

AGENCY FOR HEALTHCARE RESEARCH AND QUALITY

AHRQ

The Impact of COVID-19 on Health Care Systems

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May 14, 2020

Disclaimer/Disclosures

- This presentation was prepared by the speaker in his personal capacity. The opinions expressed in this presentation are the author's own and do not reflect the views of the Agency for Healthcare Research and Quality, the Department of Health and Human Services, or the United States government.

- I have no affiliations or financial involvement that conflicts with the material presented

Objectives and Description

1. Describe epidemiology of the COVID-19 pandemic
2. Discuss the effect of the COVID-19 pandemic on health care professionals and health care systems
3. Consider how the COVID-19 pandemic will lead to new models for the delivery of health care in the future

This presentation will offer a high level view of how the COVID-19 pandemic evolved during 2020. It will review how it has affected every aspect of health care including hospitals, nursing homes, emergency medical services, ambulatory care practices, dialysis units and cancer centers. Finally, we will consider how COVID-19 will shape the future of care delivery.

AHRQ's Mission

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To produce evidence to make health care safer, higher quality, more accessible, equitable and affordable

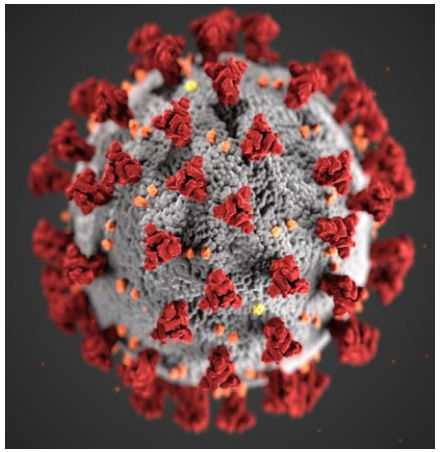
To work with HHS and other partners to make sure that the evidence is understood and used

AHRQ's Role: The Why, What, and How

Describe epidemiology of the COVID-19 pandemic

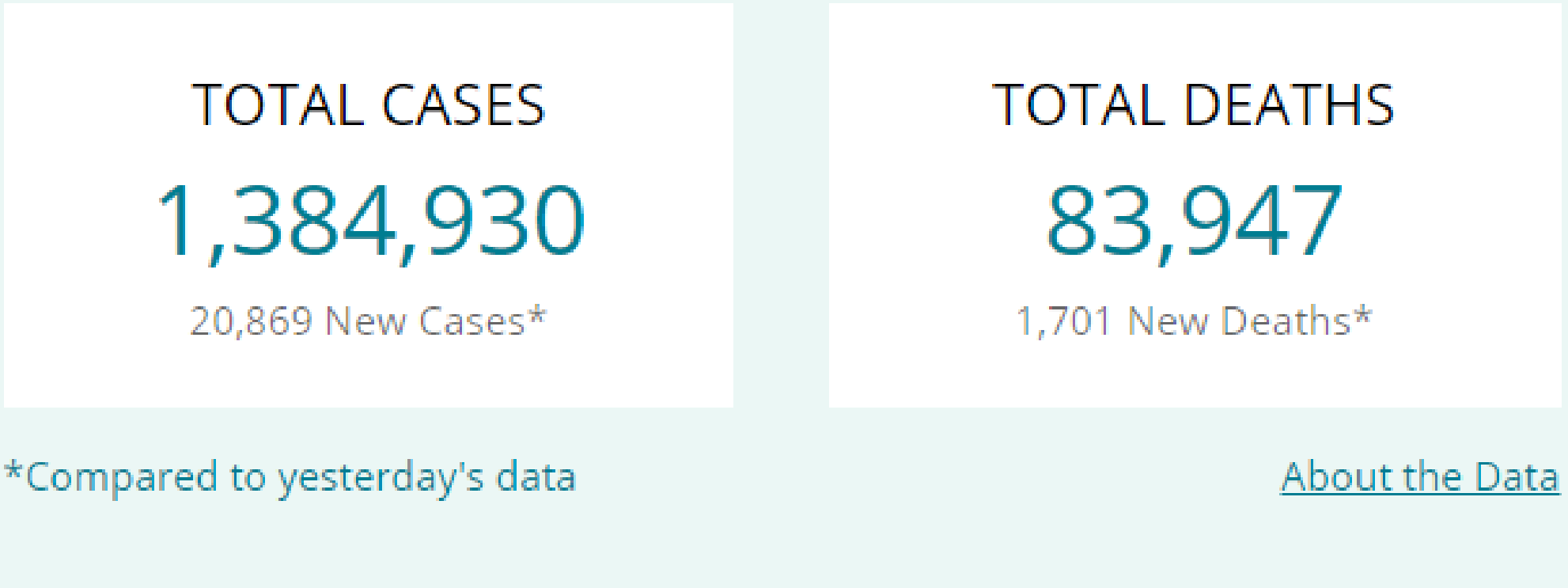
The Coronavirus/COVID-19 pandemic

- A novel coronavirus (SARS-CoV-2) is causing a pandemic of respiratory disease spreading from person to person.
- The disease has been named “coronavirus disease 2019” (abbreviated “COVID-19”). This situation poses a serious public health risk.
- COVID-19 can cause mild to severe illness; most severe illness occurs in adults 65 years and older and people of any age with serious underlying medical problems.



