

SASKATOON ZONE - FRAMEWORK INDICATORS A REVIEW OF COVID -19 STATISTICS UPDATED TO JANUARY 5, 2022

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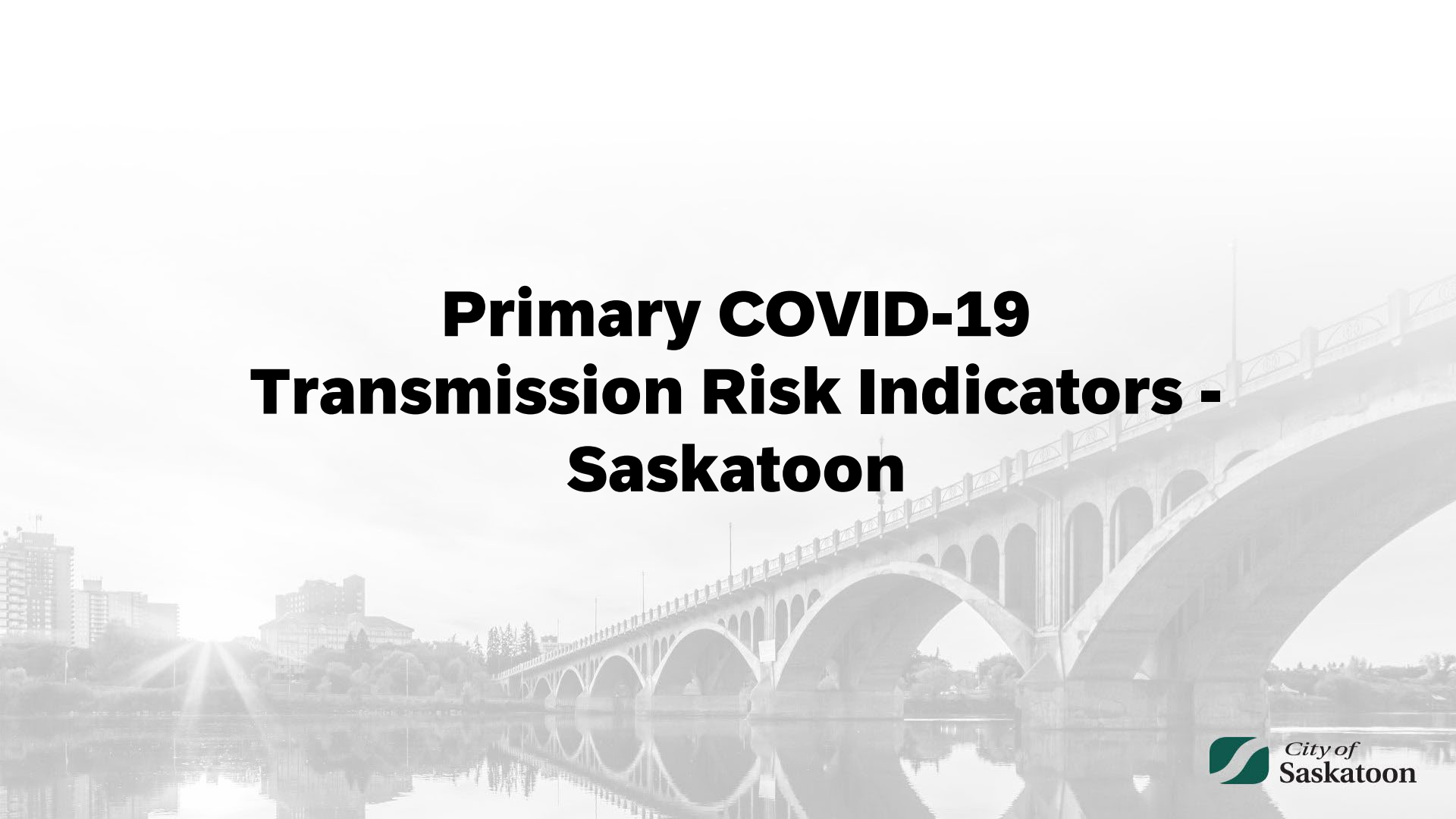
Risk Indicators for Monitoring COVID-19 Transmission in Saskatoon

