PREVENTING SPREAD OF INFECTIONS IN K-12 SCHOOLS

This workshop was developed by the Centers for Disease Control and Prevention.

January 2026

The findings and conclusions in this report are those of the author(s) and do not necessarily represent the official position of the Centers for Disease Control and Prevention (CDC).

Greetings and Introduction

[Facilitator Name]

[Facilitator Title]

[Facilitator Affiliation]

[Facilitator Contact Information (optional)]

ACTIVITY

Ice Breaker

Schedule

- Section 1: Infection Prevention Roles and Resources
- Section 2: Everyday Actions to Reduce the Spread of Illness
- 15 Minute Break
- Section 3: Additional Strategies for Times of Elevated Illness
- Section 4: Planning for Infection Prevention and Control

Active Learning Icons

*Adults (and children and youth) learn more effectively by **actively** engaging with new information.*

Checkpoints

Discussions

Exercises

Session Materials

1. Everyday Actions Handout
2. Additional Strategies Handout
3. Resource List Handout
4. Presentation Slides Handout
5. Action Planning Worksheet
6. Community Partners Worksheet
7. RACI Worksheet
8. Workshop Evaluation

ACTIVITY: GROUND RULES

What would you add?

1. Participate actively
2. Stay on topic
3. Listen to understand
4. Ask clarifying questions
5. Explain jargon and acronyms
6. Maintain confidentiality

INFECTION PREVENTION ROLES & RESOURCES

SECTION 1:

Infection Prevention Roles & Resources

Learning Objectives

1.1 **Understand** the role of schools in infection prevention.

1.2 **Identify** key resources for preventing the spread of illness in schools and learning about infectious diseases that commonly affect school-aged children and youth.

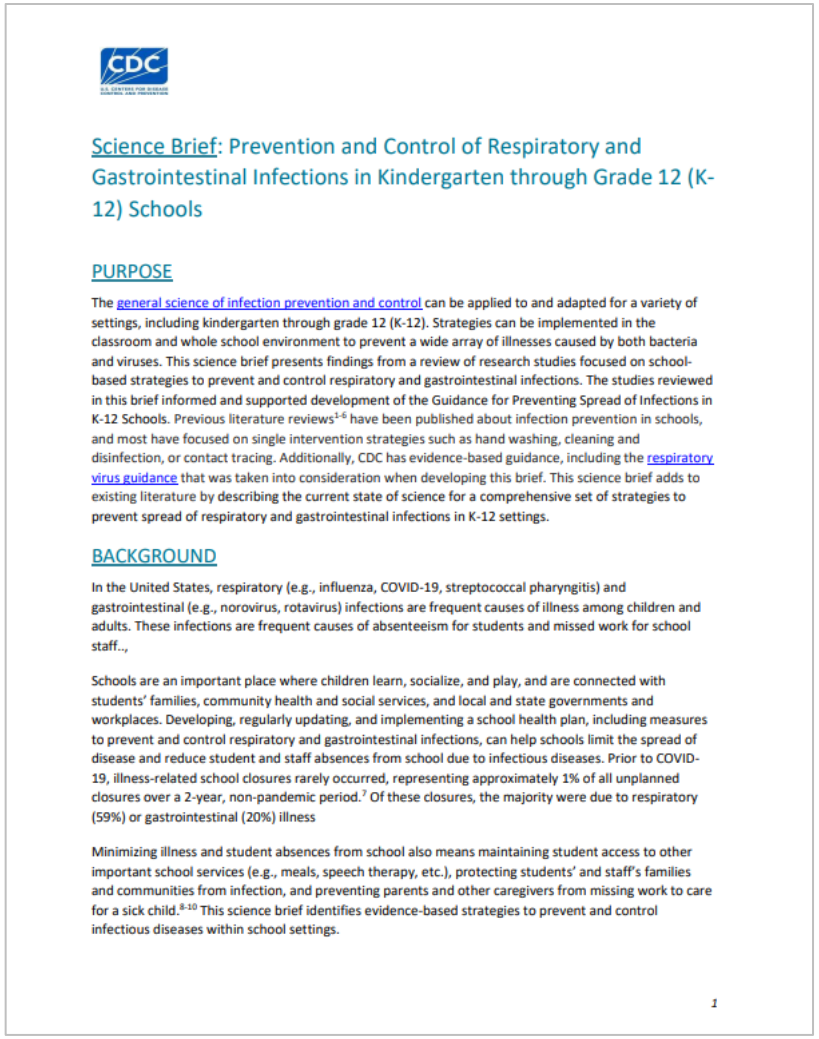
What roles do schools play in infection prevention?

- Schools are important for student health and well-being.
- Schools can take steps to reduce illness and illness-related absenteeism to maximize school attendance and learning, including:
  - **Everyday actions**,
  - **Additional strategies**, and
  - **Emergency planning and training**.

You are here!

Are the recommendations in this workshop evidence-based?

Yes! The materials for this workshop are based on an extensive **literature review of recommended practices** for reducing the spread of respiratory and gastrointestinal illnesses specifically in school settings.