https://www.cdc.gov/coronavirus/2019-ncov/cases-updates/summary.html

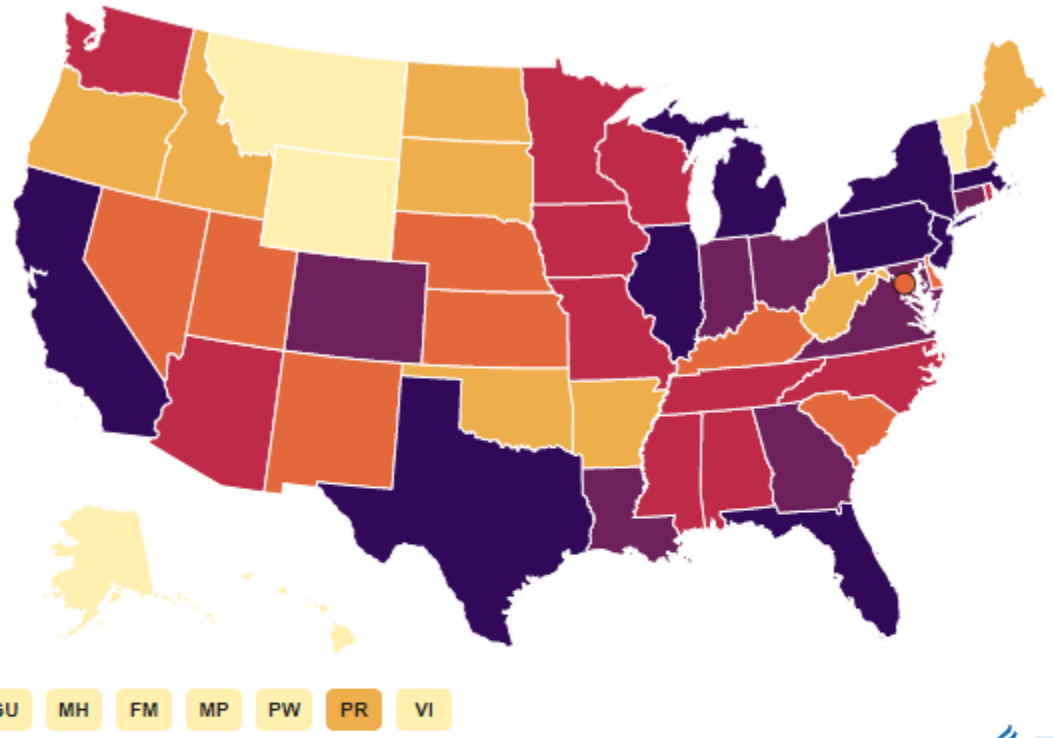
Cases and Deaths - May 14, 2020



https://www.cdc.gov/coronavirus/2019-ncov/cases-updates/cases-in-us.html

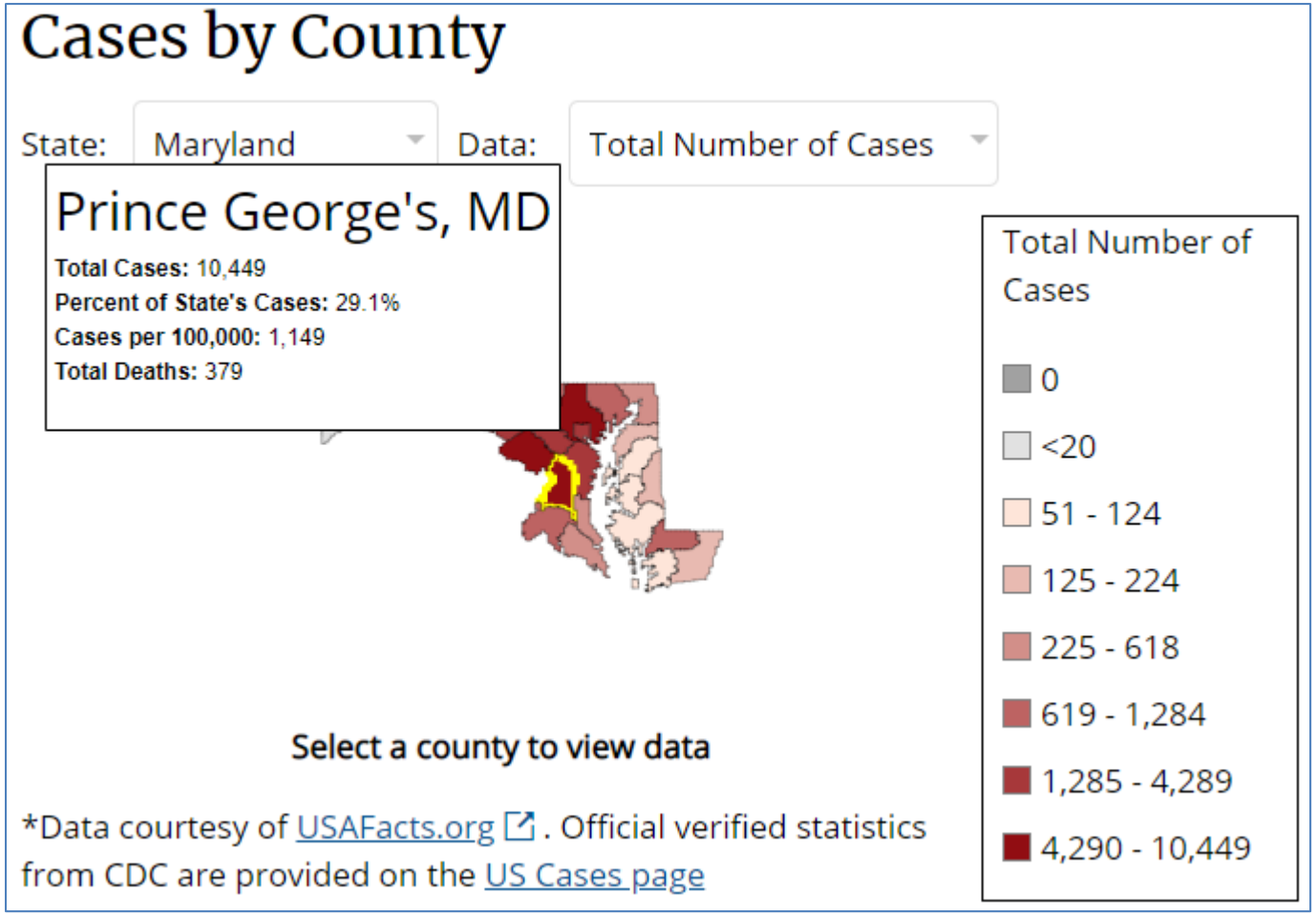
Cases and Deaths by State

Jurisdiction	Cases
New York	338,617
New Jersey	141,560
Illinois	84,698
Massachusetts	80,497
California	71,141
Pennsylvania	58,698
Michigan	48,391
Texas	42,403
Florida	42,402
Maryland	35,903



Jurisdiction	Deaths
New York	27,448
New Jersey	9,702
Massachusetts	5,315
Michigan	4,714
Pennsylvania	3,943
Illinois	3,792
Connecticut	3,125
California	2,934
Louisiana	2,381
Maryland	1,866

