daily Admissions over past 7 days	25.1	19.9	-5.2
Total Covid Related Illness	142	134	-8
Total Incidental Covid Infection	186	156	-30
Total Patient Under Investigation	12	9	-3

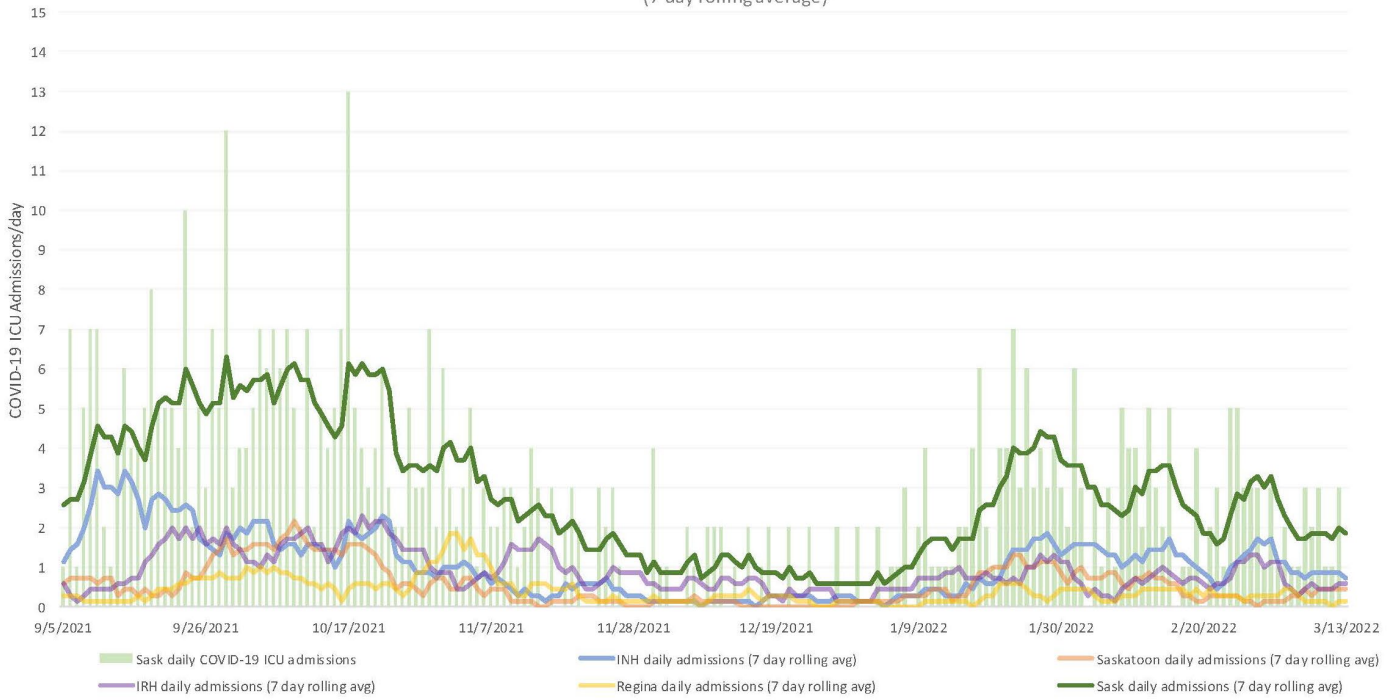
All data is reflective of the 12:00pm (noon) snapshot with the exception of the average daily admissions over past 7 days, which is reflective of the previous Wednesday to Tuesday reporting cycle.

Note: Because of the delay in date tested result, it affects the total number of COVID-19 admissions for a particular day. This lag in data impacts mostly the last couple of days from the day the report is updated.



COVID-19 ICU Admissions per day

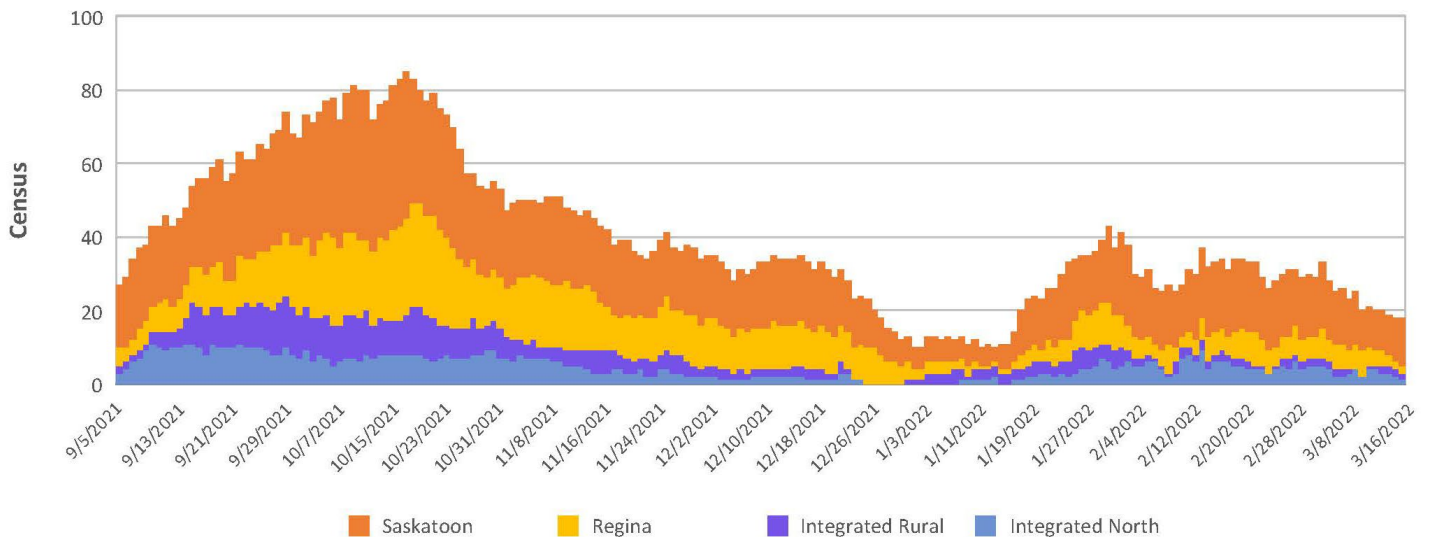
(7 day rolling average)



