



CORONAVIRUS WEBINAR

Panelists:

- 1) **Saud Anwar, MD** (Pulmonary and critical care specialist, State Senator)
- 2) **Santosh Sanganalmath, MD, PhD, FACC** (Sr. Director, Cardiovascular Medical Affairs)
- 3) **Sowmya Kurtakoti, MD, CMD, FAAFP** (Chief of Geriatrics, Hartford Hospital)
- 4) **Vasanth Kainkaryam, MD, FAAP, FACP** (Physician & Owner, 4 Elements Primary Care)
- 5) **Vittal Setru, MD** (Hospitalist, Baystate Medical Center)



Agenda

	TOPIC	PRESENTER
1	Coronavirus (COVID-19): Situation Analysis & Epidemiology	Santosh Sanganalmath
2	Clinical Signs & Symptoms	Vasanth Kainkaryam
3	Disease Severity, Diagnosis & Management	Vittal Setru
4	Implications in the Elderly	Sowmya Kurtakoti
5	Public Health perspectives about COVID-19	Saud Anwar
6	FAQ	All Panelists



March 14, 2020



Coronavirus (COVID-19)

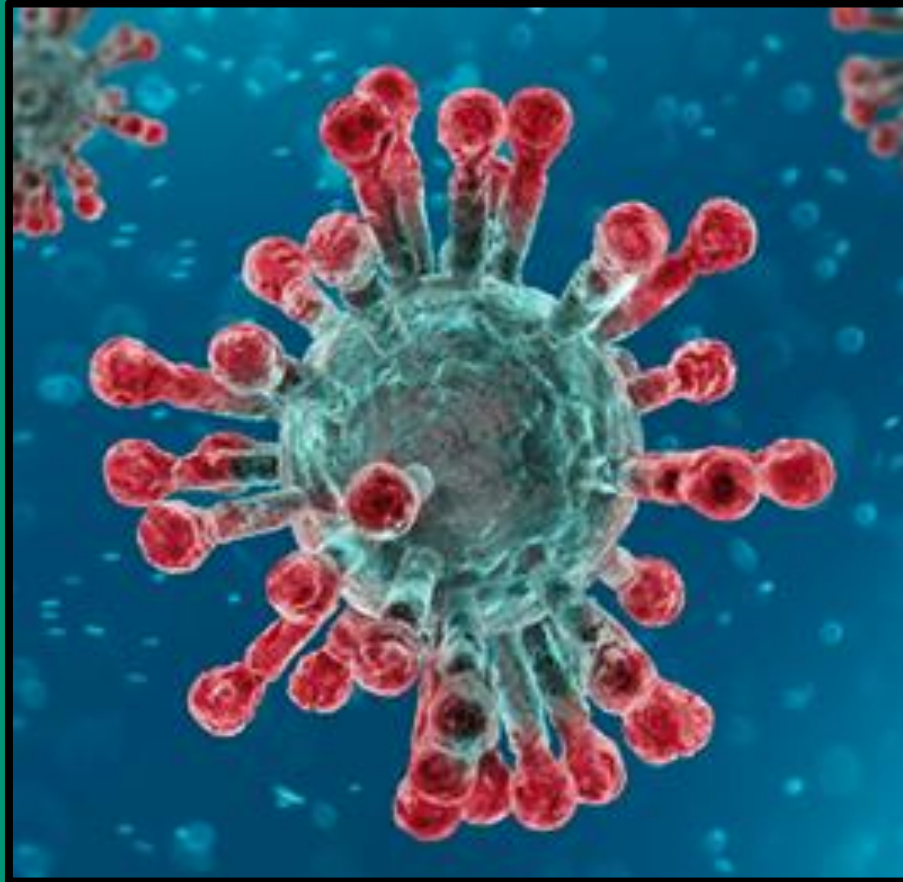
Situation Analysis & Epidemiology

Santosh Sanganalmath, MD, PhD, FACC

Senior Director, Cardiovascular Medical Affairs



Structure



“CORONA” is Latin for crown

Under a microscope, these viruses look like a crown with spikes ending in little blobs

