Implementation of Mitigation Strategies for Communities with Local COVID-19 Transmission

Background

When a novel virus with pandemic potential emerges, nonpharmaceutical interventions, which will be called community mitigation strategies in this document, often are the most readily available interventions to help slow transmission of the virus in communities. Community mitigation is a set of actions that persons and communities can take to help slow the spread of respiratory virus infections. Community mitigation is especially important before a vaccine or drug becomes widely available.

The following is a framework for actions which local and state health departments can recommend in their community to both prepare for and mitigate community transmission of COVID-19 in the United States. Selection and implementation of these actions should be guided by the local characteristics of disease transmission, demographics, and public health and healthcare system capacity.

Goals

The goals for using mitigation strategies in communities with local COVID-19 transmission are to slow the transmission of disease and in particular to protect:

- Individuals at increased risk for severe illness, including older adults and persons of any age with underlying health conditions (See Appendix A)
- The healthcare and critical infrastructure workforces

These approaches are used to minimize morbidity and mortality and the social and economic impacts of COVID-19. Individuals, communities, businesses, and healthcare organizations are all part of a community mitigation strategy. These strategies should be implemented to prepare for and when there is evidence of community transmission. Signals of ongoing community transmission may include detection of confirmed cases of COVID-19 with no epidemiologic link to travelers or known cases, or more than three generations of transmission.

Implementation is based on:

- Emphasizing individual responsibility for implementing recommended personal-level actions
- Empowering businesses, schools, and community organizations to implement recommended actions, particularly in ways that protect persons at increased risk of severe illness
- Focusing on settings that provide critical infrastructure or services to individuals at increased risk of severe illness
- Minimizing disruptions to daily life to the extent possible
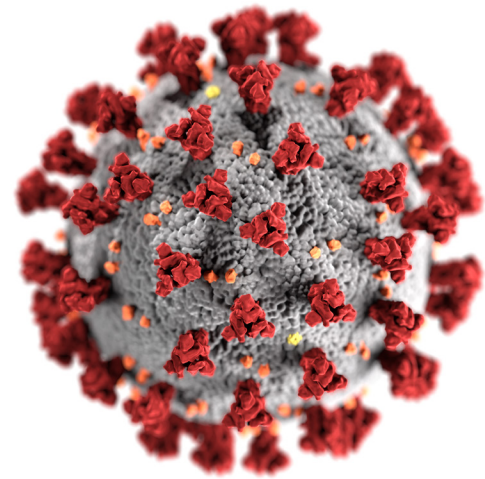
Guiding principles

- Each community is unique, and appropriate mitigation strategies will vary based on the level of community transmission, characteristics of the community and their populations, and the local capacity to implement strategies (Table 1).
- Consider all aspects of a community that might be impacted, including populations most vulnerable to severe illness and those that may be more impacted socially or economically, and select appropriate actions.
- Mitigation strategies can be scaled up or down depending on the evolving local situation.
- When developing mitigation plans, communities should identify ways to ensure the safety and social well-being of groups that may be especially impacted by mitigation strategies, including individuals at increased risk for severe illness.
- Activation of community emergency plans is critical for the implementation of mitigation strategies. These plans may provide additional authorities and coordination needed for interventions to be implemented (Table 2).
- Activities in Table 2 may be implemented at any time regardless of the level of community transmission based on guidance on from local and state health officials.
- The level of activities implemented may vary across the settings described in Table 2 (e.g., they may be at a minimal/moderate level for one setting and at a substantial level for another setting in order to meet community response needs).
- Depending on the level of community spread, local and state public health departments may need to implement mitigation strategies for public health functions to identify cases and conduct contact tracing (Table 3). When applied, community mitigation efforts may help facilitate public health activities like contact tracing

