

CREATING A TRAVEL CLINIC:

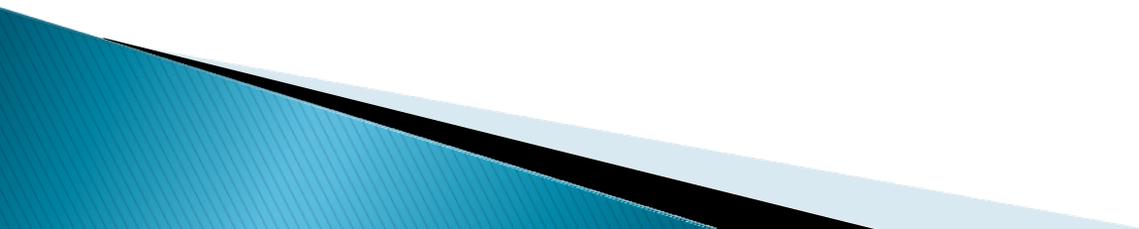
The Importance of Travel Health
Services in a College Setting

Nicole Casten, RN
Barnard College
New York, NY

Objective #1

How does international travel affect the health of college students?

Objective #1 discussion

- ▶ Identify current trends in U.S. students studying abroad
 - ▶ Define travel health care
 - ▶ Identify travel health risks
- 

CURRENT TRENDS

- ▶ 2007/08: 262,416 US students studied abroad
 - An increase of 8.5% over the previous year

- ▶ New York had a total of 21,277 students studying abroad in 2007/08
 - 10.9% increase from the previous year

CURRENT TRENDS

American students are increasingly traveling to less traditional places including:

- China
- India
- Japan
- South Africa
- Argentina

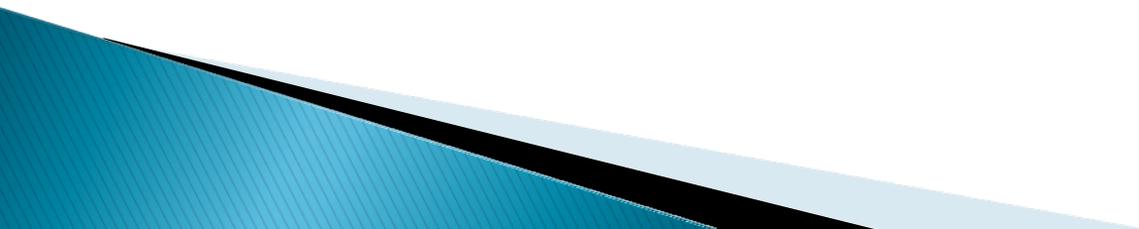
(The Institute of International Education–Open Doors 2009)

CURRENT TRENDS

- ▶ 2007/2008: % increase in the number of students studying abroad:
 - Africa –18%
 - Asia –17%
 - Latin America – 11%

(The Institute of International Education–Open Doors 2009)

College Students Travel For:

- ▶ Study Abroad
 - ▶ VFR (Visiting Friends and Relatives)
 - ▶ Volunteer work
 - ▶ Leisure
- 

Duration of Study Abroad 2007/08

Institution Type: Baccalaureate

Total Study Abroad Students : 39,626

Short-term 45.1%

(summer, January term, or 8 weeks or less during academic year)

Mid-length 49.8%

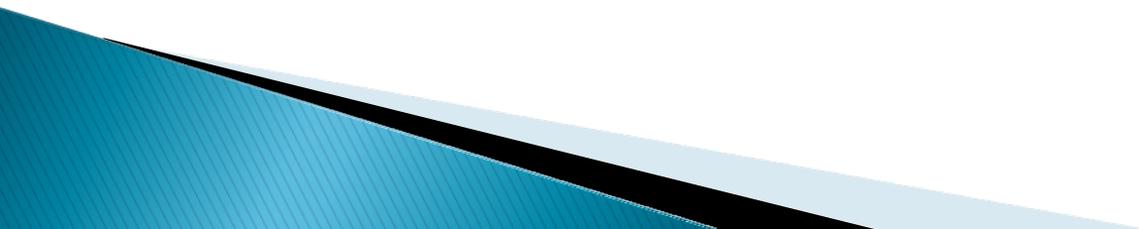
(1-2 quarters or 1 semester)

Long-term 5.1%

(academic or calendar year)

(The Institute of International Education-Open Doors 2009)

Risk Assessment:

