Coronavirus Disease 2019 (COVID-19)

MENU >



An Approach for Monitoring and Evaluating Community Mitigation Strategies for COVID-19

Updated July 31, 2020

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Overview

Framework: Community mitigation strategies to reduce or prevent COVID-19 transmission in the United States are described in CDC's framework for Implementation of Mitigation Strategies For Communities with Local COVID-19 Transmission.¹ The implementation framework describes the current goals, guiding principles, and mitigation strategies to reduce or prevent local COVID-19 transmission.

Approach: An Approach for Monitoring and Evaluating Community Mitigation Strategies for COVID-19 describes CDC's approach to evaluating community mitigation strategies and provides overarching considerations to support state, territorial, or local health departments, tribal health organizations, or others in monitoring and evaluating COVID-19 community mitigation strategies, including a logic model, suggested monitoring and evaluation questions, and potential data sources. The approach considers outcomes that minimize COVID-19 morbidity and associated mortality, effects of community mitigation strategies on long-standing health disparities and social determinants of health, and how communities thrive socially, emotionally, and economically.

Monitoring and Evaluation Findings Can Be Used To:

- Inform decision-making about strengthening, focusing, and relaxing mitigation strategies
- Understand individual and community factors that support or hinder mitigation behaviors
- Monitor disparities and social determinants of health and understand how different populations participate in and are affected by community mitigation strategies
- Effectively communicate information to the public based on culturally and linguistically appropriate strategies
- Ensure that the needs of disproportionately affected populations are met
- Strengthen community factors and outcomes related to epidemiology, healthcare capacity, social services, and public health capacity
- Disseminate lessons learned

Logic Model Overview

Logic Model: This logic model presents the U.S. Community Mitigation Strategy for COVID-19 at a high level and recognizes that many different stakeholders are working on specific elements of this strategy.

Roles: Governments, organizations, and individuals support and promote community mitigation strategies across multiple settings and sectors, while paying special attention to disproportionately affected populations.

Community mitigation strategies. Layering strategies across settings and sectors where people live, work, learn, and gather provides greater safeguards to reduce transmission. These strategies may be strengthened, focused, or relaxed based on local context. Through individual, community, and environmental actions, community mitigation strategies are implemented that:

- promote behaviors that prevent spread,
- maintain healthy environments,
- maintain healthy operations, and
- prepare for when someone gets sick;

And are designed to produce outcomes that:

- reduce exposure among individuals,
- reduce transmission,
- reduce burden on the health care system and enhance access to testing and contact tracing,
- with the long-term goals of minimizing COVID-19 morbidity and associated mortality.

Outcomes: Achieving these outcomes are essential to ensuring that communities thrive socially, emotionally, and economically. Working in collaboration, entities at federal, state and local levels can monitor and evaluate social, emotional, and economic indicators that may include: financial, food, and housing security; healthcare access and utilization (such as care seeking behaviors); physical and mental health; and community safety and violence with special consideration and attention to disproportionately affected populations.

Logic Model



Alternative Format

Monitoring & Evaluation Questions, Potential Indicators and Related Data Sources

Questions: The following overarching monitoring and evaluation questions can be adapted to meet community priorities and stakeholder needs.

Indicators and Data Sources: Indicators and data sources can be tailored to align with the context of the intended evaluation. All indicators and data sources used for monitoring and evaluation of community mitigation strategies should be high quality and should be collected ethically (e.g., with respect for persons, privacy, confidentiality) and scientifically (e.g., with regard to validity, reliability, and representativeness). When available, use data sources with multiple time-points available for comparison. Indicators may be analyzed overall or to look at specific subgroups (e.g., urban vs. rural, by racial/ethnic population, socioeconomic groups, etc.). The following table provides a select number of example indicators and potential data sources and is not an exhaustive list. Consider data sources that best meet your monitoring and evaluation needs and refer to CDC's COVID-19 Secondary Data and Statistics for publicly available data sources. CDC does not endorse any non-CDC data sources.