Indicator	Green Minimal Risk	Yellow- Caution	Orange High Risk	Red Critical
7 Day Average Weekly Cases Per 100,000 persons	0 to 10	11 to 20	21 to 30	Greater than 30
7-Day Average Test Positivity Rate (%)	0 to 3.0%	3.1 to 6.0 %	6.1% to 10%	Greater than 10%
Effective Reproduction Rate	Less Than 1.0	1.01 to 1.2	1.21 to 1.4	Greater than 1.4
Vaccination Rates of Total Population (%)	90% or greater	75 to 90%	60 to 75 %	Less than 60%

Saskatoon's Status as of January 5, 2022

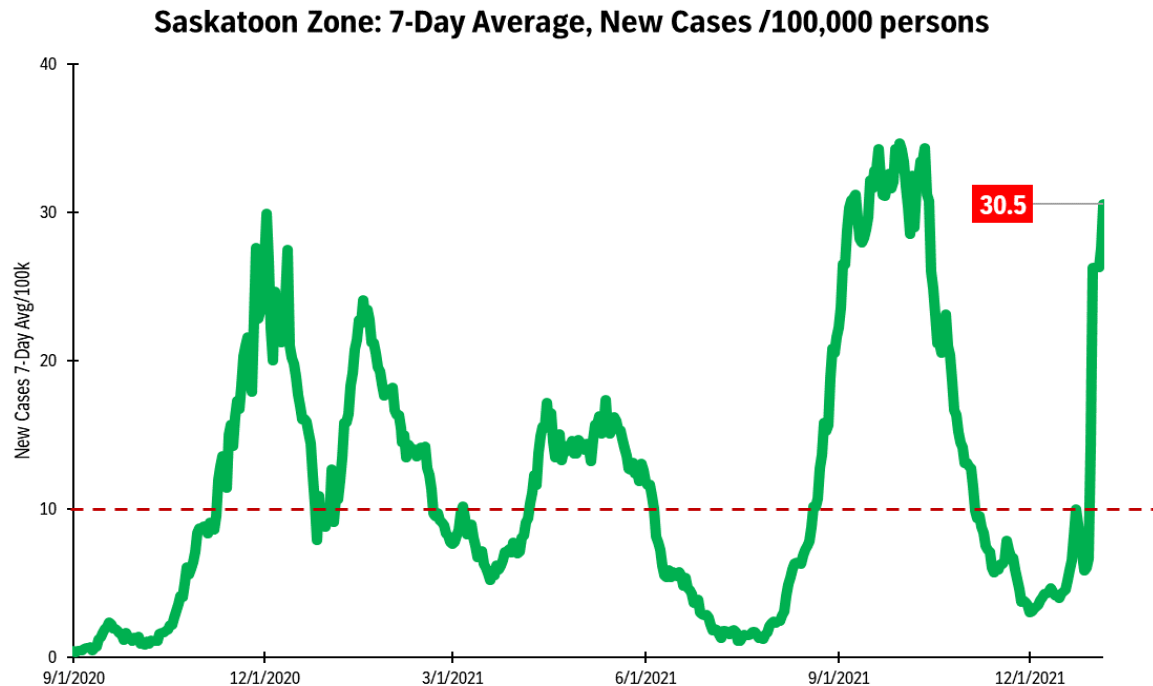
The data charts and trends on the subsequent slides.

Primary Indicator	Status as of January 5, 2021	Trend from last update
7 Day Average Weekly Cases Per 100,000 persons	30.5	↑
7-Day Average Test Positivity Rate (%)	17.6%	↑
Effective Reproduction Rate (Sample Mean)	1.46	↑
Vaccination Rates of Total Population (%)	70.3%	↑
Status (risk)	Critical	

