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Advice on the use of masks in the context of COVID-19

Interim guidance

5 June 2020 | COVID-19: Infection prevention and control / WASH

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Overview

This document provides advice on the use of masks in communities, during home care, and in health care settings in areas that have reported cases of COVID-19. It is intended for individuals in the community, public health and infection prevention and control (IPC) professionals, health care managers, health care workers (HCWs), and community health workers. This updated version includes a section on Advice to decision makers on the use of masks for healthy people in community settings.

[Corrigendum - Advice on the use of masks in the context of COVID-19: Interim guidance, 5 June 2020](#)

Previous guidance: [Advice on the use of masks in the context of COVID-19: interim guidance, 6 April 2020](#)

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Health Emergencies Preparedness and Response, WHO Global

NUMBER OF PAGES

16

REFERENCE NUMBERS

WHO REFERENCE NUMBER:

WHO/2019-nCov/IPC_Masks/2020.4

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It is preferable not to select elastic material for making masks; during wear, the mask material may be stretched over the face, resulting in increased pore size and lower filtration efficiency throughout use. Also, elastic materials may degrade over time and are sensitive to washing at high temperatures.

b) Number of layers

A minimum of three layers is required for non-medical masks, depending on the fabric used. The innermost layer of the mask is in contact with the wearer's face. The outermost layer is exposed to the environment.(78)

Fabric cloths (e.g., nylon blends and 100% polyester) when folded into two layers, provides 2-5 times increased filtration efficiency compared to a single layer of the same cloth,-and filtration efficiency increases 2-7 times if it is folded into 4 layers.(75) Masks made of cotton handkerchiefs alone should consist of at least 4 layers, but have achieved only 13% filtration efficiency.(73) Very porous materials, such as gauze, even with multiple layers will not provide sufficient filtration; only 3% filtration efficiency. (73)

It is important to note that with more tightly woven materials, as the number of layers increases, the breathability may be

- **Inner layer that absorbs**
- **Middle layer that acts as a filter**
- **Outer layer made from a non-absorbent material like polyester**

Table 3. Non-medical mask filtration efficiency, pressure drop and filter quality factor*

Material	Source	Structure	Initial Filtration Efficiency (%)	Initial Pressure drop (Pa)	Filter quality factor, Q ** (kPa⁻¹)
Polypropylene	Interfacing material, purchased as-is	Spunbond (Nonwoven)	6	1.6	16.9
Cotton 1	Clothing (T-shirt)	Woven	5	4.5	5.4
Cotton 2	Clothing (T-shirt)	Knit	21	14.5	7.4
Cotton 3	Clothing (Sweater)	Knit	26	17	7.6
Polyester	Clothing (Toddler wrap)	Knit	17	12.3	6.8
Cellulose	Tissue paper	Bonded	20	19	5.1
Cellulose	Paper towel	Bonded	10	11	4.3
Silk	Napkin	Woven	4	7.3	2.8
Cotton, gauze	N/A	Woven	0.7	6.5	0.47
Cotton, handkerchief	N/A	Woven	1.1	9.8	0.48
Nylon	Clothing (Exercise pants)	Woven	23	244	0.4

* This table refers only to materials reported in experimental peer-reviewed studies. The filtration efficiency, pressure drop and Q factor are dependent on flow rate. ** According to expert consensus, three (3) is the minimum Q factor recommended.



Search Coronavirus

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Coronavirus Disease 2019 (COVID-19)

CDC > Coronavirus Disease 2019 (COVID-19) > Prevent Getting Sick > Cloth Face Covers



Coronavirus Disease 2019 (COVID-19)

Symptoms

Testing +

Prevent Getting Sick -

How It Spreads

Protect Yourself

Cloth Face Covers -

About Cloth Face Coverings

How to Wear Cloth Face Coverings

Wash Cloth Face Coverings

Recommendation Regarding the Use of Cloth Face Coverings, Especially in Areas of Significant Community-Based Transmission

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CDC continues to study the spread and effects of the novel coronavirus across the United States. We now know from [recent studies](#) that a significant portion of individuals with coronavirus lack symptoms (“asymptomatic”) and that even those who eventually develop symptoms (“pre-symptomatic”) can transmit the virus to others before showing symptoms. This means that the virus can spread between people interacting in close proximity—for example, speaking, coughing, or sneezing—even if those people are not exhibiting symptoms. In light of this new evidence, CDC recommends wearing cloth face coverings in public settings where other social distancing measures are difficult to maintain (e.g., grocery stores and pharmacies) **especially** in areas of significant community-based transmission.



Use of Cloth Face Coverings to Help Slow the Spread of COVID-19

[Learn More](#)

Important Information About Your Cloth Face Coverings

Print Resources Web Page: <https://www.cdc.gov/coronavirus/2019-ncov/communication/print-resources.html>

As COVID-19 continues to spread within the United States, CDC has recommended additional measures to prevent the spread of SARS-CoV-2, the virus that causes COVID-19. In the context of community transmission, CDC recommends that you:



**Stay at home
as much as
possible**



**Practice social
distancing
(remaining at
least 6 feet away
from others)**



**Clean your
hands often**



In addition, CDC also recommends that everyone wear cloth face coverings when leaving their homes, regardless of whether they have fever or symptoms of COVID-19. This is because of evidence that people with COVID-19 can spread the disease, even when they don't have any symptoms. Cloth face coverings should not be placed on young children under age 2, anyone who has trouble breathing, or is unconscious, incapacitated, or otherwise unable to remove the mask without assistance.

How cloth face coverings work

Cloth face coverings may prevent the person wearing the mask from spreading respiratory droplets when talking, sneezing, or coughing. If everyone wears a cloth face covering when out in public, such as going to the grocery store, the risk of exposure to SARS-CoV-2 can be reduced for the community. Since people may spread the virus before symptoms start, or even if people never have symptoms, wearing a cloth face covering may protect others around you. Face coverings worn by others may protect you from getting the virus from people carrying the virus.



Updates, Resources

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FDA NEWS RELEASE

Coronavirus (COVID-19) Update: Daily Roundup June 11, 2020

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More Press Announcements

Press Announcements

For Immediate Release: June 11, 2020

The U.S. Food and Drug Administration today announced the following actions taken in its ongoing response effort to the COVID-19 pandemic:

- FDA issued an FDA Voices, titled [Rare Disease Therapy Development and Access Remain Top FDA Priorities During COVID-19](#), which explains that the FDA's work to advance treatments for rare diseases and help ensure continuity of care for patients with those diseases continues to be a top priority during the COVID-19 public health emergency.