- ▶ **Destination:** developed vs. developing country
 - ▶ **Activity planned:** volunteer work vs. a stay at a 4 star resort
 - ▶ **Accommodations:** hut or cabin vs. hotel or hostel
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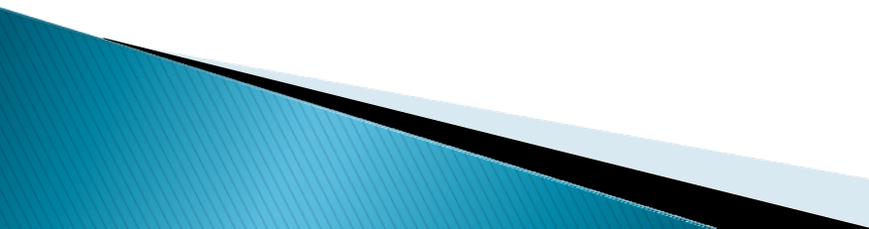
Risk Assessment:

- ▶ Duration of trip
 - ▶ Rural vs. Urban
 - ▶ Travel alone or in group
 - ▶ VFR –(Visiting Friends or Relatives)
 - ▶ Cautious vs. risk taker
- 

International Students in the U.S.

- ▶ Fall 2008: 15.8% increase of students enrolling for the first time at a U.S. institution (over previous year)
- ▶ 2008/09: 671,616 of international students in the U.S.
 - Increased 7.7% over the previous year

(The Institute of International Education– Open Doors 2009)



International Students in the U.S.

Top 5 places of origins:

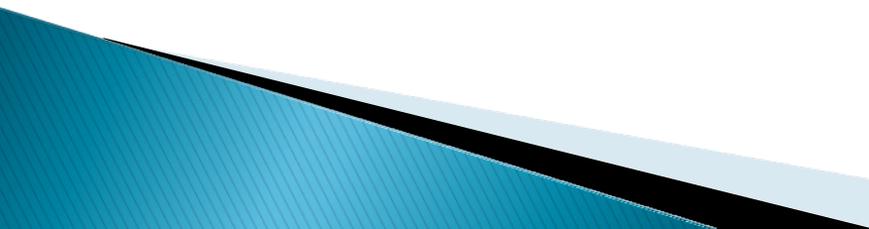
- India
- China
- South Korea
- Canada
- Japan

(The Institute of International Education– Open Doors 2009)

International Students in the U.S.

- ▶ New York ranked #2 in Top U.S. states hosting international students
- ▶ New York 2008/09: 74,934 International Students
 - 7.3% increase from previous year

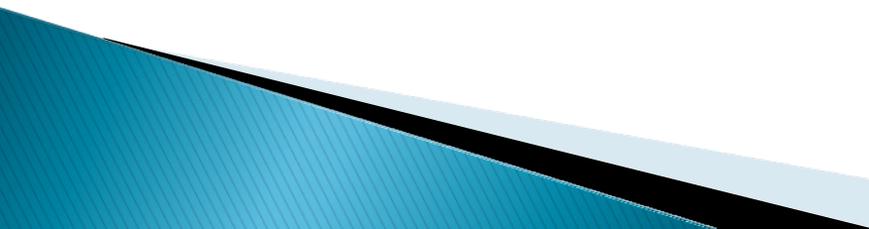
(The Institute of International Education– Open Doors 2009)



DEFINE TRAVEL HEALTH CARE

Travel health care is an interdisciplinary specialty concerned with the prevention, management and research of health problems associated with travel. ISTM, 1998

Health promotion and disease prevention are the cornerstones of this specialty.





The Importance of Travel Health Measures

- 100,000 travelers to developing world for 1 month
 - 50,000 travelers will develop some sort of health problem during the course of their trip
 - 8,000 travelers will see a physician
 - 5,000 travelers will be confined to bed



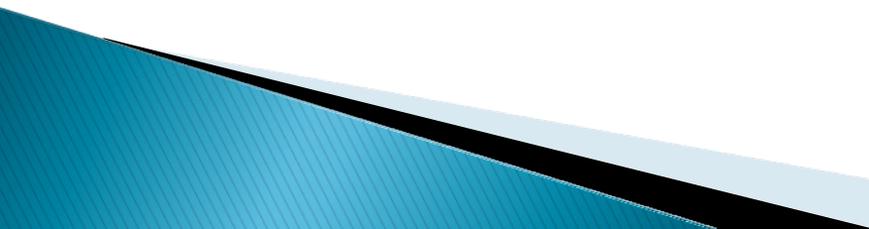
Estimated Incidence of Illness During Travel in a Developing Country

- Traveler's diarrhea 20%–60%
- Acute respiratory infection 5%–20%
- Malaria (no chemoprophylaxis West Africa) 2%
- Dengue Fever 0.1%
- Hepatitis A 0.03%–0.3%
- Animal bites with rabies risk 0.3%

