Pandemic Planning: Developing an Infectious Disease Annex

READINESS AND EMERGENCY MANAGEMENT FOR SCHOOLS TECHNICAL ASSISTANCE CENTER

The *Guide for Developing High-Quality School Emergency Operations Plans (School Guide)* and *The Role of Districts in Developing High-Quality School Emergency Operations Plans (District Guide)* recommend that schools and school districts prepare for the variety of threats and hazards they may face, including infectious diseases such as the coronavirus disease 2019 (COVID-19) pandemic. Although schools and school districts have experience planning for biological hazards (such as contaminated food) and types of infectious diseases (seasonal flu, Staphylococcus aureus, meningitis, etc.), pandemics often present unique challenges and greatly impact efforts to ensure continuity of teaching and learning, as well as safety.

The Centers for Disease Control and Prevention (CDC) define a pandemic as a global outbreak of a new influenza A virus. Pandemics happen when new (novel) influenza A viruses emerge and have the potential to infect people easily and spread from person to person in an efficient and sustained way.

This fact sheet provides school district leaders and school core planning teams with recommendations to develop or enhance an Infectious Disease Annex within an emergency operations plan (EOP) and considerations specific to pandemic planning.

Using EOPs to Enhance Pandemic Planning

The COVID-19 pandemic illustrates the importance of including plans around pandemic planning in a school EOP. Research from the U.S. Department of Education's Institute of Education Sciences via the School Pulse Panel shows that schools implemented various mitigation strategies to protect students and staff and to prevent the further spread of COVID-19, including

- Adding additional handwashing stations;
- Decreasing class sizes;
- Encouraging social distancing during recess or physical education, and placing physical signs in classrooms and hallways to encourage social distancing;
- Reconfiguring the placement of students' desks;
- Increasing how often surfaces are cleaned;
- Increasing ventilation; and
- Installing physical barriers between students and staff.

Each action required school leaders, faculty, and staff to collaborate with school safety and emergency management planning partners to update courses of action, roles, and responsibilities outlined in existing EOPs.

> *"COVID certainly tested many systems ... plans were either in place or things hadn't been planned for."*
>
> — State Education Agency (SEA) Personnel

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Schools can prepare for another pandemic that may arise by developing or updating an Infectious Disease Annex in their school EOP. This annex addresses the before, during, and after phases of pandemic planning, as outlined in the six-step planning process for high-quality EOP development recommended in the *School Guide and District Guide.* This six-step process helps districts and schools to create, revise, and refine EOPs. Since EOP planning requires input from various stakeholders, the Guides recommend collaboration with key community partners to carry out each step in the planning process.

Creating an Infectious Disease Annex is especially important, since infectious diseases transmit easily in a school environment because of the students' age, the density of a school population, and other risk factors unique to schools (e.g., immunization, sanitation, shared equipment). When planning for a pandemic, schools may opt to include a special section within their Infectious Disease Annex. Planning considerations for a pandemic may differ from those for other infectious diseases, particularly continuity planning. It is important to collaborate with community partners and members of core and ad hoc planning teams when creating an Infectious Disease Annex that addresses pandemics.

Data from the School Health Policies and Practices Study (SHPPS) — a national survey periodically conducted to assess public school health policies and practices at the state, district, school, and classroom levels — showed that, in 2016, some public school districts made plans to help schools prepare for pandemics as they continually create, refine, and maintain school EOPs. Approximately

- **74 percent** of school districts had EOPs that included procedures for responding to pandemic outbreaks;

- **65 percent** of districts required schools to include responding to pandemics in their EOPs; and
- **64 percent** of districts had one or more district-level leadership group(s) that addressed the management of infectious diseases, like in pandemics.

Creating Core Planning Teams and Using Their Input to Enhance EOPs

Comprehensive school EOPs should be developed by school core planning teams with the support of the school district. The core planning team is created as a part of Step 1 of the planning process for high-quality EOP development outlined in the *School Guide and District Guide.* Membership should include partners such as school nurses and local public health practitioners, who have roles and responsibilities in the before, during, and after phases as well as expertise in key topics in school emergency management, including public health and infectious diseases. Schools should coordinate any efforts related to infectious diseases and pandemics with the appropriate emergency medical services, public health, mental health, law enforcement, fire department, and emergency management representatives from within the school community, and invite them to join either the core planning team or an ad hoc planning team. During Step 2 in the planning process, schools and school districts may also conduct capacity assessments that help them examine the capabilities of students and staff as well as the services and material resources of community partners.