Science Brief: Prevention and Control of Respiratory and Gastrointestinal Infections in Kindergarten through Grade 12 (K-12) Schools

PURPOSE

The general science of infection prevention and control can be applied to and adapted for a variety of settings, including kindergarten through grade 12 (K-12). Strategies can be implemented in the classroom and whole school environment to prevent a wide array of illnesses caused by both bacteria and viruses. This science brief presents findings from a review of research studies focused on school-based strategies to prevent and control respiratory and gastrointestinal infections. The studies reviewed in this brief informed and supported development of the Guidance for Preventing Spread of Infections in K-12 Schools. Previous literature reviews[1-6] have been published about infection prevention in schools, and most have focused on single intervention strategies such as hand washing, cleaning and disinfection, or contact tracing. Additionally, CDC has evidence-based guidance, including the respiratory virus guidance that was taken into consideration when developing this brief. This science brief adds to existing literature by describing the current state of science for a comprehensive set of strategies to prevent spread of respiratory and gastrointestinal infections in K-12 settings.

BACKGROUND

In the United States, respiratory (e.g., influenza, COVID-19, streptococcal pharyngitis) and gastrointestinal (e.g., norovirus, rotavirus) infections are frequent causes of illness among children and adults. These infections are frequent causes of absenteeism for students and missed work for school staff..,

Schools are an important place where children learn, socialize, and play, and are connected with students' families, community health and social services, and local and state governments and workplaces. Developing, regularly updating, and implementing a school health plan, including measures to prevent and control respiratory and gastrointestinal infections, can help schools limit the spread of disease and reduce student and staff absences from school due to infectious diseases. Prior to COVID-19, illness-related school closures rarely occurred, representing approximately 1% of all unplanned closures over a 2-year, non-pandemic period.[7] Of these closures, the majority were due to respiratory (59%) or gastrointestinal (20%) illness

Minimizing illness and student absences from school also means maintaining student access to other important school services (e.g., meals, speech therapy, etc.), protecting students' and staff's families and communities from infection, and preventing parents and other caregivers from missing work to care for a sick child.[8-10] This science brief identifies evidence-based strategies to prevent and control infectious diseases within school settings.

1

Preventing Spread of Infections in K-12 Schools | CDC
Prevention and Control of Respiratory and Gastrointestinal Infections in Kindergarten through Grade 12 (K-12) Schools

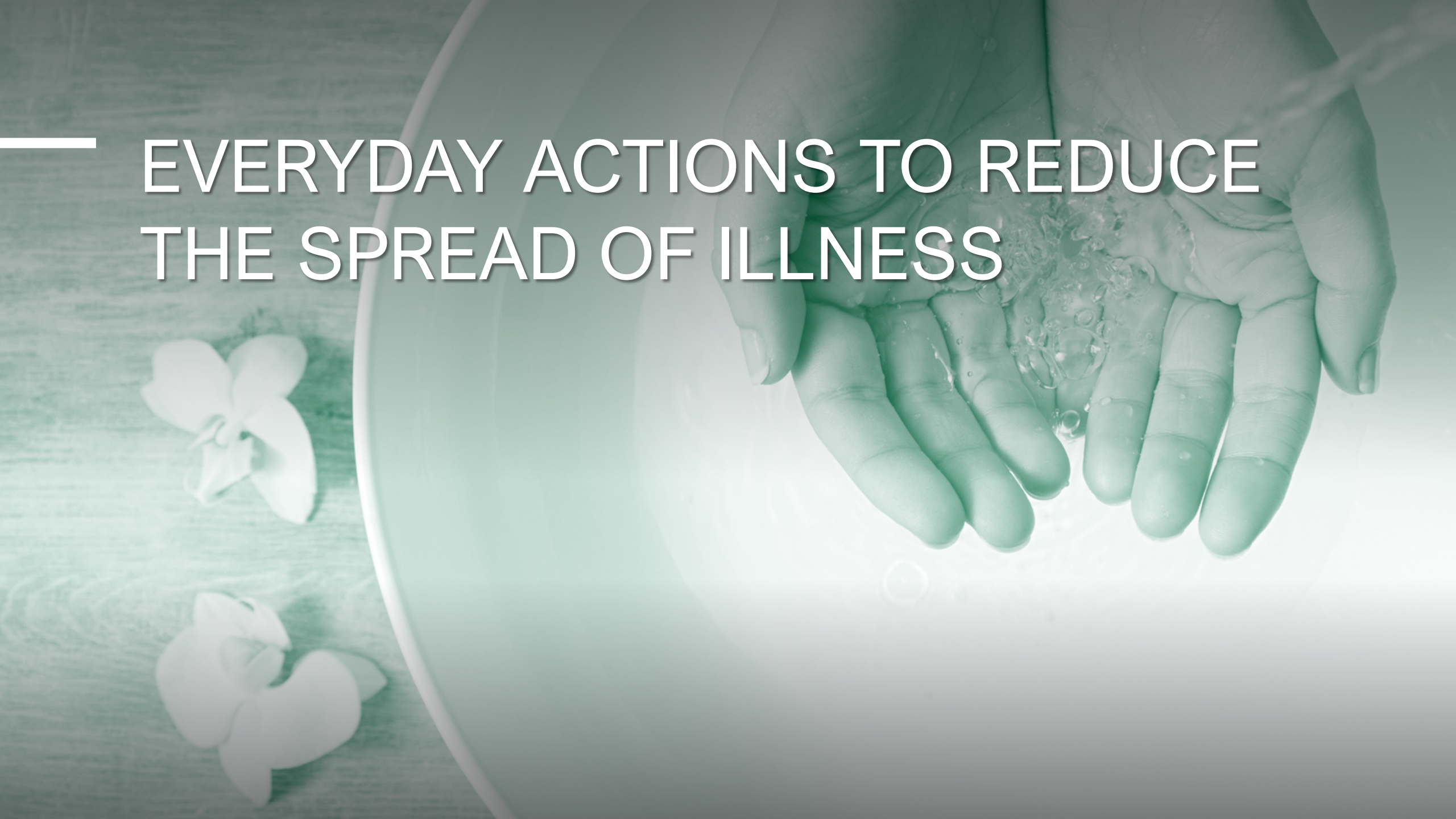
ACTIVITY: ACTION PLANNING EXERCISE – SECTION 1

What actions will you take?