Image courtesy: Harvard Health Publishing



The Majority of Infections are Mild

Seriousness of symptoms

80.9%



MILD
Like flu, stay at home

13.8%



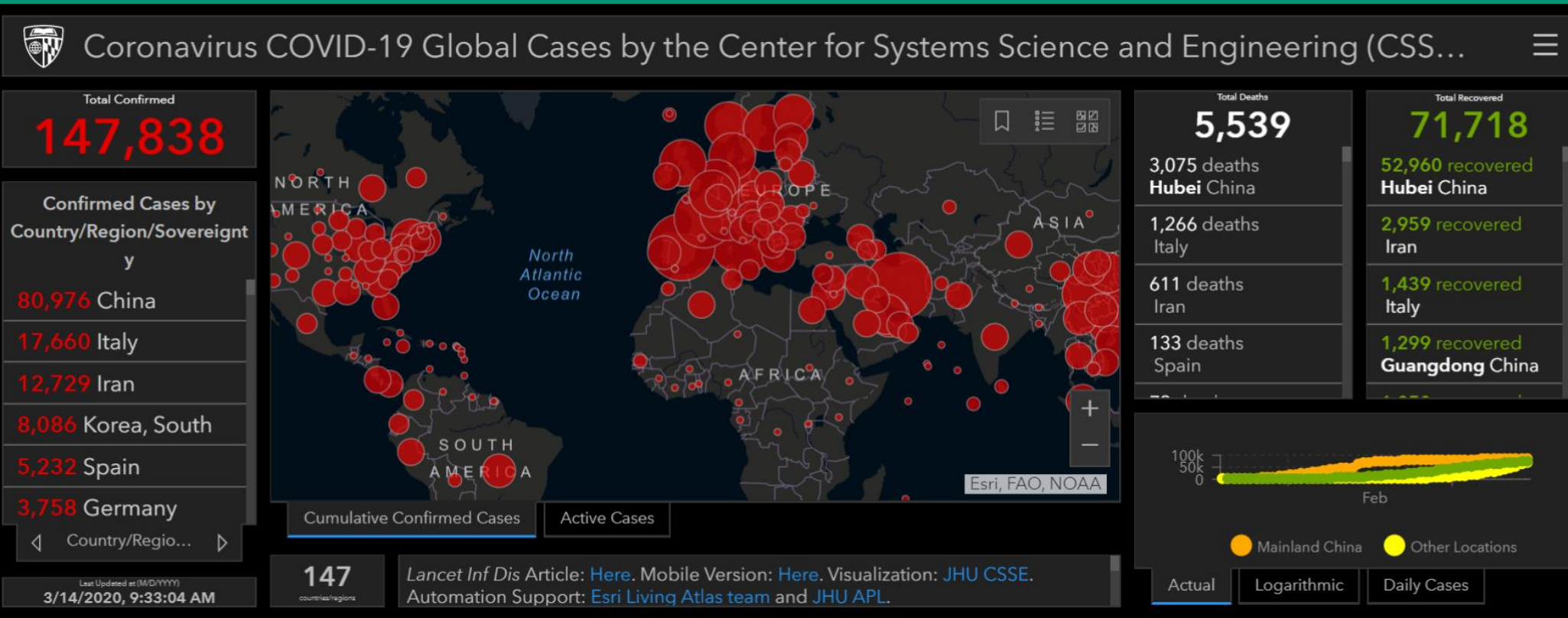
SEVERE
Hospitalization

4.7%



CRITICAL
Intensive care

