



# EPIDEMIOLOGY BULLETIN

VIRGINIA

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## Healthy International Travel

### Background - Increasing Disease Morbidity

The worldwide increase in incidence of infectious diseases is receiving great attention from the scientific community and the media. Some of these "emerging infections" are newly identified while others are diseases once thought to be under control. Due to the ease of air transportation and the resultant increase in food importation and general travel, the occurrence of these infections is not limited geographically. Over the last five years (1991-1995), Virginia has had an average of 46 cases of malaria reported each year, none identified as endemic. The 55 cases reported in Virginia in 1995 are the greatest number of cases reported in the last ten years. The majority of cases reported travel to Africa with no prophylactic medications taken. Worldwide, recent disease outbreaks have included cholera, dengue hemorrhagic fever, diphtheria, Ebola virus, plague, and yellow fever. So far, none of these has been imported to Virginia.

For public health professionals, monitoring of these changing patterns of disease is important, but for the traveler, practical advice and information regarding prevention of these illnesses is imperative. This article provides a brief overview of important things to consider when planning foreign travel and sources for current travel advice.

### Healthy Advice

If travel out of the United States is planned, pre-trip travel advice should be obtained at least six weeks in advance of departure. Recommendations vary depending on the destination. It is important for travelers and their physicians to have the latest information concerning vaccine



requirements and diseases endemic in the area(s) of travel at the time of travel. There are numerous sources for up-to-date travel advice, many of these are listed on Page 3. We recommend that these be consulted for detailed information on the countries being visited.

The following is a list of basic items to be considered BEFORE foreign travel:

- **Destination(s):** All countries included in the itinerary must be considered when determining what preparations and precautions are needed.
- **Level of Development:** The level of development of the areas being visited determines the degree of caution required in regards to food and water, needle/syringe safety, blood/blood product safety, and sexual contact precautions.
- **Geographic Region:** When travel includes tropical or subtropical countries, it is important to guard against mosquitoes and take precautions about where to swim (See Box & Table on Page 3).
- **Vaccines Required/Recommended:** When traveling outside the U.S., some vaccines are **required** for entry into a country in order to prevent tourists from bringing diseases with them.

Other vaccines are **recommended** for the safety of the traveler (See Table on Page 2). Both required and recommended vaccines vary by country and are subject to change. Therefore up-to-date information is needed (See Sources on Page 3). When determining which vaccines are required, all countries included in the itinerary and the order of travel must be considered. If a vaccine is required and a person cannot prove they have had it, vaccination by local authorities may be necessary, often with techniques not considered safe in the U.S.

- **Safety of Food and Water:** This will vary depending on the level of development of the country or area within the country being visited. See Table on Page 3 for basic recommendations regarding travel to developing countries.
- **Quality of Health Care:** Healthcare in developing countries is not the same as in the U.S. Some differences may include: reuse of needles and syringes, unsafe blood and blood products, and U.S. health insurance is often not accepted. It is prudent to learn about the medical facilities available in the countries being visited prior to travel. This information is available through several sources, including the U.S. State Department (See Sources on Page 3).
- **Health Insurance:** International health insurance is available for coverage in localities outside the U.S. Travel agents and travel medical guides can provide more information.
- **Personal Supplies:** Many items that Americans take for granted are not easily obtainable in developing countries. Travelers should include basic first aid supplies such as bandages, soap, cleansing towelettes, insect repellent; and medications such as prescription

