

COVID-19 Integrated Epidemiology Situation Report

Week of April 3 – 9, 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

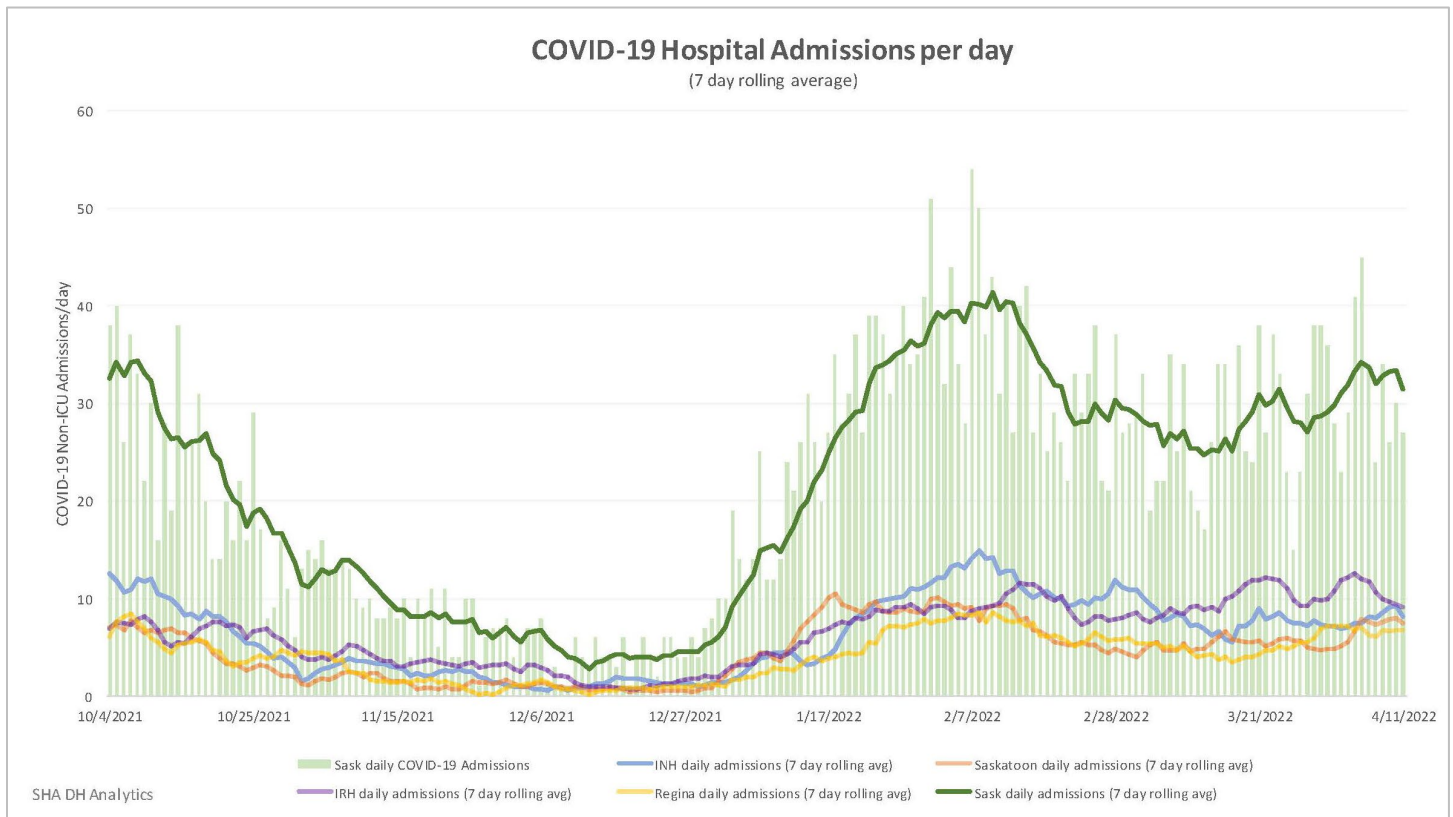
- 7,996 laboratory tests were performed in Saskatchewan reflecting 6.6 tests performed per 1,000 population.
- The number of tests was higher than the number of tests in the previous week (7,689).
- More than one in eight laboratory tests were positive (weekly test positivity of 13.0%), which is similar to the previous week (13.2%).
- 1,051 new cases were confirmed reflecting about 0.9 laboratory-confirmed cases per 1,000 population.
- The number of new laboratory-confirmed cases was slightly higher than the number of new cases in the previous week (1,032).
- There were 375 new lineage results reported this week. Of the 375 variants of concern identified by whole genome sequencing, 100% were Omicron.
- The Omicron BA.2 sublineage accounted for 41.3% of the VOCs reported this week, which was almost twice as high compared to the previous week.
- There were 20 newly-reported COVID-19 deaths, 16.6% lower than in the previous week (24).
- There were 43.4 COVID-like illness patients per 1,000 emergency department visits which is higher than the average weekly rate in the previous six weeks (32.9 per week/1,000 visits).
- 16 confirmed COVID-19 outbreaks in long-term care and care home settings were reported this week.
- As of April 9, 2022, of the population five years and older, 85.7% received at least one dose of a two-dose COVID-19 vaccine and 80.7% completed a series.
- Among the population 18 years and older, 51.5% had received at least one booster vaccination.

