

April 15, 2020

Schools and COVID-19



COVID-19 UPDATE: Comprehensive testing and evaluation of test results, allowing us to better determine the lifecycle and contamination dynamics of COVID-19, have not been achieved in the United States. Therefore, necessary but disruptive limitations for schools continue. Hygiene etiquette and semi-isolation, where possible, will be encouraged or mandated until there is a reasonable understanding of COVID-19 contamination characteristics.

FOREWORD

The date of this publication is important because the extent to which we understand COVID-19 and especially its impact on school systems and children, changes daily. Therefore, we will often be updating this document. With imminent increased testing, our understanding will be enhanced. This will likely involve serious decisions for school operations.

*We plan to update this report frequently, but for the best and most timely health information, local health, state, federal or international authorities are the best source. **This means local municipal, county or parish health departments, state departments of health and/or education, the Centers for Disease Control, the National Institute of Allergy and Infectious Diseases and the World Health Organization.***

The purpose of this document is to provide perspectives on the nature of viral pandemics in general, and COVID-19 in particular, in terms of the challenges facing school districts.



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Stay calm and carry on.

WHAT'S GOING ON?

Generally, in the autumn, when much of the world turns colder and drier, the human immunity to disease, especially involving viruses, decreases. It is then that, in often less hygienic and drier parts of the world (Mexico, the Middle East and most often China), a new strain of virus will establish itself and migrate internationally. By spring, with warmer weather and consequently higher humidity, the harm will typically subside, but leave behind human damage.

Typically, we're able to prepare for the new influenza or "flu" viruses. That's what those flu shots, starting in early winter, along with the warnings to engage in "hygiene etiquette behavior" are all about. The "flu shots" simply tune-up our natural immune systems, and adequate hygiene practices reducing the spread of contamination. In public health terms, appeals for behavior change that reduce contamination is termed, "non-pharmaceutical interventions," or NPI's. Flu shots, along with NPI's really are effective in reducing harm from traditional flu.



Over the last decade, we've kept careful records regarding the dynamics of the mostly annual common flu, and we've learned that the human toll is variable. The number of people in America that identify as having the flu can range from a little over 9,000,000 to 45,000,000, or between 5% and 20% of the population. We have more accurate data on the number of people who wind up hospitalized, and that ranges from 140,000 to 810,000. The number of Americans who annually die from the flu ranges from 12,000 to 61,000 with the highest casualties among children and the elderly. While the flu is serious business, a "novel" or strain of a new category of virus can become a lot more threatening.

Beyond normal influenza, a new, strange and especially dangerous virus can emerge for which there is no vaccine available and for which the human immune system is limited in its natural ability to control. This virus also typically emerges from a dry, remote area in the autumn, migrating from an animal species (bird, bat, camel, or swine) into a human population. Initially, there is no ready response either in the human immune system or public health infrastructures to control its spread. This may create a “pandemic,” becoming prevalent among national or global populations.

Pandemics have occurred in 2009, 1968, 1957, and by far most ominously in 1918. In 2009, H1N1 quickly spread throughout the world, causing the death of 17,000. In 1968, H3N2 took the lives of 35,000, and in 1957, H2N2 involved over one million hospitalizations and 86,000 deaths.

It was the so-called “Spanish Flu” in 1918 which shook the world and inspired the creation of more sophisticated public health services and public health outreach. Well over 7 million individuals were hospitalized and



Spanish Flu 1919

it is likely that over 1,400,000 died. **There is no clear indication that our present challenges with COVID-19 will have similar consequences to the 1918 pandemic.**

The Spanish Flu’s profound impact on humanity haunts collective memories of many health professionals, influencing the somber warnings of grave potential risks and appeals for serious preventive actions.

The Spanish Flu is so named because, while it raged throughout Europe and America, governments engaged in the First World War were concerned about undermining morale, so disclosure about the disease

was prohibited to the extent possible. They believed that a public health panic might have resulted in undermining the war effort. This official silence limited health warnings and was absolutely responsible for increasing contamination. Spain was not involved in the First World War and, consequently, their media sources became the first to release public information regarding the extent of the harm and suggest controls to stop the spread.