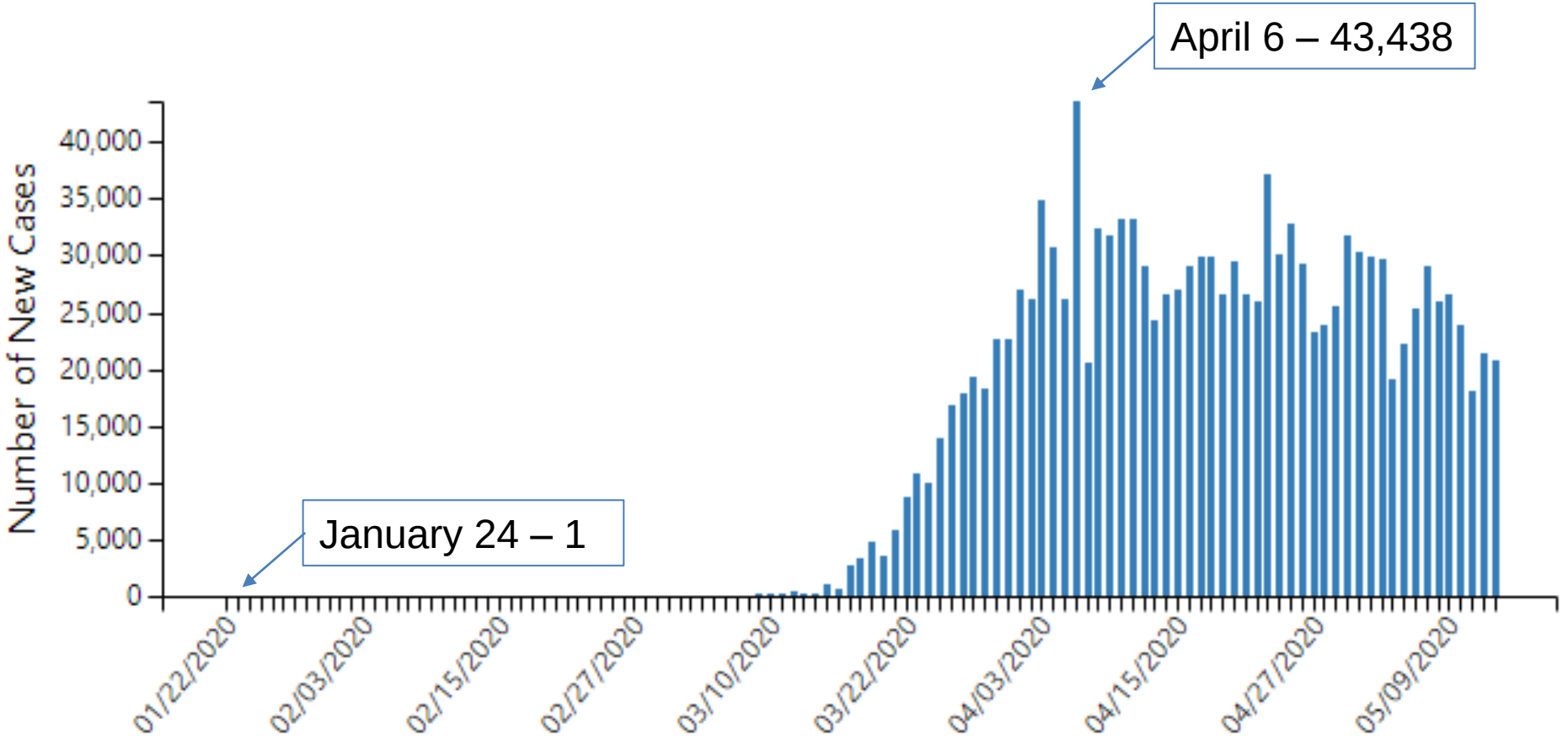
Cases by County



https://www.cdc.gov/coronavirus/2019-ncov/cases-updates/county-map.html

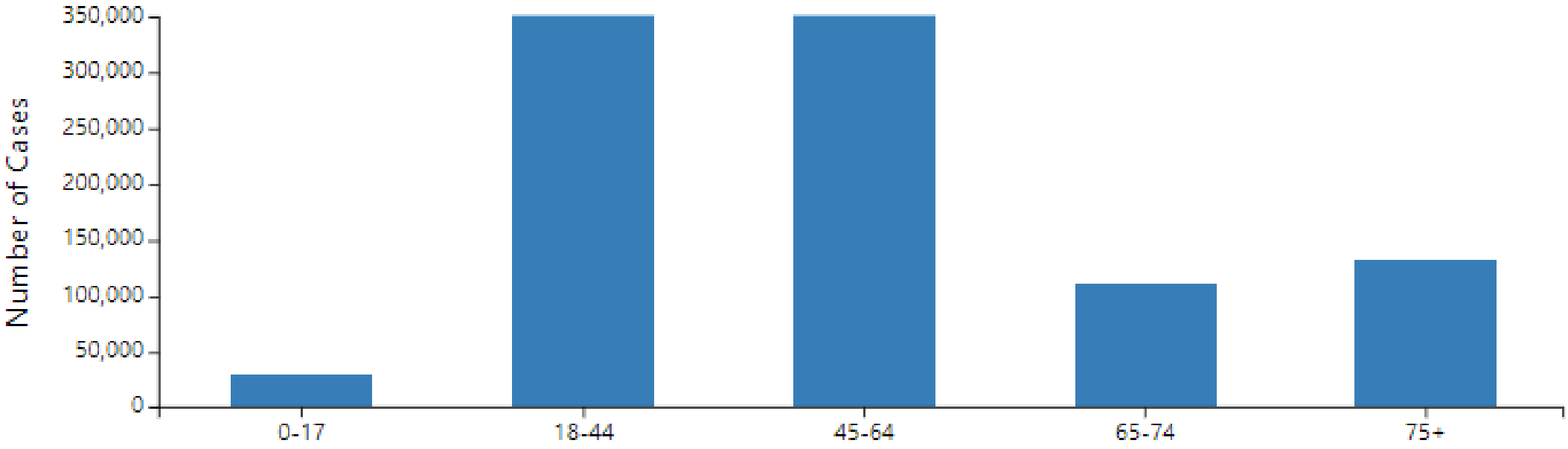
Epidemic Curve

New Cases by Day

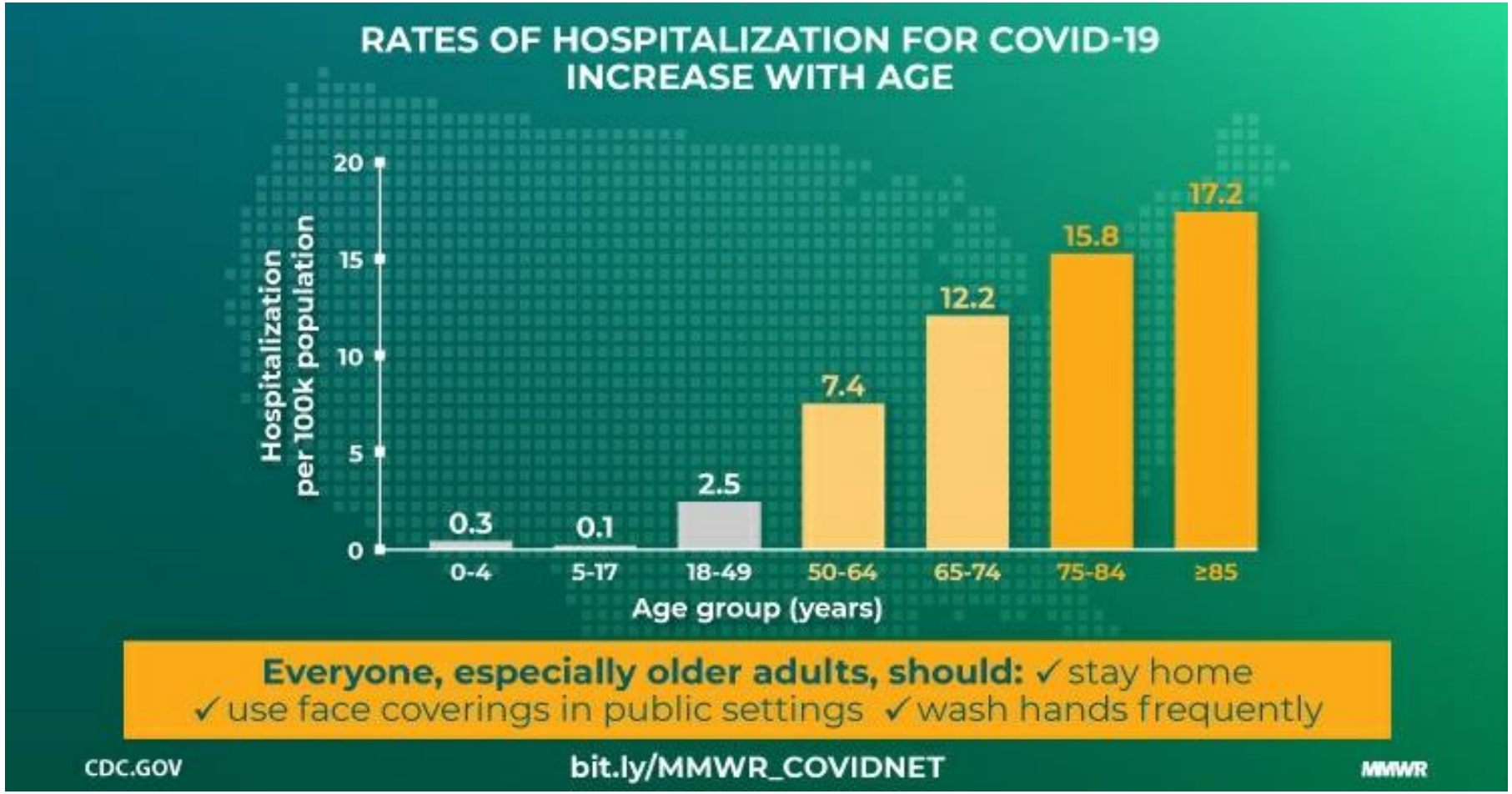


Cases by Age

The following chart shows the age of people with COVID-19. Data were collected from 1,097,519 people, and age was available for 1,035,902 (94.4%) people.

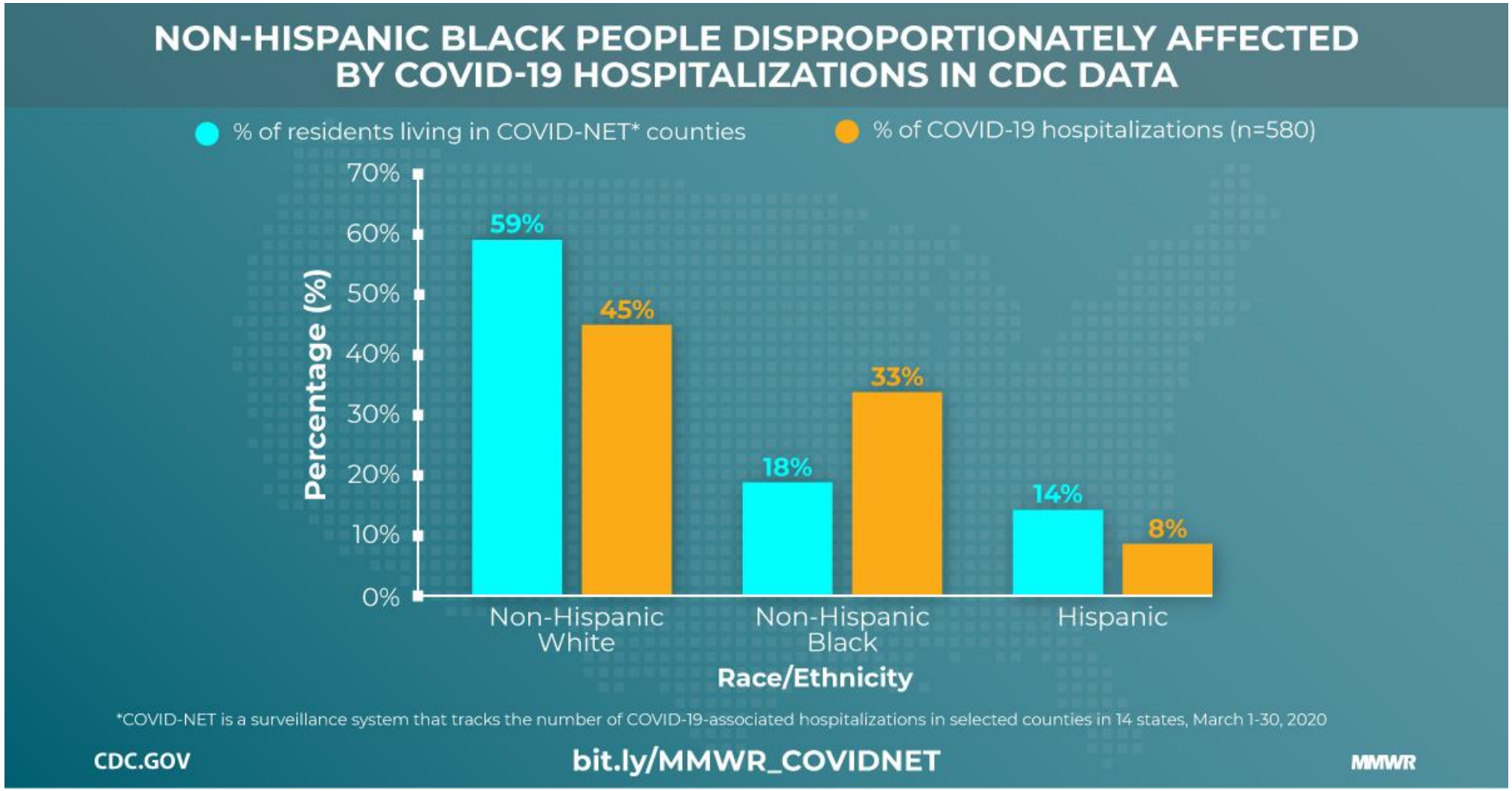


Hospitalization Rates by Age



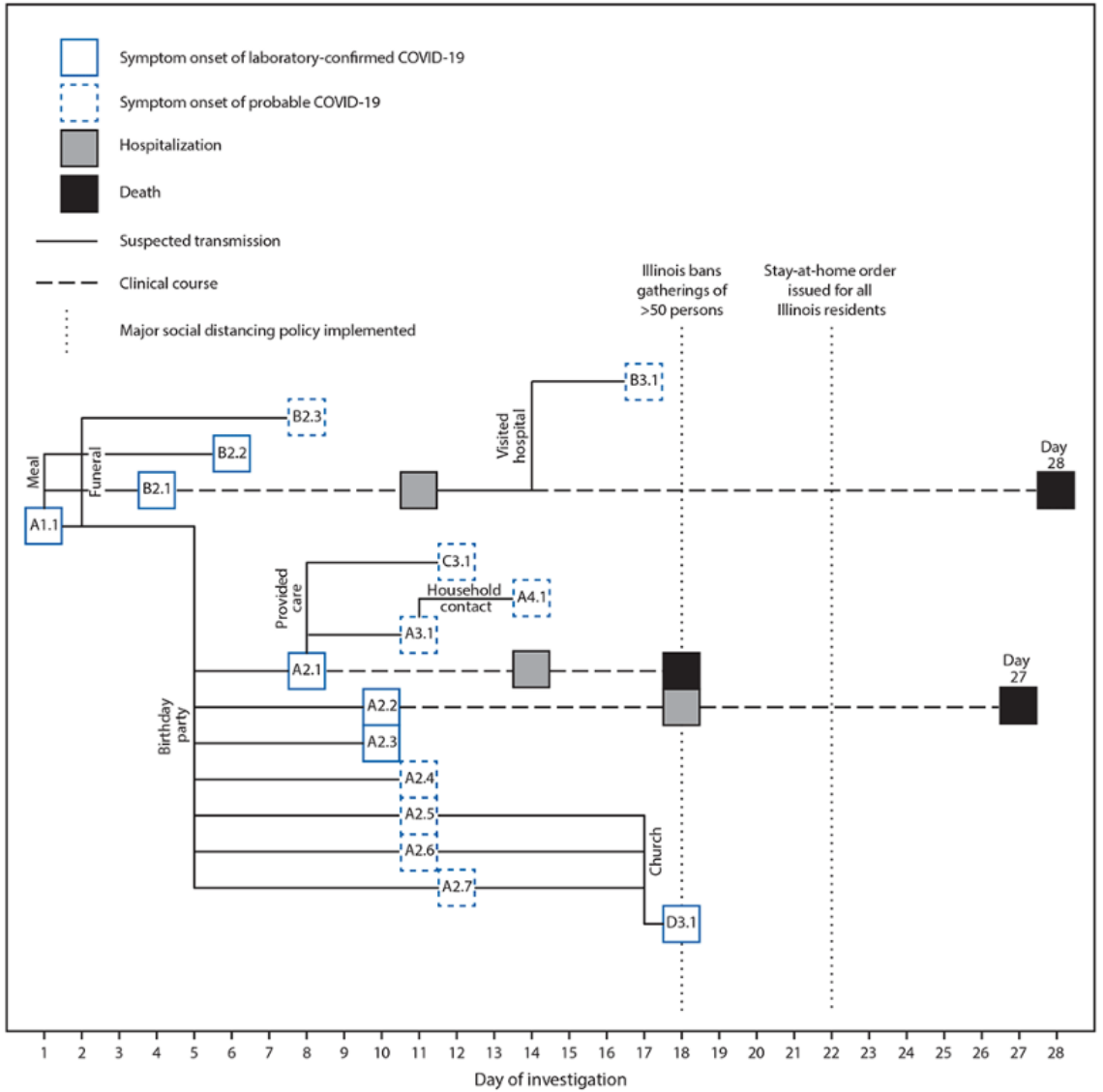
Garg S, Kim L, Whitaker M, et al. Hospitalization Rates and Characteristics of Patients Hospitalized with Laboratory-Confirmed Coronavirus Disease 2019 — COVID-NET, 14 States, March 1–30, 2020. MMWR Morb Mortal Wkly Rep 2020;69:458–464. DOI: http://dx.doi.org/10.15585/mmwr.mm6915e3