Weekly COVID-19 Hospitalization Indicators: April 6, 2022 as compared to April 13, 2022

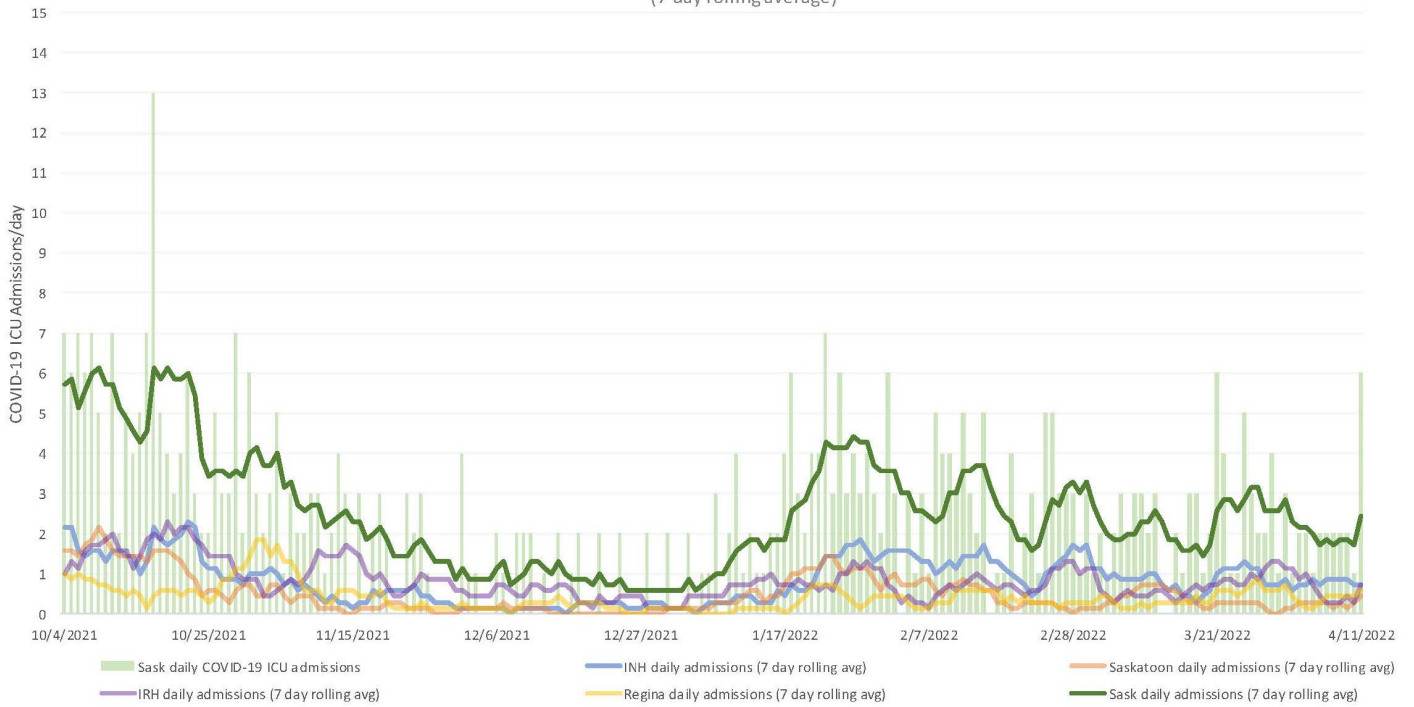
	6-Apr	13-Apr	Change from last reporting period
Total Covid Hospitalized	354	403	+49
Total Covid Adult ICU/ICU Surge	20	25	+5
Average Daily Admissions over past 7 days	34	28	-6
Total Covid Related Illness	145	152	+7
Total Incidental Covid Infection	177	232	+55
Total Patient Under Investigation	32	19	-13

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.



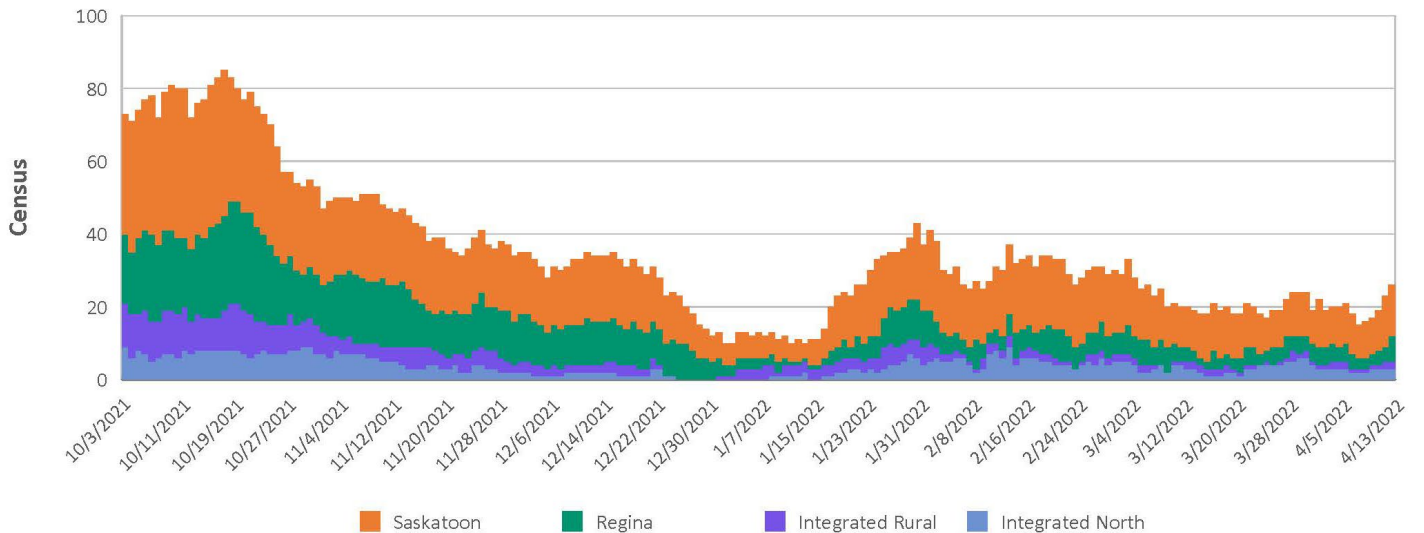
COVID-19 ICU Admissions per day (7 day rolling average)



