

# Coronavirus Contact Investigation

## Sunday, March 29, 2020

### 11 am to 2 pm



**sonoma county**  
DEPARTMENT OF HEALTH SERVICES

# Agenda

Time	Topic	Presenter
11:00 – 11:10	Welcome & Agenda Review	D’Arcy Richardson. RN, MSN Contractor, Sonoma County HSD
11:10 – 11:20	Welcome & County Update	Dr. Sundari Mase Sonoma County Health Officer
11:20 – 11:40	COVID-19 Background & Epidemiology	Lucinda Gardner Epidemiologist
11:40 – 11:55	Lab Testing Update	Rachel Rees, Dr. PH Director of Laboratory Services
11:55 – 1:00	Introduction to COVID-19 Case Interviewing & Contact Tracing	D’Arcy Richardson & Communicable Disease Team
	Demonstration: Interviewing Best Practices	Miranda Patrick & Mark O’Niel, Communicable Disease Team
1:00 – 1:30	Collecting Information & Data Management: The PUI Form	Lucinda Gardner
1:30 – 2:00	Q&A	

# Purpose

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For those in the medical profession, this presentation will provide an overview of the Coronavirus pandemic, background information, latest surveillance data, public health response and strategies, specimen collection and laboratory testing followed by an in depth review of the contact investigation process.

To volunteer your services, contact [PHnurse@sonoma-county.org](mailto:PHnurse@sonoma-county.org).

# COVID-19

UPDATED 3.23.2020 8:00 AM

COMMUNICABLE DISEASE CONTROL  
DISEASE CONTROL INVESTIGATION  
EPIDEMIOLOGY AND EVALUATION



 **sonoma county**  
DEPARTMENT OF HEALTH SERVICES

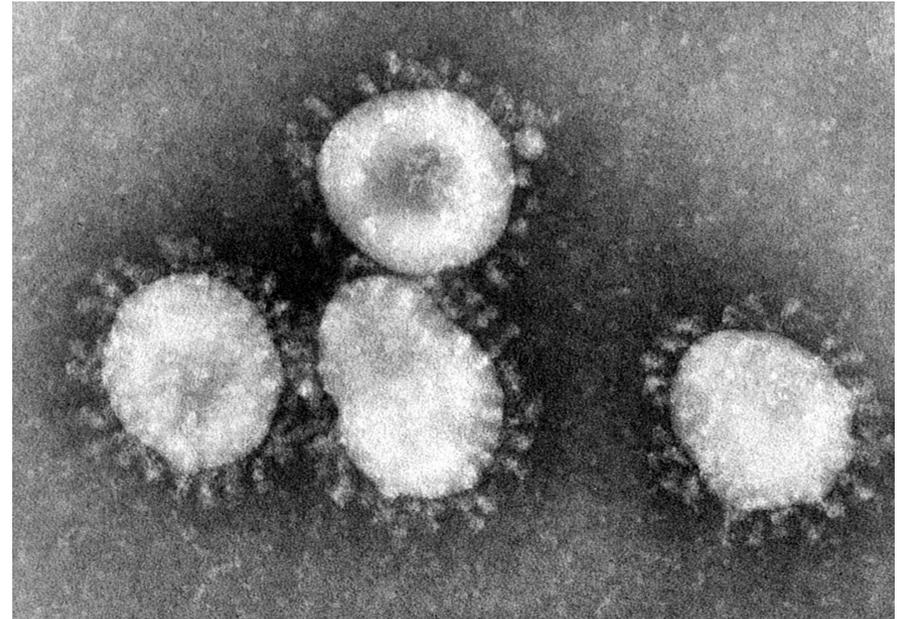
# Background

- Novel coronavirus identified in December 2019 in Wuhan City, Hubei Province, China
- Initially detected as a cluster of pneumonia cases with exposure to a local open-air market



# About Coronaviruses

- Enveloped, single-strand RNA virus infecting both animals and humans
- The four most common strains circulate worldwide
  - 229E
  - OC43
  - NL63
  - HKU1
- Significant contributor to the “common cold”



# MERS-CoV and SARS-CoV-1

Coronaviruses have also caused epidemics in humans:

- **Severe Acute Respiratory Syndrome (SARS)**
  - 2002-2004 caused 8,093 cases with 774 deaths (9.5% CFR)
  - Cases identified in China, Hong Kong, Taiwan and Toronto, Canada
  - 8 cases identified in US residents, all with travel exposure
  - Bats identified as reservoir, likely transmitted via civets
- **Middle East Respiratory Syndrome (MERS)**
  - 2012-present caused 2,494 cases with 858 deaths (34% CFR)
  - Majority of cases in Saudi Arabia
  - 2 cases identified in US residents with travel to Saudi Arabia
  - Bats identified as reservoir, likely transmitted via camels

