

Partnering for Public Health at U.S. Ports of Entry

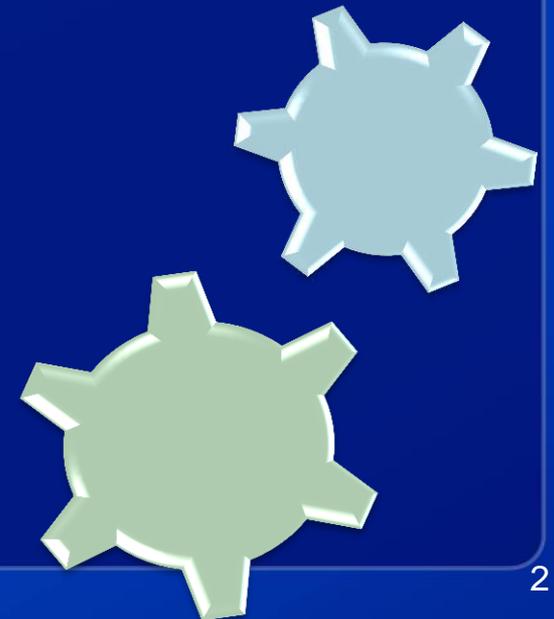
**Division of Global Migration and Quarantine
Houston Quarantine Station**

National Center for Emerging and Zoonotic Infectious Diseases
Division of Global Migration and Quarantine



Overview

- Brief history of the U.S. Quarantine System
- Mission and roles
- Legal authorities
- Quarantine station activities
- Promoting partnerships



History of U.S. Quarantine System

- Quarantine laws passed and executed by state or local authorities
- 1878 – Marine Hospital Service begins to administer quarantine regulations
- 1921 – Creation of National U.S. Quarantine System.
- 1967 – Field office personnel expansion peaks with staff at all ports of entry



Modern Era

Before 1967:

- Monitored passengers disembarking from aircraft, ships, and across land borders
- Expanded staff who implemented direct inspections, observations and response

1967–2003:

- Reorganized U.S. Quarantine System with reduced staff and facilities



Expansion for the 21st Century

2003 - present: Newly (re)emerging threats sparked expansion in number of stations and quarantine staff.

Monkey pox
and severe acute
respiratory
syndrome
(SARS)

Speed and
volume of
global
travel

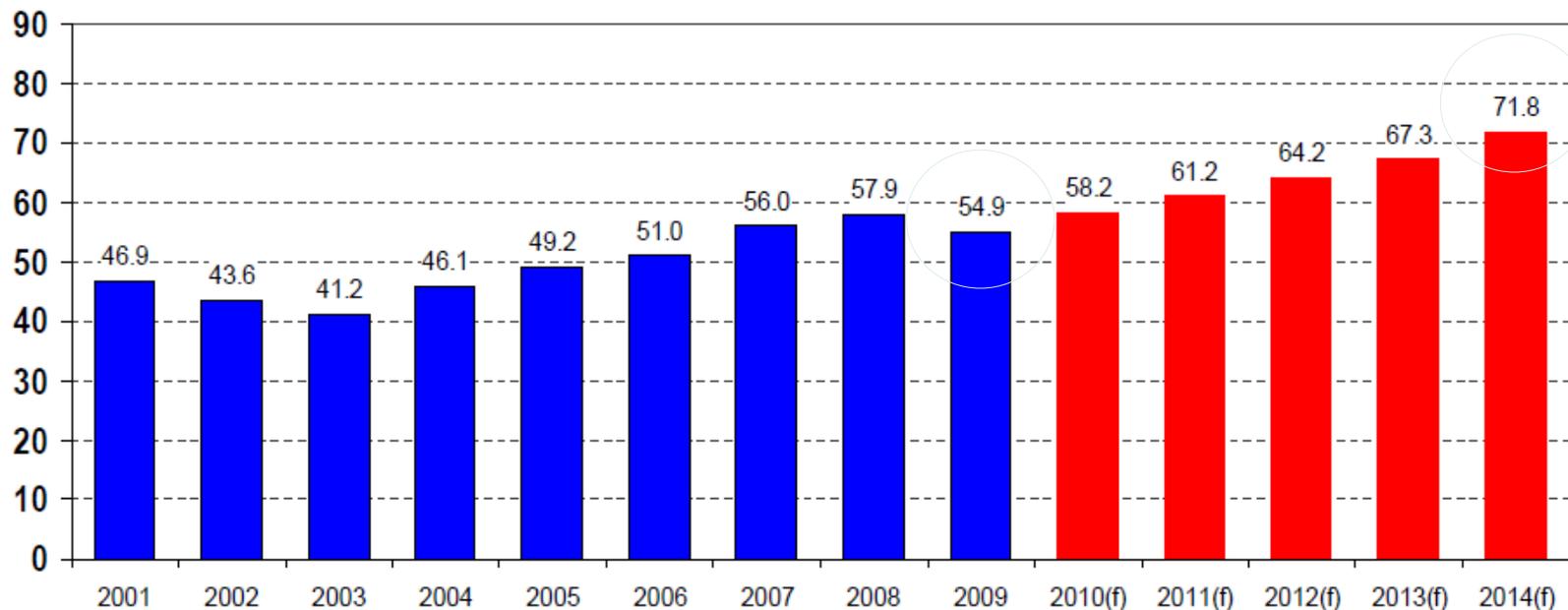
International
travelers with
drug-resistant
tuberculosis

