# Community Respiratory Illness Surveillance Program (CRISP) Situation Report: January 17, 2025 (Reporting Period December 29, 2024 – January 11, 2025)

**Influenza and RSV continue to increase, COVID-19 activity continues to decline. In the most recent two weeks, Influenza hospitalizations increased from 29 to 50 and ICU admissions from 2 to 6. RSV hospitalizations increased from 125 to 171 and ICU admissions from 14 to 16. RSV primarily affects children aged 0 to 4 years (48% of cases); Influenza is primarily affecting individuals aged 20 – 64 years (49% of cases).**

**Viral Indicators:**

- The number of COVID-19 positive tests and test positivity rates decreased during this reporting period, from 129 tests (7.1%) in the week ending January 4, to 109 tests (5.8%) in the week ending January 11. About one-third of the cases were among individuals aged 20 – 64 years, and those 65 years and older.
- RSV positive tests increased in this reporting period (618) compared to the last reporting period (409). About half (48.3%) of the cases were children below five (5) years in the week ending January 11, 2025.
- Influenza test positivity increased from 6.4% in the previous reporting period to 8.8% in the current reporting period. Since August 25, 2024, 596 influenza positive laboratory tests were reported, 548 (91.9%) were Influenza type A and 46 (8.1%) were type B. Of the 158 influenza A viruses subtyped, 101 (63.9%) were H1 and 36 (36.1%) were H3.
- From November 24 to January 4, KP.3.1.1 and its sublineages (denoted as KP.3.1.1*) were the most commonly detected variants (56.3%), followed by XEC* (30.7%) and JN.1* (3.8%)
- Areas with sampling programs reported low to medium COVID-19 activity in wastewater, with one area reporting a medium-high level.

**Community indicators:**

- School absenteeism was 9.9% for the week of January 5 to 11, 2025, which was the first week of this school term.
- RSV was the most frequently detected virus by sentinel healthcare providers.

**Outbreaks:**

- There were 25 respiratory virus outbreaks reported in high-risk settings (long term care facilities, personal care homes and group homes) for this reporting period. Of the 25, six (6) each were due to COVID-19 and RSV, two (2) influenza outbreaks. Eleven outbreaks were in the other types, four (4) of them were associated with the human metapneumovirus outbreaks.

**Severe Outcomes (Hospitalizations/ICU admissions/Deaths):**

- Influenza hospital admissions increased (from 29 – 50) during this reporting period compared to the previous reporting period, while RSV hospital admissions increased (from 125 to 171) over the same period.
- Two (2) COVID-19-associated deaths were reported during this reporting period.
- No influenza-associated deaths were reported from December 29, 2024, to January 11, 2025.

**Table 1: Viral indicators by surveillance period, December 15, 2024 – January 11, 2025**

| Report date | SARS-CoV-2 positive laboratory test | SARS-CoV-2 test positivity | COVID-19 outbreaks | Influenza positive laboratory test | Influenza test positivity | Influenza outbreaks | RSV positive laboratory test | RSV test positivity | RSV outbreaks | 'Other'[1] positive laboratory test | 'Other'[1] sample positivity | "Other"[1] outbreaks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Jan 5 – Jan 11 | 109 | 5.8% | 1 | 143 | 8.8% | 2 | 277 | 18.6% | 4 | 91 | 15.4% | 6 |
| Dec 29 – Jan 4 | 129 | 7.1% | 5 | 121 | 7.3% | 0 | 341 | 22.2% | 2 | 100 | 15.2% | 5 |
| Dec 22 – Dec 28 | 132 | 7.8% | 2 | 86 | 6.4% | 1 | 244 | 20.3% | 4 | 78 | 15.3% | 3 |
| Dec 15 – Dec 21 | 150 | 10.2% | 1 | 63 | 5.0% | 1 | 165 | 13.8% | 1 | 77 | 15.1% | 1 |

***Notes:*** [1]*Parainfluenza viruses 1 – 4; Adenovirus; Human Metapneumovirus, seasonal Coronavirus and Entero/Rhinovirus.*

[#]*Starting with the week of Oct 22-28, 2023, the method for calculating test positivity for "Other" respiratory viruses has changed to more accurately reflect the number of positive results in laboratory samples tested for "other" respiratory viruses. Samples that tested positive for more than one of the "Other" viruses are counted only once. See Technical Notes for details.*

**Table 2: Lab-confirmed respiratory illness by age group, January 5 – January 11, 2025**

| Age group (Years) | COVID-19 case count | Influenza case count | RSV case count | 'Other' virus case count[1] |
|---|---|---|---|---|
| 0 – 4 | 23 (21.5%) | 18 (13.5%) | 125 (48.3%) | **91 (100%)** |
| 5 – 19 | 7 (6.5%) | 15 (11.3%) | 17 (6.6%) | |
| 20 – 64 | 40 (37.4%) | 65 (48.9%) | 48 (18.5%) | |
| ≥65 | 37 (34.6%) | 35 (26.3%) | 69 (26.6%) | |
| Total | **107 (100%)** | **133 (100%)** | **259 (100%)** | **91 (100%)** |

***Notes:*** *[1]Parainfluenza viruses 1 – 4; Adenovirus; Human Metapneumovirus, seasonal Coronavirus and Entero/Rhinovirus; age-specific data is unavailable for other respiratory pathogens. Individuals with co-infection of "Other" viruses are only counted once. Due to the rounding, total percentage may not add to 100%. See Technical Notes for further details.*

**Table 3: Sentinel* indicators by surveillance period, Saskatchewan, December 15, 2024 – January 11, 2025**

| Report date | School illness absenteeism[1] | RLI** ED visits per 1,000 | RLI** 811 calls per 1,000 | SARS-CoV-2 Wastewater indicator[2] | Sentinel provider test positivity[3] | Most commonly detected virus: Sentinel providers[3] |
|---|---|---|---|---|---|---|
| Jan 5 – Jan 11 | 9.9% | No data | 122.7 | Low (n= 5), Medium (n= 5), Medium-high (n= 0), High (n= 0) | 72% (n=18) | RSV |
| Dec 29 – Jan 4 | No data | No data | 148.1 | Low (n= 5), Medium (n= 3), Medium-high (n= 1), High (n= 0) | 74% (n=26) | RSV |
| Dec 22 – Dec 28 | No data | No data | 139.4 | Low (*n*= 2), Medium (*n*= 3), Medium-high (*n*= 0), High (*n*= 0) | 72% (n=13) | Adenovirus |
| Dec 15 – Dec 21 | 11.9% | No data | 130.7 | Low (*n*= 4), Medium (*n*= 2), Medium-high (*n*= 3), High (*n*= 1) | 63% (n=17) | RSV |