Racial and Ethnic Disparities



A cluster of COVID-19 transmission at two family gatherings

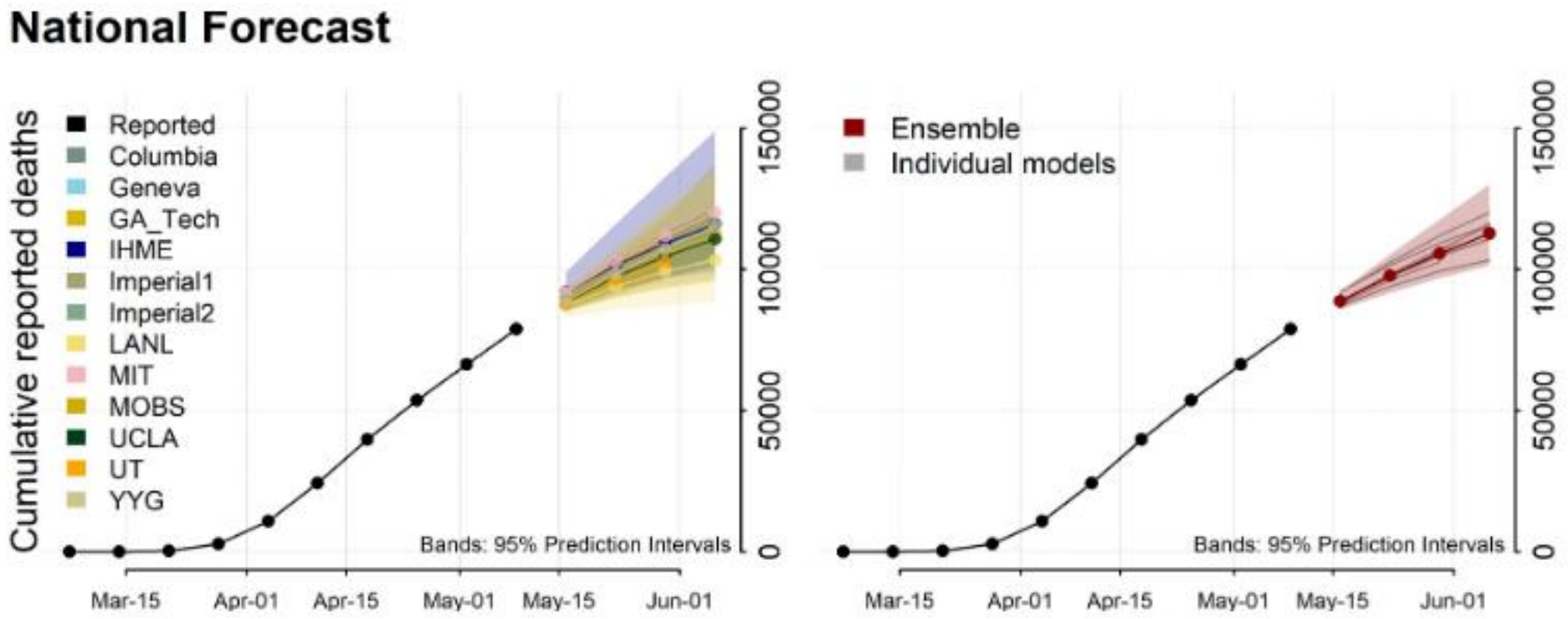
- One index patient (A1.1) attending two events triggered a chain of transmission that included 15 cases and 3 deaths



Ghinai I, Woods S, Ritger KA, et al. Community Transmission of SARS-CoV-2 at Two Family Gatherings — Chicago, Illinois, February–March 2020. MMWR Morb Mortal Wkly Rep 2020;69:446–450. DOI: http://dx.doi.org/10.15585/mmwr.mm6915e1

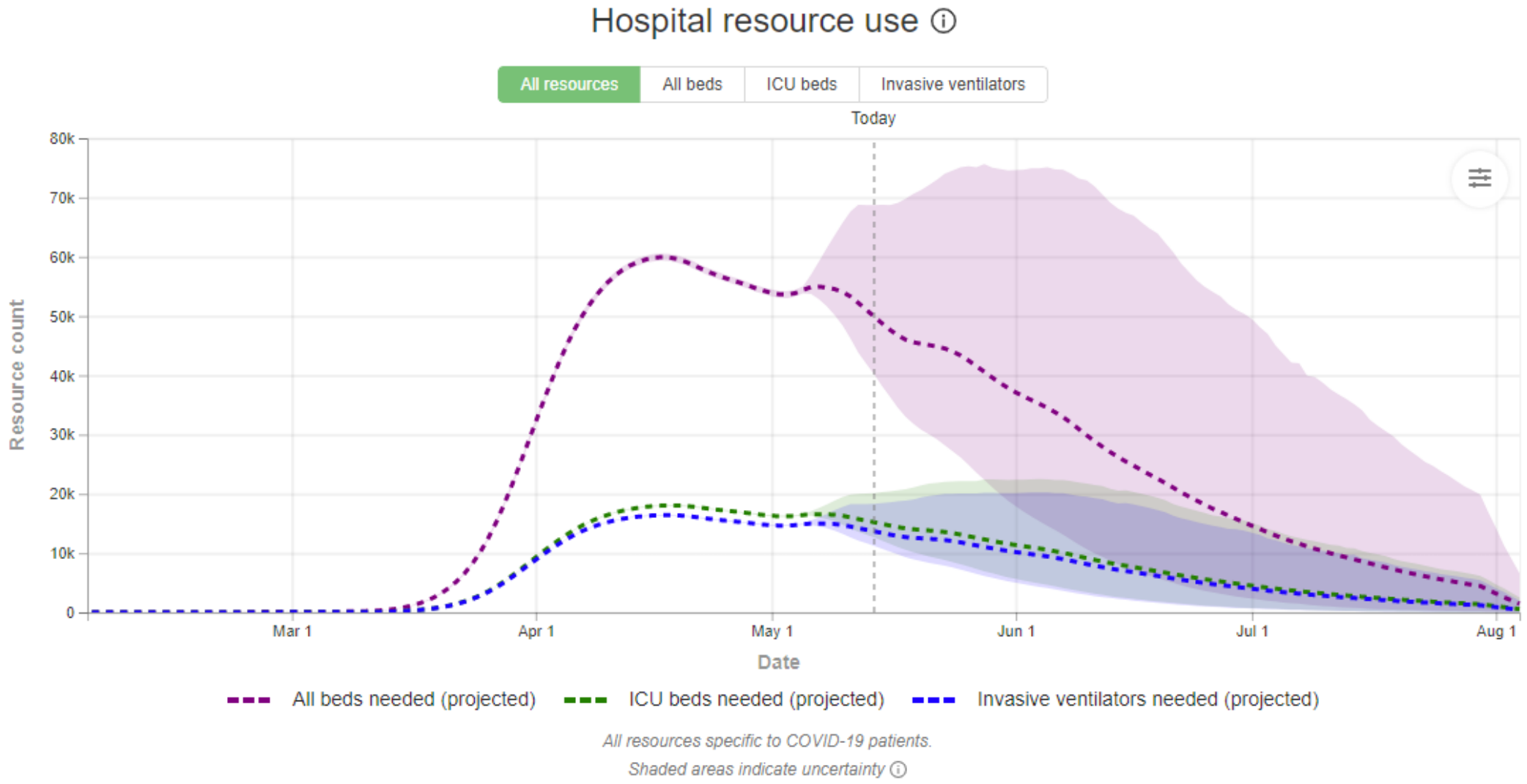
Forecasting the Impact of COVID-19

National Forecast



https://www.cdc.gov/coronavirus/2019-ncov/covid-data/forecasting-us.html

Modeling Resource Use



https://covid19.healthdata.org/united-states-of-america

Surge Capacity Tools

COVID tools

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Surge Capacity Bed Management Tools

