

# **Nonpharmaceutical Interventions (NPIs) in Cities**

## **Key messages:**

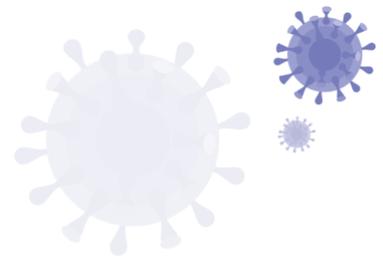
- Nonpharmaceutical interventions (NPIs) such as social distancing are essential tools to slow community spread of COVID-19 and save lives by avoiding a surge of seriously ill patients that overwhelms hospitals
- Multiple NPIs must be implemented at the right time, before rapid community transmission occurs
- Successful use of NPIs requires government leadership and effective communication as well as anticipation and mitigation of negative social and economic effects.

## **This guide will help you to:**

- Understand NPIs
- Use NPIs to slow spread of COVID-19 in your community
- Learn when and how to implement NPIs

## **Who will implement NPIs?**

The mayor and other government agencies with needed authority and resources will order and implement NPIs. The health sector will advise the mayor and municipal leadership team on how and when to apply NPIs. The mayor, health sector and municipal leadership will need to work closely together on a daily basis on NPI decisions, implementation, monitoring and public communication. A national pandemic plan, if one exists, may help identify roles of different sectors.

