

## ENVIRONMENTAL SCAN

# COVID-19: Use of Absenteeism Data to Inform Public Health Measures in K-12 Schools

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## Key Findings

- Public health guidance relevant to the collection and use of absenteeism data in elementary and secondary school settings (i.e., K-12 schools) in the context of COVID-19 was located for seven jurisdictions.
- In Canada, outside of Ontario, British Columbia and the Yukon were the only two jurisdictions that provided specific absenteeism thresholds for triggering notification to local public health authorities. School absenteeism that is greater than expected (without defining a specific threshold) can also trigger notification to public health in some jurisdictions (e.g., New Brunswick, Manitoba). However, Manitoba was the only province to explicitly outline a number of possible interventions in addition to notifying public health, including rapid antigen testing and a temporary switch to remote learning.
- In the United States, two states (South Carolina and Indiana) described absenteeism thresholds for consideration at the classroom/cohort level, as well as school-wide; however, only South Carolina recommended specific interventions (i.e., dismissal and exclusion of unvaccinated staff and students, and a switch to remote learning).
- The limitations of available school absenteeism data should be clearly communicated with education and public health stakeholders, including students and their families. Evaluation of the use of school absenteeism data is merited.

## Background

Since being designated as a variant of concern by the World Health Organization on November 26, 2021, Omicron has rapidly become the most predominant circulating SARS-CoV-2 variant worldwide.<sup>1</sup> In Ontario, as of January 1, 2022, Omicron accounts for 97.5% of cases identified through representative surveillance.<sup>2</sup> In response to the Omicron COVID-19 surge, guidance for case and contact management, advice to the public if symptomatic or exposed, and PCR testing eligibility has shifted in Ontario.<sup>3</sup> The Ministry of Health has amended its public health management guidance for K-12 schools, including discontinuation of cohort dismissals following exposure to an infectious case at school.<sup>4</sup>

Staff and students of elementary and secondary schools (K-12) in Ontario returned to in-person learning on January 17, 2022 following a period of remote learning beginning January 5, 2022;<sup>5,6</sup> some school boards were further delayed in resuming in-person learning due to winter weather.<sup>7</sup> Provincially required public health and safety measures for K-12 schools are outlined by the Ministry of Education.<sup>8</sup> Considerations for optimizing layers of prevention during in-person learning in schools in the context of

winter reopening of Ontario during the Omicron surge are further discussed in a recent PHO Environmental Scan.<sup>9</sup>

In addition, in the context of a shift away from individual case and contact management in schools in response to potential exposures at school, the Ontario Ministry of Education has implemented new guidance requiring K-12 school administrators to monitor and report daily staff and student absenteeism data for public posting, at the school level.<sup>4,10,11</sup> Going forward, school administrators are also now required to notify their local public health unit should absenteeism “...rise to a defined level (approximately 30% above their baseline)” (2022 memo from the Chief Medical Officer of Health of Ontario; unreferenced). Meeting (or surpassing) this threshold may represent increased transmission of COVID-19 in the community, and subsequently, its presence in the school setting. Following such notification, further public health measures, such as augmentation of health and safety protocols within the school and possible temporary closures may need to be considered, in collaboration with local public health.<sup>12</sup>

## Objectives and Scope

- The primary objective of this environmental scan was to determine if other comparable jurisdictions (outside Ontario) are using student and/or staff absenteeism data to inform public health measures in K-12 schools, particularly in the context of the Omicron surge and high rates of community transmission.
- For jurisdictions monitoring school absenteeism data, the secondary aim was to identify:
  - If specific thresholds for staff and/or student absenteeism were explicitly stated and if so, how are they calculated; and
  - What, if any, public health actions were triggered once these thresholds were met.
- The collection and use of school absenteeism data for non-public health related purposes (e.g., chronic absenteeism, legislated attendance requirements, student performance) was out of scope for this work.

## Methods

A grey literature search was conducted to identify publicly-accessible guidance related to the collection and monitoring of absenteeism data in K-12 schools as a strategy for the public health management of COVID-19. The following search string was generated to include multiple terms related to the key concepts of schools, COVID-19, and absenteeism: (school OR schools OR class OR classes OR classroom) AND (coronavirus OR COVID OR COVID-19) AND (absenteeism OR absent OR absences). This search strategy was applied to a number of custom search engines developed by PHO’s Library Services to target Canadian health departments and agencies, United States’ (US) state government websites, as well as international public health resources. In addition, a focused search of the websites for each Canadian province/territory’s respective Ministry of Health and Ministry of Education was performed; a similar approach was also taken for the top 25 most populated US states, as well as for Australia, New Zealand, United Kingdom, Ireland, the European Centre for Disease Prevention and Control, and the World Health Organization (WHO). Only documents published in English were included.

## Results

Public health guidance relevant to student and/or staff absenteeism in K-12 schools was identified for four Canadian provinces and territories (British Columbia,<sup>13</sup> Manitoba,<sup>14</sup> Yukon,<sup>15</sup> and New Brunswick<sup>16</sup>) as well as from the federal government.<sup>17</sup> Both Alberta<sup>18</sup> and Saskatchewan<sup>19</sup> mention the collection of school absenteeism data, but they did not specify a threshold and/or specific public health actions and thus were not included for discussion.

