





Vaccines for Travel

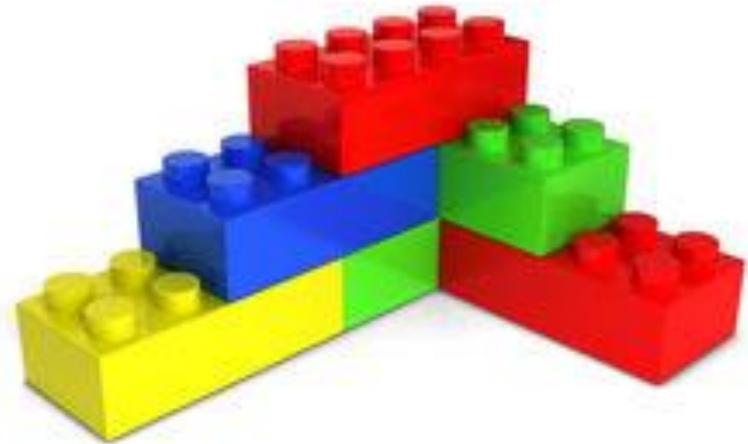
WHO Vaccinations Parameters

- **Routine**
 - National Immunisation Schedule
 - Childhood
 - Adult boosters
 - Influenza
- **Recommended**
 - Travel
- **Required**
 - Yellow Fever
 - Meningococcal
 - Polio



WHO Vaccination Guidelines – Routine

- Diphtheria
- Tetanus
- Pertussis
- Poliomyelitis
- Measles
- Mumps
- Rubella
- Varicella
- Haemophilus influenza type b
- Pneumococcal disease
- Hepatitis B
- Human papillomavirus
- Rotavirus
- Influenza
- Tuberculosis (BCG)*



WHO Vaccination Guidelines – Recommended

- Hepatitis A
- Typhoid Fever
- Cholera
- Japanese Encephalitis
- Meningococcal
- Rabies
- Tick-borne Encephalitis
- Yellow fever (personal protection)



WHO Vaccination Guidelines – Required

- International Health Regulations 2005
- Yellow fever
- Meningococcal Disease
- Polio (near-cessation 36 cases 2016)
 - May 2014 public health emergency of international concern (PHEIC)
 - Pakistan, Afghanistan, Syrian Arab Republic, Iraq, Cameroon, Equatorial Guinea.....
 - Polio Eradication Initiative
 - <http://www.polioeradication.org/Home.aspx>





Need to be familiar with.....

- National Immunisation Schedule
- Overseas schedules
 - Australia:
<http://www.immunise.health.gov.au/internet/immunise/publishing.nsf/Content/Handbook10-home>
 - Europe:
<http://vaccineschedule.ecdc.europa.eu/Pages/Scheduler.aspx>
 - USA:
<http://www.cdc.gov/vaccines/schedules/easy-to-read/child.html>
- Catch-up funded vaccines
 - <http://www.immune.org.nz/news/extension-catch-eligibility>
 - Children up to 18th b'day
 - Adults (18+yrs), NZ resident or refugee
- Criteria for funded vaccines for at risk populations
 - Pre/Post Splenectomy & functional asplenia
 - Hib, Pnuemococcal & Meningococcal
 - MMR & Pertusiss – recent outbreaks
- IMAC/MOH recommendations for use of non-funded vaccines
 - 2017 Immunisation Handbook

Rationalising Travel Vaccines:

- The DJV Approach

- **STEP 1: Identify the HAZARD:** What vaccine preventable diseases will they be exposed to?
- **STEP 2: What is their level of exposure?** Which ones are a high enough risk to justify vaccination? **Susceptibility?** Does this person have a condition that increases the odds of infection/ severe disease?
- **STEP 3:** Make **recommendations** for life or future trips
- **STEP 4: Negotiate** with the traveller
- **STEP 5:** Which vaccine (including brand) and when?



