COVID-19 Report

SUMMARY[1,2]

Testing this reporting period:	**n = 339** New PCR confirmed cases **n = 2154** Tests completed

Outcomes this reporting period:	**n = 9** Admissions to hospital **n = 0** Admissions to ICU **n = 6** Confirmed deaths[3]

HIGHLIGHTS

- The number of confirmed cases has increased this reporting period following a period of general decrease. Percent positivity increased.
- COVID-19 hospitalizations and deaths decreased.
- Since August 28, 2022, the rate of hospitalizations is highest among those aged 70 years and older.

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[1] Numbers are subject to change due to reporting delays. Missed events will be captured in subsequent reports as data become available. Due to changes in COVID-19 testing strategies in January 2022, case counts are underestimated.

[2] Refer to *Definitions* section for case definitions.

[3] Number of confirmed deaths that occurred since August 28th, 2022, reported to Public Health New Brunswick (PHNB) since previous report.

COVID-19 LABORATORY DATA

Figure 1: Number and seven-day moving average of PCR confirmed COVID-19 cases by report date, August 28, 2022, to February 4, 2023 (Data source: New Brunswick Regional Hospitals)
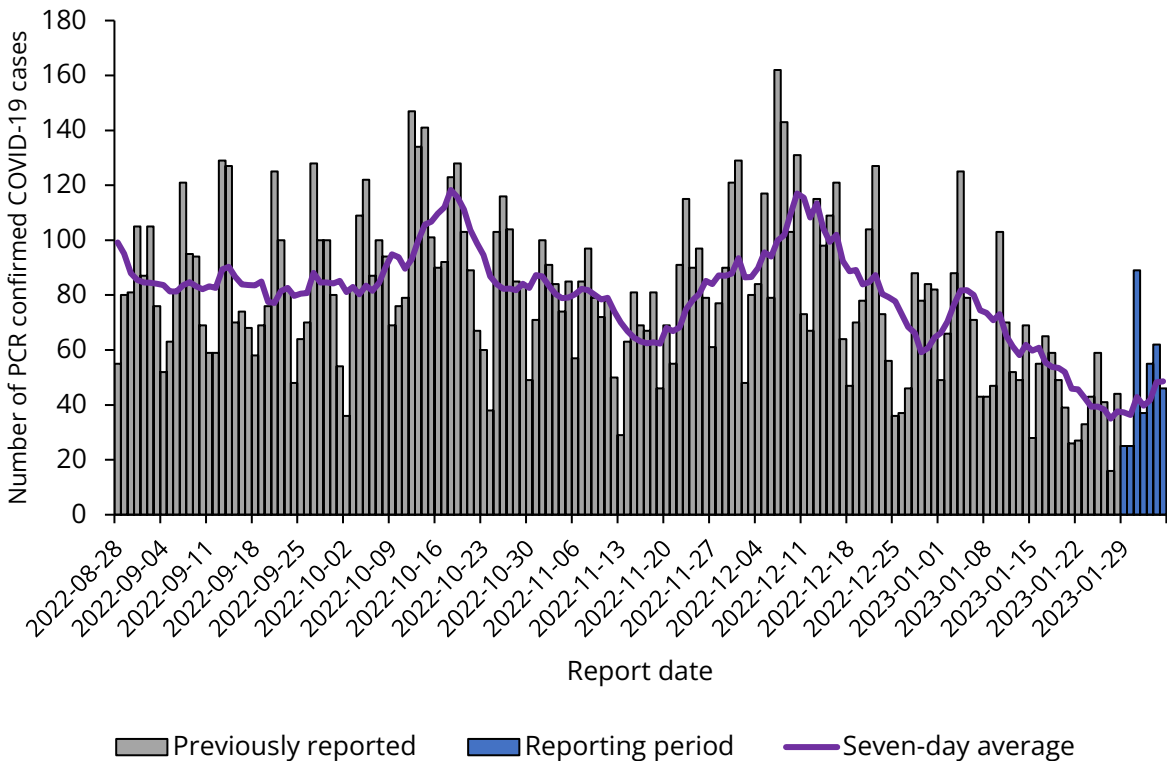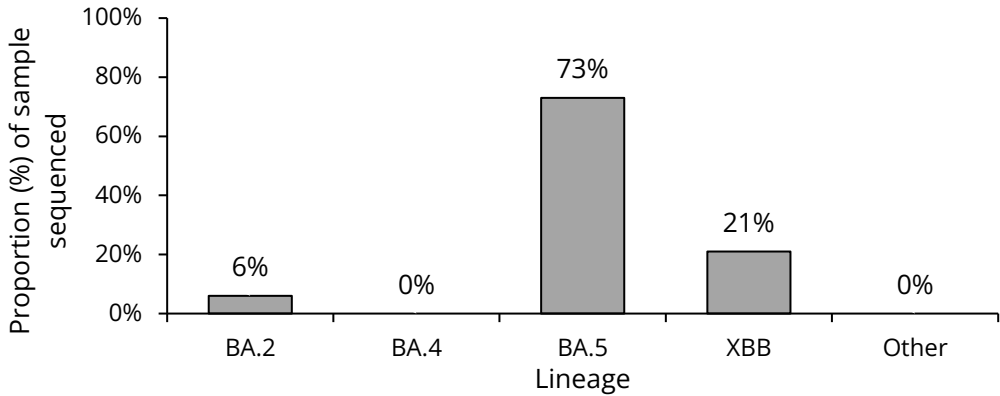