- During the workshop, use the **Action Planning Worksheet** to record ideas about how you can apply your learning to **support infectious disease preparedness or prevention** in your classroom, school, or district.
- At the end of the workshop, we will share our action plans as a group before adjourning.

5-MINUTE BREAK #1

EVERYDAY ACTIONS TO REDUCE THE SPREAD OF ILLNESS



SECTION 2:

Everyday Actions to Reduce the Spread of Illness

Learning Objectives

2.1 **Understand** how diseases spread in schools.

2.2 **Describe** each of the **Everyday Actions** that schools can routinely use to reduce the spread of infectious diseases.

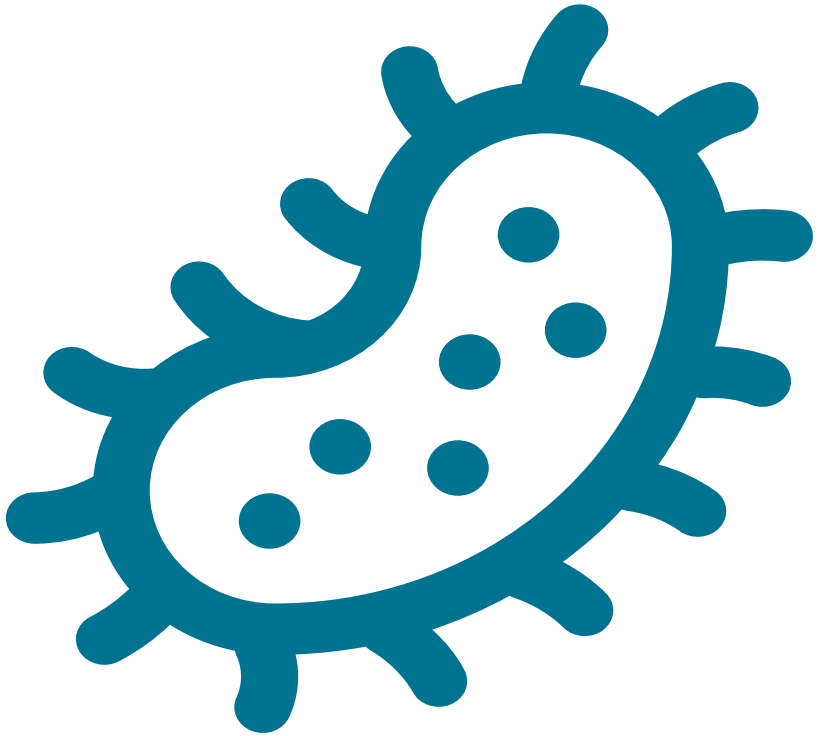
2.3 **Explain** the difference between cleaning and disinfecting.

2.4 **Explain** how schools can use ventilation as an infection prevention tool.

What is an “infectious disease”?

Infectious diseases are illnesses caused by tiny organisms (“germs”) that get into your body from the outside, such as:

- Viruses,
- Bacteria,
- Fungi, and
- Parasites.



Common Infectious Diseases in Schools*

- **Viral respiratory illnesses,** such as colds and influenza
- **Gastrointestinal illnesses**, such as norovirus infection
- **Bacterial infections** of the skin, mouth, or eyes, such as impetigo, Strep throat, and conjunctivitis (“pink eye”)
- **Parasite infestations**, such as head lice or skin mites (scabies)

*Links to specific information about common conditions are provided in your **Resource List** handout.

How do infectious diseases **spread** in schools?

Direct contact with contaminated objects

Direct contact with others who are sick

Sprays and splashes of infectious body fluids

Inhaling, or breathing in, germs in the air

[Appendix A: How Infections Spread | Children & School Preparedness | CDC]

Everyday Actions for Reducing the Spread of Illness

Washing hands

Using respiratory etiquette

Staying up to date on recommended vaccinations

Cleaning and disinfecting

Taking steps for cleaner air

[Everyday Actions for Schools to Prevent and Control the Spread of Infections | CDC]

Washing Hands

- Hand washing **removes germs from contaminated hands**.
- Promote regular hand washing by:
  - Setting daily handwashing routines,
  - Providing supplies like soap and paper towels, and
  - Teaching and monitoring handwashing skills.

Using Respiratory Etiquette

- Using respiratory etiquette **reduces the number of germs** that move between people.
- Support use of respiratory etiquette by:
  - Making tissues easily accessible,
  - Encouraging hand washing after blowing nose, and
  - Encouraging covering the mouth with the elbow.