The table below offers some recommendations on school and district core planning team members who may help create or enhance plans for responding to and recovering from pandemic and shows illustrative examples of their roles and contributions. It is important that district health teams ensure that the culture and values of each school are considered and respected.

Six-Step Planning Process for High-Quality EOP Development

1 Form a Collaborative Planning Team	2 Understand the Situation	3 Determine Goals and Objectives	4 Plan Development (Identifying Courses of Action)	5 Plan Preparation, Review, and Approval	6 Plan Implementation and Maintenance

Team Member	Contributions and Input
Community Partners (e.g., first responders, community-based service providers)	• Provide input about various resources available to support districts and schools. • Determine how to best coordinate responsibilities with school guidelines and needs. • Coordinate training of staff and exercises on the plan.
School-Based Administrators, Teachers	• Update the plan during the incident as guidance changes and as the situation requires. • Prepare for school-based alternative plans for providing instruction during periods of increased severity. • Prepare staffing and curriculum options based on conditions. • Plan for special needs of all students, which may include food insecurities and medication administration.
District-Based Public Information Officer	• Coordinate media releases and family communications. • Coordinate with external partners, and manage public information. • Develop templates of letters and announcements for schools to send to families.
School-Based and Community-Based Health and Mental Health Practitioners	• Coordinate all activities with public health officials. • Serve as liaison with key response partners. • Serve as liaison with school health professionals and paraprofessionals to support infection control practices to prevent spread of disease to schools and families. • Refer students and families, as well as staff, to community resources to support long-term physical and mental health support. • Support families or students who may not be able to respond to the infectious disease incident without additional assistance.
School-Based Facilities Managers	• Support the development and implementation of mitigation strategies designed to prevent the spread of viruses. • Conduct, or provide input into, site assessments to determine vulnerable areas in a school building.

> *"We encourage schools to think critically about their community partners ... and do some asset mapping to figure out who can support them and what they can provide. Look at partnerships and the richness of staff and the ability for staff to troubleshoot and communicate with families."* — SEA Personnel

Illustrative Contents of an Infectious Disease Annex

The Infectious Disease Annex should describe the goals (broad statements that indicate the desired outcome), objectives (measurable actions that are necessary to achieve the goals), and courses of actions (specific procedures used to accomplish goals and objectives) for before, during, and after an infectious disease outbreak, case, epidemic, and/or pandemic. When planning for a pandemic, the annex may incorporate processes for

- Decreasing exposure to the pandemic;
- Limiting the disruption of day-to-day learning activities;
- Adapting to evolving knowledge and guidance from the CDC;
- Supporting students and staff with disabilities, chronic health conditions, limited access and functional needs, and limited English proficiency; and
- Communicating updates to students, families, and the community.

The annex should clearly outline what to do before, during, and after a case, outbreak, epidemic, or pandemic occurs. Response, in each phase, will not necessarily follow the same protocol because, as explained above, infectious diseases range in severity levels and duration. Thus, it is important to consider different infectious disease scenarios to emphasize the uniqueness of the actions needed as the incident unfolds.

