

Illinois Council on Tuberculosis Conference

CDC Quarantine Stations:

*Who We Are, What We Do, And How We Work with Our Partners
to Mitigate the Spread of TB through Travel*

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Learning objectives

1. Describe two of the Division of Global Migration and Quarantine (DGMQ) focus areas.
2. Identify one of the legal authorities related to the work of CDC quarantine stations.
3. Describe three functions of CDC quarantine stations.
4. Explain the importance of partners in achieving the mission of the Quarantine and Border Health Services Branch (QBHSB).
5. Name a situation in which a port partner would contact their local CDC quarantine station.
6. Apply the RING (Recognize, Isolate, Notify, and Give Support) card steps to respond to public health events at your port.
7. Review how quarantine stations mitigates the introduction and spread of tuberculosis (TB) before, during, and after travel.



Division of Global Migration and Quarantine (DGMQ) and Quarantine and Border Health Services Branch (QBHSB) overview

DGMQ Mission and Focus areas

Mission: To reduce morbidity and mortality among immigrants, refugees, travelers, expatriates, and other **globally mobile populations**, and to prevent the introduction, transmission, and spread of communicable diseases through regulation, science, research, preparedness, and response.



Protecting public health at
US ports of entry



Ensuring the health of
individuals coming to live
and work in the United
States



Keeping Americans healthy
during travel and while living
abroad



Partnering to protect
the health of US
communities along the
US-Mexico border

Quarantine and Border Health Services Branch Mission

Protecting the public's health at
US borders by:

Preparing for and
responding to
travel-related
disease outbreaks

Preventing the
spread of
communicable
diseases

Strengthening
domestic and
international
partnerships

Contributing
scientific evidence
that informs
public health
recommendations



Brief history of the US quarantine system

Quarantine history: 1878-2003

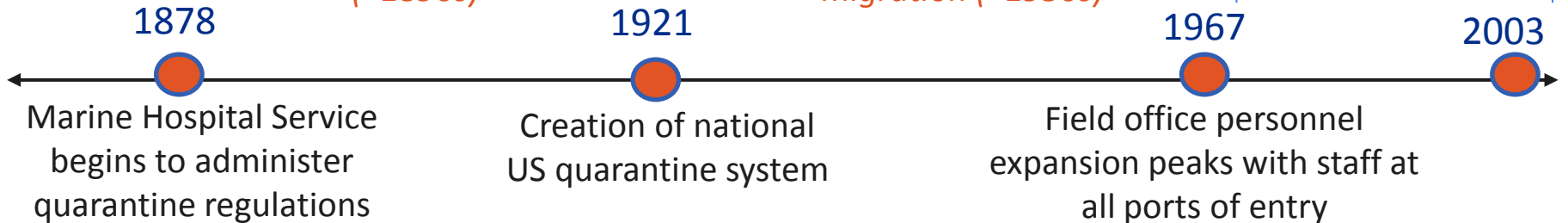


Quarantine inspectors shown in uniform (~1890s)



Cuban refugees arrive in the US during a mass migration (~1950s)

1967-2003:
Reorganized US quarantine system with reduced staff and facilities



Quarantine history: Expansion for the 21st century

2003-Present: Newly (re)emerging threats sparked strategic shift of operations and an expansion of stations, staff, and resources

Speed and
volume of global
travel

Bioterrorism and
terrorist attacks
of 9/11

Severe acute
respiratory
syndrome (SARS)

Avian influenza
and pandemic
risks

Middle East
respiratory
syndrome (MERS)

Ebola

COVID-19

Zika

Mpox



CDC legal authorities

CDC legal authorities

Three main legal authorities allow quarantine station staff to conduct illness responses:

Public Health
Service Act



Authorizes regulations to prevent introduction, transmission, and spread of communicable diseases

Federal
Regulations



Allow CDC to take public health actions as outlined in Code of Federal Regulations (CFR) Title 42 (Public Health), Parts 70 (Interstate Quarantine) and 71 (Foreign Quarantine)

Presidential
Executive Orders



Define the quarantinable communicable diseases for which CDC is authorized to issue public health orders (currently ten) (see next slide)

Presidential Executive Orders and diseases of public health concern

Federal isolation and quarantine are authorized for these diseases:

- Cholera
- Diphtheria
- Infectious tuberculosis
- Measles
- Plague
- Smallpox
- Yellow fever
- Viral hemorrhagic fevers (e.g., Ebola)
- Severe acute respiratory syndromes (e.g., COVID-19)
- Novel or reemerging influenza causing or with potential to cause a pandemic