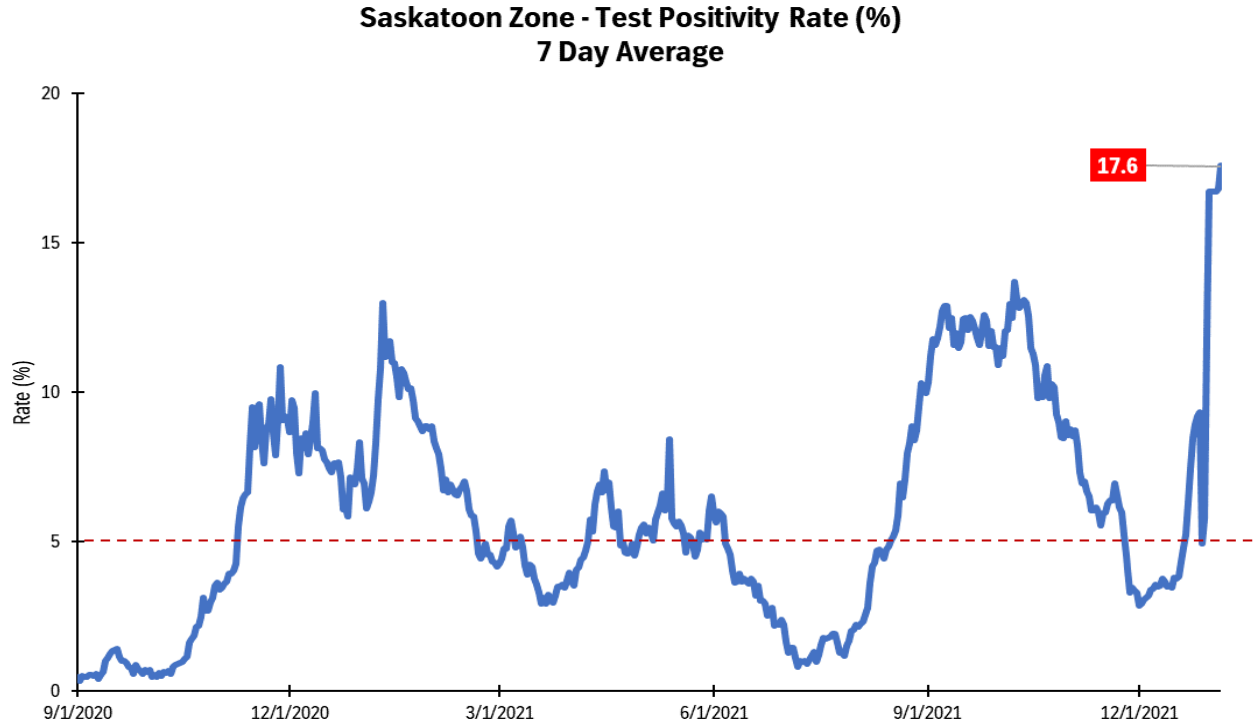


Primary COVID-19 Transmission Risk Indicators - Saskatoon

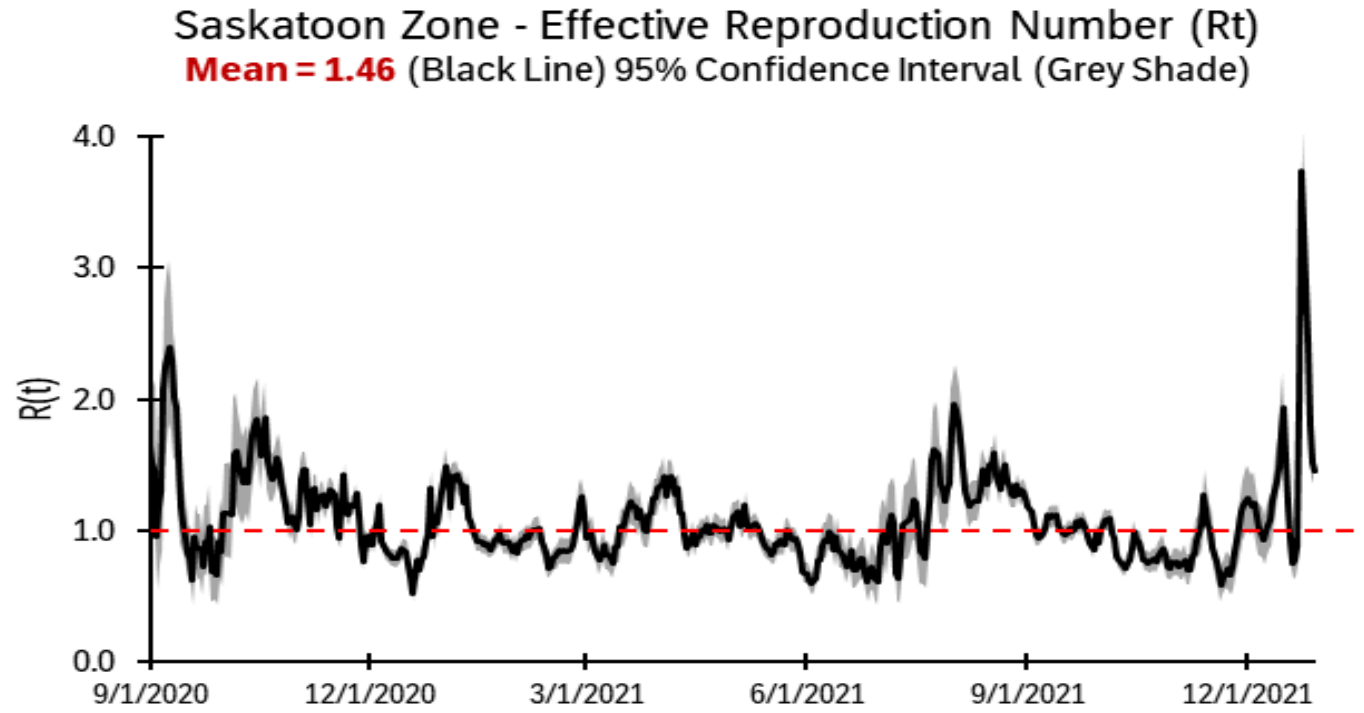
NEW CASE COUNTS PER CAPITA: This slide show the 7 day average of cases adjusted for 100,000 population for the Saskatoon zone. This is revised from previous versions and removes all other zones. The goal here is to show case intensity as observed by the trendline over the reporting period, which begins on September 1, 2021. The red line on the chart indicates low risk levels. The Omicron variant has resulted in a large spike in the case intensity.