Phase	Questions to Consider/Ask	Actions
BEFORE Establish and implement policies before the onset of an infectious disease.	• Does the school and/or district currently have infectious disease policies? • What are they? • What do they include? • Have they been shared with the core planning teams and other key stakeholders?	Review, update, or establish policies that • Provide guidelines that specify conditions that would keep students home from school; • Reinforce common preventive habits, such as • Handwashing; cough and sneeze etiquette; routine cleaning and sanitation; and vaccinations, if applicable; • Provide guidelines for • Separating sick students and staff; • Increasing social distances within the school environment; and • Adapting attendance policies; and • Develop and discuss scenarios to determine actions and resources needed.
DURING Implement policies and processes that schools and school districts should implement during an incident.	• What is the source and scale of the pandemic? • What is the categorization of the disease? (e.g., Who is sick? When did they get sick? What are the symptoms? What is the level of infectiousness?) • What response is needed to align with the disease categorization and scope of the spread? • What are the guidelines for dismissing or closing schools?	Continually inform students, staff, and families about • Methods for detecting the disease and resources for at-home and community screening; • Characteristics or symptoms of the disease; • Current and future response measures; • Prompt treatment for those at higher risk; and • Guidelines for school dismissals or closures, which may include • Selective dismissals to prevent the spread of disease to vulnerable communities; • Reactive dismissals that occur when schools are not able to maintain normal functioning; and • Preemptive dismissals as a proactive strategy to decrease the spread of disease.

Phase	Questions to Consider/Ask	Actions
AFTER Review and update policies after the end of an infectious disease incident.	• What went well? What can be done differently next time? • What changes should be made to the Infectious Disease Annex or future use? • What practices should be discontinued, and what practices should remain in place?	Determine the extent to which • A school facility needs remediation before it can reopen (a school might need remediation if, e.g., it was used for a vaccination clinic or some other health-related purpose); and • Processes for reopening schools or reconvening students follow the advice of medical and health departments • Guidelines for communicating with parents, students, staff, and the media follow established procedures.

Integration of Infectious Disease Planning With Relevant Functional Annexes

The functional annexes within an EOP focus on critical operational functions that apply to more than one threat or hazard and on the courses of action developed to carry them out. As the planning team develops goals and objectives for hazards and threats in Step 3 outlined in the *School Guide* and *District Guide,* the team may identify cross-cutting functions. The planning team should consider the various actions in which team members must collaborate with community partners when developing goals, objectives, and courses of action to support pandemic planning in cross-cutting functional annexes. While these functions should be described separately, it is important to remember that many functions will occur consecutively. Functions build upon one another and overlap; thus, it may not be necessary to repeat a course of action in one functional annex if it appears in another functional annex. As the Infectious Disease Annex is developed, it is helpful to consider and include processes from other functional annexes, such as communication and continuity of operations (COOP), that will play a critical role in responding. The table below provides illustrative goals, objectives, and courses of action for select functional annexes in the event of a pandemic.

"Before COVID, schools had a continuity of learning plan, but they needed something bigger. The superintendents realized that COOP is how you continue ... feeding the kids, and the psychological support, and all that other stuff."'

— SEA Emergency Management Trainer

Functional Annex	Sample Goals, Objectives, and Courses of Action
Communications and Warning Annex: Defines processes for communicating with both internal and external stakeholders before, during, and after an emergency, including an infectious disease outbreak or pandemic.	• Create templates for letters related to a variety of outbreaks to send to the school community. • Identify appropriate spokespersons (e.g., superintendent, school nurse, public information officer), and ask them to practice in advance. (These may not be the same spokespersons as other school emergencies.) • Promote awareness on healthy hygiene, respiratory etiquette, and protective health measures. • Inform students, staff, and families about practices and policies to prevent such an outbreak in the future. • Ensure that daily communications highlight positive aspects about the situation, even if to say no changes.
COOP Annex: Describes how a school will help ensure that essential functions continue during an emergency and its immediate aftermath.	• Provide continuity of teaching and learning via technological and nontechnological opportunities (or a combination of both), allowing students to maintain skills while they remain at home. • Ensure that students continue to receive other essential services from the school (e.g., feeding and food distribution, mental health services) in the event of school closures, distance learning, quarantining, etc.
Public Health, Medical, and Mental Health Annex: Describes actions to address emergency medical (e.g., first aid), public health, and mental health counseling challenges. It is important that schools establish memoranda of understanding (MOUs) with the appropriate emergency medical services, public health, mental health, law enforcement, fire department, and emergency management representatives for services before the actual outbreak occurs.	• Define what services will be provided before, during, and after the infectious disease outbreak and the period of service provision. • Coordinate efforts outlined in the MOU with the appropriate emergency medical services, public health, mental health, law enforcement, fire department, and emergency management representatives. • Include actions to support infectious disease reporting and surveillance to local and state public health departments. • Define how mental health needs after an emergency will be addressed.