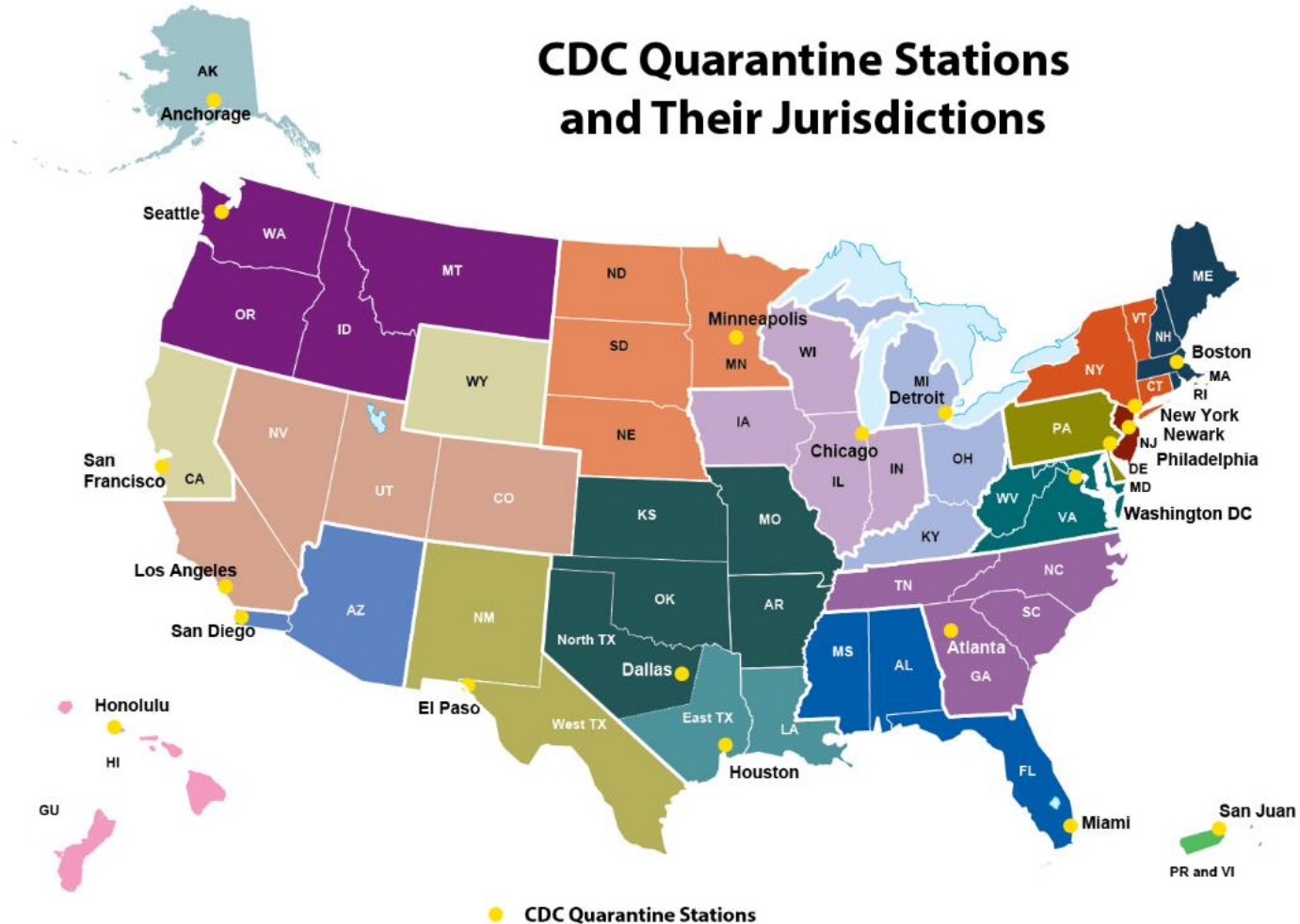
Other diseases of public health concern:

- Rubella (German measles)
- Varicella (chickenpox)
- Pertussis (whooping cough)
- Meningococcal disease



Quarantine station locations and functions

CDC Quarantine Stations and Their Jurisdictions



Quarantine station functions



Respond to reports of illnesses and deaths on airplanes, ships, and at land border crossings



Provide travelers with essential health information



Distribute immunobiologics and investigational drugs



Quarantine station functions (continued)



Inspect animals, animal products, and human remains that pose a potential threat to human health