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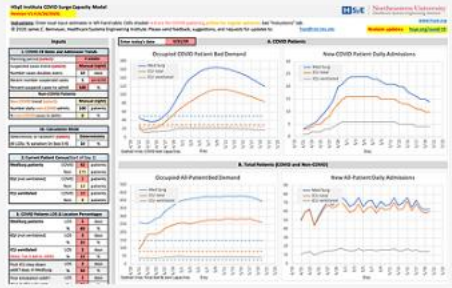
Tool	Description	Download
Version 1.4 General Surge Capacity Model *Last Updated: April 26, 2020*	• Predict 1-30 day ahead MedSurge, ICU, staffing, PPE & ventilator demand. • Excel-based (no macros) • Easiest to use • Deterministic and random options • Accuracy tracker	Download Tool Register for Updates Demo video 1 Demo video 2 Tool Summary Paper
Version 2 Advanced Model	• Requires Excel macros • Expanded functionality (admission curve fitting, forecasting) • Full random simulation capability • Autocalibration	Coming Soon - Please check back: Register for Updates
CDC´s PPE tool	• Estimates a hospital´s consumption rate PPE by type • Plots number days remaining stock	Tool Link

Tool Accuracy

To help us and you study accuracy, two options:
(1) use the Accuracy Tracker worksheet in the tool,
or (2) email us your completed file.

News Story



Navigation

- Capacity Management
- Epidemic Models
- Long-Term Decision Support
- Other Models and Data Sets

Discuss the effect of the COVID-19 pandemic on health care professionals and health care systems

CDC Guidance for Healthcare Settings

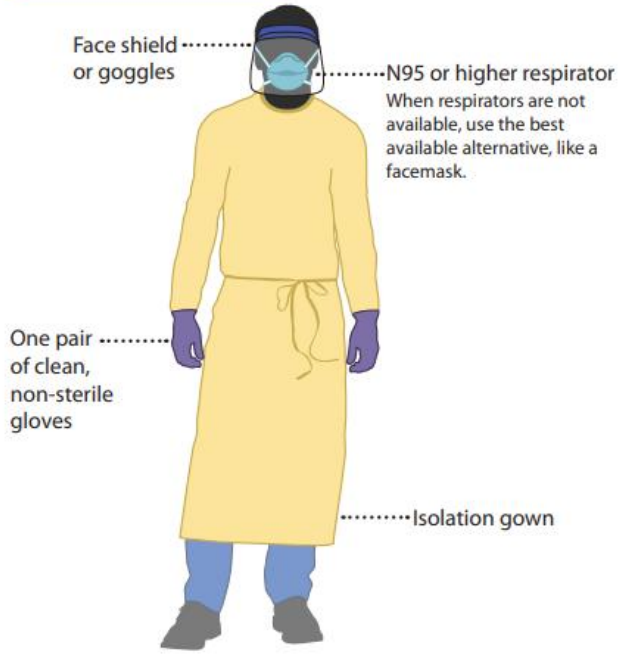
- **Reduce facility risk.** Cancel elective procedures, use telemedicine when possible, limit points of entry and manage visitors, screen everyone entering the facility for COVID-19 symptoms, implement source control for everyone entering the facility, regardless of symptoms.
- **Isolate symptomatic patients as soon as possible.** Set up separate, well-ventilated triage areas, place patients with suspected or confirmed COVID-19 in private rooms with the door closed and with private bathrooms (as possible). Reserve AIIRs for patients with COVID-19 undergoing aerosol generating procedures and for care of patients with pathogens transmitted by the airborne route (e.g., tuberculosis, measles, varicella).
- **Protect healthcare personnel.** Emphasize hand hygiene, install barriers to limit contact with patients at triage, cohort patients with COVID-19, limit the numbers of staff providing their care, prioritize respirators for aerosol generating procedures.

https://www.cdc.gov/coronavirus/2019-ncov/hcp/infection-control-recommendations.html

Protecting Health Care Personnel

COVID-19 Personal Protective Equipment (PPE) for Healthcare Personnel

Preferred PPE – Use N95 or Higher Respirator



Acceptable Alternative PPE – Use Facemask

CDC

cdc.gov/COVID19

What healthcare personnel should know about caring for patients with confirmed or possible coronavirus disease 2019 (COVID-19)

Healthcare personnel (HCP) are on the front lines of caring for patients with confirmed or possible infection with coronavirus disease 2019 (COVID-19) and therefore have an increased risk of exposure to this virus. HCPs can minimize their risk of exposure when caring for confirmed or possible COVID-19 patients by following Interim Infection Prevention and Control Recommendations for Patients with Confirmed (COVID-19) or Persons Under Investigation for COVID-19 in Healthcare Settings.

How COVID-19 Spreads

There is much to learn about the newly emerged COVID-19, including how and how easily it spreads. Based on what is currently known about COVID-19 and what is known about other coronaviruses, spread is thought to occur mostly from person-to-person via respiratory droplets among close contacts.

Close contact can occur while caring for a patient, including:

- being within approximately 6 feet (2 meters) of a patient with COVID-19 for a prolonged period of time.
- having direct contact with infectious secretions from a patient with COVID-19. Infectious secretions may include sputum, serum, blood, and respiratory droplets.

If close contact occurs while not wearing all recommended personal protective equipment personal protective equipment (PPE), healthcare personnel may be at risk of infection.

How You Can Protect Yourself

Healthcare personnel caring for patients with confrmed or possible COVID-19 should adhere to CDC recommendations for infection prevention and control (IPC):

- Assess and triage these patients with acute respiratory symptoms and risk factors for COVID-19 to minimize chances of exposure, including placing a facemask on the patient and placing them in an examination room with the door closed in an Airborne Infection Isolation Room (AIIR), if available.
- Use Standard Precautions , Contact Precautions, and Airborne Precautions and eye protection when caring for patients with confirmed or possible COVID-19.
- Perform hand hygiene with alcohol-based hand rub before and after all patient contact, contact with potentially infectious material, and before putting on and upon removal of PPE, including gloves. Use soap and water if hands are visibly soiled.
- Practice how to properly don, use, and doff PPE in a manner to prevent self-contamination.
- Perform aerosol-generating procedures, in an AIIR, while following appropriate IPC practices, including use of appropriate PPE.

Environmental Cleaning and Disinfection

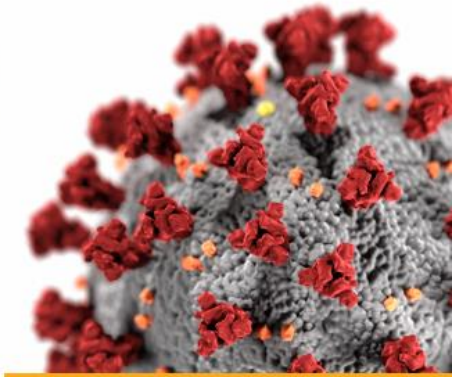
Routine cleaning and disinfection procedures are appropriate for SARS-CoV-2 in healthcare settings, including those patient-care areas in which aerosol-generating procedures are performed. Products with EPA-approved emerging viral pathogens claims are recommended for use against SARS-CoV-2. Management of laundry, food service utensils, and medical waste should also be performed in accordance with routine procedures.

When to Contact Occupational Health Services

If you have an unprotected exposure (i.e., not wearing recommended PPE) to a confirmed or possible COVID-19 patient, contact your supervisor or occupational health immediately.

If you develop symptoms consistent with COVID-19 (fever, cough, or difficulty breathing), do not report to work. Contact your occupational health services.

For more information for healthcare personnel, visit: https://www.cdc.gov/coronavirus/2019-nCoV/hcp/index.html