## Vaccine-Preventable Diseases

Disease	Geographic Areas for Illness
Cholera	Africa, Asia, Central and South America, Mexico. <i>Vaccine no longer recommended due to low efficacy.</i>
Diphtheria	Worldwide, especially countries of the former Soviet Union.
<i>Haemophilus influenzae</i> (type b)	Worldwide.
Hepatitis A	Worldwide. <i>Low risk in Canada, Western Europe, Scandinavia, Japan, Australia, and New Zealand.</i>
Hepatitis B	Worldwide. High prevalence of carriers in Africa, Southeast Asia, Middle East (except Israel), South and Western Pacific Islands, interior Amazon Basin, Haiti, Dominican Republic. <i>Vaccine recommended for travelers staying for a month or more and healthcare workers.</i>
Influenza	Worldwide.
Japanese encephalitis	Temperate Asia, including China, Japan, Korea, India, and eastern Russia. <i>Vaccine recommended for travelers staying a month or more in rural areas.</i>
Measles	Worldwide. <i>Persons born after 1957 need a booster dose of vaccine.</i>
Meningococcal disease	Sub-Saharan Africa, Tanzania, Burundi, Mongolia. <i>Vaccine required for pilgrims to Mecca (Saudi Arabia) during the Hajj.</i>
Mumps	Worldwide.
Pertussis	Worldwide.
Plague	Scattered areas of North and South America, Africa, Asia. <i>Low risk to travelers.</i>
Pneumococcal disease	Worldwide.
Poliomyelitis	Africa, Asia, Middle East. <i>Booster dose of vaccine needed if none since 18 years of age.</i>
Rabies	Worldwide, except United Kingdom, Australia, Japan, most of Pacific Oceania and Caribbean.
Rubella	Worldwide.
Tetanus	Worldwide.
Typhoid	Central and South America, Africa, Eastern Europe, Middle East, Asia.
Varicella	Worldwide.
Yellow fever	Central Africa, central and northern South America.

### Vaccine Tips

Infants and children should be current on their routine childhood immunizations and may need additional vaccines depending on their itinerary.
All vaccines may be administered simultaneously, except MMR with immunoglobulin. If live virus vaccines are not administered on the same day, they should be separated by 4 weeks. The exception to this rule is oral polio vaccine which can be given at any time.
In general, live virus vaccines are contraindicated in pregnant women. Under some circumstances yellow fever and oral polio vaccines may be considered.
Visa requirements may differ from entry requirements, and may include tests, such as TB skin testing and HIV testing.
Oral (ty21a) typhoid vaccine is inhibited by various antibiotics and by mefloquine (for malaria prophylaxis). There should be a delay of 24 hours between administration of the vaccine and these drugs.
Changing travel itineraries en route may change the risk of disease exposure so that the traveler may no longer be protected adequately.

drugs, aspirin, Pepto-Bismol, anti-diarrheal agents. In older travelers with chronic conditions, consultation between patient and physician can determine what additional medications should be included.

### *Common Diseases to Protect Against*

**Yellow Fever:** Some countries require vaccination against yellow fever prior to entry. The yellow fever vaccine must be administered at an approved Yellow Fever Vaccination Center. Your local health de-

partment may be an authorized site or be able to identify a site in your area. Vaccinees should receive an International Certificate of Vaccination completed, signed, and validated with the stamp of the center where the vaccine is given. The biweekly CDC *Summary of Health Information for International Travel* (also known as the Blue Sheet) lists countries with a high incidence of yellow fever. Even if vaccinated, it is important to take measures to prevent mosquito bites (see Box, Page 3).

**Malaria:** Malaria is one of the major infectious diseases in the world today and can be acquired during travel to tropical and subtropical countries. It is important to determine if prophylaxis is needed and to begin treatment two weeks in advance of departure and continue for four weeks after leaving area of malaria risk. In considering malaria prophylaxis, it is important to determine whether or not drug-resistant strains of the malaria parasite have been isolated in the country(ies) being visited (available through several sources, including CDC's "Health Information for International Travel" or the traveler's hotline).

Chloroquine remains the drug of choice for prophylaxis in areas where no chloroquine-resistant malaria has been isolated. However, the number of these areas is decreasing. Mefloquine (Lariam) is the recommended drug for use in areas with chloroquine-resistant malaria. If the area has mefloquine-resistant malaria, doxycycline is recommended. Other drug regimens are available in other countries. Even when prophylaxis is being taken, it is important to take measures to prevent mosquito bites (See Box on Page 3).

**Rabies:** Persons planning on spending one month or longer in a foreign country where canine rabies is endemic should be offered pre-exposure rabies vaccination. This treatment may provide protection to persons with inapparent exposures to rabies and it will protect persons whose post-exposure therapy might be delayed. Additionally, pre-exposure vaccination, although it does not eliminate the need for additional therapy after a rabies exposure, simplifies therapy by eliminating the need for human rabies immune globulin (HRIG) and decreasing the number of doses of vaccine needed -- of particular importance for persons at high risk of being exposed to rabies in areas where immunizing products may not be available or may carry a high risk of adverse reactions.

