

**To: Members of the Oregon Senate and House Education Committees, State Board of Education**

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**Re: Metrics for Reopening Oregon Schools**

**Date: August 8, 2020**

I do not know if it is even worth it to send this statement to the Senate and House Education Committees and the State Board of Education because no communications to other Oregon leaders, including the Governor's Office, the Oregon Health Authority, or the Oregon Department of Education appear to be making any positive impact.

No one in positions of leadership in Oregon appear to care about the health and lives of Oregon's educators, students, and the families of those students.

In the eyes of too many leaders in this state, the primary concerns related to schools appear to be academic outcomes and providing child care so parents can return to work.

For the last month, I have been communicating with many Oregon educators who are worried about becoming ill or dying, or the family members of their students or even students themselves becoming ill or dying, because of decisions that are being made at the state and their local district level. These educators and their supporters are communicating on a Facebook Group called Oregon Safe Return to Campus. These are some of the recent statements from members of this group:

I have served my district selflessly for nearly twenty years. I have put my students above my own family time and time again. I have spent thousands of dollars supplying my classroom and my students. I have taught sick when I could not get a sub more times than I can count and work roughly 60 hours a week. Now we are in the middle of a pandemic with so much left to learn about this virus, where millions have been sickened and will face lifelong health challenges and so many have died. My district clearly does not care about all of the risks to my health and the health of my family and students. I absolutely do not feel safe going back to in-person teaching. My district's reckless disregard for my life—when I have given my life to this district—is crushing. I am terrified, disillusioned, and broken. I need a paycheck. I need insurance. But I have two small children who need their mother.

I am feeling very marginalized by the "powers that be" in education. I gave them a large portion of my life, and now they want me to give up my life.

I have taught in my district for 17 years and have been denied unpaid leave of absence to be able to educate my 2nd grade son who has two medical conditions that place him at high risk category. During the request process my professionalize was questioned and it was the most demoralizing experience of my career. I don't think I will return to the classroom again as I no longer wish to take part in what feels like an abusive relationship with public education.

I don't want to leave my job. I don't want to stop teaching. I don't want to never meet my students in person. But I also do NOT want to die. Maybe that is selfish. But it is honest.

In a district email it was stated “If you are high risk and chose not to teach in the building, you must take unpaid leave.” This tells me that I must put my life at risk or my family’s since I will have no money to buy food, pay rent, etc.

School is supposed to be a place where children can grow in a safe, loving and nurturing environment. I did not give up my first career and fo deeply into debt so I could be part of a system that wants to sacrifice my students’ safety and well-being for the economy.

I know that children learn best in person, but in-person learning phi year would be even more traumatizing than any of us are willing to admit. No hugs when a child is hurt, no playing with friends, military-like control—not to mention endless rolling quarantines, classmates and teachers getting sick or even dying, and the profound guilt a child would experience for the rest of their life if a family member dies.

I, as a 30 year veteran teacher, feel heartbreak and anger at the thought of watching children and staff in my classroom, school, and district become sick and spread this highly contagious virus.

I am not being anti-social. I am being responsible. I am not being rude. I am protecting myself and my family. I am not heartless. I actually care more than most because of my ability to continue to be a Mom, daughter, wife, sister, friend, etc. literally is dependent on my next decision. I m not being dramatic. I don’t get that privilege. I am not fearful. I am experienced at survival. I have been practicing survival my whole life. I don’t need to “jus take a break.” You see, I can never take a break without dire consequences. I am not asking the world to stop. I am asking you to listen without bias and a willingness to learn. I am not selfish. I have sacrificed myself to help others. I am high risk, a chronic bearer of diligence and obedience to live, while carrying the weight of never-ending guilt for this burden I didn’t ask to share.

My daughter was diagnosed with leukemia in 2018, after months of being sick. In her to and a half years of treatment, she missed a lot of school, play dates, no clubs, no sports, no extra-curricular activities. She is behind a little in reading and math. But she will catch up because she is alive and healthy. That is so much more important than meeting some benchmarks a year later than the rest of her peers.

I am 27. I am high risk. I love my job more than I ever thought was possible. But I am not ready to die so that my students can do their schoolwork online in the same room.

Before students can succeed academically, they must feel safe both physically and mentally. In the last 2 days before we left school, students were worried and stressed in class saying we are all going to die. Another student mentioned that his grandpa is going to die. He could’t focus on his learning. Also my students were asking each other if they will go to each other’s funeral. I am an elementary school teacher. Considered at risk.

