Our focus throughout the pandemic

- Protecting people at the highest risk of severe illness or death.
- Protecting our health care system capacity.
- Keeping people and communities safe.
- Bringing people back together, safely.
Where we are today, 28 Sept 2022

58% of eligible kids 5-11 have received their first dose of the COVID-19 vaccine.

86% of British Columbians 5+ have received two doses of the COVID-19 vaccine.

57% of British Columbians 5+ have received a booster* or third dose.

358 COVID-19 positive people are in hospital. The reason for hospitalization may not be related to COVID-19.

*5+ only recently eligible for booster

COVID-19 IN BC

Updated 28 Sept 2022
COVID-19 hospitalizations and deaths, 1 Jan 22 – 20 Sept 22

New daily COVID-19 hospitalizations and deaths, Jan 01 2022 - Sep 20 2022

- Hospitalizations
- Deaths prior to reporting transition
- 30-day all-cause mortality
- 30-day mortality, cause of death is COVID-19
30-day mortality by cause of death, 17 Apr 22 – 3 Sept 22

- Cause of death is COVID-19
- Cause of death is not COVID-19
- Cause of death is not yet determined

Each bar represents a week, dates are the first day of the week.
Most prevalent SARS-CoV-2 lineages
1 June 2021 – 21 Sept 2022

*Other includes: BA.4, BA.4.1, BA.4.2, BA.4.4, BA.4.6, BA.5, BA.5.1, BA.5.1.1, BA.5.1.10, BA.5.1.2, BA.5.1.3, BA.5.1.4, BA.5.1.5, BA.5.1.6, BA.5.1.7, BA.5.1.10, BA.5.2.2, BA.5.2.3, BA.5.5, BA.5.6, BE.1, BE.1.1, BF.10, BF.14, BF.4, BF.5, BF.7, BF.8, BF.9, BK.1, other BA.2.* in the most recent week
Hospitalization rates per 1M by age, 1 Jan 22 – 17 Sept 22
Age-standardized hospitalizations, critical care admissions and deaths by vaccination status, 1 Jan 22 – 17 Sept 22

- Hospitalizations
  - Unvaccinated
  - Vaccinated 2 doses
  - Vaccinated 3+ doses

- Critical Care
  - Unvaccinated
  - Vaccinated 2 doses
  - Vaccinated 3+ doses

- Deaths
  - 30-day mortality, cause of death is COVID-19
SARS-CoV-2 viral load in Lower Mainland wastewater samples
10 Jan 2022 – 19 Sept 2022

Load is the total viral signal detected over a 24-hour period in the sampled wastewater.
New hospitalizations over the past two months have primarily followed the 20% growth advantage scenario.

Shading indicates uncertainty due to effectiveness of vaccination, showing 90% and 50% confidence intervals.
Most of the population have accrued some immunity to SARS-CoV-2 from vaccination or infection.

Dec 2020: Vaccination begins with highest risk individuals

Nov 2021: 85% of individuals 12+ years fully vaccinated

Aug 2022: 88% of individuals 5+ years fully vaccinated

Total represents any vaccine or infection induced immunity

Infection induced (with or without vaccination)

https://www.medrxiv.org/content/10.1101/2022.09.09.22279751v1
Findings by age group highlight that children have the least vaccine induced antibodies, but most infection-induced antibodies/hybrid immunity, while older adults have less infection-induced antibodies but increased vaccine-induced antibody.
Integrated surveillance to inform public health decisions

- Wastewater surveillance
- Serosurveillance (blood testing)
- Sentinel Practitioner Surveillance Network
- Hospitalizations/critical care
- Testing
- Outbreaks and clusters
Wastewater surveillance

**Scope:** Use wastewater to detect and monitor respiratory pathogens of public health interest as a population-level passive surveillance tool.

### Pathogen Detection
- Detect target pathogens at the population level
- Is COVID-19 present in this community?

### Pathogen Trends
- Monitor target pathogens at the population level
- Are COVID-19 numbers increasing?

### Pathogen Characterization
- Variant or strain detection
- Is an emerging VOC detected?
Wastewater surveillance

VCH
• Lions Gate (North Vancouver)
• Iona (Vancouver)
• Lulu (Richmond)

FHA
• Annacis (Surrey, Ladner etc.)
• North West Langley

VIHA
• Comox
• Victoria
• Nanaimo

IHA
• Kelowna
• Nelson
• Kamloops

NHA
(Discussions still ongoing)
• Prince George
• Terrace
• Fort St John
• Prince Rupert
1- Residual Serological Surveillance – LifeLabs

**Scope:** To monitor change in community-level sero-prevalence to select respiratory viruses (e.g. influenza, SARS-CoV-2) including among children, adults and the elderly in the Lower Mainland, BC

**Surveillance Targets:**
- SARS-CoV-2, Influenza A, Influenza B, Other emerging pathogens

2- Blood Donor Screening - Canadian Blood Service

**Scope:** To measure antibodies against SARS-CoV-2 among residual samples of blood donors in BC. Data will be used to inform public health policy

**Surveillance Targets:**
- SARS-CoV-2, Influenza A, Influenza B, Other emerging pathogens
Serosurveillance (blood testing)

3- Antenatal Serological Surveillance

Scope: Utilize existing residual antenatal serum across BC to ascertain the SARS-CoV-2 sero-prevalence.