World Health Organization (WHO) has declared coronavirus outbreak as a pandemic



COVID-19: U.S. at a Glance

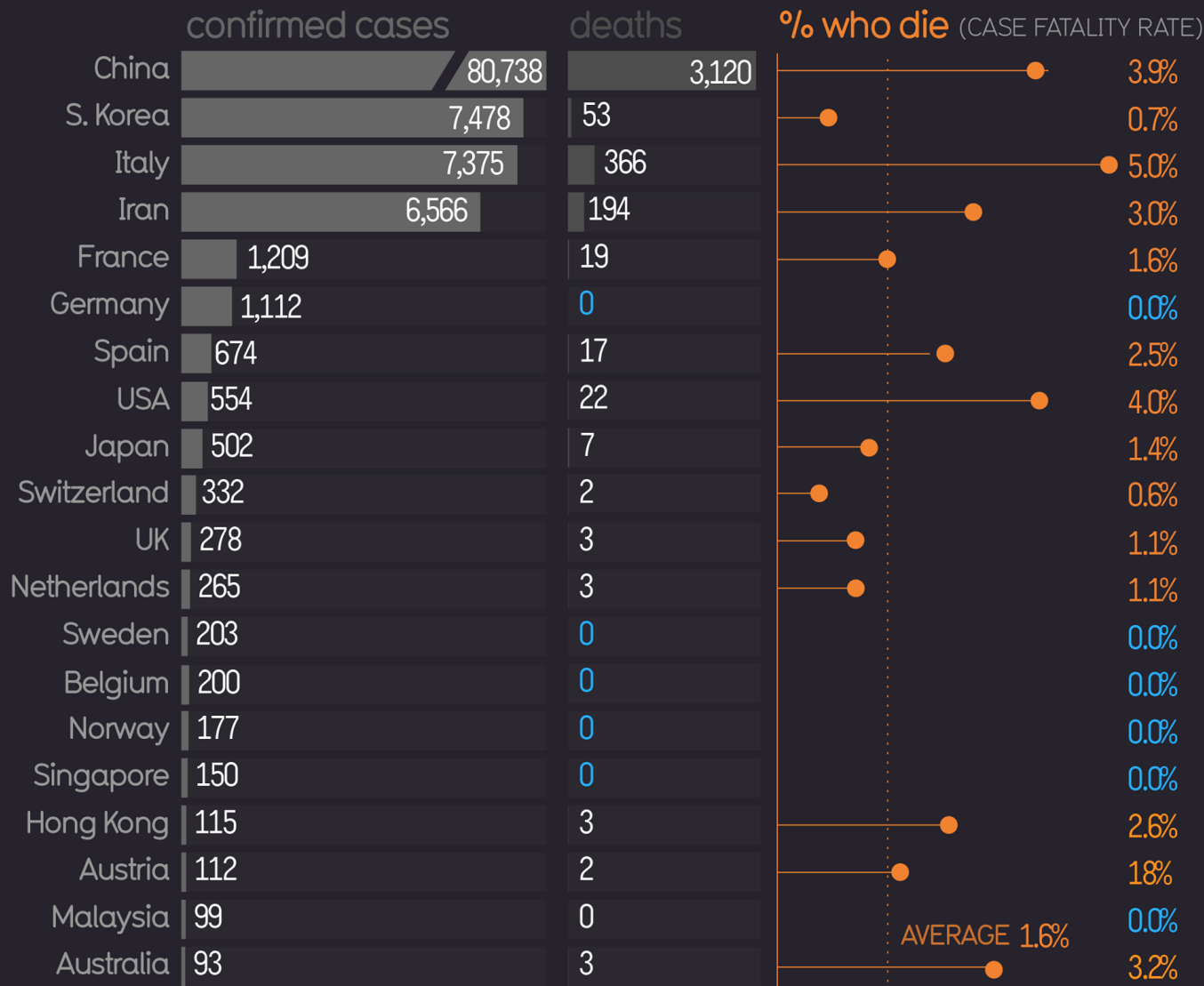
- Total cases: 1,629 (1362 under investigation)
- Confirmed cases: 267
- **Total deaths: 41**

