

February 2, 2021

To: PHSA Board Chair, Tim Manning

Re: Response to the blog: BC Back to (COVID) school by authored by Jens and Hsingchi von Bergmann.

The pandemic has piqued and renewed interest in public health data. Much of the data that is being presented by BCCDC and the health authorities is being examined with a keen eye. The public is asking for transparency, and timeliness in data sharing and communication. At all times we welcome constructive feedback or commentary related to the data products, as it helps us identify ways to improve the translation and communication of COVID-19/ SARS-COV-2 related data to the public.

COVID-19 information presented to the public is largely surveillance data. Surveillance data are obtained from information collected during clinical and public health management of people with COVID-19, and clusters and outbreaks of COVID-19. In other words, these data are primarily collected for purposes other than public reporting, and therefore, are not perfect. But surveillance data do not have to be perfect to be useful. Through the systematic collection, analysis and dissemination of surveillance data, we can infer important information to guide public health action.

British Columbia's approach to the prevention and control of COVID-19 in schools was informed by data from multiple local, national and international sources, and considered information on safety in schools, risks of illness, transmission and outcomes in children and young adults, as well as the harms associated with school closures. Guidelines are created based on information we have to date. As we monitor COVID-19 locally, nationally and internationally, our approach in schools may need to be adjusted.

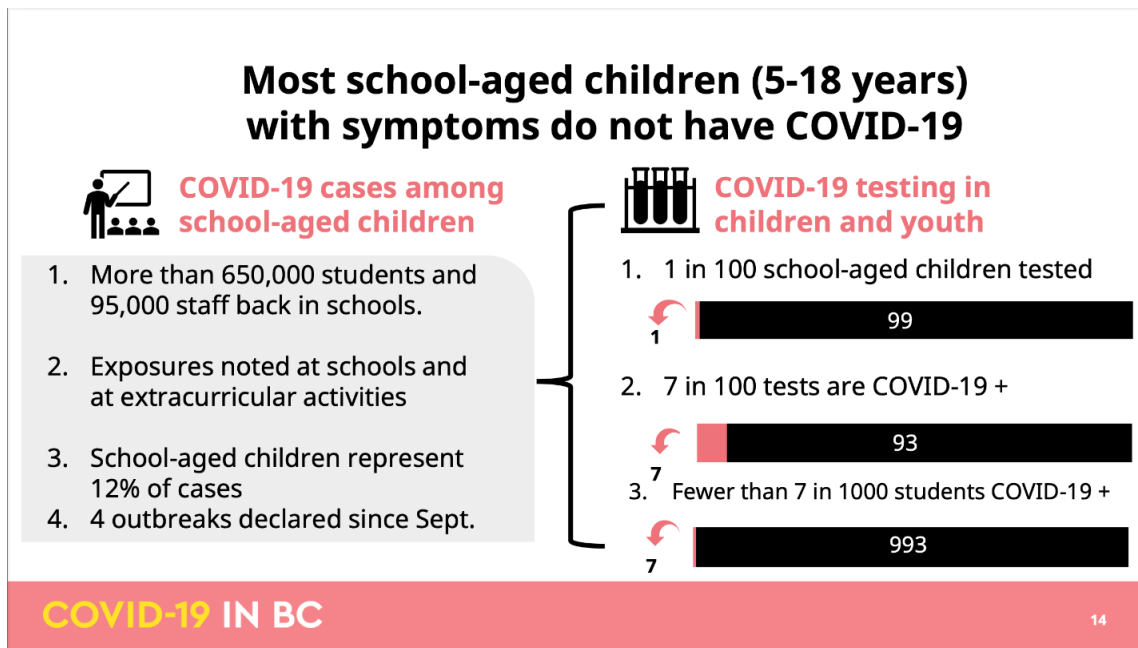
The PHO briefing on December 23, 2020 aimed to present information we gathered during the fall school term, when in-person instruction resumed in British Columbia. The author concluded that BCCDC is 'bent on minimizing in-school exposures and transmissions , going so far as producing slides that are misleading' is unfounded. In response to the blog, BCCDC reviewed these slides and found no data errors. We do however acknowledge the authors' perspective that it is possible to misinterpret the data given level of detail that the medium of a public briefing is able to provide.

We provide direct responses to the authors of the blog below. Going forward, presentations will be reviewed to ensure dates and details are added either directly to the slides, or to an appended document, to minimize the likelihood of misinterpretation. We also recognize that data are best interpreted and communicated by those closest to the work.

Please find below our responses to the bloggers' comments:

1. Point 1, Slide 14:

- Data is misleading and does a string of calculations aimed at minimizing the impact of COVID-19 on schools.
- Three numbers in bars on right hand side of slide don't add up numerically.



Response to Point 1, Slide 14:

We thank the authors for their comments. The intention of the slide was not to mislead, and we will work to ensure that data are more easily understood and the likelihood of misinterpretation is minimized. In particular for these data, the dates to which each bullet refers needed to be included.