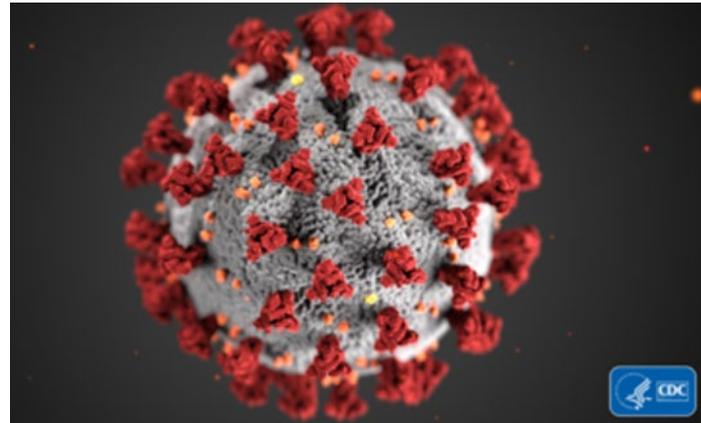
# COVID-19 and SARS-CoV-2

## COVID-19

- ‘CO’ stands for ‘corona,’ ‘VI’ for ‘virus,’ and ‘D’ for disease

## SARS-CoV-2

- The virus itself

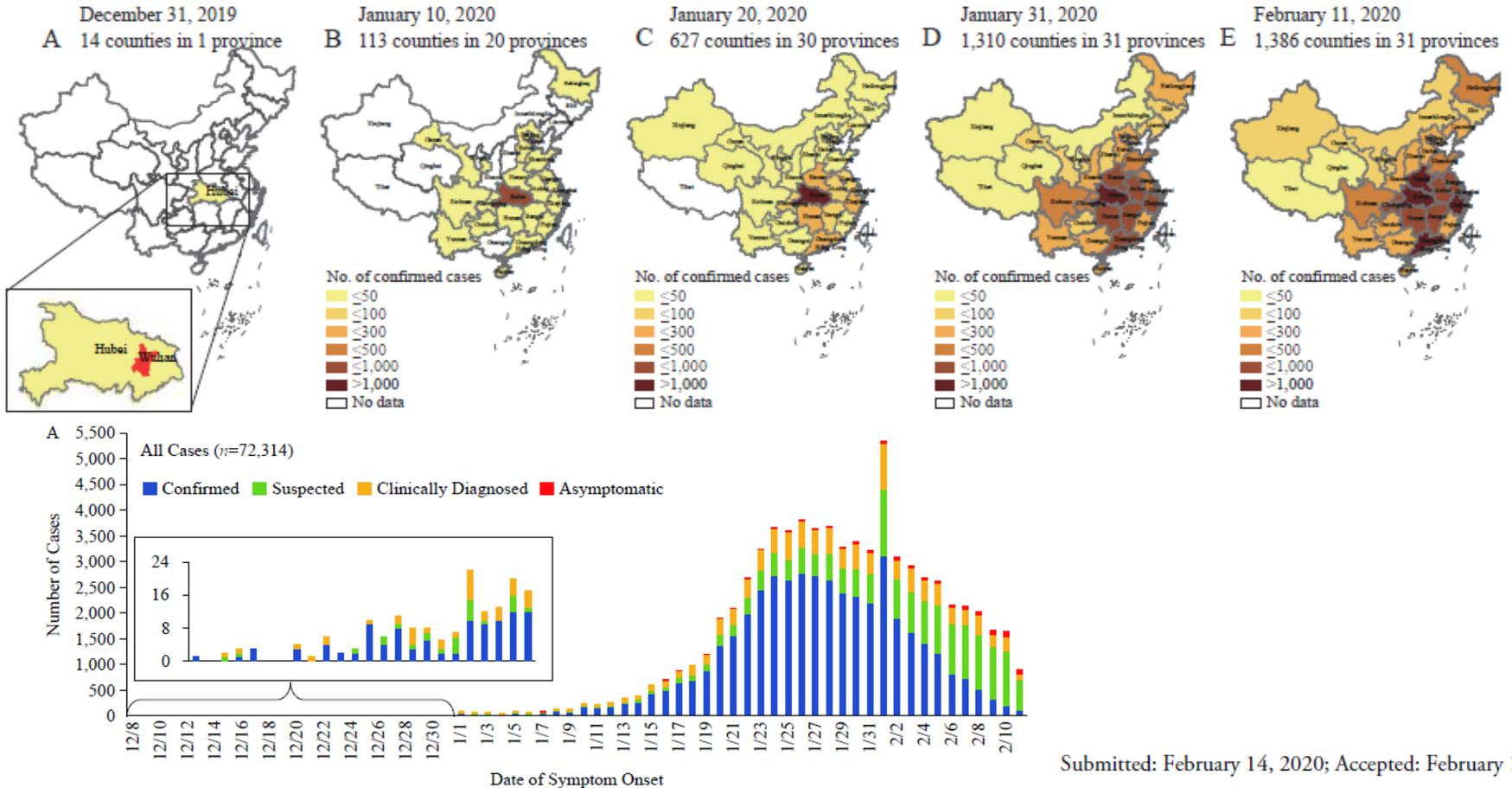


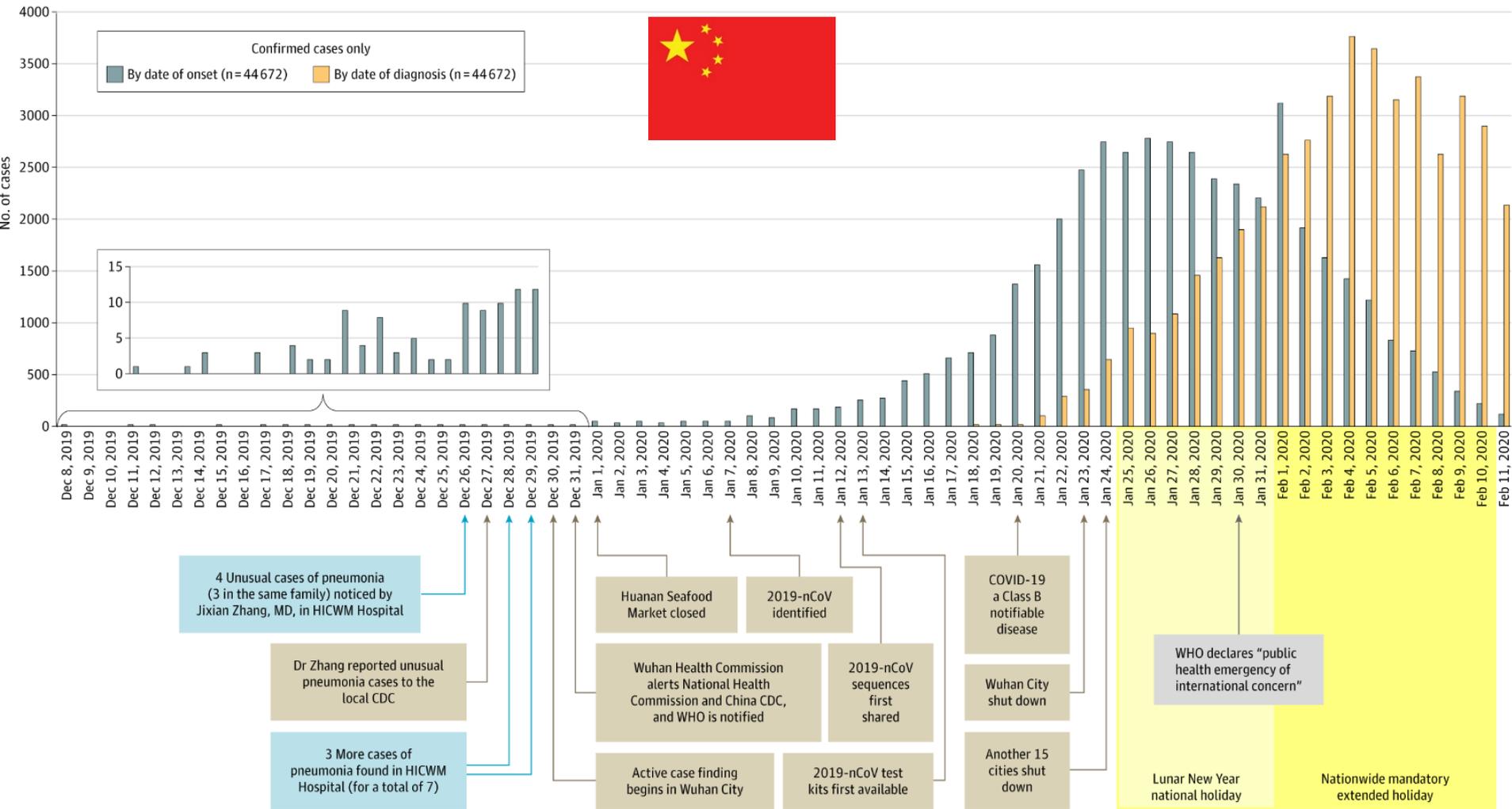
# COVID-19 Time line

- Dec 8, 2019** Severe Respiratory cases in Wuhan China
- Dec 31, 2019 China reports to WHO severe pneumonia outbreak of unknown etiology
- Jan 7, 2020** China identify **novel CoV** (2019-nCoV), virus sequenced/published
- Jan 11, 2020 1<sup>st</sup> fatality in China (61 YO male)
- Jan 20, 2020** **NIH** working on **vaccine** from a previous SARS-vaccine platform
- Jan 21, 2020** **1<sup>st</sup> case USA**, CDC activates Emergency Operation Center (EOC)
- Jan 22, 2020 China closes all public transportation Wuhan/Hubei providence
- Jan 24, 2020 **SHEMS incident command activated**
- Jan 30, 2020** **WHO declares** Public Health Emergency of International Concern (**PHEIC**)
- Jan 31, 2020 Trump administration deny entry foreign nationals travel from China 14d
- Feb 3, 2020 **SBMF Ambulatory Incident Command activated**
- Feb 7, 2020 Li Wenliang, MD (ophthomologist) target by China police, dies of COVID-19
- Feb 11, 2020 WHO names virus **COVID-19** (China names it SARS-CoV-2)
- Feb 25, 2020** NIH announces clinical trial with **Remdesivir**
- Feb 26, 2020 VP Mike Pence announced to be in charge of US Govt response to CoV

# The Epidemiological Characteristics of an Outbreak of 2019 Novel Coronavirus Diseases (COVID-19) — China, 2020

China CDC Weekly





February 24, 2020

# Characteristics of and Important Lessons From the Coronavirus Disease 2019 (COVID-19) Outbreak in China

Summary of a Report of 72 314 Cases From the Chinese Center for Disease Control and Prevention

Zunyou Wu, MD, PhD<sup>1</sup>; Jennifer M. McGoogan, PhD<sup>1</sup>

[» Author Affiliations](#) | [Article Information](#)

JAMA. Published online February 24, 2020. doi:10.1001/jama.2020.2648

 [中文 \(chinese\)](#)  [COVID-19 Resource Center](#)

72 314 Cases (as of February 11, 2020)

- Confirmed cases: 44 672 (62%)
- Suspected cases: 16 186 (22%)
- Diagnosed cases: 10 567 (15%)
- Asymptomatic cases: 889 (1%)

Age distribution (N = 44 672)

- ≥80 years: 3% (1408 cases)
- 30-79 years: 87% (38 680 cases)
- 20-29 years: 8% (3619 cases)
- 10-19 years: 1% (549 cases)
- <10 years: 1% (416 cases) ←

Spectrum of disease (N = 44 415)

- Mild: 81% (36 160 cases)
- Severe: 14% (6168 cases)
- Critical: 5% (2087 cases)

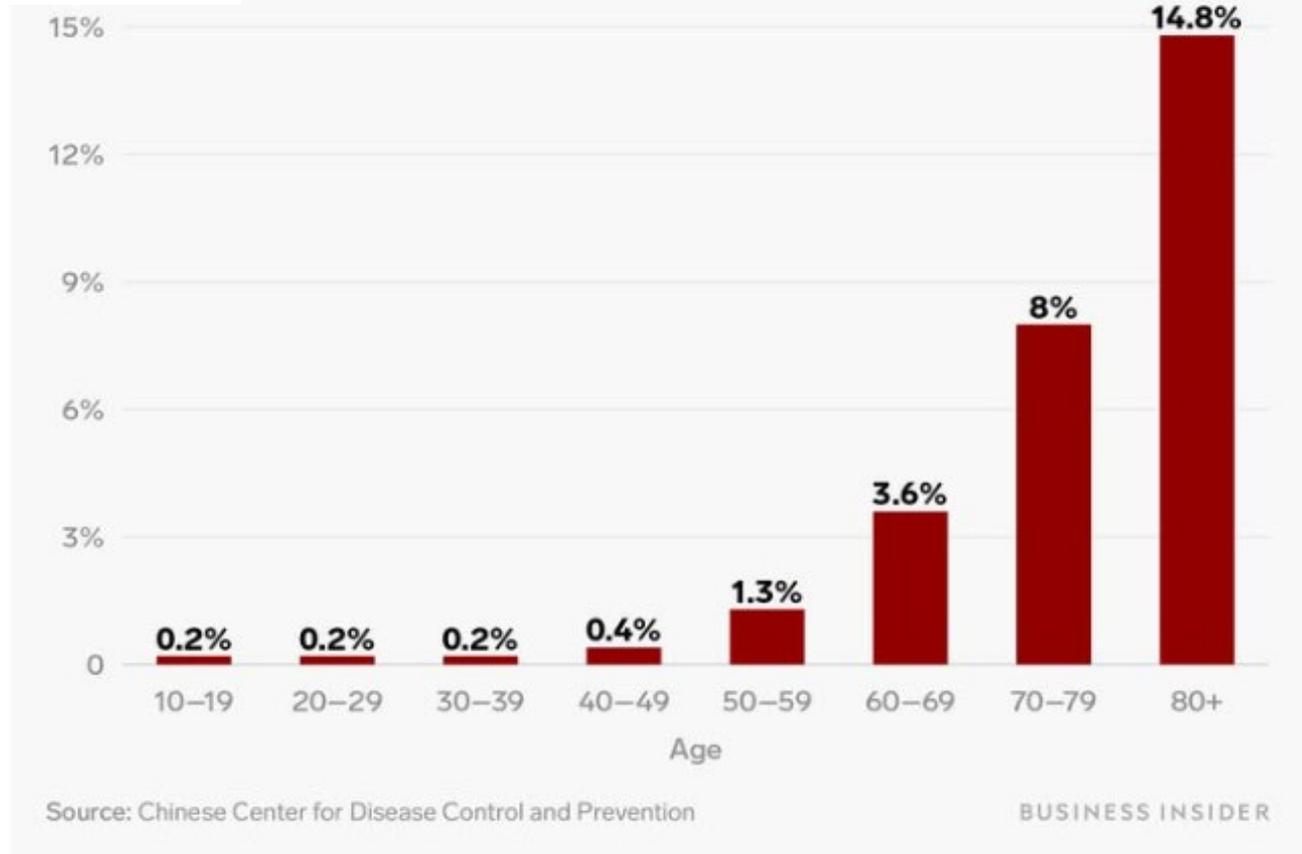
## Case-fatality rate

- 2.3% (1023 of 44 672 confirmed cases)
- 14.8% in patients aged ≥80 years (208 of 1408)
- 8.0% in patients aged 70-79 years (312 of 3918)
- 49.0% in critical cases (1023 of 2087)