It is atrocious that l’s being forced to choose between keeping my job and working in incredibly unsafe conditions—jeopardizing the health of my family and myself—or quitting and forging this income. Sheey Insanity. Unfair. How I it we’ve sunk so low?

I am 67 and love teaching music. As a music teacher, I get to see all of the students every year. My relationships with them by 8th grade are profound. I had hoped to teach at least 3 more years. But computing the percentages of students who can be expected to get CV-19 and the students who can be expected to die from it, that is a risk I am not willing to face. I have resigned my teaching position.

For the past 15 years, I have committed my life to teaching and serving students with highest needs, many of whom are medically fragile. Now I have to accept that their lives, my life, and the lives of my family members are deemed expendable by the education system, which ironically chooses to ignore the research and data provided by our country's most highly respected experts.

I do not want to be the cause or the scapegoat when children die because we go back to school too early based on faulty statistics. Teachers are already facing incredible scrutiny. We will certainly be blamed when children get sick or worse. It won't matter how hard we fought to keep them safe, we will shoulder the blame externally and internally. I can't live with that.

Teaching is my passion and my calling. Now, in my 13th year of teaching, I find myself considering the unfathomable—leaving education. I am at high risk. The deteriorating school building I work in, with antiquated ventilation and windowless rooms, can't possibly be an environment where coronavirus won't spread. Many students are being raised by grandparents or other high-risk individuals. With the K-3 exception I feel I am being forced to risk not only my life and long term health outcomes, but also be complicit in risking the lives and health of my students and their families. My heart is breaking at having to make such a choice.

## **School Staff are Considered an Expendable Potential Loss**

A statement made by Morgan Allen, from COSA, in an August 6th email to a group of educators who were working on a request for school district immunity, announcing the failure to achieve agreement, illustrates the total lack of regard for the health and lives of Oregon's educators, students, and the families of those students:

We are working from the position that safely reopening schools and community colleges is a moral responsibility that will benefit everyone in the state. Physical reopening will help remedy some of the harm the COVID-19 pandemic has inflicted statewide. We're anxious to reopen to combat learning loss, start delivering health and wellness services to students, and reestablish connections between students and adults. ... Reopening will also provide child care/supervision that would benefit the parents and guardians of Oregon.

No where in this statement, nor in any of the statements OSBA has posted on its Facebook group related to immunity, has there EVER been a statement of a moral responsibility or even any concern about ensuring the well-being, health, and lives of Oregon's educators, students, or the families of those students.

As is evidenced by the above comments, many educators who are seeking supports or modifications to better ensure the health and lives of themselves or their loved ones are being treated in a profoundly unprofessional and harmful manner by local district leaders and human resources departments.

I am not going to address the immunity issue in this document. If you want to see what the impact of providing school districts with immunity, simply do a search for Georgia, schools, covid. Georgia passed legislation providing immunity for schools in July.<sup>1</sup> In the past week, after reopening schools, there are massive examples of unsafe conditions in schools and massive increasing infections and required students and teacher quarantines.

## **Lack of Evidence Basis to Support the Current Reopening Standards**

Dr. Sidelinger, the state's chief epidemiologist, has maintained that the metrics that have been released are evidence based. Here is one reported statement:

“Oregon public health officials have developed transparent, evidence-based metrics to help school boards and school districts make local decisions based on local conditions to determine how they can safely reopen school to in-person instruction,” said Dr. Dean Sidelinger, the state’s chief epidemiologist. <https://mailtribune.com/news/education/new-state-health-metrics-set-medford-schools-back-ode-covid-19-oha>

**The profound failure of the Oregon Health Authority to provide evidence-based metrics for the reopening standards, together with their failure to promptly update the metrics based on new research evidence, is readily apparent.**

### **Risks to Younger Children**

In a document issued July 28, 2020, the Oregon Health Authority stated:

Younger students get the virus at lower rates, get less sick when they get COVID-19, and seem to spread the virus less than older children or adults.<sup>2</sup>

This inaccurate assumption appears to be at the heart of the metrics. While this statement may have represented what was believed to be an accurate understanding of the facts at that time, during the week when this statement was published by the Oregon Health Authority, new research was published that directly contradicts this statement. As stated quite bluntly in an article:

Two new studies, from different parts of the world, have arrived at the same conclusion: **that young children not only transmit SARS-CoV-2 efficiently, but may be major drivers of the pandemic as well.**<sup>3</sup>

One study, in Chicago, assessed the concentration of Covid-19 in the upper region of the throat. It found that younger children had 10 to 100 times the level as adults. Young people from ages 5 to 17 had the same level as adults. The researchers conclude while not as prone to suffer from a Covid-9 infection, it is likely that young children still drive its spread, in the same manner as they do with several other respiratory diseases.