PLEASE NOTE: The tools and resources identified in this document are not intended as endorsements and are merely offered as examples that you may consider in your own planning efforts.

Functional Annex	Sample Goals, Objectives, and Courses of Action
Recovery Annex: Describes plans to recover from an emergency. The four most fundamental kinds of recovery are academic recovery, physical recovery, fiscal recovery, and psychological and emotional recovery.	• Define how the school or school district will address health, social, emotional, and behavioral needs after a prolonged pandemic. • Identify potential organizations and personnel to support recovery needs.

Revising and Refining the Infectious Disease Annex

It is important to review the processes outlined in the Infectious Disease Annex following actual incidents (such as the COVID-19 pandemic) or other critical points. Several types of emergency exercises can be used to identify strengths and needed improvements and can be modified for infectious diseases in Step 6. By partaking in different types of exercises, education agencies can identify the appropriate methods to address the five National Preparedness System mission areas: protection, prevention, mitigation, response, and recovery. Exercises that specifically focus on pandemics may also expose the limitations of existing EOPs, such as procedural gaps or training needs. All the core planning team members should be part of evaluating the effectiveness of the EOP and modifying it as needed on the basis of lessons learned. Schools can work with key stakeholders within the whole school community to help ensure that everyone is aware of pandemic-specific procedures and has time to practice school safety roles and responsibilities as outlined within school EOPs. By participating, everyone can assess the roles, responsibilities, relationships, communication strategies, and resources that would be critical should an actual incident occur.

Type of Exercise	Considerations for Infectious Diseases and Pandemics
Orientations introduce the purpose of an EOP to familiarize participants with roles, responsibilities, plans, procedures, and equipment. Orientations can also resolve questions of coordination and assignment of responsibilities. This facilitates the development of an effective EOP.	• Include school-based personnel (e.g., nurse, psychologist, guidance counselor, teachers, cafeteria workers, building engineers), family members, and community partners (law enforcement, mental health, public health). • Determine or clarify assignments and coordination roles.
Tabletop exercises analyze an emergency event in an informal, stress-free environment.	• Provide participants with an emergency scenario to analyze. • Increase participants' awareness of the roles and responsibilities of individuals who need to plan for, respond to, stabilize, terminate, and recover from emergencies. • Have a constructive discussion about existing EOPs as participants identify, investigate, and resolve issues.
Drills test a specific operation or function of the EOP; aspects of the plan, such as responsibilities of all involved (i.e., students, faculty/teachers, staff), are addressed and practiced. These exercises may include community partners.	• Conduct a drill with community partners to practice plans for using the school as a vaccination center. • Conduct a drill with school nurses, teachers, and school administration to determine how to proceed if a student or staff member is displaying symptoms of the disease or if the school is notified that a staff member or student has tested positive for the disease. Discussions should include how to clean the areas where the infected person may have been, notification of others exposed to the infected person, or guidelines for quarantining.

Developing a worksheet will be helpful in ensuring the comprehensiveness of all processes and actions that will be addressed during designated efforts to practice the plan. Lastly, it is helpful to prepare an after-action report to discuss and assess actions and processes that may be implemented in response to exercises conducted or actual pandemic outbreaks that occur within school communities.

Resources

Further Reading — REMS TA Center

• Ordering Masks and Personal Protective Equipment (PPE) for Schools: Keeping the Whole School Community Safe in School Buildings, Fact Sheet

• *Continuity of Operations (COOP) Planning for Education Agencies: Ensuring Continuity of Teaching and Learning During Prolonged Absences, Dismissals, and Closures*, Publication

• *Continuity of Operations (COOP) Planning for Education Agencies: Ensuring Continuity of Feeding and Food Distribution During Prolonged Absences, Dismissals, and Closures*, Publication

• Modifying Education Agency Exercises and Drills in Response to the Pandemic: Protecting Students, Faculty, Staff, and the Whole School Community While Practicing Plans, Fact Sheet

• Supporting Efforts to Create a Public Health, Medical, and Mental Health Annex as a Part of Your Emergency Operations Plan, Web Page