Getting Vaccinated

- Getting recommended vaccinations:
  - **Reduces susceptibility of uninfected people**, and
  - **Reduces the number of germs** sick people spread.
- Schools might support vaccination by:
  - Providing families and staff with information about vaccine recommendations, safety, and effectiveness
  - Giving staff paid time off for vaccination, and
  - Hosting vaccination clinics at schools.

Cleaning and Disinfecting

- Cleaning and disinfecting **remove or inactivate germs on surfaces** before they are passed to uninfected people.
- Clean and disinfect frequently touched surfaces and shared items, like:
  - Desks,
  - Countertops,
  - Doorknobs,
  - Faucet handles, and
  - Toys.

Taking Steps for Cleaner Air

- Improving ventilation **disperses or removes germs floating in the air** before they are inhaled or land on surfaces or people.
- Take steps for cleaner air, such as:
  - Maintaining and updating HVAC systems,
  - Using fans or portable air cleaners, and
  - Opening windows or going outside, weather permitting.

ACTIVITY: ACTION PLANNING EXERCISE – SECTION 2

Everyday Actions: What actions will you take?

- Talk to a colleague about how you can apply the **Everyday Actions** to **supporting infectious disease preparedness or prevention** in your classroom, school, or district.
- Remember to write down your best ideas on your **Action Planning Exercise** worksheet.
- At the end of the workshop, we will share our action steps as a group before adjourning.

DEEP DIVE

Cleaning and Disinfecting

Cleaning and disinfecting helps prevent the spread of illnesses.

- **Cleaning** with soap and water **removes** germs from surfaces or items.
- **Disinfecting kills** harmful germs that remain on the surface after cleaning.
- Surfaces should be cleaned before they are disinfected to break down debris and oils.

[When and How to Clean and Disinfect a Facility | CDC]

DEEP DIVE

Cleaning versus Disinfecting

	Cleaning	Disinfecting
Products	Soaps or detergents	Disinfectants (regulated by the federal government)
Selection	Selected based on material or surface	Selected for activity against specific germs
Mechanism	Loosen debris, oils, and germs on surfaces for removal by scrubbing, wiping, or rinsing	Destroy or irreversibly inactivate germs; must remain on surface long enough to act

Selected EPA-Registered Disinfectants | US EPA

ACTIVITY: CHECKPOINT

Q: Why is it important to clean before disinfecting?

A. Disinfectants can be deactivated by dirt and debris

B. Cleaning kills germs so disinfectants can remove them

C. Germs can be protected from having sufficient contact with disinfectants by oils or debris attached to the surface

D. A and C

E. All of the above

ACTIVITY: CHECKPOINT

A: Why is it important to clean before disinfecting?

A. Disinfectants can be deactivated by dirt and debris

B. Cleaning kills germs so disinfectants can remove them

C. Germs can be protected from having sufficient contact with disinfectants by oils or debris attached to the surface

D. A and C

E. All of the above

DEEP DIVE

What is ventilation?

Ventilation is the **movement of clean air** into a room or building.

Ventilation in Schools and Childcare Programs | Ventilation | CDC

DEEP DIVE

The Value of Ventilation

Increasing ventilation reduces the number of germs in the air by:

- Replacing contaminated air with clean air, and
- Removing contaminated air through vents.

DEEP DIVE

Ways to Increase Ventilation

Increasing ventilation can be easy and inexpensive.

- Open windows, when safe to do so.
- Adjust HVAC settings to increase inflow of clean air and total airflow.
- Use portable air filters.
- Use exhaust fans in restrooms and kitchens.
- Gather outside when weather permits.

Ventilation in Schools and Childcare Programs | Ventilation | CDC

ACTIVITY: CHECKPOINT

Q: True or False? The only effective way to increase ventilation enough to really affect the spread of illness is to get a new and expensive HVAC system.

A. True

B. False

ACTIVITY: CHECKPOINT

A: True or False? The only effective way to increase ventilation enough to really affect the spread of illness is to get a new and expensive HVAC system.

A. True

B. False

There are **several easy and inexpensive ways** to increase ventilation and improve air quality in schools.

SECTION 2: QUESTIONS AND CLARIFICATIONS

15-MINUTE BREAK

ADDITIONAL STRATEGIES FOR TIMES OF ELEVATED ILLNESS

SECTION 3:

