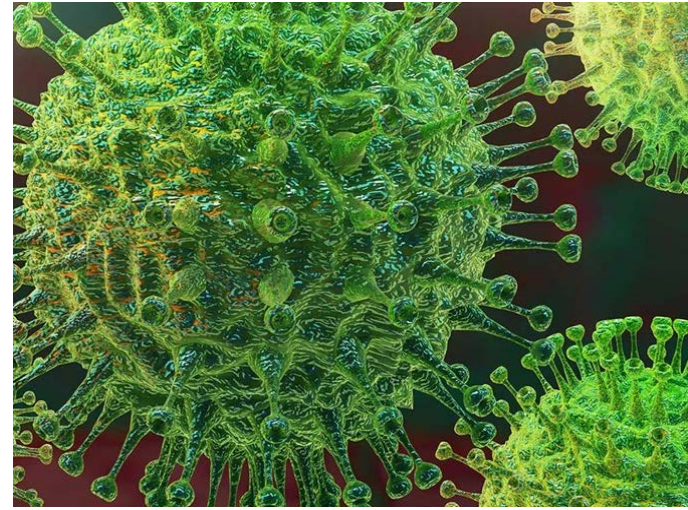


COVID-19



What you need to know



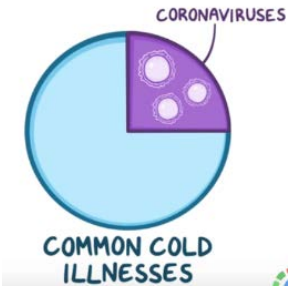
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- ❑ Update on Worldwide Spread
- ❑ Measures to Prevent Spread
- ❑ Guidelines for Care



Background



- For humans a coronavirus is typically benign; causing 25% of common colds.
-

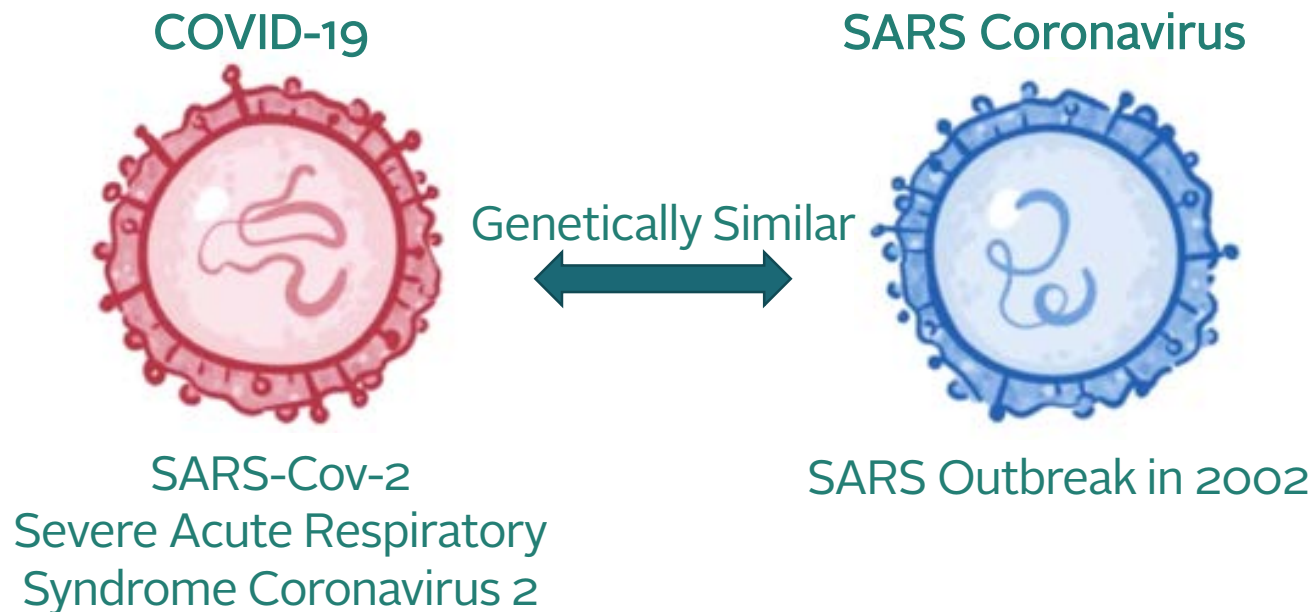
- *First mutation.* A coronavirus from bats that mutated, infecting pangolins (what is known as a scaly anteater).