Avian
influenza
and
pandemic
risks

Bioterrorism
and terrorist
attacks of
9/11

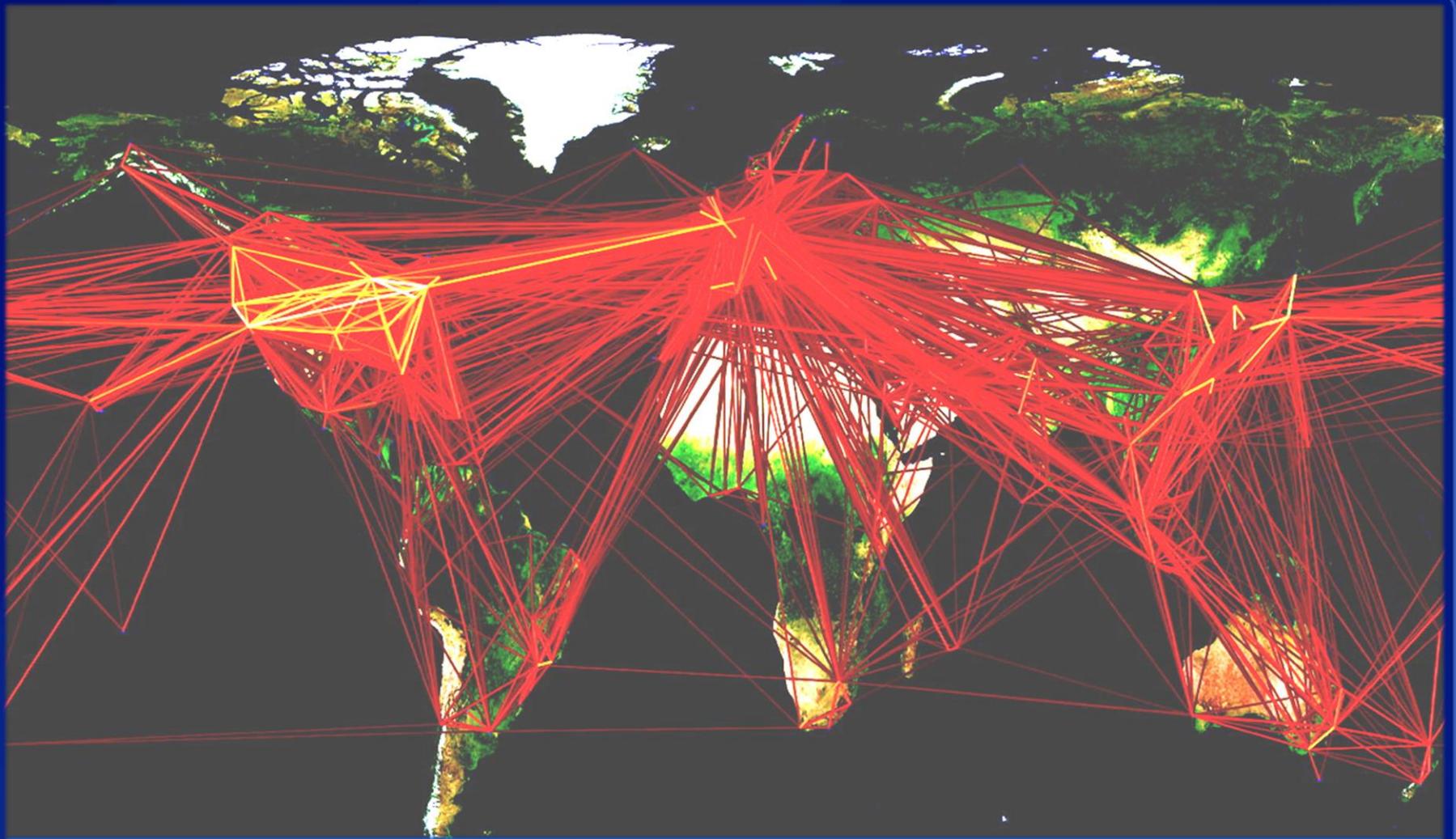
International Visitors to the United States 2001-2014*