We now understand that this destructive pandemic was initially the result of historically unique social anomalies. As the First World War came to a conclusion in the fall of 1918, hundreds of thousands of soldiers and displaced civilians were batched together amid horrific, unhygienic conditions both in Europe and America. Typically young and often malnourished, they were vulnerable to opportunistic disease. With no refrigeration herds of swine and huge flocks of poultry were kept within viral sharing distance of these young, at-risk populations. The virus that emerged in this unsanitary cauldron was profoundly unique, often most violently attacking young individuals who typically had superior age related immune systems. This unnatural situation manifested itself in a blend of viral agents that created what is medically termed an “immunological storm.” Essentially the immune systems of young, malnourished and stressed individuals were triggered to attack the body, itself. This became, by far, the worst epidemic in modern history, and continues to influence health providers’ approach to a new, unanticipated virus establishing itself internationally. Interestingly, communities that closed schools and limited public gatherings in 1918/19 appear to have reduced local contamination.

The purpose in describing past pandemics is to provide perspective on the nature of a pandemic but also to differentiate between what we are encountering with COVID-19 and past pandemics. Today, we have a primarily healthy, well-nourished population with the public health knowledge and medical capacity to limit the spread of disease. We are able to provide isolation and even quarantine for small and large groups. We also understand those NPI practices that limit spreading exposure. We do not have a vaccine to support our natural immune systems, but we have guidance on how to contain the spread of exposure.

The major historical lesson in understanding past pandemics is that where NPI's have been implemented, the level of harm and risk to larger populations decreased. The consequences of avoiding these controls are serious and of concern to society. This important postulate will impact school operations.

COVID-19 AND SCHOOL RESPONSES

Regarding COVID-19, as of this writing, we have begun to have access to more readily available testing in America. Hopefully, we will soon be able to far better understand the nature of the virus, particularly in terms of how it is spread within communities. We will also have insights regarding responsible periods of isolation, and NPI's.

Even with our limited information, there are some aspects of school preparation and response that we can reasonably anticipate.

Information Control

One frustrating aspect of the COVID-19 phenomena is erratic and dangerous information pushed out over the internet. Heartfelt but misguided or cynically manipulative advice on bogus preventative measures or cures, undermines the value of responsible counsel.

It's important to remember that the internet provides rapid and critical public health guidance to an understandably destabilize population. The difference between harmful information and responsible counsel comes down to, "who does the public really trust?".



School districts are typically trusted throughout the communities they serve and nearly every individual and family has a personal connection with "the school." That inherent trust can productively contribute to the dissemination of responsible public health guidance to

the community, especially students and parents.

If not already in place, school administration should work to rapidly establish a communications channel that connects with a substantial portion of the community through a formal point, or points, of contact. Public health information from reliable sources, can be passed along and information regarding the student body, educators, and other employees, can quickly be shared. That communications relationship, once established, should be carefully maintained. An important component of the communications plan should involve listening or responding to questions or concerns. To the extent this process is effective, rumors and potentially counterproductive information will be controlled and responsible health practices promoted.

Identification and Protocol for Potential COVID-19 Cases

When schools are reopened, guidelines for a sort of triage of potentially exposed individuals will likely be provided under the direction of one of the local health departments. Quite likely, this will involve an approved local health provider or clinic. The school's responsibility would presumably involve identifying potential building occupants (students or employees) who would benefit from a test, which may be coordinated either through an off-site appointment or an on-site visit. It is possible, but unlikely, that a district employee will conduct or oversee a non-invasive test. Using a heat sensitive "no touch" thermometer may make sense

There are five operational considerations:

Privacy

There are regulatory guidelines involving medical privacy that must be followed. The district's obligations relative to civil rights and health privacy must be balanced with the "need-to-know" for protection of others. If directions from the State Attorney General's office are not forthcoming, school district legal counsel should become involved in information-sharing guidelines.

Identifying Those at Risk

Contact information involving students, faculty, and family members who may have been exposed will be necessary to obtain and catalog. The district will likely be asked to participate in identifying those who may have been exposed. Obviously timing becomes critical, so a

process should be in place to provide and archive this supportive service.

Hygienic Holding Areas

It may be necessary to create and maintain a selected area with special hygiene considerations for those who show symptoms of the disease. Area preparations and maintenance may involve negative air, higher humidity, hygienic cleaning, periodic wiping of surfaces and suggested/enforced distancing among occupants.

Support Testing and Observation

As testing is institutionalized by public health authorities, the district will likely be provided with a list of conditions or symptoms to identify and prioritize individuals for formal testing. An informational chain of information sharing should be maintained.

Remain Flexible

It is difficult to anticipate what services and actions may be required. A strong collaborative relationship with public health authorities is necessary to support altered and responsive actions.

Facility Hygiene

As described, non-pharmaceutical initiatives (NPI's) have been successful when correctly implemented. The World Health Organization has identified 20 situations of COVID-19 exposures where, following the implementation of appropriate NPI's, it appears the spread of the virus was contained. That may be presently occurring in China and Korea. Hopefully, this is a signal that we will be able to effectively mitigate some of the risks through NPI's.