U.S. residents who are exposed to rabies while traveling in countries where rabies is endemic may sometimes receive postexposure therapy with regimens or biologics not used in the U.S. Travelers may contact the



U.S. Embassy for information on where to receive treatments with U.S.-approved biologics. If postexposure treatment is begun outside the U.S., additional treatment when the patient returns to the U.S. may be

needed. Patients should contact their local health department when they return for specific advice in such cases.

A number of sources, including the CDC's "Health Information for International Travel" and the TRAVAX software program, list the countries where canine rabies is endemic.

**Travelers' Diarrhea:** Next to vaccinations and insect precautions, the most important travelers' advice concerns the food and water. Awareness of local health conditions can be a guide to maintaining health while visiting foreign countries (See Table). It is important for the traveler to remember that a local resident may be able to eat local items without becoming ill.

Travelers should avoid all medication during early diarrhea. Broad-spectrum antibiotics are a "hit or miss" therapy and are not recommended. Imodium can be purchased over-the-counter and used to relieve symptoms after one or two days. If febrile diarrhea persists or begins within two weeks of return to the U.S., culture and

### Guarding Against Mosquitoes

#### Recommended (After Sunset)

- » Wear light colored clothing
- » Apply repellent before sunset
- » Wear long sleeves and pants
- » Reduce outdoor activities at night
- » Use screens and/or bed nets

#### Avoid

- » Perfume, toilet water, after shave
- » Scented soaps and deodorants

Note: The mosquito that transmits dengue fever bites during daylight hours.

Ova and Parasite testing should be done to determine therapy.

### Sources of International Travel Information

It is essential to get current information regarding foreign travel since requirements can change daily. There are numerous sources for this information, including but not limited to:

- CDC's automated traveler's hotline: available 24 hours-a-day; phone (404) 332-4559, fax (404) 332-4565.
- CDC's homepage on the Worldwide Web: <http://www.cdc.gov>.
- CDC's "Health Information for International Travel": available each year from the Superintendent of Documents, U.S. Government Printing Office, Washington D.C. 20402, phone (202) 512-1800.

- CDC's biweekly *Summary of Health Information for International Travel* (Blue Sheet): available by fax from (404)332-4565, request document number 220022.
- Travel clinics: although becoming more numerous, these specialized clinics are relatively new and may not be available in all areas. The International Society of Travel Medicine is compiling an updated list to be available at their Website (<http://www.istm.org>). Local listings may be available in the Yellow Pages under "Physician-Travel Medicine" or "Travel Agency."
- U.S. Department of State (USDOS) Consular Affairs: an automated fax service provides information on 197 countries including travel warnings, entry requirements, medical facilities, embassy information, and HIV testing requirements. (202)647-3000, Website:[http://www.storlaf.edu/travel\\_advisories.html](http://www.storlaf.edu/travel_advisories.html).
- Software programs: TRAVAX and Travel Health Information Service (annual subscription with monthly or weekly updates) provide country profiles that include disease entry requirements, immunization recommendations, endemic disease risks, geographic information, and USDOS travel advisories and embassy phone numbers. For more information call: 1-800-755-2301.
- Foreign Travel Medical Guides: available at many bookstores.
- Worldwide Web: many travel-related sites exist and can be reached via above-mentioned addresses.
- Local health departments: many may offer foreign travel pre-trip vaccines or knowledge of where they are available. The state health department will assist local health departments and physicians with difficult travel-related health issues.

### Post Trip Care

Not only travelers, but also immigrants, refugees, and other persons with prolonged residence in developing countries require a detailed travel and exposure history in evaluating illnesses. Diarrheal illnesses and fever of unknown origin are often post trip complaints. Travel clinics are available in larger metropolitan areas to evaluate post trip illnesses.

Submitted by: Mary Jean Linn, RN, MURP, Office of Epidemiology.