- As part of the FDA's mission to protect consumers, the agency issued a warning letter

Content current as of:

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Coronavirus

- FDA issued a warning letter to one company for selling fraudulent COVID-19-related products.
- The FDA letter warned the seller, www.outoftheboxremedies.com, which offers iodine products for sale in the United States, citing misleading claims that the products can mitigate, prevent, treat, diagnose, or cure COVID-19 in people.
- There are currently no FDA-approved products to prevent or treat COVID-19.



- This week, the FDA issued an Emergency Use Authorization (EUA) for Cue Health Inc.'s Cue COVID-19 Test.
- Authorized for use at the Point of Care, that is, in patient care settings, operating under a CLIA Certificate of Waiver, Certificate of Compliance, or Certificate of Accreditation.
- Qualitative detection of nucleic acid from SARS-CoV-2 in direct nasal swabs from individuals who are suspected of COVID-19 by their healthcare provider.
- Positive results are indicative of the presence of SARS-CoV-2 nucleic acid; clinical correlation with patient history and other diagnostic information is necessary to determine patient infection status.
- Positive results do not rule out bacterial infection or co-infection with other viruses. Negative results should be treated as presumptive and, if inconsistent with clinical signs and symptoms or necessary for patient management, should be tested with different authorized or cleared molecular tests.

- The FDA issued a warning letter to EUCYT Laboratories, LLC, for, among other things, marketing an unapproved exosome product for the treatment or prevention of COVID-19. There are currently no FDA-approved products to prevent or treat COVID-19.



The image is a screenshot of the EUCYT website. At the top left is the EUCYT logo. The navigation bar includes 'Products', 'NANOCYT', and 'Private Banking'. On the right side of the navigation bar are links for 'about us', 'safety standards', 'research & development', and 'contact us'. The main content area features a large 'COVIXO' logo. Below it, a modal window is open with the title 'COVIXO' and a sub-heading 'WHAT IS COVIXO?'. The modal text describes the product as a nano-sized biovesicle that harnesses the immune system to fight SARS-CoV-2. At the bottom of the page, there are logos for 'EUFIX', 'PLEXOCYT', and a DNA double helix icon.

EUCYT™

Products NANOCYT Private Banking

about us safety standards research & development contact us

COVIXO

WHAT IS COVIXO?

COVIXO, formerly known as XOCYT harnesses the power of the immune system to augment the body's natural response to invading pathogens such as severe acute respiratory distress coronavirus 2 (SARS-CoV-2), the causative agent behind coronavirus disease (COVID-19). COVIXO is comprised of nano-sized biovesicles that contain proteins, lipids, microRNAs, and messenger RNA. COVIXO drives cellular functionality including augmenting the type 1 interferon pathway (Data on file at EUCYT) that is important for anti-SARS-CoV-2 activity. Additionally, COVIXO potentiates cellular proliferation; thereby increasing the number of cells capable of attacking the invading pathogen. The unique mechanism of action for COVIXO enables each patient to generate their own adaptive immune response against SARS-CoV-2, including memory T cells and antibodies, which will further protect each patient from subsequent exposures and infections.

EUFIX PLEXOCYT

Coronavirus Disease 2019 (COVID-19)

CDC > Coronavirus Disease 2019 (COVID-19) > Healthcare Professionals



Coronavirus Disease 2019 (COVID-19)

Symptoms

Testing +

Prevent Getting Sick +

If You Are Sick +

Daily Life & Coping +

People Who Need Extra
Precautions +

Pets & Other Animals +

Travel +

Overview of Testing for SARS-CoV-2

[Print Page](#)

Note: This document is intended to provide guidance on the appropriate use of testing and does not dictate the determination of payment decisions or insurance coverage of such testing, except as may be otherwise referenced (or prescribed) by another entity or federal or state agency.

Summary of Changes

Changes noted were made in a retired document, "Evaluating and Testing Persons for Coronavirus Disease 2019 (COVID-19)," which has been replaced by this Overview of Testing for SARS-CoV-2. [See more changes.](#)

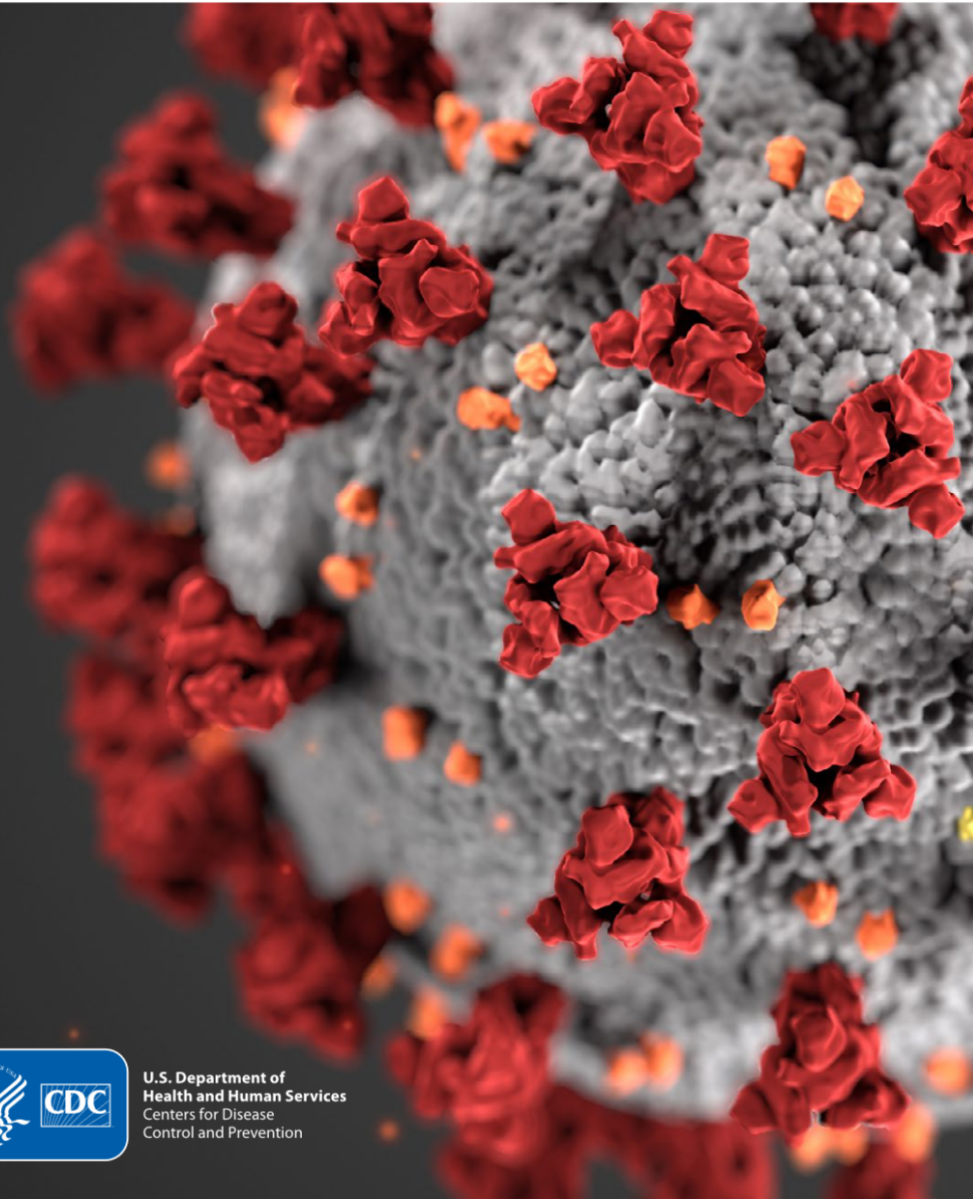
This document provides a summary of considerations and current Centers for Disease Control and Prevention (CDC) recommendations regarding SARS-CoV-2 testing. The CDC recommendations for SARS-CoV-2 testing have been developed based on what is currently known about COVID-19 and are subject to change as additional information becomes available.

