

Contact Tracing



DAVID J. SENCER
CDC MUSEUM
PUBLIC HEALTH ACADEMY



Word Bank

asymptomatic

close contact

contact tracing

index case

quarantine

surveillance

symptomatic

transmission

	anyone who was close to a person who is infected with a virus
	the earliest known or suspected case of disease infection in an outbreak
	collecting/analyzing data about a disease to monitor trends and outbreaks
	patients who are infected with a disease who do not show symptoms
	identifying people who have been in contact with someone diagnosed with an infectious disease
	placing people with confirmed or suspected infection in isolation to prevent disease spread
	patients who are infected with a disease and are showing symptoms
	spreading a disease from one individual to another



Understanding Contact Tracing

- Contact tracing is the process of identifying people who have recently been in contact with someone diagnosed with an infectious disease
- Close contacts of infected individuals need to take precautions to avoid infecting others if they become ill
- Contact tracers check up on close contacts frequently during disease incubation period to monitor for developing illness



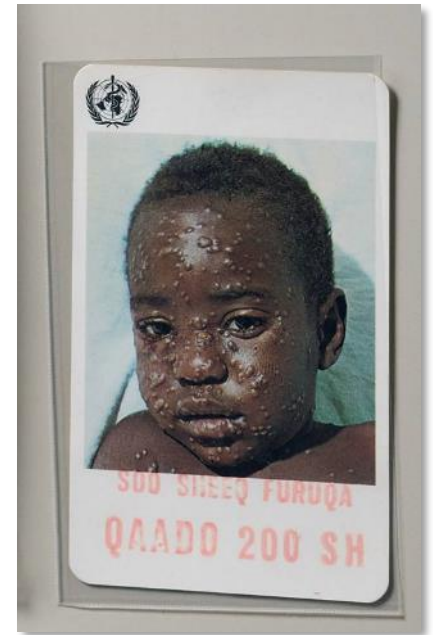


Think About It

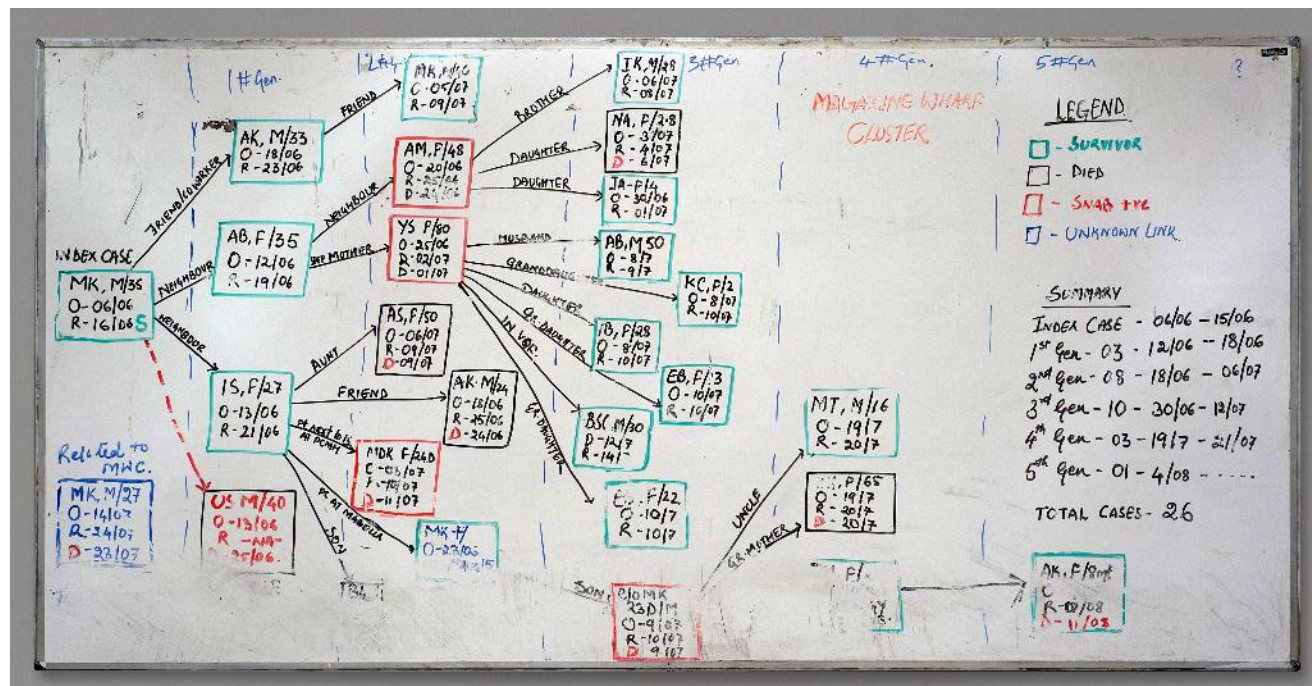
1. What experiences have you had with **contact tracing** in your community?
2. What difficulties do you think contact tracers might have when attempting to contact people after a disease diagnosis?
3. Why might quarantining after a disease exposure be difficult for some people?