SHA DH Analytics

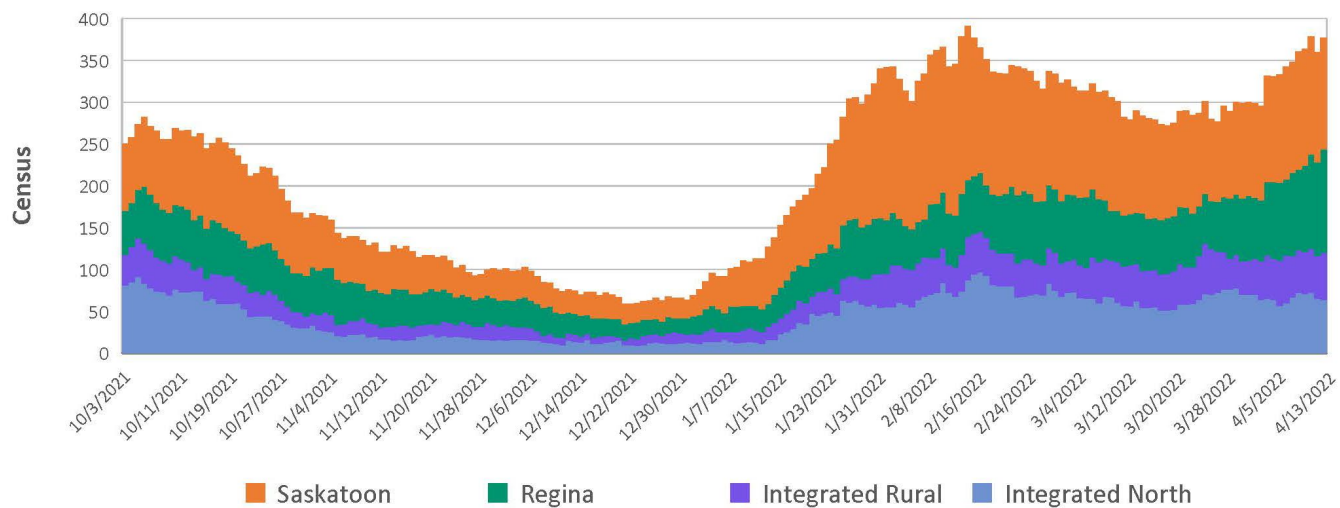
Saskatchewan Health Authority COVID-19 Daily Census at Noon by Facility ISA

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



Distribution of Rapid Antigen Tests in Saskatchewan by Streams from November 2020 to April 8, 2022

Sector	SPSA	SHA	Sector Totals
SHA Internal	0	3,988,688	3,988,688
NITHA/ISC	2,305,310	433,720	2,739,030
Schools	1,078,415	1,390,000	2,468,415
Congregate Living	232,095	424,702	656,797
Law Enforcement & Fire Depts.	161,680	37,440	199,120
EMS	0	15,615	15,615
Test to Protect & Unclassified	0	304,700	304,700
Public Distribution Centres	7,504,735	1,372,660	8,877,395
Total Tests:	11,282,235	7,967,525	19,249,760

- 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>
- Previously reported rapid testing tables included all rapid test types, including Abbot ID Now tests which are a rapid PCR test used exclusively in healthcare settings. The table has been updated for the week ending March 31 to report rapid antigen tests only.

Table of Contents

A. Laboratory Surveillance	6
Overview of COVID-19 Laboratory Tests	6
Overview of COVID-19 Laboratory-Confirmed Cases	7
Variants of Concern	9
B. Description of Severe COVID-19 Cases	11
C. Sentinel Surveillance	13
Emergency Department (ED) visits related to COVID-19-like illness (CLI)	13
HealthLine Callers with COVID-19-like Illness (CLI)	14
D. Outbreak Surveillance	15
E. Immunization	16
F. Abbreviations	17
G. Technical Notes	18
Case Definition and Methods Overview	18
Fatal Cases (Deaths) Table	19
VOC Section	19
Emergency Department Visits	19
HealthLine callers with Respiratory Symptoms	19
Outbreaks	19
H. Map of Saskatchewan by Zone and Sub-Zone	20

A. Laboratory Surveillance

Overview of COVID-19 Laboratory Tests

Table 1: Summary of COVID-19 laboratory tests for the week of April 3 to 9, 2022, by zone

Zone	Current Week (April 3 to April 9, 2022)			Previous Week (March 27 to April 2, 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	132	9.8%	4.4	128	6.3%	4.3	↑ 3.5	↑ 0.1
FNC	12		4.5	3		1.1	→ 0.0	↑ 3.4
FNE	84	9.5%	3.5	72	8.3%	3.0	↑ 1.2	↑ 0.5
NW	354	10.5%	4.3	386	9.6%	4.7	↑ 0.9	↓ -0.4
NC	276	11.2%	3.1	287	7.3%	3.2	↑ 3.9	↓ -0.1
NE	234	13.7%	5.6	252	9.5%	6.1	↑ 4.2	↓ -0.5
ST	1,582	15.9%	4.7	1,381	18.3%	4.1	↓ -2.4	↑ 0.6
CW	116	20.7%	3.1	166	10.2%	4.5	↑ 10.5	↓ -1.4
CE	494	16.0%	5.0	501	18.6%	5.1	↓ -2.6	↓ -0.1
RE	670	17.9%	2.5	532	20.3%	1.9	↓ -2.4	↑ 0.6
SW	167	9.6%	4.3	165	9.1%	4.3	↑ 0.5	→ 0.0
SC	320	11.9%	5.3	325	18.8%	5.4	↓ -6.9	↓ -0.1
SE	291	16.8%	3.3	321	15.0%	3.6	↑ 1.8	↓ -0.3
Unknown	3,264	10.5%		3,170	10.1%		↑ 0.4	
SK	7,996	13.0%	6.6	7,689	13.2%	6.4	↓ -0.2	↑ 0.2

Source: RRPL Daily Test Count Table by new zones, extracted April 11, 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 April 3 - 9, 2022:

- 7,996 laboratory tests were performed in Saskatchewan.
- The number of tests per 1,000 population was 6.6. This was slightly higher than the previous week (March 27 to April 2, 2022) by 0.2 tests per 1,000 population. It was also higher than the average for the previous four weeks (March 6 to April 2, 2022) by 0.5 tests per 1,000 population where the weekly average rate was 6.1 tests per 1,000 population.
- The North East zone had the highest testing rate (5.6 tests per 1,000 population). The Regina zone had the lowest testing rate (2.5 tests per 1,000 population).
- 13.0% of tests in the province were positive. This was 0.2 percentage points lower than in the previous week (March 27 to April 2, 2022), but higher than the average for the previous four weeks (March 6 to April 2, 2022) where the average was 12.2%.
- The Central West zone (20.7%) had the highest test positivity. Of zones with positive cases, the Far North East zone had the lowest test positivity (9.5%).