Recommendations for Viral Testing, Specimen Collection, and Reporting

Authorized assays for viral testing include those that detect SARS-CoV-2 nucleic acid or antigen. [Viral \(nucleic acid or antigen\) tests](#) check samples from the respiratory system (such as nasal swabs) and identify if an infection with SARS-CoV-2, the virus that causes COVID-19, is present. Viral tests are recommended to diagnose acute infection. Some tests are point-of-care tests, meaning results may be available at the testing site in less than an hour. Other tests must be sent to a laboratory to analyze, a process that may take 1-2 days once received by the lab. Testing the same individual more than once in a 24-hour period is not recommended.

For more information on diagnostic testing for COVID-19 see the [Interim Guidelines for Collecting, Handling, and Testing Clinical Specimens](#) and [Biosafety FAQs](#) for handling and processing specimens from possible cases.

HEALTH DEPARTMENTS: Interim Guidance on Developing a COVID-19 Case Investigation & Contact Tracing Plan



U.S. Department of
Health and Human Services
Centers for Disease
Control and Prevention



Coronavirus Disease 2019 (COVID-19)



Coronavirus Disease 2019 (COVID-19)

Symptoms

Testing +

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Travel +

Using Personal Protective Equipment (PPE)

[Print Page](#)

Updated on June 9, 2020 to add a statement about the importance of the selected respirator and eye protection not interfering with the correct fit or function of the other, and remove a second hand hygiene step from step 6 in *How to Put On (Don) PPE Gear*.

Who Needs PPE

- ✓ Patients with confirmed or possible SARS-CoV-2 infection should wear a facemask when being evaluated medically
- ✓ Healthcare personnel should adhere to Standard and Transmission-based Precautions when caring for patients with SARS-CoV-2 infection. Recommended PPE is described in the [Infection Control Guidance](#)

U.S. Healthcare Facilities: [Optimize the Supply of PPE and Equipment](#)

How to Put On (Don) PPE Gear

More than one donning method may be acceptable. Training and practice using your healthcare facility's procedure is critical. Below is one example of donning.

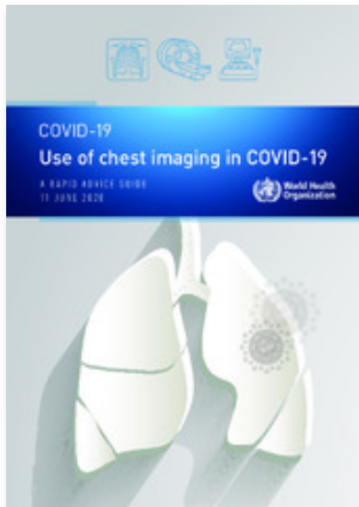
1. **Identify and gather the proper PPE to don.** Ensure choice of gown size is correct (based on training).
2. **Perform hand hygiene using hand sanitizer.**
3. **Put on isolation gown.** Tie all of the ties on the gown. Assistance may be needed by other healthcare personnel.
4. **Put on NIOSH-approved N95 filtering facepiece respirator or higher (use a facemask if a respirator is not available).**
If the respirator has a nosepiece, it should be fitted to the nose with both hands, not bent or tented. Do not pinch the nosepiece with one hand. Respirator/facemask should be extended under chin. Both your mouth and nose should be protected. Do not wear respirator/facemask under your chin or store in scrubs pocket between patients.*
 - **Respirator:** Respirator straps should be placed on crown of head (top strap) and base of neck (bottom strap). Perform a user seal check each time you put on the respirator.
 - **Facemask:** Mask ties should be secured on crown of head (top tie) and base of neck (bottom tie). If mask has loops, hook them appropriately around your ears.
5. **Put on face shield or goggles.** When wearing an N95 respirator or half facepiece elastomeric respirator, select the proper eye protection to ensure that the respirator does not interfere with the correct positioning of the eye protection, and the eye protection does not affect the fit or seal of the respirator. Face shields provide full face coverage. Goggles also provide excellent protection for eyes, but fogging is common.
6. **Put on gloves.** Gloves should cover the cuff (wrist) of gown.
7. **Healthcare personnel may now enter patient room.**



Use of chest imaging in COVID-19

A rapid advice guide

11 June 2020 | COVID-19: Clinical care



[Download \(5.1 MB\)](#)

Overview

This rapid advice guide examines the evidence and makes recommendations for the use of chest imaging in acute care of adult patients with suspected, probable or confirmed COVID-19. Imaging modalities considered are radiography, computed tomography and ultrasound. This guide addresses the care pathway from presentation of the patient to a health facility to patient discharge. It considers different levels of disease severity, from asymptomatic individuals to critically ill patients. Accounting for variations in the benefits and harms of chest imaging in different situations, remarks are provided to describe the circumstances under which each recommendation would benefit patients. The guide also includes implementation considerations for different settings, provides suggestions for impact monitoring and evaluation and identifies knowledge gaps meriting further research.