For more information: **www.cdc.gov/COVID19**

Table 1. Local Factors to Consider for Determining Mitigation Strategies

Factor	Characteristics
Epidemiology	• Level of community transmission (see Table 3) • Number and type of outbreaks (e.g., nursing homes, schools, etc.) • Impact of the outbreaks on delivery of healthcare or other critical infrastructure or services • Epidemiology in surrounding jurisdictions
Community Characteristics	• Size of community and population density • Level of community engagement/support • Size and characteristics of vulnerable populations • Access to healthcare • Transportation (e.g., public, walking) • Planned large events • Relationship of community to other communities (e.g., transportation hub, tourist destination, etc.)
Healthcare capacity	• Healthcare workforce • Number of healthcare facilities (including ancillary healthcare facilities) • Testing capacity • Intensive care capacity • Availability of personal protective equipment (PPE)
Public health capacity	• Public health workforce and availability of resources to implement strategies • Available support from other state/local government agencies and partner organizations

Table 2. Community mitigation strategies by setting and by level of community transmission or impact of COVID-19

Factor	Potential mitigation activities according to level of community transmission or impact of COVID-19 by setting		
	None to Minimal	Minimal to moderate	Substantial

Individuals and Families at Home
 	
"What you can do to prepare, if you or a family member gets ill, or if your community experiences spread of COVID-19"
	• Know where to find local information on COVID-19 and local trends of COVID-19 cases.
	• Know the signs and symptoms of COVID-19 and what to do if symptomatic:
	  » Stay home when you are sick
	  » Call your health care provider's office in advance of a visit
	  » Limit movement in the community
	  » Limit visitors
	• Know what additional measures those at high-risk and who are vulnerable should take.
	• Implement personal protective measures (e.g., stay home when sick, handwashing, respiratory etiquette, clean frequently touched surfaces daily).
	• Create a household plan of action in case of illness in the household or disruption of daily activities due to COVID-19 in the community.
	  » Consider 2-week supply of prescription and over the counter medications, food and other essentials. Know how to get food delivered if possible.
	  » Establish ways to communicate with others (e.g., family, friends, co-workers).
	  » Establish plans to telework, what to do about childcare needs, how to adapt to cancellation of events.
	• Know about emergency operations plans for schools/workplaces of household members.
		• Continue to monitor local information about COVID-19 in your community.
		• Continue to practice personal protective measures.
		• Continue to put household plan into action.
		• Individuals at increased risk of severe illness should consider staying at home and avoiding gatherings or other situations of potential exposures, including travel.
			• Continue to monitor local information.
			• Continue to practice personal protective measures.
			• Continue to put household plan into place.
			• All individuals should limit community movement and adapt to disruptions in routine activities (e.g., school and/or work closures) according to guidance from local officials.

Factor	Potential mitigation activities according to level of community transmission or impact of COVID-19 by setting		
	None to Minimal	Minimal to moderate	Substantial

Schools/childcare
 	
"What childcare facilities, K-12 schools, and colleges and universities can do to prepare for COVID-19, if the school or facility has cases of COVID-19, or if the community is experiencing spread of COVID-19)"
	• Know where to find local information on COVID-19 and local trends of COVID-19 cases.
	• Know the signs and symptoms of COVID-19 and what to do if students or staff become symptomatic at school/childcare site.
	• Review and update emergency operations plan (including implementation of social distancing measures, distance learning if feasible) or develop plan if one is not available.
	• Evaluate whether there are students or staff who are at increased risk of severe illness and develop plans for them to continue to work or receive educational services if there is moderate levels of COVID-19 transmission or impact.
	  » Parents of children at increased risk for severe illness should discuss with their health care provider whether those students should stay home in case of school or community spread.
	  » Staff at increased risk for severe illness should have a plan to stay home if there are school-based cases or community spread.
	• Encourage staff and students to stay home when sick and notify school administrators of illness (schools should provide non-punitive sick leave options to allow staff to stay home when ill).
	• Encourage personal protective measures among staff/students (e.g., stay home when sick, handwashing, respiratory etiquette).
	• Clean and disinfect frequently touched surfaces daily.
	• Ensure hand hygiene supplies are readily available in buildings.
		• Implement social distancing measures:
		  » Reduce the frequency of large gatherings (e.g., assemblies), and limit the number of attendees per gathering.
		  » Alter schedules to reduce mixing (e.g., stagger recess, entry/dismissal times)
		  » Limit inter-school interactions
		  » Consider distance or e-learning in some settings
		• Consider regular health checks (e.g., temperature and respiratory symptom screening) of students, staff, and visitors (if feasible).
		• Short-term dismissals for school and extracurricular activities as needed (e.g., if cases in staff/students) for cleaning and contact tracing.
		• Students at increased risk of severe illness should consider implementing individual plans for distance learning, e-learning.
			• Broader and/or longer-term school dismissals, either as a preventive measure or because of staff and/or student absenteeism.
			• Cancellation of school-associated congregations, particularly those with participation of high-risk individuals.
			• Implement distance learning if feasible.