Notes:
- PCR testing restricted to eligible population: COVID-19 testing (gnb.ca).

Figure 2: Distribution of most recent sample sequenced for COVID-19, January 23 to January 30, 2023 (Data source: George Dumont Laboratory)

Notes:
- Sample includes 109 specimens.
- Categories include respective sublineages.

Figure 3: Number of COVID-19 PCR tests and percent positivity by report week, August 28, 2022, to February 4, 2023 (Data source: New Brunswick Regional Hospitals)
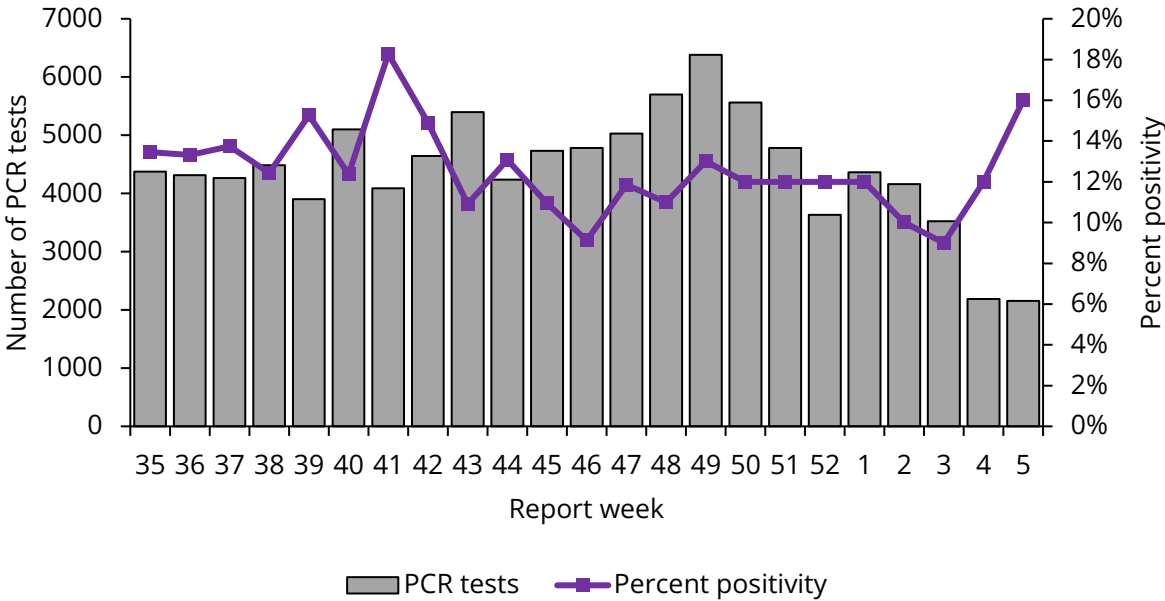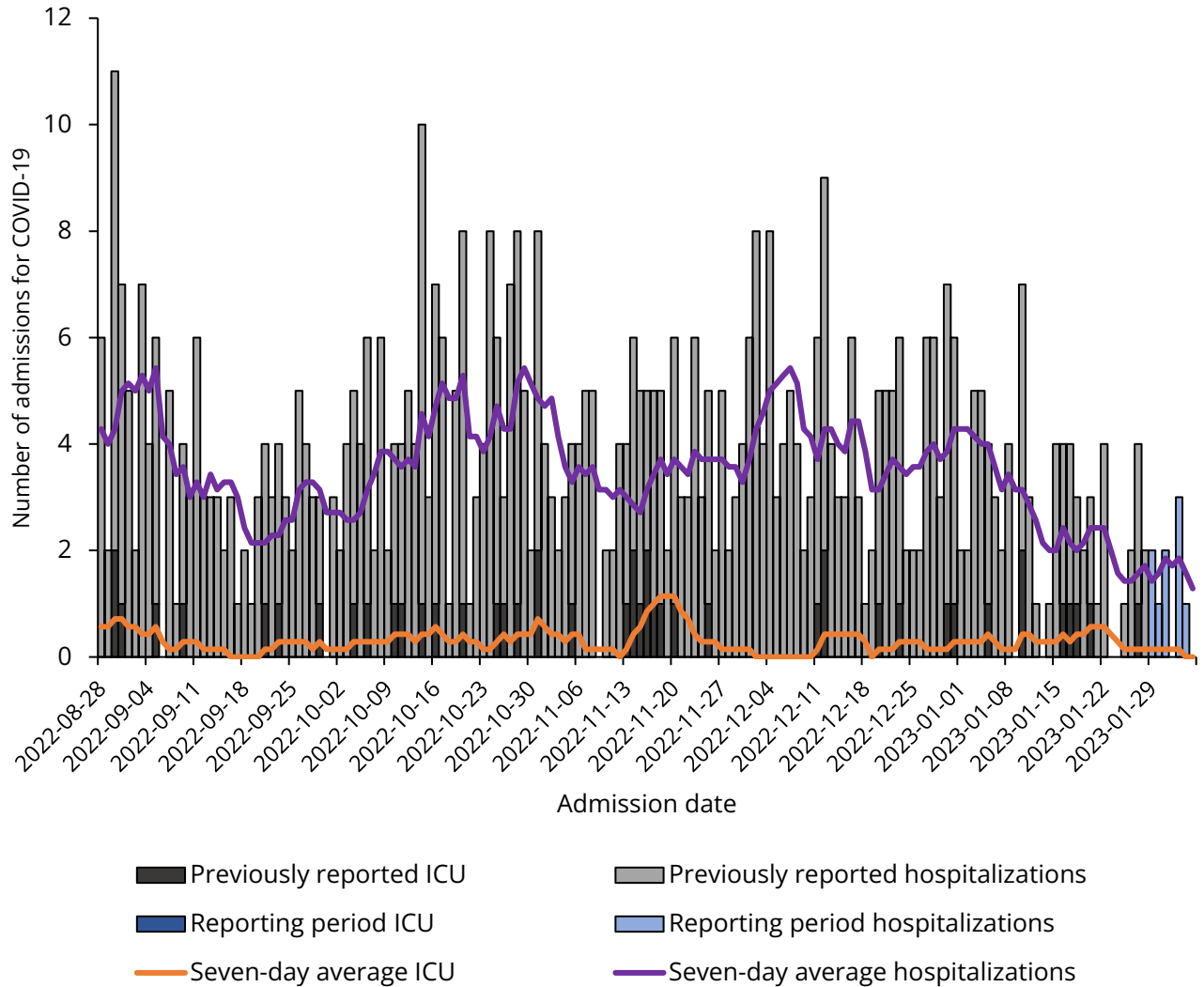