- *Second mutation.* Late 2019; started infecting humans, COVID-19, first seen in Wuhan, China.
- It has now become a pandemic (i.e., a worldwide epidemic).

Clinical Definition and Classification

- COVID-19 - Stands for “coronavirus disease identified in 2019.”
- Caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2).
- Genetically similar to the SARS coronavirus, SARS-CoV (outbreak of 2002)



COVID-19 Symptoms



FEVER



COUGH



SHORTNESS
OF BREATH

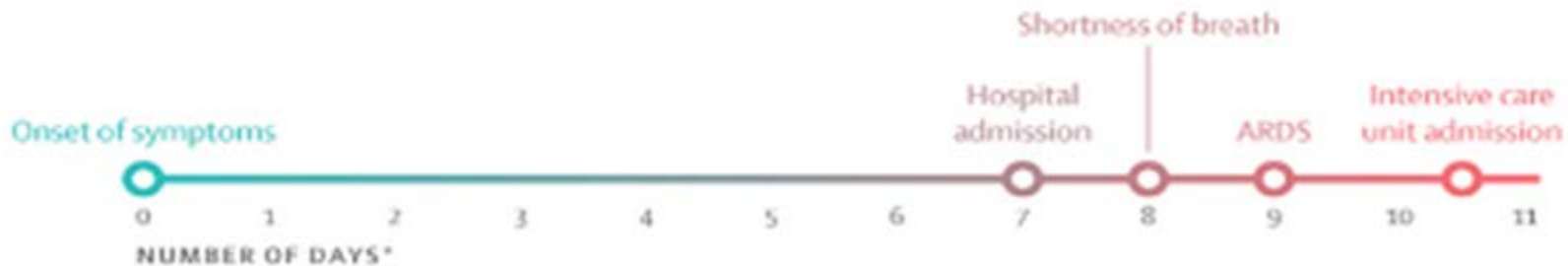
- Based on current data, infection is mild or moderate in about 80% of cases.
- Distinguishing symptoms: fever, cough (dry), shortness of breath.
- Complications: From severe fever to pneumonia, acute respiratory distress syndrome (ARDS), and shock.

Symptoms: Cold vs Flu vs COVID-19

<i>Symptoms</i>	COLD	FLU	COVID-19*
Fever	Rare	High	Common
Headache	Rare	Intense	Sometimes
General Aches and Pains	Slight	Common	Sometimes
Fatigue, Weakness	Slight	Common	Sometimes
Extreme Exhaustion	Never	Common	Sometimes
Stuffy Nose	Common	Sometimes	Rare
Sneezing	Common	Sometimes	Rare
Sore Throat	Common	Common	Rare
Cough	Mild to moderate	Common	Common *
Runny nose	Common	Sometimes	Rare
Diarrhea	No	Sometimes	Sometimes
Shortness of Breath	Rare	Rare	In serious infections