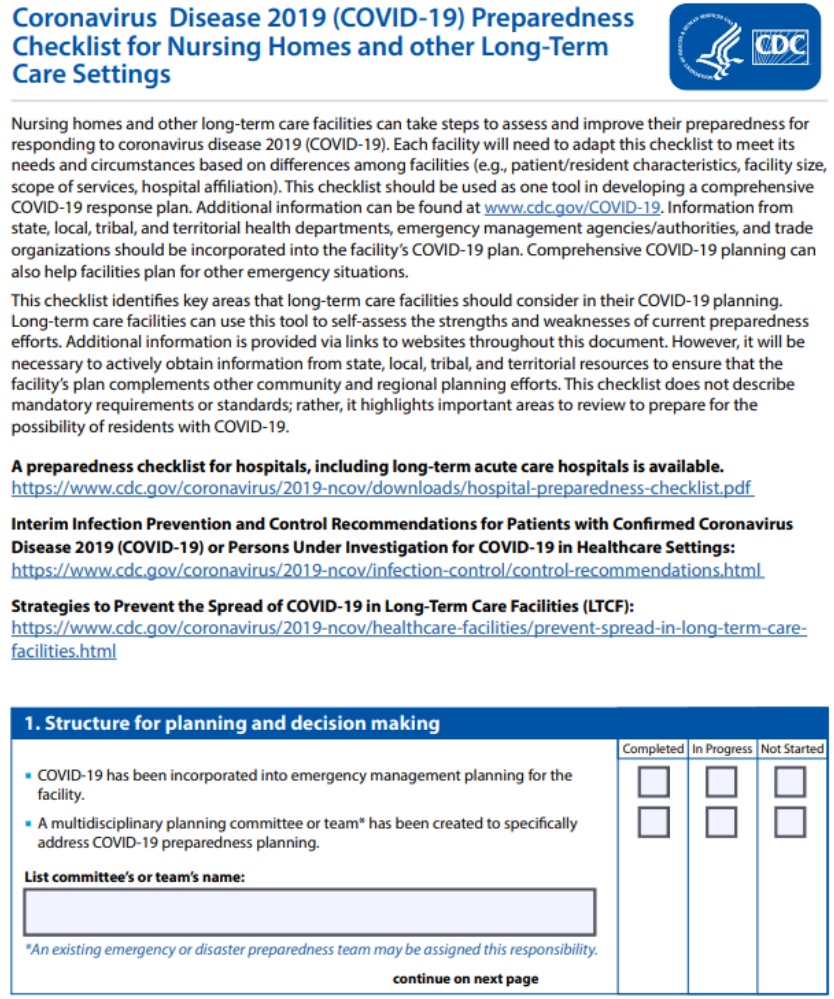
CDC

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

Long term Care Facilities

- **Educate** residents, healthcare personnel, and visitors about COVID-19, current precautions being taken in the facility, and actions they can take to protect themselves
- **Evaluate and manage** healthcare personnel with symptoms consistent with COVID-19
- **Enforce policies** and procedures for visitors
- **Provide supplies** necessary to adhere to recommended infection prevention and control practices
- Dedicate space in the facility to monitor and care for residents with COVID-19
- **Evaluate and manage** residents with symptoms of COVID-19

https://www.cdc.gov/coronavirus/2019-ncov/hcp/long-term-care.html



Coronavirus Disease 2019 (COVID-19) Preparedness Checklist for Nursing Homes and other Long-Term Care Settings

Nursing homes and other long-term care facilities can take steps to assess and improve their preparedness for responding to coronavirus disease 2019 (COVID-19). Each facility will need to adapt this checklist to meet its needs and circumstances based on differences among facilities (e.g., patient/resident characteristics, facility size, scope of services, hospital affiliation). This checklist should be used as one tool in developing a comprehensive COVID-19 response plan. Additional information can be found at www.cdc.gov/COVID-19. Information from state, local, tribal, and territorial health departments, emergency management agencies/authorities, and trade organizations should be incorporated into the facility's COVID-19 plan. Comprehensive COVID-19 planning can also help facilities plan for other emergency situations.

This checklist identifies key areas that long-term care facilities should consider in their COVID-19 planning. Long-term care facilities can use this tool to self-assess the strengths and weaknesses of current preparedness efforts. Additional information is provided via links to websites throughout this document. However, it will be necessary to actively obtain information from state, local, tribal, and territorial resources to ensure that the facility's plan complements other community and regional planning efforts. This checklist does not describe mandatory requirements or standards; rather, it highlights important areas to review to prepare for the possibility of residents with COVID-19.

A preparedness checklist for hospitals, including long-term acute care hospitals is available.
https://www.cdc.gov/coronavirus/2019-ncov/downloads/hospital-preparedness-checklist.pdf

Interim Infection Prevention and Control Recommendations for Patients with Confirmed Coronavirus Disease 2019 (COVID-19) or Persons Under Investigation for COVID-19 in Healthcare Settings:
https://www.cdc.gov/coronavirus/2019-ncov/infection-control/control-recommendations.html

Strategies to Prevent the Spread of COVID-19 in Long-Term Care Facilities (LTCF):
https://www.cdc.gov/coronavirus/2019-ncov/healthcare-facilities/prevent-spread-in-long-term-care-facilities.html

1. Structure for planning and decision making

	Completed	In Progress	Not Started
▪ COVID-19 has been incorporated into emergency management planning for the facility.	☐	☐	☐
▪ A multidisciplinary planning committee or team* has been created to specifically address COVID-19 preparedness planning.	☐	☐	☐

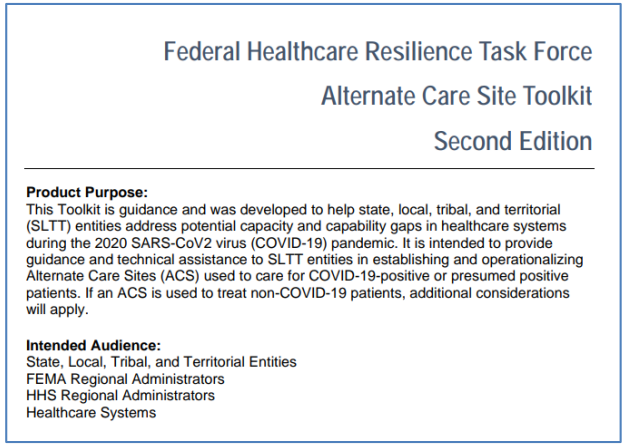
List committee's or team's name:

*An existing emergency or disaster preparedness team may be assigned this responsibility.

continue on next page

Alternate Care Sites

- **Non-Acute Care**: General, low-level care for mildly to moderately symptomatic COVID-19 patients. These patients may require oxygen (less than or equal to 2L/min), but do not require extensive nursing care or assistance with activities of daily living (ADL). This level of care corresponds to Level 5 (ambulatory care) and Level 4 (minor acuity care) patients in medical care terminology.
- **Hospital Care:** Mid-level care for moderately symptomatic COVID-19 patients. These patients require oxygen (more than 2L/min), nursing care, and assistance with ADL. This level of care corresponds to Level 3 (medical-surgical care) patients in medical care terminology.
- **Acute Care**: Higher acuity care for COVID-19 patients. These patients require significant ventilatory support, including intensive monitoring on a ventilator. This level of care corresponds to Level 2 (step-down care) and Level 1 (intensive care unit [ICU] care) patients in medical care terminology.



Federal Healthcare Resilience Task Force

Alternate Care Site Toolkit

Second Edition

Product Purpose:
This Toolkit is guidance and was developed to help state, local, tribal, and territorial (SLTT) entities address potential capacity and capability gaps in healthcare systems during the 2020 SARS-CoV2 virus (COVID-19) pandemic. It is intended to provide guidance and technical assistance to SLTT entities in establishing and operationalizing Alternate Care Sites (ACS) used to care for COVID-19-positive or presumed positive patients. If an ACS is used to treat non-COVID-19 patients, additional considerations will apply.

Intended Audience:
State, Local, Tribal, and Territorial Entities
FEMA Regional Administrators
HHS Regional Administrators
Healthcare Systems

https://www.cdc.gov/coronavirus/2019-ncov/hcp/alternative-care-sites.html

Outpatient and Ambulatory Care Settings

- **Delay elective ambulatory provider visits** and implement service delivery models such as telemedicine.
- Explore **alternatives to face-to-face triage** and visits for the acutely ill.
- Implement algorithms to **identify which patients have respiratory symptoms** that may be due to COVID-19 and need to be advised to seek 9-1-1 transport, go to an emergency department, or come to your facility, or can be managed by telephone and advised to stay home.
- Engage **local community organizations** and home health services to assist patients who are treated at home and may need support services such as delivery of food, medication and other goods.
- Prepare your facility to **safely triage and manage patients** with respiratory illness, including COVID-19. Become familiar with infection prevention and control guidance for managing COVID-19 patients and preparation steps.
- Work with *local and state public health organizations*, healthcare coalitions, and other local partners to understand the impact and spread of the outbreak in your area and any crisis standards of care initiatives being implemented.
- **Monitor HCP** and ensure maintenance of essential healthcare facility staff and operations:
- Plan to optimize your facility's **supply of PPE** in the event of shortages.

https://www.cdc.gov/coronavirus/2019-ncov/hcp/ambulatory-care-settings.html

Providing Non-COVID-19 Clinical Care

Key considerations:

- Be prepared to rapidly detect and respond to an increase of COVID-19 cases in the community.
- Provide care in the safest way possible.
- Consider that services may need to expand gradually.
  - ► Make decisions for expanding necessary care based on the local epidemiology and in concert with recommendations from state and local officials.
  - ► Prioritize services that, if deferred, are most likely to result in patient harm.
  - ► Prioritize at-risk populations who would benefit most from those services (for example, those with serious underlying health conditions, those most at-risk for complications from delayed care, or those without access to telehealth).

https://www.cdc.gov/coronavirus/2019-ncov/hcp/framework-non-COVID-care.html

Table. Framework for provision of non-COVID-19 health care during the COVID-19 pandemic, by potential for patient harm and degree of community transmission