Notes:
- PCR testing restricted to eligible population: COVID-19 testing (gnb.ca).

COVID-19 HOSPITALIZATIONS AND DEATH SURVEILLANCE

Figure 4: Hospitalizations and ICU admissions for COVID-19 by admission date, August 28, 2022, to February 4, 2023 (Data source: Horizon Health Network and Réseau de Santé Vitalité)

Notes:
- Admission date is the latest occurring date between admission date and report date.
- Hospitalizations and ICU admissions include those who were admitted for COVID-19 only.
- ICU status is noted from the Regional Health Authorities.

Figure 5: Number and seven-day moving average of COVID-19 deaths by date of death, August 28, 2022, to February 4, 2023 (Data source: SNB Vital Statistics)
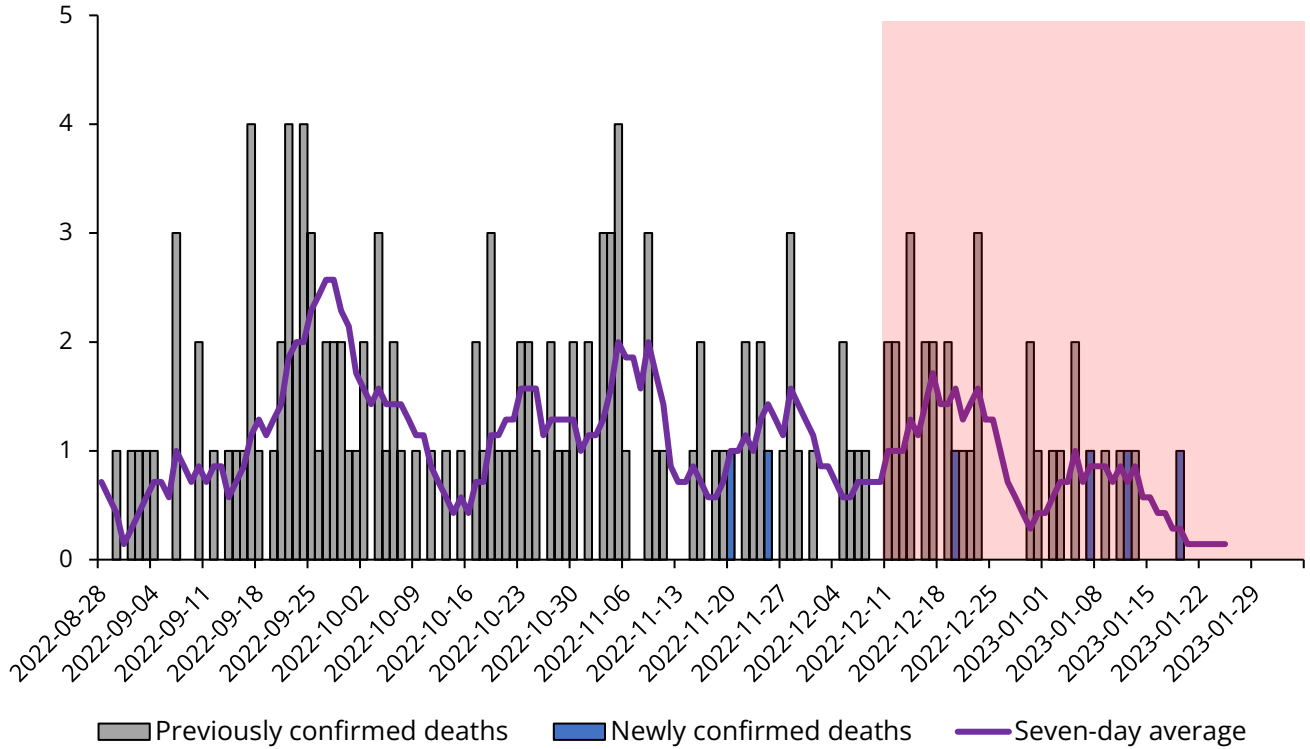