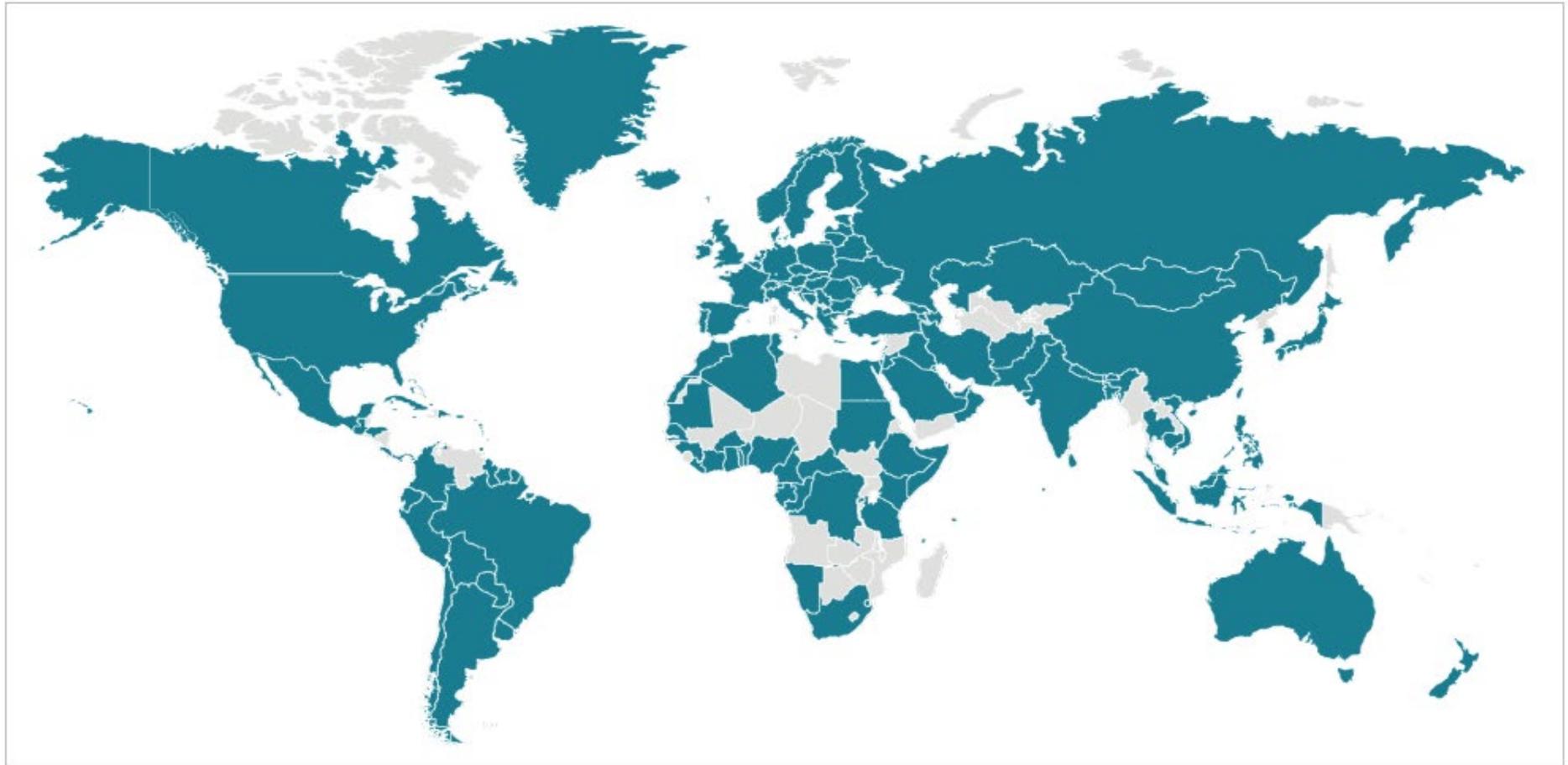
中国疾病预防控制中心  
CHINESE CENTER FOR DISEASE CONTROL AND PREVENTION

## COVID-19 mortality rate by age



# Global Update

3.29.2020 8:00 AM



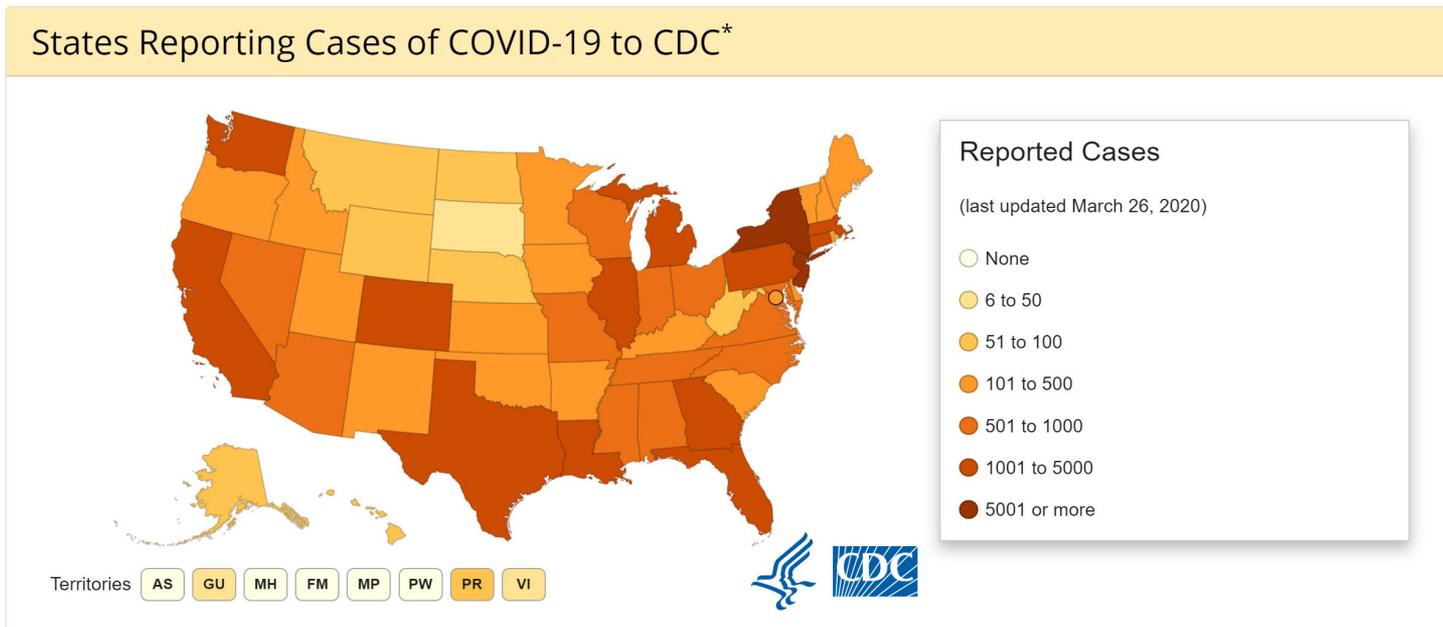
Globally 701,525 confirmed 33,174 deaths