Arrivals in Millions



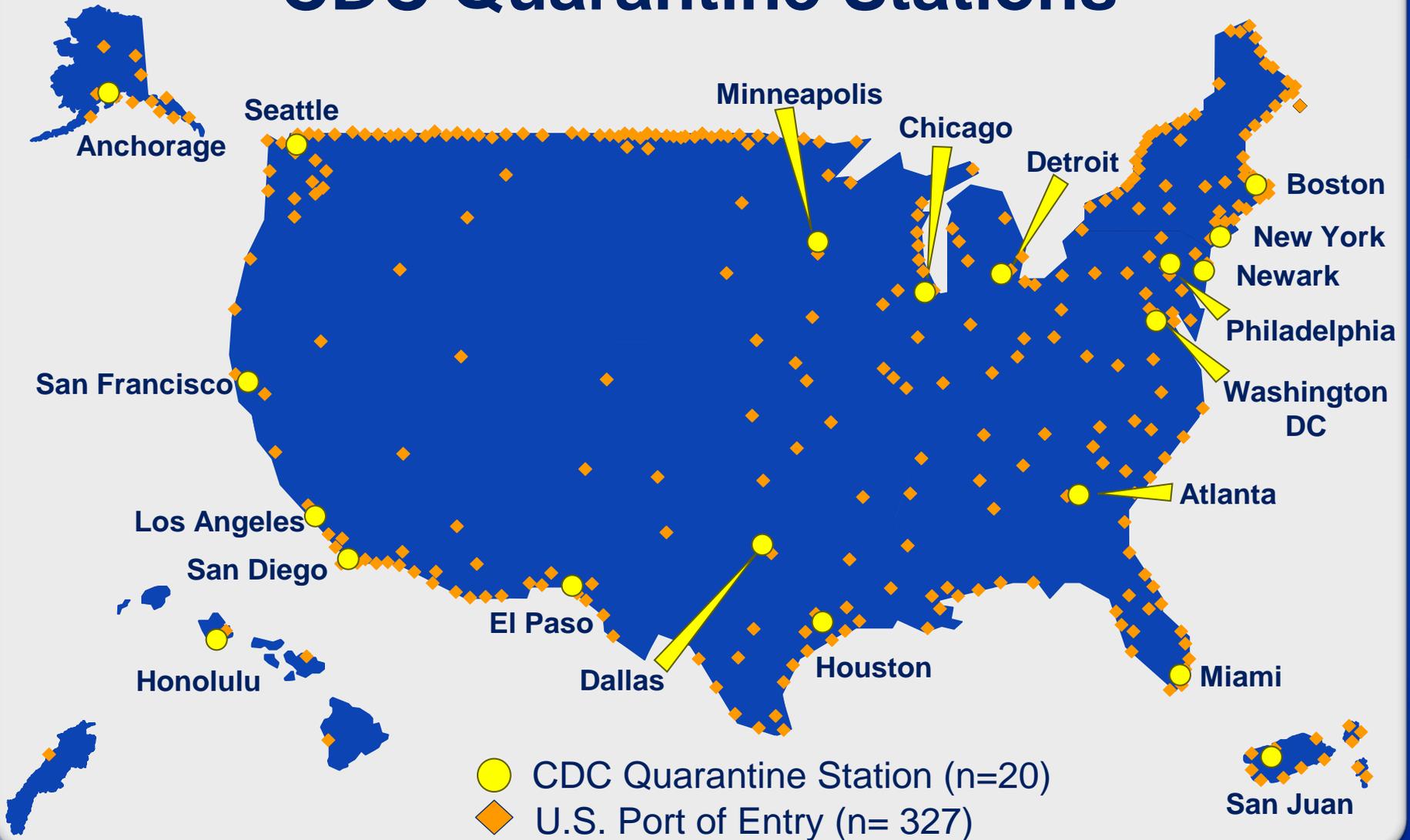
Sources: U.S. Department of Commerce, ITA, Office of Travel & Tourism Industries; Secretaria de Turismo (Mexico); Statistics Canada & IHS Global Insight, Inc. -- May 2010 forecast