SHA DH Analytics

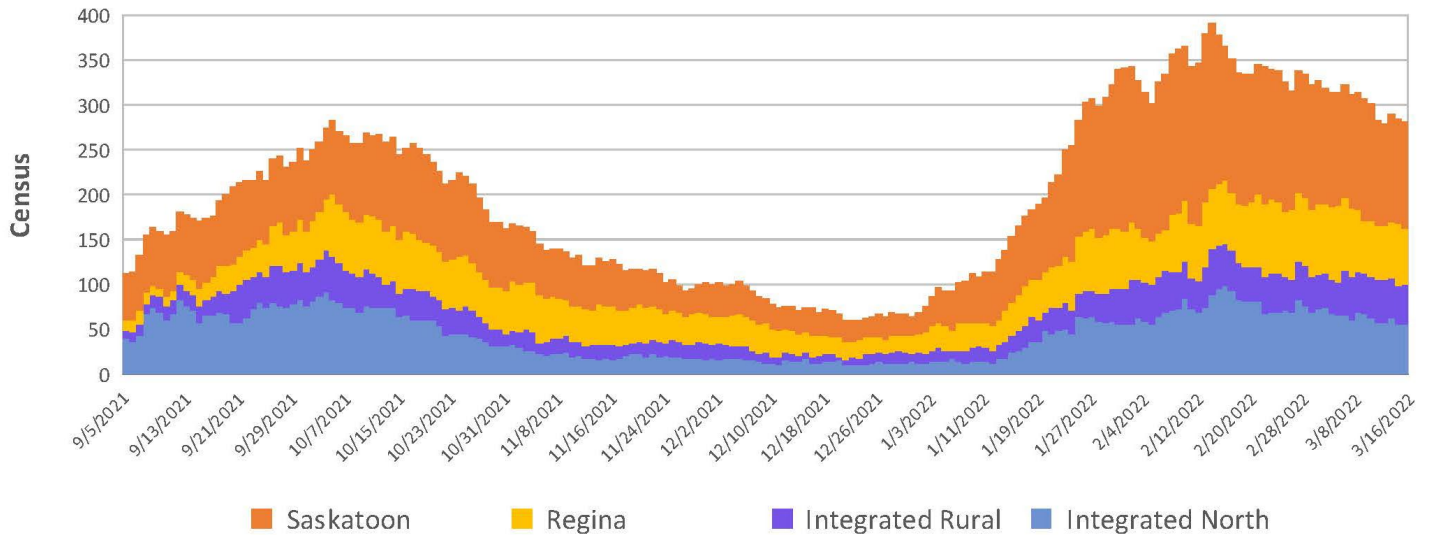
Saskatchewan Health Authority COVID-19 Daily Census at Noon by Facility ISA

COVID-19 Daily Census - Noon Snapshot For ICU



Saskatchewan Health Authority
 COVID-19 Daily Census at Noon
 by Facility ISA

COVID-19 Daily Census - Noon Snapshot
 For Inpatient



Rapid Antigen Test Distribution as of March 15, 2022

Sector	SPSA	SHA	Sector Totals
SHA Internal	0	4,226,059	4,226,059
NITHA/ISC	2,305,310	433,720	2,739,030
Schools	1,077,875	1,390,000	2,467,875
Congregate Living	204,225	418,867	623,092
Law Enforcement & Fire Depts.	153,620	37,440	191,060
EMS	0	15,615	15,615
Test to Protect & Unclassified	0	295,470	295,470
Public Distribution Centres	7,293,035	1,372,660	8,665,695
Total Tests:	11,034,065	8,189,831	19,223,896

- There are currently 655 public distribution centres in the province. The full list is available at <https://www.saskatchewan.ca/government/health-care-administration-and-provider-resources/treatment-procedures-and-guidelines/emerging-public-health-issues/2019-novel-coronavirus/testing-information/rapid-testing/locations-for-rapid-antigen-self-test-kits>

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A. Laboratory Surveillance

Overview of COVID-19 Laboratory Tests

Table 1: Summary of COVID-19 laboratory tests for the week of March 6 to 12, 2022, by zone

Zone	Current Week (March 6 to 12, 2022)			Previous Week (February 27 to March 5, 2022)			Change from Previous Week	
	Total Number of Tests Performed	% Tested Positive*	Tests performed per 1,000 population	Total Number of Tests Performed	% Tested Positive	Tests performed per 1,000 population	Test Positivity	Tests performed per 1,000 population
FNW	94	7.4%	3.2	136	11.0%	4.6	↓ -3.6	↓ -1.4
FNC	6		2.3	6		2.3		
FNE	60	13.3%	2.5	67	9.0%	2.8	↑ 4.3	↓ -0.3
NW	279	12.9%	3.4	373	11.8%	4.5	↑ 1.1	↓ -1.1
NC	284	10.2%	3.2	288	10.8%	3.2	↓ -0.6	
NE	206	18.9%	5.0	267	15.7%	6.4	↑ 3.2	↓ -1.4
ST	1,355	12.8%	4.0	1,427	12.0%	4.2	↑ 0.8	↓ -0.2
CW	117	12.8%	3.2	158	12.7%	4.3	↑ 0.1	↓ -1.1
CE	471	13.2%	4.8	470	13.8%	4.8	↓ -0.6	
RE	538	13.6%	2.0	736	21.3%	2.7	↓ -7.7	↓ -0.7
SW	128	14.8%	3.3	148	14.9%	3.8	↓ -0.1	↓ -0.5
SC	273	17.9%	4.5	304	20.4%	5.0	↓ -2.5	↓ -0.5
SE	271	18.8%	3.0	303	22.8%	3.4	↓ -4.0	↓ -0.4
Unknown	2,744	9.0%		2,835	8.9%		↑ 0.1	
SK	6,826	11.8%	5.7	7,518	12.7%	6.2	↓ -0.9	↓ -0.5

Source: RRPL Daily Test Count Table by new zones, extracted March 14, 2022; Covered Population, 08-Jul-2021 Ministry of Health version (2021 Version 1).

As of February 7, 2022 RRPL PCR testing was reserved for populations deemed to be at an elevated risk for severe outcomes (see details in Technical Notes)

*Test positivity is based on the number of tests that were positive and does not necessarily equal the number of cases in Table 2.

For the week of March 6 to 12, 2022:

- 6,826 laboratory tests were performed in Saskatchewan.
- The number of tests per 1,000 population was 5.7. This was lower than the previous week (February 27 to March 5, 2022) by 0.5 tests per 1,000 population. It was also lower than the average for the previous four weeks (February 6 to March 5, 2022) by 1.9 tests per 1,000 population where the weekly average was 7.6 tests per 1,000 population.
- The North East zone had the highest testing rate (5.0 tests per 1,000 population). The Regina zone had the lowest testing rate (2.0 tests per 1,000 population).
- 11.8% of tests in the province were positive. This was 0.9 percentage points lower than in the previous week (February 27 to March 5, 2022) and 3.4 percentage points lower than in the previous four weeks (February 6 to March 5, 2022).
- The North East zone (18.9%) had the highest test positivity. Of zones with positive results, the Far North West zone had the lowest test positivity (7.4%).

