BRIEFING PAPER: **How many kids in BC are getting sick with respiratory illnesses?**

April 2024

1. Why is knowing this important?

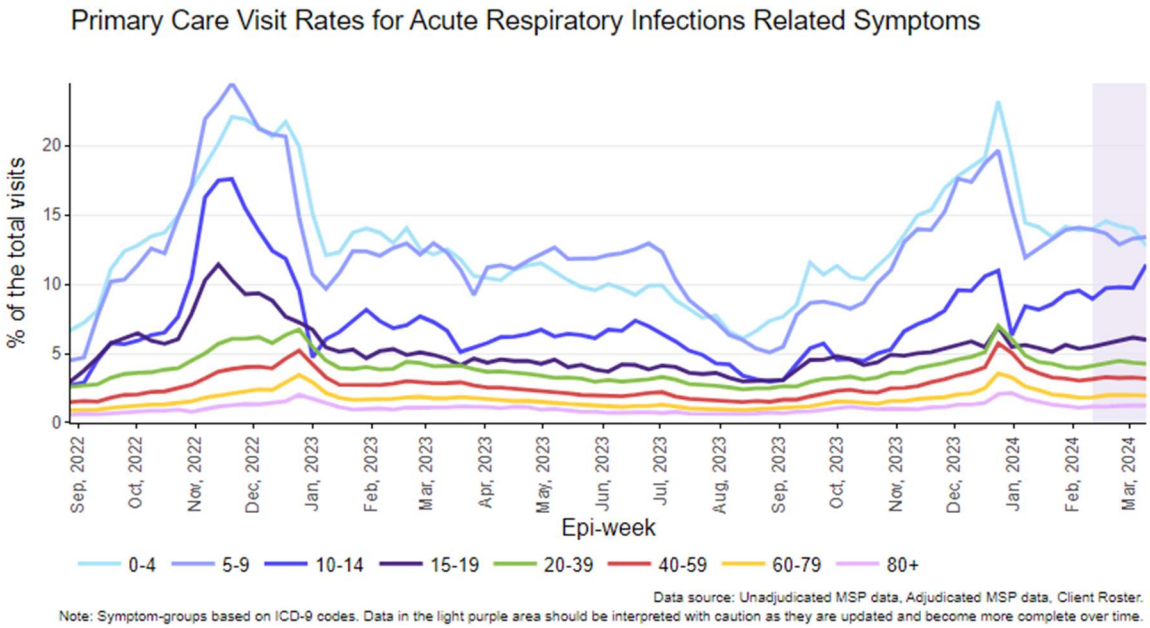
When children get sick with infectious respiratory illnesses the effects ripple out into society. They can pass these illnesses on to their siblings, parents, grandparents and other caregivers….and to their friends and teachers at school. In turn these people can pass it on to others in their social circles.

The public is urged to "stay home when you're feeling sick". Absenteeism interrupts children's education and others' income earning. Having a child sick can require special care giving arrangements that have a cost. It places burdens on families and their support groups. This can be especially difficult for single parents or those without close support groups. Having sick children adds burdens to an already stretched-thin health care system, especially at peak illness times. Having sick teachers means increased costs to school districts for relief teachers.

In short, there are multiple ways that there are demonstrable and quantifiable costs which society has to bear. These are not insignificant. Knowing how many kids are getting sick is important for policy makers in government to know, so that they ensure the scale of their response to minimise these costs is appropriate. It is also important for the public to know so they can hold policy makers and delivery agents to account.

2. Do we know how many kids are getting sick?

You would think therefore that such data is readily available to the public. In fact, in British Columbia it is not. The BC Centres for Disease Control (BC CDC) publishes data updated every week during a respiratory illness season. These start at the beginning of September each year with the main wave of illnesses peaking before Christmas and passing by the end of January. The closest the information provided by BC CDC gets to answer the question is this graph below.