• Addressing Biological Hazards That May Impact Students, Staff, and Visitors, Web Page

• Tool Box, Web Page

Training Opportunities — REMS TA Center

- School EOPs In-Depth: Planning for Infectious Disease, Online Course
- Infectious Disease Planning Module, Specialized Training Package
- Understanding the Role of School Nurses in Supporting School Safety Before, During, and After an Emergency, Webinar
- Ensuring Continuity of Feeding and Food Distribution During the COVID-19 Pandemic, Webinar
- School EOP Planning 101: Modifying Exercises and Drills in Response to the Pandemic, Webinar
- Emergency Exercises Package, Downloadable Materials
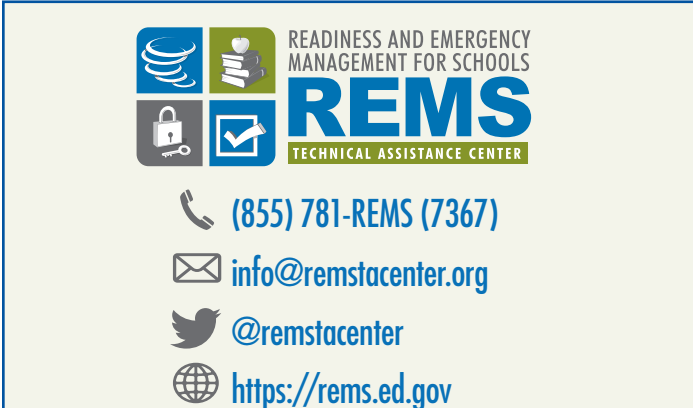
Further Reading — Infectious Disease and Pandemic

- *Pandemic Flu Checklist: K-12 School Administrators*, Publication (U.S. Department of Health and Human Services (HHS), Centers for Disease Control and Prevention (CDC))
- School Practices to Promote Social Distancing in K-12 Schools: Review of Influenza Pandemic Policies and Practices, Journal Article (HHS, National Institutes of Health, National Library of Medicine)
- *Preparing for Infectious Disease: Department of Education Recommendations to Ensure the Continuity of Teaching and Learning for Schools (K-12) During Extended Student Absence or School Dismissal*, Publication (U.S. Department of Education (ED))
- *Pandemic Flu Fact Sheet: A Parents' Guide to Helping Families Cope with a Pandemic Flu*, Publication (available in Spanish) (National Child Traumatic Stress Network)
- IS-520: Introduction to Continuity of Operations Planning for Pandemic Influenzas, Online Course (U.S. Department of Homeland Security (DHS), Federal Emergency Management Agency, Emergency Management Institute (FEMA))
- Influenza (Flu), Website (available in Spanish) (HHS, CDC)

- *Education in a Pandemic: The Disparate Impacts of COVID-19 on America's Students*, Publication (ED, Office of Civil Rights)
- Safe Schools Checklist: How to Get Your School Community Vaccinated and Maintain Safe, In-Person Learning All Year Long, Website (available in Spanish) (HHS)
- Healthy Indoor Environments in Schools: Plans, Practices and Principles for Maintaining Healthy Learning Environment, Web Page (U.S. Environmental Protection Agency)
- Guidance for School Administrators to Help Reduce the Spread of Seasonal Influenza in K-12 Schools Web Page (available in Spanish) (HHS, CDC)
- Coping With Stress During Infectious Disease Outbreaks, Fact Sheet (HHS, Substance Abuse and Mental Health Services Administration)
- Be Prepared for a Novel Pandemic, Fact Sheet (DHS, FEMA)
- *Pandemic Influenza Continuity of Operations Annex Template Instructions*, Publication (DHS, FEMA)

Further Reading — EOP Development

- *Guide for Developing High-Quality School Emergency Operations Plans*, Publication (Publication (ED; DHS, led by FEMA; U.S. Department of Justice, led by the Federal Bureau of Investigation; and HHS)
- *The Role of Districts in Developing High-Quality School Emergency Operations Plans*, Publication (ED, U.S. Department of Justice, HHS, and DHS)
- School Health Policies and Practices Study Results, Web Page (HHS, CDC)

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