Additional Strategies for Times of Elevated Illness

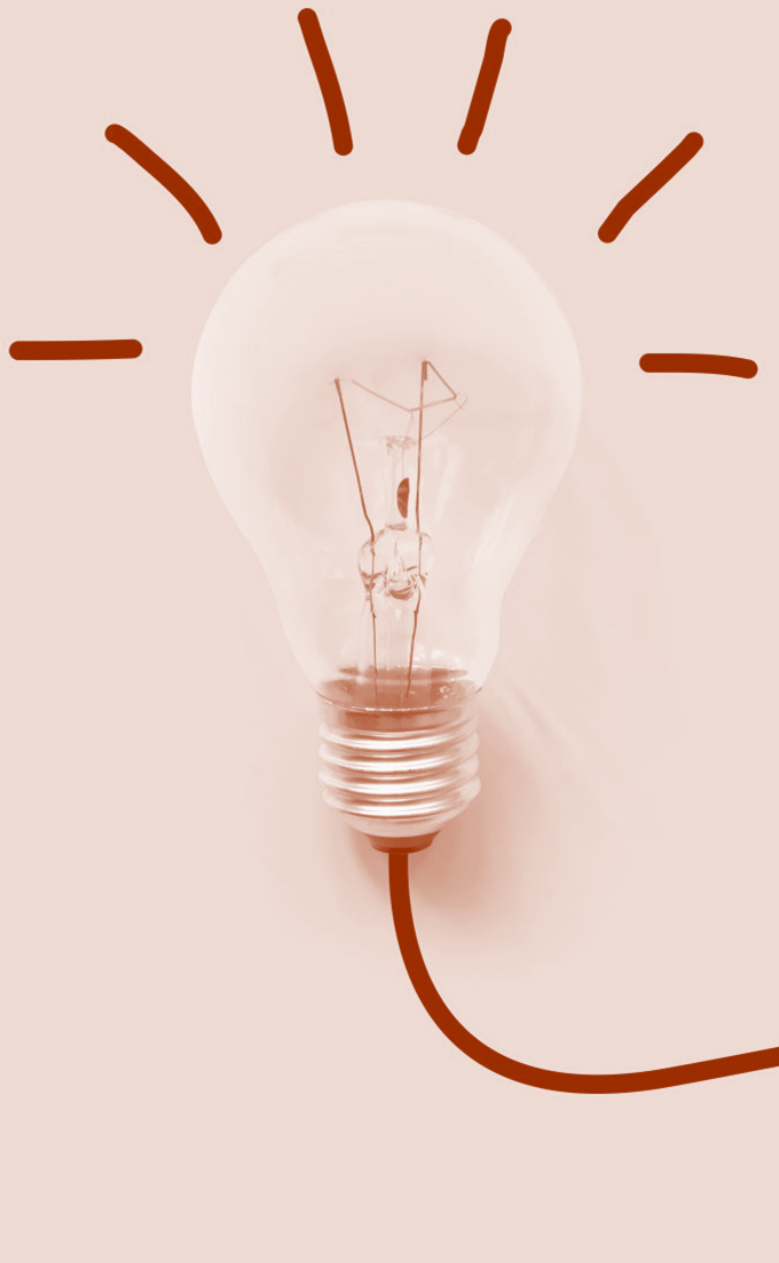
Learning Objectives

3.1 **Define** “times of elevated illness.”

3.2 **Describe** each of the **Additional Strategies** that schools can use during times of elevated illness.

3.3 **Identify** and prioritize strategies to use for preventing respiratory illnesses from spreading in schools.

3.4 **Identify** and prioritize strategies to use for preventing gastrointestinal illnesses from spreading in schools.



What qualifies as a “time of elevated illness”?

A **Time of Elevated Illness** is a period of days to weeks when the number of absences* due to illness is **higher than expected** based on historical patterns.

**A time of elevated illness can also be defined as a period in which the local health department is reporting higher than typical hospitalizations or elevated spread of an illness in the community.*

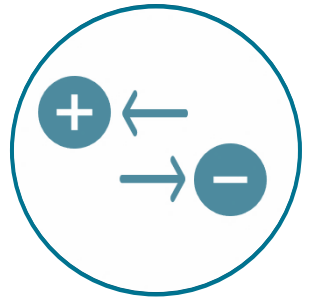
Five **Additional Strategies** for Infection Prevention

Masking; respiratory protection

Increasing distance, cohorting

Illness monitoring

Testing



Managing exposure

[Additional Strategies that May Be Used to Minimize Infectious Disease Transmission in Schools during Times of Elevated Illness Activity | CDC]

Masking and Respiratory Protection

- Correctly and consistently wearing a mask can prevent germs from moving between people by
  - **Trapping exhaled germs**, and
  - **Reducing inhalation of germs**.
- Where consistent with local laws, schools can use indoor mask wearing as an additional strategy when **respiratory illnesses are elevated.**

Increasing Distance and Cohorting

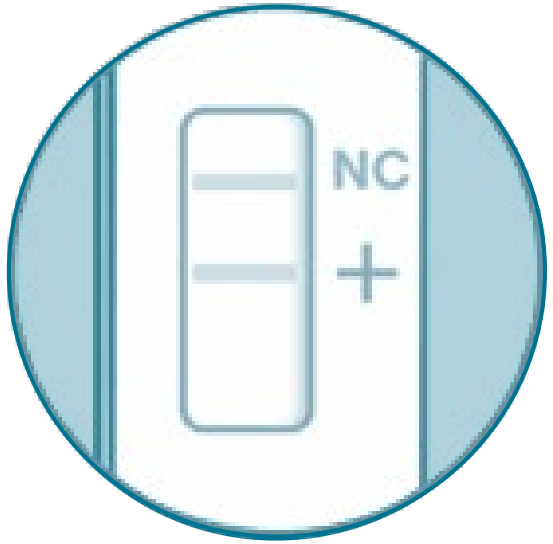
- Physical distancing **increases the distance between people** to reduce exposure to infectious illnesses.
- When space is limited, schools can use **cohorting to limit the number** of people each student encounters.
  - Groups of students stay together throughout the day.
  - Students have fewer chances of being exposed to others who are sick.

Illness Monitoring

- Families can help schools **reduce the spread of infections by keeping sick students at home**.
- For some illnesses, schools can provide parents and caregivers with specific instructions on
  - How to monitor students for illness,
  - When to have a child stay home, and
  - When they can return to school.
- Health departments can help with guidance development.