Inspect cargo and hand-carried items for potential vectors of human infectious diseases



Plan and prepare for emergency response related to communicable diseases



Monitor health and collect medical information of new immigrants, refugees, asylees, and parolees



Respond to mass migration emergencies



Build partnerships for disease surveillance and control



Quarantine station partnerships

QBHSB external partnerships



State and Local Health
Departments

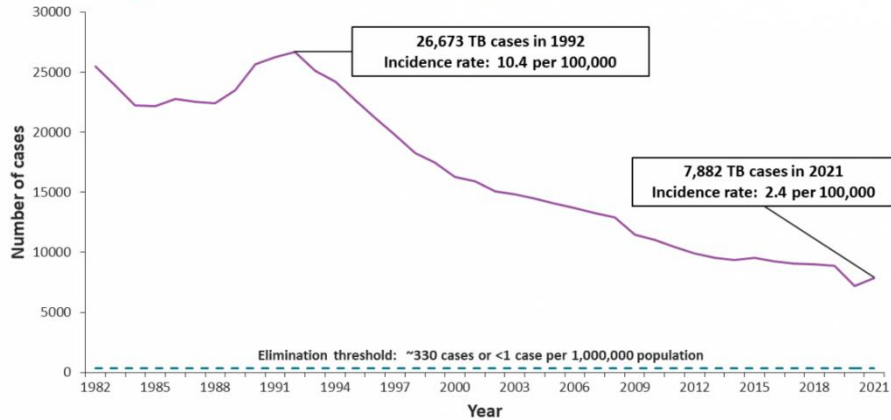


TB Elimination

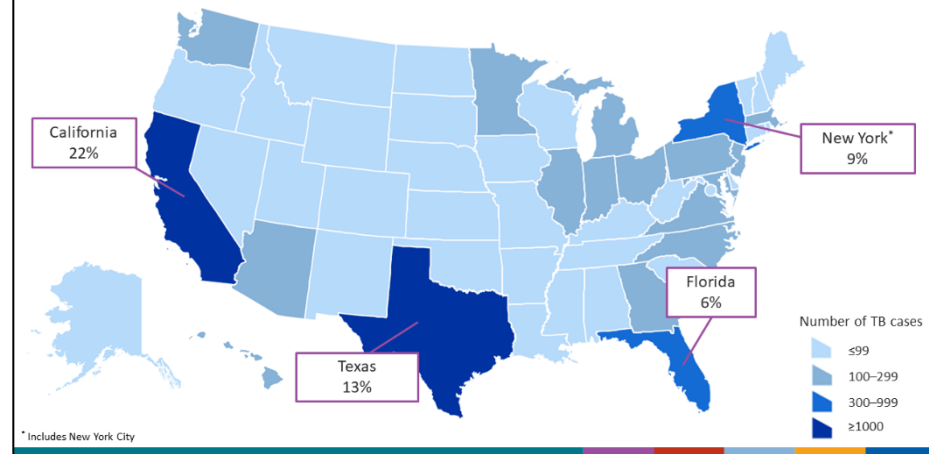
Current status in U.S. and work of CDC quarantine stations to mitigate spread of TB through travel

TB Status in the United States

Progress Towards TB Elimination, United States, 1982–2021



TB Cases by Reporting Area, United States, 2021



TB Status in the United States (Continued)

- The COVID-19 pandemic caused significant health, social and economic impacts in 2020 and 2021—including TB impacts such as:
 - people not seeking treatment in hospitals/clinics due to decrease in services
 - delays in diagnoses
- These impacts may have affected reliable TB reporting during this period.

How CDC Quarantine Stations Work to Mitigate Spread of TB through Travel

- Before travel
 - If certain criteria* are met, hold discussions with health departments (HDs) of jurisdiction to consider placement on a Do Not Board† (DNB) List.
 - Placement on the Do Not Board List prevents travelers from boarding commercial airplanes within, arriving to, or departing from the United States
 - Learn more here: www.cdc.gov/quarantine/travel-restrictions.html

*Criteria: Known or believed to be infectious with, or at risk for, a serious contagious disease that poses a public health threat to others during travel; and any of the following three:

1. Not aware of diagnosis or not following public health recommendations; or
2. Likely to travel on a commercial flight involving the United States or travel internationally by any means; or
3. Need to issue travel restriction to respond to a public health outbreak or to help enforce a public health order.

†Travelers placed on the Do Not Board list are also placed on a Lookout list so they will be detected if they attempt to enter the United States by land or sea.