Overview of COVID-19 Laboratory-Confirmed Cases

Table 2: Summary of new laboratory-confirmed COVID-19 cases for the week of March 6 to 12, by zone

Zone	New cases		Previous Week		Change in Cases per 1,000 from Previous Week	Weekly Rate in Previous Four Weeks		Change from Previous 4-week Rate
	Confirmed cases	Cases ¹ per 1000	Confirmed cases	Cases ¹ per 1000		Confirmed cases	Cases ¹ per 1000	
FNW	10	0.3	15	0.5	↓ -0.2	35	1.2	↓ -0.9
FNC						1	0.4	↓ -0.4
FNE	10	0.4	9	0.4		20	0.8	↓ -0.4
NW	51	0.6	72	0.9	↓ -0.3	99	1.2	↓ -0.6
NC	46	0.5	56	0.6	↓ -0.1	127	1.4	↓ -0.9
NE	47	1.1	53	1.3	↓ -0.2	45	1.1	
ST	229	0.7	210	0.6	↑ 0.1	320	0.9	↓ -0.2
CW	26	0.7	26	0.7		44	1.2	↓ -0.5
CE	77	0.8	81	0.8		141	1.4	↓ -0.6
RE	137	0.5	245	0.9	↓ -0.4	339	1.2	↓ -0.7
SW	26	0.7	33	0.9	↓ -0.2	53	1.4	↓ -0.7
SC	59	1.0	80	1.3	↓ -0.3	89	1.5	↓ -0.5
SE	65	0.7	78	0.9	↓ -0.2	130	1.5	↓ -0.8
Pending	49		55			68		
SK	832	0.7	1,013	0.8	↓ -0.1	1,510	1.3	↓ -0.6

Source: RRPL line list March 14, 2022.

¹ Proportion per 100,000 calculated using the Saskatchewan 2021 Covered Population, 08-Jul-2021 Ministry of Health SAS version (2021 Version 1)

Data should be interpreted with caution because they do not include cases detected by home rapid-antigen-test kits.

For a given week, the number of cases in Table 2 can be slightly different from the number of tests used to calculate test positivity in Table 1, because the RRPL test dates may be in a different week than case dates used in Panorama.

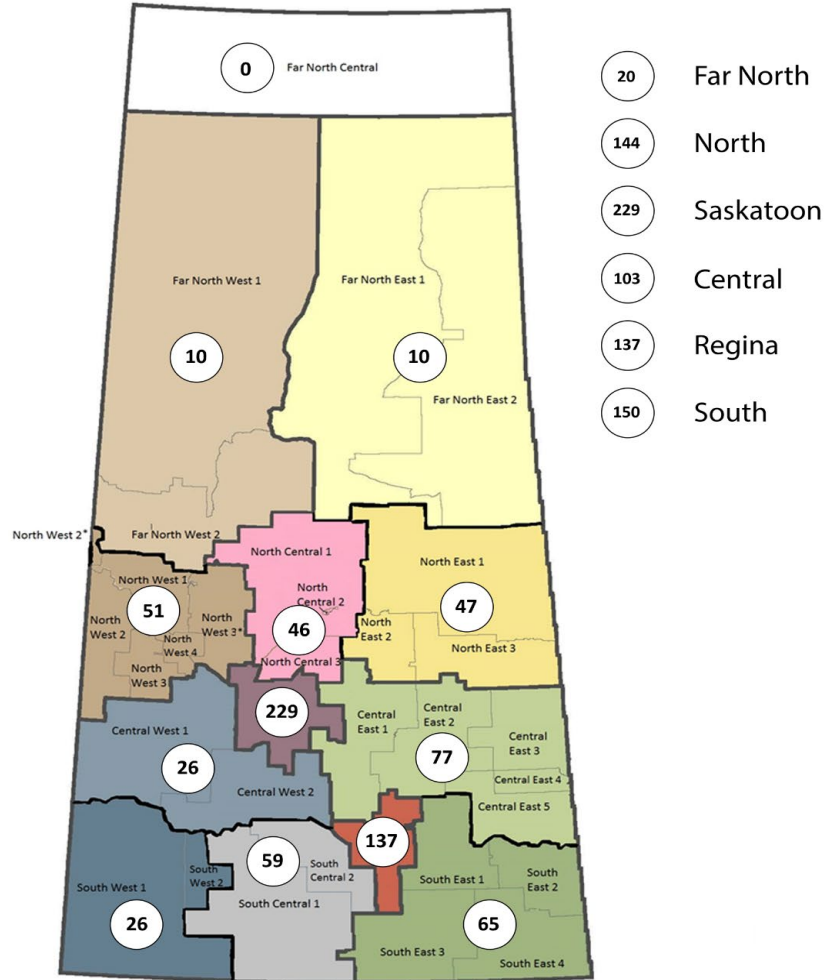
For the week of March 6 to 12, 2022

- 832 new cases were confirmed by a positive laboratory test.
- The proportion of new laboratory-confirmed cases was 0.7 per 1,000, a decrease of 0.1 per 1,000 since last week. It was also lower than the weekly rate in the previous four weeks (February 6 to March 5, 2022) by 0.6 cases per 1,000 population.
- The highest proportion of new cases for the week was in North East zone (1.1 per 1,000). Of zones with confirmed cases, the lowest was in the Far North West zone (0.3 per 1,000).
- Numbers and proportions of new cases were similar or lower in all zones compared to last week, except Saskatoon zone.
- Rates should be interpreted with caution because they do not include cases detected by home rapid-antigen test kits.

Figure 1: Map of new laboratory-confirmed COVID-19 cases by zone and area for the week of March 6 to 12, 2022

For the week of March 6 to 12, 2022:

- 20 new cases in the Far North (FNW, 10 cases; FNC, 0 cases; FNE, 10 cases);
- 144 new cases in the North (NW, 51 cases; NC, 46 cases; NE, 47 cases);
- 229 new cases in the Saskatoon area;
- 103 new cases in the Central area (CW, 26 cases; CE, 77 cases);
- 137 new cases in the Regina area; and
- 150 new cases in the South (SW, 26 cases; SC, 59 cases; SE, 65 cases).
- 49 new cases still have pending residence information.



Source: RRPL line list March 14, 2022.

The zones include cases reported by First Nations (FN) jurisdictions based on the location of the FN community.