[Download link to Annex A](#)

[Download link to Annex B](#)

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56

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WHO REFERENCE NUMBER:

WHO/2019-nCoV/Clinical/Radiology_imaging/2020.1

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U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Office for Civil Rights

Guidance on HIPAA and Contacting Former COVID-19 Patients about Blood and Plasma Donation


Does HIPAA permit a covered health care provider to use protected health information (PHI) to identify and contact patients who have recovered from COVID-19 to provide them with information about donating blood and plasma that could help other COVID-19 patients?

Yes. Generally, a covered health care provider may use PHI to identify patients who have recovered from COVID-19 to provide them with information about how they can donate their blood and plasma containing antibodies to the virus that causes COVID-19, to help treat other patients with COVID-19.¹

The HIPAA Privacy Rule permits HIPAA covered entities (or their business associates on the covered entities' behalf) to use or disclose PHI for treatment, payment, and health care operations, among other purposes, without an individual's authorization.² Health care operations include population-based activities relating to improving health, and case management and care coordination activities that do not meet the definition of treatment (*e.g.*, where such activities are not connected to the care of a specific patient).³ When using or disclosing PHI for health care operations, the covered entity must make reasonable efforts to limit the use or disclosure of PHI to the minimum necessary to accomplish the intended purpose of the use or disclosure.⁴

Coronavirus Disease 2019 (COVID-19)



 Coronavirus Disease 2019
(COVID-19)

Symptoms

Testing +

Prevent Getting Sick +

If You Are Sick +

Daily Life & Coping +

People Who Need Extra
Precautions +

Agriculture Workers and Employers

Interim Guidance from CDC and the U.S. Department of Labor

[Other Languages](#) ▾

[Print Page](#)

This joint guidance for COVID-19 may be adapted by [state and local health departments](#) to respond to rapidly changing local circumstances.

Key Points

Agricultural Employer Checklist for Creating a COVID-19 Assessment and Control Plan

To prevent and slow the spread of COVID-19, agricultural employers can use this checklist to create a COVID-19 assessment and control plan for applying specific preparation, prevention, and management measures. This checklist has been developed based on the [Agriculture Workers and Employers Interim Guidance from CDC and the U.S. Department of Labor](#).


This checklist has five sections:

- **Section 1:** Assessment
- **Section 2:** Control Plan based on the Hierarchy of Controls
 - » Screening and Monitoring Workers
 - » Managing Sick Workers
 - » Addressing Return to Work after Worker Exposure to COVID-19
 - » Engineering Controls
 - » Cleaning, Disinfection, and Sanitation
 - » Administrative Controls
 - » Personal Protective Equipment (PPE)
- **Section 3:** Special Considerations for Shared Housing
- **Section 4:** Special Considerations for Shared Transportation
- **Section 5:** Special Considerations for Children

This checklist can be used to reassess, update, and modify your assessment and control plan on a regular basis or as conditions change.

Coronavirus Disease 2019 (COVID-19)



 Coronavirus Disease 2019 (COVID-19)

Symptoms

Testing +

Prevent Getting Sick +

If You Are Sick +

Daily Life & Coping -

At Home +

Errands & Going Out -

Deciding to Go Out

Running Errands

Deciding to Go Out

Venturing Out? Be Prepared and Stay Safe

[Other Languages](#) ▾

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Updated June 12, 2020

As communities and businesses are opening, you may be looking for ways to resume some daily activities as safely as possible. While there is no way to ensure zero risk of infection, it is important to understand potential risks and how to adopt different types of prevention measures to protect yourself and to help reduce the spread of COVID-19. As a reminder, if you have COVID-19, [have symptoms consistent with COVID-19](#), or have been in [close contact](#) with someone who has COVID-19, it is important to stay home and away from other people. When you can leave home and be around others depends on different factors for different situations. Follow CDC's [recommendations](#) for your circumstances.

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[What to Know Before You Go](#)

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[Venturing Out? Be Prepared and Stay Safe](#)

Venturing Out? Be Prepared and Stay Safe

Consider these tips to keep you and others safe when you venture out.



Going to the Bank

- Ask about options for telephone or virtual meetings to use banking services.
- Use drive-thru banking services, automated teller machines (ATM), or mobile banking apps for routine transactions that do not require face-to-face assistance as much as possible.
- Look for any extra prevention practices being implemented by the bank, such as plexiglass barriers for tellers or bankers, staff wearing cloth face coverings, or physical distancing signs in the lobby.
- Wear a [cloth face covering](#) when doing any in-person exchanges and unable to stay at least 6 feet apart from other people – and make sure that bank employees and other people inside the bank are also wearing cloth face coverings.
- Use hand sanitizer containing at least 60% alcohol after any deposit, withdrawal, exchange, drive-thru visit, or use of an ATM.
- Wash your hands thoroughly when you arrive home or to your destination where a restroom is available.



Dining at a Restaurant

- Check the restaurant's website and social media to see if they have updated their information to address any COVID-19 safety guidelines.
- Before you go to the restaurant, call and ask if all staff are wearing cloth face coverings while at work.
- Wear [cloth face coverings](#) when less than 6 feet apart from other people or indoors.



A cluster of COVID-19 in Beijing, People's Republic of China

13 June 2020 | News release

WHO is following up with Chinese authorities about a cluster of COVID-19 cases in Beijing, People's Republic of China.

Today, officials from the National Health Commission and Beijing Health Commission briefed WHO's China country office, to share details of preliminary investigations ongoing in Beijing.