*Notes: *Sentinel surveillance are sampling programs representative of the population; [1]School absenteeism is the proportion of scheduled children who were absent from the class due to illness. The type of illness is not specified.- [2]Count of wastewater treatment facilities reporting low, moderate, or high levels of viral load causing COVID-19 infection. See Technical Notes and appendix for details. [3]Most commonly detected virus in Sentinel providers: COVID-19, Influenza A/B, Respiratory Syncytial Virus (RSV), Adenovirus, Metapneumovirus, Rhinovirus, Parainfluenza viruses (PIV) 1-4, and seasonal Coronaviruses (229E, HKU1, NL63, and OC43).*

**Table 4: Outcome, health care capacity, and immunization coverage indicators by surveillance period, Saskatchewan, December 15, 2024 – January 11, 2025[¥]**

| Report date | Hospital admissions – COVID-19[1] | ICU admissions – COVID-19 | Hospital admissions – Influenza | ICU admissions – Influenza | Hospital admissions – RSV | ICU admissions – RSV | % of staffed inpatient beds occupied by COVID-19 patients[2] | Deaths – COVID-19 | Deaths – Influenza[3] | Proportion of population with COVID-19 vaccine administered[4] | Proportion of population immunized for Influenza vaccine[4] |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Jan 5 – Jan 11 | 14 | 0 | 22 | 2 | 74 | 8 | 2.0% | 1 | 0 | 13.6% | 19.7% |
| Dec 29 – Jan 4 | 26 | 4 | 28 | 4 | 97 | 8 | 2.2% | 1 | 0 | 13.5% | 19.5% |
| Dec 22 – Dec 28 | 31 | 6 | 16 | 1 | 80 | 5 | 2.4% | 1 | 0 | 13.4% | 19.3% |
| Dec 15 – Dec 21 | 33 | 1 | 13 | 1 | 45 | 9 | 2.7% | 1 | 0 | 13.3% | 19.2% |

*[¥]Additional information on hospital admission stratified by respiratory organism and age group is provided below in **Figure 3** and **4** respectively. Viral infection may not be the main reason for the admission.*

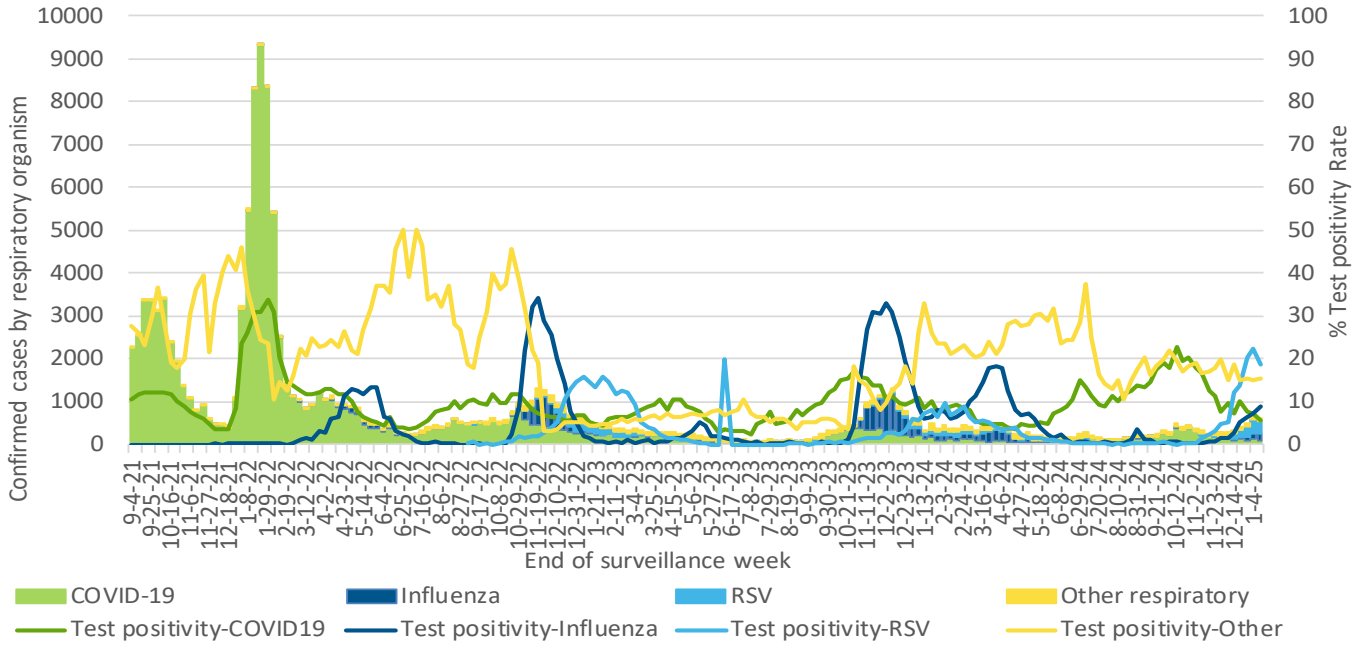
**Cases by respiratory organisms across the age groups**

- From December 15, 2024, to January 11, 2025, there were 549 respiratory illness cases hospitalized with lab-positive COVID-19 (104), Influenza (79), RSV (296), other respiratory illnesses (41), and co-infected cases (29). The COVID-19 lab positives were among the age groups of 0-19 (14), 20-59 (16) and ≥60 (74). The Influenza lab positives were in the age group of 0-19 (10), 20-59 (17), and ≥60 (52). The RSV lab positives were in the age group of 0-19 (194), 20-59 (17), and ≥60 (85). The other respiratory lab positives were in the age group of 0-19 (21), 20-59 (7), and ≥60 (13). The Co-infection lab positives were in the age groups of 0-19 (26), 20-59 (1), and ≥60 (2).
- From December 15, 2024, to January 11, 2025, there were 56 respiratory illness cases admitted to the ICU with lab-positive Covid-19 (11), Influenza (8), RSV (30,) other respiratory illnesses (3), and co-infected cases (4) this reporting period. The COVID-19 lab positives were among the age groups 0-19 (1), 20-59 (4) and ≥60 (6). The Influenza lab positives were in the age groups 0-19 (1), 20-59 (3) and ≥60 (4). The RSV lab positives were in the age groups of 0-19 (21), 20-59 (1) and ≥60 (8). The other respiratory lab positives were in the age group of ≥60 (3). The co-infected cases were in the age groups of 0-19 (3) and ≥60 (1).