Far North – Far North West, Far North Central, Far North East;
 North – North West, North Central, North East; Saskatoon;
 Central – Central West, Central East; Regina; South – South West, South Central, South East.

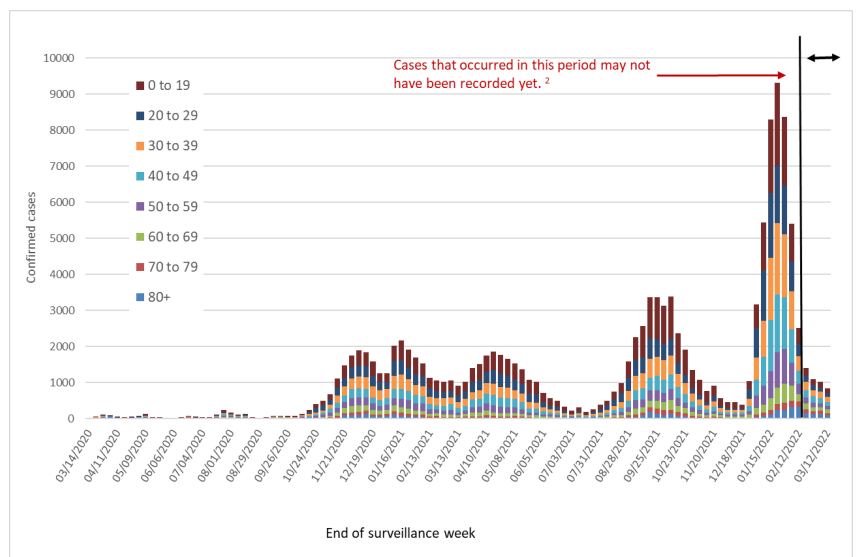
Figure 2: Laboratory-confirmed cases¹, by age group and week, March 8, 2020 to March 12, 2022

- From March 8, 2020 to March 12, 2022, there were 130,082 laboratory-confirmed cases.
- 50.0% were between 20 and 49 years of age and 26.4% were younger than 20 years of age.

Source: Panorama IOM March 14, 2022.

¹ Panorama IOM record.

² Due to data entry lag, cases for this period may be under-reported and not captured in this figure.



Variants of Concern

Table 3: Distribution of Variants of Concern (VOCs) among sequenced COVID-19 cases March 6 to 12, 2022, by zone

MoH Zone	Current week (March 6 - March 12)				Previous week (February 27 - March 5)			
	Omicron VOC		Delta VOC	Total	Omicron VOC		Delta VOC	Total
	BA.2 sublineage	Other sublineage			BA.2 sublineage	Other sublineage		
Far North West	11.1%	88.9%		9	20.0%	80%		10
Far North Central				0		100%		2
Far North East		100%		4		100%		17
North West		100%		17	2.4%	97.6%		41
North Central		100%		29		100%		63
North East	10.0%	90%		10		100%		9
Saskatoon	2.6%	97.4%		76	1.7%	98%		118
Central West		100%		15		100%		13
Central East		100%		28		100%		73
Regina		98.9%	1.1%	89	5.5%	95%		165
South West	62.5%	37.5%		8	50.0%	50.0%		16
South Central	17.9%	82.1%		28	21.2%	78.8%		33
South East	17.9%	82.1%		28	22.9%	77.1%		48
Pending		100%		9		1		29
Total	5.4%	94.3%	0.3%	350	6.3%	93.7%	0.0%	637

Source: Panorama March 14, 2022.

Notes:

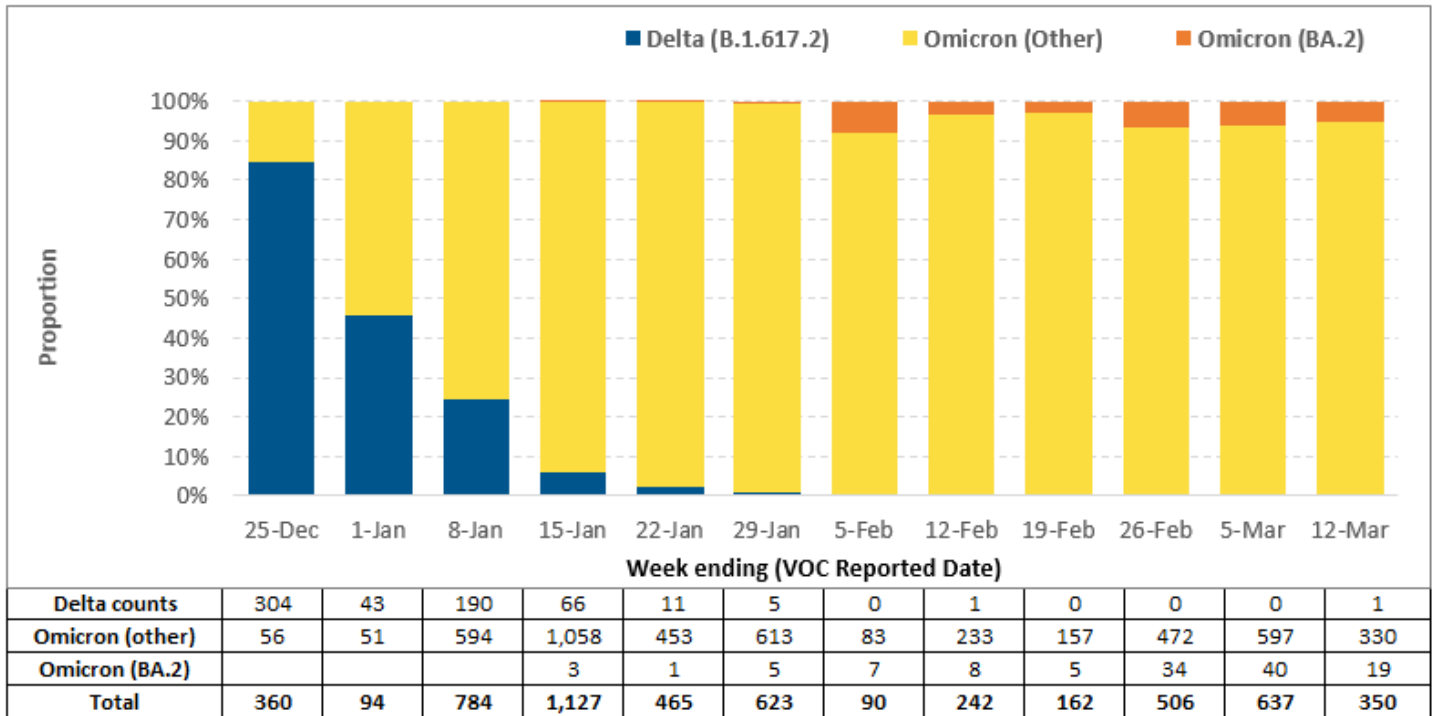
Results are based on the date Variants of Concern (VOC) were reported by the provincial laboratory (RRPL).