Contact Tracing and CDC

- Smallpox eradication in 1960s and 1970s
 - Eradication efforts used ring vaccination technique due to shortage of vaccine
 - Smallpox cases were identified
 - Close contacts of those patients were located, vaccinated, and monitored for signs of illness during possible incubation period
 - Close contacts spent 3+ hours with patient or were within 6 feet of any patient with a rash
- Ring vaccination technique was later used for other disease outbreaks



Contact Tracing and CDC



- 2014-16 West Africa Ebola outbreak
 - Contact tracing was challenging in rural areas
 - Contact tracers followed ambulances to locate cases
 - Contact tracers identified sanitation needs in communities in addition to case finding and monitoring
- Contact tracing is used today to monitor COVID-19 and help slow its spread



Think About It

1. What are some reasons why **contact tracing** is more difficult in remote areas?
2. If contact tracers miss one **close contact**, what are possible consequences?
3. What skills do you think contact tracers need most?

From the Expert



https://youtu.be/f0Q0yA_jJ2U



Think About It

1. During the 2014-16 Ebola outbreak, how did CDC help with **contact tracing**?
2. Why do you think the first 2-3 days after infection is the critical window for **contact tracing** to occur?
3. How are schools in the United States using **contact tracing** to keep students safe?

Call to Action!

1. Conduct a disease transmission experiment.
2. Plan a contact tracing interview.
3. Share your findings.

Why do you think participation is important?

Give it a
Try

Use the Engineering Design Process



Define

Define the problem



Research

Do background research



Requirements

Specify requirements



Brainstorm

Develop solutions



Build

Build a prototype



Test

Test and redesign



Share

Communicate results

1. Conduct a Disease Transmission Experiment

- Set up 12 cups – 11 filled with water and 1 filled with an “infectious disease”
- Pair up the cups and mix the liquids in each cup between partner cups
- Record pairings and continue mixing for 3 total rounds
- At the end, perform a test to see which cups became infected during the trades
- Locate your index cases using contact tracing

Give it a
Try

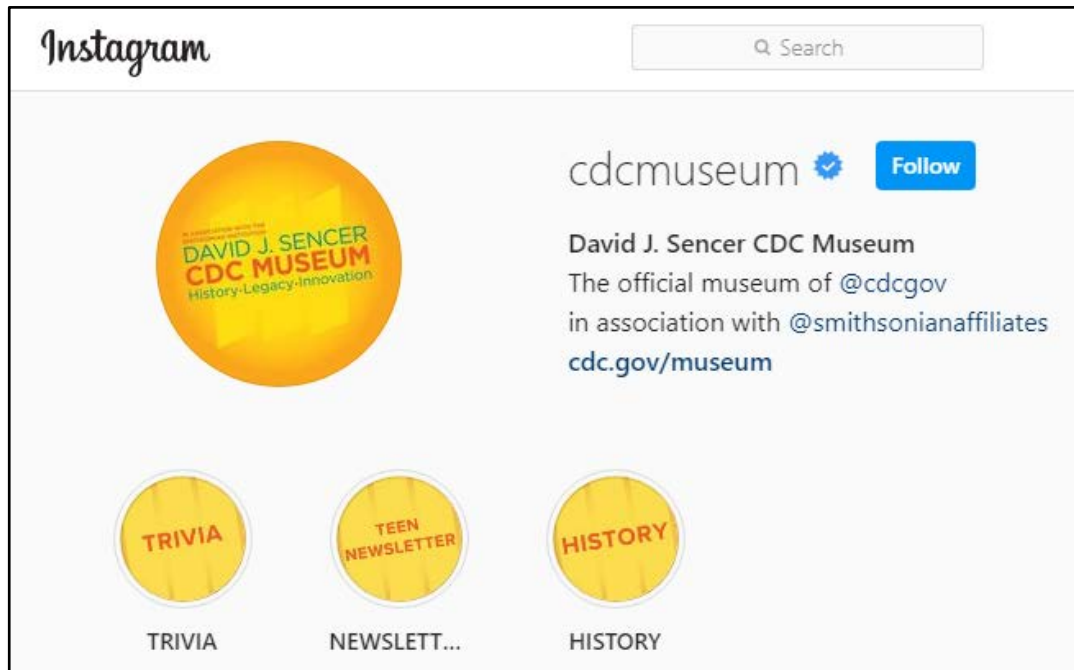
2. Plan a Contact Tracing Interview

- Read the background info about David, a man who has recently tested positive for COVID-19
- Conduct a contact tracing interview with David to identify close contacts
- Make recommendations to David to help him recover from the disease and to prevent the spread of COVID-19

Give it a
Try

3. Share Your Findings

- Instagram @CDCmuseum



Give it a
Try

Questions?