Each coloured line represents an age group as shown at the bottom. However, the graph just shows what percentage of primary care visits in a particular age group in a particular week were for “acute respiratory infections related symptoms”. This tells us nothing about how many children in these different age groups were seen by primary health care practitioners. And this will be a smaller number than how many were getting sick, as it only picks up the cases when care givers got concerned enough to take their children to see a doctor.

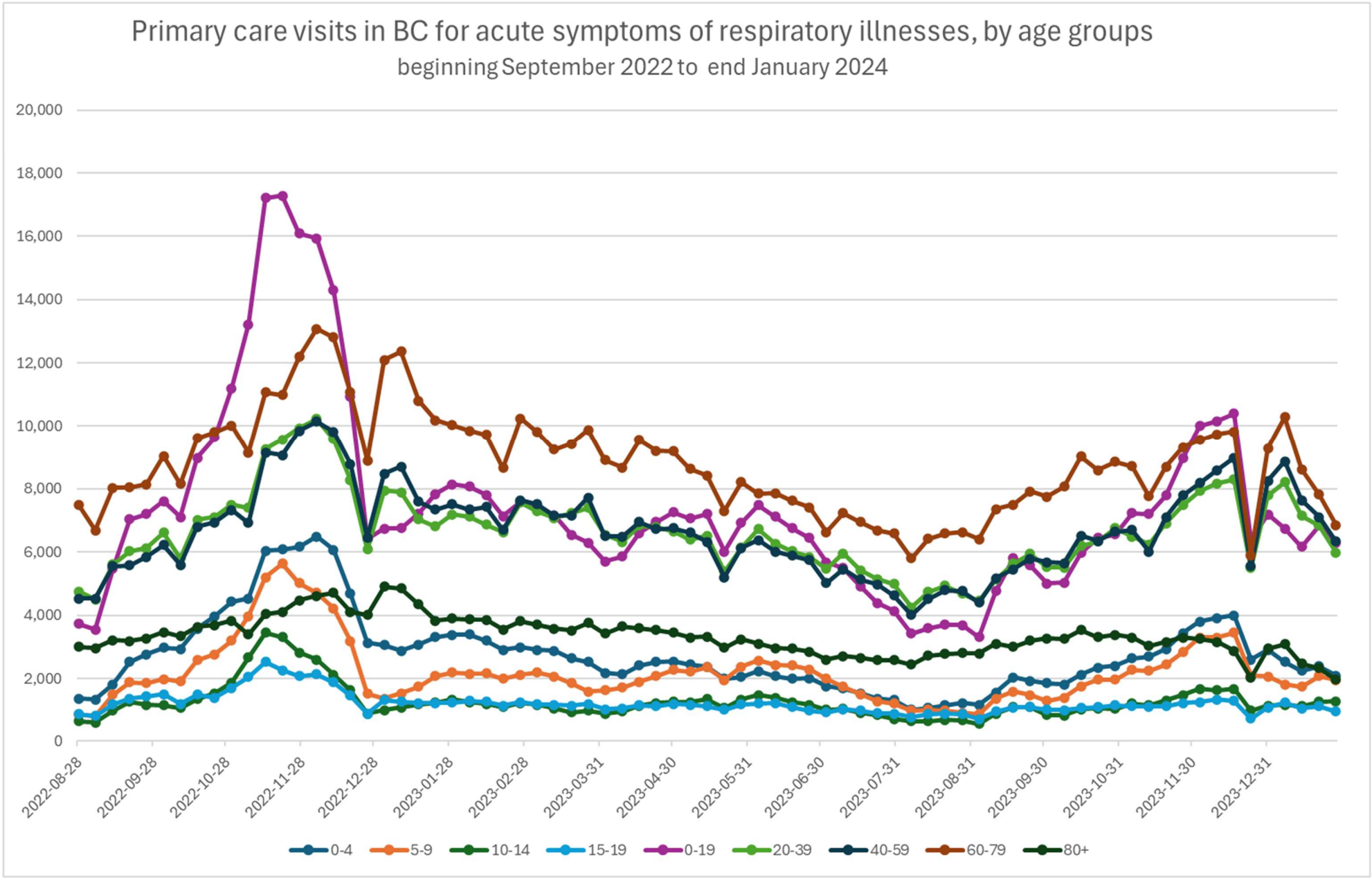
A better indicator would be if we knew how many children were absent from schools and daycares. But such absenteeism data is not collected, or if it is this is not available in public reports.