Outside of Canada, information on absenteeism thresholds and resulting public health measures were located for two US states (South Carolina<sup>20</sup> and Indiana<sup>21</sup>). An additional five states (Florida,<sup>22</sup> Illinois,<sup>23</sup> New Jersey,<sup>24</sup> New York,<sup>25</sup> and Wisconsin<sup>26</sup>) incorporated absenteeism monitoring into their guidance for K-12 schools, however, they did not specify a threshold and/or recommended follow-up and where thus not included for discussion.

No public health guidance related to the collection and/or use of school absenteeism data were found for jurisdictions outside of Canada or the US.

See [Table 1](#) for a summary of the available guidance.

**Table 1. Recommended absenteeism thresholds and resulting public health measures by jurisdiction and date of publication**

Jurisdiction and Date	Absenteeism Threshold(s)	Public Health Measures
<b>CANADA</b> British Columbia <sup>13</sup> <i>January 17, 2022</i>	Current public health-identified potential activity signals are: <ul style="list-style-type: none"> <li>• If school attendance is <b>10% below historical normal</b> (e.g., the previous years); OR</li> <li>• If <b>fewer than 75% of students in a grade are in attendance</b>; OR</li> <li>• For smaller schools (e.g., student population under 100) where large fluctuations in school absenteeism rates can be due to small numbers of students away, schools should contact public health if they determine an abnormal <b>number of students are away due to illness over 2-3 days</b>.</li> </ul>	Notify the grade or school community (depending on which potential activity signal is met). Notify the school district. School districts should notify the Ministry of Education daily about schools that have met a potential activity signal.
<b>CANADA</b> Manitoba <sup>14</sup> January 13, 2022	School officials will monitor to determine if staff and/or student absenteeism rates in a school or a specific classroom/cohort are <b>unusually high or exceed what would be expected attendance</b> .	School officials to submit an alert form to request support from public health and/or Manitoba Education. If information collected suggests increased transmission at school above that expected in the community, public health may recommend: <ul style="list-style-type: none"> <li>• Further preventive measures (e.g., pausing extra-curricular activities, field trips, assemblies, and moving to low-risk activities during physical education and music classes)</li> <li>• A rapid antigen test and enhanced measures as recommended by public health</li> <li>• A period of remote learning at the class, cohort, or school level</li> </ul>

Jurisdiction and Date	Absenteeism Threshold(s)	Public Health Measures
<b>CANADA</b> Yukon <sup>15</sup> <i>December 16, 2020</i>	Absenteeism that is <b>higher than expected (i.e., &gt;5% -10% above baseline)</b> as determined by the school and that is thought to be due to a communicable disease.	Not specified.
<b>CANADA</b> New Brunswick <sup>16</sup> <i>October 29, 2021</i>	When absenteeism of students or school personnel is <b>greater than would be expected</b> .	School administrators will notify Regional Public Health office.
<b>CANADA</b> Public Health Agency of Canada <sup>17</sup> <i>December 16, 2021</i>	When absenteeism of students, staff, or volunteers is <b>greater than expected</b> .	Notification to the regional/local public health authority.
<b>UNITED STATES</b> South Carolina <sup>20</sup> <i>January 15, 2022</i>	<p>For classrooms or cohorts with five or more people:</p> <ul style="list-style-type: none"> <li>• <b>If 20% or more</b> of the students within the classroom or other cohort of students (e.g., sports team or extracurricular group) <b>are absent or sent home early on the same day</b> due to testing positive for COVID-19 or having symptoms of COVID-19.</li> </ul> <p>A <b>30% or higher rate of absenteeism</b> in the school or grade level due to COVID-19 (including students in isolation and in quarantine).</p>	<p>Consideration should be given to excluding all students and staff, who have not voluntarily provided evidence of vaccination, in the classroom (or cohort of students) for five days after contact with the last identified COVID-19 case.</p> <p>Consideration may be given by a school district for a school (or grade level) to temporarily go virtual.</p>
<b>UNITED STATES</b> Indiana <sup>21</sup> <i>July 27, 2021</i>	<p>If the <b>percentage of students absent* from a school is equal to or greater than 20%</b> of the enrolled students.</p> <p>*Only those students who are ill and physically unable to attend either in person or virtually would be counted as absent (i.e., if a student is in quarantine but is not ill and able to attend school virtually, they are not considered absent).</p>	<p>Report to the local health department and the state attendance officer.</p> <p>The school and local health department should collaborate on next steps depending on the type of illness causing the absenteeism.</p>

## Limitations and Strengths

This environmental scan utilized a systematic and comprehensive approach, including both the broader use of customized search engines coupled with a focused search of government agency websites from a number of English-speaking jurisdictions. However, there are some inherent limitations. The search strategy was limited to publicly-accessible documents published in English. Given the rapidly evolving situation with the Omicron variant and the recent return to in-person learning, many jurisdictions may have subsequently implemented new guidance that has not yet been documented and/or been made publicly-accessible and thus would not have been captured. Also, for jurisdictions outside of Canada and the US, the search focused only on country-level guidance. Finally, this scan included only public health guidance related to the use of school absenteeism data, and was not designed to identify evidence evaluating the potential impact of such policies, should such evaluations exist.