Statistics courtesy: Johns Hopkins University



The Fatality Rate Varies by Country

Quality of healthcare & avg age of population are both factors

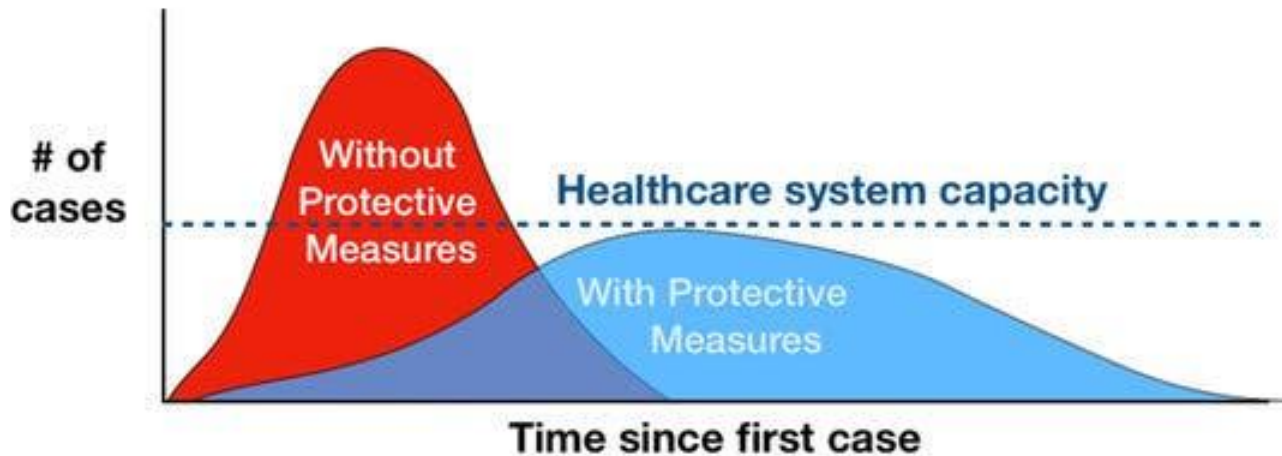


How it Spreads??

- Initial association with a China seafood market that sold live animals
- Later, person-to-person spread became the main mode of transmission
- Via respiratory droplets (similar to the spread of influenza); when a person with infection coughs, sneezes, or talks
- Via touching an infected surface and then touching eyes, nose, or mouth.
- Droplets typically do not travel more than 6 feet and do not linger in the air.
- Virus can live ~3 hours in the air and from 4 hours to 3 days on hard surfaces.



Flattening of the Curve



Adapted from CDC / The Economist

Warm Weather Decline in Coronavirus: does the science support that claim?

FACT:

Some viruses, like the common cold and flu, spread more when the weather is colder

Does Coronavirus react the same way?

- At this time, we do not know how new coronavirus will behave during warm weather
- According to the Center for Infectious Disease Dynamics, in warm, humid weather, viruses have a harder time spreading for 2 reasons:
 - The droplets that carry viruses **do not stay suspended in the air** as long in humid conditions, and
 - warmer temperatures **degrade the virus** more rapidly



When will we have a Vaccine for Coronavirus?

FACTS:

No vaccine is available, although scientists will be starting human testing on a vaccine very soon. However, it may be a year or more before we even know if we have a vaccine that works.

Why does Vaccine development take so long?

Step 1: isolate and grow viruses in the lab

Clinical trials:

Phase 1 (~ 3 months): involves just a few dozen healthy volunteers - evaluate whether the vaccine is safe. That takes about three months.

Phase 2 (6-8 months): This time, several hundred people will get the shot, ideally in an area experiencing a Covid-19 outbreak - how well it spurs the production of antibodies and fends off the disease for these trial subjects.

Phase 3 (6-8 months): few thousand people in an outbreak zone and repeat the experiment.



March 14, 2020



COVID-19: Clinical Signs and Symptoms

How can you tell the difference between COVID-19, the flu, and the common cold?

Vasanth Kainkaryam, MD, MS, CPE, ADS, FAAP, FACP

Physician and Owner, 4 Elements Direct Primary Care

Clinical Presentation

- + For up to 14 days after exposure (typically 4-5 days), you may not have any symptoms
- + Many overlapping symptoms between COVID, flu, and common cold
- + A few key symptoms can help differentiate one between the other (but there are exceptions)
- + Children may not present the same way as adults
- + Late detection may manifest in very severe symptoms



Comparison of Clinical Symptoms

COVID-19 compared to other common conditions

SYMPTOM	COVID-19	COMMON COLD	FLU	ALLERGIES
Fever	Common	Rare	Common	Sometimes
Dry cough	Common	Mild	Common	Sometimes
Shortness of breath	Common	No	No	Common
Headaches	Sometimes	Rare	Common	Sometimes
Aches and pains	Sometimes	Common	Common	No
Sore throat	Sometimes	Common	Common	No
Fatigue	Sometimes	Sometimes	Common	Sometimes
Diarrhea	Rare	No	Sometimes*	No
Runny nose	Rare	Common	Sometimes	Common
Sneezing	No	Common	No	Common