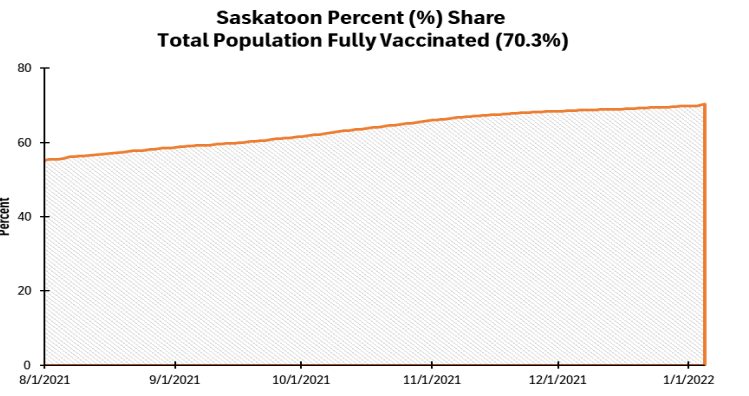
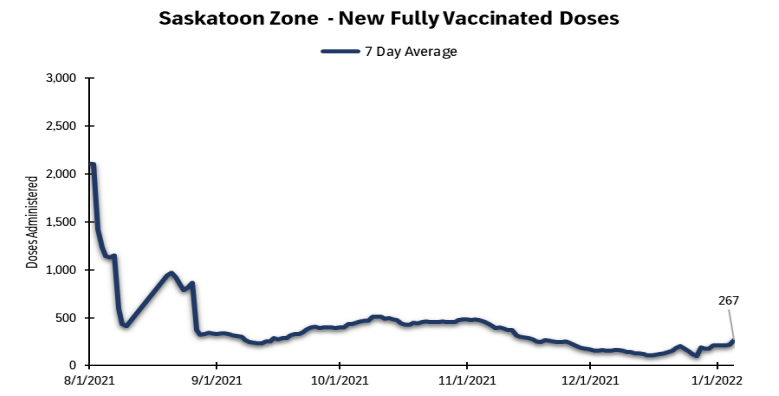
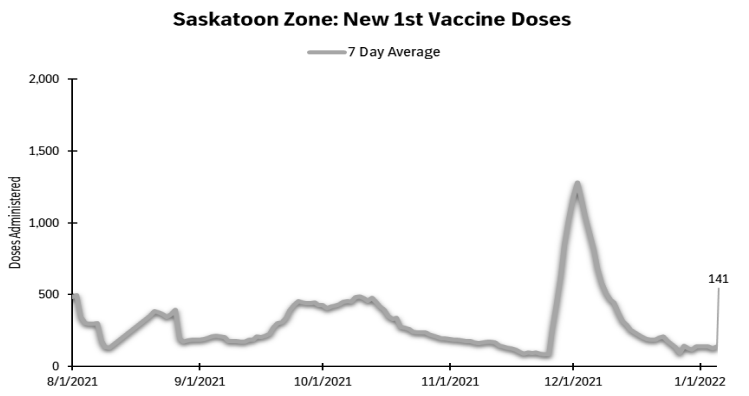
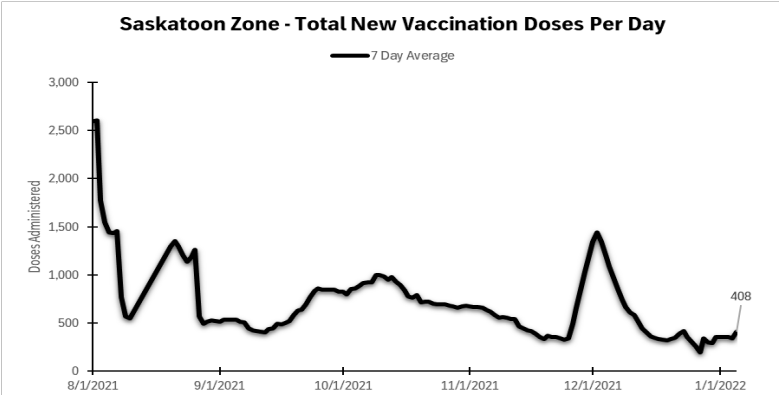
Test Positivity Rates 7 Day Average: This slide shows the 7 day average the test positivity rate for the Saskatoon zone. It is calculated by taking the 7 day average of new cases divided by the 7 day average of new tests and converting to a percentage. The data is revised and starts on September 1, 2020. The red line indicates the World Health Organization Standard of 5% for a controlled level of positive cases. A test positivity rate of less than 5% typically means the transmission is under control, however, with variants of concern it is suggested to be 3% or less. It should be noted that the tests used to calculate this figure are PCR tests only, and do not include Rapid Antigen Tests.