- 41 symptomatic cases
- 46 without symptoms
- 1st identified case: Symptom onset on June 9 (confirmed on June 11)
- Several of the initial cases were identified through 6 fever clinics in Beijing.
- Some symptomatic cases had a link to the Xinfadi Market
- Xinfadi Market:
 - 45 positive human samples (all asymptomatic at time of reporting)
 - 40 positive environmental samples.
 - 1 additional asymptomatic case identified as a close contact of a confirmed case.
- >76,000 people were tested on Sunday, with 59 positives

Updates, Resources

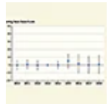
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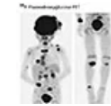
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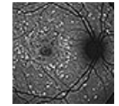
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Not Dying Alone — Modern Compassionate Care in the Covid-19 Pandemic

ORIGINAL ARTICLE
Disseminated Coccidioidomycosis Treated with Interferon- γ and Dupilumab



IMAGES IN CLINICAL MEDICINE
Stargardt Juvenile Macular Degeneration



ORIGINAL ARTI
Phase 3 Trial of RN
Therapeutic Givosi
Intermittent Porphy

CORRESPONDENCE

Natural History of Asymptomatic SARS-CoV-2 Infection

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TO THE EDITOR:

Information on the natural history of asymptomatic infection with severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) remains scarce.¹⁻³ The outbreak of coronavirus disease 2019 (Covid-19) on the cruise ship *Diamond Princess* led to 712 persons being infected with SARS-CoV-2 among the 3711 passengers and crew members, and 410 (58%) of these infected persons were asymptomatic at the time of testing (see the [Supplementary Appendix](#), available with the full text of this letter at NEJM.org).^{4,5} Here, we report the natural history of asymptomatic SARS-CoV-2 infection in part of this cohort.

A total of 96 persons infected with SARS-CoV-2 who were asymptomatic at the time of testing, along with their 32 cabinmates who tested negative on the ship, were transferred from the *Diamond Princess* to a

June 12, 2020
DOI: 10.1056/NEJMc2013020

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- 712 persons being infected with SARS-CoV-2 among the 3711 passengers and crew members,
- 410 (58%) of these infected persons were asymptomatic at the time of testing
- A total of 96 persons were positive who were asymptomatic at the time of testing, along with their 32 cabinmates who tested negative on the ship,
- At hospital in central Japan:
 - Signs and symptoms of Covid-19 developed in 11 of 96 persons, a median of 4 days (interquartile range, 3 to 5; range, 3 to 7) after the first PCR test, which meant that they had been presymptomatic rather than asymptomatic.
 - Odds ratio for being presymptomatic with each 1-year increase in age, 1.08; 95% confidence interval [CI], 1.01 to 1.16
 - 8 of 32 cabinmates (25%) with a negative PCR test on the ship had a positive PCR test within 72 hours after arrival in the hospital but remained asymptomatic.

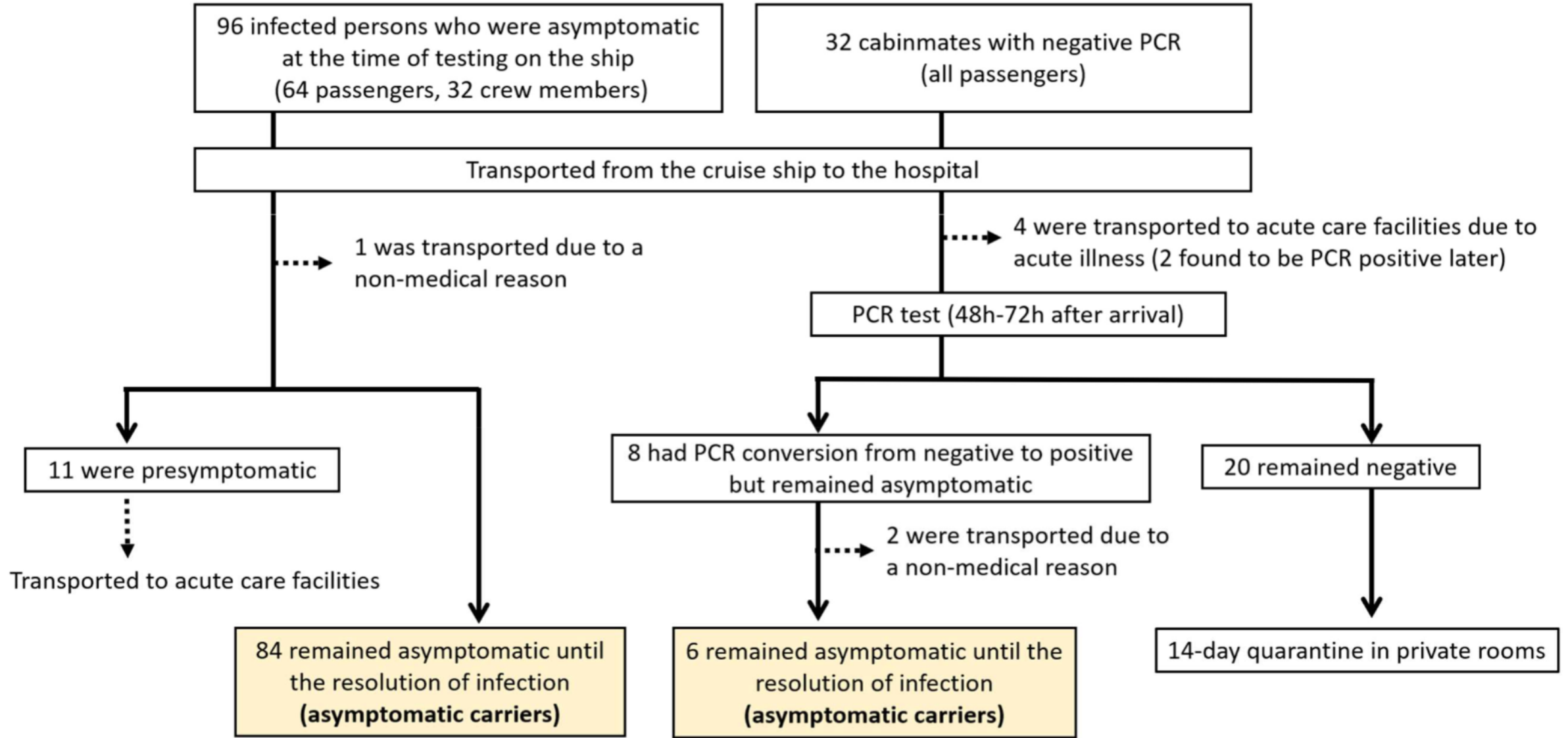
Patient	14-Feb		15-Feb		16-Feb		17-Feb		18-Feb		19-Feb		20-Feb		21-Feb		Reasons for transfer
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	
1	PCR+										■XX						fever, desaturation, cough
2		PCR+									■XX						desaturation
3		PCR+									■XX						fever, lethargy
4		PCR+									■XX						fever, desaturation
5		PCR+									■				XX		cough, sputum
6				PCR+								■	XX				fever
7					PCR+						■	XX					fever, sore throat
8					PCR+							■XX					desaturation, cough, sputum
9					PCR+									■XX			fever, chest pain
10					PCR+									■XX			desaturation, cough
11							PCR+							■XX			fever