Overview of COVID-19 Laboratory-Confirmed Cases

Table 2: Summary of new laboratory-confirmed COVID-19 cases per 1,000 population for the week of April 3 to 9, 2022 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 1,000	Confirmed cases	Cases ¹ per 1,000		Confirmed cases	Cases ¹ per 1,000	
FNW	12	0.4	9	0.3	↑ 0.1	17	0.6	↓ -0.2
FNC	1	0.4			↑ 0.4			↑ 0.4
FNE	9	0.4	7	0.3	↑ 0.1	14	0.6	↓ -0.2
NW	58	0.7	71	0.9	↓ -0.2	103	1.2	↓ -0.5
NC	49	0.6	40	0.4	↑ 0.2	46	0.5	↑ 0.1
NE	36	0.9	29	0.7	↑ 0.2	42	1.0	↓ -0.1
ST	294	0.9	314	0.9		250	0.7	↑ 0.2
CW	37	1.0	29	0.8	↑ 0.2	29	0.8	↑ 0.2
CE	99	1.0	133	1.4	↓ -0.4	103	1.0	
RE	181	0.7	183	0.7		181	0.7	
SW	18	0.5	19	0.5		28	0.7	↓ -0.2
SC	49	0.8	65	1.1	↓ -0.3	59	1.0	↓ -0.2
SE	62	0.7	77	0.9	↓ -0.2	80	0.9	↓ -0.2
Pending	146		56			37		
SK	1,051	0.9	1,032	0.9		988	0.8	↑ 0.1

Source: RRPL line list April 11, 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 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. Also, seven (7) people that tested out-of-province are included as cases, but will not be included in testing data.

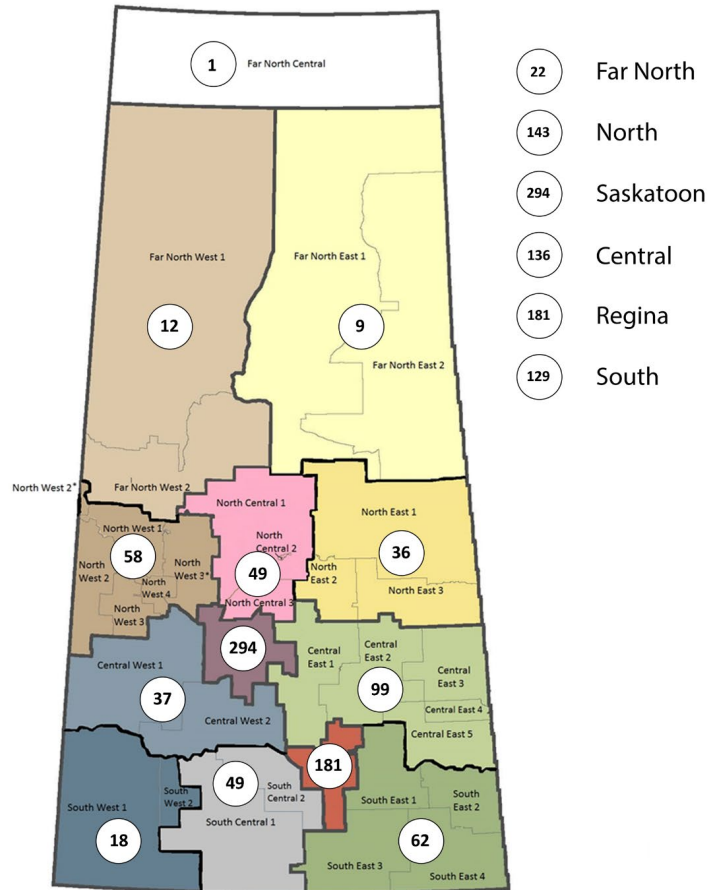
For the week of April 3 - 9, 2022

- 1,051 new cases were confirmed by a positive laboratory test.
- The proportion of new laboratory-confirmed cases was 0.9 per 1,000 population, unchanged from the last week.
- It was higher than the average weekly rate for the previous four weeks (March 6 to April 2, 2022) by 0.1 cases per 1,000 population.
- The highest proportion of new cases for the week was in Central East and Central West zones (both 1.0 per 1,000 population). The lowest were Far North West, Far North Central, and Far North East (0.4 per 1,000 population each).
- Compared with last week's proportion of cases, six zones increased (FNW, FNC, FNE, NC, NE, and CW), four decreased (NW, CE, SC, and SE), and three remain unchanged (ST, RE, and SW).
- 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 April 3 to 9, 2022

For the week of April 3 to 9, 2022:

- 22 new cases in the Far North (FNW, 12 cases; FNC, 1 cases; FNE,9 cases);
- 143 new cases in the North (NW, 58 cases; NC, 49 cases; NE, 36 cases);
- 294 new cases in the Saskatoon area;
- 136 new cases in the Central area (CW, 37 cases; CE, 99 cases);
- 181 new cases in the Regina area; and
- 129 new cases in the South (SW, 18 cases; SC, 49 cases; SE, 62 cases).
- 146 new cases still have pending residence information.



Source: RRPL line list April 11, 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.