A study in Italy also found that the concentrations of the virus in children were higher. The researchers also found that although young children had a somewhat lower risk of infection than adults and were less likely to become ill, children age 14 and younger transmit the virus more efficiently to other children and adults than adults themselves.

As concluded in the Forbes commentary,

Both studies spell serious implications for countries contemplating whether or not to reopen schools in the face of lingering and out-of-control outbreaks, the United States included. Even if children are required to keep their hands to themselves, refrain from sharing toys and supplies, and wear masks at all times, we can’t realistically expect them to follow such rules without fail. So long as misbehavior is a possibility, so too is the rampant spread of infection.

**As the metrics for reopening schools in Oregon were based on inaccurate research, there is no evidence to support their application, especially when the potential outcome is “rampant spread of infection.”**

### **Safety in Rural Communities**

The Oregon Health Authority guidance also stated:

Schools in remote and rural communities are less likely to contribute to the community spread of COVID-19 cases that cannot be traced and contained.

The accuracy of this statement can be called into question by conducting a search on the terms: “Oregon, covid, rural.” Some of the headlines:

‘We’re Not an Island’: Rural Outbreaks Challenge Oregon’s Virus Success. July 13, 2020. New York Times.<sup>4</sup>

Rural Oregon feeling overwhelmed by coronavirus: ‘We really need help’ July 18, 2020, The Oregonian.<sup>5</sup>

Hard Hit Rural Oregon Counties Getting ‘Overwhelmed’ By Virus. July 22, 2020 The Lund Report.<sup>6</sup>

‘We really need help’: Coronavirus overwhelms rural Oregon. July 18, 2020 Associated Press/ABCNews.<sup>7</sup>

A recent service of the NY Times is a link to a program that calculates the number of places where in could be anticipated that at least one infected person would show up to a school of 100 or 500 students and staff in the first week of school if school started today.<sup>8</sup>

This is the prospective rate in Umatilla County 07/09/2020:

Umatilla County, Ore.	0	2	8	16
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In Morrow County

Morrow County, Ore.	0	2	11	22
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The infection rates in these counties have obviously gone up and down rapidly. It is highly likely that in Union County just prior to the super spreader event at the church, there was an exceptionally low infection rate, a rate that would justify opening schools. It will take just one super spreader event in one of these rural communities to send the infection rates sky high again.

The next super spreader events are likely to be associated with the reopening of schools or the active engagement of students and families in playing football, with parents by the fields who are reportedly not wearing masks or socially distancing.

A critical concern associated with reopening schools in rural communities is the reduced capacity for medical services. Another concern is the apparent lack of support for wearing masks and social distancing. The children of parents who do not think it necessary to wear masks or remain socially distant will be coming to these schools.

### **Ignoring the Evidence from Other Countries in their Own Documents**

There is also clear indication that Oregon leaders, the Oregon Health Authority, the Oregon Department of Education, and the Governor’s Office, are ignoring the evidence in their own documents. One such document is on the ODE website:<sup>9</sup>

This document also includes the inaccurate information that younger children do not spread the virus that has not been corrected.

However, this document also states:

## How to Reopen Successfully

Many countries have re-opened schools. They did so cautiously, and only when rates of new cases were low, and when testing with quick turnaround was widely available to support isolating people with COVID-19 and self-quarantining close contacts.

### Non-Supported Analysis of Desired Infection Rates

A chart is then provided that demonstrates the infection rates in the countries that have safely reopened. Look closely at this chart:

#### **Approximate COVID-19 Case Rates in Other Countries When They Re-Opened Schools**

Country	Date	New cases per 100,000 per DAY	New cases per 100,000 per 7 days
Denmark	4/15/20	2.6	18.2
Germany	4/29/20	1.3	9.1
Netherlands	5/11/20	1.5	10.5
France	5/11/20	0.9	6.3

New Zealand	5/15/20	<0.1	<0.7
Australia	5/11/20	<0.1	<0.7
Oregon*	5/25/20	0.8	5.6
Oregon*	7/20/20	6.9	48.3

\*Oregon data is included for comparison.