| Potential Evaluation Question | Example Indicators | Potential Data Sources |
|--|--|--|
| Which community mitigation strategies do jurisdictions implement, and how and when are they implemented? | Description and timing of Stay- at-Home/Shelter-in-Place orders Description and timing of Mass Gatherings orders Number/proportion of labor force that reports working remotely Number of Community- and Faith-Based Organizations or local leaders who are engaged to implement COVID-19 community-level mitigation strategies | State/Local Policy Records, Executive Orders, and Legislative Actions (e.g., Stay- at-Home or Shelter-in-Place orders, school dismissals, Mass Gathering orders, travel orders, non-essential business closures, restrictions on non- urgent medical procedures) Survey Data on Individual and Organizational Behaviors (consider local and national surveys) |
| 2. To what extent do individuals and organizations practice community mitigation strategies? | Percent change in mobility (e.g., time spent at home, distance traveled, and by destination such as transit stations, retail/ recreational, and worksites)** Number/proportion of population that report using masks outside the home in the last week Number/proportion of population who adhere to guidance in Stay-at-Home orders, Shelter-in-Place orders, and phased re-openings Number/proportion of population who report deciding not to travel or changing travel plans due to COVID-19 Percentage change in consumer spending across business industries** | Mobility Data* Survey Data on Individual and Organizational Behaviors (consider local and national surveys) Organizational policy records (e.g., school and childcare policies, business policies, shared & aggregate housing policies) Consumer Spending Data |

| 3. What factors do communities use to assess readiness to strengthen, focus, or relax their mitigation strategies over time? | Total and incident COVID-19 tests/cases/hospitalizations/deaths Percentage of respiratory specimens testing positive for SARS-CoV-2 Number/proportion of public spaces, workplaces, businesses, schools or homes practicing appropriate cleaning and disinfection practices | COVID-19 Epidemiology, Community Characteristics, Healthcare Capacity, and Public Health Capacity Indicators*** Survey Data on Individual and Organizational Behaviors (consider local and national surveys) State/Local Policy Records, Executive Orders, and Legislative Actions |
|--|---|--|
| 4. What is the relationship between implementation of mitigation strategies and minimizing COVID-19 morbidity and associated mortality? | Total and incident COVID-19 tests/cases/deaths Percentage of respiratory specimens testing positive for SARS-CoV-2 Description and timing of Stay- at-Home/Shelter-in-Place orders Description and timing of | COVID-19 Epidemiology, Community Characteristics, Healthcare Capacity, and Public Health Capacity Indicators*** State/Local Policy Records, Executive Orders, and Legislative Actions |

Mass Gatherings orders

- 5. What, if any, impact have community mitigation strategies had on health disparities or social determinants of health?
- Trends in excess cases, hospitalization, and mortality among disproportionately affected populations
- Number/proportion of workers filing unemployment claims
- Number/proportion of eligible recipients enrolled in Women, Infant, and Children (WIC) /Supplemental Nutrition Assistance Program (SNAP) nutrition programs
- Number of calls to local/state hotline requesting housing assistance
- Vaccination coverage (e.g., universally recommended vaccines among young children, adolescents)
- Number/proportion of domestic violence calls to police
- Number/proportion of people who feel stress related to COVID-19 has had a negative impact on their mental health

- COVID-19 Epidemiology, Community Characteristics, Healthcare Capacity, and Public Health Capacity Indicators***
- State/local administrative records (e.g., unemployment claims, WIC/SNAP enrollment, foreclosures or evictions, state or local immunization records, 911 data from Emergency Medical Services)
- Survey Data on Individual Attitudes, Behaviors, and Quality of Life (consider local and national surveys)

*Mobility data sources anonymously geolocate personal cellular devices to understand individual movement in communities and space between individuals.

**Methods to calculate percent change will vary based on data availability. If available, consider comparing to a baseline value. Assess what is most feasible in your state/local jurisdiction

***Data sources related to COVID-19 Epidemiology, Community Characteristics, Healthcare Capacity, and Public Healthcare Capacity should refer to existing indicators: CDC COVID Data Tracker or https://www.cdc.gov/coronavirus/2019-ncov/php/open-america/surveillance-data-analytics.html as well those being monitoring in your state/local jurisdiction.

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Content source: National Center for Immunization and Respiratory Diseases (NCIRD), Division of Viral Diseases