- ***Notes:*** *[1] The delay in date tested result affects the total number of Influenza (A/B), RSV and other respiratory virus admissions for a particular day. This lag in data impacts mostly the last couple of days from the day the report is updated. The counts for influenza, RSV, and other respiratory virus-associated hospital and ICU admissions refer to individuals with laboratory or point of care tests positive for influenza, RSV, and other respiratory viruses, respectively, occurring within four days before the admission date AND/OR at any point during the hospital stay. The counts for COVID-19 hospital and ICU admissions refer to individuals with laboratory tests positive for COVID-19 virus, occurring within 21 days before the admission date and/or at any point during the hospital stay or 7 days from the discharge. Episodes of care considers patients total movement within the health system related to their condition. It combines 2 or more admission from 2 or more different facilities if they are transfers (No break in care). Transfer: Admission to any other hospital within 24 hours of discharge from previous hospital. Co-infected cases: positive for influenza and RSV or, positive for influenza and other respiratory virus or positive for RSV and other respiratory viruses or, positive for COVID-19 and influenza or, positive for COVID-19 and RSV or, Positive for COVID-19 and other respiratory viruses. Other includes Parainfluenza 1-4, Adenovirus, Enterovirus, Human Metapneumovirus, Rhinovirus, Seasonal Coronavirus (O43, NL63, 229E, HKU1f.)*

*[2]7-day average of percentage of acute inpatient beds staffed and in operation that are occupied by COVID-positive patients as of 8AM census*
*[3] Includes deaths entered into Panorama IOM among lab-confirmed cases. Deaths reported based on the actual date of death. Deaths reported in previous periods subject to change due death reporting data lags.*
*[4]The fall immunization campaign for COVID-19 and influenza started on October 10, 2023. The first doses of COVID-19 and influenza vaccines arrived in SK the week of September 18. Coverage is based on doses administered on or after September 18, 2023.*

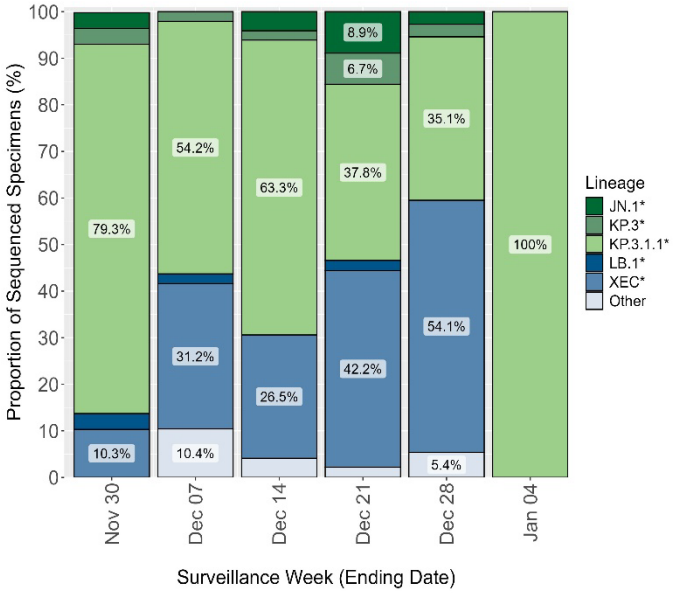
**Figure 1: Epidemic curve, respiratory illness by organism and test positivity, August 29, 2021 – January 11, 2025**




*Data sources: Panorama IOM extracted on January 13, 2025 (COVID-19 cases)*
*Respiratory Virus Detections Surveillance System (influenza and other respiratory) (RRPL extracted January 13, 2025)*
*As of November 19, 2022, COVID-19 cases include new and reinfections.*
*For the two weeks of December 29, 2024, to January 11, 2025, there were:*

- *232 COVID-19 cases (52 were 0 to 19 years; 72 were 20 to 59 years; and 65 were 60 years and older).*
- *264 influenza lab detections*
- *618 RSV detections*
- *191 other viral lab detections (parainfluenza, adenovirus, human metapneumovirus, rhinovirus, coronavirus)*

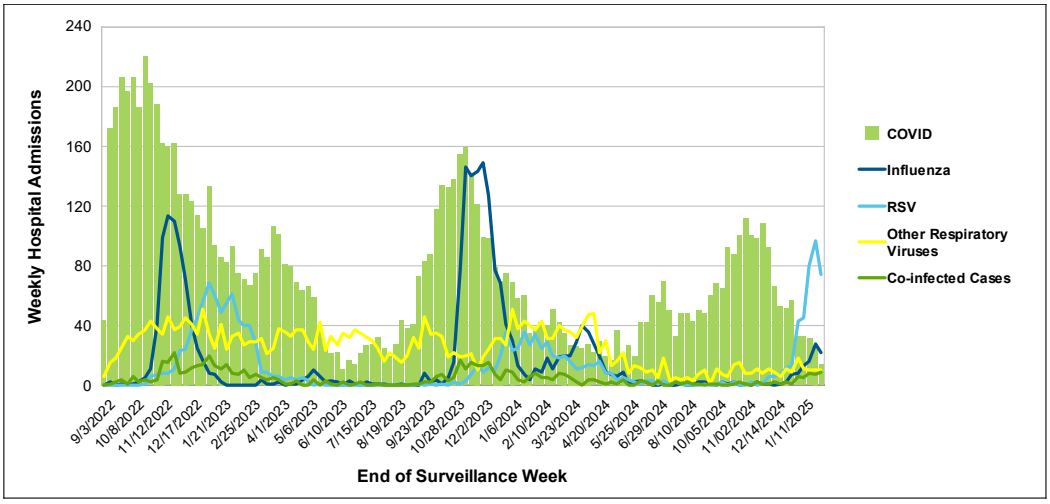
**Figure 2: Percentage of SARS-CoV-2 variants, November 24, 2024 – January 4, 2025¥***