The bloggers' are correct that the three numbers on the right side of the slide do not add up numerically. Indeed, there is detail missing in this slide that makes the information confusing. The goal of the slide was to present an up-to-date assessment of the current situation. For this we looked at testing data in the two weeks preceding Dec 23. However, the third bullet represents an overall rate for the period of September-December, and this is detail that should have been in the slide. The slide refers to the following data:

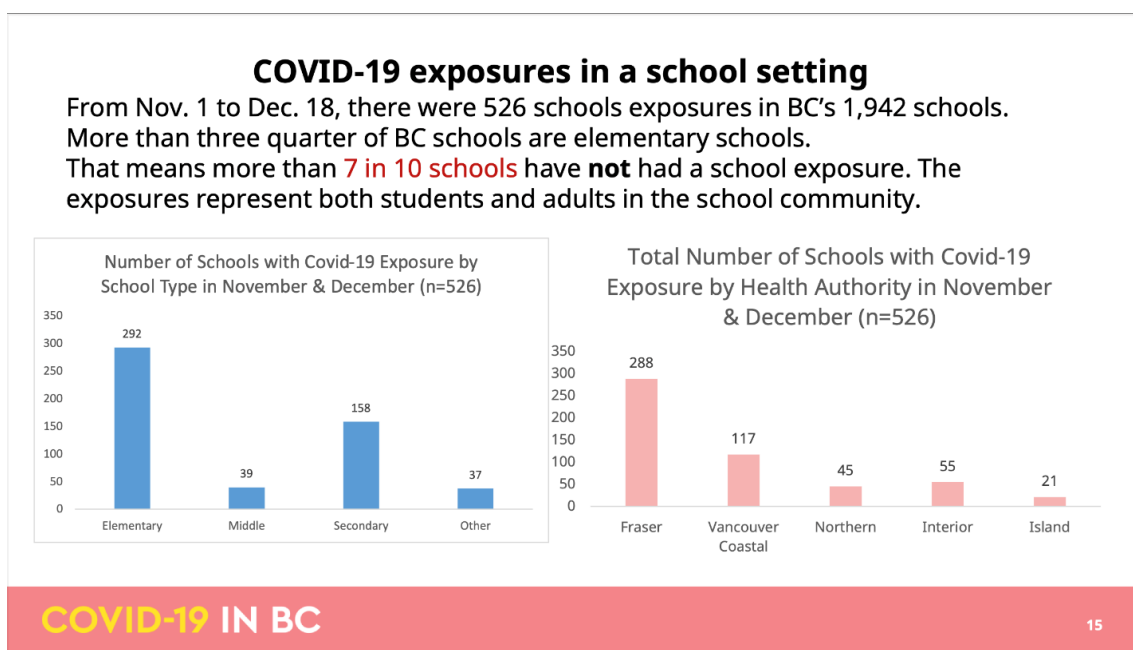
- **1 in 100 school-aged children tested.** The weekly testing rate for epidemiologic weeks 50 and 51 was roughly 1 test per 100 individuals aged 5-18 years. The language is not clear of the time period represented, and this will be updated. It will read: in the two

weeks prior to December 23rd, 1 in 100 school-aged children were tested every week.

- **7 in 100 tests are COVID-19 +.** This statement was also meant to reflect the recent activity (epi weeks 50 and 51). Data from the beginning of schools in Sept would reflect a much smaller percent positivity, since the number of tests was higher and the number of positive results was lower when schools first opened.
- **Fewer than 7 in 1000 students are COVID-19 +:** this refers to the entire term, which should have been made clear.

2. Point 2, SLIDE 15:

- The biggest issue with the slide is that what matters is the number of exposures, not the number of schools. BC COVID School Tracker volunteer project lists 1,392 exposure notifications in this time frame



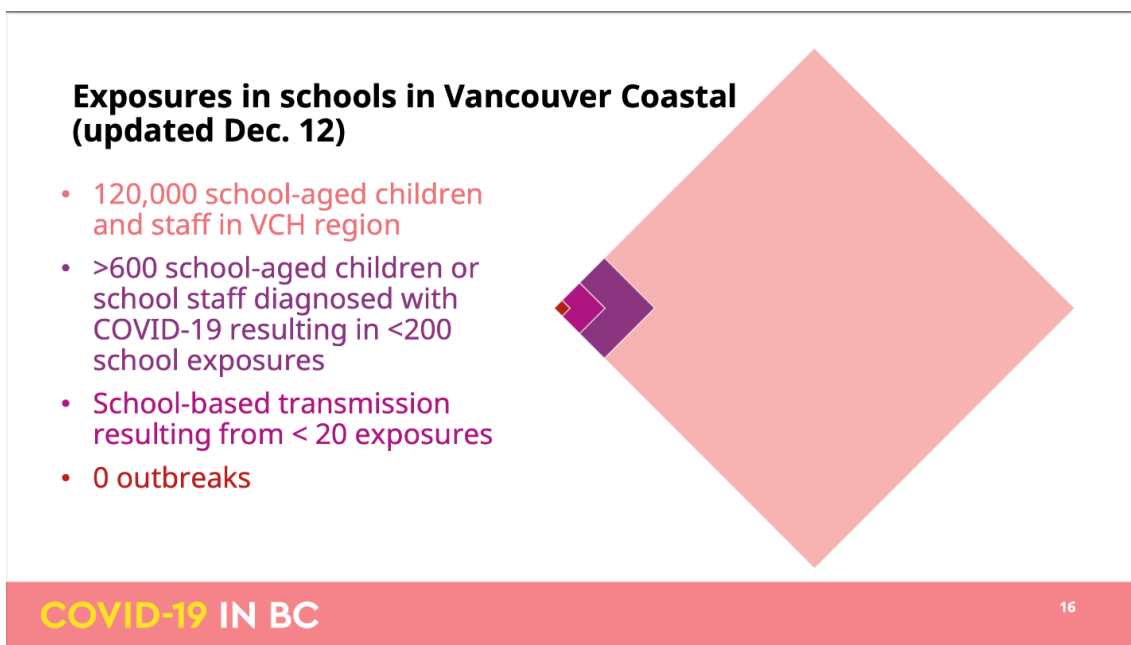
Response to Point 2, SLIDE 15:

While we agree that the overall number of exposures and the number of schools where exposures have occurred provide different information, we do not agree that the former provides more valuable information. The number of school exposure notifications reflect the number of students or staff who had COVID-19, who were in the school at some time during their infectious period. It does not imply that these infections were acquired in the school nor that there was any further transmission in the school. Indeed, for the vast majority of these notifications neither is the case; the infection is not acquired in the school and further transmission does not occur in the school.

Thus, the overall number of notifications is not a good reflection of risk in the school; it is a good reflection of COVID-19 transmission in the community. The number of schools where an exposure has and has not occurred reflects the localized nature of COVID-19 in our province. COVID-19 transmission varies community by community, and there are many schools that will not have had a COVID-19 case during the fall term.

3. Point 3, SLIDE 16:

- Discrepancy in number of COVID-19 cases among school aged children and staff (n>600) and number of school exposures (n<200)
- Number of exposures seems small



Response to Point 3, SLIDE 16:

The number of COVID-19 cases among school children and staff is the number of individuals diagnosed with COVID-19 who are either school-aged or are staff at a school. Being diagnosed with COVID-19 does not mean that a school exposure occurred. If the individual had another source of their infection and did not attend school during their infectious period, a “school exposure” did not occur. Indeed, as is indicated in this slide, more often than not, the case is neither acquired in the school nor attended school during their infectious period.

4. Point 4, SLIDE 17:

- Concern over interpretation of ‘No school transmission in >90% of cases’. Author believes this to be among cases where cases are linked to a known case or cluster, and

- suggests it is unknown how the remaining 11% of cases not linked to cluster/case can have transmission in school ruled out in interpretation
- Data from VCH don't appear to match scraped data that author has taken from transmission events from the province.

COVID-19 in schools in Vancouver Coastal

- 89% of cases acquired infection from confirmed case/cluster, generally from a household contact
- Of cases in schools, 76% students, 24% staff
- No school transmission in >90% of cases
- Recently, most transmission involved a staff member

Response to Point 4, SLIDE 17:

This slide presents information that is obtained by the detailed follow-up of cases done at the local level. The >90% number represents the percentage of cases among school aged children or staff who become the source of infection for another person in the school setting. This information is valuable because this level of detail is often not available at the provincial or national level. The provincial data that the blogger presents is a summary of the situations where two or more cases shared a common home, school, workplace etc.

The provincial data do not have the additional detail from local investigation that can rule in or out a probable transmission in the school setting. The value of providing more detailed information is to better understand the risk. The conclusion of the blogger, that the majority of students and staff who are diagnosed with COVID-19 did not acquire it in the school setting is consistent with what we are observing in BC.

5. Point 5, SLIDE 18:

- Data represent schools exposed, not total exposures
- The number of schools reported with exposures for Surrey, exceeds the number of schools in Surrey.

COVID-19 in schools in Fraser Health

- Exposure events have occurred in 384 schools, among which 133 (34.6%) were in Surrey school district (including both public and independent schools).
- Out of these 384 schools, 49 (12.8%) had potential in-school transmission events.
- Among the 49 schools, 23 (46.9%) schools were in Surrey school district .
- Among these 23 schools, 11 (47.8%) were secondary schools or include secondary school grades in the school.

Response to Point 5, SLIDE 18:

We agree that the data are the number of schools exposed. There are 162 public and independent schools in the Surrey school district. Therefore, the 133 schools in Surrey with an exposure represent 82% of all schools in the region.

This information is consistent with what we are seeing generally, that the number of schools with exposures is a reflection of what is occurring in the community. COVID-19 activity in Surrey was higher than in other part of the province. As expected, a higher number of schools had individuals with COVID-19, since the likelihood of acquiring COVID-19 for residents of Surrey was higher than elsewhere in the province.

We would like to thank you for your interest in the information we share, and we will continue to endeavor to improve data quality, timeliness and knowledge translation.

Sincerely,



Dr. Réka Gustafson MD FRCPC

Vice President, Public Health and Wellness, PHSA & Deputy Provincial Health Officer