* Data compiled by the International Transportation Authority (ITA), Office of Travel and Tourism Industries
<http://tinet.ita.doc.gov/view/f-2000-99-001/index.html>

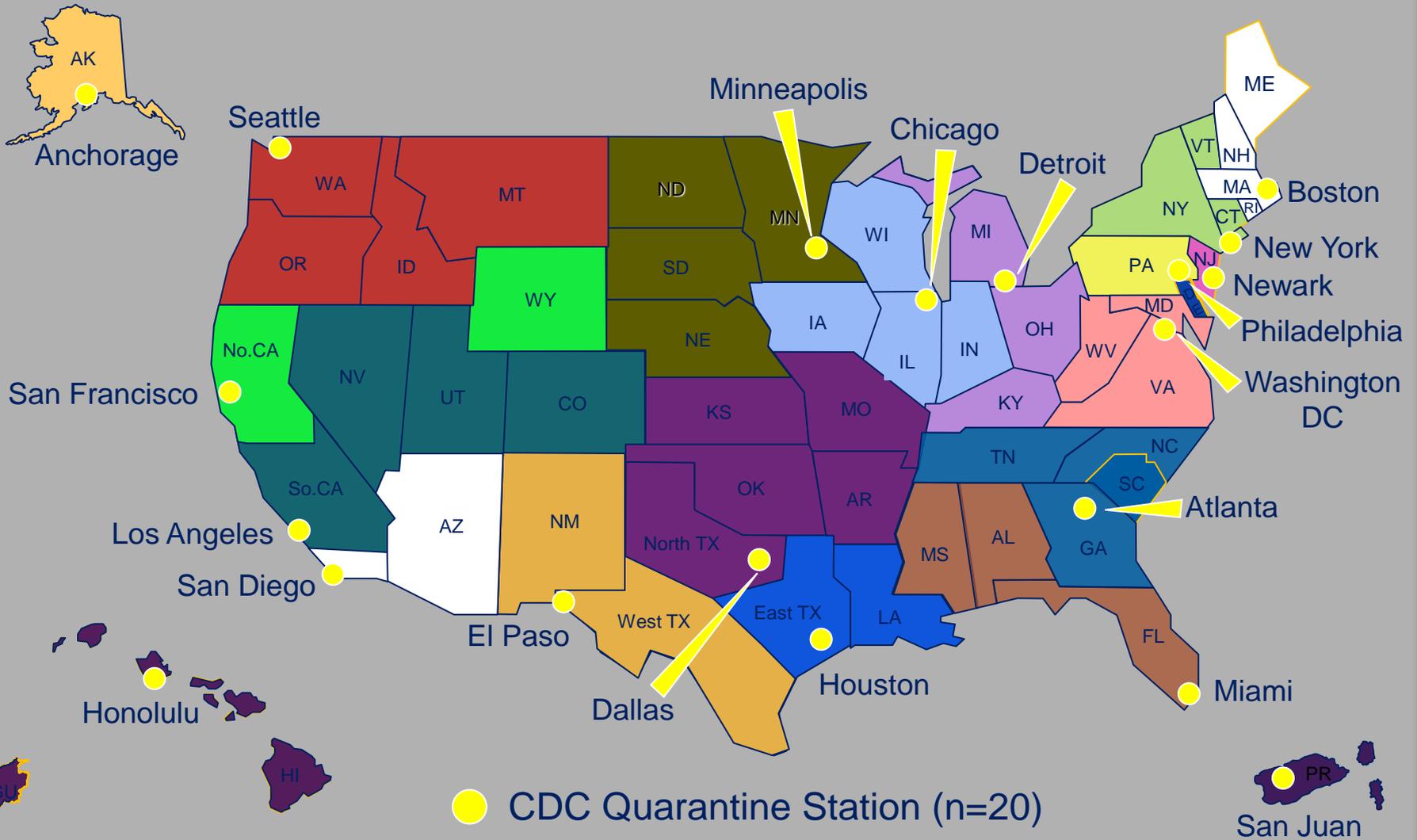


With 1 billion people crossing international borders each year, there is no where in the world from which we are remote and no one from whom we are disconnected.