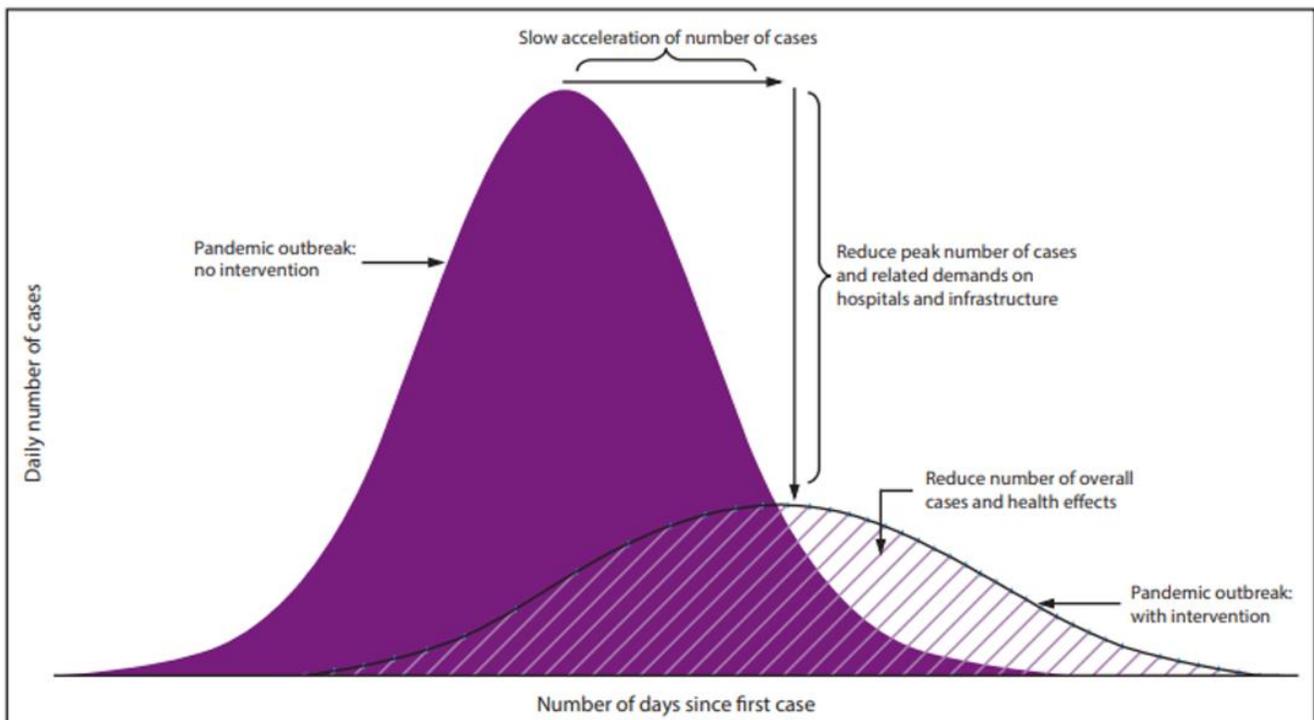


## What are nonpharmaceutical interventions?

Nonpharmaceutical interventions (NPIs) are public health measures that can help slow the spread of diseases such as COVID-19 in a community in the absence of safe and effective pharmacologic treatments and vaccines. NPIs include community measures to reduce close contacts among large numbers of people, such as school closures and cancellation of mass gatherings. NPIs also include individual level measures to reduce the chance of getting or transmitting COVID-19, such as hand hygiene, isolation of sick people and quarantine of their contacts.

## Why are NPIs needed? What are their benefits?

Effective implementation of NPIs can “flatten” the COVID-19 epidemic curve in a community (figure 1), by delaying and slowing the rapid increase in cases that would otherwise occur. This provides more time for city agencies and the health system to prepare and respond. With fewer people seriously ill at the same time, hospitals and doctors will be better able to care for the sick and prevent deaths, and other essential services can be maintained.



Source: Adapted from: CDC. Interim pre-pandemic planning guidance: community strategy for pandemic influenza mitigation in the United States—early, targeted, layered use of nonpharmaceutical interventions. Atlanta, GA: US Department of Health and Human Services, CDC; 2007. <https://stacks.cdc.gov/view/cdc/11425>.

Figure 1: Goals of community mitigation for pandemic influenza



## **What are keys to successful implementation of NPIs?**

Successful use of NPIs depends on timely implementation, support of political leaders, and support of affected communities, which can be achieved through effective communication and mitigation of economic and social impacts. To be effective and counter misinformation, communication should respond to community concerns, be led by health experts and other trusted sources, and recommend actions that people believe they can take to protect themselves and their communities. City leaders also need to anticipate, prevent and mitigate impacts, on individuals and communities, that result from stigma, social isolation and lost livelihoods. Combining effective communication with income allowances, food assistance and psychosocial support can help to reduce public opposition, lessen the need for enforcement, and avoid civil unrest.

## **Which NPIs may be necessary? When should they be used?**

No single NPI for COVID-19 will be effective on its own, and NPI responses should be adapted to local epidemiology and circumstances, which will change over time. NPIs involving community-level social distancing to reduce close contacts among people and prevent large gatherings are needed at the same time as measures for households and individuals to reduce the risk transmission. As shown in Figure 2, data on the change in new cases over time should inform the introduction of social distancing and “stacking” of multiple interventions. Personal, household and community environmental nonpharmaceutical interventions should be implemented as soon as possible. Planning and preparation for community social distancing NPIs should begin immediately, and the interventions should be implemented when community transmission is suspected, confirmed or anticipated to begin soon. Officials may ease off social distancing measures as the number of new cases declines, while anticipating the likelihood of additional waves, maintaining readiness and communicating with the public to prepare them for possible reinstatement of NPIs.