How CDC Quarantine Stations Work to Mitigate Spread of TB through Travel

■ During travel

- Respond to reports of illnesses and deaths on airplanes, ships, and ground crossings
- Do not diagnose specific diseases in travelers during travel or at ports of entry
- Instead, train port partners to notify quarantine stations of signs and symptoms of illness (see example job aid for partners to right)



RING (**R**ecognize, **I**solate, **N**otify, and **G**ive Support) job aid for quarantine station port partners. Card includes signs and symptoms of diseases of public health significance, including TB (e.g., persistent cough).

How CDC Quarantine Stations Work to Mitigate Spread of TB through Travel

- After travel
 - CDC works with federal agencies, airlines, state and local HDs to conduct **airline contact investigations** to identify and notify persons exposed to communicable diseases of public health concern* during commercial air travel.
 - Exposed individuals can be monitored for infection to facilitate care as soon as possible and prevent spread of diseases to others.
 - Learn more here: www.cdc.gov/quarantine/contact-investigation.html

* CDC conducts airline contact investigations for tuberculosis but restricts contact investigations to long-haul flights.

How HDs Can Assist CDC Quarantine Stations to Mitigate Spread of TB through Travel

Before and after travel

Assisting CDC Quarantine Stations to Mitigate Spread of TB: Before Travel

- Understand criteria for individuals who may be considered for public health travel restrictions (Do Not Board/Lookout List)
- **Criteria:** Known or believed to be infectious with, or at risk for, a serious contagious disease that poses a public health threat to others during travel; **and any of the following three:**
 1. Not aware of diagnosis or not following public health recommendations; or
 2. Likely to travel on a commercial flight involving the United States or travel internationally by any means; or
 3. Need to issue travel restriction to respond to a public health outbreak or to help enforce a public health order.

Assisting CDC Quarantine Stations to Mitigate Spread of TB: After Travel

- Review Council of State and Territorial Epidemiologists (CSTE) Notification Protocol to CDC Quarantine Stations
 - Applicable only to individuals infectious during travel and recent history of travel
 - Available here:
cdn.ymaws.com/www.cste.org/resource/resmgr/crosscuttingi/CSTE_Notification_Protocol_a.pdf
- Follow up with TB and other disease notifications received from CDC's Electronic Disease Notification (EDN)
 - Examples include individuals with TB infection, but not active disease , who may need TB medications

When to Contact Your Local CDC quarantine station* for TB cases:

Contact Chicago Quarantine Station for:

- Patient with infectious TB who had traveled while infectious
 - Up to previous 3 months and further through a case-by case-basis
- Patient with infectious TB who has plans to travel against HD recommendations/orders while infectious or is considered lost to follow-up
- Patient compliant with infectious TB who needs a fee waiver for canceled air travel
- Assistance with CureTB and Center for TB referrals

*See list of quarantine stations and contact information here: www.cdc.gov/quarantine/quarantinestationcontactlistfull.html

How Health Departments Can Assist CDC in Mitigating Spread of TB through Travel

- When notifying your jurisdictional* quarantine station of an individual for public health follow up, provide the individual's:
 - Name
 - Date of birth
 - Contact information (phone #, address)
 - Symptoms (including onset date)
 - Co-travelers and/or close contacts
 - Travel information
 - If individual has not traveled but plans to: share potential travel plans
 - If individual has already traveled: include flight date, number, and seat number, if possible
 - Labs or other clinical information
 - Public health interventions/communications to date

*See list of quarantine stations and contact information here: www.cdc.gov/quarantine/quarantinestationcontactlistfull.html

Case Review

How health departments, CDC quarantine stations, and other partners can quickly follow up on TB cases associated with travel

Case Overview

- On 5/11/2023, a bystander noticed a person was wandering through a neighborhood. The person appeared unsteady, was walking sideways, and then fell. The bystander brought the person to a local Michigan hospital.
- Via translator (patient's primary language was not English), person described experiencing room-spinning dizziness for the past week, but otherwise did not answer questions fully.
- Person was admitted to hospital the same day for neurological evaluation, including CT scans, chest X-rays, and lung biopsies. Results showed:
 - 1) 1.9 cm ring enhancing lesion in left basal ganglia
 - 2) CT chest/abdomen/pelvis w/ contrast
 - 3) Enlarged paratracheal lymph node 11 mm short axis
 - 4) Mass-like consolidation in right upper lobe approx. 7.1 x 4.9 x 5.3 cm
 - 5) Peripheral ground glass opacities in this same area of consolidation
 - 6) Right upper lobe bronchial biopsy collected 5/26 was positive for MTB complex by real time PCR.
- Though infectious, patient claimed desire to fly back to their home country on 6/8/2023.
- The hospital notified the health department, who in turn notified the Chicago Quarantine Station.