## Discussion and Considerations for the Ontario Context

Use of school absenteeism data to inform public health action was not described in the majority of jurisdictions surveyed. Within Canada, British Columbia<sup>13</sup> and Yukon<sup>15</sup> were the only jurisdictions to provide specific absenteeism thresholds for notification to local public health authorities. In British Columbia, a number of potential threshold signals were provided, including a comparison to baseline levels of absenteeism for previous years (if known) as well as an absolute percentage for student attendance.<sup>13</sup> In the Yukon, a 5% to 10% increase in absenteeism above baseline was used to trigger public health action; however, the baseline criteria was not further defined.<sup>15</sup>

Of the Canadian jurisdictions for which publicly available guidance was identified, only Manitoba recommended specific public health measures other than notification to local public health authorities and/or school boards should absenteeism exceed what was expected (no threshold provided).<sup>14</sup> These included consideration of further public health interventions in the school setting (e.g., pausing extra-curricular activities, field trips, assemblies), a rapid antigen testing program (as recommended and guided by public health), and a potential temporary switch to remote learning opportunities.

In the United States, the state of South Carolina provided specific thresholds for absenteeism for both individual classrooms and/or cohorts, as well as at the grade-level or school-wide.<sup>20</sup> Recommended public health actions should these thresholds be met included the dismissal and exclusion of unvaccinated staff/students for five days post-exposure to a positive case, and a temporary switch to remote learning, respectively. In Indiana, notification to the local health department was recommended if the school-wide absenteeism rate met or exceeded 20%.<sup>21</sup> It is also worth noting that both of these jurisdictions included a caveat indicating that students who are in quarantine or isolation (South Carolina) or only those unable to participate in remote learning (Indiana) should be counted as absent. Furthermore, Indiana was the only jurisdiction to limit reported absences to being ill AND physically unable to attend school (i.e., not ‘all cause’ absenteeism).<sup>21</sup>

As of January 24, 2022, school administrators in Ontario are required to monitor and report daily absenteeism data to the Ministry of Education;<sup>10,11</sup> as well, they must notify their local public health unit should absenteeism “...rise to a defined level (approximately 30% above their baseline)” (Ministry of Health, 2022; unreferenced). Potential challenges for operationalizing and/or interpreting this guidance may include establishing a ‘baseline’ of staff and student absenteeism in the context of an ongoing and evolving pandemic, especially given that schools only recently returned to in-person learning on January 17, 2022 (or later) following an extended period without in-person learning. Secondly, there is the potential for inconsistent approaches across schools and school boards in how the 30% absenteeism threshold is calculated (e.g., which staff/students are included in the denominator – all or only those known or expected to be attending in-person) and interpreted. Thirdly, depending on how absenteeism data are collected, when communicating with local public health units (e.g., if school absenteeism is 30% above baseline) it may not be possible for school administrators to ascertain the reason for the absence (e.g., illness related, isolation for household member illness, discomfort sending to in-person school in the context of the Omicron surge, other non-health related), thus, the reported absenteeism data may not accurately reflect the number of staff/students absent due to COVID-19.

In addition, with restricted eligibility for PCR testing and in the absence of rapid antigen test reporting mechanisms or requirements, and without public health investigation of cases and contacts in students and staff attending schools, acquisition risk (e.g., at school vs. outside of school) and transmission risks for any self-reported COVID-19 infections will not be possible to assess. Each of the challenges outlined above will limit the public health unit’s ability to interpret a reported school absenteeism signal, and in turn may limit use of an absenteeism signal for informing tailored public health intervention at the school level, without additional investigation and/or information.

## Conclusion

There are few jurisdictions that have reported the use of student and/or staff absenteeism data to inform public health measures in K-12 schools, particularly in the context of the Omicron surge and high rates of community transmission. Of those jurisdictions monitoring school absenteeism, specific thresholds were often not explicitly stated, but when reported, ranged from 5% to 30% above baseline. Details on how to define a baseline absenteeism rate were generally not provided and may be challenging to define in the context of the pandemic with fluctuating community transmission and after an extended period away from in person learning from the holiday through at least January 17, 2022. The limitations of available school absenteeism data should be clearly communicated with education and public health stakeholders, including students and their families.

There were also limited details from other jurisdictions around public health actions that would be triggered when school absenteeism thresholds were met and if the resulting public health actions directly address the underlying reasons for absences (which may be unknown). The goals and desired outcomes of any actions triggered should be considered, for example enhancing health and safety measures in school (if within school transmission is suspected), and ensuring equity in access to education (e.g. providing virtual school options without compromising those who require in-person school) as well as, where possible, avoiding the harms of temporary closures to in-person learning.

Finally, evaluation of the use of school absenteeism data is merited, with input from education and public health stakeholders.



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