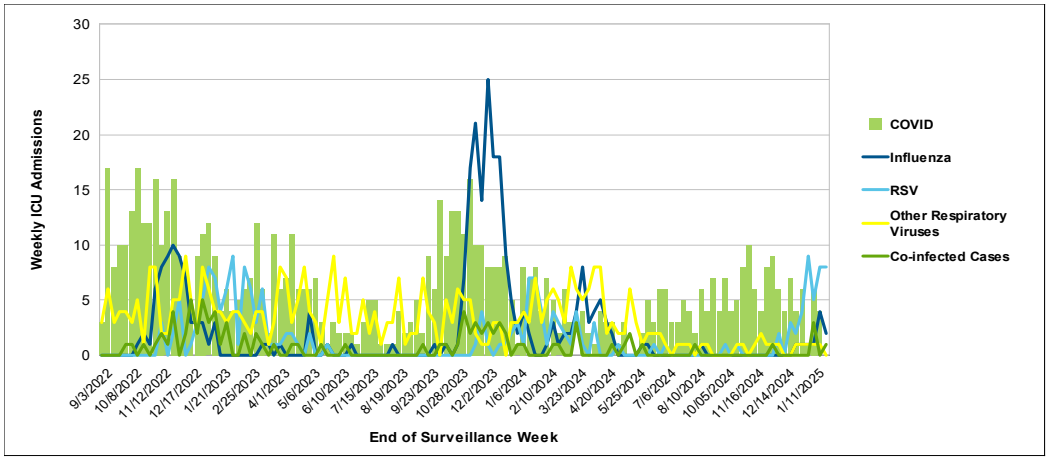



| Lineage | Nov 30 | Dec 07 | Dec 14 | Dec 21 | Dec 28 | Jan 04 |
|---|---|---|---|---|---|---|
| JN.1* | 2 | 0 | 2 | 4 | 1 | 0 |
| KP.3* | 2 | 1 | 1 | 3 | 1 | 0 |
| KP.3.1.1* | 46 | 26 | 31 | 17 | 13 | 1 |
| LB.1* | 2 | 1 | 0 | 1 | 0 | 0 |
| XEC* | 6 | 15 | 13 | 19 | 20 | 0 |
| Other | 0 | 5 | 2 | 1 | 2 | 0 |
| Total | 58 | 48 | 49 | 45 | 37 | 1 |

***Data Source:*** *Roy Romanow Provincial Laboratory, Saskatchewan Health Authority, as of January 14, 2025*
*¥ Surveillance weeks correspond to specimen collection date.*
** Parent lineage reported also includes all sublineages derived from this parent lineage.*
*•"Other" represents non-VOC variant groups and their sublineages.*

**Figure 3: The number of COVID-19, influenza, RSV, other respiratory viruses, and co-infected cases admitted to hospital and ICU by week of the admission, September 3, 2022 – January 11, 2025***

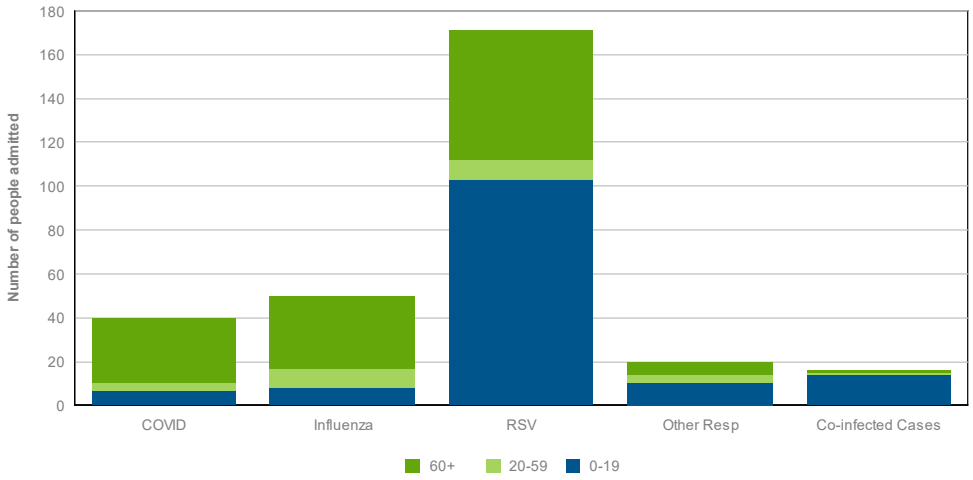



***Data source:*** *Digital Health Analytics, Saskatchewan Health Authority, Episode of Care methodology (Admission, Discharge, Transfer Database (ADT, RRPL, Panorama); data extracted on January 14, 2025*. Viral infection may not be the main reason for the admission.*

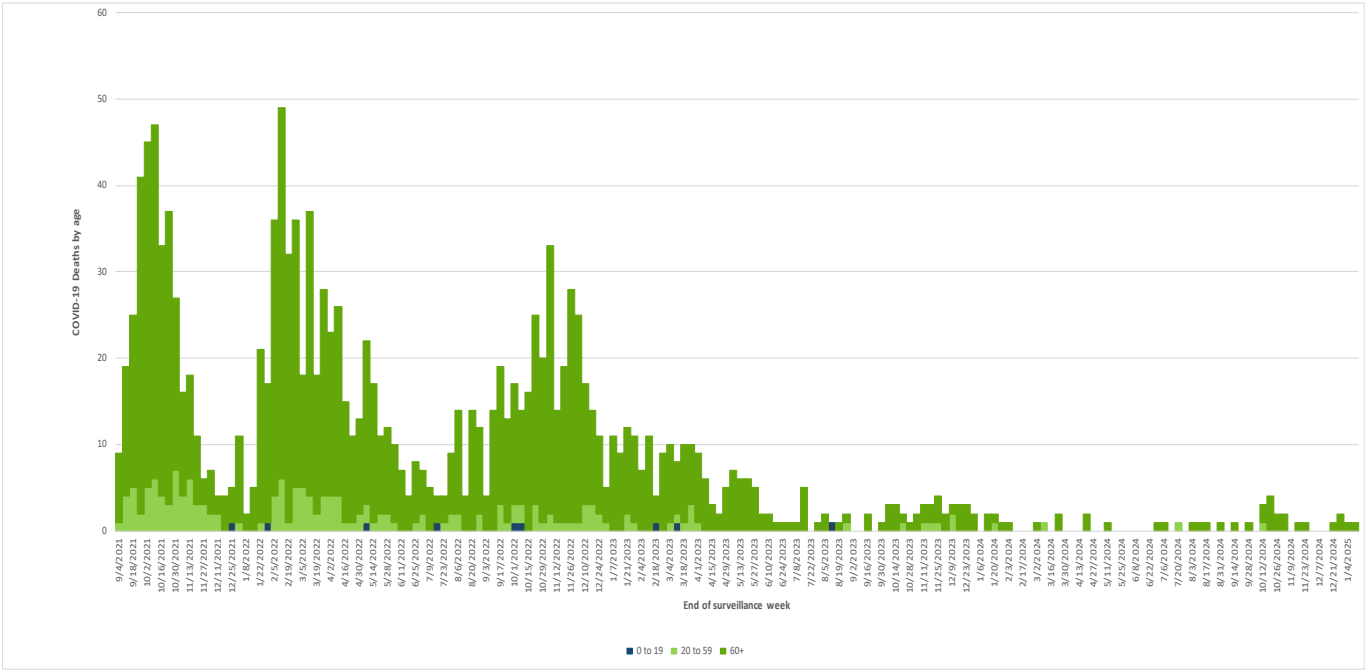
***Note:*** *The delay in date tested result affects the total number of COVID 19 admissions for a particular day. This lag in data impacts mostly the last couple of days from the day the report is updated. Includes lab or point of care positive for influenza, RSV, other respiratory viruses, four days prior to date of admission AND/OR at any point during admission. Episode of Care considers patients total movement within the health system related to their condition. It combines 2 or more admissions from 2 or more different facilities if they are transferred (no break in care). Transfer = admission to any other hospital within 24 hours of discharge from previous hospital admission. Co-infected cases = positive for Influenza and RSV, or Influenza and 'other', or RSV and 'other', or, COVID-19 and Influenza, or, COVID-19 and RSV, or COVID-19 and 'other'.*