Zones are assigned based on information as available in the Panorama database.

Pending cases are those whose geographical information is not available at the time of reporting.

- There were 350 VOCs reported during the current week (March 6 - 12) compared to 637 in the previous week (February 27 – March 5).
- Of the total VOCs reported in the past two weeks, 100% were the Omicron VOCs for the previous week and 99.7% were the Omicron VOCs for the current week.
- 5.4% of Omicron VOC were of sublineage BA.2, which is lower than the previous week (6.3%).

Figure 3: Distribution of VOCs among sequenced COVID-19 cases (N=5,440), December 19, 2021 to March 12, 2022



Data source: Panorama IOM; data extraction: March 14, 2022

VOC reported date are based on date VOC reported by the provincial lab (RRPL)

Results are based on the number of samples sequenced and the date VOCs were reported by RRPL.

- The Omicron VOC was first reported in South Africa, and the World Health Organization (WHO) designated Omicron as a variant of concern on November 26, 2021.
- Of all 5,440 positive samples sequenced between December 19, 2021 and March 12, 2022, 11.4% (621) were Delta VOC and 88.6% (4,819) were Omicron VOC.
- The proportion of Delta VOC declined rapidly, and only one has been reported in the past four weeks.
- The Omicron VOC rapidly increased since the first week of January and became the dominant variant in Saskatchewan.

B. Description of Severe COVID-19 Cases

Table 4: Number and proportion of COVID-19 deaths newly reported during the week of March 6 to 12, 2022

- For the week of March 6 to 12, 2022, there were 28 newly reported COVID-19 deaths.
- Close to half of newly reported deaths were in the Regina and North Central zones combined, with each reporting six (6) deaths.
- Of this week's newly reported deaths, 22 occurred within the week. The other six deaths occurred in previous weeks (February 6 to March 5, 2022), but were reported this week.
- Deaths should be interpreted with caution because of small numbers.

Zone	Deaths	
	Number	Deaths per 100,000 population
FNW		
FNC		
FNE	1	4.1
NW	1	1.2
NC	6	6.7
NE	2	4.8
ST	3	0.9
CW	2	5.4
CE	5	5.1
RE	6	2.2
SW		
SC		
SE	2	2.2
Pending		
SK	28	2.3

Source: Panorama IOM March 14, 2022.

¹ Proportion per 100,000 calculated using the Saskatchewan 2021 Covered Population, 08-Jul-2021 Ministry of Health SAS version (2021 Version 1).

Table 5: Age and sex distribution of deaths with COVID-19, newly reported the week of March 6 to 12, 2022

- For the week of March 6 to 12, 2022, there were 28 newly reported COVID-19 deaths.
- There were five (5) newly reported deaths among those younger than 60 years of age.
- 68% of the deaths were among those 80 years of age or older.
- Just over one-half of deaths were in males.
- Of this week's newly reported deaths, 22 occurred within the week. The other six deaths occurred in previous weeks (February 6 to March 5, 2022), but were reported this week.

		Deaths	
		n	%
	19 and younger		
	20 to 39	1	4
	40 to 59	4	14
Age	60 to 69	2	7
	70 to 79	2	7
	80 and older	19	68
	TOTAL	28	100
	Female	13	46
Sex	Male	15	54
	TOTAL	28	100

Source: Panorama IOM March 14, 2022

Figure 4: Deaths¹ in COVID-19 cases, by age group and week of death, March 8, 2020 to March 12, 2022

- From March 8, 2020 to March 12, 2022, there were 1,179 cases with a fatal outcome.
- 258 (21.9%) were 70 to 79 years of age and 538 (45.6%) were 80 years and older.
- Five (5) or 0.4% of deaths were reported in the 0 to 19 age group.

Source: Panorama IOM March 14, 2022

¹Death means the Panorama IOM record reported outcome-fatal.

²Due to data entry lag, deaths for this period may be under-reported and not captured in this figure.

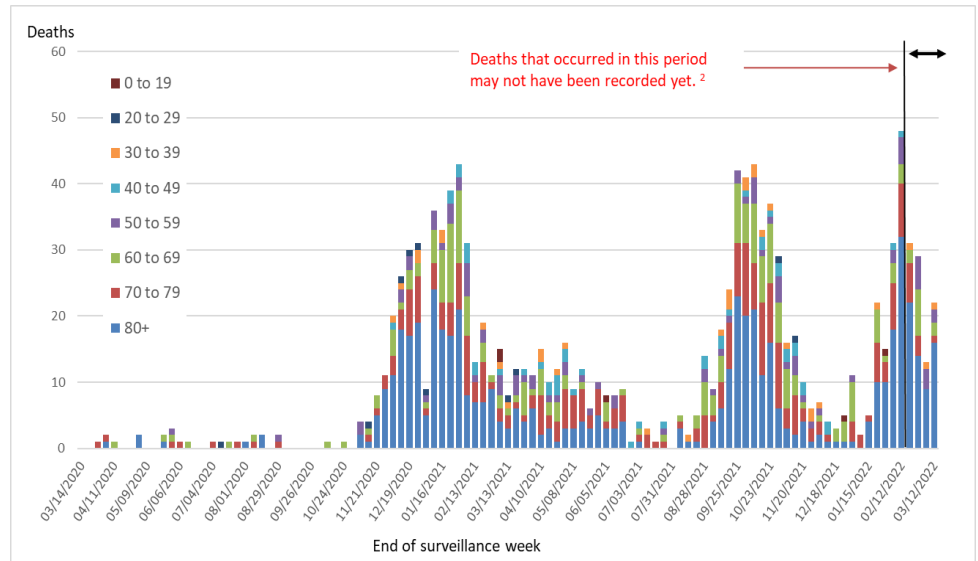


Table 6: Most common pre-existing conditions among severe ** COVID-19 cases in Saskatchewan, as of March 12, 2022

- There were 2,700 discrete cases who reported having one or more underlying pre-existing conditions
- Of the cases with underlying condition, the most common pre-existing conditions were hypertension (53.6%), diabetes (45.2%), heart disease (36.2%), lung disease (27.8%), obesity (8.2%) and pregnancy (2.2%).

Co-morbidity	Number of cases (N=2,700*)	Percent
Hypertension	1,448	53.6%
Diabetes	1,221	45.2%
Heart Disease	978	36.2%
Lung Disease	750	27.8%
Obesity	221	8.2%
Pregnancy	60	2.2%

Source: Panorama IOM March 14, 2022

Note - Some cases reported recently are yet to be reported in Panorama.