Factor	Potential mitigation activities according to level of community transmission or impact of COVID-19 by setting		
	None to Minimal	Minimal to moderate	Substantial

Assisted living facilities, senior living facilities and adult day programs
 	
"What facilities can do to prepare for COVID-19, if the facility has cases of COVID-19, or if the community is experiencing spread of COVID-19)"
	• Know where to find local information on COVID-19.
	• Know the signs and symptoms of COVID-19 and what to do if clients/residents or staff become symptomatic.
	• Review and update emergency operations plan (including implementation of social distancing measures) or develop a plan if one is not available.
	• Encourage personal protective measures among staff, residents and clients who live elsewhere (e.g., stay home or in residences when sick, handwashing, respiratory etiquette).
	• Clean frequently touched surfaces daily.
	• Ensure hand hygiene supplies are readily available in all buildings.
		• Implement social distancing measures:
		  » Reduce large gatherings (e.g., group social events)
		  » Alter schedules to reduce mixing (e.g., stagger meal, activity, arrival/departure times)
		  » Limit programs with external staff
		  » Consider having residents stay in facility and limit exposure to the general community
		  » Limit visitors, implement screening
		• Temperature and respiratory symptom screening of attendees, staff, and visitors.
		• Short-term closures as needed (e.g., if cases in staff, residents or clients who live elsewhere) for cleaning and contact tracing.
			• Longer-term closure or quarantine of facility.
			• Restrict or limit visitor access (e.g., maximum of 1 per day).

Factor	Potential mitigation activities according to level of community transmission or impact of COVID-19 by setting		
	None to Minimal	Minimal to moderate	Substantial

Workplace
 	
"What workplaces can do to prepare for COVID-19, if the workplace has cases of COVID-19, or if the community is experiencing spread of COVID-19)"
	• Know where to find local information on COVID-19 and local trends of COVID-19 cases.
	• Know the signs and symptoms of COVID-19 and what to do if staff become symptomatic at the worksite.
	• Review, update, or develop workplace plans to include:
	  » Liberal leave and telework policies
	  » Consider 7-day leave policies for people with COVID-19 symptoms
	  » Consider alternate team approaches for work schedules.
	• Encourage employees to stay home and notify workplace administrators when sick (workplaces should provide non-punitive sick leave options to allow staff to stay home when ill).
	• Encourage personal protective measures among staff (e.g., stay home when sick, handwashing, respiratory etiquette).
	• Clean and disinfect frequently touched surfaces daily.
	• Ensure hand hygiene supplies are readily available in building.
		• Encourage staff to telework (when feasible), particularly individuals at increased risk of severe illness.
		• Implement social distancing measures:
		  » Increasing physical space between workers at the worksite
		  » Staggering work schedules
		  » Decreasing social contacts in the workplace (e.g., limit in-person meetings, meeting for lunch in a break room, etc.)
		• Limit large work-related gatherings (e.g., staff meetings, after-work functions).
		• Limit non-essential work travel.
		• Consider regular health checks (e.g., temperature and respiratory symptom screening) of staff and visitors entering buildings (if feasible).
			• Implement extended telework arrangements (when feasible).
			• Ensure flexible leave policies for staff who need to stay home due to school/childcare dismissals.
			• Cancel non-essential work travel.
			• Cancel work-sponsored conferences, tradeshows, etc.