**Figure 4: The number of COVID-19, influenza, RSV, other respiratory viruses, and co-infected cases admitted to hospital by age group, December 29, 2024 – January 11, 2025**




***Data source:*** *Digital Health Analytics, Saskatchewan Health Authority, Episode of Care methodology (Admission, Discharge, Transfer Database (ADT, RRPL, Panorama); data extracted on January 14, 2025*. Viral infection may not be the main reason for the admission.*
***Note:*** *The delay in date tested result 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. Includes lab or point of care positive for influenza, RSV, other respiratory viruses, four days prior to date of admission AND/OR at any point during admission. Episode of Care considers patients total movement within the health system related to their condition. It combines 2 or more admissions from 2 or more different facilities if they are transferred (no break in care). Transfer = admission to any other hospital within 24 hours of discharge from previous hospital admission. Co-infected cases = positive for Influenza and RSV, or Influenza and 'other', or RSV and 'other', or, COVID-19 and Influenza, or, COVID-19 and RSV, or COVID-19 and 'other'.*

**Figure 5: COVID-19 deaths by age group and week, September 4, 2021 – January 11, 2025***




**Source: Panorama January 13, 2025**
*In the past two weeks, December 29, 2024, to January 11, 2025, two deaths were reported among COVD-19 cases.*
**Total COVID-19 deaths from March 2020 to date; n=2,090*

**Table 5: Community Respiratory Infection Surveillance Program Indicators by zone, January 5 – January 11, 2025**

| Location | Test positivity – SARS-CoV-2 [1] (positive lab tests) | Test positivity – Influenza (positive lab tests) | Test positivity – RSV (positive lab tests) | RLI* visits to EDs per 1,000[2] | RLI* 811 calls per 1,000[3] | School illness absenteeism[4] | Wastewater indicator† | Proportion of population with COVID-19 vaccine administered[5] | | Proportion of population with Influenza vaccine adminstered[5] | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | <65 Yrs | ≥65 Yrs | <65 Yrs | ≥65 Yrs |
| **Far North West** (Meadow Lake & area) | 7.7% (3) | 5.4% (5) | 29.3% (27) | No data | - | 6.5% | Medium | 2.9% | 23.7% | 7.5% | 37.9% |
| **Far North Central** | 0.0% (0) | 0.0% (0) | 0.0% (0) | No data | - | 2.5% | No data | 1.4% | 6.5% | 8.9% | 20.0% |
| **Far North East** (La Ronge & area) | 0.0% (0) | 2.7% (1) | 18.9% (7) | No data | - | 8.6% | Low | 4.1% | 31.1% | 9.5% | 42.3% |
| **North West** (Lloydminster & area/North Battleford) | 10.1% (10) | 5.0% (10) | 16.4% (30) | No data | 109.1 | 10.7% | Low | 4.5% | 35.1% | 8.8% | 44.5% |
| **North Central** (Prince Albert & area) | 9.5% (9) | 8.1% (7) | 25.7% (19) | No data | - | 10.7% | Medium | 6.4% | 38.8% | 11.1% | 48.9% |
| **North East** (Melfort & area) | 16.7% (6) | 1.8% (1) | 25.9% (14) | No data | 119.5 | 9.0% | No data | 6.4% | 37.8% | 12.1% | 48.2% |
| **Saskatoon** | 4.0% (25) | 8.9% (29) | 22.2% (72) | No data | 134.0 | 10.3% | Medium | 10.2% | 45.0% | 15.5% | 51.4% |
| **Central West** (Kindersley & area) | 8.3% (2) | 0.0% (0) | 27.3% (9) | No data | - | 8.5% | No data | 6.1% | 41.6% | 13.2% | 52.9% |
| **Central East** (Yorkton/Melville & area) | 8.3% (6) | 7.3% (9) | 15.8% (16) | No data | - | 6.9% | Low | 6.3% | 38.2% | 11.4% | 48.1% |
| **Regina** | 6.8% (18) | 9.8% (28) | 11.5% (33) | No data | 121.0 | 10.4% | Medium | 9.3% | 46.4% | 14.4% | 54.0% |
| **South West** (Swift Current/ Maple Creek & area) | 4.5% (2) | 5.4% (4) | 8.3% (6) | No data | 115.2 | 7.8% | Low | 7.3% | 37.8% | 14.1% | 48.5% |
| **South Central** (Moose Jaw & area) | 4.2% (3) | 17.2% (22) | 16.4% (21) | No data | - | 10.1% | Medium | 6.8% | 40.2% | 12.4% | 50.5% |
| **South East** (Weyburn/Estevan & area) | 3.2% (2) | 11.8% (8) | 33.3% (18) | No data | 116.9 | 10.9% | Low | 5.2% | 35.0% | 11.8% | 49.4% |
| **Unknown/Out of Province** | 5.9% (23) | 15.7% (19) | 10.6% (5) | No data | - | 9.7% | - | - | - | - | - |
| **SASKATCHEWAN** | **5.8% (109)** | **8.8% (143)** | **18.6% (277)** | **No data** | **122.7** | **9.9%** | **-** | **7.9%** | **41.1%** | **13.2%** | **50.3%** |