Incidence varies based on destination, duration of travel, and activities

Vaccine Preventable Diseases

Routine

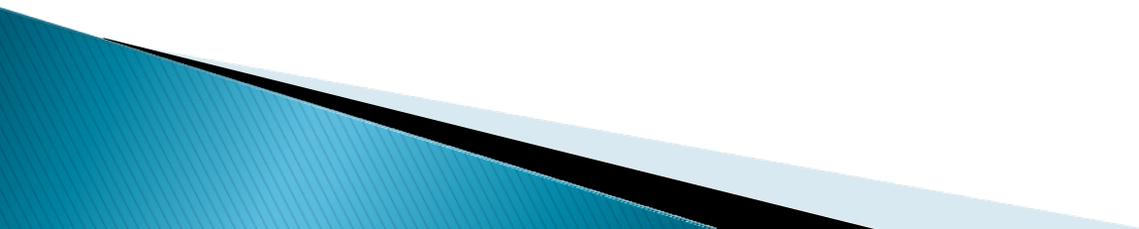
- ▶ Tetanus
 - ▶ Diphtheria
 - ▶ Pertussis
 - ▶ Hepatitis B
 - ▶ Varicella
(Chicken pox)
 - ▶ Pneumococcal
 - ▶ Polio
 - ▶ Influenza
 - ▶ MMR
- 

Vaccine Preventable Diseases

Travel Related

- ▶ Hepatitis A
- ▶ Hepatitis B
- ▶ Typhoid
- ▶ Yellow Fever
- ▶ Poliomyelitis
- ▶ Meningococcal Meningitis
- ▶ Rabies
- ▶ Japanese Encephalitis

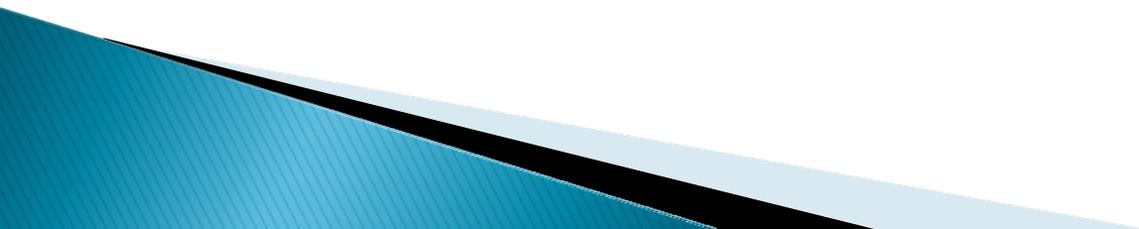
Not Vaccine Preventable...

- ▶ Malaria
 - ▶ Avian Flu
 - ▶ Dengue
 - ▶ Travelers' Diarrhea
 - ▶ TB
- 

Diseases Spread by Vector

- ▶ Malaria
 - ▶ Yellow Fever
 - ▶ Japanese Encephalitis
 - ▶ Dengue
 - ▶ Leishmaniasis
- 

Objective #2: Identify Need

- ▶ Create a Travel Log
 - ▶ Conduct a Needs Assessment Survey
- 

Travel Log

Create a form where each clinician lists:

- ▶ Name of Student
- ▶ Date
- ▶ Country/Countries plan to visit

This allows the Travel Health Coordinator to keep track of students traveling abroad

Study Abroad at Barnard

Academic Year	Total Enrolled	Full Year	Fall Only	Spring Only	Summer	Study Abroad Total	Countries	% of Study Abroad
2007–2008	2,346	19	49	140	16	224	36	10%
2008–2009	2,359	19	50	131	17	217	41	11%
2009–2010	2,417	23	32	132	21	208	36	12%

Needs Assessment Survey

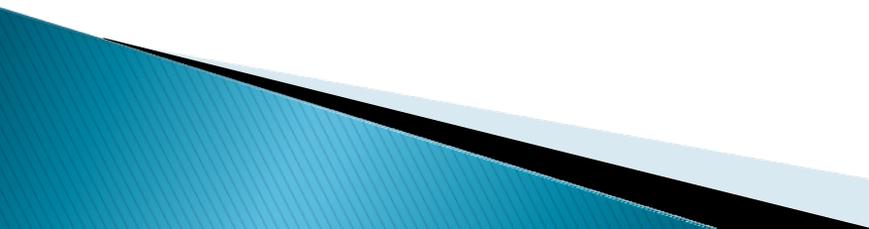
- ▶ Research need/demand for travel vaccines via travel log and CDC recommendations
 - ▶ Research cost and shelf life of vaccines to assess cost effectiveness
- 