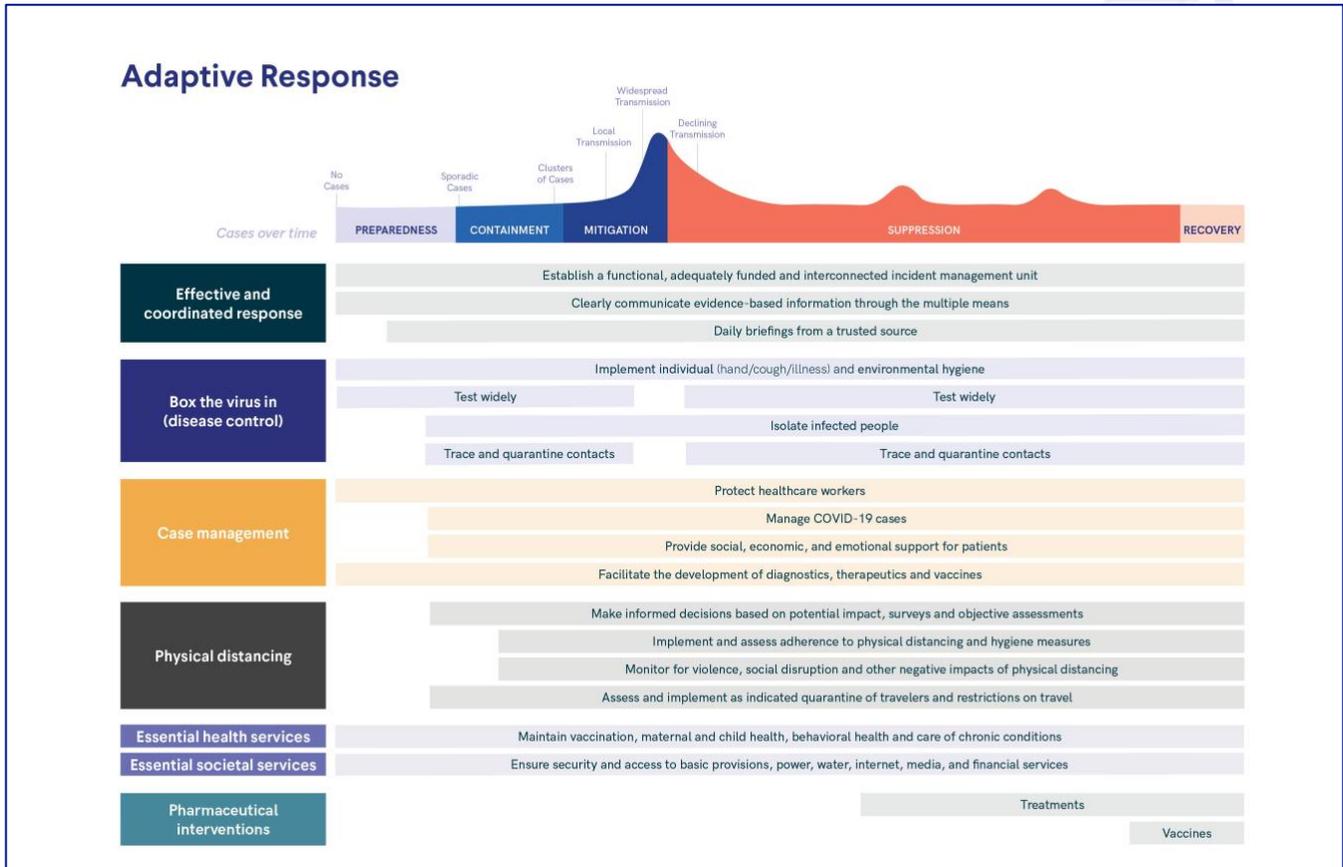


Figure 2: NPI Timing should adapt to local epidemiology

## Individual and household interventions complement and support community interventions

### Hygiene measures, distancing, separating the sick and cleaning

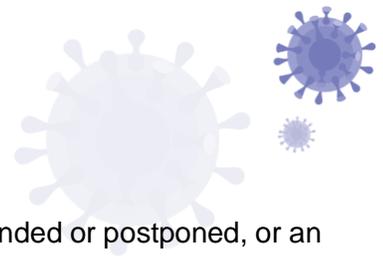
- Why:** These measures prevent COVID-19 transmission, which occurs mainly through droplets that infected people can release when they cough, sneeze or talk. The droplets can land in the noses or mouths of people nearby (within about 3 to 6 feet, or 1 to 2 meters). Hands contaminated by droplets from close contact or contaminated surfaces can also cause infection when people touch their faces, especially their eyes, noses or mouths. The risk of transmission can be greatly reduced through individual hand hygiene, cough and sneeze etiquette, social distancing and cleaning.