The following are the several common NPI's which should likely be undertaken by the district:

1. Promote personal hygiene among school occupants

We are attaching a number of posters that promote handwashing, control of coughing, sneezing, nasal emissions and area hygiene. They may be downloaded and printed from our website (envrc.org) and used at no cost. Our website contains many free, school-oriented health and safety materials.

2. Implement hygienic cleaning practices

Aggressive periodic wiping down of often-touched surfaces should be institutionalized. These would



include, but not be limited to, doorknobs, railings, keyboards, bathroom areas, gymnasium and shower areas, phones, televisions and

computer remotes and controls. Post wiping, random hygiene quality assurance testing may make sense.

3. Give special attention to certain areas and activities

These issues will be better defined as we learn more about the characteristics of COVID-19, but kitchen areas are of special concern. We do not understand the potential for contamination through ingestion. However, if it is accurate that the COVID-19 virus can remain viable for a matter of days as opposed to hours, minutes, or seconds, if heat and moisture conditions support viability, the district may consider adjusting kitchen activities and defaulting to cold bag lunches. Obviously, health and upgraded hygiene relating to employees within food service areas becomes critical.

Once testing becomes more available, we would suggest consideration in prioritizing early and ongoing scheduled testing of the food service employees.



Athletic and gymnastic facilities involving person-to-person contact and showering areas should receive special attention

in terms of both hygiene and rules involving contact. Selectively suspending athletic activities make sense. Once resumed, special cautions regarding hygiene should be implemented involving frequent deep cleaning and limiting the inadvertent sharing of towels, a confirmed super-enabler of spreading both bacterial and viral disease. Unique identifiers on towels (colors or tags)

and cautionary warnings has limited contamination.

4. Plans regarding closures

Presently many American school students have experienced school closures. In some states the closures are expected to continue through the summer, in other states the schools are scheduled to be reopened pre summer closure.

Major concerns among educators involves disparities among access to support for online learning, lack of support for students with special needs, and “summer slide” or the tendency for students to forget and disconnect from organized learning. There are also concerns regarding nutrition, disrupting families, and psychological impacts.

Like many aspects of COVID-19, until we have responsive testing allowing analysis of impact, the school administrative decisions regarding temporary or permanent closure becomes an unprecedented challenge. What presently makes sense is that schools establish a protocol for hygienic and identification/response procedures for reopening as soon as reasonably possible. Closures may have public health value but there is well-documented collateral damage with, especially prolonged, school closures.

Limited closures have often involved several days or weeks to provide deep cleaning, enhanced air exchange, establishment of a clean holding room, and the development of protocols for assuring smooth implementation of comprehensive school plans. A recent paper regarding school closure from the CDC is available on our website as are materials for emergency plans ([ENVRC.org](https://www.envrc.org)).

IN REALITY, HOW SERIOUS IS THIS?

As we have stated, there are serious limits to what we know now regarding transmission, duration of capacity to contaminate, and more significantly the COVID-19 life cycle. Until an organized testing infrastructure is available in America, with appropriate archiving of test results, the community and leading institutions, like schools, cannot meaningfully calibrate risk. This makes organizing and managing a response difficult. Hopefully, we will soon have better information.

Up until the first week in March, in order to obtain the test for COVID-19, one would have to have traveled to China, South Korea, Northern Italy or Iran, or document other narrowly defined exposure. Testing is still limited and has precluded our understanding the behaviors and exposures that spread COVID-19.

At one point, the death rate in Asia was reported to be 30 out of 1,000 cases, which was almost certainly overstated. With more frequent testing and analysis, we will be able to put the issue in perspective in projecting risks. However, even at 3 deaths out of 1,000 cases, which seems reasonable given what has occurred in other parts of the world, there is reason for concern. Comparisons to typical influenza would indicate that COVID-19 is substantially more dangerous. **COVID-19 represents a true pandemic.**



Children, not necessarily older adolescents, seem to be less at-risk than adults, even though their personal hygiene is often less

than conscientious. The risk seems much more serious for those with compromised immune systems, which typically includes the elderly. The visitation controls recently implemented in many elder-care facilities in Asia, Europe, and the United States, makes sense.

One of the most important contributions to responsible school policy may be to limit the passive spread of COVID-19 by children and adolescents to the more at-risk, vulnerable populations.

LEADERSHIP AND INTEGRITY

Schools staff, educators, and board members are entrusted with caring for our children; the most fundamental responsibility of society. Consequently, it is important for educators and school leaders to model responsible conduct in the face of serious and even threatening conditions. By definition, they represent trusted professionals. It is important that educators and

school leaders model calm thoughtful leadership in the face of serious and even threatening conditions.

