

# Travelers' Diarrhea



# Learning Objectives

Students should be able to:

- ✓ Define who is affected by Travelers' Diarrhea
- ✓ Identify some of the risk factors
- ✓ Identify the risk groups
- ✓ Identify ways to prevent Travelers' Diarrhea

# Definition

**What:** Microbial contamination of ingested food and/or water

**When:** It occurs during or shortly after travel

**Who:** Affects most travelers' that come from a highly developed hygiene and sanitation infrastructure to a less developed one.

**What else:** Vomiting and diarrhea may predominate, and symptoms usually go away within 12-18 hours.



# Risk Factors

- There are regional differences (travel destination) in both the risk and etiology (type) of diarrhea.
- The world map divides the regions into three grades of risk: high, intermediate, and low.
- **Low-risk** countries include the USA, Canada, Australia, New Zealand, Japan, and countries in Northern and Western Europe.
- **Intermediate-risk** countries include those in Eastern Europe, South Africa, and some of the Caribbean islands.



# Risk Factors, continued

- **High-risk** areas include most of Asia, the Middle East, Africa, and Central and South America.
- Some destinations that **were** considered high-risk have now been classified as low or intermediate risk, including parts of Southern Europe and some of the Caribbean islands.
- On average, **30%-50%** of travelers to high-risk areas will develop TD during a 1-to-2 week stay.



# Risk Factors, continued

- Based on the annual figure of 50 million travelers to developing countries, this equals to approximately **50,000** cases of TD each day.
- In more moderate regions, there may be seasonal variations in diarrhea risk.
- In South Asia, for example, during the hot months preceding the monsoon, much higher TD attack rates are commonly reported.



# Risk Groups

- Travelers' diarrhea occurs equally in males and females
- Is more common in young adults than older people
- In short-term travelers, bouts of TD do not appear to protect against future attacks.
- More than one episode of TD may occur during a single trip.



# Prevention

For travelers to high-risk areas, several approaches may be recommended, which can lower but never completely eliminate the risk of TD.

- Eat foods that are freshly cooked and served piping hot.
- Avoid water and beverages diluted with water (example: ice, milk, fruit juice, and bottled water) and foods washed in water, such as salads.







## Prevention, continued

- Other risky foods include raw or undercooked meat and seafood, raw fruits, and vegetables.
- Safe beverages include those that are **bottled and sealed** or **carbonated**. Including **boiled beverages** and those that are properly treated with iodine and chlorine.
- **What else:** Studies of TD show that consumption of food and beverages from street vendors in high-risk destinations poses a higher-risk, including certain food items such as reheated prepared foods or buffet items.

# Statistics

- According to the National Digestive Diseases Information Clearinghouse (NDDIC), infectious diarrhea diseases for the United States show the following:
- There were 16 million new cases in 1996
- A count of 2,481 deaths in 2002
- Hospitalization cases ranged from 375,000 to 777,000 in 2002
- Doctor visits among 8 to 12 million in 1985
- Prescribed patients ranged from 5 to 8 million in 1985

Reference: [www.cdc.org](http://www.cdc.org)

*He who has health has hope; and he who has hope has everything.*

Arabian Proverb



# Review Questions

1. Define Travelers' Diarrhea.
2. Which country is not considered a low-risk country for Travelers' Diarrhea? (circle one)  
Canada                      USA  
Japan                         Africa
3. Travelers' Diarrhea occurs only in males.  
T / F
4. Safe beverages include those that are \_\_\_\_\_ and \_\_\_\_\_ or carbonated.
5. Avoid eating risky foods that are \_\_\_\_\_ and \_\_\_\_\_.