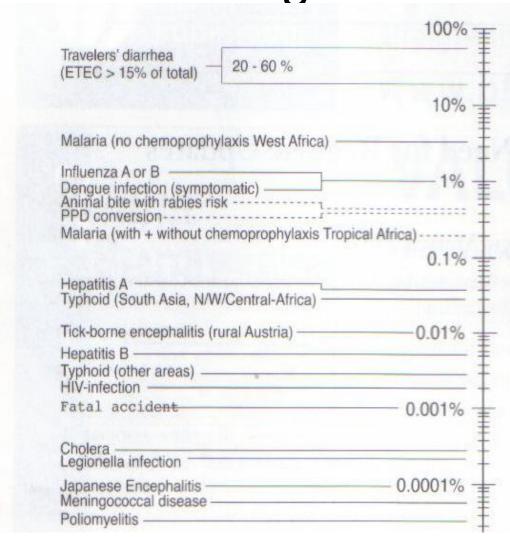
Ten Travel Medicine Tips (New or important things)

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ADHB and DML

1. Risks of various health problems during travel



Risks vary with destination

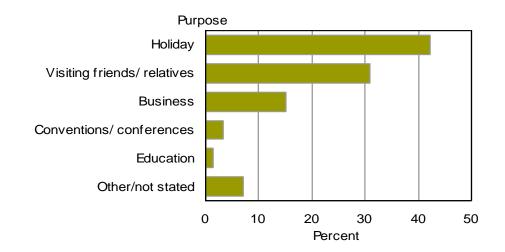
 GeoSentinel Surveillance Network: 30 travel or tropical medicine sites on 6 continents saw 17,353 ill returned travellers 1996 to 2004

- Malaria leading cause of fever from Africa
- Dengue ahead of malaria for all other regions
- Dengue, typhoid and malaria virtually equal causes of fever from South Central Asia

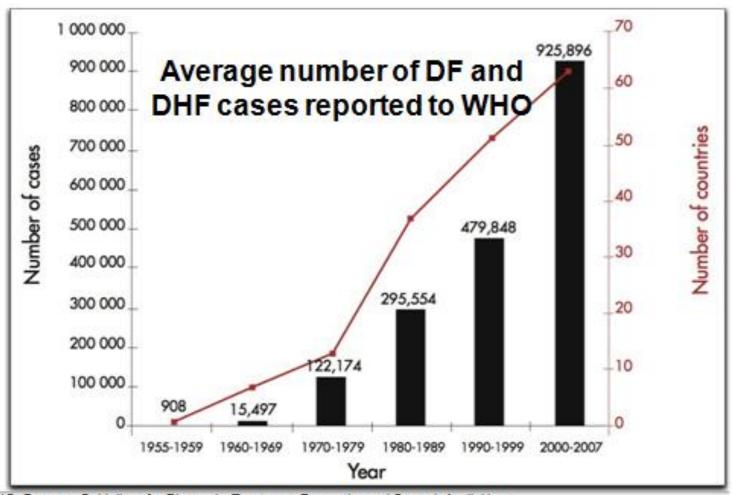
2. Some travellers are at higher risk

- Those who return home to visit friends and relatives (VFRs) have significantly higher rates of malaria, typhoid, TB and STIs
- Children particularly at risk eg Hepatitis A
- If you have such patients in your practice try and give them preemptive pre-travel advice

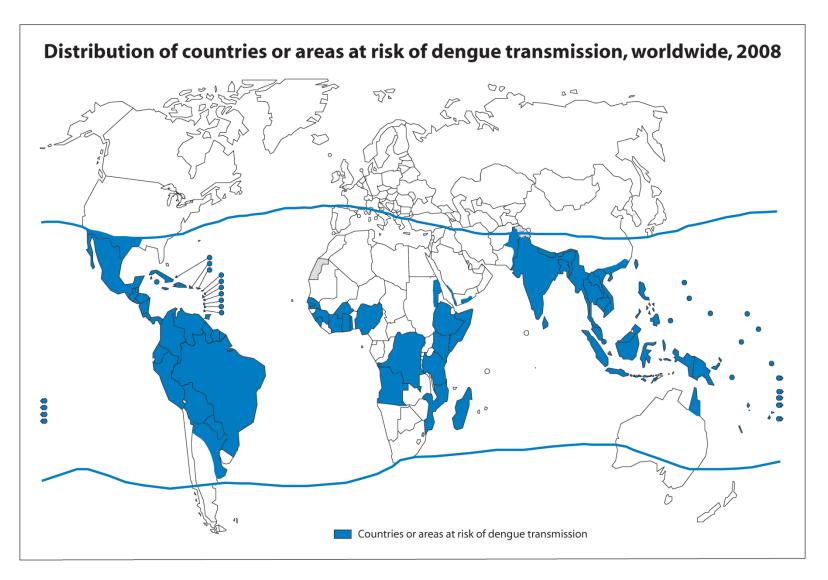
- 21.8 % of our population are overseas born
- They and their families travel "home"
- Visiting friends and relatives was the second most common reason for travel from New Zealand in 2006



3. Dengue is increasing dramatically



WHO. Dengue. Guidelines for Diagnosis, Treatment, Prevention and Control. Available at: http://whqlibdoc.who.int/publications/2009/9789241547871 eng.pdf Last updated: 2009. Accessed July 21, 2011.