*Number of cases represents unique clients.

** Severe cases indicate those cases where case investigation showed admitted to hospital and/or ICU, and death.

C. Sentinel Surveillance

Emergency Department (ED) visits related to COVID-19-like illness (CLI)

Emergency department (ED) visit data regarding COVID-like illness (CLI) is one component of community-based respiratory illness surveillance. Visitors with CLI in EDs reflect the level of respiratory illness activity in the community. Visitors may access EDs as their primary health care service or come when health provider offices are closed.

Table 7: COVID-19-like illness (CLI) surveillance (rate per 1,000) in emergency departments by zone and week, February 5 to March 12, 2022

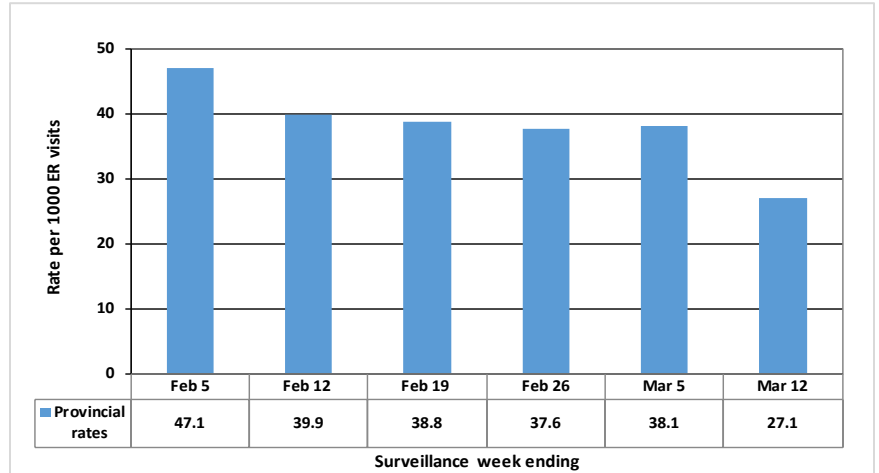
COVID-like patients per 1000 ED visits	Feb 5	Feb 12	Feb 19	Feb 26	Mar 5	Mar 12
Provincial Rate	47.1	39.9	38.8	37.6	38.1	27.1
FNW	59.1	53.6	49.8	72.7	80.4	24.9
FNC	No report	No report	No report	No report	No report	No report
FNE	No report	No report	No report	No report	No report	No report
NW	63.8	60.2	46.8	46.2	32.8	23.5
NC	62.5	No report	No report	No report	No report	No report
NE	129.0	92.0	51.3	155.2	200.0	239.1
ST	31.8	18.2	24.3	12.8	29.5	8.9
CW	47.4	35.6	24.8	89.5	6.7	15.6
CE	No report	No report	No report	No report	No report	No report
RE	24.1	40.0	41.5	26.6	36.0	44.6
SW	114.3	104.2	No report	127.7	No report	No report
SC	No data	0.0	0.0	0.0	No report	0.0
SE	119.4	84.5	183.9	72.3	74.5	105.3
Preschool age 1-4 years	90.1	93.7	110.2	64.9	67.9	72.6
School age 5 -19	17.3	23.6	9.0	33.1	12.7	30.7
Working age 20-64	44.3	38.8	34.8	35.9	36.4	21.4
Seniors 65 +	59.3	33.9	42.6	34.8	43.7	18.3

Source: Emergency department surveillance data, March 14, 2022. No report: no report was submitted by the zone. No data: no data reported by ED.

- Eight of 13 zones submitted data this week.
- This week's provincial rate of 27.1 COVID-like illness patients per 1,000 visits, was notably lower than the six-week average of 38.9/1,000 visits. Respiratory syncytial virus (RSV) had a 13% lab test positivity rate compared to influenza (<1%).
- This week's preschool age rate of 72.6/1,000 visits is an increase over last week but still below the average weekly rate of 83.3/1,000 over the previous six weeks.
- The school age rate at 30.7/1,000 is higher than the previous six-week average rate of 21.1/1000.
- The working age group rate at 21.4/1,000 visits was lower than the average rate in previous six weeks (35.3/1,000).
- The seniors' age group rate at 18.3/1,000 was less than half of the previous six-week average rate of 38.8/1,000 visits.

Figure 5: COVID-19-like illness surveillance in emergency departments, February 5 to March 12, 2022

- The provincial emergency department (ED) rate of visitors with COVID-like illness (CLI), representing eight of 13 areas of the province, was 27.1 patients/1,000 visitors in the reporting week ending March 12, notably lower than the average rate over the previous six weeks (38.9/1000 visits). This week's rate represents 98 COVID-like illness patients among 3,613 visitors to the EDs.



Source: Emergency department surveillance data, March 14, 2022.

Note: COVID-like illness (CLI) may present as the gradual onset of respiratory illness with fever and cough or one or more of the following – severe headache, chills, sore throat, arthralgia, myalgia, gastrointestinal disorder, prostration or shortness of breath which could be due to COVID-19.

HealthLine Callers with COVID-19-like Illness (CLI)

Table 8a: Rate of callers to HealthLine with respiratory-like symptoms per 1,000 calls by zone, week ending March 13, 2022

- In the week ending March 13, of the 1,597 calls to HealthLine (811), 151 callers reported respiratory symptoms similar to COVID-19 and other common respiratory viral infections.

Zone	Number of callers with symptoms	Rate per 1,000 calls
North East	25	126.3
North West	12	98.4
Regina	47	101.3
Saskatoon	37	79.1
South East	14	79.5
South West	16	94.7
Saskatchewan	151	94.6

Source: HealthLine Database March 14, 2022.

Table 8b: Weekly rate trend of callers to HealthLine with respiratory-like symptoms per 1,000 calls by zone

- The provincial rate was 94.6 callers per 1,000 calls, higher than 87.2/1,000 calls last week but marginally less than the week ending February 27 (98.2/1,000).

Zone	Feb 27	Mar 6	Mar 13
North East	107.3	86.1	126.3
North West	110.4	90.2	98.4
Regina	106.7	106.9	101.3
Saskatoon	86.1	89.4	79.1
South East	106.7	65.5	79.5
South West	77.3	48.5	94.7
Province	98.2	87.2	94.6

Source: HealthLine Database March 14, 2022.