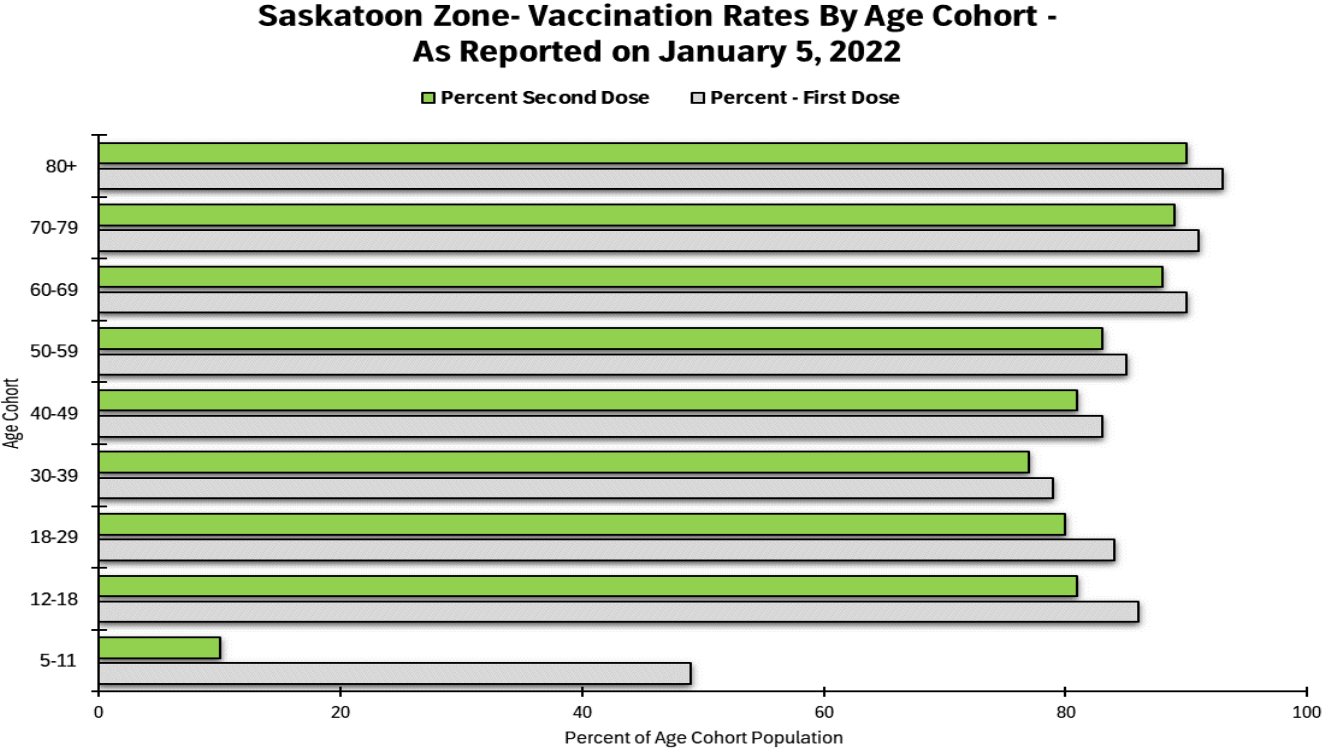
This slide estimates the Effective Reproduction Number (R_t) for Saskatoon. A few points to note here. (1) The dates are lagged because R_t uses recent case history to estimate the infection rate that caused them, referred to as the “presumed transmission date”. This date occurs about 7 days prior to reporting of new cases. (2) An R_t above 1 means that COVID-19 is growing exponentially. An R_t below 1 means that cases will eventually die out. (3) R_t is based on the SEIR epidemiological model with assumptions. I use the Cori, et.al method to determine the R_t (described here: <https://doi.org/10.1093/aje/kwt133>). (4) The R_t is estimated as the mean using 95% confidence intervals.