PCR+, first positive PCR on the cruise ship

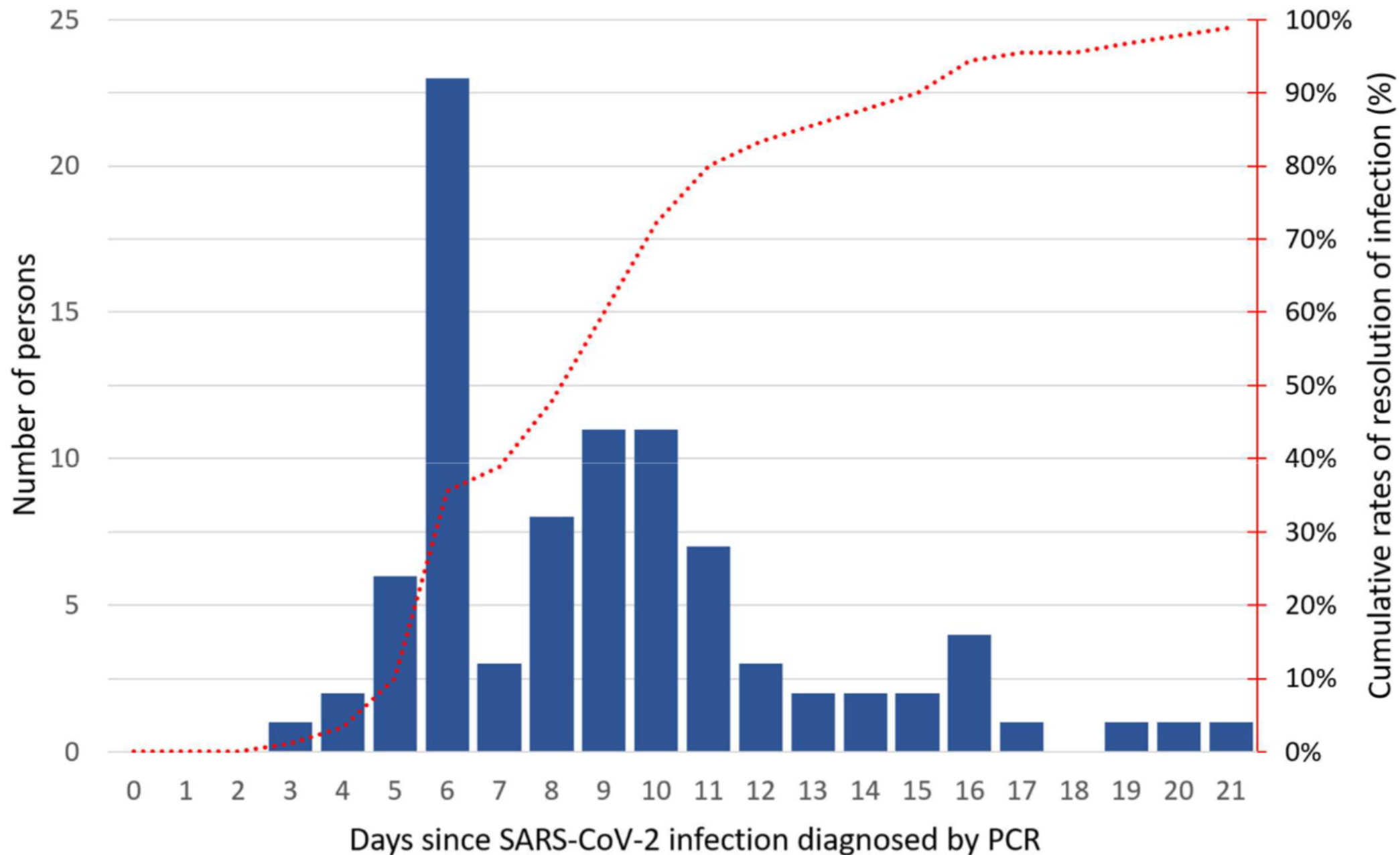
■, arrival from the cruise ship to the facility

XX, onset of clinical signs or symptoms consistent with COVID-19

Supplementary Figure 5. Courses of 11 presymptomatic patients, who were asymptomatic at the time of the first positive PCR test but subsequently developed symptoms.