Factor	Potential mitigation activities according to level of community transmission or impact of COVID-19 by setting		
	None to Minimal	Minimal to moderate	Substantial
Community and faith-based organizations "What organizations can do to prepare for COVID-19, if the organizations has cases of COVID-19, or if the community is experiencing spread of COVID-19)"	• Know where to find local information on COVID-19 and local trends of COVID-19 cases. • Know the signs and symptoms of COVID-19 and what to do if organization members/staff become symptomatic. • Identify safe ways to serve those that are at high risk or vulnerable (outreach, assistance, etc.). • Review, update, or develop emergency plans for the organization, especially consideration for individuals at increased risk of severe illness. • Encourage staff and members to stay home and notify organization administrators of illness when sick. • Encourage personal protective measures among organization/members and staff (e.g., stay home when sick, handwashing, respiratory etiquette). • Clean frequently touched surfaces at organization gathering points daily. • Ensure hand hygiene supplies are readily available in building.	• Implement social distancing measures: » Reduce activities (e.g., group congregation, religious services), especially for organizations with individuals at increased risk of severe illness. » Consider offering video/audio of events. • Determine ways to continue providing support services to individuals at increased risk of severe disease (services, meals, checking in) while limiting group settings and exposures. • Cancel large gatherings (e.g., >250 people, though threshold is at the discretion of the community) or move to smaller groupings. • For organizations that serve high-risk populations, cancel gatherings of more than 10 people.	• Cancel community and faith-based gatherings of any size.

Factor	Potential mitigation activities according to level of community transmission or impact of COVID-19 by setting		
	None to Minimal	Minimal to moderate	Substantial
Healthcare settings and healthcare provider (includes outpatient, nursing homes/long-term care facilities, inpatient, telehealth) "What healthcare settings including nursing homes/long-term care facilities, can do to prepare for COVID-19, if the facilities has cases of COVID-19, or if the community is experiencing spread of COVID-19)"	• Provide healthcare personnel ([HCP], including staff at nursing homes and long-term care facilities) and systems with tools and guidance needed to support their decisions to care for patients at home (or in nursing homes/long-term care facilities). • Develop systems for phone triage and telemedicine to reduce unnecessary healthcare visits. • Assess facility infection control programs; assess personal protective equipment (PPE) supplies and optimize PPE use. • Assess plans for monitoring of HCP and plans for increasing numbers of HCP if needed. • Assess visitor policies. • Assess HCP sick leave policies (healthcare facilities should provide non-punitive sick leave options to allow HCP to stay home when ill). • Encourage HCP to stay home and notify healthcare facility administrators when sick. • In conjunction with local health department, identify exposed HCP, and implement recommended monitoring and work restrictions. • Implement triage prior to entering facilities to rapidly identify and isolate patients with respiratory illness (e.g., phone triage before patient arrival, triage upon arrival).	• Implement changes to visitor policies to further limit exposures to HCP, residents, and patients. Changes could include temperature/symptom checks for visitors, limiting visitor movement in the facility, etc. • Implement triage before entering facilities (e.g., parking lot triage, front door), phone triage, and telemedicine to limit unnecessary healthcare visits. • Actively monitor absenteeism and respiratory illness among HCP and patients. • Actively monitor PPE supplies. • Establish processes to evaluate and test large numbers of patients and HCP with respiratory symptoms (e.g., designated clinic, surge tent). • Consider allowing asymptomatic exposed HCP to work while wearing a facemask. • Begin to cross train HCP for working in other units in anticipation of staffing shortages.	• Restrict or limit visitors (e.g., maximum of 1 per day) to reduce facility-based transmission. • Identify areas of operations that may be subject to alternative standards of care and implement necessary changes (e.g., allowing mildly symptomatic HCP to work while wearing a facemask). • Cancel elective and non-urgent procedures • Establish cohort units or facilities for large numbers of patients. • Consider requiring all HCP to wear a facemask when in the facility depending on supply.