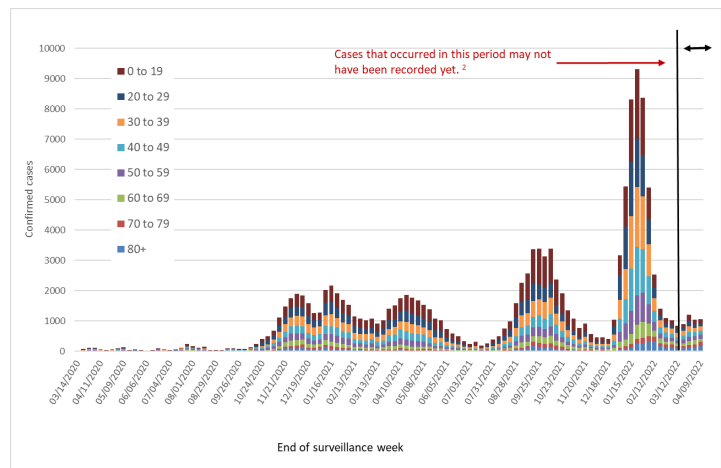
Figure 2: Laboratory-confirmed cases¹, by age group and week, March 8, 2020 to April 9, 2022

- From March 8, 2020 to April 9, 2022, there were 134,252 laboratory-confirmed cases.
- Close to one half of cases were between 20 and 49 years of age and over one quarter were younger than 20 years of age.
- There were 1,051 laboratory confirmed cases this week, 19 more compared with last week.

Source: Panorama IOM April 11, 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 for the week April 3 to 9, 2022 by zone

MoH Zone	Current week (April 3 - 9, 2022)				Previous week (March 27 – April 2, 2022)			
	Omicron VOC		Delta VOC	Total	Omicron VOC		Delta VOC	Total
	BA.2 sublineage	Other sublineage			BA.2 sublineage	Other sublineage		
Far North West	25.0%	75.0%		8	16.7%	83.3%		6
Far North Central				0				0
Far North East		100.0%		4	40.0%	60.0%		5
North West	42.4%	57.6%		59	28.6%	71.4%		35
North Central	23.1%	76.9%		13	26.1%	73.9%		23
North East	26.7%	73.3%		15	4.0%	96.0%		25
Saskatoon	39.5%	60.5%		76	20.0%	80.0%		130
Central West	70.0%	30.0%		10	5.0%	95.0%		20
Central East	39.5%	60.5%		43	15.9%	84.1%		44
Regina	47.5%	52.5%		59	24.1%	75.9%		79
South West	76.9%	23.1%		13	71.4%	28.6%		14
South Central	54.1%	45.9%		37	19.0%	81.0%		21
South East	22.2%	77.8%		36	15.6%	84.4%		32
Pending	50.0%	50.0%		2	33.3%	66.7%		6
Total	41.3%	58.7%	0	375	21.4%	78.6%	0	440

Source: Panorama April 11, 2022.

Notes:

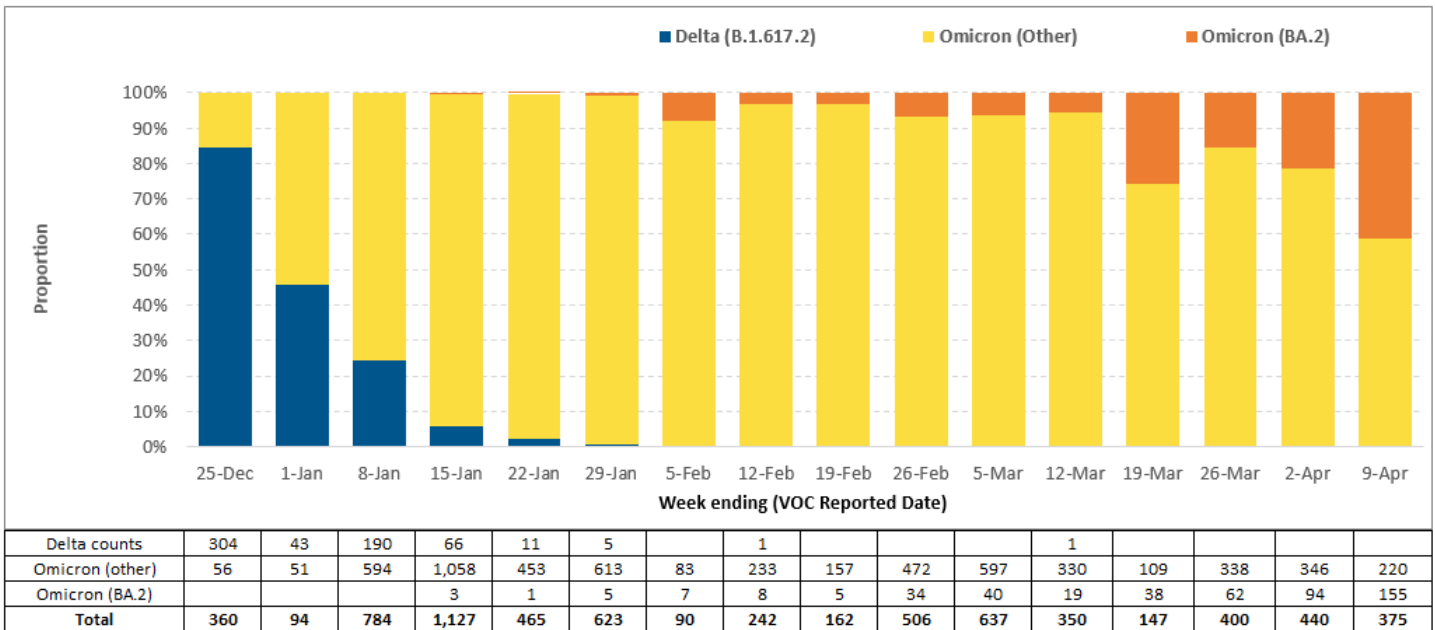
Results are based on the date Variants of Concern (VOC) were reported by the provincial laboratory (RRPL).

MoH 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 375 VOCs reported during the current week (April 3 - 9) compared to 440 in the previous week (March 27 - April 2).
- Of the total VOCs reported in the past two weeks, 100% were of Omicron lineage.
- 41.3% of Omicron VOC were of sublineage BA.2 which was almost double in comparison to previous week.