Source: CDC, WHO, Accessed 3.29.2020

# National Update

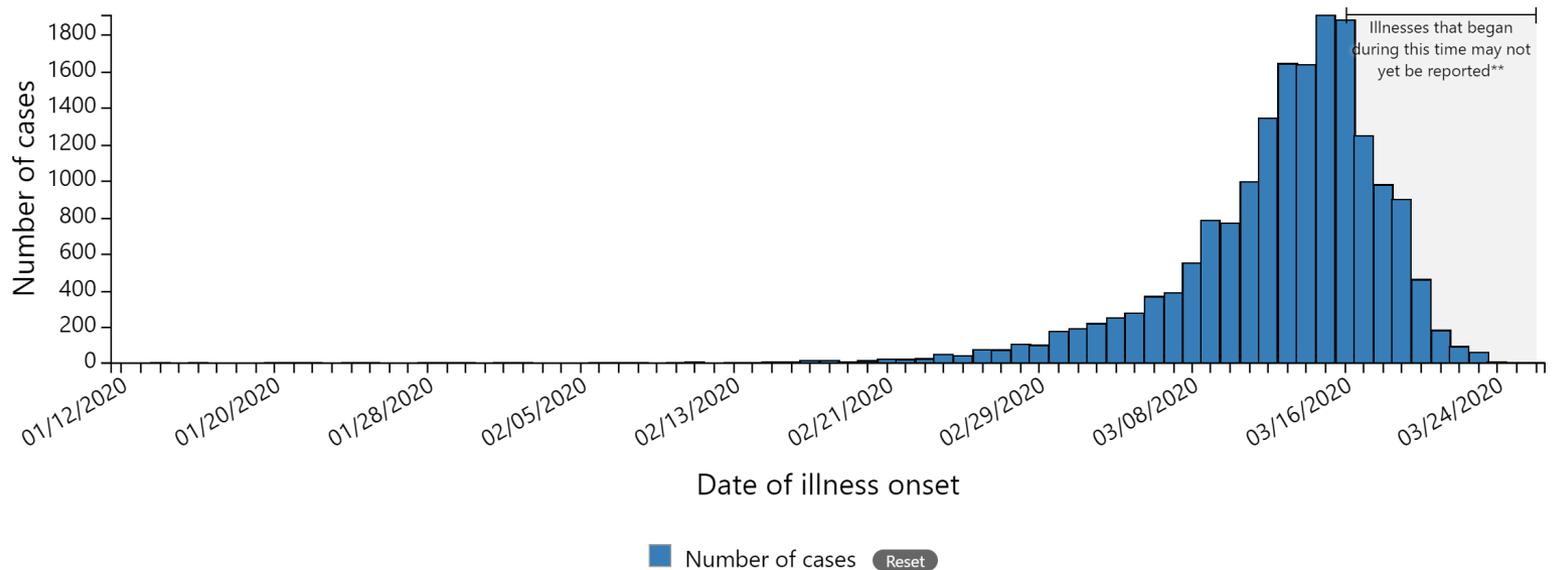
3.29.2020 8:00 AM

- First case reported in a returning traveler in Snohomish County, WA on **January 21, 2020**
- First case of suspected community transmission reported in Solano County, CA on **February 26, 2020**
- First death reported in King County, WA on **February 29, 2020**
- As of March 29, 2020 there are 131,366 cases, 2,328 deaths



Sources: CDC, Washington State DOH, Solano County DPH, Accessed 3.28.2020

# COVID-19 cases in the United States by date of illness onset, January 12, 2020, to March 26, 2020, at 4pm ET (n=17,849)\*



COVID-19 cases in the United States by date of illness onset

01/12/2020	01/13/2020	01/14/2020	01/15/2020	01/16/2020	01/17/2020	01/18/2020	01/19/2020

# California Update

3.29.2020 8:00 AM

COVID-19 Tracker

- 4,643 cases
  - 120 travel-related
  - 165 person-to-person
  - 474 community acquired
  - 950 under investigation

TOTAL CONFIRMED CASES

701,525

- Active cases 526,435
- Recovered cases 141,916
- Fatal cases 101 deaths 33,174

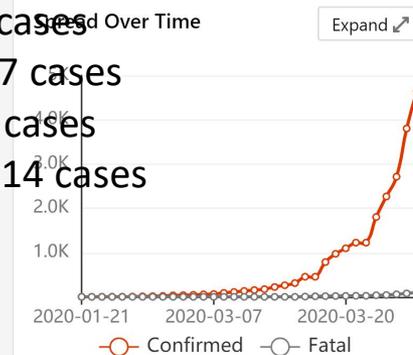
California



Age distribution

- Global
  - 0-17 years – 25 cases
  - 18-64 years – 837 cases
  - 65+ years – 442 cases
- United States
  - Unknown age – 14 cases
- California
  - 4,643 cases

Trends



Sources: CDPH, Accessed 3.29.2020

# Local/Regional Update

3.28.2020 8:00 AM

## Sonoma County Novel Coronavirus (COVID-19)

SoCo Emergency [f](#) [t](#) [l](#)



Sonoma County

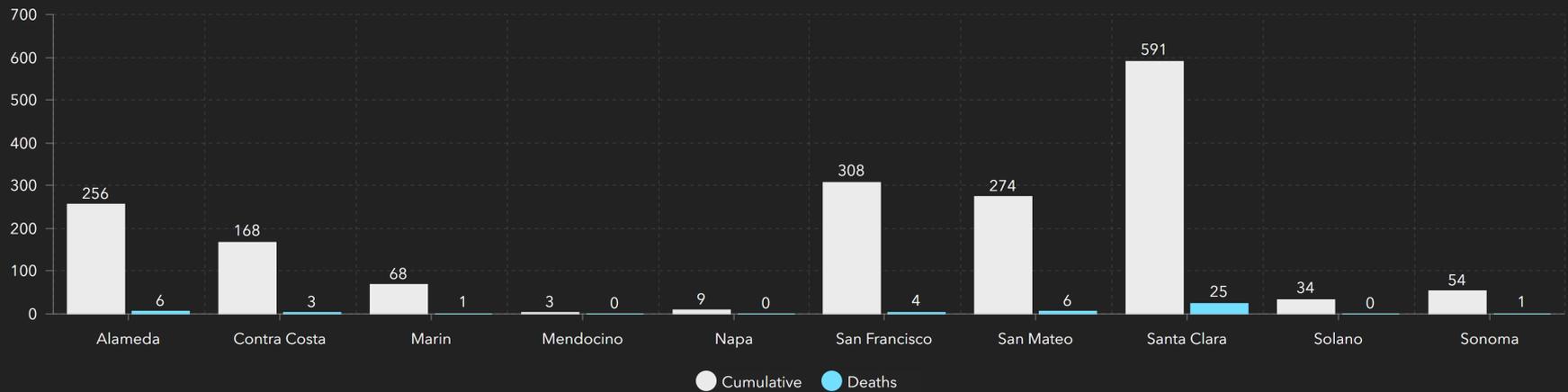
World | USA | California

Planning Report

## Sonoma County Novel Coronavirus (COVID-19) Cases Dashboard



### Bay Area Counties with Cases



# Sonoma County Cases *3.29.2020 8:00 AM*

- Fifty-eight diagnosed among Sonoma County residents
  - 1 case in Diamond Princess traveler excluded – non resident
- 12 cases associated with travel (2 Grand Princess, 2 other)
- 11 associated with community transmission
- 10 cases associated with contact to confirmed case
- 25 under investigation
  
- NEW – Sonoma County Case Dashboard
- <http://sonomacounty.ca.gov/Novel-Coronavirus-Storymap/>

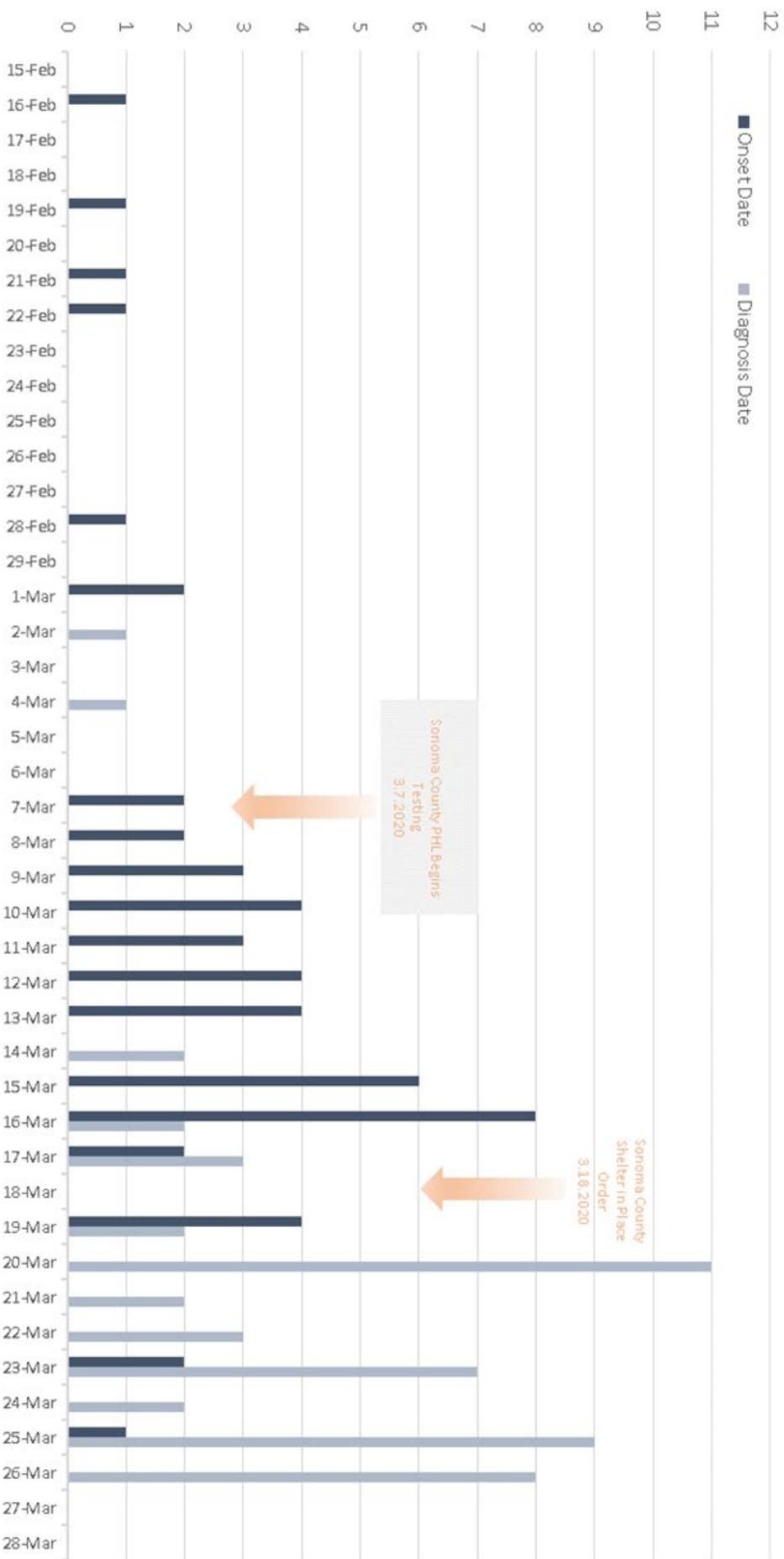
# Sonoma County Cases – Epi

- 22% have been hospitalized (13/58)
- 50% men, 50% women

Age Group	Cases
0-17	0
18-49	28
50-64	20
65+	10
<b>TOTAL</b>	<b>58</b>

# Sonoma County COVID-19 Cases by Onset and Diagnosis Date (N=54)

Updated 3.28.2020



# What is a Pandemic?

The WHO defines a pandemic as “an epidemic occurring worldwide, or over a very wide area, crossing international boundaries and usually affecting a large number of people.”