*Sometimes for children

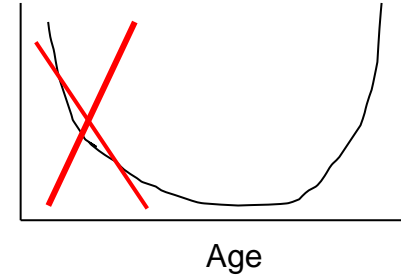
Sources: CDC, WHO, American College of Allergy, Asthma and Immunology

BUSINESS INSIDER



Unusual Behavior of COVID-19

- + Clinical presentation in children is mild
 - + Symptoms are not common
 - + Fevers (resolves quickly), cough, sore throat



- + Clinical presentation can also be severe (especially in the elderly)
 - + Pneumonia
 - + High (temperature > 101 F)
 - + Rapid breathing
 - + Coughing (with or without phlegm)
 - + Shortness of breath
 - + Difficulty completing sentences
 - + High heart rate
 - + X-ray abnormalities



Unusual Behavior of COVID-19

- + Clinical presentation can also be severe (especially in the elderly)
 - + Respiratory Failure/Acute Respiratory Distress Syndrome
 - + Low oxygen levels
 - + Unable to breathe on their own
 - + Multi-organ failure
 - + Leg swelling (heart failure, kidney failure)
 - + Decreased urine output (kidney failure)
 - + Abnormal laboratory tests (liver failure, kidney failure)
 - + Confusion (brain)
 - + Drop in blood pressure (heart failure)
 - + Infections (immune failure)



Pregnancy Considerations

- + Currently, we do not know of any spreading via during pregnancy or during the delivery process
- + In the cases with infants with COVID-19, the amniotic fluid or breastmilk didn't show virus (we do not know)
- + Approach in pregnant women is the same as non-pregnant women, except that pregnant women are more susceptible to complications from what we know about similar viruses to COVID-19



Newborn Considerations

- + Two cases of newborn babies have been documented
- + American College of Obstetrics and Gynecology recommends that infants with COVID-19 should be isolated and evaluated as PUI (persons under investigation)
- + Unknown whether breast milk transmission occurs, but close contact during breastfeeding could have droplet transmission
- + American College of Obstetrics and Gynecology recommends that mothers with suspected or confirmed COVID-19 take precautions (mask, hand hygiene or pump and have someone else feed the child, clean pump)



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Disease Severity, Diagnosis and Management