U.S. Ports of Entry and CDC Quarantine Stations



CDC Quarantine Station Jurisdictions



Quarantine station staff are always available

Responsible
for all legal
U.S. ports of
entry

On-site at
18 ports of
entry

All other
POEs: site
visits and
phone
consultation

Always
available by
phone
24 hours/day
7 days/week

Visit www.cdc.gov/quarantine for contact info

Quarantine and Border Health Services Branch Mission



Ensuring 24/7 public health capability to prevent or mitigate the introduction, transmission, and interstate spread of communicable diseases in the United States and territories.

CDC Quarantine Station Activities

- Respond to reports of illnesses on airplanes, maritime vessels, and at land-border crossings
- Inspect animals, cargo, and other items that pose a potential threat to human health
- Distribute life-saving immunobiologics and investigational drugs
- Provide international travelers with important health information
- Enter data into electronic surveillance and data reporting systems



CDC Quarantine Station Activities

- Monitor the health of and collect medical information about new immigrants, refugees, asylees, and parolees
- Respond to mass migration emergencies
- Support measures to ensure PH air safety
- Plan and prepare for emergency response
- Build strategic partnerships for disease surveillance and control



Samples of Key Partners



State and Local Public Health

CDC relies on state and local health departments to help protect public health in communities.

State and local public health officials collaborate with CDC Quarantine Stations by:

- Notifying CDC of ill persons who have traveled internationally
- Evaluating migrants with conditions of public health concern
- Planning and preparing for carrying out contact tracing of exposed passengers
- public health emergencies involving international travel
- Cooperating with CDC on requests for travel restrictions
- Coordinating legal authorities for isolation or quarantine

U.S. Customs and Border Protection

Customs and Border Protection (CBP) Officers are charged with protecting the American public from threats that could arrive at ports of entry, including infectious disease threats.

CBP partners with CDC to protect public health by—

- Being alert for ill travelers and notifying CDC of ill travelers with suspected communicable diseases
- Reviewing migrant medical documentation
- Notifying CDC of animals, animal products, and other items restricted for importation
- Planning and preparing for public health emergencies at ports of entry
- Notifying CDC if individuals on the public health Lookout List are identified at ports of entry

Airline Industry

Airline staff, including flight attendants and pilots, are critical links in recognizing and reporting illness.

The airline industry supports CDC Quarantine Stations' public health mission by:

- Being alert for passengers or crew who appear to be sick
- Addressing health needs of passengers and crew during flight
- Notifying CDC Quarantine Station of suspected communicable disease through their airlines' communication procedures
- Collaborating on training and communication
- Supporting and participating in emergency planning

Cruise Line Industry

Cruise line staff are essential to recognizing and reporting illness on vessels.

Cruise line staff, including ship captains and medical officers, help CDC by:

- Detecting and assessing any illness or death of passengers and crew
- Reporting non-gastrointestinal (GI) illnesses or death before arrival at a U.S. seaport of entry
 - GI illnesses reported to CDC's Vessel Sanitation Program
- Implementing appropriate public health surveillance and control measures
- Communicating with passengers and crew about prevention measures

Definitions

Isolation The separation of ill persons who have a specific infectious illness from those who are healthy and the restriction of their movement to stop the spread of that illness

Quarantine The separation and restriction of movement of well persons who, while not yet ill, have been exposed to an infectious agent and therefore may become infectious

Federally Quarantinable Communicable Diseases in the U.S.

Presidential Executive Order 13295, April 2005

- Cholera
- Diphtheria
- Infectious Tuberculosis
- Plague
- Smallpox
- Yellow Fever
- Viral Hemorrhagic Fevers
- Severe acute respiratory syndrome (SARS)
- Novel or reemerging influenza causing or with potential to cause a pandemic

Other Communicable Diseases of Public Health Concern*

- Malaria
- Typhoid
- Varicella
- Rabies
- Measles
- Meningococcal disease
- Legionellosis
- Polio
- Dengue
- Zoonotic poxvirus
- Pertussis
- Mumps
- Rubella
- Infectious diarrhea

*Based on their ability to spread and cause significant illness or death

Public Health Service Act

The primary statutory authority for CDC to enact regulations for the purpose of communicable disease control is in Section 361 (42 U.S.C. § 264) of the Public Health Service Act (PHSA).

This authority has been delegated to CDC's Director.



Required Reporting of an Ill Traveler on an International or Interstate Conveyance



42 Code of Federal Regulations Parts 70 and 71:
Prior to arriving at a U.S. port,
the captain of a plane, ship, or other conveyance
is required by federal law to report any death onboard and
certain illness that may represent a communicable disease to
the CDC Quarantine Station (international or interstate) or local
health authority (interstate).

