

Understanding BCCDC's Data Tool for respiratory viruses

Where does this information come from and what does it mean?

The BCCDC Respiratory Viruses Data Tool is a set of online interactive data pages that informs on the impact of respiratory viruses in British Columbia (BC).

This includes which viruses are circulating and where, and whether there are increases in infection or serious illness.

Respiratory viruses are germs that cause illnesses like the **influenza (flu)**, **respiratory syncytial virus (RSV)** and **COVID-19**.

The platform is updated every Thursday from November to April, when these illnesses are more common (sometimes called "flu season").



What do we want to know?

Which respiratory viruses are making people sick in BC?



Are there any patterns or trends?
Are they similar to previous years?



Where in BC are people affected?



Which groups are more likely to become seriously ill or even end up in the hospital?



We want to know about the well-being of BC communities.

The information helps us understand what's going on in the province when it comes to the impact of respiratory viruses and what actions we need to take to stay safe.

However, we can't tell exactly how many people in BC are infected with respiratory viruses because some people don't have symptoms and others manage their symptoms at home (which does not get reported).

Why do we want to know?

So we can act.

We want to know this information so:

Public health can keep an eye on trends and pick up anything unusual or unexpected.

Regional health authorities can prepare and take action to help keep people safe.

Outbreaks can be identified, whether in a hospital, community, or a specific region of the province.

People or communities that are more likely to be seriously impacted can be informed of their risk.

For example - If the information shows that more people are getting sick with respiratory viruses in a specific area of BC, we can take these actions:



HEALTH CARE

- increase hospital staff and resources to manage extra patients,
- recommend measures to slow the spread (e.g., vaccines, antiviral medications),
- support higher-risk areas (like long term care).



MEDIA

- alert the public of the risk



COMMUNITIES

- consider what they need to do to protect themselves (e.g. stay home if sick, wear masks)

Where does this information come from?

We collect information from many different sources.

Many of us have had a terrible fever or cold that have led to a visit to a healthcare provider.

Some of us may have been sent for lab testing, or in serious cases, to stay in a hospital for treatment.

At any of these points where you interact with BC's health care system, our information systems collect and store that information.

All of this information is anonymized so none of your personal information is shared when it is analyzed. You can find more information on data privacy [here](#).

Without these information systems in place, we would have little understanding of what viruses are spreading, whether there are any new diseases emerging, and what we need to do to make sure we can provide care to everyone who needs it.

These data sources combined give us a window into the wellness of people in BC.

Testing

Provincial Laboratory Information Solution (PLIS)

of people tested for respiratory illness
of those who test positive



Primary care

MSP Database (Medical Services Plan)

of people who went to their primary care provider due to a viral respiratory illness



Emergency Department

Regional Health Authority Data

Proportion of visits for respiratory symptoms



Hospitalizations

Provincial COVID-19 Monitoring Solution (PCMS)

of people who were admitted to hospital with COVID-19



Deaths

Vital Statistics Database

of people who died within 30 days after testing positive for COVID-19



Wastewater

Wastewater Surveillance

Amount of viruses shed by people in their feces (poo)



How does it work?



Once the information is gathered, public health epidemiologists, microbiologists, scientists and data specialists clean, analyze and interpret it.