- **Actions: Public communication to promote the following individual and household measures.**
  - Wash hands or use hand sanitizer often—at least 10 times daily.
  - Cover coughs and sneezes with a tissue or sleeve (inside of elbow).
  - Avoid crowded settings when you go out.
  - Stay home when sick (self-isolate).
  - Self-quarantine (stay home) if a member of your household is sick with COVID-19 symptoms.
  - For cities where local transmission is not yet established: self-quarantine if you are instructed by health authorities, for example, because you traveled from a place with widespread local transmission.
  - Wearing a face mask in the community is not necessary if you are not ill.
  - If you are sick with COVID-19 symptoms, wearing a mask can help prevent transmission to others.
  - If applicable where mask supplies are constrained: It is important to make sure health care providers have enough face masks. Public messages should include, “You don’t need to wear a face mask unless you have a cough or fever.”
  - Greet people without touching.
  - Clean and sanitize high-touch surfaces at home, such as tables, doorknobs, light switches, countertops, handles, desks, phones, keyboards, toilets, faucets and sinks.
- **Keys to success:**
  - Broad public education, including simple guidance on identifying and caring for sick.
  - Ensuring supplies of soap, sanitizer and household cleaning supplies.
  - Policies and employer support for staying at home when sick.

## **Community level interventions: Social distancing**

Social distancing measures are designed to reduce or eliminate gatherings of groups of people in close proximity, which create the risk of one or a few infected individuals quickly transmitting COVID-19 to many other people, who then disperse and spread the infection in their homes and other community settings. Cities have many different settings and activities involving groups of people in close contact for which social distancing measures will be needed. For each type of setting, city officials should consider



if the activity that takes place there is a non-essential activity that can be suspended or postponed, or an essential activity that must continue with modification to minimize close contact and transmission risks.

Common community settings and activities, potential social distancing measures, and requirements for successful implementation are listed below. More resources on social distancing measures are available at <https://preventepidemics.org/coronavirus/resources/>.

## Large public gatherings and events

- **Examples:** Sporting events, movies, concerts, worship services, parades, fairs, and informal gatherings in parks, streets, plazas and other public spaces
- **Why:** Prevent transmission of COVID-19 among large numbers of people gathering for non-essential activities
- **Actions:**
  - Cancel or postpone scheduled events, convene virtually if feasible
  - Ban informal gatherings where distancing is not maintained
- **Keys to success:**
  - Political leadership, communication to build public support
  - Public safety sector enforcement, if needed
  - Consider use of broadcast or virtual media for important community functions, including religious services and town halls

## Workplaces, workers and businesses

- **Examples**
  - **Providing essential goods and services:** pharmacies, public markets, grocery stores, utilities (energy, communication, water, wastewater), building maintenance, public safety, solid waste management, transit, delivery of essential goods
  - **Providing non-essential goods and services:** bars, restaurants, clothing stores
- **Why:** Prevent transmission of COVID-19 among workers, customers and the general public
- **Actions**
  - Switch to remote work and meetings where possible
  - **For workplaces and businesses providing non-essential goods and services** that cannot function remotely, consider suspending operations



- **For workplaces and businesses providing essential goods and services and any workplaces that continue operations:**
  - Implement operational changes to minimize close contacts, for example: space out work stations; stagger shifts; change hours; encourage different neighborhoods or populations to come at designated times; deploy staff at entrances to limit numbers of customers and avoid crowding; deliver goods or pack for pickup to replace in-store shopping; defer non-essential repairs and home services
  - Ensure hand and cough hygiene for employees and customers, through signage and ready access to handwashing and sanitizer, including touch-free sanitizer dispensers at entrances
  - Instruct and encourage ill workers to stay home; consider temperature checks at workplace entrances
  - Clean and disinfect high-touch surfaces frequently; improve ventilation
- **Keys to success:**
  - Transparent and timely determination of which businesses are essential
  - Ensure employer and worker commitment through consultation and education, and government actions such as sick leave policy changes, regulatory adjustments to permit alternative service models, consistent enforcement
  - Encourage employers to promote employee commitment through education and paid sick leave
  - Keep the public informed on how social distancing requirements and recommendations are changing