Vittal Setru MD

Hospitalist, Baystate Medical Center

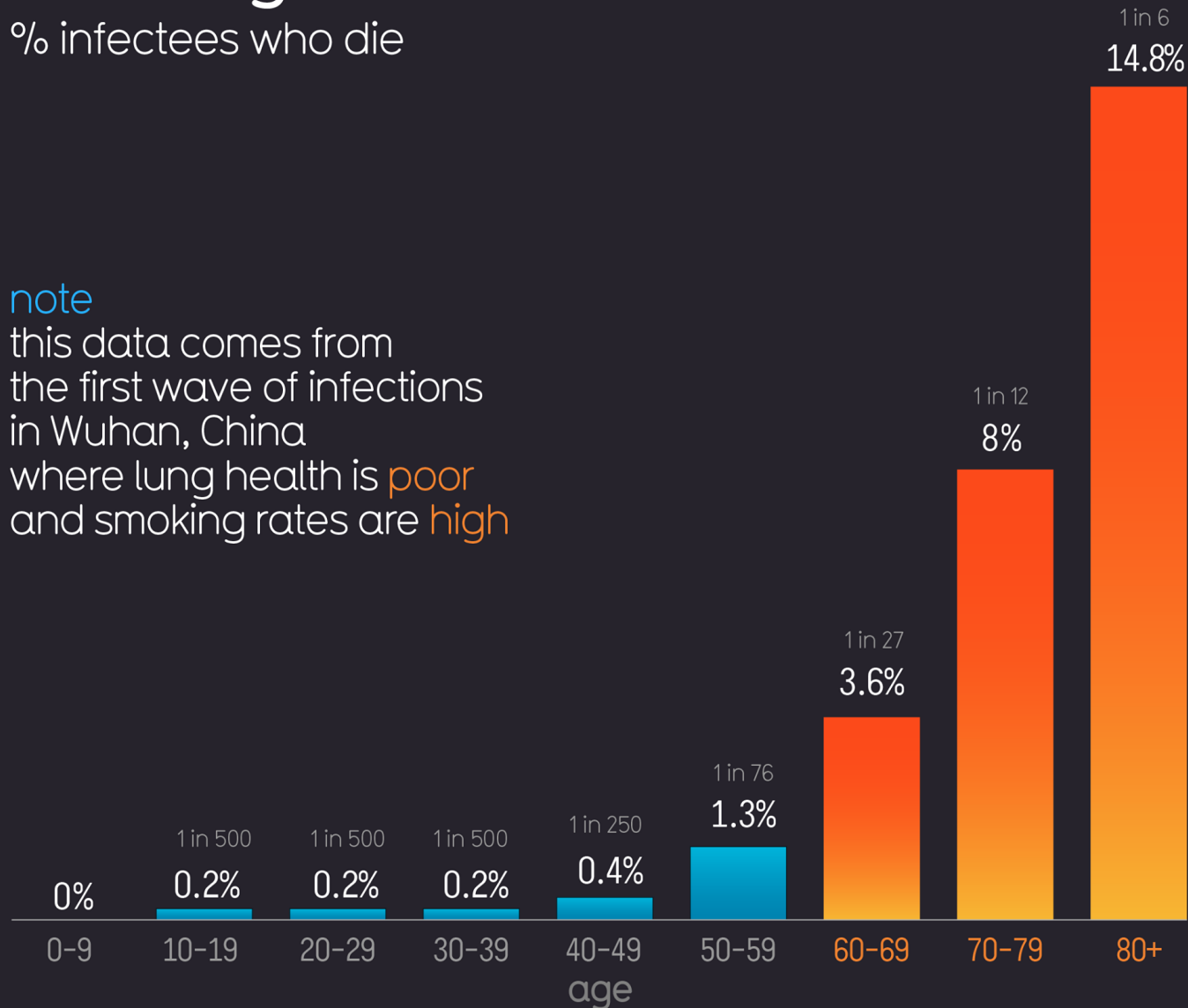
Founder, CurEasy

Those Aged 60+ are Most At Risk...