Figure 3: Distribution of VOCs among sequenced COVID-19 cases (N=6,802), between weeks ending on December 25, 2021 and week ending on April 9, 2022



Data source: Panorama IOM; data extraction: April 11, 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 designated Omicron as a variant of concern on November 26, 2021.
- Of all 6,802 positive samples sequenced between December 19, 2021 and April 9, 2022, 9.1% (621) were Delta VOC and 90.9% (6,181) were Omicron VOC.
- The proportion of Delta VOC declined rapidly, and none has been reported in the past four reporting 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 April 3 to 9, 2022

- For the week of April 3 to 9, 2022, there were 20 newly reported COVID-19 deaths.
- One-quarter, five (5), of the newly reported deaths were in the Central East zone.
- Of this week's newly reported deaths, 15 occurred within the week. The other five (5) deaths occurred in previous weeks (February 3 to April 2, 2022), but were reported this week.
- Death rates should be interpreted with caution because of small numbers.

Zone	Deaths	
	Number	¹ Deaths per 100,000 population
FNW	1	3.4
FNC		
FNE		
NW	2	2.4
NC	2	2.2
NE		
ST	2	0.6
CW		
CE	5	5.1
RE	4	1.5
SW	1	2.6
SC	2	3.3
SE	1	1.1
Pending		
SK	20	1.7

Source: Panorama IOM April 11, 2022.

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

This week's newly reported deaths did not necessarily occur in this past week. They may have occurred in previous weeks but only reported in this week.

Table 5: Age and sex distribution of deaths with COVID-19, newly reported the week of April 3 to 9, 2022

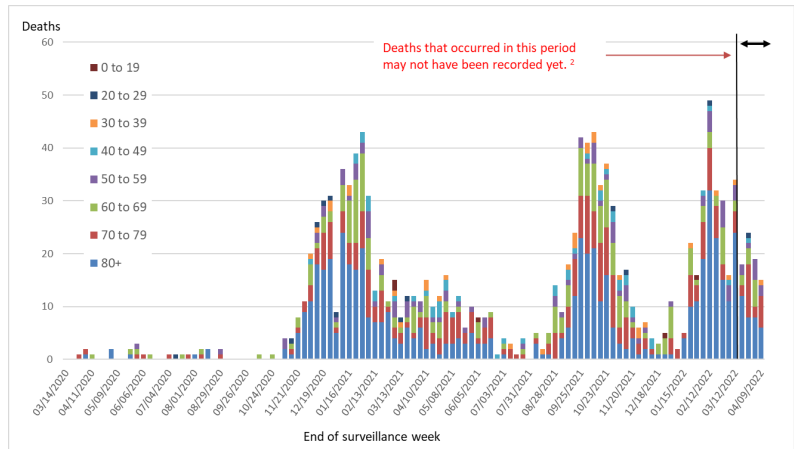
- For the week of April 3 to 9, 2022, there were 20 newly reported COVID-19 deaths.
- Three (3) of the newly reported deaths, 15%, were among those 59 years and younger.
- 16 of 20, 80%, of the deaths were among those 70 years of age or older.
- Deaths were evenly split between males and females.
- Of this week's newly reported deaths, 15 occurred within the week. The other five (5) deaths occurred in previous weeks (February 3 to April 2, 2022), but were reported this week.

Age and sex distribution		Deaths	
		n	%
Age (years)	19 and younger		
	20 to 39	1	5
	40 to 59	2	10
	60 to 69	1	5
	70 to 79	6	30
	80 or older	10	50
	TOTAL	20	100
Sex	Female	10	50
	Male	10	50
	TOTAL	20	100

Source: Panorama IOM April 11, 2022

Figure 4: Deaths¹ in COVID-19 cases, by age group and week of death, March 8, 2020 to April 9, 2022

- From March 6, 2020 to April 9, 2022, there were 1,275 cases with a fatal outcome.
- Over one in five deaths (281 or 22.0%) were in the 70 to 79 year age group and close to half (586 or 46.0%) were in the 80 years and older group.
- Five (5), or 0.4% of deaths, were reported in the age group 19 years and younger.



Source: Panorama IOM April 11, 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 between, March 8, 2020 and April 9, 2022**

- There were 2,870 severe 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 (54.1%), diabetes (45.3%), heart disease (36.4%), lung disease (27.8%), obesity (8.0%) and pregnancy (2.2%)

Co-morbidity	Number of cases (N=2,870*)	Percent
Hypertension	1,554	54.1%
Diabetes	1,301	45.3%
Heart Disease	1,046	36.4%
Lung Disease	797	27.8%
Obesity	230	8.0%
Pregnancy	62	2.2%

Source: Panorama IOM April 11, 2022

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

*Number of cases represents unique clients who can have more than one underlying condition.

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

C. Sentinel Surveillance

Sentinel surveillance, or community surveillance, uses information from health-related sources that reflects human behaviour among people who become ill but who may not be lab tested or become clinically severe with an infection. For example, these individuals may visit an emergency department or call HealthLine seeking health-related advice.

Other respiratory viruses detected by the provincial laboratory network in the week of April 3-9 were respiratory syncytial virus (RSV) 21.8% positive tests, enterorhinovirus (17.1% positive tests) and influenza (6.0% positive tests). This compared to COVID-19 at 13.0% of tests that were positive.

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 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 visits) in emergency departments by zone and week, March 5 to April 9, 2022

COVID-like patients per 1,000 ED visits	Mar 5	Mar 12	Mar 19	Mar 26	Apr 2	Apr 9
Provincial Rate	38.1	27.1	30.0	25.7	38.6	43.4
FNW	80.4	24.9	15.6	11.9	15.9	32.5
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	32.8	23.5	27.2	29.7	39.4	33.6
NC	No report	No report	No report	No report	No report	No report
NE	200.0	239.1	328.1	148.1	205.5	337.2
ST	29.5	8.9	9.7	15.0	20.7	20.4
CW	6.7	15.6	50.0	No report	80.6	103.7
CE	No report	No report	No report	No report	No report	No report
RE	36.0	44.6	23.2	39.0	42.3	38.0
SW	No report	No report	136.4	No report	No report	No report
SC	No report	0.0	0.0	0.0	0.0	No report
SE	74.5	105.3	162.2	No report	166.7	177.6
Preschool age 1-4 years	67.9	72.6	68.4	52.0	65.2	89.3
School age 5-19	12.7	30.7	28.9	31.4	25.6	25.6
Working age 20-64	36.4	21.4	24.1	19.0	32.6	38.1
Seniors 65+	43.7	18.3	27.1	25.6	50.3	40.6

Source: Emergency department surveillance data, April 11, 2022. No report: no report was submitted by the zone. No data: no data reported by ED.