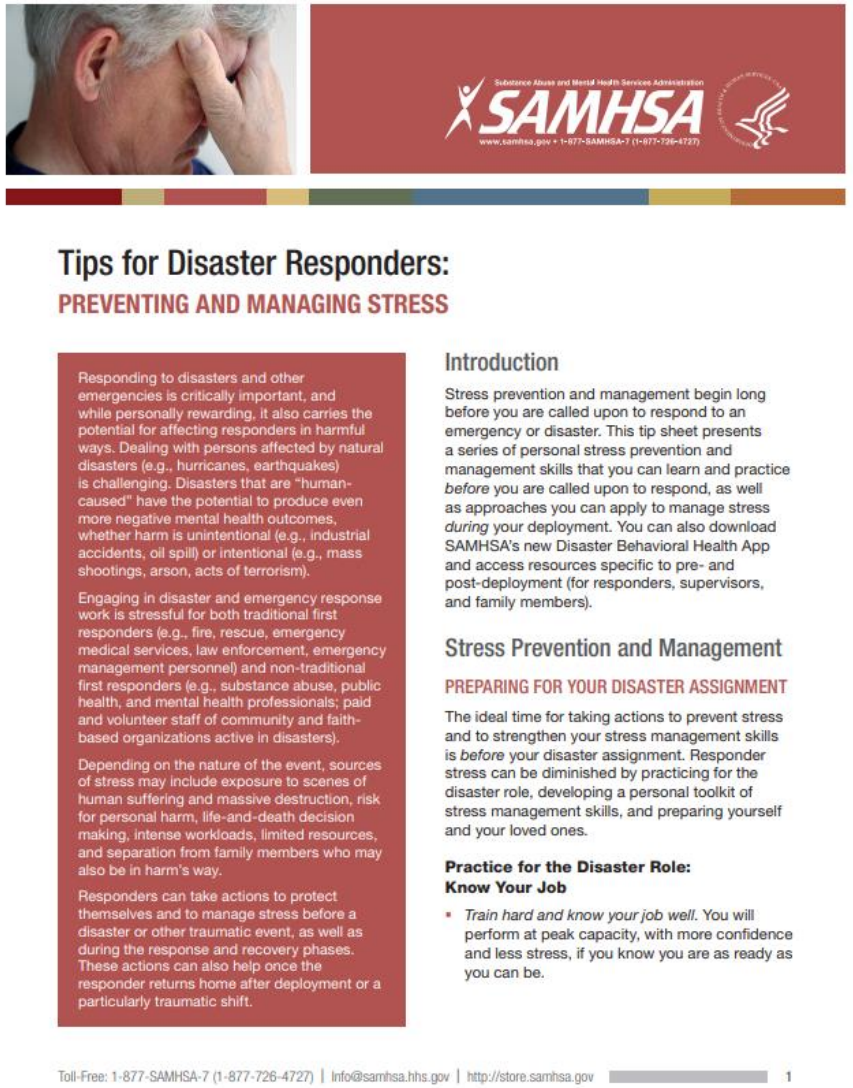
Potential for patient harm	Examples	Substantial community transmission *Large scale community transmission, including communal settings (e.g., schools, workplaces)*	Minimal to moderate community transmission *Sustained transmission with high likelihood or confirmed exposure within communal settings and potential for rapid increase in cases*	No to minimal community transmission *Evidence of isolated cases or limited community transmission, case investigations underway; no evidence of exposure in large communal setting*
Highly likely Deferral of in-person care *highly likely* to result in patient harm	• Signs/symptoms of stroke or heart attack • Dental emergencies • Acute abdominal pain • Treatment for certain cancer diagnoses • Well-child visits for newborns	Provide care without delay; consider if feasible to shift care to facilities less heavily affected by COVID-19.	Provide care without delay; consider if your facility can provide the patient's care, rather than transferring them to a facility less affected by COVID-19.	Provide care without delay while resuming regular care practices.
Less likely Deferral of in-person care *may* result in patient harm	• Pediatric vaccinations • Change in symptoms for chronic conditions • Musculoskeletal injury • Certain planned surgical repairs • Physical or occupational therapy	If care cannot be delivered remotely, arrange for in-person care as soon as feasible with priority for at-risk* populations. Utilize telehealth if appropriate.	If care cannot be delivered remotely, work towards expanding in-person care to all patients in this category. Utilize telehealth if appropriate.	Resume regular care practices while continuing to utilize telehealth if appropriate.
Unlikely Deferral of in-person care unlikely to result in patient harm	• Routine primary or specialty care • Care for well-controlled chronic conditions • Routine screening for asymptomatic conditions • Most elective surgeries and procedures	If care cannot be delivered remotely, consider deferring until community transmission decreases. Utilize telehealth if appropriate.	If care cannot be delivered remotely, work towards expanding in-person care as needed with priority for at-risk* populations and those whose care, if continually deferred, would more likely result in patient harm. Utilize telehealth if appropriate.	Resume regular care practices while continuing to utilize telehealth if appropriate.

*Those with serious underlying health conditions, those most at-risk for complications from delayed care, and those without access to telehealth services.

Preventing and Managing Stress

- Make Stress Management #1 on your list
- Prepare and plan with your loved ones
- Take stress-reducing precautions while on duty
- Practice self-awareness
- Plan for stress management when the response extends into the recovery phase

https://store.samhsa.gov/product/Preventing-and-Managing-Stress/SMA14-4873



SAMHSA

Tips for Disaster Responders:

PREVENTING AND MANAGING STRESS

Responding to disasters and other emergencies is critically important, and while personally rewarding, it also carries the potential for affecting responders in harmful ways. Dealing with persons affected by natural disasters (e.g., hurricanes, earthquakes) is challenging. Disasters that are "human-caused" have the potential to produce even more negative mental health outcomes, whether harm is unintentional (e.g., industrial accidents, oil spill) or intentional (e.g., mass shootings, arson, acts of terrorism).

Engaging in disaster and emergency response work is stressful for both traditional first responders (e.g., fire, rescue, emergency medical services, law enforcement, emergency management personnel) and non-traditional first responders (e.g., substance abuse, public health, and mental health professionals; paid and volunteer staff of community and faith-based organizations active in disasters).

Depending on the nature of the event, sources of stress may include exposure to scenes of human suffering and massive destruction, risk for personal harm, life-and-death decision making, intense workloads, limited resources, and separation from family members who may also be in harm's way.

Responders can take actions to protect themselves and to manage stress before a disaster or other traumatic event, as well as during the response and recovery phases. These actions can also help once the responder returns home after deployment or a particularly traumatic shift.

Introduction

Stress prevention and management begin long before you are called upon to respond to an emergency or disaster. This tip sheet presents a series of personal stress prevention and management skills that you can learn and practice *before* you are called upon to respond, as well as approaches you can apply to manage stress *during* your deployment. You can also download SAMHSA's new Disaster Behavioral Health App and access resources specific to pre- and post-deployment (for responders, supervisors, and family members).

Stress Prevention and Management

PREPARING FOR YOUR DISASTER ASSIGNMENT

The ideal time for taking actions to prevent stress and to strengthen your stress management skills is *before* your disaster assignment. Responder stress can be diminished by practicing for the disaster role, developing a personal toolkit of stress management skills, and preparing yourself and your loved ones.

Practice for the Disaster Role: Know Your Job

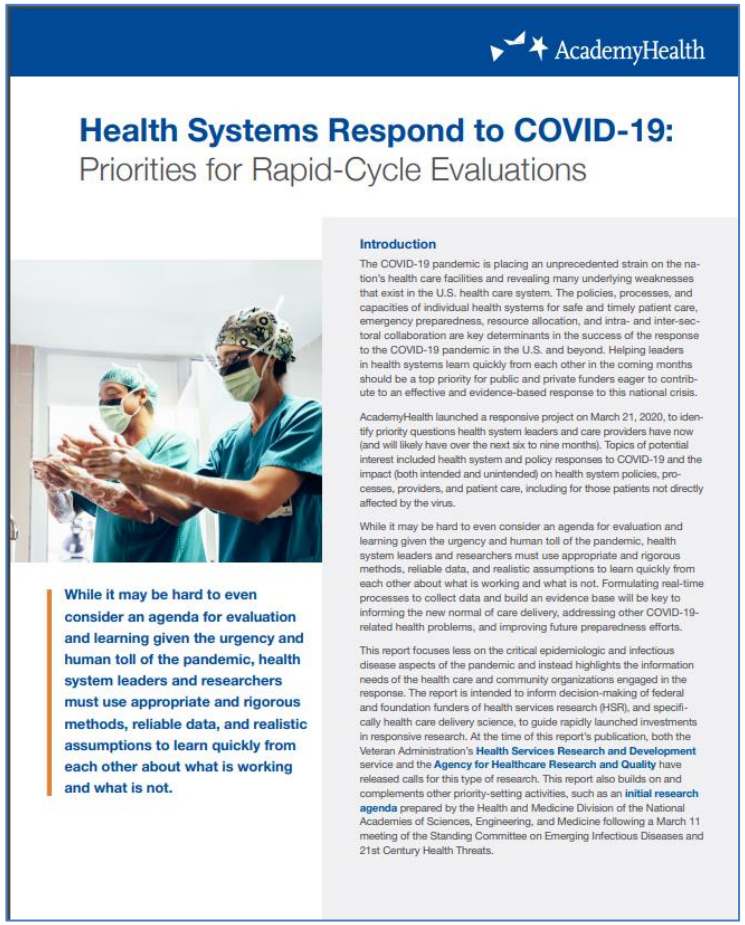
- *Train hard and know your job well.* You will perform at peak capacity, with more confidence and less stress, if you know you are as ready as you can be.

Toll-Free: 1-877-SAMHSA-7 (1-877-726-4727) | Info@samhsa.hhs.gov | http://store.samhsa.gov 1

Consider how the COVID-19 pandemic will lead to new models for the delivery of health care in the future

How Will COVID-19 Change Health Care?

- AcademyHealth identified six domains for evaluation related to COVID-19:
  - Patient and community experience, engagement, and outcomes
  - Care delivery, management, decision-making, and operations
  - Workforce needs, training, and policies
  - Technology, data, and telehealth
  - Policies, including payment policy
  - Collaboration and coordination



AcademyHealth

Health Systems Respond to COVID-19:
Priorities for Rapid-Cycle Evaluations

While it may be hard to even consider an agenda for evaluation and learning given the urgency and human toll of the pandemic, health system leaders and researchers must use appropriate and rigorous methods, reliable data, and realistic assumptions to learn quickly from each other about what is working and what is not.