## Schools and group childcare facilities

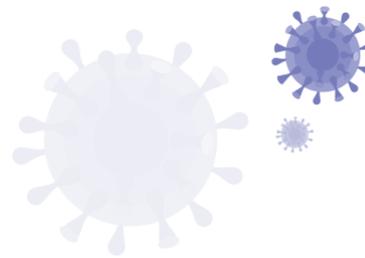
- **Why:** Prevent transmission of COVID-19 among children and to teachers, households and communities
- **Actions**
  - Consider school and group childcare closures communitywide, when there is evidence of community transmission
  - Prioritize maintaining childcare for health care and essential service employees, using additional space created by closure to provide social distancing



- Implement operational changes to minimize close contacts among children, such as desk spacing, schedule changes, suspending assemblies
- Ensure rigorous child and staff hand and cough hygiene, through signage and ready access to handwashing and sanitizer, including touch-free sanitizer dispensers at entrances
- Clean and disinfect high-touch surfaces frequently; improve ventilation
- Ensure that ill staff and children stay home. Consider temperature checks at entrances.
- **Keys to success:**
  - Ensure commitment of parents and employees of schools and childcare through consultation, transparent and timely decisions about closures, and education about the importance of children not congregating in other places while schools are closed
  - Provide food to children who normally receive meals at school
  - Provide alternatives for ongoing education, such as remote learning

## Public transportation

- **Why:** Prevent transmission of COVID-19 among passengers in crowded trains, buses and stations and among pedestrians and cyclists on crowded streets and sidewalks
- **Actions**
  - Maintain and prioritize transportation service for health care workers and other essential employees
  - Use school and workplace closures and staggered schedules to reduce crowding
  - Implement operational changes to prevent crowding and close contact: instruct passengers to maintain spacing and not board full busses and train cars, waive fares to avoid queues.
  - Increase cleaning and sanitizing of high-touch surfaces, increase ventilation
- **Keys to success:**
  - Public messaging to discourage non-essential transit and maintain distancing so that health care and other essential workers can travel, and transit personnel can operate without crowding
  - Consultation with transit workforce and continued monitoring of operational changes to maintain distancing, personal protective equipment, cleaning and sanitation
  - Ongoing worker education and paid sick leave



## Supporting households during social distancing measures

- **Why:** Distributing food, medication and necessary goods and services directly to or near residences helps prevent people transmitting or acquiring COVID-19 when they travel to or gather near markets or other public places.
- **Actions**
  - Arrange for delivery of goods directly to homes or apartment buildings
  - Prioritize seniors and other vulnerable residents for home delivery of goods and services
  - Alternatively, establish smaller distribution sites in or near residential communities; stagger pickup times to avoid people gathering
  - Establish call centers or online interfaces for accessing government benefits
  - Provide guidance to apartment buildings on cleaning and sanitizing high-touch surfaces in common areas, such as elevators
- **Keys to success:**
  - Substantial financial resources from government to support actions; financial assistance from partners and external donors in low-resource settings
  - Public safety sector to assist with community distribution and crowd prevention
  - Support essential businesses with guidance on safely providing deliveries and services
  - Promote mutual aid groups within apartment complexes and residential communities to pool orders, assist in pickup of essential goods, etc.
  - Consider and respond to the unique needs of vulnerable populations, including those in informal settlements

## SOURCE(S)

This document is adapted for use by the Partnership for Healthy Cities program from USAID & PAHO, *Leadership During a Pandemic: What Your Municipality Can Do, Tool 4: Nonpharmaceutical Interventions (NPIs): Actions to Limit the Spread of The Pandemic In Your Municipality*

### Additional sources:

World Health Organization. Responding to community spread of COVID-19.

<https://www.who.int/publications-detail/responding-to-community-spread-of-covid-19>