Best Practices of States and Counties in Addressing the COVID19 Pandemic

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10 Essential Public Health Services
Our Universe

Percent of U.S. population served by LHDs

- Small (<50,000): 10% for Percent of all LHDs, 62% for Percent of population served by LHDs
- Medium (50,000–499,999): 33% for Percent of all LHDs, 39% for Percent of population served by LHDs
- Large (500,000+): 6% for Percent of all LHDs, 51% for Percent of population served by LHDs

Source: National Association of County and City Health Officials (NACCHO) 2016 National Profile of Local Health Departments
NACCHO is comprised of nearly 3,000 local health departments across the United States with a vision of optimal health, equity, and security for all people in all communities.

Our mission is to improve the health of communities by strengthening and advocating for local health departments.
Death Toll of past Pandemics

200M
Black Death (Bubonic Plague)
1347-1351

The plague originated in rats and spread to humans via infected fleas.

56M
Smallpox
1520

The outbreak wiped out 30-50% of Europe's population. It took more than 200 years for the continent's population to recover.

Smallpox killed an estimated 90% of Native Americans. In Europe during the 1800s, an estimated 400,000 people were being killed by smallpox annually. The first ever vaccine was created to ward off smallpox.

40-50M
Spanish Flu
1918-1919

30-50M
Plague of Justinian
541-542

The death toll of this plague is still under debate as new evidence is uncovered, but many think it may have helped hasten the fall of the Roman Empire.
7 Human Coronaviruses

- First identified in the mid-1960s.
- 229E (alpha coronavirus)
- NL63 (alpha coronavirus)
- OC43 (beta coronavirus)
- HKU1 (beta coronavirus)
- MERS-CoV (Middle East Respiratory Syndrome, or MERS)
- SARS-CoV (Severe Acute Respiratory Syndrome, or SARS)
- SARS-CoV-2 (novel coronavirus disease 2019, or COVID-19)
Weekly deaths per 100,000 from 1918 pandemic above the expected rate

Duration of social distancing measures

Deaths per 100,000 after 24 weeks of pandemic

▲ Cities that ordered social distancing measures later and for shorter periods tended to have spikes in deaths and higher overall death rates.

▼ Cities that ordered social distancing measures sooner and for longer periods usually slowed infections and lowered overall death rates.

Emergency Funding for Coronavirus

Advocacy by NACCHO and Public Health Partners

• **$950 million** for localities and states to carry out surveillance, epidemiology, laboratory capacity, infection control, mitigation, communications, and other preparedness and response activities.
  ➢ The bill also reimburses costs incurred since Jan. 20.
  ➢ So far, **$560 million** has been provided for state health departments and 5 cities/Cherokee Tribe.
  ➢ Local communities are dependent on state health departments to send enough funds down to the local level to address the pandemic.

• **$826 million** for the National Institute of Allergy and Infectious Diseases to help develop vaccines, cures and tests & **$300 million** to help buy vaccines and treatments once they're approved.
Emergency Funding for Coronavirus

- **$45 billion** for Federal Emergency Management Administration for state, local, tribal, and territorial governments
- **$1.5 billion** for CDC to support federal, state, and local response
- **$500 million** for data modernization at CDC
- **$90 million** for Ryan White HIV/AIDS program
- **$250 million** for Hospital Preparedness Program
The Public Health Workforce Matters

- Local and state health departments have lost nearly a quarter (23%) of their workforce since 2008, shedding over 50,000 jobs across the country.

- 55% of local public health professionals are over age 45, and almost a quarter of health department staff are eligible for retirement.

- Between those who plan to retire or pursue jobs in the private sector, projections suggest that nearly half of the local and state health department workforce might leave in coming years.
Coronavirus Resources for Local Health

Visit NACCHO'S COVID-19 Response Page

Last updated on June 22, 2020, 4:19 PM EST

Local health departments are playing a critical role in testing, tracing, and tracking the spread of COVID-19; providing up-to-date health information and education to communities; collaborating with mental and behavioral health organizations to reduce anxiety and promote well-being in these uncertain times; and offering resources to help battle stigma and discrimination.
Exposure Notification (EN) System

- **Exposure Notification API:** Exchanges non-identifiable Bluetooth keys and proximity/duration info

  - **Diagnosis Key Server:**
    - Holds positive diagnosis Bluetooth keys, which are used to help trigger exposure notifications
  - **Test Verification System:**
    - Allows for verification of positive tests by app, e.g., using PINS

Traditional Contact Tracing (CT)

- **PHA app**
  - **Public Health Authority App:** Main conduit between EN API & CT system, and can link to websites

- **Contact Tracing CRM**
  - CT tools to manage cases
  - CT staff and admin

  - CRM for contact tracing
Marion County, Indiana

Coronavirus Data Hub
Maps, data, and dashboards with local data about COVID-19.

The Polis Center (polis.iupui.edu) is working diligently to develop information during the COVID-19 public health crisis. Our geoinformatics, health information, maps, dashboards, and datasets to help you. Check back often as we update the.

QUICK LINKS
Dashboards
County-Level Cases and Risks
Tracking Indiana COVID-19 Cases
Tracking National COVID-19 Cases

Feedback
Any feedback, including items that you would like to see added to this dashboard, can be sent to MCPHP@iupui.edu.

Instructions to Use Graphs
To see more information about each point or bar on a chart, hover your mouse over the element.