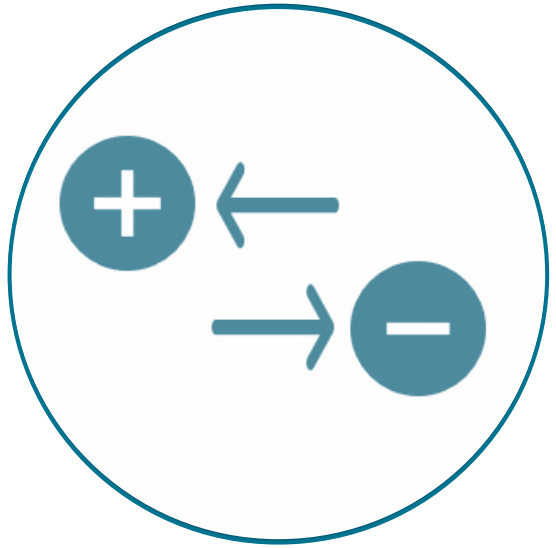
Testing

- Screening tests can **identify infected individuals who do not have symptoms**.
- When a disease-specific test is available, schools can coordinate with the health department to develop a testing program.



Managing Exposure

- When students feel ill at school, **separating them from other students until they are picked up by a caregiver** prevents contact with well students.
- Schools can identify spaces with good ventilation for separating sick students from well students.
- Ideally, staff will have personal protective equipment available to wear while monitoring sick students.



Maintaining School Operations

- Changing operational status (that is, moving to virtual, hybrid, closure, etc.) is **NOT** recommended as a routine infection prevention measure.
- Schools can work with local public health officials to apply layered protections.
- Closures for infection control should be carefully planned to reduce educational, social, and economic impacts.

Maintaining School Operational Status | CDC

How do we decide which strategies to use?

- Type and severity of illness
- Effectiveness of strategies for specific illness
- Student and staff characteristics
  - Feasibility of using prevention measures
  - Specific health vulnerabilities
- Availability of resources for implementing prevention measures effectively

[Considerations for Prioritizing Additional Strategies | CDC]

ACTIVITY: ACTION PLANNING EXERCISE- SECTION 2

Additional Strategies: What actions will you take?

- Talk to a colleague about how you can apply the **Additional Strategies** to **support infectious disease preparedness or prevention** in your classroom, school, or district.
- Remember to write down your best ideas on your **Action Planning Exercise** worksheet.
- At the end of the workshop, we will share our action steps as a group before adjourning.

ACTIVITY: CHECKPOINT

Q: Which of the following is NOT a recommended tool for addressing a time of elevated illness?

A. Correctly and consistently wearing a face mask

B. Cohorting

C. Encouraging parents to keep students' home when sick

D. Separating sick students while they wait for parents to pick them up

E. Closing schools for 4 weeks for deep cleaning

ACTIVITY: CHECKPOINT

A: Which of the following is NOT a recommended tool for addressing a time of elevated illness?

A. Correctly and consistently wearing a face mask

B. Cohorting

C. Encouraging parents to keep students' home when sick

D. Separating sick students while they wait for parents to pick them up

E. Closing schools for 4 weeks for deep cleaning

ACTIVITY: PRIORITIZATION DISCUSSION

What would you do…?

Scenario 1: Rising numbers of absences during November due to a respiratory illness. The local public health department is reporting high influenza activity in the community.

Scenario 2: The school nurse has noticed an uptick in the number of students going home for nausea, vomiting, and diarrhea. A few parents have reported their children have norovirus infection.

Which of the **Additional Strategies** would be **the most feasible choices in your school or district** for reducing spread in each scenario?


SECTION 3: QUESTIONS AND CLARIFICATIONS


PLANNING FOR INFECTION
PREVENTION & CONTROL
DESIGN

SECTION 4:

Planning for Future Needs

Learning Objectives

4.1 **Understand** what an **infectious disease annex** is and why it is important to include one in your school emergency operations plan.