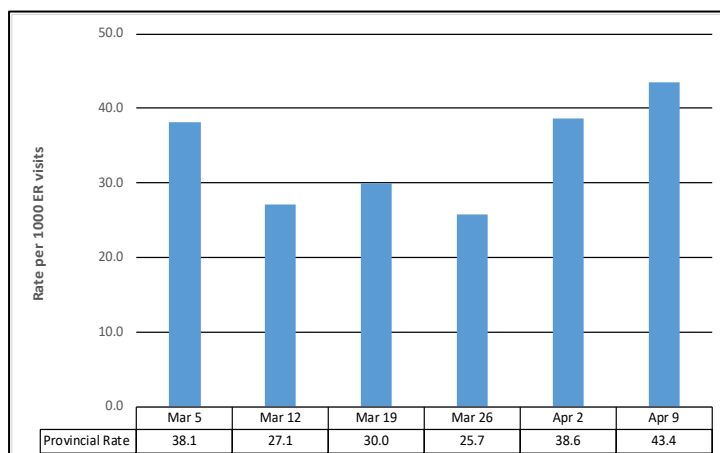
- Seven (7) of 13 zones submitted data this week.
- This week's provincial rate of 43.4 COVID-like illness patients per 1,000 visits was higher than the previous six-week average of 32.9/1,000 visits.
- This week's preschool age rate of 89.3/1,000 visits was notably higher than last week (65.2/1,000) and the average rate of 65.2/1,000 over the previous six weeks.
- The school age rate at 25.6/1,000 visits is similar to the previous six-week average rate of 27.1/1,000 visits.
- The working age group rate at 38.1/1,000 visits was notably higher than the average rate in previous six weeks (28.2/1,000).
- The seniors age group rate at 40.6/1,000 visits was also higher than the previous six-week average rate of 33.3/1,000 visits

Figure 5: COVID-19-like illness surveillance in emergency departments, March 5 to April 9, 2022

- The provincial ED rate of visitors with CLI, representing seven (7) of 13 areas of the province, was 43.4 patients/1,000 visitors in the reporting week ending April 9, higher than the average rate over the previous six weeks (32.9/1000 visits).
- This week's rate represented 172 CLI patients among 3,966 visitors to the EDs.

Source: Emergency department surveillance data, April 11, 2022.

Note: 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 integrated service area (ISA), week ending April 10, 2022

- In the week ending April 10, of the 1,857 calls to HealthLine 811, 238 callers reported respiratory symptoms similar to COVID-19 and other common respiratory viral infections.
- The provincial rate was 128.2 callers per 1,000 calls, lower than 150.5/1,000 calls last week but higher than the average rate in the six weeks prior (110.1/1,000 calls).
- Rate of callers with respiratory symptoms to HealthLine can fluctuate widely week over week, dependent on the number of ill people making calls to 811.

Integrated Service Area	Number of callers with symptoms	Rate per 1,000 calls
North East	20	115.6
North West	15	110.3
Regina	75	134.9
Saskatoon	94	154.4
South East	16	83.8
South West	18	93.7
Saskatchewan	238	128.2

Source: HealthLine Database April 11, 2022.

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

- The rate of callers to HealthLine with respiratory-like symptoms declined in the North West Integrated Service Area this week. The highest rates this week are in the Regina and Saskatoon ISAs (134.9/1,000 and 154.4/1,000, respectively)
- Though the rate in Regina was lower than last week while Saskatoon continued to rise gradually over the past six weeks.

Integrated Service Area	6-Mar	13-Mar	20-Mar	27-Mar	3-Apr	10-Apr
North East	86.1	126.3	68.8	90.9	105.0	115.6
North West	90.2	98.4	116.8	133.3	177.4	110.3
Regina	106.9	101.3	92.6	121.5	165.7	134.9
Saskatoon	89.4	79.1	116.6	143.4	148.6	154.4
South East	65.5	79.5	117.0	141.5	149.6	83.8
South West	48.5	94.7	120.3	107.1	148.0	93.7
Province	87.2	94.6	103.5	126.5	150.5	128.2

Source: HealthLine Database April 11, 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 April 3 to 9, 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	1	
North Central	1	
North East	1	
Saskatoon	1	4
Central West		
Central East		
Regina	3	2
South West		
South Central	3	
South East		
Total	10	6

Source: Outbreak line list, PHB, extracted April 11, 2022.

*By date of first notification.

- 16 confirmed new COVID-19 outbreaks in LTC and PCH settings were reported this week.
- Ten (10) outbreaks were reported in long term care facilities. Outbreaks occurred in five (5) personal care homes and one (1) in a group home.

Table 10: COVID-19 outbreaks in high risk settings, weeks ending March 5 to April 9, 2022

