

# PREVENTING EMERGING INFECTIOUS DISEASES

*Addressing  
the Problem of  
Diseases of Travelers,  
Immigrants, and Refugees*



*A Strategy for the  
21st Century*



# ADVICE FOR TRAVELERS

Travelers, including tourists, businesspeople, and other workers who cross international borders, are at increased risk for contracting and spreading infectious diseases. To reduce this risk, CDC provides travelers with updated information regarding appropriate vaccinations, endemic diseases, and new outbreaks of infection for specific locations around the globe. Regardless of the destination, all travelers should take the following general precautions.\*

## GENERAL PRECAUTIONS FOR INTERNATIONAL TRAVELERS

### To Avoid Infection

- ◆ Wash hands often using soap and water.
- ◆ Eat only thoroughly cooked food or fruits and vegetables that you have peeled yourself. Remember: boil it, cook it, peel it, or forget it.
- ◆ Eat only pasteurized dairy products.
- ◆ Never eat undercooked ground beef, poultry, or seafood. (Raw shellfish is particularly dangerous to persons who have liver disease or compromised immune systems.)
- ◆ To prevent fungal and parasitic infections, keep feet clean and dry, and do not go barefoot.
- ◆ Always use latex condoms to reduce the risk of HIV infection and other sexually transmitted diseases.
- ◆ Don't share needles with anyone.

### When Traveling in an Undeveloped Area

- ◆ Drink only bottled or boiled water or carbonated (bubbly) drinks in cans or bottles. Avoid tap water, fountain drinks, and ice cubes.
- ◆ When traveling to areas where malaria occurs, take malaria prevention medication before, during, and after travel, as directed by your physician.
- ◆ Protect yourself from insects by remaining in well-screened areas, using repellents, and wearing appropriate clothing.

*\*Check the CDC Web site ([www.cdc.gov/travel](http://www.cdc.gov/travel)) for specific information about the region you will visit, and consult your physician for information related to your needs and medical history.*

Infectious diseases can cause suffering and death to any persons, regardless of age, gender, lifestyle, ethnic background, and socioeconomic status; moreover, they impose an enormous financial burden on society. Because we do not know what new diseases will arise, we must always be prepared for the unexpected. The Centers for Disease Control and Prevention (CDC) has recently released a plan, *Preventing Emerging Infectious Diseases: A Strategy for the 21st Century*, which describes steps that we can take to move toward the realization of CDC's vision of a world in which all people join in a common effort to address today's emerging infectious diseases and prevent those of tomorrow.

The national emerging infectious disease plan encompasses nine specific categories of emerging infectious disease problems and groups of people who are most at risk: antimicrobial resistance; foodborne and waterborne diseases; vectorborne and zoonotic diseases; diseases transmitted through blood transfusions or blood products; chronic diseases caused by infectious agents; vaccine development and use; diseases of people with impaired host defenses; diseases of pregnant women and newborns; and diseases of travelers, immigrants, and refugees. This booklet focuses on the public health activities of NCID that address diseases of travelers, immigrants, and refugees.

Public health activities for the nine target areas are organized under four broad, intersecting goals: surveillance and response, applied research, infrastructure and training, and prevention and control.

The goal of surveillance and response is to detect, investigate, and monitor emerging pathogens, the diseases they cause and the factors influencing their emergence, and to address these problems as they are identified. The goal of applied research is to integrate laboratory science and epidemiology to better understand and optimize public health practices related to emerging infectious diseases.

The goal of infrastructure and training is to strengthen the underlying foundation of public health surveillance, research, and programs by supporting the planning, delivery, and evaluation of public health activities and practices. The fourth goal is to ensure prompt implementation of prevention and control strategies and enhance communication of public health information about emerging infectious diseases.

## **The Centers for Disease Control and Prevention Responds**

The public health activities developed for the nine target areas by CDC's National Center for Infectious Diseases (NCID) build on existing efforts, are in the planning stages, or represent new efforts, all of which are described in individual booklets.

## TRAVELERS, IMMIGRANTS, AND REFUGEES

People who cross international boundaries, such as travelers (tourists, businesspeople, and other workers), immigrants, and refugees, may be at increased risk of contracting infectious diseases, especially tourists or workers who have no immunity because the disease agents are uncommon in their native countries. Immigrants may come from nations where diseases like tuberculosis and malaria are endemic, and refugees may come from situations where crowding and malnutrition create ideal conditions for the spread of diseases like cholera, shigellosis, malaria, and measles.

From 1984 through 1994, the annual number of people traveling outside the United States doubled, from 20 million to 40 million, a substantial increase. Moreover, about half of those people visited tropical locations, putting them at risk for diseases they would not normally encounter. Travelers on commercial flights can reach most American cities from any part of the world within 36 hours, which is less time than the incubation period (the time between infection and the appearance of symptoms) for many infectious diseases. Thus, travelers who have been infected may not appear ill when they enter the United States through an airport or seaport or by crossing the border from Canada or Mexico. Travelers who become ill after they enter the United States must be identified through state and local surveillance efforts.