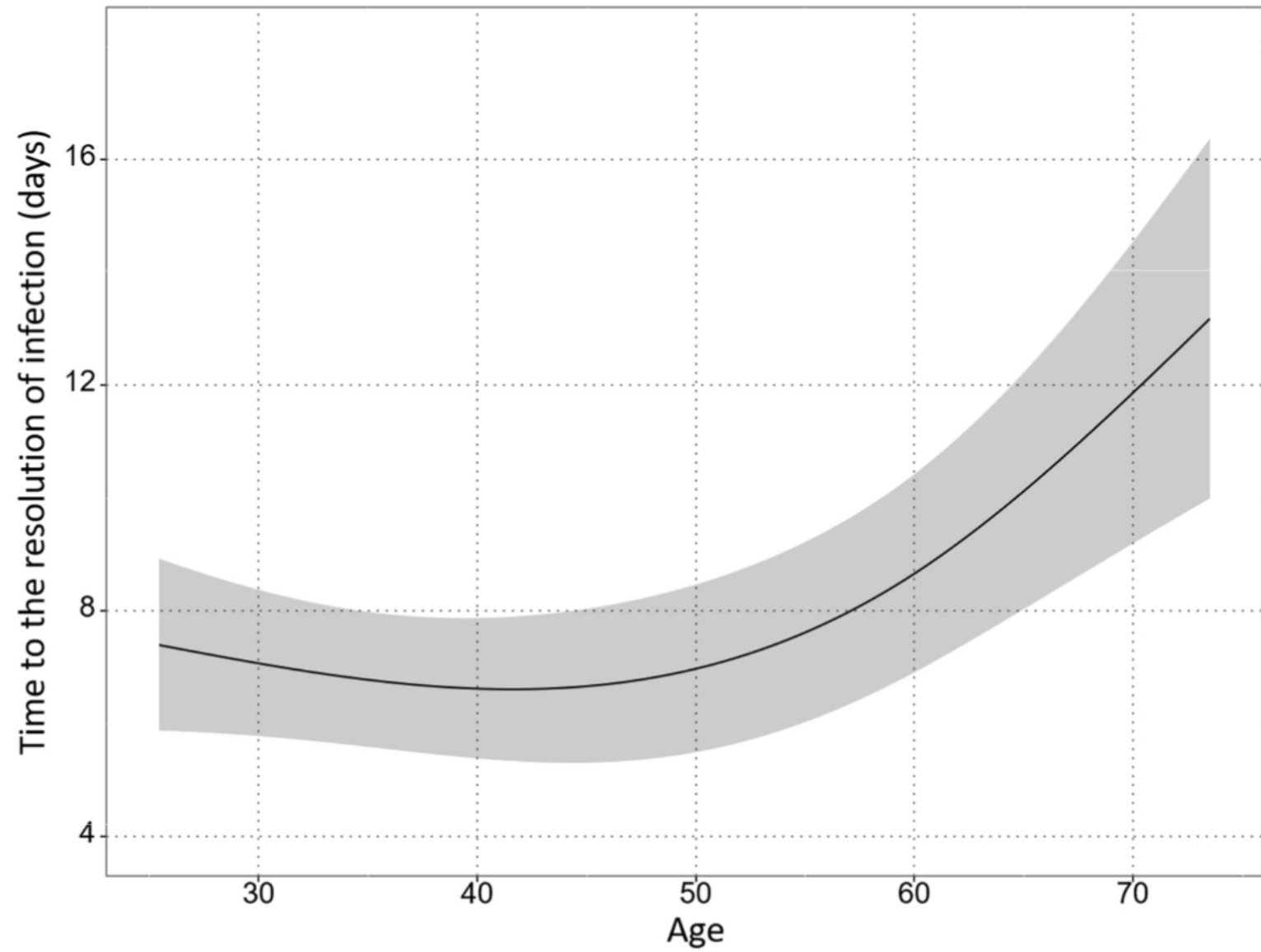


Supplementary Figure 1. Flowchart of the cohort observed at the hospital.



Supplementary Figure 4. Number of days from the first positive PCR test to the first of two serial negative PCR tests.

- Median number of days between the first positive PCR test (either on the ship or at the hospital) and the first of the two serial negative PCR tests was 9 days (interquartile range, 6 to 11; range, 3 to 21)
- Cumulative percentages of persons with resolution of infection:
 - 48% for 8 days after the first positive PCR test
 - 90% for 15 days after first positive PCR test



Supplementary Figure 6. Association between age and time to the resolution of infection.

Coronavirus Disease 2019 Case Surveillance — United States, January 22–May 30, 2020

Erin K. Stokes, MPH^{1,*}; Laura D. Zambrano, PhD^{1,*}; Kayla N. Anderson, PhD¹; Ellyn P. Marder, DrPH¹; Kala M. Raz, MPH¹;
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The coronavirus disease 2019 (COVID-19) pandemic resulted in 5,817,385 reported cases and 362,705 deaths worldwide through May 30, 2020,[†] including 1,761,503 aggregated reported cases and 103,700 deaths in the United States.[§] Previous analyses during February–early April 2020 indicated that age ≥ 65 years and underlying health conditions were associated with a higher risk for severe outcomes, which were less common among children aged < 18 years (1–3). This report describes demographic characteristics, underlying health conditions, symptoms, and outcomes among 1,320,488 laboratory-confirmed COVID-19 cases individually reported to CDC during January 22–May 30, 2020. Cumulative incidence, 403.6 cases per 100,000 persons,[¶] was similar among males (401.1) and females (406.0) and highest among persons aged ≥ 80 years (902.0). Among 599,636 (45%) cases with known information, 33% of persons were Hispanic or Latino of any race (Hispanic), 22% were non-Hispanic

black (black), and 1.3% were non-Hispanic American Indian or Alaska Native (AI/AN). Among 287,320 (22%) cases with sufficient data on underlying health conditions, the most common were cardiovascular disease (32%), diabetes (30%), and chronic lung disease (18%). Overall, 184,673 (14%) patients were hospitalized, 29,837 (2%) were admitted to an intensive care unit (ICU), and 71,116 (5%) died. Hospitalizations were six times higher among patients with a reported underlying condition (45.4%) than those without reported underlying conditions (7.6%). Deaths were 12 times higher among patients with reported underlying conditions (19.5%) compared with those without reported underlying conditions (1.6%). The COVID-19 pandemic continues to be severe, particularly in certain population groups. These preliminary findings underscore the need to build on current efforts to collect and analyze case data, especially among those with underlying health conditions. These data are used to monitor trends in COVID-19 illness, identify and respond to localized incidence increase, and inform policies and practices designed to reduce transmission in the United States.

State and territorial health departments report daily aggregate counts of COVID-19 cases and deaths to CDC:

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[†] <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/situation-reports>.

[§] CDC official counts of cases and deaths, released daily on <https://www.cdc.gov/coronavirus/2019-ncov/cases-updates/cases-in-us.html>. are aggregate

Hospitalizations were **6** times higher and deaths **12** times higher for COVID-19 patients with reported underlying conditions*