This chart provides precisely the guidance Oregon needs for when it is safe to reopen schools. CLEARLY, the level that is safe to reopen at any grade is nowhere near <30 cases per 100,000 population in the last 7 days. The level of infections should be no more than <10 cases per 100,000 population in the last seven days. But level of infections is only one consideration.

### Lack of Adequate Testing in Oregon

Adequate testing is another huge concern. This article from OPB outlines the concerns, which are especially apparent in smaller rural counties:

But local and national supply shortages, delays processing results at out-of-state labs, and competing demand from hard-hit states like Arizona and Texas are undermining Oregon's efforts to track the virus and to find and isolate the close contacts of people who test positive before they unwittingly spread the virus to even more Oregonians.<sup>10</sup>

Pediatric Associates of the Northwest has this information on their website regarding the availability of adequate testing.<sup>11</sup>

Due to the current national shortage of COVID-19 laboratory testing reagent, PANW is currently limited to testing only patients showing symptoms associated with the virus and/or who have a known laboratory-confirmed exposure to COVID-19, with underlying risk factors.

Most children do not have symptoms. So they would not qualify for testing.

What is going to happen to the demands for testing in Oregon when there start to be suspected exposures at schools? How many staff members and children will need to get tested? How will parents feel if they think their child has been exposed, but their child does not have symptoms and there has been a 2 week delay for others to get tested? How will the more limited medical services in rural communities manage this process?

### The Profound Harm Caused by Isolation and Quarantine

What will the profound impact be on young children if they are exposed or do test positive for COVID-19. This is the guidance from Pediatric Associated of the Northwest.

#### **If my child tested *positive* for COVID-19 but doesn't have symptoms, when can he/she return to normal activities?**

Regardless of symptoms, individuals who test positive for COVID-19 should remain in isolation at home (only direct contact with household family members who need to be in contact) for at least 10 days after the positive test before returning to any normal activities. Have your child **stay in a specific "sick room" or area** and away from other people or animals, including pets. Use a separate bathroom, if available. ... If possible, stay away from people who are at higher risk for getting very sick from COVID-19.

#### **If my child has symptoms of COVID-19 and we are waiting for the results of our COVID-19 testing, what precautions should we take in the meantime?**

If your child or someone in your household is experiencing symptoms associated with COVID-19, it is important to act as though you have COVID-19, regardless of testing.

Oregon's leaders often mention the need to reopen schools to support the social and emotional needs of students. What are the profound implications of trauma on young children who become exposed to COVID-19 at school and must then remain locked in their bedrooms for the next 10 days? Note that because of the anticipated delay on test results, for the majority of this time, neither the child nor the family members will know if the child or they are sick.

Imagine the distress on these children who are locked in their rooms for days on end fearing they may have brought home a bad disease that could kill their mom, dad, grandpa, or grandma.

### Failure to Require Appropriate Test Positivity Rates

The above statement did not mention the test positivity rate. Oregon is using a test positivity rate of 5%.

The Keizer Family Foundation reported on the test positivity rates for countries that has safely reopened.<sup>12</sup>

Note the low test positivity rates in most of these countries. In the U.S., seven states have test positivity levels under 2%.<sup>13</sup> Oregon clearly is not one of them.

**Table 1: School Re-Openings: Country Comparisons on Key Metrics Compared to Current U.S. Data**

	Date of reopening	Daily Cases	Daily Cases Per Million Population	Positivity Rate (%)
		(7-day averages)		
<b>United States</b>	—	<b>65,750.4</b>	<b>198.6</b>	<b>8.3</b>
Belgium	5/18/2020	291.3	25.1	2.1
Denmark	4/15/2020	205.7	35.5	6.2
France	5/11/2020	1,110.9	17.0	1.1
Germany	5/4/2020	1,140.3	13.6	2.4
Greece	6/1/2020	5.6	0.5	0.1
Israel	5/3/2020	126.7	14.6	1.4
Japan	4/24/2020	439	3.5	8.7
South Korea	6/8/2020	44.4	0.9	0.3
New Zealand	5/14/2020	1.1	0.2	0
Norway	4/20/2020	93.3	17.2	3.8
Switzerland	5/11/2020	57.1	6.6	1.3
Taiwan	2/25/2020	1.1	0.0	0.2
Vietnam	5/18/2020	4.6	0.0	0

### Ventilation Concerns

A critically important concern has thus far been totally absent from the situation. As stated in an excellent article:

I am also an epidemiologist, and after reading the Centers for Disease Control and Prevention’s guidelines for school reopening and the various accompanying news coverage and think-pieces, I can’t convince myself that following its rules will keep my family — or yours — safe.