Register to be Yellow Fever Clinic

- ▶ Contact CDC YF Coordinator –Theresa Sommers
email contact: dqyellowfever@cdc.gov
- ▶ NYSDOH contact: Cindy Robinson to register for
YF vaccine and get stamp certification
(no fee)
- ▶ Contact U.S. Government Printing Office
@ 1866–512–1800 to order International
Certificate of Vaccination or Prophylaxis (ICVP)
CDC 731 Form

Yellow Fever Vaccine:

Assess for actual YF risk factors

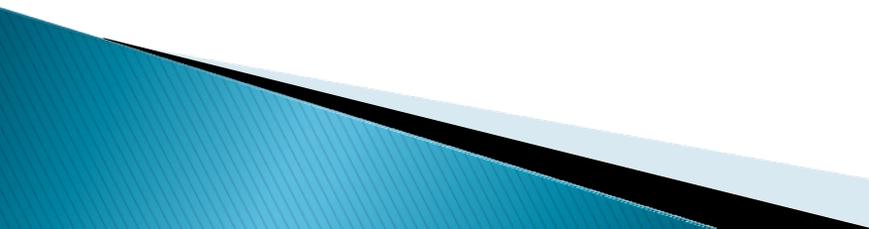
- ▶ Required for Entry–countries petition WHO to make this required for travelers crossing their borders
 - ▶ Recommended for travel to endemic area
- 

Yellow Fever Vaccine:

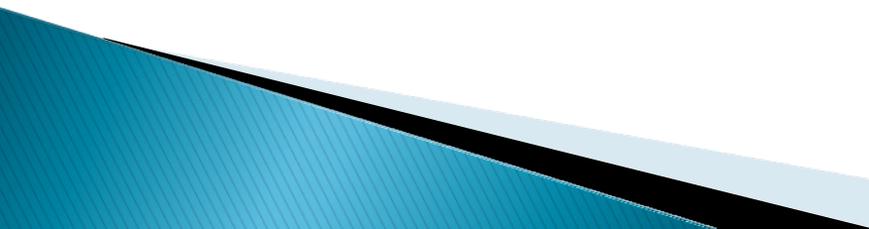
Document: per WHO

- ▶ ICVP
- ▶ Give at least 10 days before entry
- ▶ Protects 10 years
- ▶ Clinic does not need to open up to the public, can choose not be listed on public website

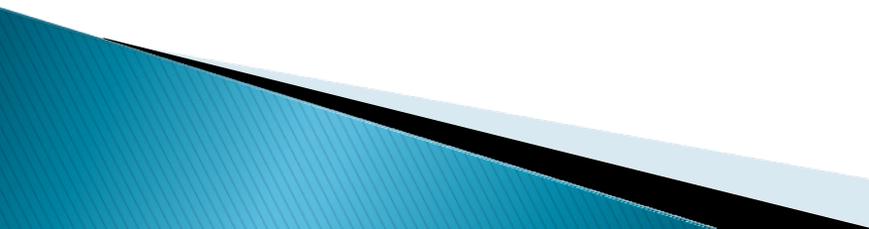
Objective #3: Establish Foundation

- ▶ Essential elements of a travel clinic
 - ▶ Identify useful resources
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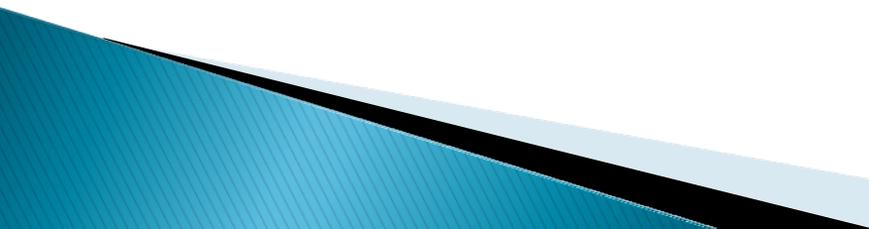
Practice Site Requirements

- ▶ One subscription data base search service
 - ▶ Dedicated refrigerator (freezer)
 - ▶ Immunization equipment and supplies
 - ▶ Emergency Response supplies
 - ▶ Medical waste contract
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Framework of a Travel Clinic