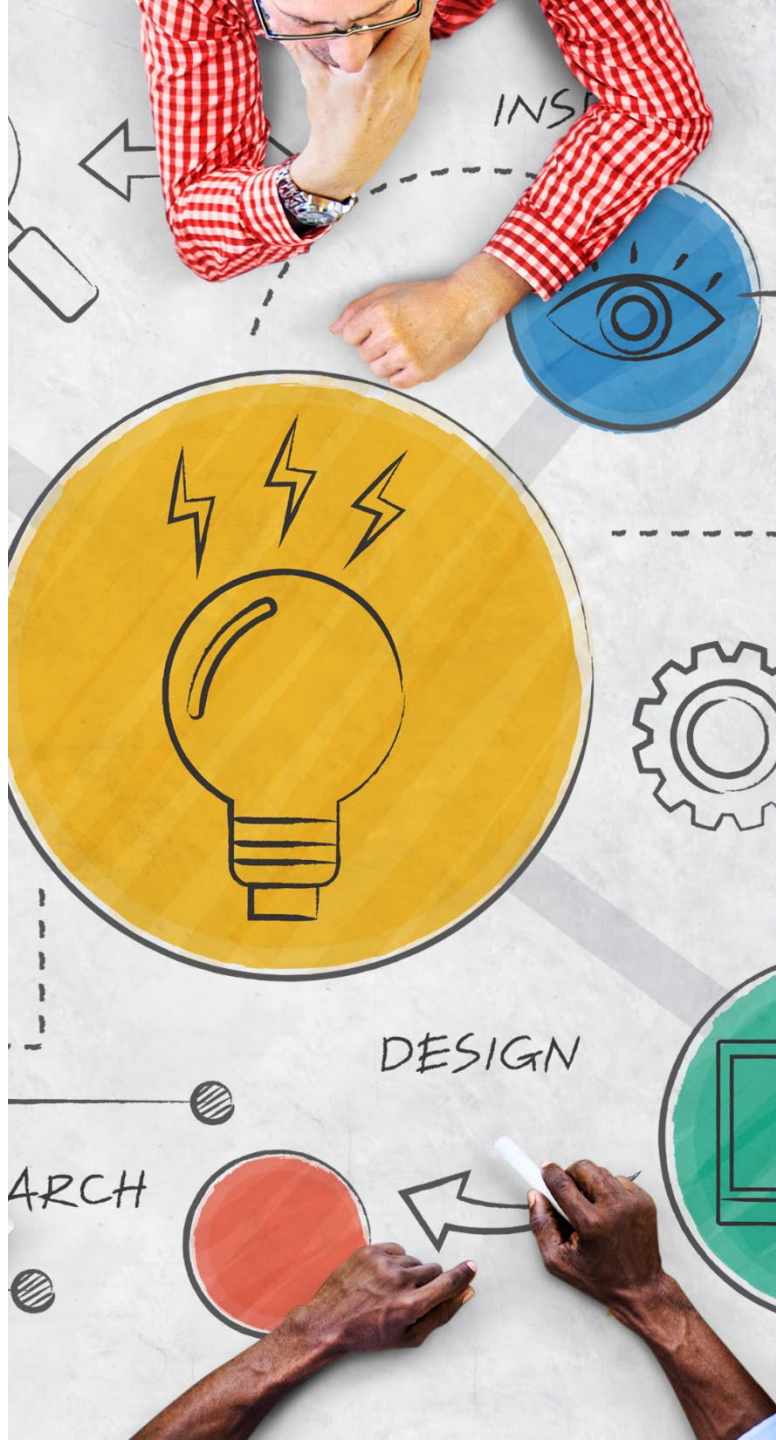
4.2 **Describe** the types of information that could be included in an **infectious disease annex**.

4.3 **Identify** key community partners to include in infectious disease planning and response.

What is an “infectious disease annex”?

An infectious disease annex:

- Is an **addition to the school Emergency Operations Plan (EOP)** that specifically addresses prevention and control of infectious diseases,
- Documents **how and when to use infection prevention strategies** to reduce spread, and
- Documents **communication plans** and key **community partners** who can provide support.



[Infectious Disease | Online Courses | Readiness and Emergency Management for Schools Technical Assistance Center]

Why should we include an infectious disease annex in our EOP?

Reason # 1: Infectious diseases are a **known concern** in school settings that we **can prepare for before they happen**—just like natural disasters or physical safety concerns.

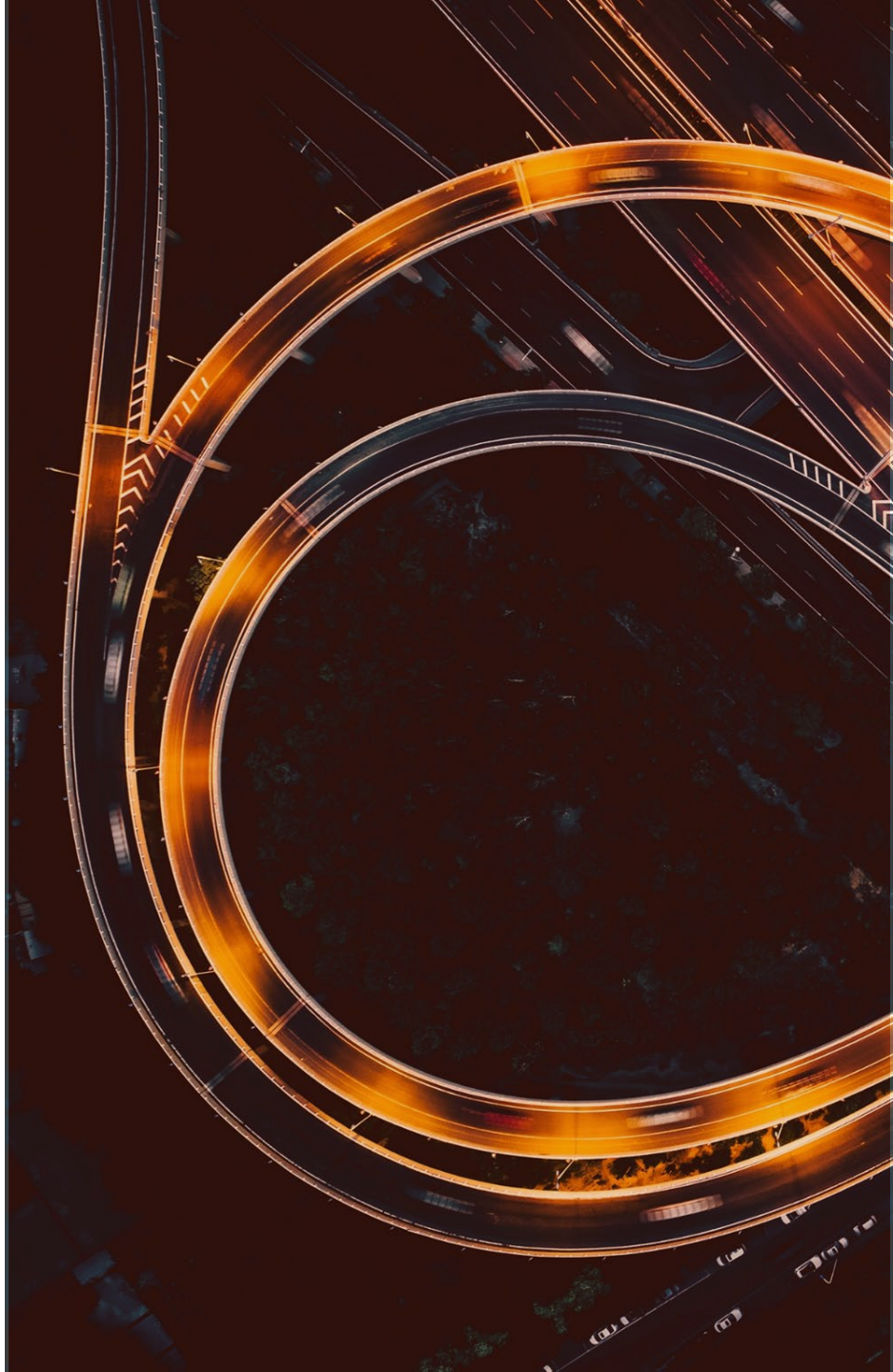
It does not do to leave a live dragon out of your calculations, if you live near one.