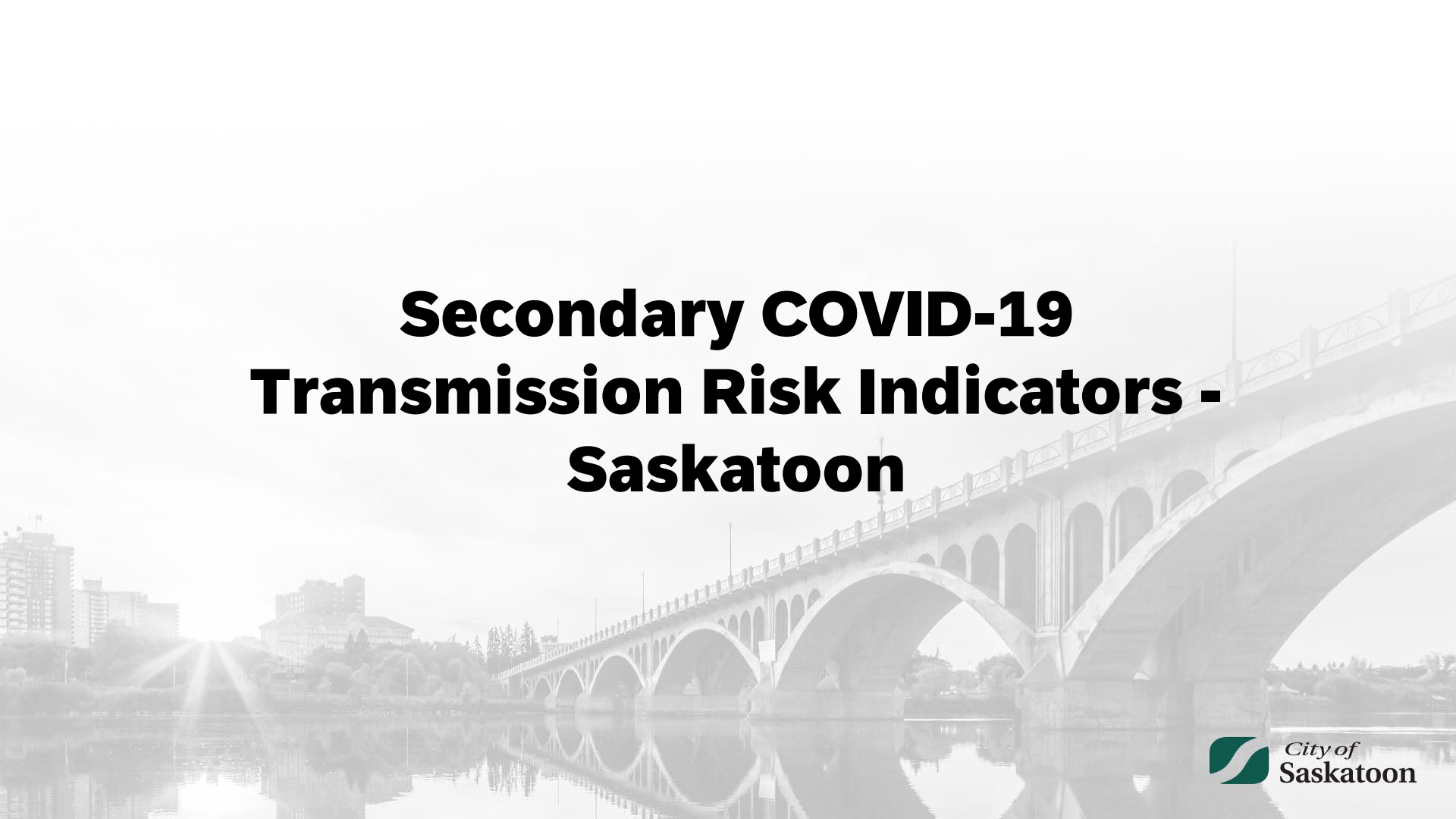


Vaccines Trends Saskatoon Zone. This slide is revised and shows vaccinations for the Saskatoon zone in a few different ways, starting August 1, 2021. The line charts use 7-day averages for vaccination doses. The first chart shows new total vaccination doses. The second chart shows new first vaccination doses, and the third chart shows fully vaccinated doses. There is a noticeable surge in early December, but that has fallen sharply. Full vaccination doses have picked up and are now averaging 267 per day. Finally, the fourth chart shows a time series of percent share of the Saskatoon population fully