Figure 5 represents deaths that occurred since August 28th, 2022. An additional 25 deaths being reported this period occurred prior to August 28th, 2022, bringing the number of total deaths since the start of the pandemic to 812. As noted previously, there's typically a lag in reporting, as Public Health relies on SNB's Vital Statistics for notifications of deaths. Due to the intricacies of the reporting process, which requires medical practitioners and funeral directors to file paperwork, the lag can sometimes be longer than usual.

Notes:
- Deaths are subject to a lag in reporting.
  - Average two-month lag from date of death to the registration of death.
- The shaded area should be interpreted with caution.

Table 1: Number of COVID-19 PCR tests, confirmed cases, hospitalizations, admissions to ICU, and deaths (Data Source: New Brunswick Regional Hospitals, Horizon Health Network, Réseau de Santé Vitalité, and SNB Vital Statistics)

	Number in reporting week	Change from previous reporting week	Total since August 28, 2022
PCR tests	2154	-34	101799
Confirmed cases	339	76	12622
Hospitalizations	9	-3	554
ICU	0	-1	47
Confirmed deaths	6	-2	155

Notes:
- Deaths are subject to a lag in reporting.
  - Average two-month lag from date of death to registration of death.
- Hospitalizations and ICU admissions include those who were admitted for COVID-19 only.
- ICU status is noted from the Regional Health Authorities.
- PCR testing restricted to eligible population: COVID-19 testing (gnb.ca).

Table 2: COVID-19 hospitalization and death rates by age group, August 28, 2022, to February 4, 2023 (Data source: Horizon Health Network, Réseau de Santé Vitalité, and SNB Vital Statistics)

Age Group	Number	Crude rate per 100,000	Relative risk
Hospitalizations			
<20 years	27	17.7	0.9
20-59 years*	80	20.2	1.0
60-69 years	91	77.8	3.8
70+ years	356	307.5	15.2
Deaths			
<50 years*	3	0.7	1.0
50-69 years	14	6.0	8.6
70+ years	138	119.2	171.4

Notes:
- *Indicates reference category. Each risk is compared to the reference category.
- Relative risk is calculated by dividing the age group specific relative risk by the reference category relative risk.
- Deaths are subject to a lag in reporting.
  - Average two-month lag from date of death to registration of death.
- Hospitalizations and ICU admissions include those who were admitted for COVID-19 only.
- Population estimates from Statistics Canada 2021 Census of Population.

Table 3: Age-adjusted COVID-19 hospitalization and death rates by vaccine status, August 28, 2022, to February 4, 2023 (Data source: PHIS, Horizon Health Network, Réseau de Santé Vitalité, and SNB Vital Statistics)

Vaccination status	Number	Crude rate per 100,000	Age-adjusted rate per 100,000 person-years
Hospitalizations			
Unvaccinated	84	112.8	950.7
Primary series completed	92	35.9	115.1
Primary series completed and 1 additional dose	199	93.3	99.4
Primary series completed and 2 or more additional doses	166	84.2	37.2
Deaths			
Unvaccinated	18	24.2	409.6
Primary series completed	22	8.6	35.5
Primary series completed and 1 additional dose	66	30.9	35.2
Primary series completed and 2 or more additional doses	46	23.3	10.2

Notes:
- Refer to *Definitions* section for vaccination status definitions.
- Partially vaccinated cases were excluded from the analysis due to small number of events.
- Age-adjusted rates are used to account for the differences in age distribution across groups.
- Deaths are subject to a lag in reporting.
  - Average two-month lag from date of death to registration of death.
- Hospitalizations and ICU admissions include those who were admitted for COVID-19 only.
- Population estimates from Statistics Canada 2021 Census of Population.