MOST FREQUENTLY REPORTED UNDERLYING CONDITIONS

CARDIOVASCULAR
DISEASE



DIABETES



CHRONIC LUNG
DISEASE

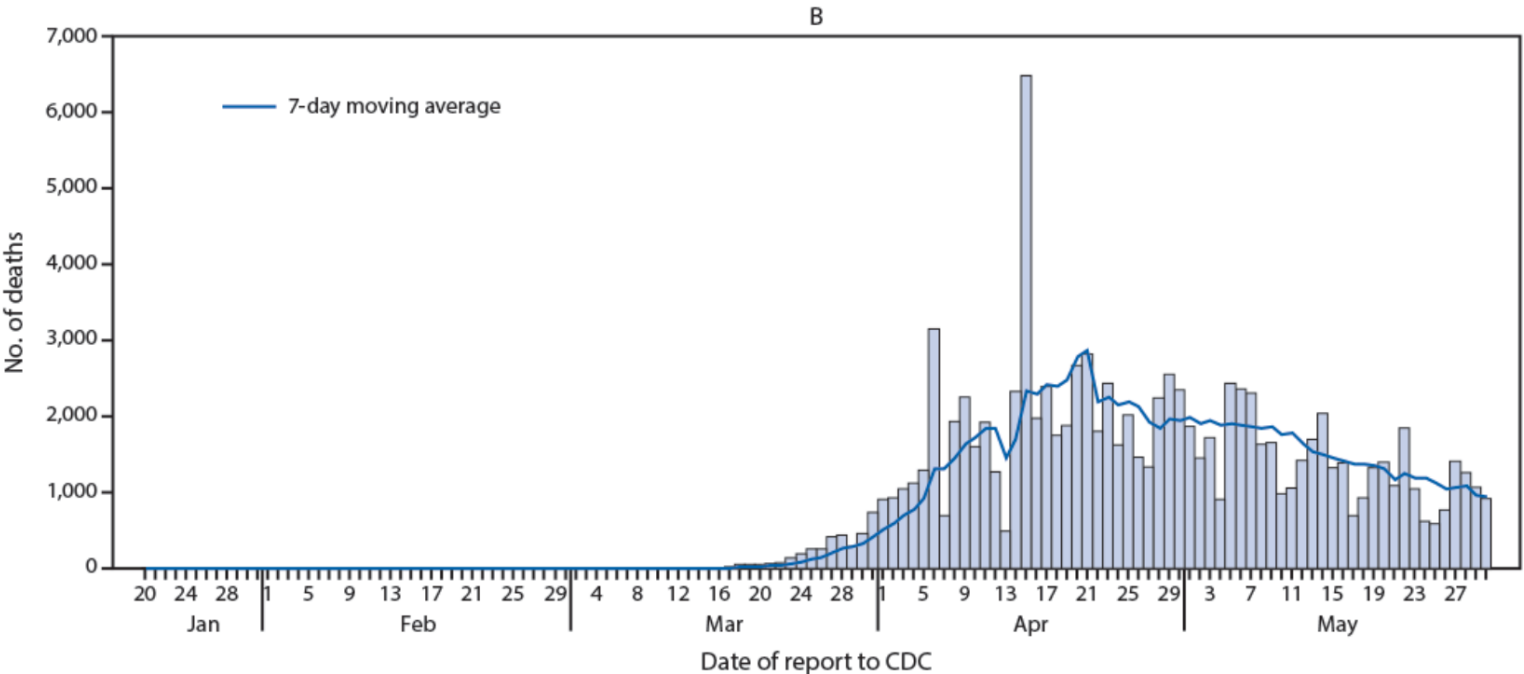
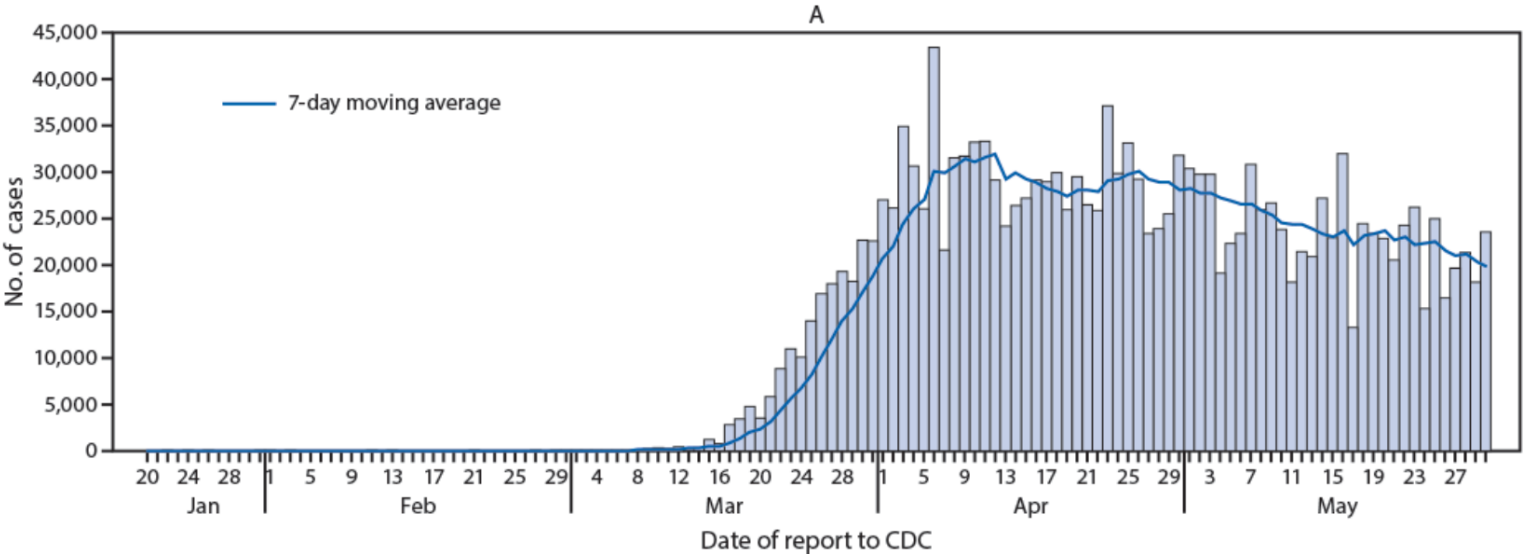


*compared to those with no reported underlying health conditions

What is added by this report?

As of May 30, 2020, among COVID-19 cases, the most common underlying health conditions were cardiovascular disease (32%), diabetes (30%), and chronic lung disease (18%). Hospitalizations were six times higher and deaths 12 times higher among those with reported underlying conditions compared with those with none reported.

FIGURE. Daily number of COVID-19 cases^{*,†,§,¶} (A) and COVID-19–associated deaths^{**} (B) reported to CDC — United States, January 22–May 30, 2020



Abbreviation: COVID-19 = coronavirus disease 2019.

What are the implications for public health practice?

Surveillance at all levels of government, and its continued modernization, is critical for monitoring COVID-19 trends and identifying groups at risk for infection and severe outcomes. These findings highlight the continued need for community mitigation strategies, especially for vulnerable populations, to slow COVID-19 transmission.

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Thank You