vaccinated. This rate has been growing 0.3 percentage points on average, week over week, but it has now surpassed 70%. The data in these charts does not include “boosters”.



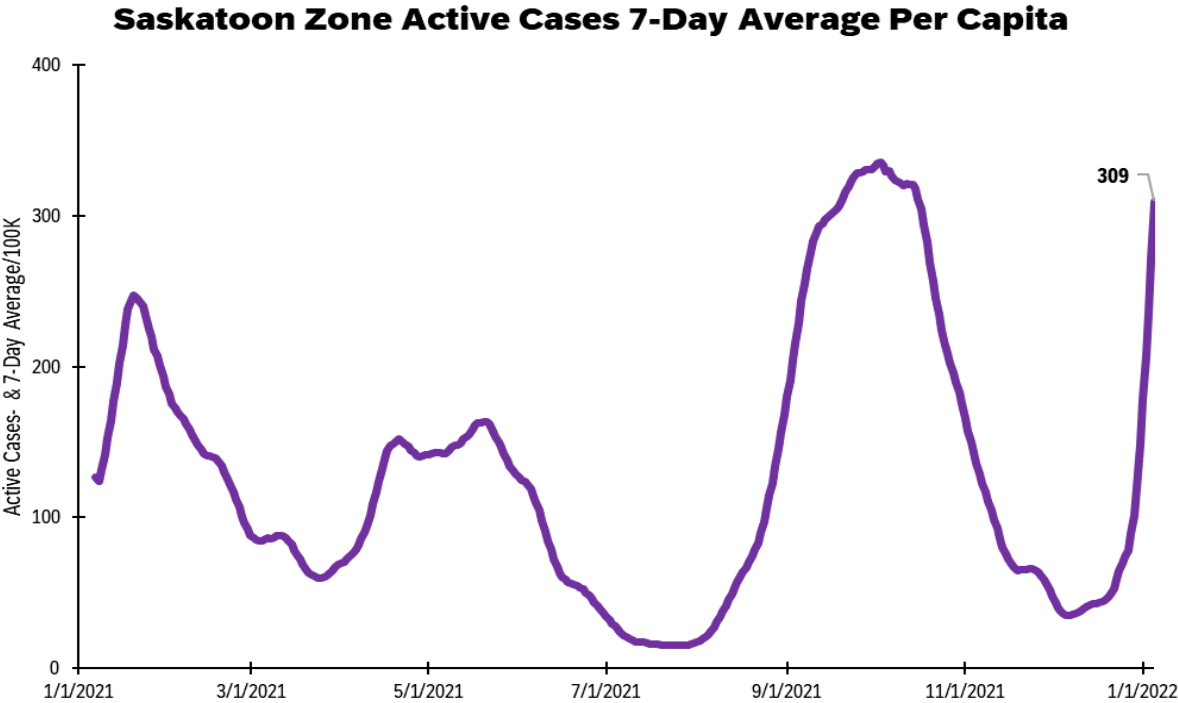
Saskatoon Vaccine Progress by Age. The table on this slide shows vaccinations for the Saskatoon by age cohort. The grey bar is the percent share of the population in that age cohort with a first vaccination dose. The green bar is the percent share of the population in that age cohort with a second vaccination dose (deemed to be fully vaccinated). The 5-11 cohort is making some good progress as first dose vaccines are at about 50%.