Table 3. Potential mitigation strategies for public health functions

Public health control activities by level of COVID-19 community transmission		
None to Minimal	Minimal to Moderate	Substantial
Evidence of isolated cases or limited community transmission, case investigations underway, no evidence of exposure in large communal setting, e.g., healthcare facility, school, mass gathering.	Widespread and/or sustained transmission with high likelihood or confirmed exposure within communal settings with potential for rapid increase in suspected cases.	Large scale community transmission, healthcare staffing significantly impacted, multiple cases within communal settings like healthcare facilities, schools, mass gatherings etc.
• Continue contact tracing, monitor and observe contacts as advised in guidance to maximize containment around cases. • Isolation of confirmed COVID-19 cases until no longer considered infectious according to guidance. • For asymptomatic close contacts exposed to a confirmed COVID-19 case, consideration of movement restrictions based on risk level, social distancing. • Monitoring close contacts should be done by jurisdictions to the extent feasible based on local priorities and resources. • Encourage HCP to develop phone triage and telemedicine practices. • Test individuals with signs and symptoms compatible with COVID-19. • Determine methods to streamline contact tracing through simplified data collection and surge if needed (resources including staffing through colleges and other first responders, technology etc.).	• May reduce contact tracing if resources dictate, prioritizing to those in high-risk settings (e.g., healthcare professionals or high-risk settings based on vulnerable populations or critical infrastructure). • Encourage HCP to more strictly implement phone triage and telemedicine practices. • Continue COVID-19 testing of symptomatic persons; however, if testing capacity limited, prioritize testing of high-risk individuals.	• May reduce contact tracing if resources dictate, prioritizing to those in high-risk settings (e.g., healthcare professionals or high-risk settings based on vulnerable populations or critical infrastructure). • Encourage HCP to more strictly implement phone triage and telemedicine practices. • Continue COVID-19 testing of symptomatic persons; however, if testing capacity limited, prioritize testing of high-risk individuals.

Appendix A: Underlying medical conditions that may increase the risk of serious COVID-19 for individuals of any age.

- **Blood disorders** (e.g., sickle cell disease or on blood thinners)
- **Chronic kidney disease** as defined by your doctor. Patient has been told to avoid or reduce the dose of medications because kidney disease, or is under treatment for kidney disease, including receiving dialysis
- **Chronic liver disease** as defined by your doctor. (e.g., cirrhosis, chronic hepatitis) Patient has been told to avoid or reduce the dose of medications because liver disease or is under treatment for liver disease.
- **Compromised immune system (immunosuppression)** (e.g., seeing a doctor for cancer and treatment such as chemotherapy or radiation, received an organ or bone marrow transplant, taking high doses of corticosteroids or other immunosuppressant medications, HIV or AIDS)
- **Current or recent pregnancy** in the last two weeks
- **Endocrine disorders** (e.g., diabetes mellitus)
- **Metabolic disorders** (such as inherited metabolic disorders and mitochondrial disorders)
- **Heart disease** (such as congenital heart disease, congestive heart failure and coronary artery disease)
- **Lung disease** including asthma or chronic obstructive pulmonary disease (chronic bronchitis or emphysema) or other chronic conditions associated with impaired lung function or that require home oxygen
- **Neurological and neurologic and neurodevelopment conditions** [including disorders of the brain, spinal cord, peripheral nerve, and muscle such as cerebral palsy, epilepsy (seizure disorders), stroke, intellectual disability, moderate to severe developmental delay, muscular dystrophy, or spinal cord injury].