**WHO declared COVID-19 a pandemic on March 12, 2020**

# Why is a pandemic different from other disasters?

- Every community will experience the pandemic as a local event
- Can happen in many places at the same time.
- A pandemic can continue to spread illnesses in waves that can last for a year or more.
- There will be limited assistance from Federal, state and other sources of mutual aid.
- The entire community will need to work together to respond effectively

# Containment vs. Mitigation

## Containment

- Restrictions on movement
- Travel monitoring
- Isolation and quarantine
- Intensive case investigation

## Mitigation

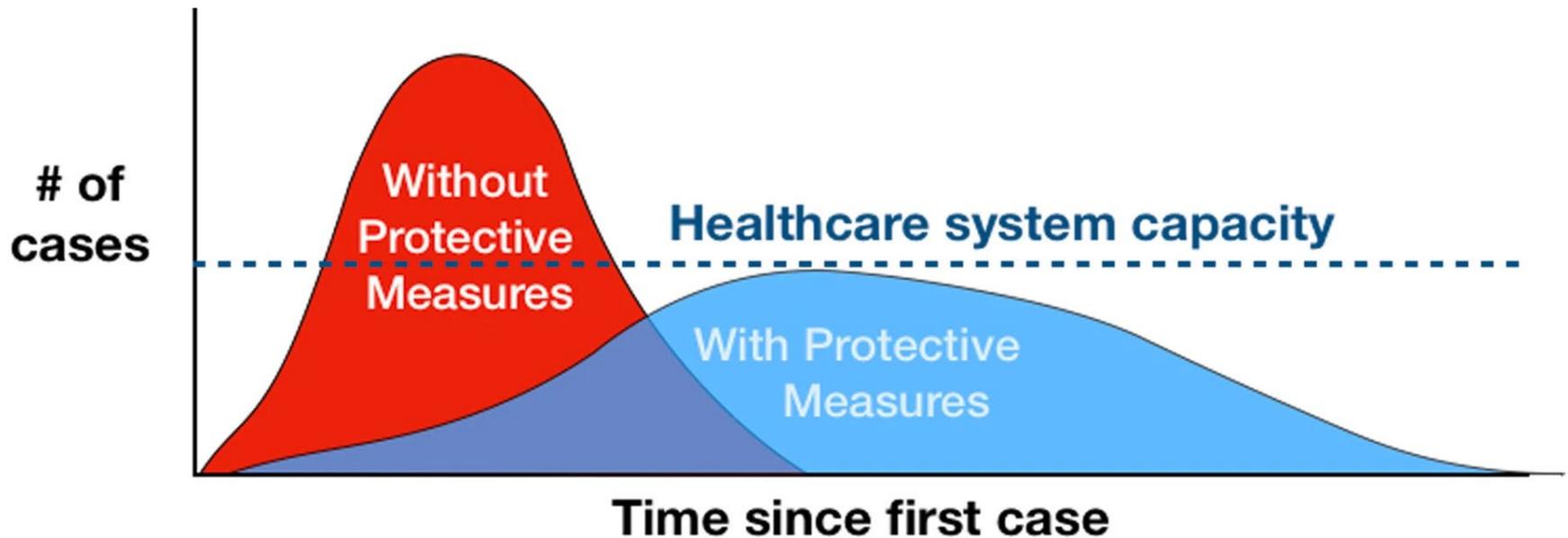
- Pharmaceutical Measures
- Non-pharmaceutical Interventions
  - Social distancing
  - Restrict public gatherings
  - School Closures

# Current Containment and Mitigation Strategies in Sonoma County

- Containment
  - Ongoing surveillance for COVID-19
  - Active case follow-up and recommendations for those exposed to known cases
  - Quarantine and isolation
- Mitigation
  - Individual: hand and respiratory hygiene, self-shielding
  - Community: social distancing, restrict public gatherings

# Community-based Interventions

1. Delay outbreak peak
2. Decompress peak burden on hospitals/infrastructure
3. Diminish overall cases and health impacts



*Adapted from CDC / The Economist*

# Introduction to COVID-19 Case Interviewing and Contact Tracing

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M. D'Arcy Richardson, RN, PHN, CNS, MSN  
TB Specialist/Public Health Consultant  
Contractor, Sonoma County Department of Health  
3/29/2020

# Learning Objectives

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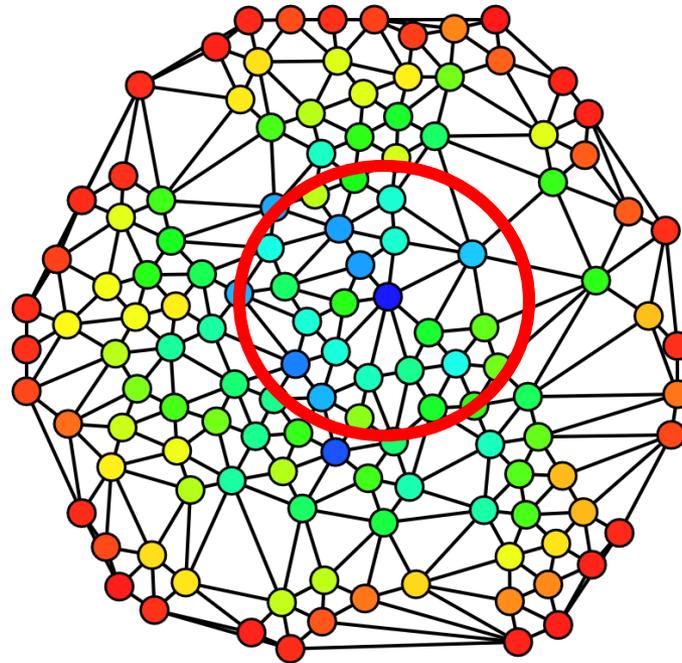
After this training, participants will be able to...

1. Explain the importance of case interviewing and contact tracing to **flatten the COVID-19 curve**
2. Describe core concepts and skills that are required to conduct an effective case interview and contact tracing
3. Explain the key elements of effective case interviews and contact tracing
4. Explain the structure and process of case interviews and contact tracing for Sonoma County

# Our GOAL:

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- **Break transmission chains to reduce morbidity and mortality**



# The New York Times

THE INTERPRETER

## How South Korea Flattened the Curve

The country showed that it is possible to contain the coronavirus without shutting down the economy, but experts are unsure whether its lessons can work abroad.

As of 3/28, South Korea has reported a total of 9,478 cases

The US has 124,388 cases

As global deaths from the virus surge past 15,000, officials and experts worldwide are scrutinizing South Korea for lessons. And those lessons, while hardly easy, appear relatively straightforward and affordable: swift action, widespread testing and contact tracing, and critical support from citizens.

# Priority COVID-19 Response Activities

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- 1. Identify, isolate, and treat people with confirmed COVID-19**
- 2. Find and evaluate people who have been in contact with COVID-19 cases and provide appropriate guidance on isolation, monitor symptoms, and test and treat as needed**
- 3. Use targeted testing strategies for high-risk/high-exposure groups to identify cases and potential transmission routes early**
- 4. Identify settings at high risk for transmission of COVID-19 and apply effective infection control measures**

# **Core Concepts and Skills Required for Conducting COVID-19 Case Interviews and Contact Tracing**

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# What Core Concepts and Skills are Required to Conduct Contact Tracing?

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- ✓ **Knowledge of COVID-19 transmission**
- ✓ **Knowledge of symptoms and disease progression**
- **Effective interviewing and patient education skills**
- **Data management and analysis skills**

# Definitions

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# Who are Contacts?

- Any person who lives with, works with, has had direct contact with, traveled with, or has been at the same locations as the case during the time they have been infectious.