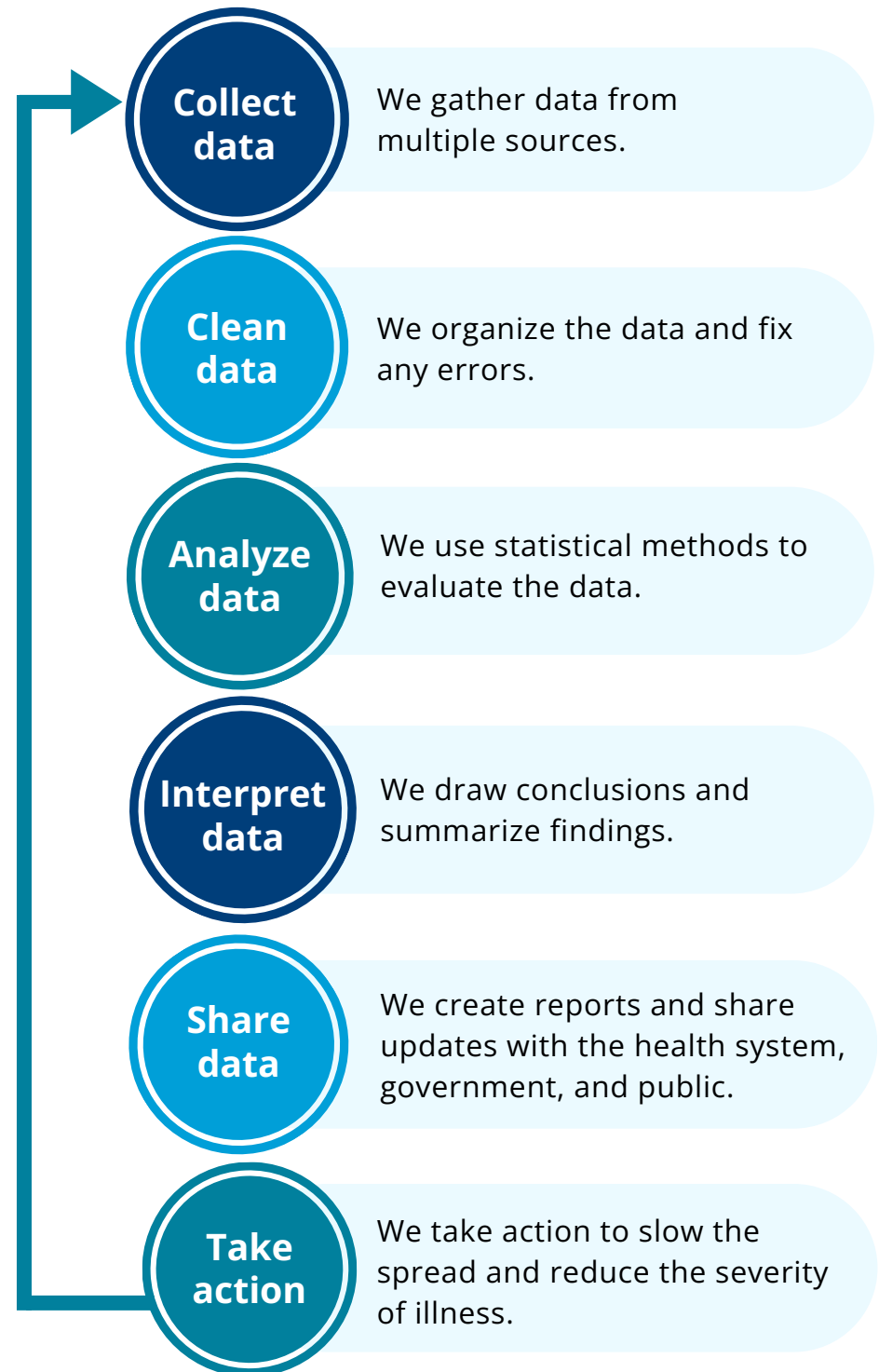
They summarize and share their findings with:

- **Government leaders** in the Ministry of Health and Office of the Provincial Health Officer.
- **Public health and infectious disease teams** across regional health authorities and partner health organizations.
- **Communities and public**, through media, our website and collaborations with community organizations.



Our public health information systems aim to carefully and thoughtfully manage this information so we use it to help protect our communities from respiratory viruses.

The actions taken through these partnerships help tell us where we need to focus our public health efforts and future research.



Collect data

We gather data from multiple sources.

Clean data

We organize the data and fix any errors.

Analyze data

We use statistical methods to evaluate the data.

Interpret data

We draw conclusions and summarize findings.

Share data

We create reports and share updates with the health system, government, and public.

Take action

We take action to slow the spread and reduce the severity of illness.

Definitions

These key definitions may help you to understand the weekly surveillance reports or other information you will find on the data tool.

Epidemiological week/epi-week: This is a standard method of counting weeks so that it's possible to compare data year after year. In BC, the epi-week is a 7-day period that starts on a Sunday and ends on a Saturday. The first epi-week of the year begins in late December or early January.

Historical average: This is data on past respiratory seasons. Using historical averages helps us to know whether the current respiratory season is similar, better, or worse compared to previous years. Due to atypical patterns of spread of other viruses during the COVID-19 pandemic, 2020/21 and 2021/22 seasons are often excluded from calculations of historical averages.

Infection: it occurs when viruses that cause disease enter your body and begin to multiply.

Illness: as a result of the infection, signs and symptoms of an illness appear. It can be more or less severe.

Percent positivity: it is the percentage of all tests performed that come back positive for a given virus. If the percent positivity is high, it can mean that there is a higher transmission of the virus.

Respiratory season: it the time of year when there is a special focus on surveillance of viral respiratory illnesses. In BC, respiratory season is usually from November to April, the time of year when these illnesses are more common. The exact time period changes from year to year.

Surveillance season: it is the annual monitoring period for respiratory viruses that operates year-round, typically beginning in epi-week 35 (around September) of the current year and running to epi-week 34 of the following year.