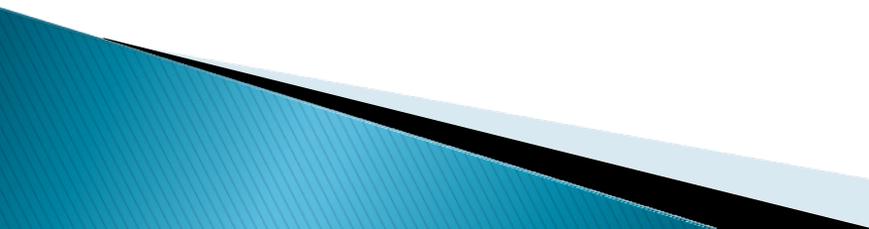
- ▶ Policies and Procedures
 - ▶ Templates
 - ▶ Trained Personnel
 - ▶ Travel Itinerary Questionnaire
 - ▶ Web Page
- 

Policies & Procedures

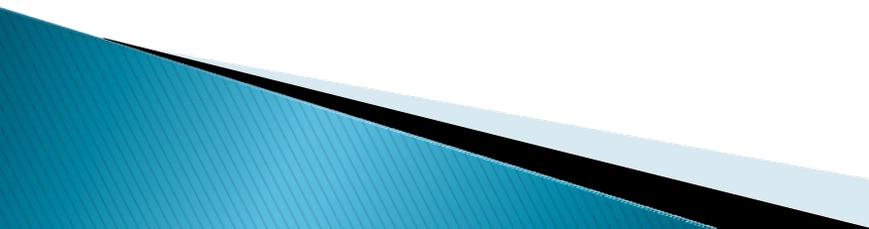
- ▶ Anaphylaxis protocol and management of adverse reactions
 - ▶ Standing orders for vaccines
 - ▶ Immunization documentation
 - ▶ Infection Control/ Needlestick protocol
 - ▶ Risk Communication: VIS, consent, waiver
- 

Immunization Documentation

In the U.S. the NCVIA (National Childhood Vaccine Injury Act) mandates:

- ▶ Date of administration
 - ▶ Provider name and address
 - ▶ Manufacturer and lot #
 - ▶ NY– requires site of administration
- 

Immunization Documentation

- ▶ VIS with edition date
 - ▶ It is a requirement of the National Childhood Vaccine Injury Act of 1986 to provide VIS to the patient, or guardian of child
- 

Immunization Documentation

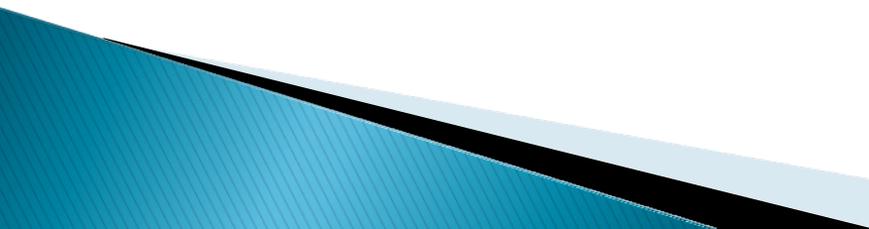
As of June 2009, VIS's that must be used are:

- ▶ DTaP
- ▶ Td
- ▶ MMR
- ▶ Polio
- ▶ Hepatitis A
- ▶ Hepatitis B
- ▶ Hib
- ▶ Varicella
- ▶ Influenza
- ▶ Pneumococcal Conjugate

Policies & Procedures

- ▶ Cold Chain Compliance – “Vaccine Storage and Handling Toolkit” @ http://www2a.cdc.gov/vaccines/ed/shtoolkit/pages/storage_equipment.htm
- ▶ Refrigerator Disaster Plan/ Emergency Storage
- ▶ NCVIA/HIPPA compliance
- ▶ VAERS– Vaccine Adverse Event Reporting System

Create Templates for Documentation

- ▶ Travel Vaccine
 - ▶ Travel Health Counseling
- 

Identify Useful Resources

- ▶ CDC: www.cdc.gov/travel
- ▶ Immunization Action Coalition
www.immunize.org
- ▶ WHO: www.who.int/ith
- ▶ U.S. State Department: www.travel.state.gov
- ▶ ACIP statements
- ▶ CDC Yellow Book, Blue Book (Thompson),
CDC Pink Book

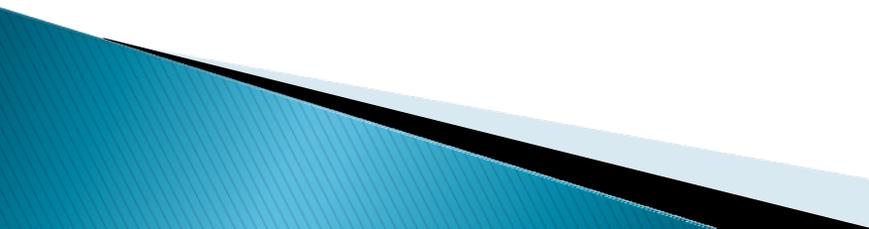
Useful Resources

Subscriptions:

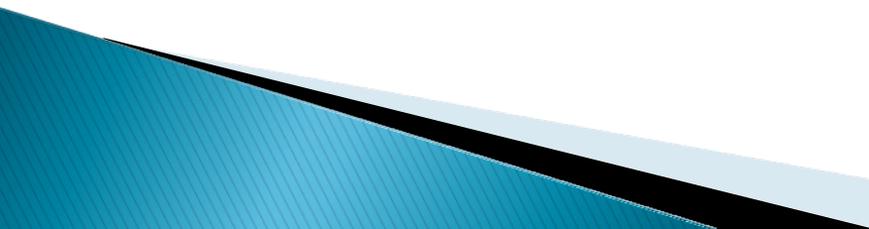
- ▶ Travax @ www.shoreland.com
 - ▶ Tropimed @ www.tropimed.com
 - ▶ TravelCare@ www.travelcare.com
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Essential Tool for Travel Clinic: Travel Medicine Subscription (ex:Travax)

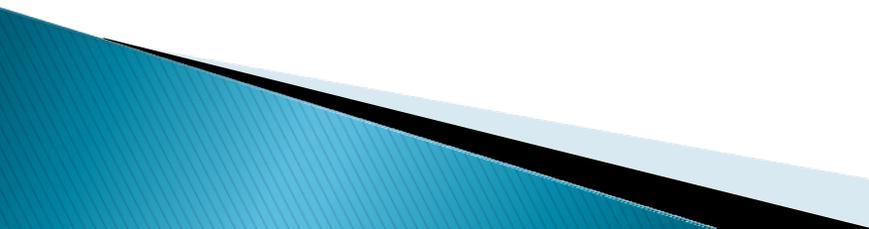
Many Benefits which can include:

- ▶ Individualized plan
 - ▶ Maps for risk of Malaria and Yellow Fever
 - ▶ Literature Watch
 - ▶ News Alerts
- 

Results of Thorough Search

- ▶ Creates list of potential vaccines
 - ▶ Identifies need for patient medications
 - ▶ Creates list of potential education topics
- 

Results of Thorough Search

- ▶ Helps with planning and prioritizing: assessment, vaccine schedule, patient teaching, consultation and referrals
 - ▶ Suggest considerations for post trip evaluation
- 

PRE -TRAVEL CONSULTATION

- ▶ Risk Assessment: hx, destinations, activity planned, duration of trip
 - ▶ Travel Health Counseling- Advice to reduce exposure to health risks
 - ▶ Immunization
- 

PRE -TRAVEL CONSULTATION

- ▶ Chemoprophylaxis: i.e. malaria, AMS
- ▶ Advice on Self Treatment: ex:
Prescription for travelers' diarrhea

Infectious Diseases Society of America Practice Guidelines

Minimum Counseling Points

- ▶ Vaccine –preventable diseases
- ▶ PPM
- ▶ Malaria chemoprophylaxis
- ▶ TD prevention and self treatment
- ▶ Personal behavior and safety
- ▶ Travel Insurance
- ▶ Access to care abroad

Source: Hill D et al. The Practice of Travel Medicine : Guidelines by the Infectious Diseases Society of America, 2006:CID (15 December) 1499–1539.

Pre-Travel Visit – Tools To Utilize:

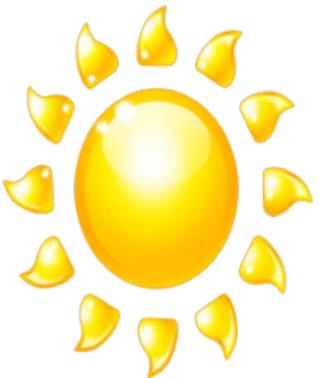
- ▶ Berna Traveler's Companion Booklet: order @ www.bernaproducts.com/edumat.html
- ▶ CDC handouts: Preventing Malaria in Travelers @ www.cdc.gov/malaria/resources/pdf/travelers.pdf
- ▶ GlaxoSmithKline: Understanding Malaria
- ▶ CDC VIS

Travel Health Counseling

Topics discussed may include:

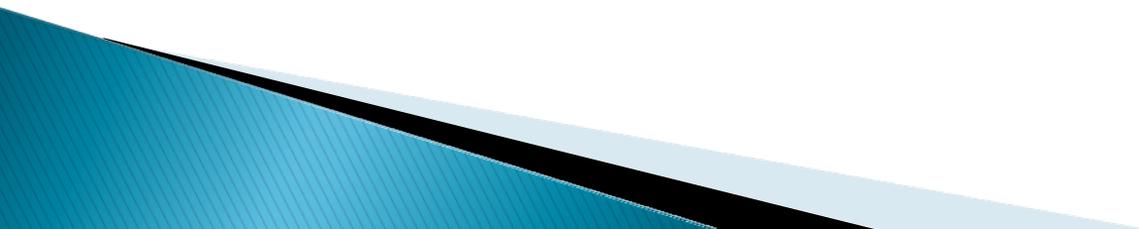
- ▶ Malaria Chemoprophylaxis
- ▶ Food and Water Precautions
- ▶ Travelers' Diarrhea– prescription
- ▶ Rabies risk –prevention & post exposure prophylaxis





Travel Health Counseling

- ▶ Sun and Heat Protection
- ▶ Altitude Sickness
- ▶ Motion Sickness
- ▶ MVA/Personal Safety



Travel Health Counseling

- ▶ Recreational Safety
- ▶ Air travel/DVT Prevention
- ▶ Avoid swimming in fresh water due to parasitic larvae

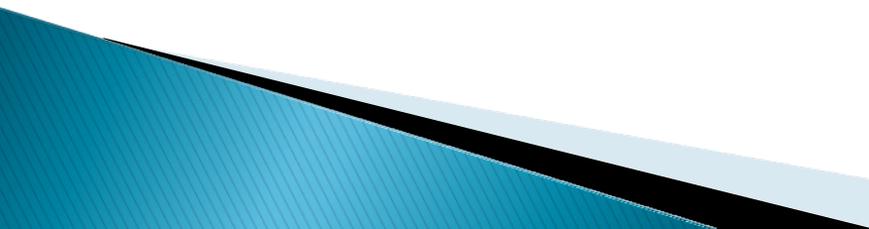


Travel Health Counseling

- ▶ Tuberculosis–**Pre–PPD and Post–Trip PPD**
- ▶ Dengue Fever
- ▶ Avian Flu
- ▶ HIV and STD prevention
- ▶ Contraception



Travel Health Counseling

- ▶ Travelers Medical kit
 - ▶ Travelers with special health needs
 - ▶ Travel Insurance–Access to care abroad (ex: International SOS)
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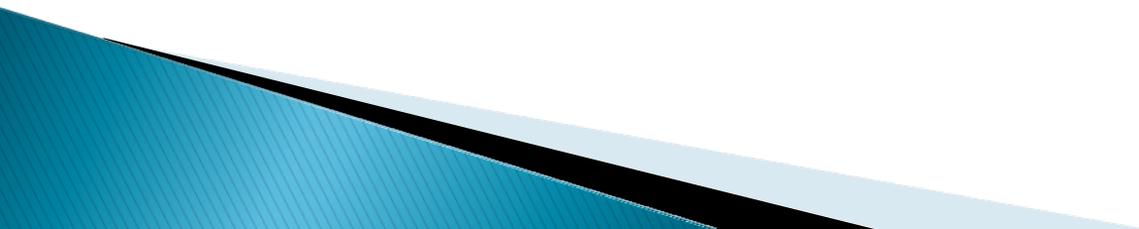
Post Trip Follow Up



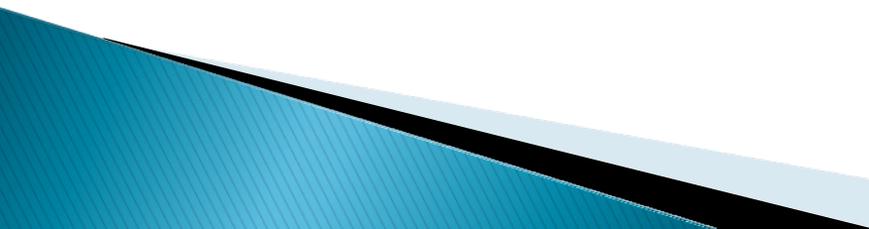
You should see a medical provider if:

- ▶ Spent 3 months or more in rural areas in the developing world
- ▶ Told you had or suspected to have malaria
- ▶ Treated or hospitalized for medical illness

Post Trip Follow Up

- ▶ Continue to have unusual ongoing symptoms
 - ▶ Engaged in activities that may have exposed you to increased health risks
- 

Outreach to Target Groups:

- ▶ Study Abroad Students
 - ▶ International Students
 - ▶ Groups/clubs on campus
- 

