Infectious diseases spike when kids return to school – here's what you can do about it

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Credit: Max Fischer from Pexels

Ready or not, back-to-school season is here, and kids will be bringing home more than homework. They'll be carrying germs, too.
These viruses and bacteria will be agents that cause the common cold, influenza, norovirus, COVID-19, strep throat and more. There's a reason why boxes of tissues and sanitizing wipes show up on most school supply lists.

As a nursing professor with experience in public health promotion, I have spent the past several years helping the public understand how to prevent the spread of infectious diseases, especially the flu and COVID-19.

Here are some ways to minimize illness transmission from school to home.

**COVID-19 cases likely to rise**

In what health care providers call the summer wave, COVID-19 infections have been increasing throughout the summer of 2024. As of July 30, 2024, the number of COVID-19 infections has grown or is likely to grow in 35 states and territories.

Summer heat waves force people inside and into close proximity. And as record-setting temperatures continue driving this trend, the number of COVID-19 cases is expected to increase. This increase is expected to extend into the 2024–25 school year.

Currently, COVID-19 variants KP.3 and KP.3.1.1 are the dominant circulating virus strains. These variants are among the FLiRT variants, nicknamed after the locations of their spike protein mutations. These variants spread more easily from person to person and are able to evade vaccine-induced immunity better than previous strains.

These highly contagious COVID-19 strains, combined with the relaxed isolation guidelines that the Centers for Disease Control and Prevention
released in March 2024, are likely to increase classroom disease transmission this coming school year. These updated CDC guidelines apply to all respiratory viruses, not just COVID-19.

The new guidelines recommend that everyone stay home when they are sick but also suggest that a person can return to normal activities once symptoms are improving and the person is fever-free for at least 24 hours without the use of fever-reducing medication. While it is too early to know the transmission impact of these guidelines, they may lead to more people coming out of isolation while still infectious.

Children play a large role in transmitting the COVID-19 virus. Children often do not have overt symptoms when they are infected with COVID-19, leading to increased contact and spread. A two-year study following more than 160,000 households composed of both adults and children found that just over 70% of viral transmissions, including COVID-19, in these households were pediatric index cases, meaning they started with a child. Further, these pediatric index cases were reduced by 60% to 80% during school breaks. This data suggests that COVID-19 infections will continue to increase once the school year starts.

**Good hygiene habits reduce the spread**

In May 2024, the CDC also released guidance for preventing classroom spread of infectious disease, including COVID-19 and other common infectious diseases such as the flu, norovirus and strep throat. This guidance places emphasis on proper respiratory etiquette, hand-washing and vaccination.

Proper cough and sneeze hygiene is especially important to reduce transmission of diseases such as COVID-19 and the flu, which are
commonly transmitted through respiratory droplets. Coughs and sneezes create respiratory droplets that can be full of viruses or bacteria. Because these droplets are forcefully expelled, they can be spread around the environment and inhaled by another person.

That's why it is important to turn your face away from others and cover up coughing or sneezing with a tissue and then quickly dispose of the tissue. If a tissue is not available, your sleeve is the next best option. Whichever method you use, it is important to wash your hands afterward. In addition to encouraging proper respiratory etiquette, classrooms should also have appropriate ventilation.

The CDC's classroom guidance also focuses on proper hand-washing. Up to 80% of infectious diseases are spread through touch. Classrooms have countless high-touch surfaces, including light switches, tabletops, shared supplies, doorknobs, sports equipment and toys.

Proper hand-washing can prevent about 30% of diarrhea-related illness, and about 20% of respiratory infections, such as colds and flu. The CDC also reports that proper hand-washing reduces absenteeism due to gastrointestinal illness by up to 57%.

Health care providers recommend COVID-19 and flu vaccines

Another important part of reducing classroom spread of infectious disease is keeping children up to date on vaccinations. Proper vaccination can reduce disease transmission rates 40% to 50% for flu and COVID-19, 80% for child pneumococcal cases, upward of 90% for chickenpox and 100% for diseases such as polio and smallpox.

For the past several years, the CDC has recommended receiving the flu
and COVID-19 vaccine at the same time when possible. Despite this recommendation, there has been some hesitancy in the uptake of both vaccines at the same time.

A 2024 Canadian study found that 20% of respondents did not see the benefit in co-administration, and another 17% were concerned about adverse reactions of receiving both vaccines together. However, several years of CDC data demonstrate the safety of receiving the flu and COVID-19 vaccines together.

Moderna recently released Phase 3 clinical trial data on a new combination vaccine against both the flu and COVID-19. This combination vaccine, currently called mRNA-1083, has demonstrated higher effectiveness when compared with individual vaccines for the flu or COVID-19. Moderna is expected to seek FDA approval soon. This combination vaccine may increase vaccine uptake because only one shot will be required instead of two.

Sick kids should stay home

The most important way to reduce the spread of germs in school is to follow the principle of keeping kids home when they're sick. When sick kids go to school, they infect not only other students but teachers and staff too. When teachers get sick, it affects student learning and costs the U.S. billions of dollars each year.

Most schools and day care centers have guidelines on when to keep a child at home. As a general rule, a child should stay home from school or day care if they have a fever, vomiting, diarrhea or if they are generally unwell and unable to fully participate in school.

Without the presence of a fever, it is OK to go to school with a cough or runny nose, as long as the child feels well enough to participate in class.
To return to school or day care, the child should be fever-free for at least 24 hours without the use of fever-reducing medications. When a student is returning to school with respiratory symptoms, consider having them take extra precautions, such as using a mask to protect others for the next five days.

If you have concerns about whether to send your child to school, it's always a good idea to seek advice from your health care provider.

Healthy habits boost the immune system

Last but not least, focusing on healthy habits such as getting enough sleep and exercise, as well as eating nutritious meals, helps boost the immune system.

These actions should be practiced by family members of all ages.

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