Case Review (Continued)

- Detroit QS:
 - Coordinated with Customs and Border Protection (CBP) to obtain upcoming international flight information.
 - Learned potential long-haul flight plans of patient
 - Shared potential flight plans with health department (HD) in Michigan and Chicago)
- Chicago QS:
 - Alerted Chicago TB Medical Director for further assistance
 - Coordinated a “Do Not Board” consult call with CDC and HD partners to determine next steps regarding flight restrictions and available medical interventions

Case Follow-Up

- Patient was placed on the Do Not Board/Lookout list.
- Patient tried to check in at Chicago O'Hare International Airport (ORD), which triggered a notification to the quarantine station.
 - Quarantine station staff member intercepted traveler at airport and worked with partners to ensure they did not board flight.
- Patient was referred to a Chicago-based hospital, where they received appropriate care and an opportunity to receive wraparound services once deemed non-infectious.
- Partners involved: Michigan state HD, Michigan local HD, Chicago HD, CBP, Airline, CDC Quarantine Medical Directors and Division of Tuberculosis Elimination.

Why Was This Case Successful ?

- Effective and routine communication with port partners across state lines
- Awareness of resources provided via CDC quarantine stations
- In-person interception of patient at airport with support of Customs and Border Protection and Quarantine Public Health Officer
- Consistent partnership with airlines at Chicago O'Hare International Airport





Resources

Resources

- **DGMQ Website:** <https://www.cdc.gov/ncezid/dgmq/index.html>
- **Quarantine stations website and fact sheet:**
<https://www.cdc.gov/quarantine/quarantine-stations-us.html>
- **TB Centers for Excellence** www.cdc.gov/tb/education/tb_coe/default.htm
- **Tuberculosis Information from CDC:** www.cdc.gov/tb/default.htm

For more information, contact CDC: 1-800-CDC-INFO (232-4636) / TTY: 1-888-232-6348 / www.cdc.gov

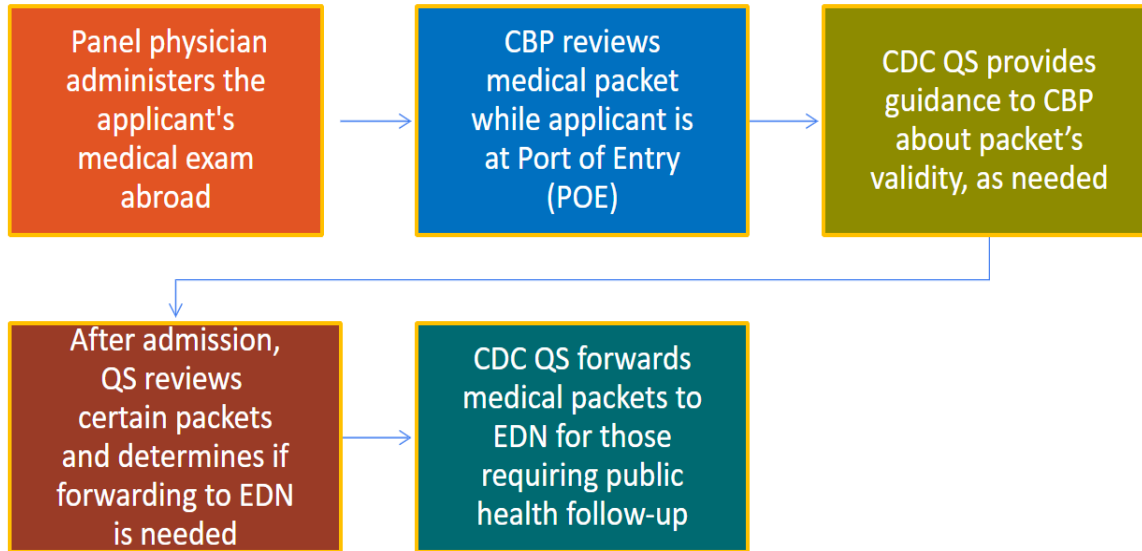
The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.



Appendix

Migrant Medical Packets

Journey of Arriving Migrant's Medical Packet



- Panel physician screenings help ensure applicants with TB conditions do not have active TB disease before entry to U.S. and that they will be referred to local health departments for post-arrival follow-up.