D. Outbreak Surveillance

Table 9: New confirmed COVID-19 outbreaks in long-term care and other care home settings reported for the week of March 6 to March 12, 2022, by zone

Surveillance Zones	# COVID-19 Outbreaks in LTC	# COVID-19 Outbreaks in care homes including personal care homes
Far North West		
Far North Central		
Far North East		
North West		2
North Central		
North East		
Saskatoon	1	1
Central West	1	
Central East	1	
Regina	1	
South West	1	
South Central	1	
South East		1
Total	6	4

Source: Outbreak line list, PHB, extracted March 14, 2022.

*By date of first notification.

- Ten (10) confirmed new COVID-19 outbreaks in high risk settings were reported this week.
- Six (6) outbreaks were reported in long term care facilities. Of the four outbreaks in care homes, one (1) was in a personal care home and three (3) in group homes.

Table 10: COVID-19 outbreaks in high risk settings, weeks ending February 5- March 12, 2022

High risk setting	5-Feb	12-Feb	19-Feb	26-Feb	5-Mar	12-Mar	6-week total by setting
# COVID-19 Outbreaks in LTC	23	8	6	8	12	6	63
# COVID-19 Outbreaks in personal care homes, group homes, shelters	18	17	11	4	6	4	60
Total by week	41	25	17	12	18	10	123

Source: Outbreak line list, PHB, extracted March 14, 2022

- Over the past six weeks, sixty-three (63) outbreaks occurred in long term care facilities, thirty-six (36) in personal care homes, twenty-three (23) in group homes, and one (1) in a shelter. Seventy-nine (64%) of the 123 outbreaks are ongoing.
- Figures from previous weeks may change as outbreaks reported earlier as suspect have since been confirmed or outbreaks are entered to the Ministry database.

E. Immunization

Figure 6: COVID-19 immunization coverage (% population 5 years and older) by age group and zone, up to and including March 12, 2022



Notes: Zone is based on the client's address in Panorama. People whose addresses cannot be mapped to a zone are counted only in the Saskatchewan total. The denominator used for coverage calculation is the Saskatchewan 2021 covered population (08-Jul-2021 Ministry of Health SAS version (2021 Version 1)). Completed series is defined as immunized with one dose of a one-dose vaccine or two doses of a two-dose vaccine where the minimum interval criterion is met. Booster doses are additional doses beyond the one or two-dose primary series, with the first additional dose administered 28 days or longer after primary series completion. Although certain sub-populations have been identified as requiring a three-dose primary series, they cannot be reliably identified in the Panorama immunization registry. These doses are therefore counted as booster doses. Lloydminster is in the North West zone. Some Alberta residents living in Lloydminster, AB are included in the numerator but they are not included in the denominator. This results in an overestimation of the percentage of the population immunized in the North West zone. Although proof of vaccination now allows for non-Health Canada approved vaccines (nonHCAVs), they are NOT included in the immunization coverage tables.

As of March 12, 2022:

- Of the population five years and older:
 - 85.6% received at least one dose of a two-dose COVID-19 vaccine, no change from week earlier, and
 - 80.5% completed a series compared to 80.4% the week earlier (as of March 5, 2022).
- Among the population 12 years and older, 47.5% had received at least one booster (not shown in the chart) compared to 47.3% the week earlier.
- Among the population 18 years and older, 51.0% had received at least one booster (not shown in the chart) compared to 50.9% the week earlier.
- Among the youngest age group, five to 11 years of age:
 - 56.0% received one dose compared to 55.9% the week earlier, and
 - 38.6% completed their series compared to 38.1% the week earlier.
- The Regina zone at 82.3% is the only zone reporting over 80% of the eligible population with a completed series. All others are below 80%.

Table 11a: Vaccine doses administered March 6 to 12, 2022

- During the week of March 6 to 12, 2022, 3,741 doses of COVID-19 vaccine were administered, of which 789 (21.1%) were pediatric primary series doses and 2,453 (65.6%) were booster doses.

Type of dose	Number
First dose of two	321
Second dose of two	955
Janssen single dose	12
First and second boosters after completed series*	2,453
Total	3,741
Pediatric doses	789

*Completed series is defined as immunized with one of a one-dose vaccine or two doses of a two-dose vaccine where the minimum interval criterion is met. Booster doses are additional doses beyond the one or two-dose completed series and meeting certain minimum interval criteria.

Source: Panorama immunization registry March 14, 2022

Table 11b: Cumulative vaccines doses administered from start of the immunization campaign (December 15, 2020) to March 12, 2022

- Since the start of the immunization campaign to March 12, 2022, about 2.4 million doses of COVID-19 vaccine were administered.
- Of these, about 1.9 million (78.8%) were administered for a primary series, of which 103,862 were pediatric doses.

Type of dose	Number
Pediatric primary series doses	103,862
Primary series doses including pediatric doses	1,879,169
Total Doses including Booster Doses	2,384,559

Source: Panorama immunization registry March 14, 2022

F. Abbreviations

General

- CLI – COVID-19-like illness
- ED – emergency department
- FNIHB – First Nations and Inuit Health Branch
- ICU – intensive care unit
- IOM – Investigations and Outbreak Module – Panorama
- LTC – long-term care
- NA – not available
- NITHA – Northern Inter-Tribal Health Authority
- OOP – out of province
- PCR – polymerase chain reaction
- PHB – Population Health Branch
- SHA – Saskatchewan Health Authority
- SK – Saskatchewan
- SNP – single nucleotide polymorphism
- RRPL – Roy Romanow Provincial Laboratory

- WGS – whole genome sequencing
- WHO – World Health Organization

13 Zones

- FNW – Far North West zone
- FNC – Far North Central zone
- FNE – Far North East zone
- NW – North West zone
- NC – North Central zone
- NE – North East zone
- ST – Saskatoon zone
- CW – Central West zone
- CE – Central East zone
- RE – Regina zone
- SW – South West zone
- SC – South Central zone
- SE – South East zone

G. Technical Notes

Case Definition and Methods Overview

Confirmed cases are people with laboratory confirmation of infection with the virus that causes COVID-19 using a Health Canada approved test or confirmed at a reference laboratory (NML or RRPL). It requires detection of at least one specific gene target by nucleic acid amplification tests (i.e., real-time PCR or nucleic acid sequencing).

Laboratory testing is reserved for priority populations at elevated risk for severe outcomes. More information on the priority populations may be found [here](#).

Statistics presented in this report represent counts and crude incidence rates for zones and aggregated to the provincial level.

Data sources are the provincially mandated Panorama database, the Roy Romanow Provincial Laboratory LabWare database, as well as local public health. Confirmed cases must meet the provincial case definition. Surveillance case definitions ensure uniform reporting to allow comparability of surveillance data. The definitions are not intended to be used for clinical or laboratory diagnosis or management of cases. Proportions are calculated using the 2021 SK covered population as the denominator.