### Food and Water Safety Tips in Developing Countries

Recommend	Avoid
<b>Beverages &amp; Water</b>	
Boiled water	Ice
Hot coffee, tea or soup	Water from pitchers or carafes
Carbonated soft drinks, mineral water (if in sealed bottle or can)	Fresh milk (unless boiled) and other milk products, e.g. ice cream
<b>Alcoholic beverages</b>	
Beer or wine (in sealed bottles)	Mixed drinks with ice
<b>Food: Eat only what has been cooked and is still hot.</b>	
Meat (well done only)	Rare or medium rare meats
Vegetables (if cooked and served hot)	Uncooked vegetables
Fish (fried or well cooked) Note: get local medical advice about biotoxins, such as ciguatera.	Raw fish or shellfish
Bread or other dry, baked goods	Sausages
Fruit (if self peeled with no broken skin)	Salads
	Most pies, custards, gelatins, creamy desserts
	Cheeses (except for known brands in original packaging)
<b>Swimming Waters</b>	
Chlorinated pools	Ocean beaches in the vicinity of cities
Ocean beaches, not close to cities	Swimming or wading in fresh water in <i>Schistosoma</i> -prone areas (Caribbean, Northeast South America, Africa, East Asia)

**Cases of Selected Notifiable Diseases Reported in Virginia.\***

Disease	Total Cases Reported, June 1996						Total Cases Reported Statewide, January through June		
	State	Regions					This Yr	Last Yr	5 Yr Avg
		NW	N	SW	C	E			
AIDS	150	2	54	7	28	59	562	701	586
Campylobacteriosis	91	28	6	15	21	21	287	222	243
Giardiasis	21	2	8	4	4	3	126	112	119
Gonorrhea	705	42	53	94	193	323	4797	5399	6772
Hepatitis A	20	7	10	1	1	1	82	93	77
Hepatitis B	11	2	2	4	1	2	73	46	76
Hepatitis NANB	1	0	0	0	0	1	8	5	17
HIV Infection	87	0	3	10	15	59	499	506	634
Influenza	0	0	0	0	0	0	344	919	714
Legionellosis	2	0	0	2	0	0	12	7	6
Lyme Disease	7	1	1	1	4	0	7	16	27
Measles	0	0	0	0	0	0	2	0	8
Meningitis, Aseptic	12	0	4	2	0	6	70	90	91
Meningitis, Bacterial <sup>†</sup>	10	1	3	3	0	3	44	71	59
Meningococcal Infections	6	2	1	1	1	1	34	33	32
Mumps	1	0	0	0	1	0	4	14	25
Pertussis	16	2	2	0	5	7	21	8	10
Rabies in Animals	58	14	6	10	11	17	277	208	174
Rocky Mountain Spotted Fever	4	1	1	0	2	0	5	1	2
Rubella	2	1	1	0	0	0	2	0	0
Salmonellosis	114	10	33	26	25	20	444	388	400
Shigellosis	84	45	17	1	1	20	234	87	184
Syphilis, Early <sup>‡</sup>	51	0	0	4	22	25	452	628	726
Tuberculosis	31	2	8	5	9	7	149	139	161

*Localities Reporting Animal Rabies:* Accomack 1 fox, 3 raccoons; Alexandria 1 bat, 1 raccoon; Augusta 1 cat, 1 raccoon; Bedford 1 raccoon; Brunswick 1 raccoon; Charlotte 1 fox; Chesapeake 1 raccoon; Chesterfield 1 raccoon; Dinwiddie 1 raccoon; Fairfax 1 bat, 1 raccoon; Fauquier 1 fox, 1 raccoon; Franklin County 1 raccoon; Frederick 1 raccoon; Halifax 1 raccoon, 1 skunk; Hanover 1 raccoon; Henrico 1 raccoon; Henry 1 raccoon; Loudoun 1 groundhog; Louisa 1 cat; Lunenburg 1 raccoon; Middlesex 1 raccoon; Northampton 10 raccoons; Nottoway 1 raccoon; Page 1 fox, 1 raccoon; Patrick 1 raccoon; Pittsylvania 1 cat, 1 raccoon; Prince George 1 raccoon; Prince William 1 raccoon; Rockbridge 1 raccoon; Rockingham 2 skunks; Shenandoah 1 raccoon, 1 skunk; Smyth 2 raccoons; Stafford 1 groundhog; Virginia Beach 1 raccoon; Washington 2 skunks.

*Occupational Illnesses:* Asbestosis 42; Carpal Tunnel Syndrome 5; Coal Workers' Pneumoconiosis 12; Lead poisoning 1, Loss of Hearing 9.

\*Data for 1996 are provisional.

<sup>†</sup>Other than meningococcal.

<sup>‡</sup>Includes primary, secondary, and early latent.

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