Table 4: Summary of COVID-19 PCR tests, confirmed cases, hospitalizations, and admissions to ICU by region for current reporting period, January 29 to February 4, 2023 (Data Source: New Brunswick Regional Hospitals, Horizon Health Network, Réseau de Santé Vitalité)

Region	PCR tests	Number of confirmed cases	Hospitalizations	ICU
1	593	86	5	0
2	514	49	1	0
3	399	70	0	0
4	124	18	2	0
5	162	32	0	0
6	224	67	1	0
7	138	17	0	0

Notes:
- Region was assigned based on laboratory data.
- Hospitalizations and ICU admissions include those who were admitted for COVID-19 only.
- PCR testing is restricted to eligible population: COVID-19 testing (gnb.ca)

DEFINITIONS

Case definitions

Confirmed: A confirmed case of SARS-CoV-2 is defined as:
- The detection of at least one specific gene target by a validated laboratory based NAAT assay performed at a recognized laboratory or,
- A validated point-of-care NAAT that has been deemed acceptable to provide a final result by the Government of New Brunswick or,
- A four-fold or greater seroconversion/diagnostic rise in viral specific antibody titre in serum or plasma using a validated laboratory-based serological-based serological assay for SARS-CoV-2.

Deceased: A death is determined to be COVID-19 related if the attending physician has identified that COVID-19 was a primary or contributing factor. If the cause of death is unclear, Public Health may request additional clarification from the vulnerable setting, or a Medical Officer of Health.

Hospitalization: Cases hospitalized for COVID-19, as per the reason for admission.

ICU: Cases hospitalized for COVID-19, as per the reason for admission and identified as occupying an ICU bed.

Vaccination status definitions (Source: [COVID-19 epidemiology update: Cases following vaccination - Canada.ca](#))

Unvaccinated: Cases who were unvaccinated at the time of their infection.

Partially vaccinated: Cases whose infection occurred
- 14 days or more after their first vaccine dose in a two-dose series, or
- less than 14 days after their second dose of the vaccine.

Completed primary series: Cases whose infection occurred
- 14 days or more after second dose in a two-dose series, or
- 14 days or more after one dose of a one-dose vaccine series, or
- less than 14 days after a first additional dose.

Completed primary vaccine series and 1 additional dose:
- Cases whose infection occurred 14 days or more following one additional dose or,
- less than 14 days after their second additional dose.

Completed primary series and 2 or more additional doses: Cases whose infection occurred 14 days or more following two or more additional doses.

Technical notes

Crude rate per 100,000: In some situations, comparing the number of events (e.g. hospitalizations) between groups does not provide a fair comparison, because the size of each group is different. The crude rate per 100,000 standardizes the numbers of events to the size of the group. As such, it provides an opportunity to compare rate of events between groups.

Age-adjusted rate: In some situations, only adjusting for the size of the group is not sufficient, because the underlying characteristics of each group is different. For example, if you compare number of hip replacements in a school compared to a nursing home, the rate itself wouldn't be a fair comparison because the age distribution is very different. An age-adjusted rate accounts for the differences in age between the groups and presents the rates had the ages been similar.

Relative risk: A relative risk is a measure of how likely one group is to be represented compared to a reference group. In the week 50 report, Table 2 has relative risks for hospitalizations. As such, we can see that *amongst those hospitalized*, individuals <20 years old were 0.9 times as likely to be in hospital compared to a 20-59 year old, whereas individuals 70+ years old were 15.2 times more likely to be in hospital compared to a 20-59 year old.