*Notes: [1]By week of lab detection; effective Oct 30, 2022, includes cases who tested positive more than once >= 90 days apart; ^ [1]For COVID-19 test positivity, all tests reported were performed within the province. [3] 811 data available at the six Integrated Service Areas geographical level; Unknown represents the number of students who were absent from the class due to illness with no known geography for the school. School absenteeism is the proportion of scheduled children who were absent from the class due to illness. The type of illness is not specified. †SK overall estimate is currently unavailable as this metric tends to overestimate and underestimate WW level due to varied patterns across regions, which is difficult to synchronize with the population size of each region.; [5]The fall immunization campaign for COVID-19 and influenza started on October 15, 2024. The first doses of COVID-19 vaccines arrived the week of September 30 and the first influenza vaccines arrived in SK the week of September 23. Coverage is based on Influenza vaccine doses administered on or after September 23, 2024, and COVID-19 vaccines administered on or after September 30, 2024.*

# Technical Notes

1. Laboratory surveillance: Conducted through epidemiological analyses and positivity rate monitoring (counts and proportion of positive specimens, week of specimen collection, age category, geographical area, etiological type where applicable) of selected respiratory specimens submitted to the provincial laboratory in SK. Whole genome sequencing is conducted to detect changes (emergence of sub-lineages, variant proportion, etc) of clinical and public health importance among circulating respiratory organisms.

2. Sentinel health providers: Comprise a geographical-based network in practices across the province (n = 13 zones) who submit one to two specimens weekly to the Microbiology section of Royal University Hospital and the Molecular Diagnostics section of Roy Romanow Provincial Laboratory (RRPL), Saskatchewan Health Authority, from patients presenting with respiratory-like symptoms. Specimens are tested for a wider complement of respiratory organisms to monitor respiratory illness activity in the community. Assessment of co-infection (infected by more than one respiratory virus organism concurrently) occurs through sentinel provider submissions.

3. Wastewater data: Provided by the Roy Romanow Provincial Laboratory Wastewater Testing Team. Viral load for each zone was used to determine risk levels (Low, Medium, Medium-High, and High) based on viral copies per unit volume and weekly change percentage. Locations sampled include Saskatoon, Regina, Moose Jaw, North Battleford, Swift Current, Yorkton, Weyburn, Estevan, Meadow Lake, Melville, Town of Battleford, La Ronge, Unity, Assiniboia, Maple Creek, Lumsden, Watrous, Île-à-la-Crosse, Birch Hills, Southey, and Pasqua First Nation.

4. HealthLine 811 callers with Respiratory Symptoms (RLI): This count of response protocols collected by HealthLine nurses specific to callers reporting respiratory-like symptoms. HealthLine data is collected for a seven-day week, Monday to Sunday. Data is transformed into the rate of callers with respiratory symptoms from each Integrated Service Area (ISA) per 1000 calls from that ISA concerning any type of symptom.

5. A confirmed outbreak: Defined as two or more lab confirmed respiratory virus cases in high-risk settings 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. For this report outbreaks in high-risk settings comprise long term care facilities, personal care homes and group homes.

6. COVID hospitalized admissions is the number of C-19 positive cases that during the surveillance week were admitted as an inpatient to an acute care facility. This includes patients with C-19 related illness, incidental COVID infection, and patients under investigation. COVID ICU admissions is the number of C-19 positive cases that during the surveillance week were admitted to an ICU location in SK. This includes both infectious and non-infectious cases.

7. Influenza, RSV and other respiratory virus admissions: Delays in testing results affect the total number of Influenza, RSV and other respiratory virus admissions for a particular day. This lag in data has the greatest impact on the two days prior to when the report is updated. Counts include individuals who are laboratory positive for influenza, RSV, and other respiratory viruses, within four days prior to date of admission AND/OR at any point during the hospital stay. Episode of Care considers patients' total movement within the health system related to their condition. It combines 2 or more admissions from 2 or more different facilities, if they are transfers (i.e., no break in care). Transfer: Admission to any other hospital within 24 hours of discharge from previous hospital. Co-infected Cases = if positive for Influenza and RSV positive for Influenza and Other Respiratory viruses or, positive for RSV and Other respiratory viruses or, positive for Covid-19 and Influenza or, positive for Covid-19 and RSV or, positive for Covid-19 and Other Respiratory viruses.

8. Variant of Concern (VOC): VOCs are SARS-CoV-2 viruses that have undergone genetic modification or mutation causing 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 from the date a sample is collected. 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.

   Lineages JN.1, JN.1.18, LB.1, KP.2, KP.3, KP.3.1.1, XEC are all classified under the WHO label of "Omicron". Lineages that are not explicitly indicated in the analysis are aggregated under their corresponding parent lineage. Percentages are shown when a lineage or variant group constitutes 5% or more of total specimens evaluated for a given surveillance week.

9. COVID-19 cases: Effective September 4, 2022, COVID-19 cases are based on lab detection and include cases who tested positive more than once 90 days, or further, apart. Prior to this, cases include, only, first time cases reported and entered into Panorama.

10. COVID-19 Deaths: Includes deaths entered into Panorama IOM among laboratory confirmed cases. Deaths are reported based on the actual date of death. Deaths in previous periods may be adjusted from previous reports due to data lag.

11. COVID-19 Immunizations: Up-to-date (UTD) COVID-19 vaccination is the proportion of people having completed a primary series and one booster for ages five and older divided by the eligible population found in the Saskatchewan Covered Population, 12-Nov-2022 Ministry of Health version (2022 Version 2). Though vaccinated children six months to four years of age may be technically UTD, this specific definition does not apply to them. In addition, UTD in last six months is calculated by the proportion of people having received one or more boosters within the previous six months.

12. Influenza immunizations: UTD Influenza vaccination is the proportion of people, six months and older, having one influenza dose this season divided by the eligible population found in the Saskatchewan Covered Population, 12-Nov-2022 Ministry of Health version (2022 Version 2). Vaccination for the current influenza season officially began October 11, 2022. Some doses were administered prior to the start date.

13. Staffed Inpatient beds: Weekly average COVID Occupancy is a 7-Day average percentage of acute inpatient beds staffed and in operation COVID positive patients occupy. The full calculation of this metric is: Average COVID occupance=$\sum$(8am covid census) ÷ $\sum$(8am beds staffed and in operation) × 100%. Where "bed staffed and in operation = "Planned beds" + "Surge Beds" - "Closed" and $\sum$(…) indicates summation over 7-day period from Sunday to Saturday. 8am COVID census is taken from the ADT patient registration, which is fed to the provincial data-mart and archived hourly. 8am planned bed, surge beds, and closed beds is compiled via data feeds from APF (Saskatoon & Regina) and the provincial bed edits interface (INH &IRH).