– J.R.R. Tolkien, The Hobbit

Why should we include an infectious disease annex?

Reason #2: An **infectious disease annex** provides a **road map** for responding to an infectious disease concern **quickly and efficiently** so you can:

- Maintain school operations,
- Protect vulnerable individuals,
- Reduce the number of families affected, and
- Return to normal operations faster.



Planning for Outbreaks, Epidemics, and Pandemics | CDC

ACTIVITY: PAIR AND SHARE

What specific information is included in an infectious disease annex?

Pair with a colleague and share what types of information you think should be included in an infectious diseases annex.

Each pair will then share **one idea** with the group.

ACTIVITY: PAIR AND SHARE ANSWER

What specific information is included in an infectious disease annex?

An infectious disease annex typically contains guidance on what to do **before, during, and after** an infectious disease–related event, such as:

- Routine infection prevention policies, and protocols;
- Guidance on enhanced measures to use for addressing elevated illness;
- Forms and templates for documenting the event and tracking the number affected;
- Communication strategies and message templates for informing and updating families, the media, and public health officials;
- Contact information for key partners who have agreed to help; and
- Guidance on how and when to resume normal operations.

REMS. Pandemic Planning: Developing an Infectious Disease Annex [Fact Sheet]

ACTIVITY: CHECKPOINT

Q: Why is it important to have an infectious disease annex in your school emergency operations plan?

A. Infectious diseases are a known concern, so we can plan for them before they occur

B. Knowing how to reduce the spread of illnesses protects staff and students

C. Responding quickly and effectively helps us maintain school operations and return to normal faster

D. All of the above

ACTIVITY: CHECKPOINT ANSWER

A: Why is it important to have an infectious disease annex in your school emergency operations plan?

A. Infectious disease are a known concern, so we can plan for them before they occur

B. Knowing how to reduce the spread of illnesses protects staff and students

C. Responding quickly and effectively helps us maintain school operations and return to normal faster

D. All of the above

ACTIVITY: COMMUNITY PARTNERS EXERCISE

Who are your key partners?

- Pair with a colleague to make a list of partners who should be involved in the planning and implementation of your infectious disease annex.
  - Identify as many partners as you can.
  - Choose one or two partners for developing a detailed partner engagement plan.
- Record your ideas in the space provided on your **Community Partners Worksheet**.
- We will have time to share a few key insights with the group at the end of the exercise.

Structured Ways to Engage with Partners

- Infection Prevention and Control (IPC) Advisory Committee
- School Health Advisory Committee (SHAC)

Planning for Outbreaks, Epidemics, and Pandemics | CDC

ACTIVITY: ACTION PLANNING EXERCISE-SECTION 4

Partnership Planning: What actions will you take?

- Talk to a colleague about how you can apply this section to **engaging partners in infectious disease preparedness or prevention** in your classroom, school, or district.
- Remember to write down your best ideas on your **Action Planning Exercise** worksheet.
- At the end of the workshop, we will share our action steps as a group before adjourning.

Summary and Wrap Up

- Important role of schools
- Everyday actions you can take
- Additional strategies to consider
- Value of having a plan
- Importance of engaging partners

ACTIVITY: ACTION PLANNING EXERCISE

What actions will you take?

Please share **one way** that you will apply your learning in this workshop to **supporting infectious disease preparedness or prevention** in your classroom, school, or district.

Credits

- This workshop was developed by Global Systems Engineering, LLC in collaboration with the Centers for Disease Control and Prevention, Division of Readiness and Response Science.
- Workshop materials were reviewed by:
  - Partner 1
  - Partner 2
  - Partner 3
- CDC Disclaimer here