* Dry Cough

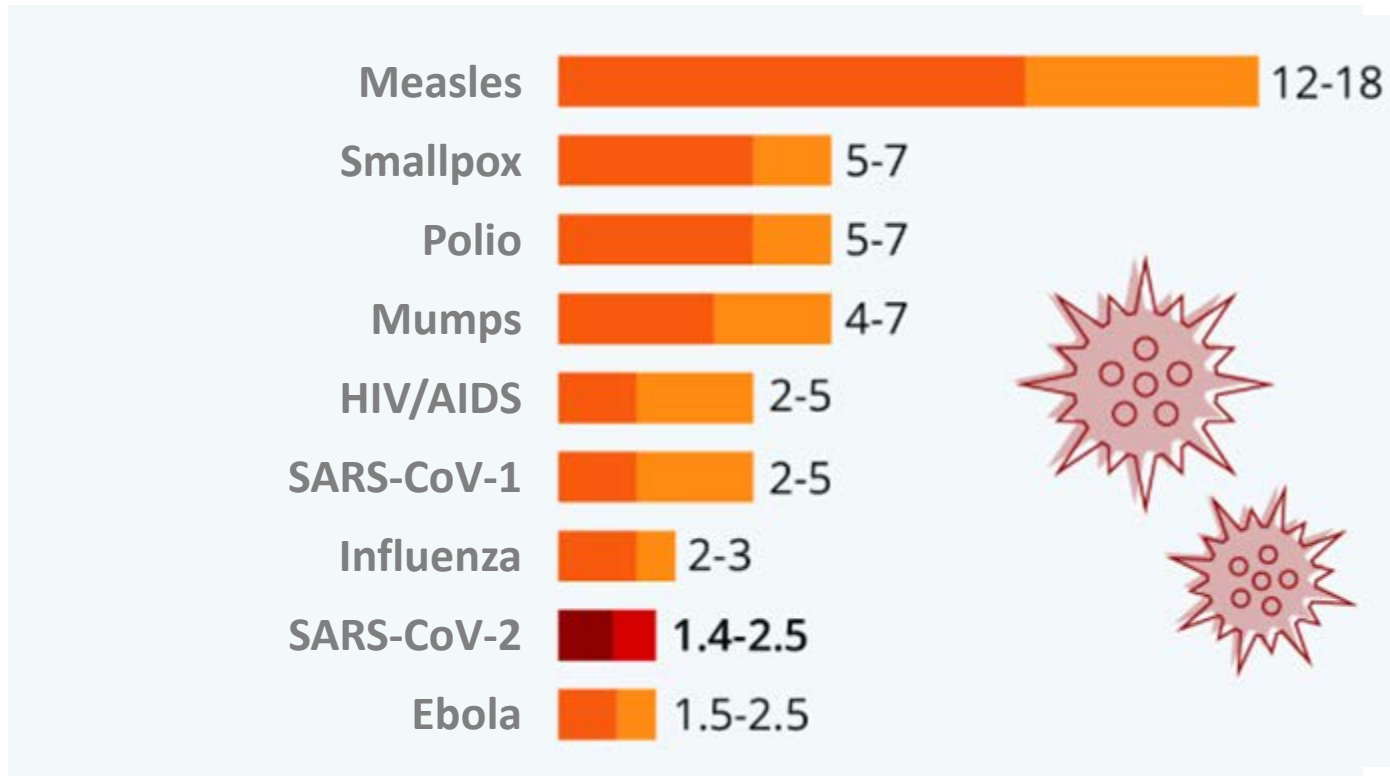
Onset of COVID-19



- **Incubation:** about 5 days. Median time from onset of symptoms, including fever (in 98% of patients), cough (75%), myalgia or fatigue (44%) and others.
- **ARDS** – Acute respiratory distress syndrome
- **Presymptomatic people:** Those who are asymptomatic or presymptomatic (i.e., during the incubation period) *can* infect others.
- **Children:** So far considered at lower risk, but unclear whether they can infect others.

How Contagious Is the Coronavirus?

Average number of people infected by an individual with ...



Based on current WHO estimates as of 23 January 2020. Source: WHO via Spiegel.de.