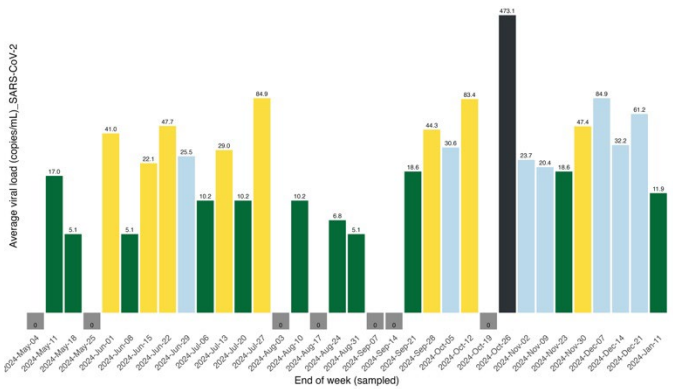
14. Rate of COVID-19 hospitalization (ICU or Death) were calculated by summing the daily number of hospitalizations (ICUs or Deaths) for the period by vaccine status (numerator) divided by the mid period population by respective vaccine status (denominator), multiplied by 100,000. This estimate is further divided by the number of days to obtain the daily rate. Denominator for individuals in the Booster in the past 6-months group are all Saskatchewan residents who have had their booster dose within the last 6 months. To eliminate bias of age all rates are adjusted by age. Direct standardization method is employed using the Saskatchewan population as the standard population. Age at first dose used in the rate calculation. Individuals with unknown age are excluded from age-specific analyses. Estimates of relative risk (i.e., rate ratios) is obtained by comparing vaccinated with 2 doses (Any Booster dose) and unvaccinated. Risk estimates may differ from other reports due to differing methodologies. Relative risk estimates methodology is described elsewhere. See Namrata Bains. *Standardization of Rates* (March 2009).