# What is the Infectious Period?

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**The time period during which a COVID+ patient can transmit the disease to others**



<b>Infectious period</b>		
<b>3-6 days before</b>	<b>Symptom onset</b>	<b>At least 7 days after start of symptoms + 3 consecutive days with no fever and improvement of symptoms</b>

# Importance of Symptom Onset & the Infectious Period

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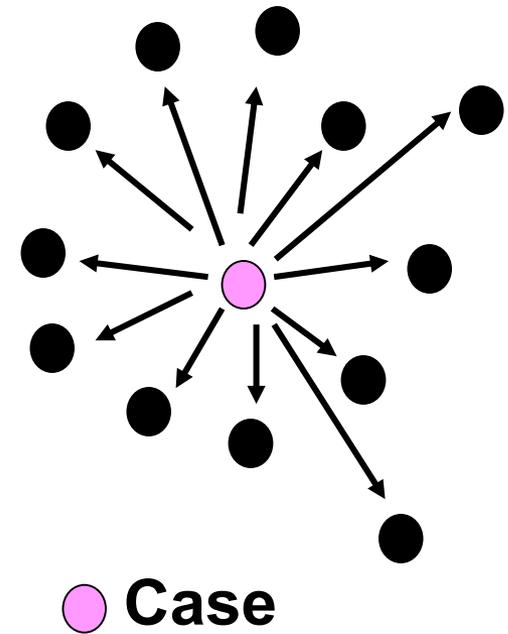
- **Focuses investigation on contacts most at risk for exposure**
  - Especially important if the investigation involves congregate settings or vulnerable populations
- **Sets the timeframe for contact follow up**
  - 14 days after last known contact with an infectious case

# What is Contact Tracing?

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A systematic process to:

- Identify persons (contacts) with likely exposure to COVID-19
- Assess contacts for symptoms and refer for testing when indicated
- Provide guidance to all contacts on quarantine and self-monitoring
- Provide information and reassurance
- Follow-up for recommended period (14 days)



# Process

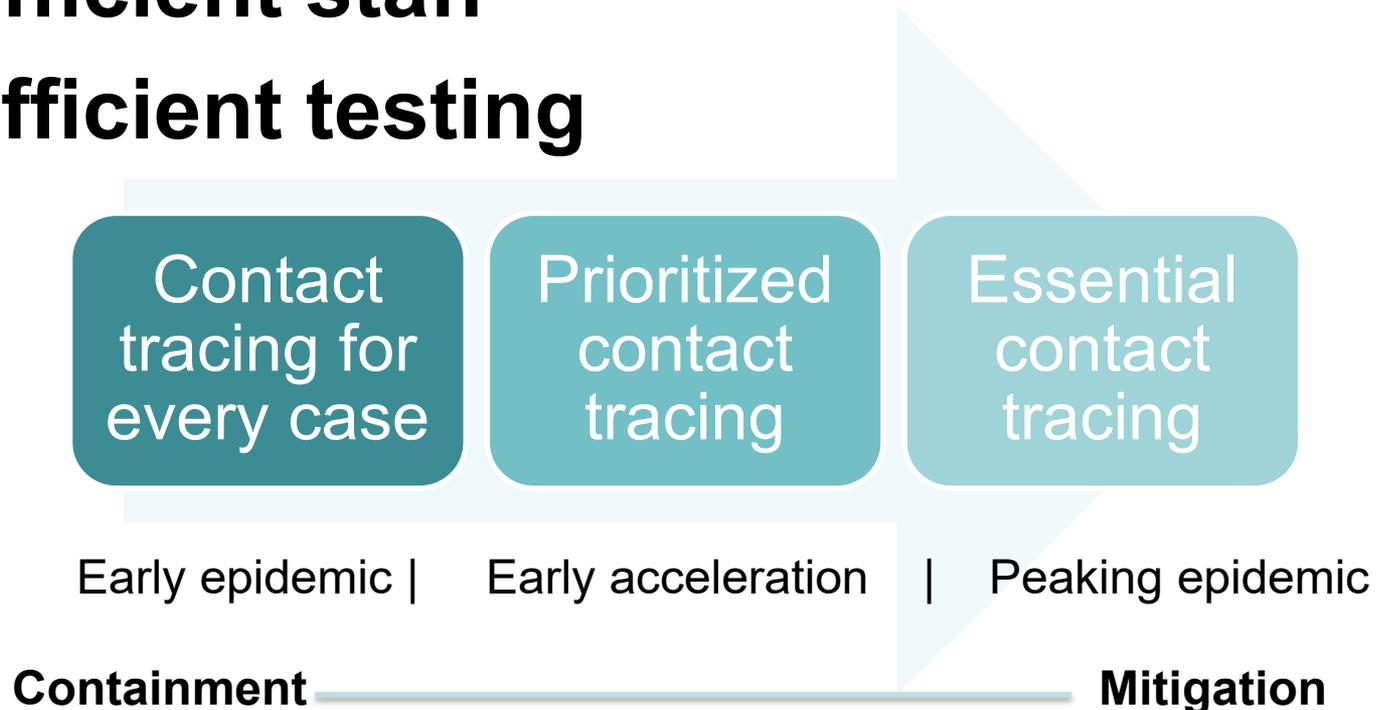
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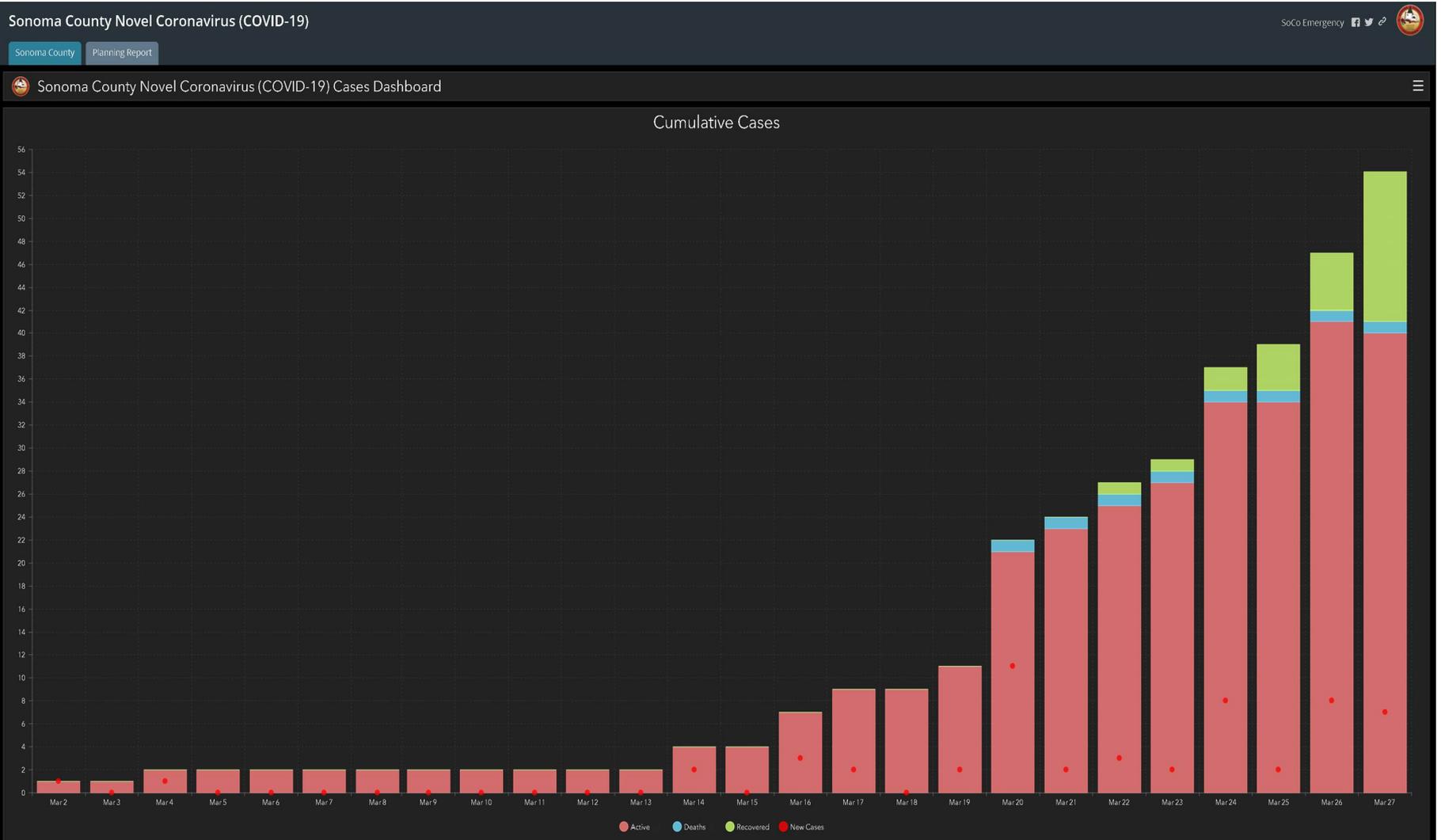
# When is Contact Tracing Most Feasible and Effective?

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- **Early epidemic**
- **Lower number of cases**
- **Sufficient staff**
- **Sufficient testing**



# Sonoma County's COVID-19 Curve



# Prioritizing Contact Tracing

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- **When faced with multiple COVID-19 cases, health departments will have to decide which cases should be a higher priority for contact tracing**
- **Highest priorities if resources are limited:**
  - **Potential exposures of vulnerable groups (e.g., elderly, immunocompromised) and people in congregate settings (e.g., prisons and jails, homeless shelters, day care providers)**
  - **First responders and health care workers**
  - **Closest contacts and vulnerable contacts of all cases**

# Prioritizing Contacts

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- **Once a list of contacts is obtained, prioritize them to determine who should be immediately contacted and assessed for disease or infection**
- **The priority assigned to individual contacts should be based on:**
  - **Likelihood of transmission from the case (e.g., the most contact)**
  - **Contact's risk for development of disease**

# Steps in the Process

Step	Purpose and process
1. Case interview	<ul style="list-style-type: none"><li>• Establish relationship with patient</li><li>• Provide reassurance and education</li><li>• Collect information needed for reporting</li><li>• Determine date of onset of symptoms</li><li>• Identify contacts and get contact information</li><li>• Identify locations visited and activities while symptomatic</li><li>• Explain the isolation process</li><li>• Assess patient needs and plan to meet needs</li><li>• Provide your contact information if they have questions</li><li>• Set up a follow up schedule as needed</li><li>• Verify address, phone, email/other means of communication</li><li>• Email or mail COVID-19 information to patient</li></ul>

**Case interviews may take more than one phone call to complete!**

# How Do You Identify Contacts?

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**Ask the case about the following during the time they have had symptoms and a few days prior to that:**

- **Places WHERE they spent time**
- **Persons with WHOM they spent time**
- **Participation in activities and events (*WHAT* and *WHEN*)**

# Steps in the Process

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Step	Purpose and process
2. Contact tracing	<ul style="list-style-type: none"><li>• Establish relationship with each contact</li><li>• Verify address, phone, email and other means of communication</li><li>• Explain the role of the health department</li><li>• Provide reassurance and education</li><li>• Assess each contact for the presence of any symptoms</li><li>• Refer person as needed for testing</li><li>• Explain the quarantine process and requirements</li><li>• Assess ability of contact to quarantine at home</li><li>• Provide guidance on self-monitoring and care</li><li>• Assess contact needs during quarantine</li><li>• Establish schedule for follow-up</li><li>• Provide your contact information for questions and concerns</li></ul>

# Other Important Considerations

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- **If a case is found among the contacts of a COVID-19 case, this second case needs their own contact tracing effort.**
- **CONFIDENTIALITY:**
  - **All information is only shared on a need-to-know basis**
  - **Any paperwork with personal identifiers needs to be kept in locked storage with access limited to those who need to know**
  - **Case information should NOT be shared with contacts**

# **Specific Guidance for Cases and Contacts on Isolation and Quarantine**

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# What does it mean to be isolated?