Introduction

The COVID-19 pandemic is placing an unprecedented strain on the nation's health care facilities and revealing many underlying weaknesses that exist in the U.S. health care system. The policies, processes, and capacities of individual health systems for safe and timely patient care, emergency preparedness, resource allocation, and intra- and inter-sectoral collaboration are key determinants in the success of the response to the COVID-19 pandemic in the U.S. and beyond. Helping leaders in health systems learn quickly from each other in the coming months should be a top priority for public and private funders eager to contribute to an effective and evidence-based response to this national crisis.

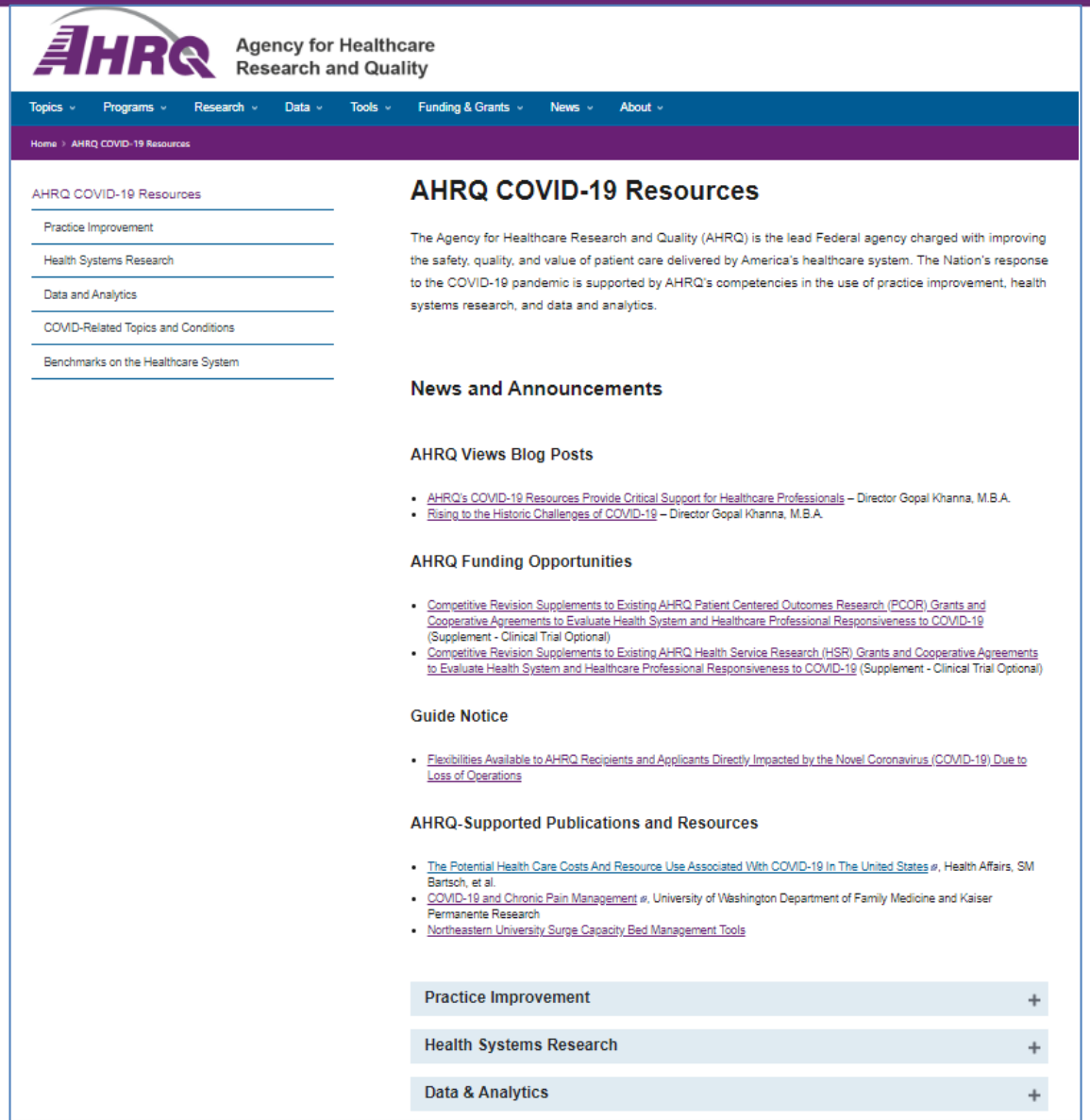
AcademyHealth launched a responsive project on March 21, 2020, to identify priority questions health system leaders and care providers have now (and will likely have over the next six to nine months). Topics of potential interest included health system and policy responses to COVID-19 and the impact (both intended and unintended) on health system policies, processes, providers, and patient care, including for those patients not directly affected by the virus.

While it may be hard to even consider an agenda for evaluation and learning given the urgency and human toll of the pandemic, health system leaders and researchers must use appropriate and rigorous methods, reliable data, and realistic assumptions to learn quickly from each other about what is working and what is not. Formulating real-time processes to collect data and build an evidence base will be key to informing the new normal of care delivery, addressing other COVID-19-related health problems, and improving future preparedness efforts.

This report focuses less on the critical epidemiologic and infectious disease aspects of the pandemic and instead highlights the information needs of the health care and community organizations engaged in the response. The report is intended to inform decision-making of federal and foundation funders of health services research (HSR), and specifically health care delivery science, to guide rapidly launched investments in responsive research. At the time of this report's publication, both the Veteran Administration's **Health Services Research and Development** service and the **Agency for Healthcare Research and Quality** have released calls for this type of research. This report also builds on and complements other priority-setting activities, such as an **initial research agenda** prepared by the Health and Medicine Division of the National Academies of Sciences, Engineering, and Medicine following a March 11 meeting of the Standing Committee on Emerging Infectious Diseases and 21st Century Health Threats.

https://www.academyhealth.org/sites/default/files/healthsystemsrespondtocovid_april2020.pdf

What is AHRQ Doing to Respond to COVID-19?



Agency for Healthcare Research and Quality

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AHRQ COVID-19 Resources

- Practice Improvement
- Health Systems Research
- Data and Analytics
- COVID-Related Topics and Conditions
- Benchmarks on the Healthcare System

AHRQ COVID-19 Resources

The Agency for Healthcare Research and Quality (AHRQ) is the lead Federal agency charged with improving the safety, quality, and value of patient care delivered by America's healthcare system. The Nation's response to the COVID-19 pandemic is supported by AHRQ's competencies in the use of practice improvement, health systems research, and data and analytics.

News and Announcements

AHRQ Views Blog Posts

- AHRQ's COVID-19 Resources Provide Critical Support for Healthcare Professionals – Director Gopal Khanna, M.B.A.
- Rising to the Historic Challenges of COVID-19 – Director Gopal Khanna, M.B.A.

AHRQ Funding Opportunities

- Competitive Revision Supplements to Existing AHRQ Patient Centered Outcomes Research (PCOR) Grants and Cooperative Agreements to Evaluate Health System and Healthcare Professional Responsiveness to COVID-19 (Supplement - Clinical Trial Optional)
- Competitive Revision Supplements to Existing AHRQ Health Service Research (HSR) Grants and Cooperative Agreements to Evaluate Health System and Healthcare Professional Responsiveness to COVID-19 (Supplement - Clinical Trial Optional)

Guide Notice

- Flexibilities Available to AHRQ Recipients and Applicants Directly Impacted by the Novel Coronavirus (COVID-19) Due to Loss of Operations

AHRQ-Supported Publications and Resources

- The Potential Health Care Costs And Resource Use Associated With COVID-19 In The United States, Health Affairs, SM Bartsch, et al.
- COVID-19 and Chronic Pain Management, University of Washington Department of Family Medicine and Kaiser Permanente Research
- Northeastern University Surge Capacity Bed Management Tools

Practice Improvement +

Health Systems Research +

Data & Analytics +

Department of Health and Human Services
Part 1. Overview Information

Participating Organization(s)	Agency for Healthcare Research and Quality (AHRQ) NOTE: The policies, guidelines, terms, and conditions stated in this announcement may differ from those used by the NIH. Where this Funding Opportunity Announcement (FOA) provides specific written guidance that may differ from the general guidance provided in the grant application form, please follow the instructions given in this FOA.
Components of Participating Organizations	Agency for Healthcare Research and Quality (AHRQ) http://www.ahrq.gov
Funding Opportunity Title	Novel, High-Impact Studies Evaluating Health System and Healthcare Professional Responsiveness to COVID-19 (R01)
Activity Code	R01 Research Project Grant
Announcement Type	New
Related Notices	**March 26, 2020** - Notice of Intent: New funding opportunity announcement to support novel, high-impact studies evaluating health system and healthcare professional responsiveness to COVID-19 Notice Number: NOT-HS-20-008 **March 26, 2020** - Notice of Intent: Revision supplements to existing AHRQ grants and cooperative agreements to address health system responsiveness to COVID-19 Notice Number: NOT-HS-20-007 **April 6, 2020 -** Reminder: Flexibilities Available to AHRQ Recipients and Applicants Directly Impacted by the Novel Coronavirus (COVID-19) Due to Loss of Operations Notice Number: NOT-HS-20-010 **March 10, 2020 -** Reminder: FORMS-F Grant Application Forms & Instructions Must be Used for Due Dates On or After May 25, 2020—New Grant Application Instructions Now Available Notice Number: NOT-OD-20-077

Thank you!

- We at AHRQ are deeply indebted to the tireless efforts of the physician assistants and other professionals on the front lines of the COVID-19 crisis. Your ongoing heroism in communities across the United States has been an inspirational reminder of the country's resilience and its deep capacity for coming together in times of crisis.
- Stay safe and well, manage your stress, stay connected with friends and family, and care for each other