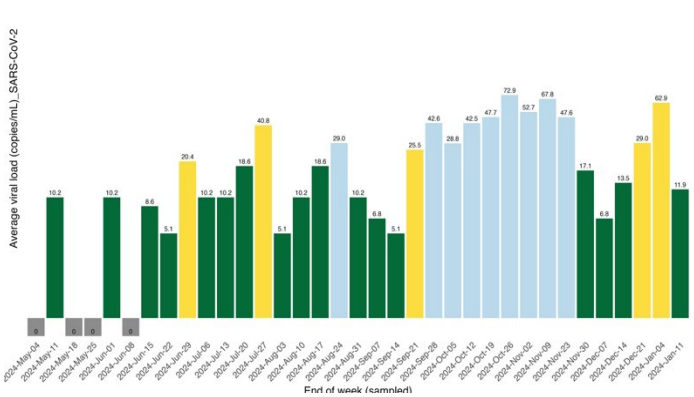
Saskatchewan

# Appendix: Wastewater Surveillance for SARS-CoV-2 by cities, Saskatchewan

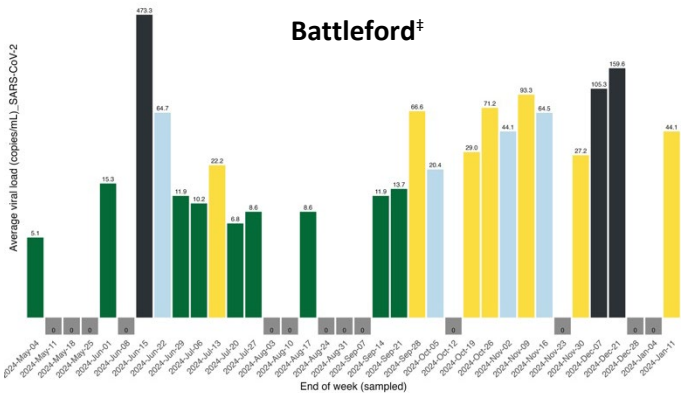
## Meadow Lake‡



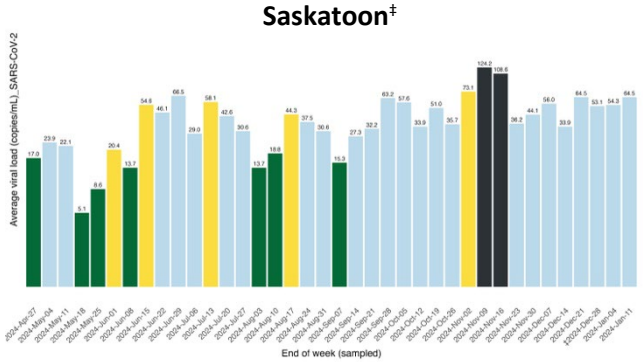

## North Battleford‡



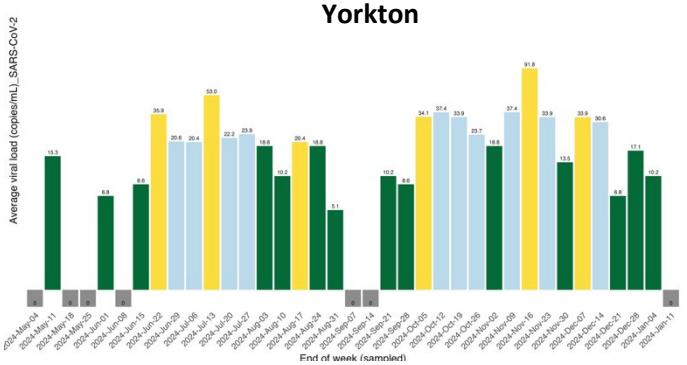

## Battleford‡



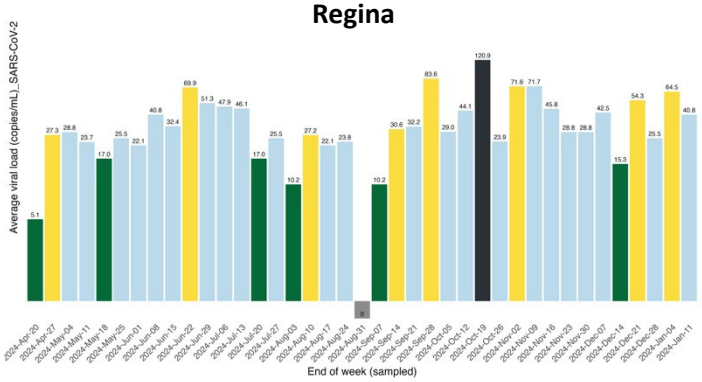

## Saskatoon‡



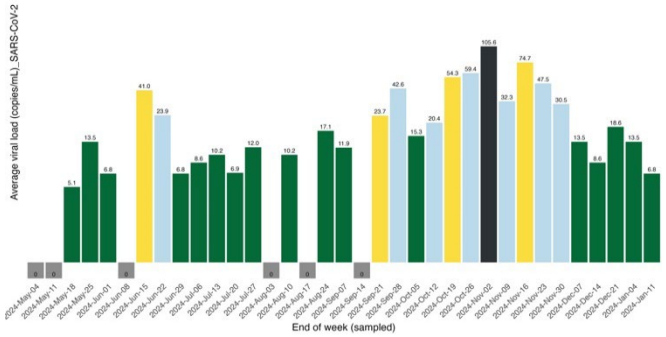

## Yorkton



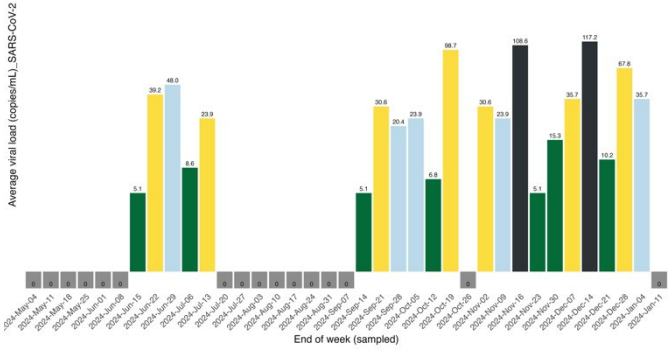

## Regina



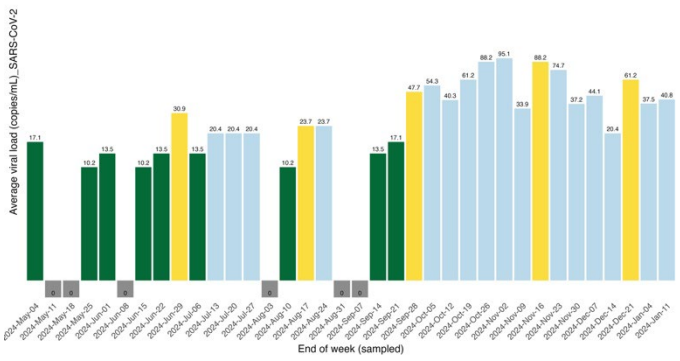

## Swift Current‡




## Assiniboia




## Moose Jaw‡




**Quantitative Interpretation**:

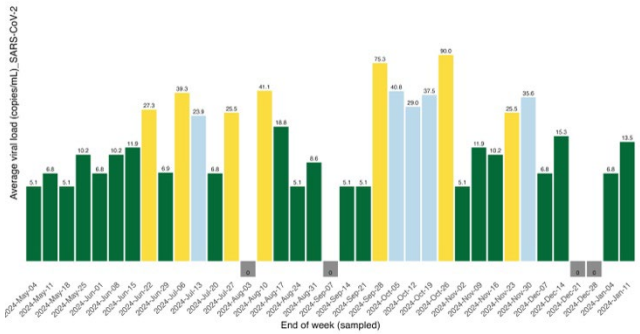
- Non-detect: 0 gene copy per mL/gene copies < LOD.
- Low: < 20 gene copies per mL.
- Medium: 20-100 gene copies per mL and weekly change < 100%.
- Medium-high: 20-100 gene copies per mL and weekly change ≥ 100%.
- High: > 100 gene copies per mL.

Low | Medium | Medium-High | High | Non-detect

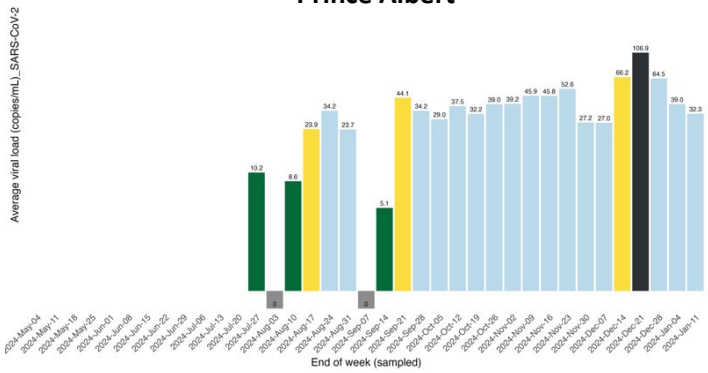


Saskatchewan

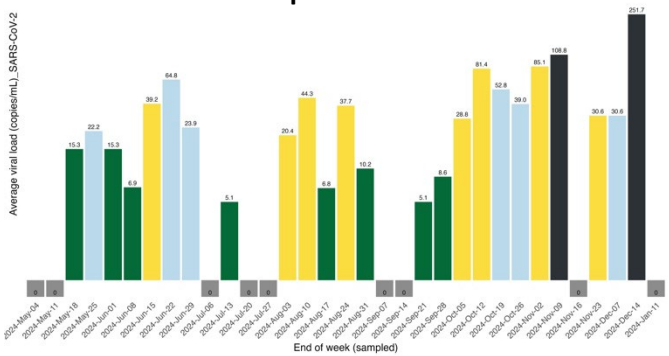
### Estevan



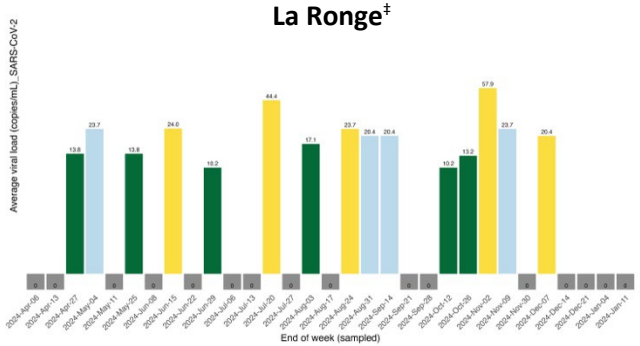

### Prince Albert‡




### Maple Creek‡




### La Ronge‡




**Quantitative Interpretation**:

- Non-detect: 0 gene copy per mL/gene copies < LOD.
- Low: < 20 gene copies per mL.
- Medium: 20-100 gene copies per mL and weekly change < 100%.
- Medium-high: 20-100 gene copies per mL and weekly change ≥ 100%.
- High: > 100 gene copies per mL.

Low Medium Medium-High High Non-detect

‡Date gaps are due to the non-receipt of wastewater samples during specific reporting weeks. [Saskatoon-2024-epi_week-52, i.e., week ending December 28, 2024 – mean viral load has been updated to include later samples collected within the same epidemiological week.]