At present, there is a sea of responsible as well as erratic information surrounding the COVID-19 challenge. There are several products being marketed on the Internet claiming to be preventative and even curative. Their claims are as appealing to some as they are preposterous. It's almost as if, through the internet, we are returning to the centuries old era of unregulated and dangerous patent medicine.



An 1890 cancer treatment.

A recent internet exchange informed university students that a high intake of alcohol (on weekends) would safeguard them from COVID-19. An unreasonably expensive COVID-19 preventative toilet paper is being internet marketed. At the far edge of the dark web, there are COVID-19 conspiracy theories that are recklessly phobic and even racist.

The school district is in the best position to help wisely guide a concerned community through the complexities of this destabilizing event. Partnering with responsible public health agencies, the school district brings to the table an inherent trust and the acumen to communicate effectively with the public. At this challenging time, these assets are of incomparable value.

**Thoughtful concern is required.
Fear, evolving into panic, is dangerous.**

Stay calm and carry on.

Following are public health COVID-19/school posters which have been developed by the Environmental Resource Council and can be downloaded at no cost from our website ENVRC.org. There you can find a number of other FREE youth and school-oriented materials as well as suggested publications.

*We will attempt to update our material periodically (including our COVID-19 posters), but as pointed out, **it is important to take direction from local, state, federal, and international public health authorities.** It's also critical to understand that our insights into the nature of COVID-19 will quickly evolve, and school leadership must be flexibly responsive as we grow in our understanding of the nature and consequent risks and remedies.*

Stay calm and carry on.

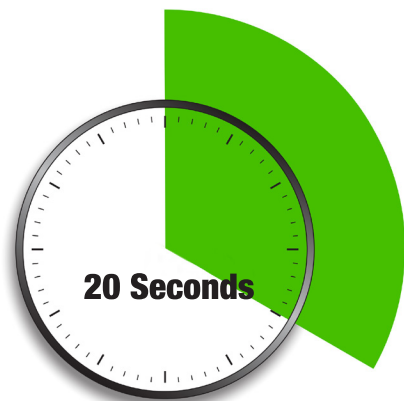
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**The time you actually spent
reading your textbook.**

**And the time you need to wash your hands.
Protect you and your friends from viruses.**

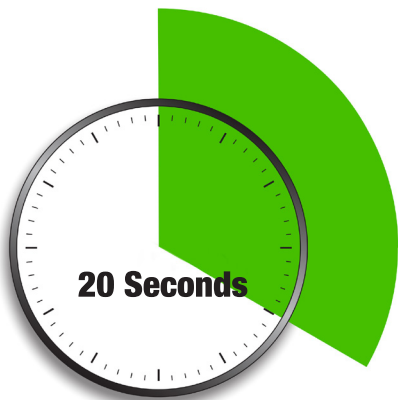
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Designed by Philosophy Communication.



**The time it takes to scroll
through your morning posts.**

**And the time you need to wash your hands.
Protect you and your friends from viruses.**

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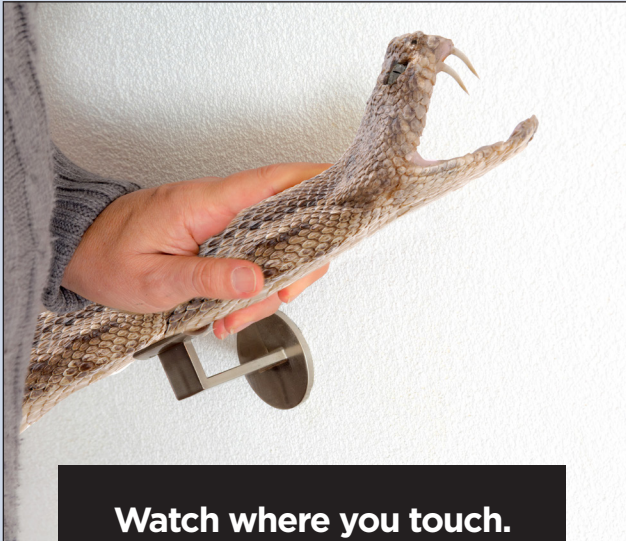
**The time it takes to yawn
during an assembly.**

**And the time you need to wash your hands.
Protect you and your friends from viruses.**

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Watch where you touch.

Clean surfaces and
wash your hands well.


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Watch where you touch.

Clean surfaces and
wash your hands well.

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Be friendly, but distant.

Protect your friends.
Keep at least 6ft. apart.