Spread: From Person to Person

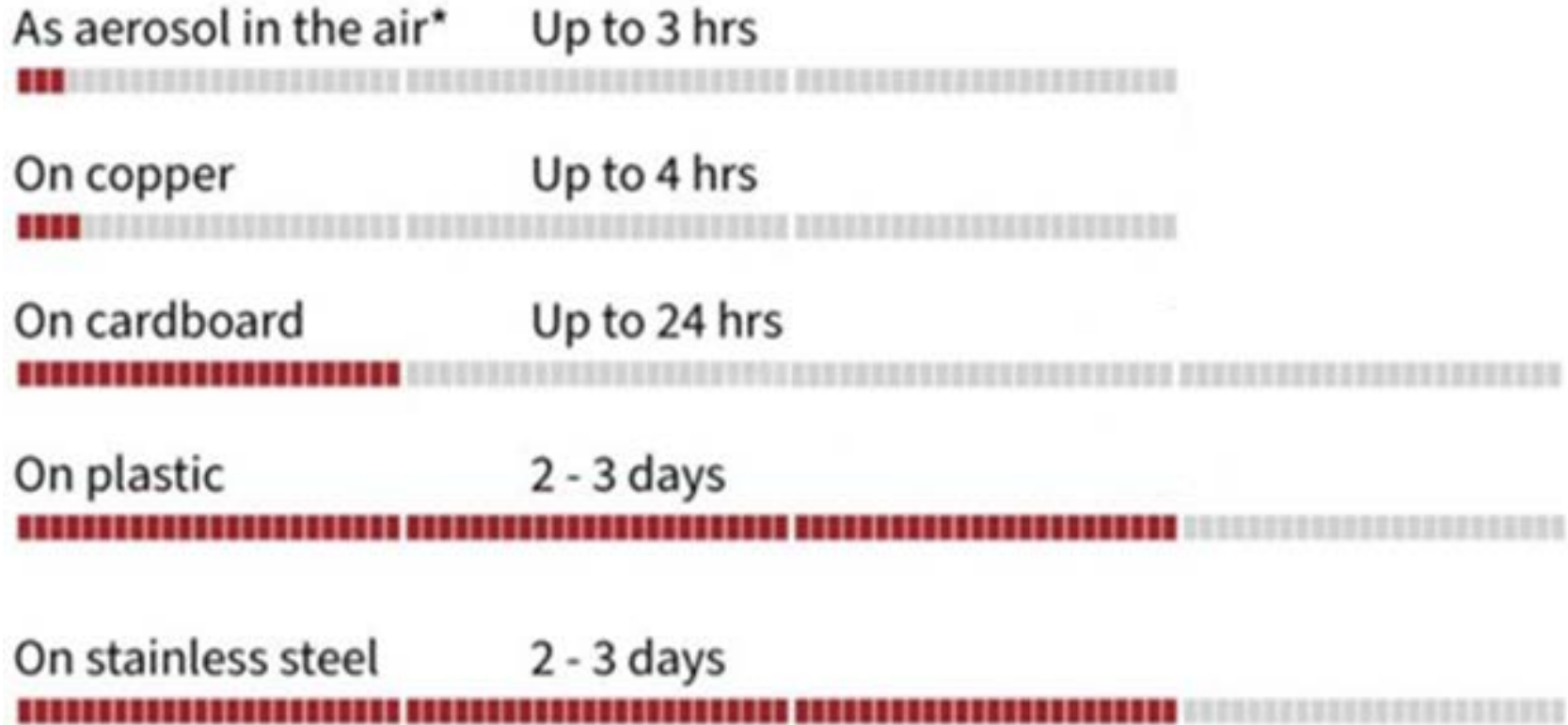
- **Droplets:** Released when someone sick with COVID-19 sneezes, coughs, or talks, they can land on the mouths or noses of people nearby.
- **Contact:** Close contact with someone sick with the virus.



Spread: From Contaminated Surfaces



How Long Does the Virus Last?