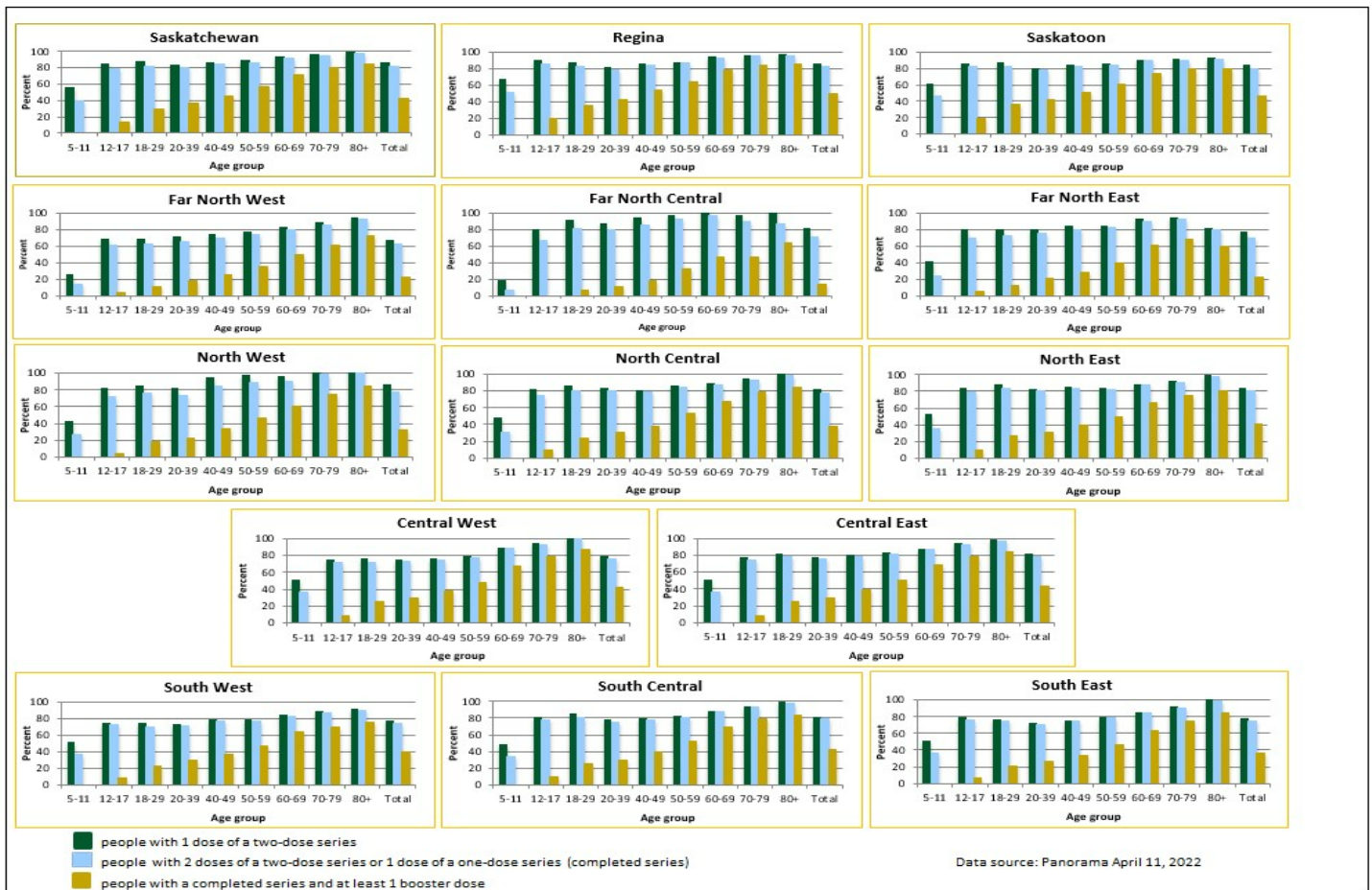
High risk setting	5-Mar	12-Mar	19-Mar	26-Mar	2-Apr	9-Apr	6-week total by setting
# COVID-19 Outbreaks in LTC	13	7	7	8	14	10	59
# COVID-19 Outbreaks in personal care homes, group homes, shelters	9	4	4	4	6	6	33
Total by week	22	11	11	12	20	16	92

Source: Outbreak line list, PHB, extracted April 11, 2022

- Over the past six weeks, 59 outbreaks occurred in long term care facilities, 24 in personal care homes, and nine (9) in group homes. 58 (63%) of the 92 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's database.

E. Immunization

Figure 6: COVID-19 immunization coverage (% population 5 years and older) by age group and zone, up to and including April 9, 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 April 9, 2022:

- Of the population five years and older:
 - 85.7% received at least one dose of a two dose COVID-19 vaccine, unchanged from the week earlier April 2, 2022
 - 80.7% completed a series, unchanged from the week earlier
- Among the population 12 years and older, 48.1% had received at least one booster, compared with 47.9% in the previous week.
- Among the population 18 years and older, 51.5% had received at least one booster, compared with 51.4% in the previous week.
- Among the youngest age group, five to 11 years of age:
 - 56.4% received one dose and 40.4% completed their series, compared with 56.3% and 40.1% from the week earlier
- Regina (82.6%), Saskatoon (80.1%), and North East (80.0%) are the only zones reporting over 80% of the eligible population with a completed series. All others are below 80%.

Table 11a: Vaccine doses administered April 3 to 9, 2022

- During the week of April 3 to 9, 2022, 2,654 doses of COVID-19 vaccine were administered, of which 453 (17.1%) were pediatric primary series doses and 1,937 (73.0%) were booster doses.
- Compared with last week, there were fewer doses administered in all categories, except Janssen single dose.

Type of dose	Number
First dose of two	214
Second dose of two	491
Janssen single dose	12
First and second boosters after completed series*	1,937
Total	2,654
Pediatric primary doses	453

*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 minimum interval criteria. The minimum interval used between the primary series and the first booster, and the first and second booster is 28 days and 91 days respectively.

Source: Panorama immunization registry April 11, 2022

Table 11b: Cumulative vaccines doses administered from start of the immunization campaign (December 15, 2020) to April 9, 2022

- Since the start of the immunization campaign to April 9, 2022, about 2.4 million doses of COVID-19 vaccine were administered. Of these, about 1.9 million (78.6%) were administered for a primary series, of which 106,531 were pediatric primary doses.

Type of dose	Number
Total pediatric primary series doses	106,531
Total primary series doses including pediatric doses	1,883,514
Total doses including booster Doses	2,394,996

Source: Panorama immunization registry April 11, 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
 ISA – Integrated Service Area
 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.
- There can be significant lags in reporting on death data. Data entry into Panorama IOM may be delayed due to staffing shortages or work load issues. Deaths may be delayed getting reported to public health for a variety of reasons including staffing, work load, and deaths requiring further investigation.

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.

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 Integrated Service Area per 1000 calls from that geographical area 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