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372
The number of times
these water fountains
are touched every day.
Protect yourself.
Use wipes or
inside of elbow.

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Ahhhhquickgrabatissuechooo.

Use wipes or sneeze into your elbow

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Designed by Philosophy Communication.

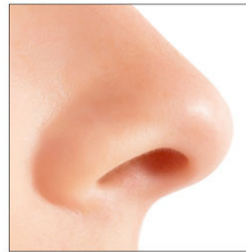
Ahhhhcoveryourmouthdudechooo.

Use wipes or sneeze into your elbow

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Ahhhhohgrossuseyoursleevechooo.

Use wipes or sneeze into your elbow



**It's a perfect fit.
Protect you and your friends.
Use wipes or sneeze inside your elbow.**

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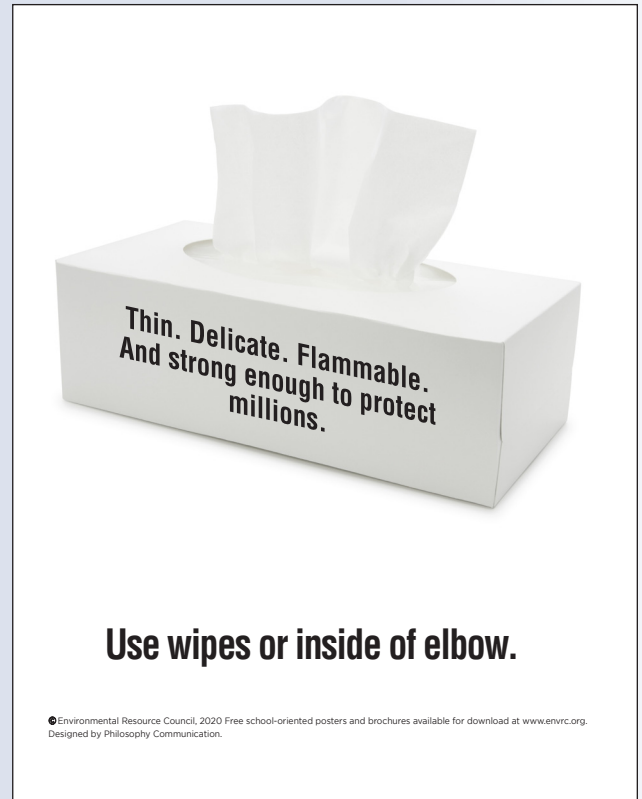
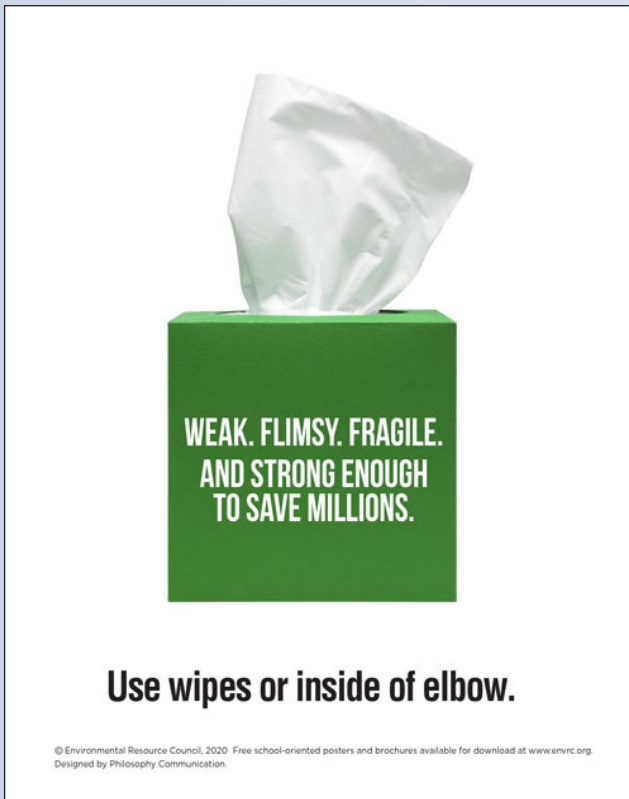


**Nose meet elbow. Elbow, nose.
Protect you and your friends.
Use wipes or sneeze inside your elbow.**

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**We're not just learning history.
We're making it.**

**Keep calm. Keep learning.
Keep on keeping on.**

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**School buildings shut down -
not families.**

**We're all learning as one.
Let's keep going.**

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**School buildings shut down.
Schools don't.**

**We will never stop learning.
Stay calm and carry on.**

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**My school has
a kitchen table.**

**Keep calm. Keep learning.
Keep on keeping on in your home.**

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