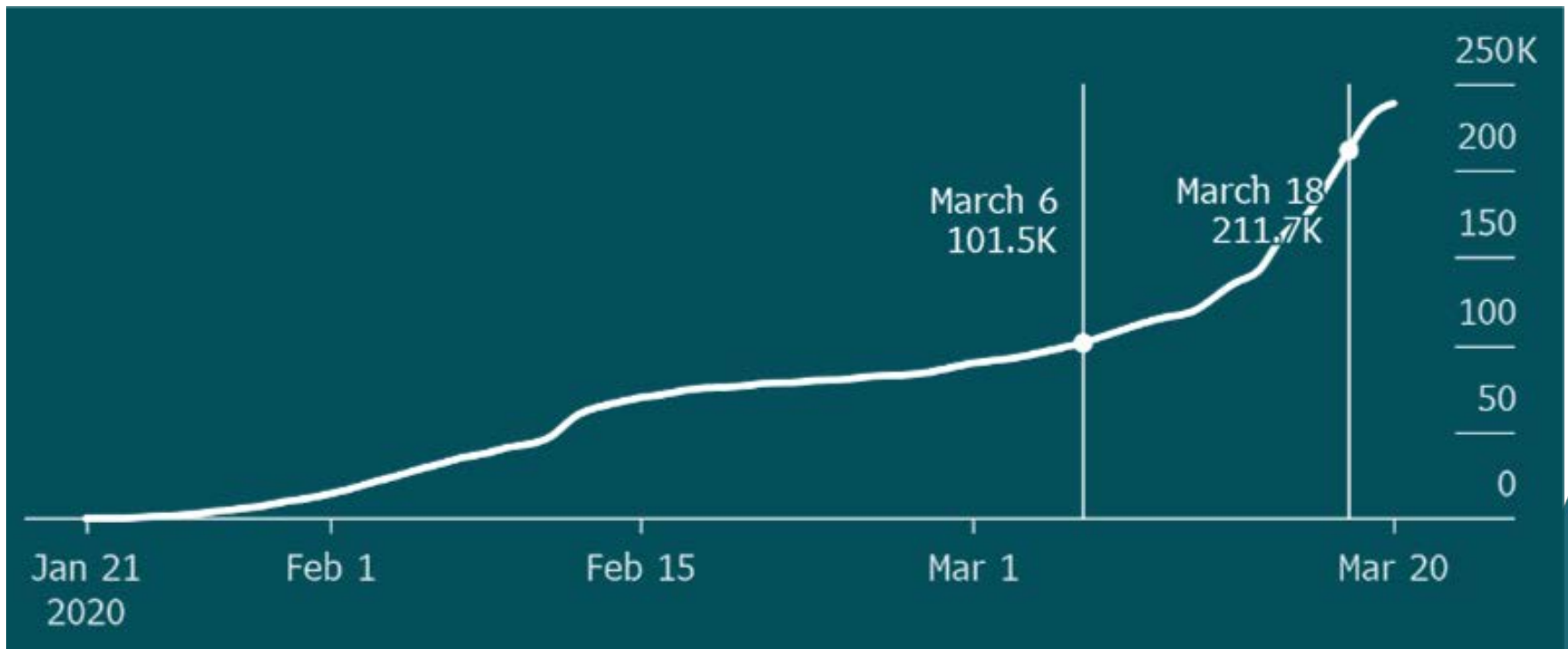


SARS-CoV-2 needs a living host to reproduce in. A new study weighed in.

Source: N. van Doremalen et al. "Aerosol and Surface Stability of HCoV-19 (SARS-CoV-2) compared to SARS-CoV-1" [correspondence], *New England Journal of Medicine* March 17, 2020.

Pandemic

Confirmed COVID-19 Cases Are Climbing Exponentially.
It took months to reach 100,000 cases, but only 12 days to surpass 200,000.



Source: Data compiled by Bloomberg.