Required Reporting of an Ill Traveler*

42 CFR Part 71

- Fever $\geq 100^{\circ}\text{F}$ persisting for >48 hours
- Fever $\geq 100^{\circ}\text{F}$ AND one or more of the following:
 - Rash
 - Swollen glands
 - Jaundice
- Severe diarrhea with or without fever

*Applies to ALL travelers: crew, passengers, U.S. citizens, and non-U.S. citizens

Additional Signs and Symptoms: Requested Reporting from Airline Captains

Fever $\geq 100^{\circ}\text{F}$ AND one of the following:

- Difficulty breathing
- Headache with stiff neck
- Reduced level of consciousness
- Unexplained bleeding



Additional Signs and Symptoms: Requested Reporting from Ship Captains



Fever $\geq 100^{\circ}\text{F}$ AND one of the following:

- Difficulty breathing
- Suspected or confirmed pneumonia
- Cough > 2 weeks or cough with bloody sputum
- Headache with neck stiffness
- Reduced level of consciousness
- Unexplained bleeding

CDC Notification and Response Protocol at Airports

Notification

- Port partners notify CDC of an ill passenger.
- CDC shares notification with relevant partners.



Response

- *Onsite:* CDC Quarantine Station staff board conveyance and conduct a public health assessment with Emergency Medical Services.
- *Offsite:* Quarantine staff obtain the EMS assessment and communicate by phone.

Emergency Medical Services (EMS)

EMS personnel are a critical link in reporting illness to CDC.



EMS units assist CDC by:

- Notifying CDC of deaths and ill travelers with a suspected communicable illness
- Assisting CDC on site and by phone to assess public health risk
- Assisting with transporting ill travelers

CDC Quarantine Station Illness Surveillance and Response Protocol

- Assist in determining if illness is a public health threat and initiate appropriate public health action

1

Recommend seeking medical care and/or delaying travel until noninfectious.

2

Require transfer to hospital if quarantinable disease suspected.

3

Allow travel to continue, if desired.

Overseas TB Screening

Program :

- Required for US-bound immigrants and refugees
- A relatively high-yield intervention
- ~500,000 immigrants/refugees are screened annually
- Not required for millions of nonimmigrant visitors arrive in the United States annually
- Many are from countries with a high TB incidence & stay in the US for multiple years