The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted lines on maps represent approximate border lines for which there may not yet be full agreement. © WHO 2010. All rights reserved

Data Source: World Health Organization Map Production: Control of Neglected Tropical Diseases (NTD) World Health Organization





- Day time biting mosquito
- Particularly in urban areas
- Vaccine now in phase 3 trials
- NSP1 test positive early in illness

4. New Water Treatment

- Chlorine dioxide
 - more potent than chlorine
 - minimal taste
 - effective against all water borne pathogens
 - Aqua Mira or Portable Aqua
 - Sensitive to sunlight

5. Hepatitis B

- Most infectious of all blood borne viruses
- Virus air dried is infectious for at least one week
- Recent study showed incidence in Danish travellers to be almost the same as hepatitis A: Hep A 12.8 and Hep B 10.2 per 100,000 nonimmune travel months
- Risk increased for males, those travelleing alone or in a group of friends, those having sex during travel

6. New Meningococcal Vaccine

- Menactra (congugate) or Mencevax or Menomune (polysaccharide ones)
- All quadrivalent : A, C, Y, W-135
- Congugate vaccine stimulates T cell dependent response so:
 - effective at younger ages
 - better booster response
 - reduces nasopharyngeal carriage so herd immunity

Who to give it to?

- Travellers to meningitis belt of Africa
 - Particularly if during dry season, health care workers, infants and children
- Those doing the Hajj pilgrimage (meningococcal vaccine in past 3 years is required)
- Consider for adolescents and young adults planning to stay in hostels/ overcrowded conditions
- (Menactra a routine vaccine in US for 11-12 year olds with a booster at 16 years)

7. Educate all travellers about rabies

- Important to explain that in most parts of the world rabies is possible
- Try and avoid mammal bites especially dogs but any mammal including bats
- If bitten wash wound well
- If vaccinated: booster as soon as possible then another 3 days later



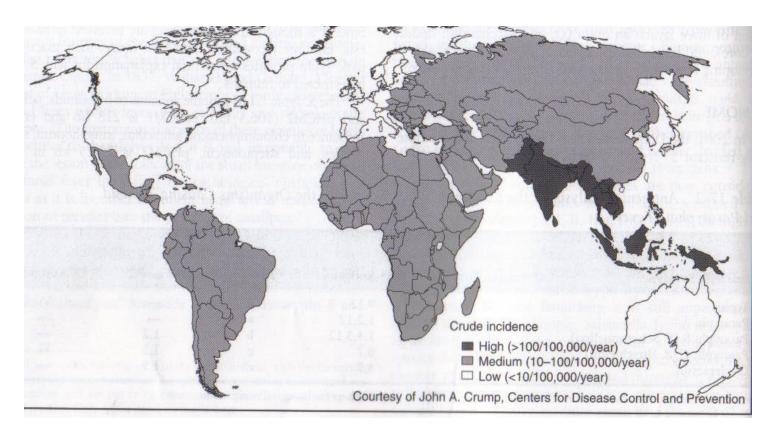
Who to vaccinate against rabies before travel?

- Children
 - Half the victims of dog bites
 - More likely to bitten on head
- Travellers to Asia
 - GeoSentinel study per 1,000 ill returned travellers
 - SE Asia: 124
 - South Central Asia: 90
 - South America: 25
 - Central America: 13
 - Sub Saharan Africa: 9

Who to vaccinate against rabies before travel?

- Travellers to countries where cell culture vaccine not available
 - Pakistan, Burma, Bangladesh, Peru and Argentina
- Long term/ expats
- Those sending time in remote areas
- Those likely to be exposed to animals
- Anyone who wants it

8. Typhoid fever



Protection following typhoid fever is neither complete nor enduring Vaccine only protects against *Salmonella typhi* not paratyphi

9. Dukoral

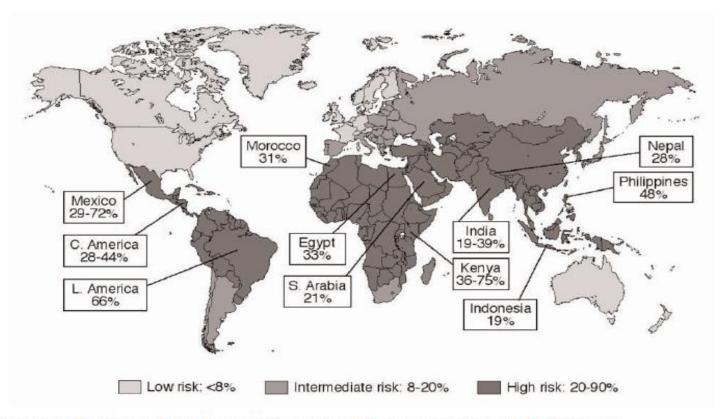


Figure 1 Percentage incidence of travelers' diarrhea caused by enterotoxigenic Escherichia coli.

- Between 19 to 75% of TD is ETEC and about
 60% of ETEC have heat labile toxin
- Consider it for those at high risk of TD or who would tolerate it poorly

10. Malarone for children

- Previously only mefloquine or cut up (and no data to support this) Malarone
- Now Malarone Junior (NZ 11- 40kg)

Malarone Junior - prophylaxis	
Body Weight	Dosage (62.5mg atovaquone/25mg proguanil) per day
11-20kg	One tablet <i>Malarone Junior</i>
21-30kg	TWO tablets Malarone Junior as a single dose
31-40kg	THREE tablets Malarone Junior as a single dose
>40kg	ONE tablet <i>Malarone</i> (adult) per day

 The tablet should usually be swallowed whole, but may be crushed and mixed with food or a milky drink immediately before taking.