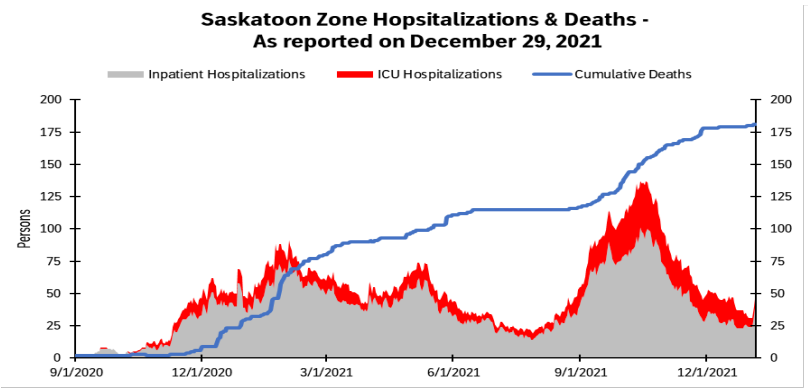
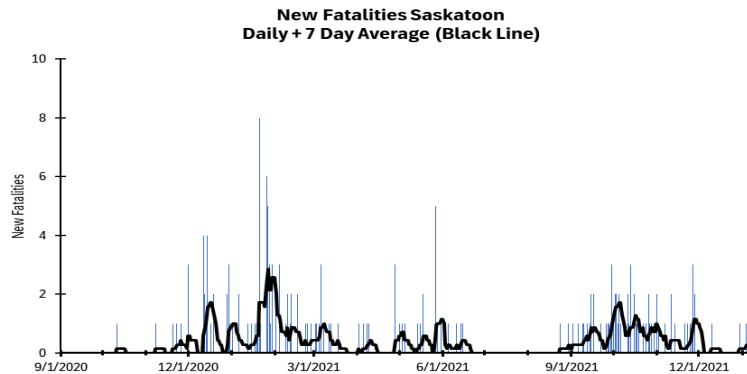
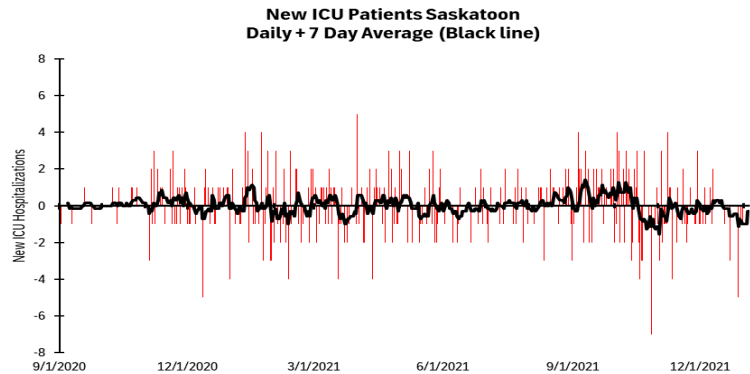
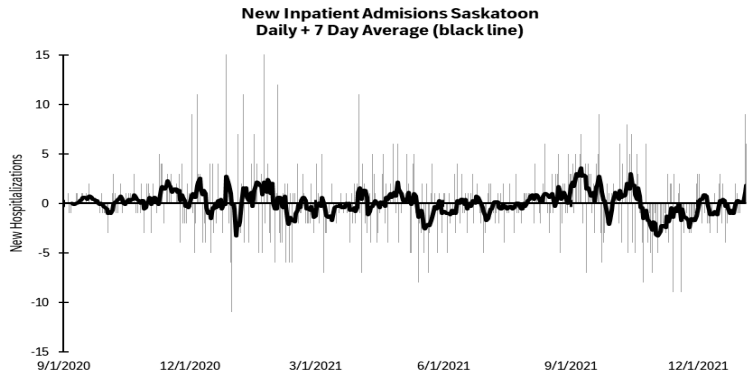


Secondary COVID-19 Transmission Risk Indicators - Saskatoon

ACTIVE CASE COUNTS PER CAPITA: This slide show the 7 day average of active cases adjusted for 100,000 population for the Saskatoon zone. This is a complementary measure to monitor the intensity of unresolved cases circulating in the Saskatoon zone. This has jumped by 200 cases per 100,000 persons since the last reporting period.



Saskatoon Zone Hospitalizations & Deaths. This slide offers cluster charts of new hospitalizations and deaths each day along with their 7-day averages. The bars on the first three charts represent the daily change in the new inpatient and ICU hospitalizations, and fatalities. The black line is the 7-day average. The fourth chart shows the composition of inpatient and ICU hospitalizations relative to deaths. The point of this chart is to show the relationship between hospitalizations and fatalities. As ICUs have fallen, fatalities have shown a flat trend, as there as been one reported COVID fatality over the past 14 days.





**QUESTIONS, COMMENTS OR
SUGGESTIONS?**
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