ROAD RESTRICTIONS

ROAD CONDITIONS PH 1300 361 033

TRAVEL ON CLOSED ROADS IS PROHIBITED
SEVERE PENALTIES APPLY

OODNADATTA TRACK

MARREE TO ROXBY DOWNS **OPEN**

MARREE TO WILLIAM CREEK **OPEN**

WILLIAM CREEK TO OODNADATTA **4WD/HV**

WILLIAM CREEK TO COOBER PEDY **OPEN**

MARREE TO MULLOORINA **OPEN**

HV-HEAVY VEHICLE (OVER 3 TONNE)
4WD-FOUR WHEEL DRIVE (UNDER 3 TONNE)



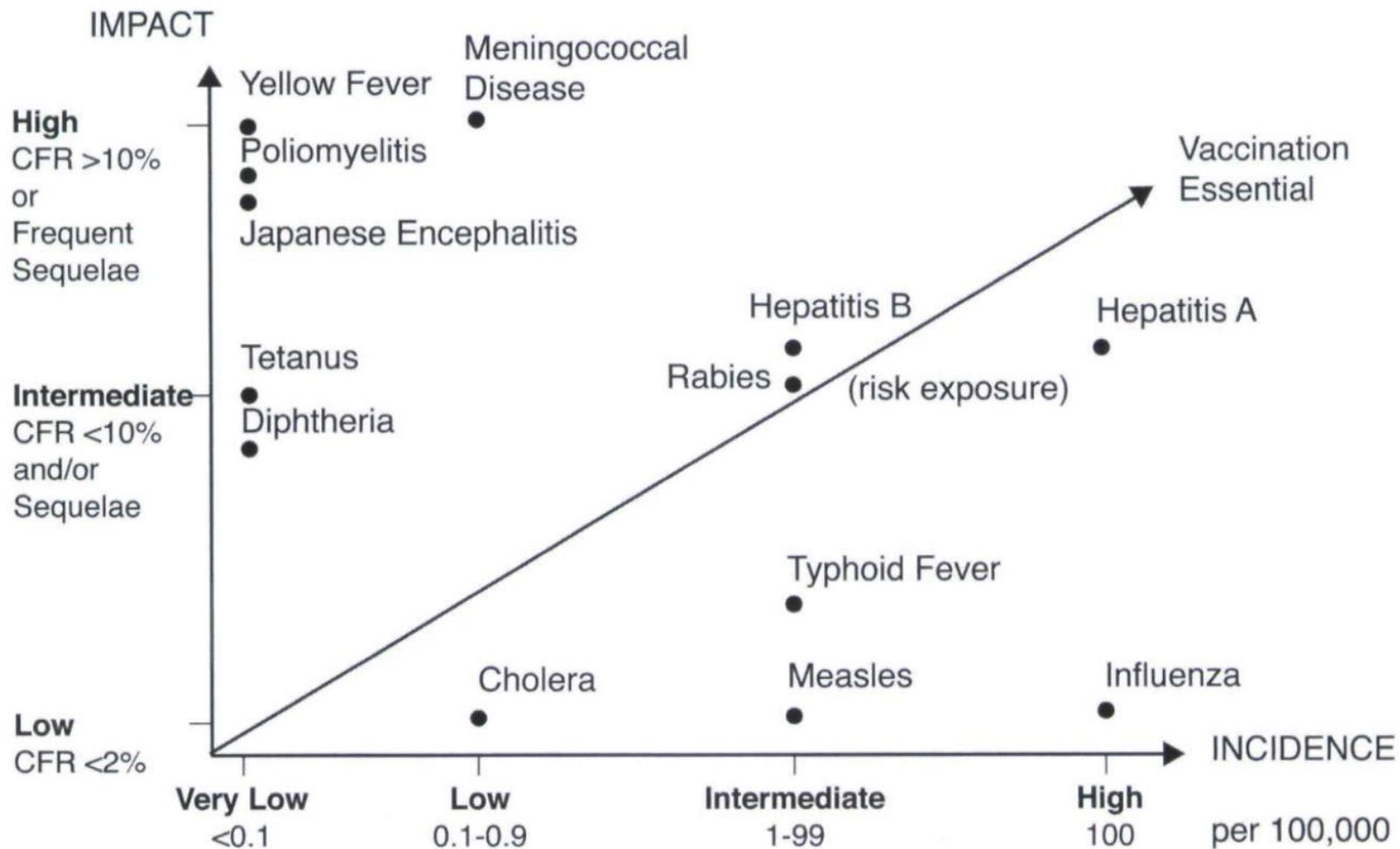
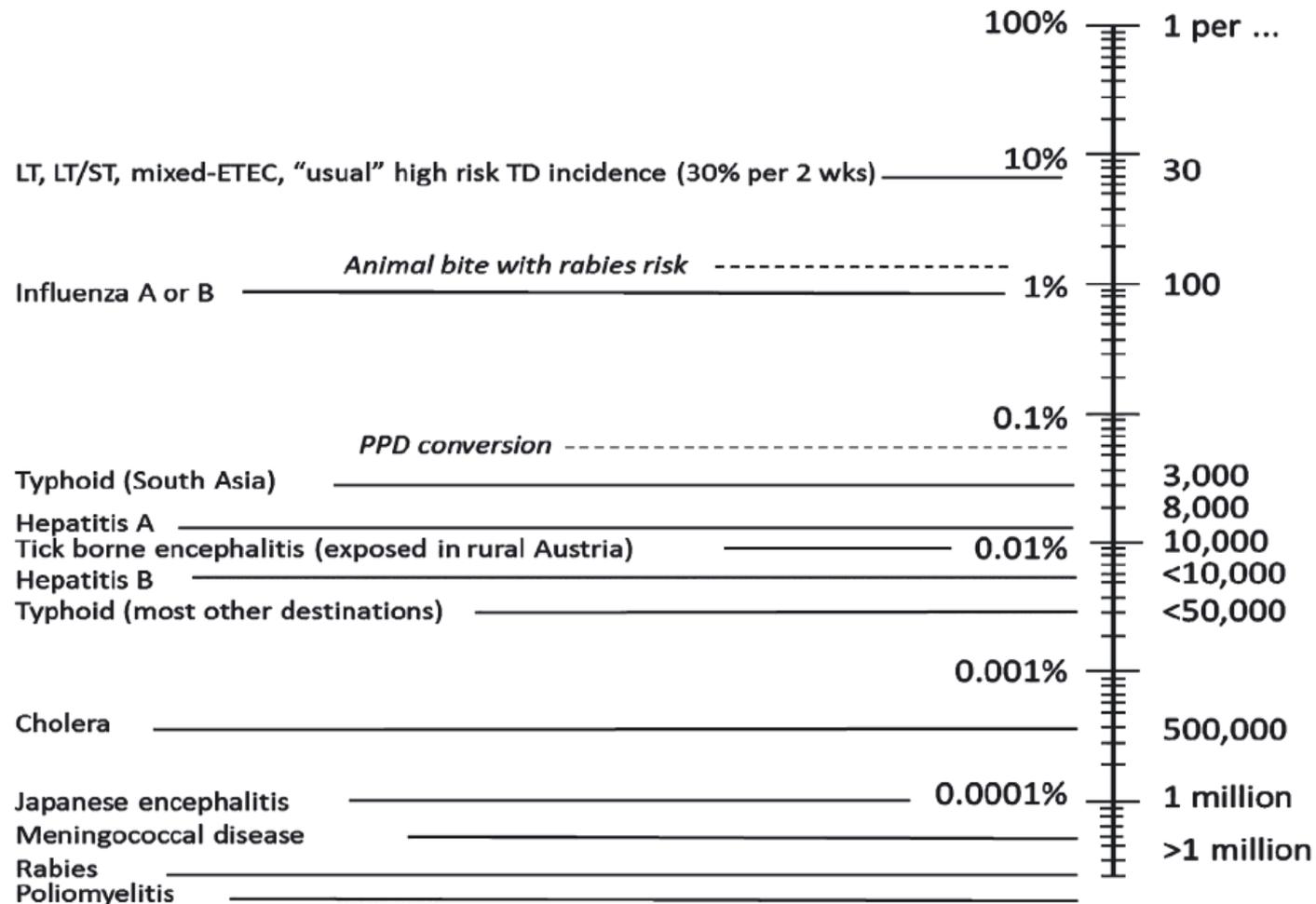


Figure 3 Impact and incidence of vaccine-preventable diseases in travelers to developing countries. CFR = case-fatality rate.

Steffen R, Connor B. Vaccines in Travel Health: From risk assessment to priorities. Journal of Travel Medicine. 2005;12:26-35.