# TRAVELERS, IMMIGRANTS, AND REFUGEES

CDC operates eight quarantine stations which evaluate sick persons at United States ports of entry: Atlanta, Chicago, Honolulu, Los Angeles, Miami, New York, San Francisco, and Seattle. CDC also distributes health information to international travelers, provides guidelines and monitors the required medical assessment of immigrants and refugees. Other priorities include detecting and responding to diseases in travelers, refugees, and immigrants, and conducting studies to help prevent and control diseases in these populations. CDC also alerts local health departments and physicians about countries where outbreaks are occurring.

## Monitoring the Health of Travelers, Immigrants, and Refugees

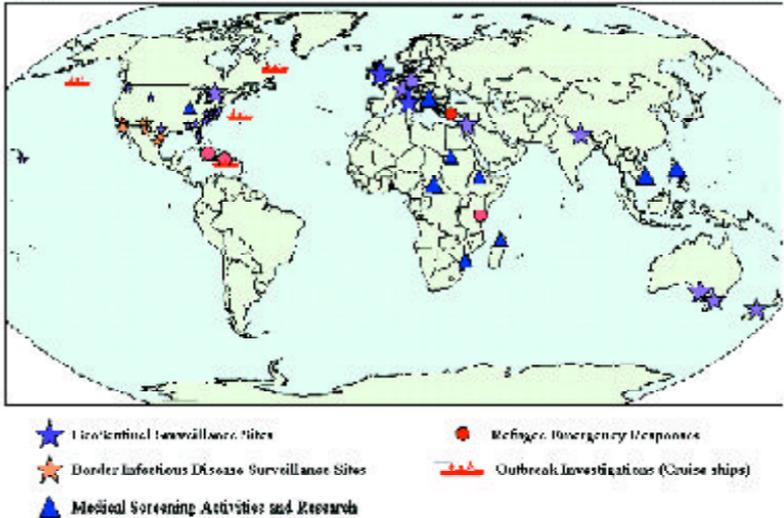


Figure 1: Examples of CDC collaborative projects to enhance global surveillance and response to diseases in travelers, immigrants, and refugees.

### NCID Activities for Addressing Diseases of Travelers, Immigrants, and Refugees

In collaboration with many private and public partners, NCID plans to take the following public health actions to address diseases of travelers, immigrants, and refugees.

#### Goal I: Surveillance and Response

- ◆ Enhance GeoSentinel, an international network of travel medicine and international health clinics, to continue to improve global tracking and surveillance of geographic and temporal disease trends among international travelers, immigrants, and refugees.
- ◆ Establish sentinel surveillance to identify and report emerging infectious disease threats among populations in the U.S.-Mexico border region (Border Infectious Disease Surveillance).
- ◆ Develop additional surveillance networks to monitor and report illnesses in travelers, immigrants, and refugees.





### **Goal II: Applied Research**

- ◆ Identify human population groups with a high potential for transmitting infectious diseases across international borders.
  - ◆ Identify animal species and imported products with a high potential for transmitting infectious diseases across international borders.
- ◆ Design cost-effective, medical screening algorithms for ensuring early detection of emerging infections in immigrants and refugees.

### **Goal III: Infrastructure and Training**

- ◆ Assist state, territorial, and local health organizations in improving local capacity to respond to international infectious disease threats.
- ◆ Help build a global system for surveillance and response in order to detect infectious disease outbreaks and prevent them from spreading across borders.





### Where To Find Additional Information

- ◆ Website for the complete plan, *Preventing Emerging Infectious Diseases: A Strategy for the 21st Century*:  
[www.cdc.gov/ncidod/emergplan](http://www.cdc.gov/ncidod/emergplan)
- ◆ “Health Information for International Travel” available via our website:  
[www.cdc.gov/travel/](http://www.cdc.gov/travel/)

See such health topics as:

Traveling with Children

Special Needs Travelers

Safe Food and Water

Vaccinations

- ◆ Website with information regarding specific diseases affecting travelers ( Health Topics A-Z):  
[www.cdc.gov/travel/diseases.htm](http://www.cdc.gov/travel/diseases.htm)

Diseases discussed include the following:

Malaria

Typhoid fever

Yellow fever

*Escherichia coli* infection

Dengue

Diarrhea

Encephalitis

HIV/AIDS

Hepatitis A and B

- ◆ Voice Fax for CDC:  
**1-888-CDC-FAXX (1-888-232-3299)**

Department of Health & Human Services  
Centers for Disease Control and Prevention (CDC)  
Atlanta, GA 30333

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