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- **Isolation** refers to a **person who is currently ill and contagious** and needs to stay away from other people to prevent the spread of disease
- People in isolation must:
  - Stay at home except to get essential medical care
    - Call the medical provider ahead of time so they can arrange proper infection control precautions
    - If it is necessary to seek emergency care, call the emergency room ahead of time or alert the 911 dispatcher to the COVID-19 diagnosis
    - Arrange to have groceries or other essential household items delivered
    - Let Public Health know if they need help procuring essential items during isolation period

# What does it mean to be isolated? (cont)

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- Separate themselves from other people in the home
  - Sleep in a separate room and use a separate bathroom, if possible
  - Wear a facemask if it is necessary to be in shared areas of the house
  - Avoid sharing personal household items
- Practice good hygiene and respiratory etiquette
  - Cough or sneeze into a sleeved elbow or tissue (and perform hand hygiene immediately after)
  - Wash hands often with soap and water or use a 60% alcohol-based hand sanitizer
  - Clean high-touch surfaces such as doorknobs, countertops, toilet handles, faucets

# How long should someone with COVID-19 be isolated?

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- The time a person needs to stay isolated depends on how long they will be contagious after symptoms develop
- Non-healthcare workers and/or people who do not work with elderly populations who have COVID-19 should stay isolated for:
  - A minimum of 7 days since symptom onset, AND
  - At least 3 days of no fever (without use of antipyretics) and improvement of symptoms

# How long should someone with COVID-19 be isolated (cont'd)?

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- **Healthcare workers with COVID-19 should stay isolated for:**
  - At least 7 days since onset of symptoms, AND
  - At least 3 days with no fever (without the use of antipyretics) and improvement of symptoms, AND
  - If they return to work sooner than 14 days since their symptom onset, they should wear a surgical mask and avoid working with immunocompromised patients until it has been 14 days since symptom onset
- **People who work with elderly populations (e.g. in a skilled nursing facility/assisted living facility):**
  - All of the above criteria, AND
  - Two consecutive negative COVID-19 tests done at least 24 hours apart

# What does it mean to be quarantined?

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- **Quarantine** refers to a **person who has been exposed** to a communicable disease and is **at risk of becoming ill** and spreading the disease to others
- People identified as close contacts to someone with COVID-19 may need to be quarantined

# What does it mean to be quarantined (cont'd)?

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- People who are in quarantine following an exposure to COVID-19 must:
  - Stay home except for essential medical care
    - Call ahead of time and let the provider know of the exposure to COVID-19
    - If seeking emergency care, call the emergency department ahead of time or alert the 911 dispatcher of the exposure to COVID-19
    - Make arrangements to have groceries and other essential household items delivered. Let Public Health know assistance is needed
  - Monitor for symptoms daily
    - Take temperature with a thermometer and assess for symptoms of COVID-19
    - Report symptoms to Public Health

# What does it mean to be quarantined (cont'd)?

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- Separate themselves from others in the household who were *not* exposed to COVID-19
  - Sleep in a separate room and use a separate bathroom, if possible
  - Avoid sharing personal household items
  - Avoid spending time in common areas of the house
  - “Contacts to contacts” do not need to be quarantined unless the primary contact develops symptoms of COVID-19
- Practice good hygiene and respiratory etiquette
  - Cough/sneeze into sleeved elbow or tissue and perform hand hygiene immediately after
  - Wash hands frequently with soap and water or a 60% alcohol-based hand sanitizer
  - Clean high-touch surfaces such as doorknobs, counters, toilet handles, and faucets

# How long should contacts to COVID-19 be quarantined?

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- **At least 14 days since their last exposure to the person with COVID-19**
  - For household members, this begins when the person with COVID-19 begins isolating themselves from others
- **For healthcare workers/emergency medical services (paramedics, EMTs, etc):**
  - Check with employee health policy; may be able to return to work sooner than 14 days
- **First responders (police/fire fighters/etc), childcare workers, essential workers (such as grocery store clerks):**
  - 14 days since last exposure
- **People who work with elderly populations:**
  - 14 days since last exposure

# The Interview

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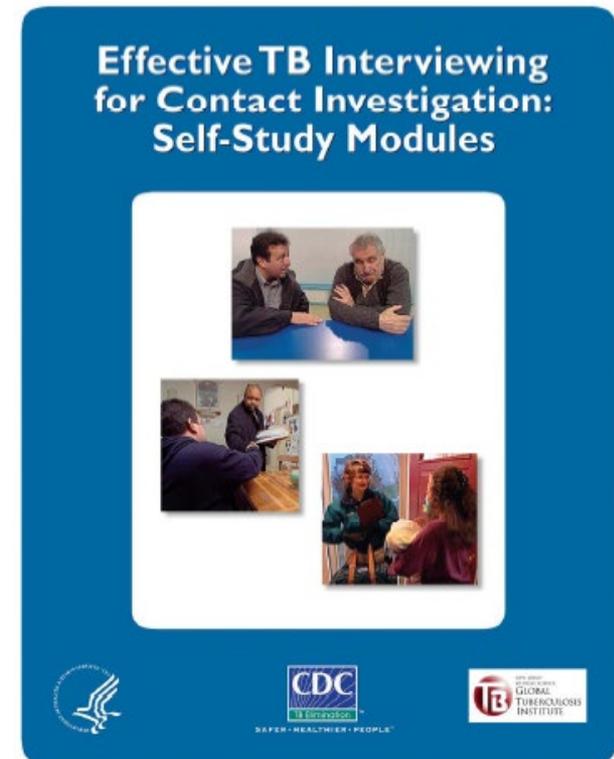
# Effective Interviewing

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- **Elicits critical information from cases and their contacts**
- **Interview skills can be learned**
- **Interview skills improve with practice**

## NEXT STEPS

- **Demonstration**
- **Shadowing experienced interviewer**



# Tools & Resources

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- **Interview form for cases and contacts**
- **CD Team and Nursing Directors**
- **Dr. Mase**
- **D'Arcy Richardson**



# Breakdown of each section of the COVID-19 Case Interview Form

## COVID-19 Case Interview Form

Please complete this form for each confirmed case of COVID-19.

**Interviewer Name:** \_\_\_\_\_ **Date:** \_\_\_\_\_ **CalREDIE Case #:** \_\_\_\_\_

PATIENT INFORMATION			
Last Name	First Name	DOB	__/__/____
Phone _____	Email: _____		
	Address: _____		
Health Care Provider:			Linked to CR#:

What do you do for work? Describe setting (If applicable):

Who else is in your household?:

<u>Name:</u>	<u>DOB:</u>	<u>Relationship?</u>	<u>Occupation Contact #:</u>	<u>Symptoms?</u>
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**IF HOUSEHOLD PEOPLE HAVE SYMPTOMS START NEW INTERVIEW FORM FOR THEM**

Are you a healthcare worker who provides direct patient care?

YES  NO

Do you work or volunteer with any sensitive populations?

YES  NO

(e.g. the homeless, persons in congregate care settings, prisons, jails, daycare)

If YES: Occupation Setting Name \_\_\_\_\_

Last Day of Work \_\_\_/\_\_\_/\_\_\_\_\_

Worked after symptom started?

YES  NO

**Details on any Healthcare or Sensitive Population exposure:**

i.e. person works with disabled children 3 days a week, etc.