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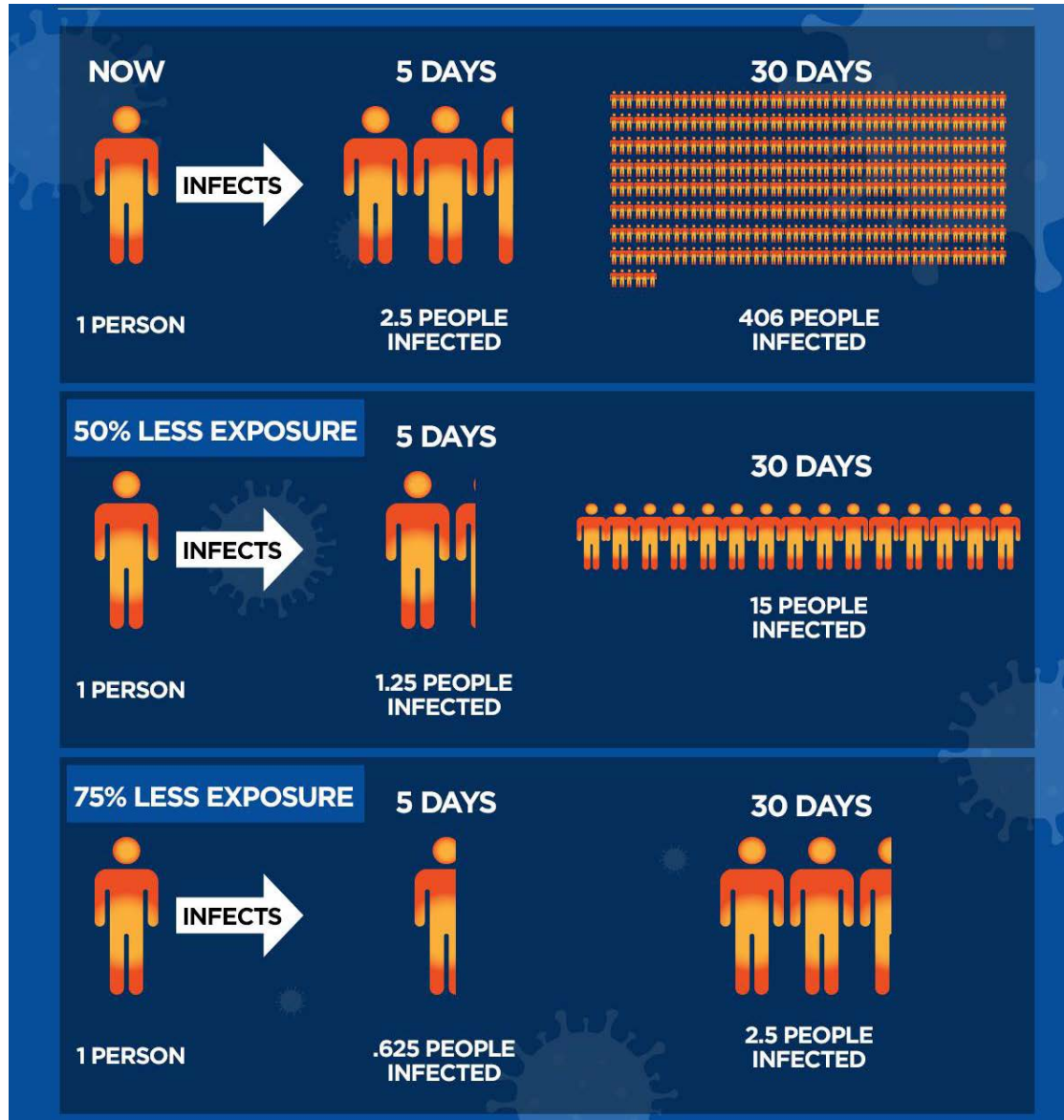
Helping Prevent Transmission

- Stay home, and self-isolate if you experience flu-like symptoms or you are at risk (e.g., older or with comorbidities)
- Practice social distancing: stay at least 6 feet (2 meters) from other people
- Avoid travel to outbreak areas and stay away from crowded places
- Masks are now recommended, provided they are available to healthcare workers first and foremost
- Clean and sterilize surfaces
- Careful, frequent and thorough hand washing
- Avoid touching your face



The Math Behind Social Distancing

Credit: Robert A.J. Signer, Ph.D., University of California, San Diego © Global News



Nonpharmaceutical Interventions

- Self quarantine
- Social distancing
- Case isolation
- Closure of Schools and universities
- Hand hygiene
- Masks



Summary

- **Cause:** The SARS-CoV-2 virus causes COVID-19.
- **Transmission:** The virus travels in respiratory droplets and enters the body via the mouth, nose, or eyes.
- **Symptoms:** The virus can cause fever, cough, and shortness of breath.
- **Dangers:** COVID-19 can progress to a severe state with pneumonia, ARDS, and shock.
- **Highest risk:** The elderly and those with other serious health conditions are most at risk.
- **Treatments:** The focus is on supportive care.
- **Vaccine:** There is currently no vaccine.
- **Prevention:** Prevention, the best strategy to avoid infection, is through:



- Careful handwashing.
- No travel to outbreak areas and crowded places.
- Do not touch your face.
- Use of personal protective equipment (for HCW).



Selected References

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Thank You!



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