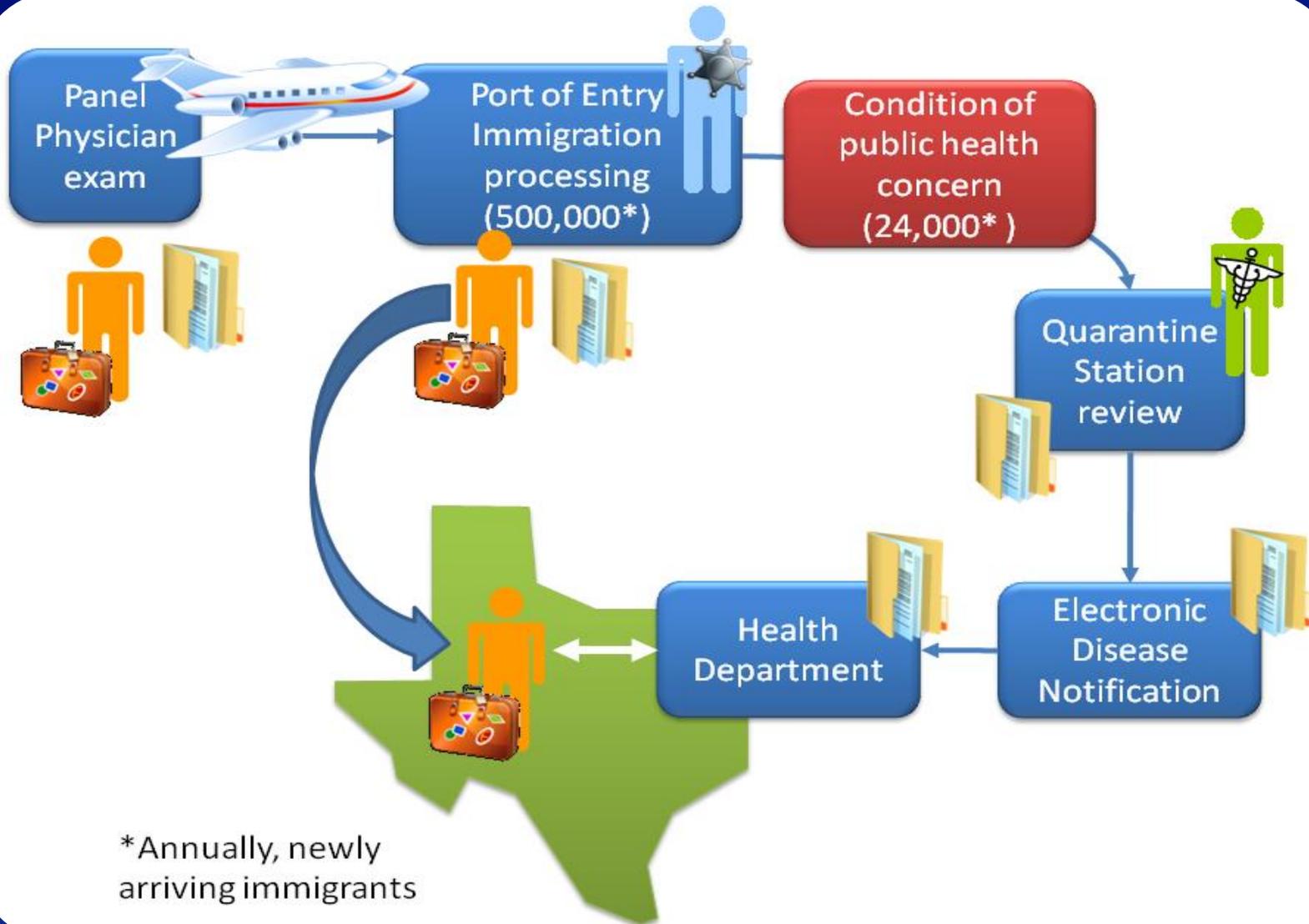
TB Classifications of Most Concern

TB classification	Chest x-ray shows-	AFB culture shows-	Restriction?
TB Class A, active, infectious	Active TB findings (infiltrates/ cavities)	Positive	No entry till treated and culture negative
TB Class B1, not active	Not-Active TB, but may reactivate (calcification/ scarring)	Negative	Entry permitted; further medical evaluation by health dept. required within 30 days
TB B2, latent infection	Infection, no disease	Not required unless symptomatic	Same as above

Panel Physician Program: Basics

- TB screening statistics
 - 670 panel sites (1 or more panel physicians)
 - Three panel site in Cd. Juarez Mexico (busiest)
 - > 1,000 laboratory and radiology facilities
 - Examine U.S.-bound immigrants and refugees for diseases of PH significance
 - 500,000 immigrants refugees annually
 - 100,000 from Mexico
 - TB: Disease of greatest public health concern

New Immigrant Arrival Process



*Annually, newly arriving immigrants

Purpose of Air Travel-related Contact Investigation

- **Identify travelers potentially exposed to communicable disease of public health concern**
- **Notify travelers about their potential exposure**
- **Inform local public health authorities to facilitate preventive or follow-up public health actions.**

Air Contact Investigation and DNB/LO Process Requests

**Contact DSHS Central Office for
guidance first even if request is after
normal business hours**

1st Contact: Peggy Wittie, PhD MAG

- Office: 512.533.3145
- Mobile: 512.789.0441

2nd Contact: Sandra A. Morris, MPH

- Office: 512.533.3128
- Mobile: 512.289.0963 or 512.506.9783

Important Reminders

- **Don't wait!**
- **If you do not know the flight details, the Quarantine Station can obtain prior or upcoming travel for you**
- **If in doubt about merits of air contact investigation or DNB/LO indication, call anyway.**

Important Reminders Cont.

If a conference call is held with the Quarantine Station, representation from the following is required:

- LHD staff with the most comprehensive clinical knowledge of the case
- State TB controller or representative from SHD, as appropriate
- Recommended: The treating physician

Important Reminders Cont.