3. Data made available following a Freedom of Information request

The frustrating part of the above data from BC CDC is that those involved in generating these graphs had to know how many kids in these age groups were visiting primary care facilities and how many of these were for respiratory illness symptoms. This would be how the percentage values were calculated. However, BC CDC does not provide this data as they are not authorised to do so by the Ministry of Health.

The public has a right to know this data. A request was therefore made under the Freedom of Information Act. The information received back is made available in the graph below. It covers the period from the beginning of September 2022 to the end of January 2024.

Note that this data has the same limitation as noted above. It is not all the kids getting sick; just those that visited a doctor.



Notes:

1. The **purple** line for 0-19 years is the sum of the data for the 0-4, 5-9, 10-14 and 15-19 age groups. This allows for more meaningful comparison with the older age groups.

4. Discussion on Results

In aggregate, the children age groups of 0-4, 5-9, 10-14 and 15-19 make up the highest numbers of primary care visits for acute respiratory illness symptoms during the seasonal 'wave' of respiratory illnesses that begins in September and peaks by Christmas. Of these groups, 0-4 and 5-9 year olds present the highest numbers. Outside this seasonal wave period, across the whole annual period the highest group is 60-79 year olds.

Total numbers across the seasonal wave period are shown in the table below, along with the full annual result for 2022/2023.

		Age Group								
		0-4	**5-9**	**10-14**	**15-19**	**0-19**	**20-39**	**40-59**	**60-79**	**80+**
Total visits 2022-08-28 to 2023-01-29		86,563	61,645	36,943	34,453	**219,604**	168,298	168,765	229,817	88,816
Total visits 2022-08-28 to 2023-08-20		149,837	116,615	68,080	65,861	**400,393**	348,810	347,647	468,476	181,860
Total visits 2023-08-27 to 2024-01-28		56,584	46,134	26,160	24,678	**153,556**	149,171	153,563	190,493	68,552

The short answer, therefore, to the question "How many kids are getting sick?" is **hundreds of thousands** per year. This means the care givers of these hundreds of thousands of children are having their lives significantly impacted, as set out in section 1.

The data for 0-4 and 5-9 year olds illuminates the indoor air quality issue relating to schools and daycares. Clean air advocates have been calling for improved ventilation and high efficiency air cleaners in these spaces. It is only recently following international expert bodies' reviews of the outcomes of the COVID-19 pandemic that guidance and new standards have emerged that call for much higher ventilation rates.

The World Health Authority has recently added "ensure good ventilation" to the measures it advises governments to take to manage respiratory illness seasons. In a new report on indoor airborne risks the WHO notes "….One of the learnings from the COVID-19 pandemic has been that we must reshape and redesign the building environment, while focusing on optimizing indoor ventilation and therefore, the air we breathe."

The BC Government has yet to recognise and act on this new guidance from these expert bodies and "ensure good ventilation". Most classrooms in BC would not meet the new standard and guidelines from these authoritative expert bodies. Many classrooms would be considered to be poorly ventilated. And for those that may meet the new benchmarks, the way this has been done is at the expense of unnecessarily high energy costs and greenhouse gas emissions. The situation is likely to be the same in daycares.

Both the Ministry of Education and public health authorities are expected to come out soon with new guidance that finally acknowledges the need to increase the ventilation rates in classrooms. This is welcome news. However, the most important thing is that the government does not lose the opportunity of this upcoming summer works period for schools to begin to retrofit classrooms with upgraded ventilation systems, especially those known to have the worst ventilation rates. Now is the time to get ahead of the next respiratory illness season.