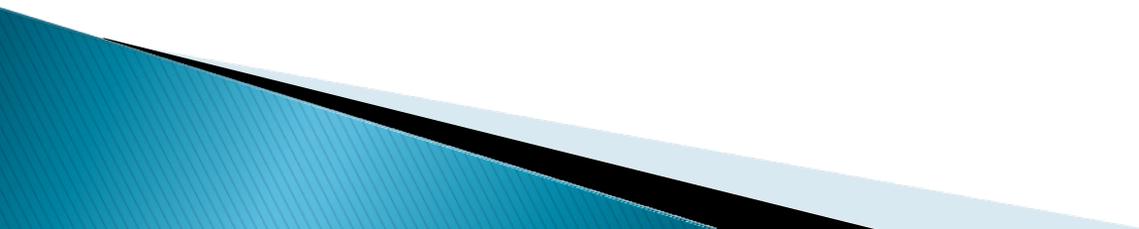
Promoting Travel Clinic Services

- ▶ Create Webpage
- ▶ Contact Study Abroad Dean
- ▶ Health Orientation Presentation

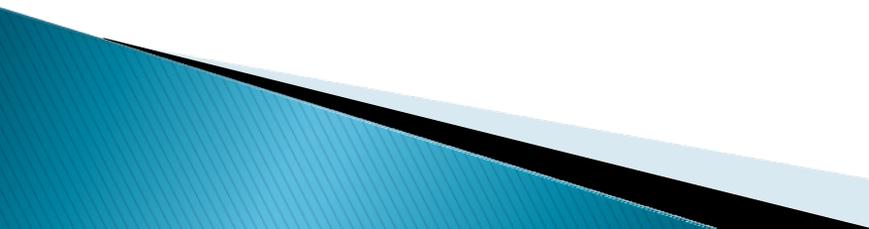
Promoting Travel Clinic Services

- ▶ Table events on campus such as:
Study Broad Fair, Health Fair
- ▶ Work with Health Educator, Student
Government Committee

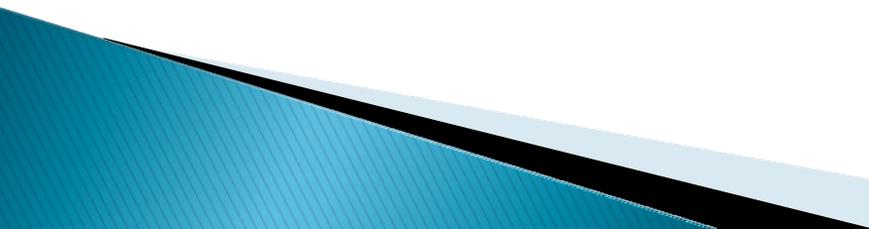
How to keep current as a Clinician

- ▶ CDC, IAC websites
 - ▶ ISTM, ATHNA, ASTMH
 - ▶ Travel Health Journals: ISTM Journal of Travel Medicine, Travel Medicine and Infectious Disease
 - ▶ Present updates and new developments on vaccines and infectious diseases at staff meeting
- 

Professional Development

- ▶ Attend the Westchester Course–
Course Director: Gail Rosselot, ANP
@<http://travelhealthservicesandeducation.com>
 - ▶ Attend conferences – CE activity
 - ▶ ISTM Exam–Certificate of Knowledge
- 

Professional Development

- ▶ Case presentations
 - ▶ Experience: Continue to see patients as many pre-travel consultations
 - ▶ QA review: ex: Happiness Survey or tracking results
 - ▶ Journal club
- 

Information Resources

Governmental Resources:

- ▶ CDC Yellow Book: Health Information for International Travel 2010 (Yellow Book)
Download at: www.cdc.gov/travel/
Order hard copy at Elsevier www.elsevierhealth.com
(800) 545-2522
- ▶ CDC 11th Edition of Epidemiology and Prevention of Vaccine Preventable Diseases (June 2009) (Pink Book)
Download at: www.cdc.gov/nip/publications/pink/
Order hard copy at Public Health Foundation
at (877) -252-1200
- ▶ International Travel and Health 2010 (Green Book)
The World Health Organization
Download at www.who.int/ith

Other Print Resources:

- ▶ *Red Book: Report of the Committee on Infectious Diseases*
Committee on ID; American Academy of Pediatrics
Order at: aapredbook.aappublications.org
- ▶ *National Geographic Atlas of the World*
National Geographic Society
(Any atlas will do providing it is detailed, politically current and shows elevations in feet or meters.)
- ▶ *Travel and Routine Immunizations* (Blue Book)
Published by Shoreland, Inc. 18th edition 2009–2010
Order at: Shoreland www.shoreland.com (800) 433–5256
- ▶ *Traveler's Vaccines*
Jong and Zuckerman
Peoples Medical Publishing House, 1st edition March 2004; 2nd ed.
June 30, 2010
- ▶ *Vaccines*
Plotkin, Orenstein and Offit
Saunders, 5th edition 2008