The counts and rates presented in this summary report are dependent on the timely reporting by physicians and laboratories to the local Medical Health Officer and timely entry of notifiable disease information into Panorama IOM.

As the counts are constantly being updated, the numbers and rates calculated may differ from previous summary reports. This is a result of a combination of factors including late reporting, data cleaning and verification.

Data on COVID-19 cases use Panorama IOM as the primary source. However, in some instances when the case has not yet been entered into Panorama, the RRPL data becomes the source for the time being (e.g., age, sex, geography) until the case is eventually entered. Additionally, if certain data elements in Panorama are missing or unknown, RRPL also becomes the source to fill in the gaps where the information is available in the RRPL data.

The geographical assignment of cases follows the Panorama IOM rules for documenting geography, as opposed to the assignment of zones by RRPL. As a result, some RRPL location/geography of cases and testing information may not match Panorama IOM (testing information cannot be reconciled because negative tests are not entered into IOM). Panorama IOM geography guidelines take into consideration the client's residence in a certain period, the residence upon diagnosis, and other factors. First Nations individuals under the jurisdiction of the First Nations and Inuit Health Branch (FNIHB) or the Northern Inter-Tribal Health Authority (NITHA) are included in the geographic areas.

Notifiable diseases are generally under-detected and underreported due to a number of factors including client's lack of contact with health care, inability to isolate organism, etc.

Rates based on small numbers may fluctuate dramatically over time and may not have public health significance.

As of February 7, 2022 RRPL PCR testing was reserved for populations deemed to be at an elevated risk for severe outcomes:

- Hospitalized patients, those admitted or transferred between acute, long-term care or personal care homes
- High-risk populations as ordered by the medical health officer: residents in long-term care, personal care homes and congregate living facilities; and international or travellers from areas of concern
- Priority symptomatic persons: health-care workers or essential workers who have a negative rapid antigen test but remain symptomatic; those with chronic illness (diabetes, history of cancer, cardiac failure, etc.)
- Symptomatic people living or working in First Nation and Métis communities
- Surgical patients with symptoms or a positive rapid antigen test if scheduled or expecting to receive surgery within the next 90 days
- Pregnant patients who are symptomatic and more than 30 weeks gestation
- Symptomatic immunocompromised individuals including all transplant donors and recipients prior to and post-transplant; all oncology patients prior to, receiving or post chemotherapy
- Newborns born to COVID-19-positive parents, prior to discharge.

- Health-care workers and workers deemed essential under the current public health order with negative rapid antigen results who remain symptomatic will be eligible for PCR tests.

In 2019/20 about one-third of the SK population aged one year and older had at least one of eight priority chronic conditions (asthma, COPD, diabetes, hypertension, heart failure, ischemic heart disease, stroke, and dementia), making about half of the population eligible for PCR testing.

Fatal Cases (Deaths) Table

- Includes all deaths entered into Panorama IOM.
- For those reported in the specified week, the deaths that were not previously reported are counted, regardless of when the death occurred.

VOC Section

Variant of concern (VOC) cases:

- VOCs are SARS-CoV-2 viruses that have undergone genetic modification or mutation causing in altered virus infectivity, replication and pathogenicity. As a result it can alter host immune response. The Roy Romanow Provincial Laboratory (RRPL) tests for and monitors COVID-19 variants of concern (VOCs) in Saskatchewan. Confirmation of VOC lineages is done by conducting whole genome sequencing (WGS) at RRPL or the National Microbiology Laboratory. It takes one to two weeks to complete WGS.
- Data sources for VOCs analysis include testing data from the RRPL, and epidemiological information from Panorama. Where geographical zone is missing in RRPL or Panorama data, the Saskatchewan postal code file is used to identify cases' geographical information.

Severe Case Immunization Status

- Rate of COVID-19 hospitalization, ICU admission or death by the vaccine status was obtained by the number of hospitalizations, ICU admissions or deaths (numerator) divided by the mid period population by vaccine status (denominator), multiplied by 100,000.
- To eliminate bias of age, all rates are adjusted by age. Direct standardization method is employed using the Saskatchewan population as the standard population.
- Estimates of relative risk (i.e. rate ratios) are obtained by comparing vaccinated with two doses (three dose) and unvaccinated / unprotected.

Emergency Department Visits

- Data collection from EDs: Monitoring will be done for a twenty-four hour period on at least one week day (the exact time period will vary with the ED schedule). The ED should report to local public health services in their area on Wednesday afternoon and public health will report to the Ministry of Health on Thursday each week. This may increase to include one weekend day in certain areas if CLI activity is increasing and laboratory-confirmations support the need to do so.
- The count of CLI patients in each of four broad age categories, preschool (approximately 0-4 years), school age (approx. 5-19 years), working age group (approx. 20-64 years), seniors (approx. 65 years plus) as a proportion of total ED admissions in those age categories is captured. The age group in which to place a patient is determined in part by the age groups used by the ED's administrative database. The categories are approximate but provide a general profile of the broad age groups most affected by COVID-19.
- Reporting ED surveillance information: Because there is no centralized data capture source for ED admissions in the province each health area sets up a mechanism for EDs to report to public health services.
- Public health aggregates raw data from their EDs on the prescribed data collection form and sends it to the Ministry of Health for overall provincial monitoring.
- FNIHB and NITHA will report to the local zone in which the ED or health centre is located. This does not preclude monitoring in First Nations health care facilities.

HealthLine callers with Respiratory Symptoms

- A count of protocols specific to callers with viral respiratory-like illness symptoms is completed by HealthLine nurses.
- The respiratory-like illness protocol count is tallied for a designated period each week and transformed into the rate of callers with respiratory symptoms from each zone per 1000 calls from that zone from callers with any type of symptom

Outbreaks

- A confirmed outbreak is defined as two or more COVID-19 cases in settings outside a household where transmission is evident or there is a high level of suspicion of transmission.
- Outbreaks are reported by the week they were reported to the local public health office and not necessarily in the week that the outbreak began.
- # COVID-19 Outbreaks in LTC: number of COVID-19 outbreaks reported that occurred in a designated special care facility (LTC) (cumulative or in current reporting week).
- # COVID-19 Outbreaks in care homes: number of COVID-19 outbreaks reported that occurred in semi-closed settings where personal care is provided. This includes designated homes where the elderly reside or homes for the developmentally challenged (cumulative or in current reporting week). It also includes homes where residents are under the care of social services and in shelters.

H. Map of Saskatchewan by Zone and Sub-Zone