Why? Because the primary way Covid-19 is transmitted is through respiratory that careen through the air, and yet the capricious nature of air circulation and the lack of filtration systems in our already underfunded public school systems is absent from the conversation.<sup>14</sup>

This concern is also present if school districts are requiring teachers to return to school to teach—a requirement that undermines trust and it totally unwarranted. Many buildings in Oregon have sub-standard HVAC systems. Further, many school buildings have no windows. There is no way to provide proper ventilation. If anyone in the building has COVID-19 there is reportedly a possibility this could be transmitted to other rooms.

Before any significant group of people return to the school, the buildings HVAC must be evaluated and certified to be safe from the transmission of the COVID-19 virus.

## **Profound Loss of Credibility**

As a result of the reliance on inaccurate research and failure to reconsider the reopening metrics based on new research data, the credibility of the Governor, the Oregon Health Authority, and the Oregon Department of Education has reached a profound low.

The 13,000 educators and parents on the Oregon Safe Return to Campus Facebook group know that the basis upon which the current metrics were established, the now found-to-be-false-thought that younger children do not transmit the virus, has more recently been found to be inaccurate.

There has been no rapid correction of this inaccuracy. Many districts are now planning to reopen their K-3 grades. These districts are often justifying this using statements of this inaccurate insight—the mistaken belief that younger children do not transmit the virus. Teachers and other school staff are in an emotional overload of panic that they are being expected to sacrifice their health and lives based on what they know to be inaccurate insight!

It has now been almost two weeks from the issuance of Oregon's metric—that are based on inaccurate research insight and that are not based on the requirements from other countries—and THERE HAS BEEN NO CORRECTION!

Given all of the evidence that the current metrics, especially for opening grades K-3 will result in illness and death, together with the failure of the Oregon leaders to make corrections based on new research has emerged had virtually eliminated the credibility of these leaders.

The damage that has been done to the relationships of state and district leaders and the educators whose value to our state's children has been profound and will be very long lasting. Trust has vanished. Educators now know without a doubt that their well-being is of zero concern. The long lasting harm to the educational outcomes of Oregon students will be profound.

## **Profound Traumatic Harm to Students if Schools Reopen**

Statements are often made about the need to reopen schools to support the social and emotional well-being of students. The demand that children return to school at times appears to be grounded in the perspective of people that children and teachers are not being sufficiently productive.

An assessment of the accuracy of this with an understanding of what actually will occur and an understanding of sources of traumatic distress would lead to an opposite conclusion.

If they return to school, students will have to obey rigid and developmentally inappropriate behavioral expectations to maintain social distancing. Due to the fear of transmission, teachers will have to be vigilant and issue many negative corrections throughout the day.

Keeping students from picking their noses, touching things as they pass, wearing their masks throughout the day will be impossible. Keeping students safely within their 35 square feet will be like trying to keep frogs in a bucket. They will jump out.

Students will be restricted from any positive engagement with their peers, even though their peers are right in front of them. No playing together at recess. No talking in the hallways. No eating together with friends. Strict requirements for movement and passage at all times.

Students will have to consistently participate in hand washing rituals and safety checks upon entering the school which will be a constant reminder of the dangers of being in the building.

Any time a student fails to be able to manage their behavior in accord with the rigid and developmentally inappropriate behavioral expectations, they will experience feeling overwhelmed, shame, and guilt—when they failed the expectations that they can't possibly maintain due to their age.

COVID-bullying will emerge. Students will take off their masks and cough on whatever students they think are most likely to overreact—to get a response.

Students will also know that if they got infected, they could then infect their parents or grand parents, who might then die. This is the most profound distress ever.

This will cause profound traumatic distress. Students will be functioning at all times from their threat response center, the amygdala. They will be in a constant state of fight, flight, or freeze. Their prefrontal cortex will be disassociated. They will be unable to focus, concentrate, or learn. They will be more likely to trigger and break down or cause a disruption.

Teachers will not be able to provide any comfort or intervene if a student is experiencing a break-down or starts to engage in disruptive behavior. The failure of their teacher's ability to respond when they are distressed will increase their distress and cause long lasting attachment problems. Students will no longer trust that anyone at school really cares about them.

If any staff have to quarantine or if there is an infection outbreak in their school, or another nearby school, this will increase their traumatic distress to the increased risk of harms.