INFORMATIONDisplayed on each graph can be changed using the legend item. To remove an item, click the legend item once. To isolate an item, double-click the item in the legend. To change the graph back to the original, double-click on a legend item.

COVID-19 Cases Worldwide
For more information on hospitalizations in Marion County and Indiana, please see Regenstrief Institute's COVID-19 Dashboard.

676
Total Deaths in Marion County
Current cases as of 2020-06-23 11:59 PM.

Marion County Risk Factors
For information about neighborhood socioeconomic risk factors, food and meal resources, and county-level specific health risk factors for Marion County, please see the Polis Center's Coronavirus Data Hub.
Harris County, TX

On June 14th, Harris County announced a new color-coded system to level of risk from COVID-19 and actions we strongly urge residents take to economy recovers in a way that is sustainable over the long term.

Current Level: Level 1: Stay Home

What this means:
Level one signifies a severe and uncontrolled level of COVID-19 in Harris County and that testing and contact tracing capacity is strained or exceeding capacity. We must make these drastic changes to protect the health and safety of our community.
HAGGERTY AND BRAUND: HEALTH DEPARTMENT RESPONSES

COVID-19: Isolation vs. Quarantine

**Isolation (case)**
- Separates sick people with a contagious disease from people who are not sick
- 10 days since symptoms first appeared AND 72 hours passed since resolution of fever AND improvement in respiratory symptoms

**Quarantine (close contacts)**
- Separates and restricts the movement of people who were exposed to a contagious disease to see if they become sick
- 15 or more minutes of close contact (within ≤ 6 feet); 48 hours prior to case symptom onset
- 14 days

Conversations About COVID-19

Allegheny County, PA
Coronavirus Disease 2019 (COVID-19)
Number of New Cases per 100,000 in the past 2 weeks, by U.S. County, 09 June 2020 - 23 June 2020

Incidence
- Low
- Moderate
- Moderately high
- High
- 1-5 cases in the past 2 weeks
- 0 cases in the past 2 weeks
- No reported cases
• Recent MMWR on the acceleration phase of COVID-19 in the U.S.

• Various factors contributed to accelerated spread during February–March 2020, including:
  • Continued travel-associated importations,
  • Large gatherings,
  • Introductions into high-risk workplaces and densely populated areas,
  • Cryptic transmission resulting from limited testing and asymptomatic and presymptomatic spread
After choir practice with one symptomatic person, 87% of group developed COVID-19

- Index case
- 32 confirmed and 20 probable cases
- Unaffected person

COVID-19 spreads easily
- Avoid groups
- Stay at least 6 feet apart
- Wear face coverings

CDC.GOV bit.ly/MMWR51220
COVID-19 SPREADS EASILY IN GROUP GATHERINGS

PRIMARY CASES

2 symptomatic people attended church events March 6-8, later tested positive for COVID-19

CHURCH CASES

At least 35 of 92 attendees acquired COVID-19, 3 deaths

COMMUNITY

From contact with church cases, at least 26 additional cases were confirmed, 1 death

CDC.GOV

bit.ly/MMWR051920
Guidelines on Symptoms

Symptoms may appear 2-14 days after exposure to the virus.
People with these symptoms or combinations of symptoms may have COVID-19:

• Cough
• Shortness of breath or difficulty breathing

Or at least two of these symptoms:

• Fever
• Chills
• Repeated shaking with chills
• Muscle pain
• Headache
• Sore throat
• Diarrhea
• New loss of taste or smell
Community-Based Testing Sites and revised CDC Guidelines

PRIORITY FOR COVID-19 TESTING
(Nucleic Acid or Antigen)

High Priority

- Hospitalized patients
- Healthcare facility workers, workers in congregate living settings, and first responders with symptoms
- Residents in long-term care facilities or other congregate living settings, including prisons and shelters, with symptoms
- Persons identified through public health cluster and selected contact investigations

Priority

- Persons with symptoms of potential COVID-19 infection, including: fever, cough, shortness of breath, chills, muscle pain, new loss of taste or smell, vomiting or diarrhea and/or sore throat
- Persons without symptoms who are prioritized by health departments or clinicians, for any reason, including but not limited to: public health monitoring, sentinel surveillance, or screening of other asymptomatic individuals according to state and local plans.

Multisystem Inflammatory Syndrome in Children

• PMIS is like other serious inflammatory conditions such as Kawasaki disease and toxic shock syndrome. Children with PMIS can have problems with their heart and other organs and need to stay in a hospital to receive support in an intensive care unit.

• PMIS is a rare condition that is life-threatening,

• **What are the signs or symptoms of PMIS?**

• Most children have fever (temperature of 100.4 degrees F or 38.0 degrees C or greater) lasting several days, along with other symptoms.
Multisystem Inflammatory Syndrome in Children

- Irritability or sluggishness
- Abdominal pain without another explanation
- Diarrhea
- Vomiting
- Rash
- Conjunctivitis, or red or pink eyes
- Enlarged lymph node ("gland") on one side of the neck
- Red, cracked lips or red tongue that looks like a strawberry
- Swollen hands and feet, which might also be red
Current status of downward trajectories in case reports by state, June 7, 2020
1st Wave: Immediate mortality and morbidity of COVID-19

2nd Wave: Impact of resource restriction on urgent non-COVID conditions

3rd Wave: Impact of interrupted care on chronic conditions

1st Wave Tail: Post-ICU recovery

4th Wave: Psychic trauma, Mental illness, Economic injury, Burnout