### CLINICAL INFORMATION

Pre-existing medical conditions?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Unk
Chronic Lung Disease (asthma/emphysema/COPD)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Unk
Diabetes Mellitus	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Unk
Cardiovascular disease	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Unk
Chronic Renal disease	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Unk
Chronic Liver disease	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Unk
Immunocompromised Condition	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Unk
Neurologic/neurodevelopmental/Intellectual disability	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Unk (if YES, specify): _____
Other chronic diseases	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Unk (if YES, specify): _____
If female, currently pregnant	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Unk
<b>Current</b> <input type="checkbox"/> smoker <input type="checkbox"/> vape	<input type="checkbox"/> Yes	<input type="checkbox"/> No	if YES, <input type="checkbox"/> Tobacco <input type="checkbox"/> Marijuana
<b>Former</b> <input type="checkbox"/> smoker <input type="checkbox"/> vape	<input type="checkbox"/> Yes	<input type="checkbox"/> No	if YES, <input type="checkbox"/> Tobacco <input type="checkbox"/> Marijuana
<input type="checkbox"/> Other:			

\*\*\*Adding a question on medication\*\*\*

**SYMPTOMS**

Date of Symptom Onset

\_\_\_/\_\_\_/\_\_\_

**During this illness, did the patient experience any of the following symptoms?****Symptom Present?**Fever >100.4F (38C)<sup>c</sup> Yes  No  Unk

Subjective fever (felt feverish)

 Yes  No  Unk

Chills

 Yes  No  Unk

Muscle aches (myalgia)

 Yes  No  Unk

Runny nose (rhinorrhea)

 Yes  No  Unk

Sore throat

 Yes  No  Unk

Cough (new onset or worsening of chronic cough)

 Yes  No  Unk

Shortness of breath (dyspnea)

 Yes  No  Unk

Nausea or vomiting

 Yes  No  Unk

Headache

 Yes  No  Unk

Abdominal pain

 Yes  No  Unk

Diarrhea (≥3 loose/looser than normal stools/24hr period)

 Yes  No  Unk

Other, specify: \_\_\_\_\_

<b>EXPOSURE HISTORY</b>		
In the 14 days before symptom onset, did the patient:		
<b>Travel?</b>		<input type="checkbox"/> YES <input type="checkbox"/> NO
Dates:	Location:	Notes:
<b>Attend any appointments for medical or personal care?</b>		<input type="checkbox"/> YES <input type="checkbox"/> NO
Dates:	Location:	Notes:

<b>Attend any group gatherings including work, sports, parties, other?</b>		<input type="checkbox"/> YES <input type="checkbox"/> NO
Dates:	Location:	Notes:
<b>Other events or group settings (church, gym, public transit, etc)?</b>		<input type="checkbox"/> YES <input type="checkbox"/> NO
Dates:	Location:	Notes:

Has had close contact with a **lab-confirmed** case of COVID-19 while that case was ill?

**YES**  **NO**

If YES, please describe: i.e. <1 hour > 1 hour

**LABORATORY TESTING** **YES**  **NO**

Has the patient been tested for influenza?

Result

 **Positive** **Negative**

Test Type

 **Rapid Test** **PCR** **YES**  **NO**

Has the patient been tested for any other viral respiratory illness?

Results:

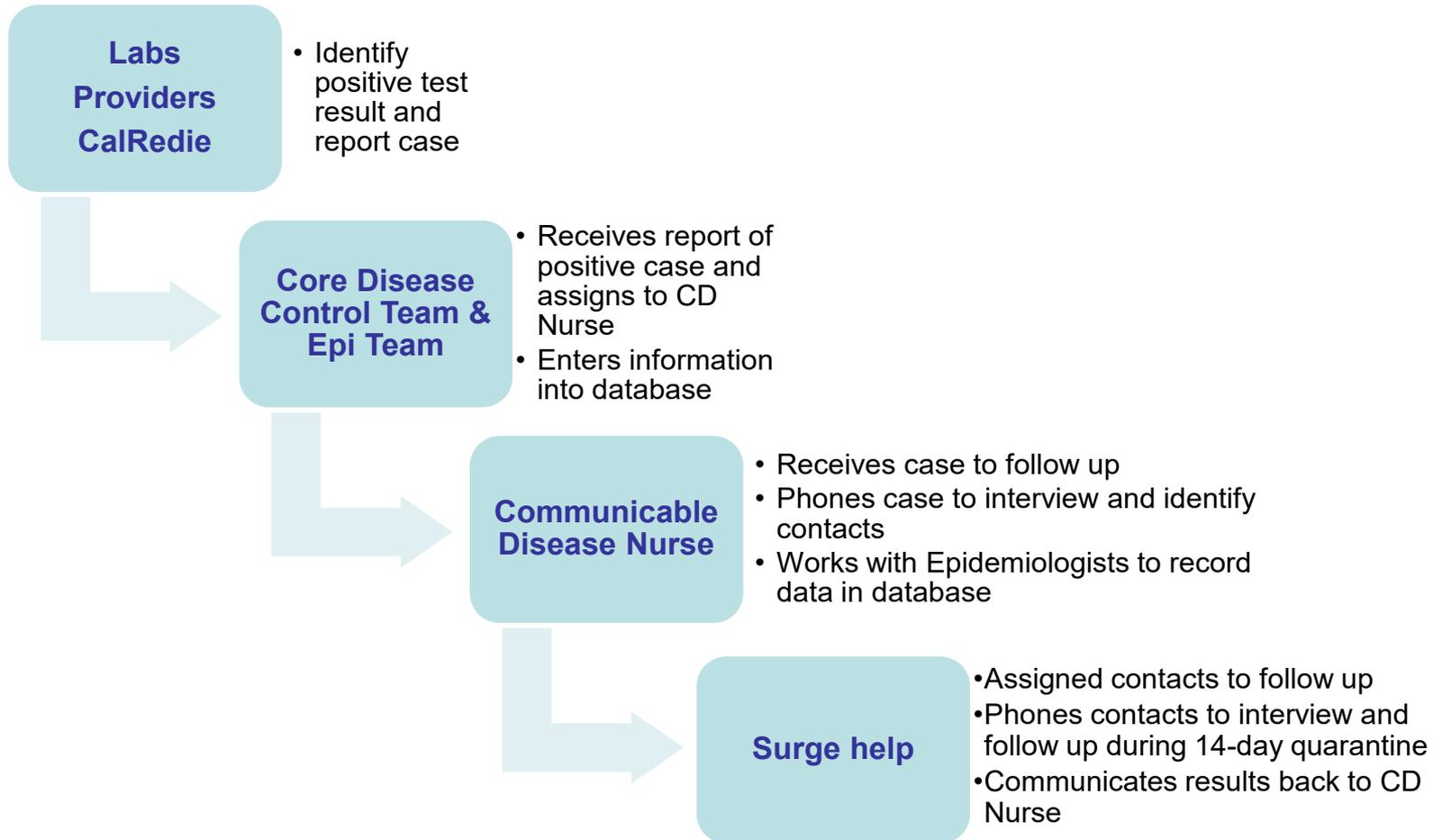
# Structure for Sonoma County

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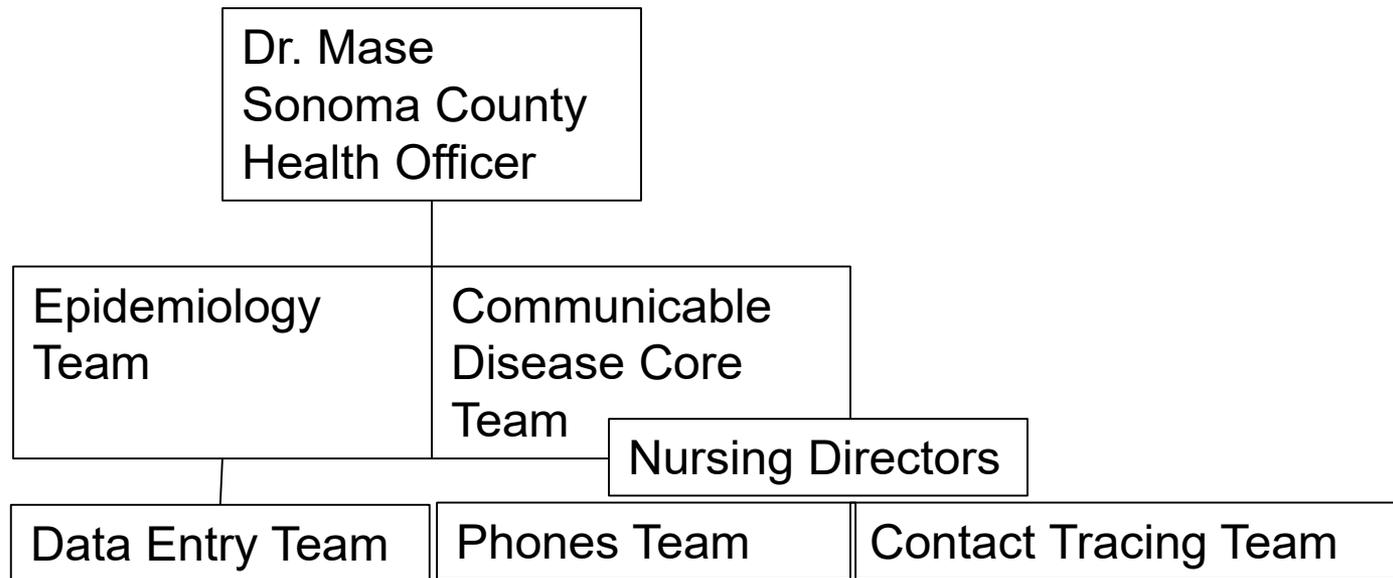
# Information Flow

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# Proposed Contact Tracing Structure

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NOTE: This is NOT an organizational chart. This represents the stakeholder groups and their relationships for the purposes of COVID-19 case and contact tracing only.

# Using Data to Guide Strategy & Prioritization

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**Data can be used for:**

- **Case and contact follow-up and management**
- **Analysis of findings to help assess contact tracing strategy**
  - **Apparent clusters of cases that need further investigation**
  - **Number of contacts identified**
  - **Contacts evaluated who are COVID+**
  - **Contacts evaluated who are asymptomatic**

**Thank you!**

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**Q&A**

# Online Resources

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## Other Resources

- [Sonoma County Emergency and Preparedness Information](#)
  - [What you need to know about Coronavirus \(COVID-19\)](#)
- [County of Sonoma Department of Health Services](#)
- [California Department of Public Health](#)
- [Centers for Disease Control and Prevention \(CDC\)](#)
- [World Health Organization \(WHO\)](#)