% infectees who die

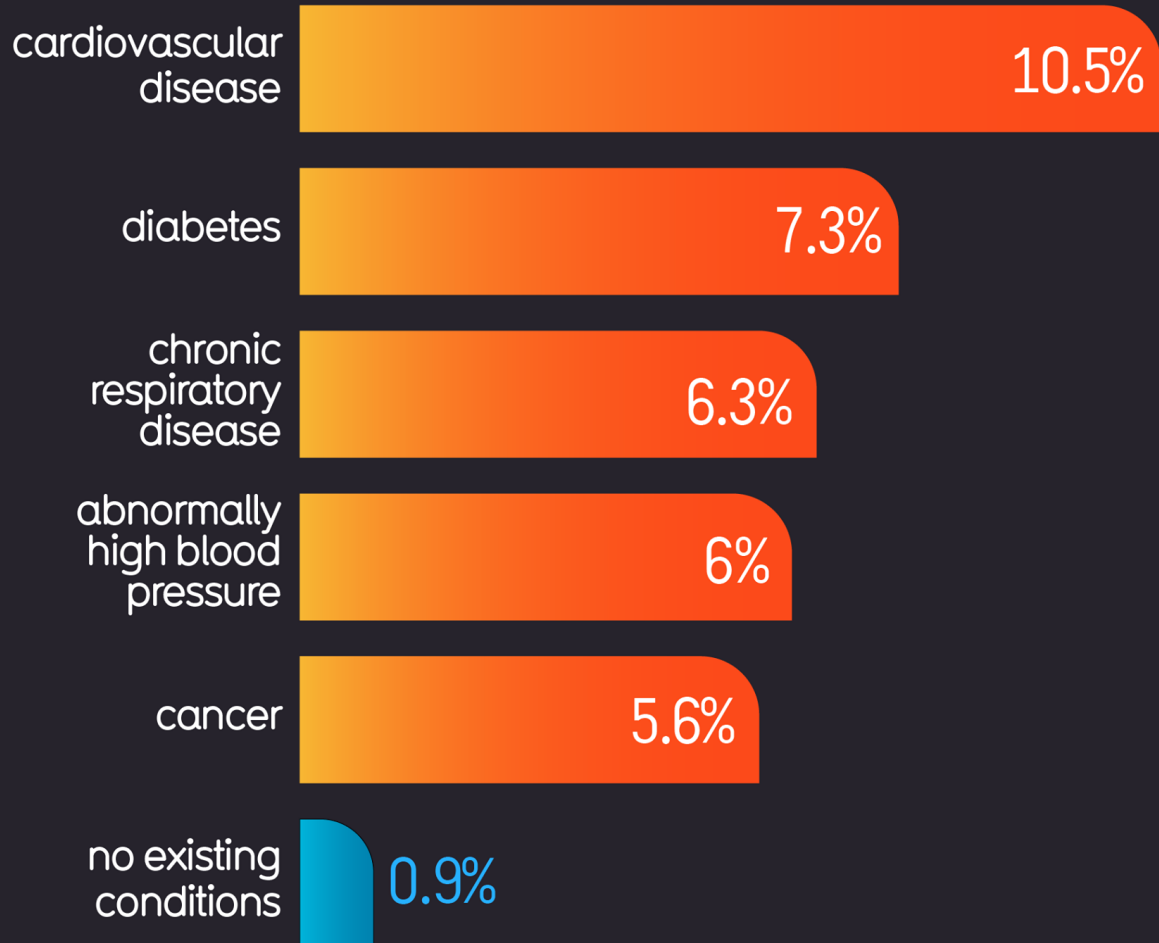
note

this data comes from
the first wave of infections
in Wuhan, China
where lung health is **poor**
and smoking rates are **high**



Especially Those with Existing Conditions

% with other **serious ailments** who die



Prevention is better than Cure

- + Social Distancing
- + Regularly and thoroughly clean your hands with an alcohol-based (atleast 60% alcohol) hand rub or wash hands (atleast 20 seconds) with soap and water.
- + Maintain at least 1m (3ft) distance between yourself and anyone who is coughing or sneezing
- + Avoid touching eyes, nose and mouth
- + Follow good respiratory hygiene
- + Stay home if you feel unwell
- + Keep yourself up-to-date by visiting reliable sources such as WHO or CDC website
- + Avoid non essential travel and cruise travel
- + Order grocery and other supplies online if possible



Stay home if you have these symptoms:

- + Feel unwell
- + Cough
- + Slight fever
- + Runny nose
- + Muscle aches
- + Generalized weakness

Seek Medical Attention if you have these symptoms

- + If you feel you have been exposed to a patient with COVID-19
- + Fever of >100.4 F
- + Severe cough
- + Respiratory distress (Difficulty in breathing)
- + Blood in sputum



How to seek medical attention:

- + Call your Primary care physician first
- + Helps your clinic to prepare for your arrival
- + If your primary care is unavailable
 - + Telemedicine consult
 - + Consultation lines set up by Hospitals
 - + Emergency room Visit



“I am sick but my physician says I must stay home”



Stay Home
Avoid public places
Avoid Public transportation



Cover your face with mask
if you are around pets and
need to care for them
Cover coughs and sneezes



Stay away from others
Limit contact with pets and animals



Frequently wash hands
Clean ‘high touch’ surfaces with
wipes everyday



Avoid sharing common household
items with others



Monitor your symptoms
Call your PCP if warning signs
Call 911 if you have emergency



What to expect when I go to Emergency Department:

- + You may not be tested and discharged even if you have symptoms.
- + You may be admitted to the hospital. Physician may decide to discharge you in couple days even if you test positive.
- + You may be upgraded to ICU level of care if complications arise or if you need closer monitoring.



Testing

- + Current testing methodologies detects genetic material from the Virus. Limited testing done.
- + Soon there may be drive-in clinics to test patient population to guide proper management plan.
- + We are testing swabs from oral and nasal cavity
- + Sometimes patients who test positive may be asymptomatic
- + You may continue to test positive even after you have recovered from your illness (Virus is shed in urine and fecal matter for 9 ± 2 days. Currently we are testing only oral or nasal specimens.)



March 14th 2020



Covid-19: Implications in the Elderly

Risk Factors, Precautions in different settings and Resources

Sowmya Kurtakoti, MD, CMD, FAAFP
Chief of Geriatrics, Hartford Hospital

Why are older people at higher risk and what steps should they take?