Current estimates on vaccine-preventable disease incidence among Western travellers to tropical and subtropical destinations—absolute risk of disease/month of travel

Best value for money?

What is the most commonly caught vaccine preventable disease of international travellers?

Steffen R. Influenza in Travelers: Epidemiology, Risk, Prevention, and Control Issues. Curr Inf Dis Rep. 2010;12(3):181-5.



Flu Shot

“Influenza most commonly caught vaccine preventable illness of international travel”

- Mutsch et al. Influenza Virus Infection in Travelers to Tropical and Subtropical Countries. CID. 2005;40(9):1282-7.
- Steffen R. Influenza in Travelers: Epidemiology, Risk, Prevention, and Control Issues. CID Reports. 2010;12(3):181-5.
- Leder K et al. Respiratory Tract Infections in Travelers: A Review of the GeoSentinel Surveillance Network. CID. 2003;36(4):399-406.



中华人民共和国万岁



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Important Points

- No official New Zealand Guidelines on Vaccination for Travel
 - Immunisation Handbook and IMAC essentially “silent”
 - Practice has evolved as a mix of NaTHNac, European, Canadian, US CDC and Australian guidelines
- Guidelines are guidelines
 - Adapt them to the traveller you see
- Remember:
 - Hazard. Exposure. Susceptibility.
 - “Is there a risk gradient?”
 - You are not vaccinating for this trip alone
 - For life
 - For future trips



Remember...

Just because there is a vaccine available does not mean we have to give it



Beware of over prescribing



Travel Vaccination 101



- There is no magic list
- Many vaccine preventable diseases, few absolute guidelines
- Strike the right balance. Just because there is a vaccine does not mean every traveller should get it
- Requires individual risk assessment and then advise/prioritise which vaccinations will be beneficial for each specific traveller
- Travel related vaccinations often prescribed off licence
- Travel vaccines are NOT cheap, the cost to the traveller (or employer/aid agency) rapidly adds up





Yellow Fever vaccine

- Two reasons travellers get it
 - 1. **Personal protection:** So they don't get YF
 - 2. **Required to enter a country**
 - Either because required for ALL travellers irrespective of where they have come from OR just from those arriving from a country with a risk of YF
- Only those authorised to give YF vaccine can give it
- List of authorised YF vaccination centres available on MoH website

