

Non-Pharmaceutical Interventions Information

Non-Pharmaceutical Interventions (NPI) Matrix

The public should take precautions to avoid becoming ill during a public health incident. Below are some common non-pharmaceutical interventions for different disease transmission modes. In addition to washing hands with soap and water, social distancing can reduce the spread of infection. Social distancing may include personal actions such as standing 6-feet away from an ill individual, or community actions such as canceling school or mass gatherings.

Disease Transmission Modes and Examples	Common Non-Pharmaceutical Interventions
<u>Airborne</u> <ul style="list-style-type: none"> • Measles • Chicken pox • Tuberculosis • Inhalational anthrax 	<ul style="list-style-type: none"> • Wash hands frequently or use hand sanitizer • Avoid people who are ill • Stay home from work or school if ill • Cover coughs and sneezes with tissue or shirt sleeve • Clean and disinfect high-contact surfaces regularly • Get vaccinated (if available)
<u>Contact</u> <ul style="list-style-type: none"> • Herpes • Human Immunodeficiency Virus (HIV) • Conjunctivitis (Pink Eye) • Methicillin-resistant Staphylococcus aureus (MRSA) • Scabies 	<ul style="list-style-type: none"> • Wash hands frequently or use hand sanitizer • Clean and disinfect high-contact surfaces regularly • Avoid sharing personal items (e.g. towels) • Cover cuts and scrapes • Use condoms during sexual activity
<u>Droplet</u> <ul style="list-style-type: none"> • Common cold • Influenza • Meningococcal diseases • Pertussis (Whooping cough) 	<ul style="list-style-type: none"> • Wash hands frequently or use hand sanitizer • Avoid close contact with people who are ill • Use personal protective barriers (e.g. masks) • Clean and disinfect high-contact surfaces regularly • Refrain from sharing food and/or drinks • Get vaccinated (if available)
<u>Foodborne</u> <ul style="list-style-type: none"> • Giardia • Shiga-producing E. coli • Salmonella • Listeria • Hepatitis A • Campylobacter 	<ul style="list-style-type: none"> • Wash hands frequently or use hand sanitizer • Clean food preparation areas and utensils to prevent cross contamination • Cook foods properly • Store foods at appropriate temperatures • Use safe water sources for drinking and food preparation • Do not prepare food for others when ill
<u>Vectorborne</u> <ul style="list-style-type: none"> • Lyme • West Nile virus • Eastern Equine Encephalitis (EEE) • Rabies • Zika 	<ul style="list-style-type: none"> • Use insect repellants • Perform tick checks after being in tick-prone areas • Don't approach or touch stray/wild animals • Wear long sleeve shirts and pants • Shelter indoors during peak mosquito activity

CDC Recommendations for Non-pharmaceutical Interventions during a Pandemic

The table below, from the 2017 Community Mitigation Guidelines to Prevent Pandemic Influenza – United States, recommends nonpharmaceutical interventions for specific environments based upon pandemic severity. Although developed for influenza pandemics, these recommendations may be suitable for other highly pathogenic infectious diseases. Nonpharmaceutical intervention recommendations tailored for Massachusetts residents and visitors will be made by the Commissioner’s Executive Team, in consultation with BIDLS leadership.

TABLE 10. Recommended nonpharmaceutical interventions for influenza pandemics, by setting and pandemic severity*

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Setting	Pandemic severity		
	Low to moderate severity (mild to moderate pandemic)	High severity (severe pandemic)	Very high severity (very severe to extreme pandemic [†])
All	CDC recommends voluntary home isolation of ill persons, respiratory etiquette, hand hygiene, and routine cleaning of frequently touched surfaces and objects. ⁵	CDC recommends voluntary home isolation of ill persons, respiratory etiquette, hand hygiene, and routine cleaning of frequently touched surfaces and objects.	CDC recommends voluntary home isolation of ill persons, respiratory etiquette, hand hygiene, and routine cleaning of frequently touched surfaces and objects.
Residences	CDC generally does not recommend voluntary home quarantine of exposed household members.	CDC might recommend voluntary home quarantine of exposed household members in areas where novel influenza virus circulates.	CDC might recommend voluntary home quarantine of exposed household members in areas where novel influenza virus circulates.
	CDC generally does not recommend use of face masks by ill persons.	CDC might recommend use of face masks by ill persons when crowded community settings cannot be avoided.	CDC might recommend use of face masks by ill persons when crowded community settings cannot be avoided.
Child care facilities, schools for grades K–12, and colleges and universities	CDC might recommend selective school dismissals in facilities serving children at high risk for severe influenza complications.	CDC might recommend temporary preemptive, coordinated dismissals of child care facilities and schools. ^{††}	CDC might recommend temporary preemptive, coordinated dismissals of child care facilities and schools.
		If schools remain open, CDC might recommend social distancing measures. ^{**}	If schools remain open, CDC might recommend social distancing measures.
Workplaces	CDC generally does not recommend social distancing measures.	CDC might recommend social distancing measures. ^{††}	CDC might recommend social distancing measures.
Mass gatherings ⁵⁵	CDC generally does not recommend modifications, postponements, or cancellations.	CDC might recommend modifications, postponements, or cancellations.	CDC might recommend modifications, postponements, or cancellations.

Abbreviation: NPI = nonpharmaceutical intervention.

*Personal, community, and environmental NPIs should be 1) initiated early in a pandemic before local epidemics begin to grow exponentially, 2) targeted toward the nexus of transmission (in affected areas where the novel virus circulates), and 3) layered together to reduce community transmission to the greatest extent possible.

†During a very severe or extreme pandemic (similar to the 1918 pandemic), CDC is likely to take an aggressive stance and recommend certain additional NPIs.

§Recommended NPIs are the same for seasonal influenza.

¶Preemptive, coordinated dismissals might be implemented early during a pandemic to decrease the spread of influenza before many students and staff members become ill. Selective dismissals might be implemented by schools that serve students at high risk for complications from infection with influenza. Reactive dismissals might be implemented when many students and staff members are ill and not attending school or when many students and staff members are arriving at school ill and being sent home. Selective and reactive dismissals do not help slow disease transmission in the community.

**Social distancing measures that reduce face-to-face contact in schools might include dividing classes into smaller groups of students who are spaced further apart from each other within the classroom.

††Social distancing measures that reduce face-to-face contact in workplaces might include offering telework and remote meeting options. Flexible sick leave policies should be implemented to encourage workers to stay home if needed.

§§In all scenarios, mass gathering attendance during local outbreaks should be discouraged for persons at high risk for severe influenza-related complications.

Qualls N, Levitt A, Kanade N, et al. Community Mitigation Guidelines to Prevent Pandemic Influenza — United States, 2017. *MMWR Recomm Rep* 2017;66(No. RR-1):1–34. DOI: <http://dx.doi.org/10.15585/mmwr.rr6601a1>.