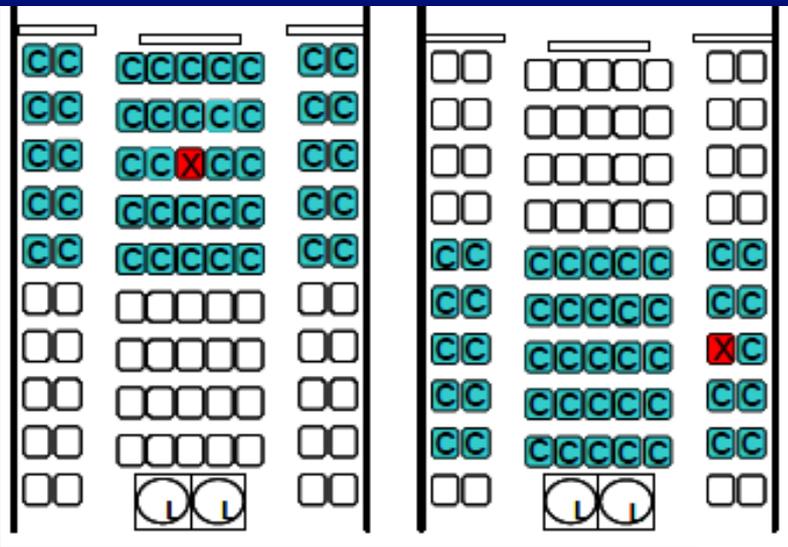
- **For contact investigations and DNB/LO the Quarantine Station needs copies of the following:**
 - Chest x-ray and/or CT scan report
 - All laboratory reports (NAAT, Smears, Cultures, DSTs, and MDDR)
 - Clinical summary with treatment timeline
 - Copy of clinic / hospital records (if applicable)

Indications for Proceeding with Air Contact Investigation

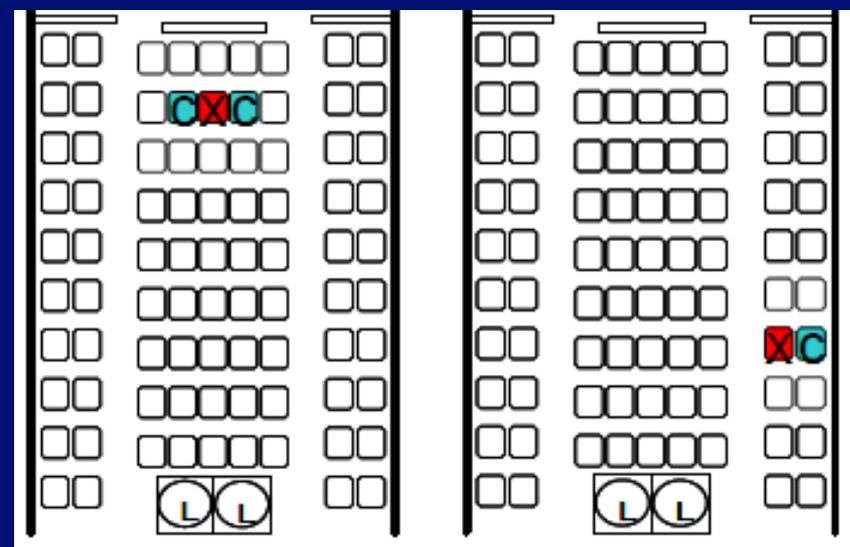
- Inbound commercial air travel of 8 hours or more gate to gate, and**
- Travel within previous 3 months, and**
- Positive sputum AFB smear(s) plus cavitory disease by CXR or cavity of 1 cm or more by CT, or**
- MDR-TB confirmed or strongly suspected**

Targeting Air Travel Contact Investigation

Measles* / TB



Meningococcal disease



* Also includes all babies “in arms”; for flights with ≤ 50 passengers, includes all passengers and crew.

Any ill person
who has
travelled
internationally

Any item
suspected to
potentially
cause human
illness

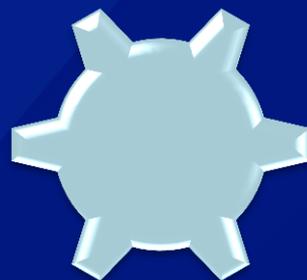
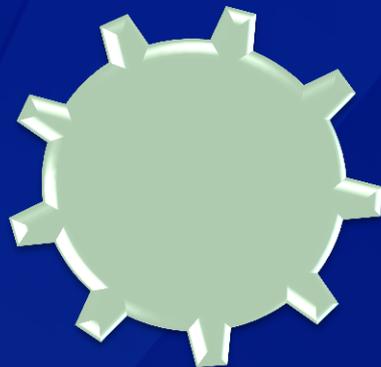
Please contact
the Houston
Quarantine
Station at
281-230-3874

Questions
about CDC
and
quarantine

Ideas for
collaboration
and
partnership

Public health
consultation
or assistance

Thank You



Questions?

For more information, please contact:
Centers for Disease Control and Prevention
1600 Clifton Road NE, Atlanta, GA 30333
Telephone: 1-800-CDC-INFO (232-4636) / TTY: 1-888-232-6348
Web: 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.

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