- ❖ There is a gradual decline in ones' immunity as one ages
- ❖ Most older adults have multiple chronic health conditions which impairs coping and recovery.
- ❖ Some of the medications can also further impair immunity.

Steps to take :

- ❖ Social Distancing is key
- ❖ Ensure you have enough food and medication supplies at home to last for 4-6 weeks
- ❖ If you are not feeling well, call your PCP office instead of making an appointment
- ❖ Although most clinics are still operating, if there is a known case in your community stay away from health facilities if you are scheduled for routine visits or elective procedures
- ❖ Restrict visits from cleaners, housekeepers and other similar help at home.



Precautions in different health and Community settings

Retirement Communities and Assisted Living/Short term Rehab and Long term Care facilities

- ❖ All staff is being screened with a questionnaire and having temperature checked.
- ❖ All Visitors are restricted unless crucial
- ❖ Meals are being delivered to their apartments
- ❖ All meetings and group activities are cancelled.
- ❖ If someone starts to feel sick, they call nurses who follow specific protocol
- ❖ Currently, medical staff doctors and Nurse Practitioners are continuing to provide care in Long term Care facilities, but soon telemedicine might be opted.

Hospitals:

- ❖ Staff and employees are screened with questionnaire and checking temperature
- ❖ Adult visitors only 1 per patient allowed, kids less than 18/16 are not being allowed to visit
- ❖ Emergency preparedness has been activated



Why are schools closed and is it safe to travel?

- ❖ Biggest risk for older population is community acquired transmission.
- ❖ Once there is a case in a community, incubation period is 14 days. This is the time, social distancing is most important to reduce the risk of spread.
- ❖ Schools are closed and companies are allowing to work from home so as to minimize the number of people getting the virus and transmitting it to the older adults who are at high risk
- ❖ It especially recommended that older adults postpone any domestic and international travel for at least 3-4 weeks at the minimum due to the risk of community transmission
- ❖ If the older adult gets sick with mild symptoms and you have a family member caring for you. Ensure that the person who is sick wears masks or covers the mouth with a cloth at all times. They need to be asked to stay in one room. Ensure that the all the counter tops are cleaned with disinfectant, Virus can remain on plastic and stainless steel for 2-3 days, please ensure that they are all cleaned with soap and warm water.
- ❖ If fever is greater than 102, you are noticing significant cough, difficulty breathing, extreme weakness, please call 911 immediately



Resources

- ❖ Only rely on CDC, WHO or local hospital websites for resources
- ❖ Many Hospitals are setting up drive through test – but you will need an order from a physician to get these testing done. Hartford Hospital, Bristol Hospital, Waterbury Hospitals are a few
- ❖ Hartford Healthcare **Clinical Command Center Hotline: 833-621-0600** 24/7. You can also receive text alerts from **texting 31996 with COVID19** in the message field.
- ❖ Yale Medicine/Yale New Haven Health COVID-19 **Call Center, Monday – Friday, 7 am – 7 pm. 203-688-1700.**
- ❖ Bristol Hospital call coronavirus **hotline at 860.261.6855.**



Keeping the home safe

Encourage your family members to...

All households



- Clean hands at the door and at regular intervals
- Create habits and reminders to avoid touching their face and cover coughs and sneezes
- Disinfect surfaces like doorknobs, tables, and handrails regularly
- Increase ventilation by opening windows or adjusting air conditioning

Households with vulnerable seniors or those with significant underlying conditions



Significant underlying conditions include heart, lung, kidney disease; diabetes; and conditions that suppress the immune system

- Have the healthy people in the household conduct themselves as if they were a significant risk to the person with underlying conditions. For example, wash hands frequently before interacting with the person, such as by feeding or caring for the person
- If possible, provide a protected space for vulnerable household members
- Ensure all utensils and surfaces are cleaned regularly

Households with sick family members



- Give sick members their own room if possible, and keep the door closed
- Have only one family member care for them
- Consider providing additional protections or more intensive care for household members over 65 years old or with underlying conditions

What every American and community can do now to decrease the spread of the coronavirus

**THANK YOU FOR YOUR ATTENTION,
YOU CAN CLAP NOW**



**IF YOU HAVE ANY QUESTIONS, PLEASE
ASK MY FRIEND GOOGLE**