• >95% of antenatal women from all regions

Surveillance Targets:
✓ SARS-CoV-2, Influenza A, Influenza B, Other emerging pathogens
Sentinel Practitioner Surveillance Network

**Scope:** To provide real-time respiratory virus surveillance and monitor vaccine effectiveness (VE) across participating provinces and Canada

**Surveillance Targets:**
- SARS-CoV-2, Influenza A, Influenza B, other respiratory virus/bacteria

**Population & Geographic Reach:**
- 4 Participating provinces with 336 Sites in BC (pre-pandemic)
  - BC
  - Quebec
  - Ontario
  - Alberta

**Next steps:** Re-activation of network and expansion of sites
Outbreaks and clusters

Scope:

- Outbreak surveillance informs appropriate interventions to prevent and contain further spread of the virus
- Basic information on COVID-19 and Influenza outbreaks in care facilities are being collected

Cases of an Unknown Disease by Month of Onset

COVID-19 IN BC
Testing / Laboratory surveillance

**Aggregate lab reporting:** Reporting on the positivity of samples based on different viruses and overtime

Continuing Whole Genome sequencing to detect new variants

Emergency department surveillance for respiratory pathogens including influenza, RSV, parainfluenza, SARS-CoV-2
Evolution of COVID-19 Testing Guidelines

• COVID-19 testing guidance are evolving to support clinical care.
• Testing is recommended for people to inform care and treatment.
• Rapid antigen test kits are widely available for free in community pharmacies.
• Positive rapid antigen test results are acceptable for initiating treatment:
• To find out if you may benefit from treatment and how to get the treatment, visit [gov.bc.ca/covidtreatments](http://gov.bc.ca/covidtreatments) or call Service BC for assistance: 1-888-COVID-19 (1-888-268-4319) (7:30 am to 8 pm).
Benefits of Boosters

- Optimizes the benefits of the vaccine with longer protections
- Strong and quick response from antibodies
- Protects people at higher risk of severe illness
- Keeps communities safe and hospitalization rates down
Influenza

- The provincial influenza vaccination campaign is set to start in October.
- Recommended and available for free for everyone aged 6 months and older.
- Seniors (65+) can get enhanced vaccines that provide additional protection.
  - FluzoneHD for seniors in long-term care and assisted living
  - Fluad (Adjuvanted vaccine) seniors living in the community
- Influenza vaccine will be offered to BC residents at community COVID-19 booster clinics, pharmacies, as well as physician and nurse practitioner offices.
There are many tools that can help protect you and your family from COVID-19, especially if you are at higher risk of severe illness.
Preparation for Fall/Winter 2022/23 Respiratory Illness Season

September 28, 2022
Winter Surge Planning – Current Hospital Capacity

Reviewing Hospital Capacity Across B.C.:

• B.C.’s hospital capacity is approximately 9,400 patients

We are planning for additional potential hospitalizations due to:

• COVID-19 surges in the community
• Other respiratory illnesses such as influenza
Winter Surge Planning – Fall and Winter Projections

COVID-19 and Influenza related surges are anticipated, but the volumes are difficult to predict.

- COVID-19 projections suggest up to 700 additional patients may require hospitalization in the coming months, currently at 350.
- Influenza projections suggest a peak of up to 1,200 additional patients may require hospitalization for a few weeks over the coming months.

We are planning bed management to support:

- Bed availability based on moderate to high projections
- Planning 1,500 more beds (if needed) late fall through early spring
Bed management strategies are being refined to manage hospital capacity.

1. Planning underway to open up additional hospital bed capacity:
   - Of the currently admitted patients in hospital, approximately 1,300 could be cared for in the community and 500 are awaiting care home placement
   - Patients are being identified for potential transfer to community; reducing hospitalization by 40% to 60% in case 500 to 800 beds are needed
Winter Surge Planning – Bed Management

2. An operational Task Group is focusing on improving emergency department efficiency, hospital access and flow:
   - 7-day a week active bed management teams will be implemented to optimize in-patient bed utilization.
   - Continuing enhanced air ambulance teams to expedite transfers when needed

3. Worst case scenario planning is underway where as a last resort and where needed, service reductions including postponing surgeries could be required
Fall outlook – Respiratory viruses in BC

September 28, 2022