In addition, all of these bad memories will be stored in their hippocampus. Forever in the future when walking into a school building, the feelings of dread will reemerge. This will impact their entire future schooling. This will also likely have a generational impact. In the future, as a parent, when they walk their child into school for the first day of kindergarten, these feelings of panic and distress will reemerge.

Returning children to school as things are now is absolutely and profoundly not better for children's mental health. This will cause profound harm to children's mental health.

## **Recommended Metrics for Reopening Schools**

The following are the metrics that are based on the above research and data to support the safe reopening of all schools at sometime in the future, if and only if, Oregonians throughout the state, take this seriously.

All metrics must be met for any general reopening.

### **County Metrics**

- Case rate:  $\leq 10$  cases per 100,000 population in the preceding 7 days for three weeks in a row.
- Test positivity:  $\leq 2\%$  for three weeks in a row.

### **State Metric**

- Test positivity:  $\leq 2\%$  for three weeks in a row

### **School Metric**

- COVID-19 is not actively spreading among the school community.
- Schools fully comply with sections 1-3 of the Ready Schools, Safe Learners guidance.

- Schools have completed an assessment of their HVAC system and it is deemed acceptable to prevent the transmission of COVID-19.

Because there are serious concerns associated with educator-student connections with some groups of students and parents, an exception should allow for small groups of students with their parent or caregiver (no more than 10 — 5 students and 5 parents) to come to the school building for periods of no longer than 90 minutes.

The students who are at higher risk of concerns due to lack of effective connections include students in K-3 grades, students receiving special education services, and students who are having significant difficulties in the distance learning environment. The time spent in school should allow for a well-ness check-in, discussion of last weeks learning activities, and a discussion of next week’s learning activities, and a celebration of the positive accomplishments of the students.

#### County Metrics

- Case rate: ≤30 cases per 100,000 population in the preceding 7 days for three weeks in a row.
- Test positivity: ≤5% for three weeks in a row.

#### School Metric

- COVID-19 is not actively spreading among the school community.
- Schools fully comply with sections 1-3 of the Ready Schools, Safe Learners guidance.
- Meeting can be held in a classroom or other location that has adequate ventilation and sufficient space for social distancing.

For a requirement that teachers teach from the classrooms, the metrics for the County and School should be met, but a substitute for the last requirement for the school.

- The building’s HVAC has been assessed and determined to be safe for the proposed requirement.

<sup>1</sup> <https://www.sgrlaw.com/client-alerts/governor-kemp-signs-georgia-covid-19-pandemic-business-safety-act/>.

<sup>2</sup> <https://www.oregon.gov/newsroom/Pages/NewsDetail.aspx?newsid=37041>

<sup>3</sup> <https://www.forbes.com/sites/williamhaseltine/2020/07/31/new-evidence-suggests-young-children-spread-covid-19-more-efficiently-than-adults/#401f311219fd>

<sup>4</sup> <https://www.nytimes.com/2020/07/13/us/coronavirus-oregon.html>

<sup>5</sup> <https://www.oregonlive.com/coronavirus/2020/07/rural-oregon-feeling-overwhelmed-by-coronavirus-we-really-need-help.html>

<sup>6</sup> <https://www.thelundreport.org/content/hard-hit-rural-oregon-counties-getting-‘overwhelmed’-virus>

<sup>7</sup> <https://abcnews.go.com/Health/wireStory/coronavirus-overwhelms-rural-oregon-71859536>

<sup>8</sup> <https://www.nytimes.com/interactive/2020/07/31/us/coronavirus-school-reopening-risk.html>

<sup>9</sup> <https://www.oregon.gov/oha/PH/DISEASES/CONDITIONS/DISEASESAZ/Emerging%20Respiratory%20Infections/Ready-Schools-Safe-Learners-Community-COVID-19-Metrics.pdf>

<sup>10</sup> <https://www.opb.org/news/article/coronavirus-oregon-test-results-delay-covid-19/>

<sup>11</sup> <http://www.portlandpediatric.com/articles/news/faq-covid19-testing>

<sup>12</sup> <https://www.kff.org/coronavirus-covid-19/issue-brief/what-do-we-know-about-children-and-coronavirus-transmission/>

<sup>13</sup> <https://coronavirus.jhu.edu/testing/testing-positivity>

<sup>14</sup> <https://www.statnews.com/2020/08/05/ventilation-part-of-school-reopening-conversation/>