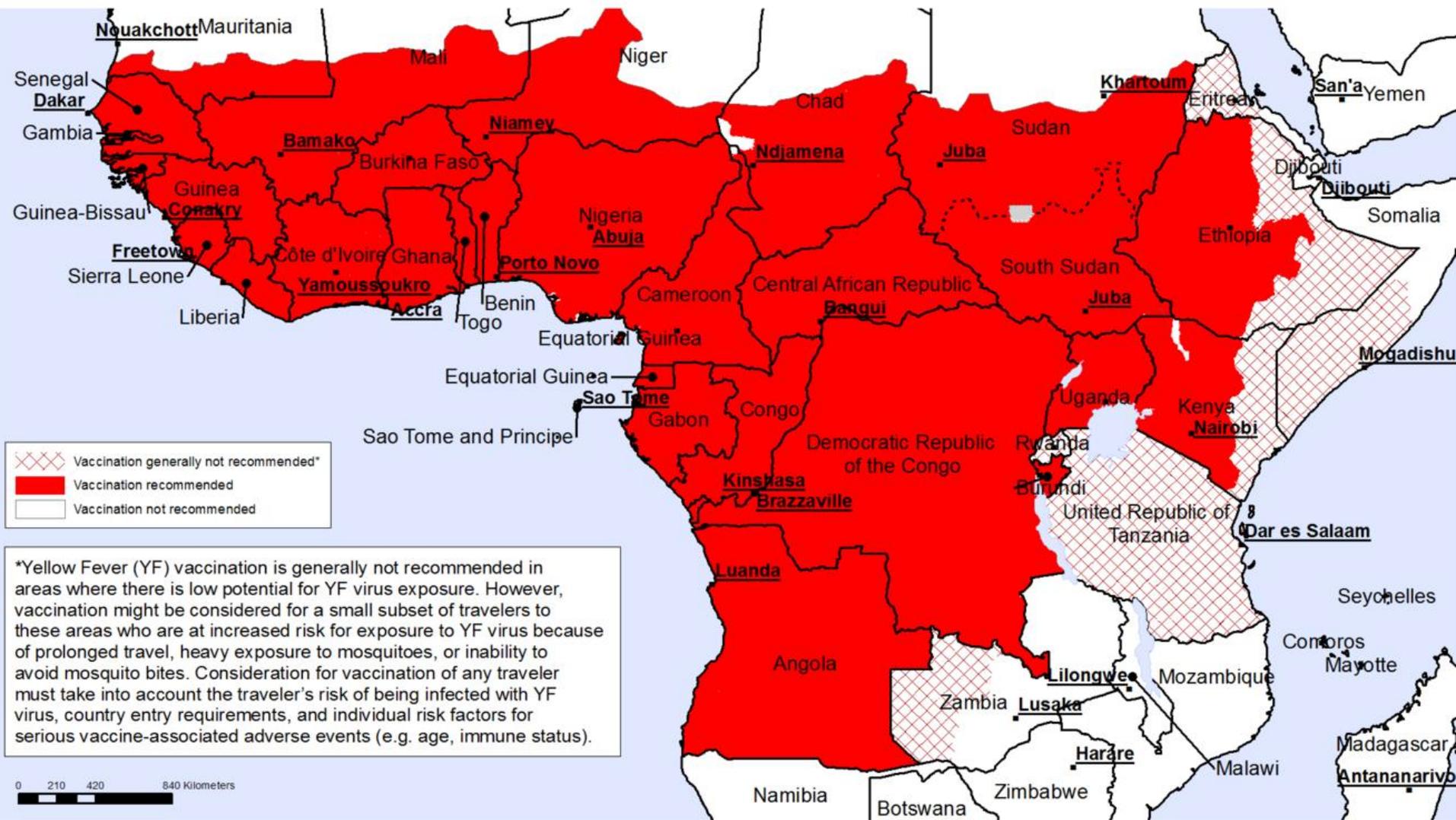
Yellow Fever Vaccination Recommendations in the Americas, 2013



2016-2017 Outbreak: Brazil



Yellow Fever Vaccination Recommendations in Africa, 2015



*Yellow Fever (YF) vaccination is generally not recommended in areas where there is low potential for YF virus exposure. However, vaccination might be considered for a small subset of travelers to these areas who are at increased risk for exposure to YF virus because of prolonged travel, heavy exposure to mosquitoes, or inability to avoid mosquito bites. Consideration for vaccination of any traveler must take into account the traveler's risk of being infected with YF virus, country entry requirements, and individual risk factors for serious vaccine-associated adverse events (e.g. age, immune status).



WHO Annex 1: <http://www.who.int/ith/2017-ith-annex1.pdf?ua=1>

INTERNATIONAL TRAVEL AND HEALTH, ANNEX 1 – UPDATE – AS OF 16 FEBRUARY 2017

Countries¹ with risk of yellow fever transmission² and countries requiring yellow fever vaccination

Country	Country with risk of yellow fever transmission	Country requiring yellow fever vaccination for travellers ³ arriving from	
		countries with risk of yellow fever transmission (age of traveller)	all countries (age of traveller)
Afghanistan		Yes	
Albania		Yes (> 1 year)	
Algeria		Yes ⁴ (> 1 year)	
Angola	Yes		Yes (> 9 months)
Antigua and Barbuda		Yes (> 1 year)	
Argentina	Yes		
Australia		Yes ⁴ (> 1 year)	
Bahamas		Yes ⁴ (> 1 year)	
Bahrain		Yes ⁴ (> 9 months)	
Bangladesh		Yes (> 1 year)	

NZ YF Policy **changed** July 2017

- Now **two pathways** for nurses to become authorised YF vaccinators
 - Nurse practitioner
 - Postgraduate qualification in Travel Medicine
 - Registered nurse
 - Minimum 5 years post graduate practice
 - Minimum 2 years “working in travel health”
 - Postgraduate qualification in Travel Medicine
 - See: <http://www.health.govt.nz/our-work/diseases-and-conditions/yellow-fever>