

Presenters



Richard Heinzl, M.D.

Medical Director, Ingle International & Intrepid 24/7



Alexandra Maccarone, EPC

VP, Member Services, Ingle International



Infectious Disease, Global Risks, and Duty of Care

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The real risk of travel is not travel itself



**It's easy to be aware
and prepare**



Risks of Global Travel

Global escalation in **disruptive events**

Organized crime & **terrorism** threats

Socio-economic & geo-political **instability**

Travel health warnings and outbreaks

Examples:

- Global economic crises
- Natural disasters (i.e., Bardarbunga volcano)

Examples:

- Criminal gangs
- ISIS crisis

Examples:

- Ukraine/Russia
- Gaza conflict

Examples:

- Ebola (West Africa)
- Dengue fever (Japan)
- Chikungunya (Africa, South East Asia)



What is risk?

- ¹risk
noun \ˈrisk\
the possibility that something bad or unpleasant (such as an injury or a loss) will happen



Common Travel Conditions

- Cholera
- Jet lag
- Traveller's diarrhea
- Summer encephalitis
- Japanese encephalitis
- Dengue fever
- Enteric fever
- Yellow fever
- Ebola
- Chikungunya
- Typhoid fever
- Hepatitis A & B
- Altitude sickness
- Lyme disease
- Malaria
- Meningococcal meningitis
- Plague
- Poliomyelitis
- Rabies
- West Nile virus
- Culture shock
- STDs
- Motion sickness
- Ebola

Travel Vaccinations

Before you travel, research your destination and find out what kind of vaccinations you might need.

The Public Health Agency of Canada provides information about travel health and vaccination clinics across the country:

www.phac-aspc.gc.ca/tmp-pmv

Cholera

- What is it?

A bacterial infection that causes gastrointestinal symptoms.

- How is it transmitted?

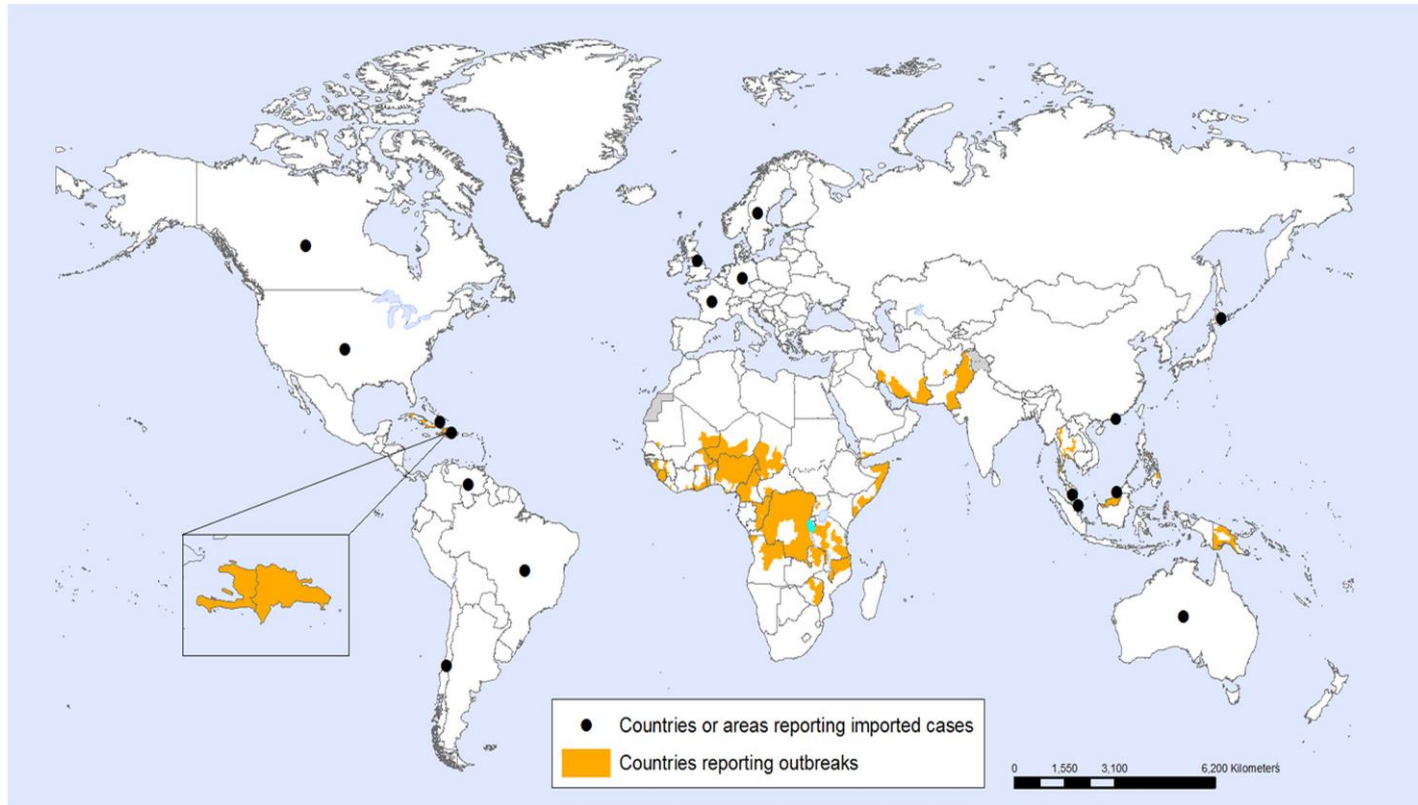
Cholera is usually spread by the ingestion of contaminated water or food, especially raw or undercooked shellfish and fish. It is rarely transmitted from person to person.

- How can it be prevented?

By avoiding contaminated water and food and washing hands frequently. Cooking foods and boiling water thoroughly will destroy the bacteria.



Cholera, areas reporting outbreaks, 2011–2012



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 and dashed lines on maps represent approximate border lines for which there may not yet be full agreement.

Data Source: World Health Organization
Map Production: Public Health Information
and Geographic Information Systems (GIS)
World Health Organization



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Hepatitis A

- What is it?

A viral infection that can cause intestinal and systemic symptoms.

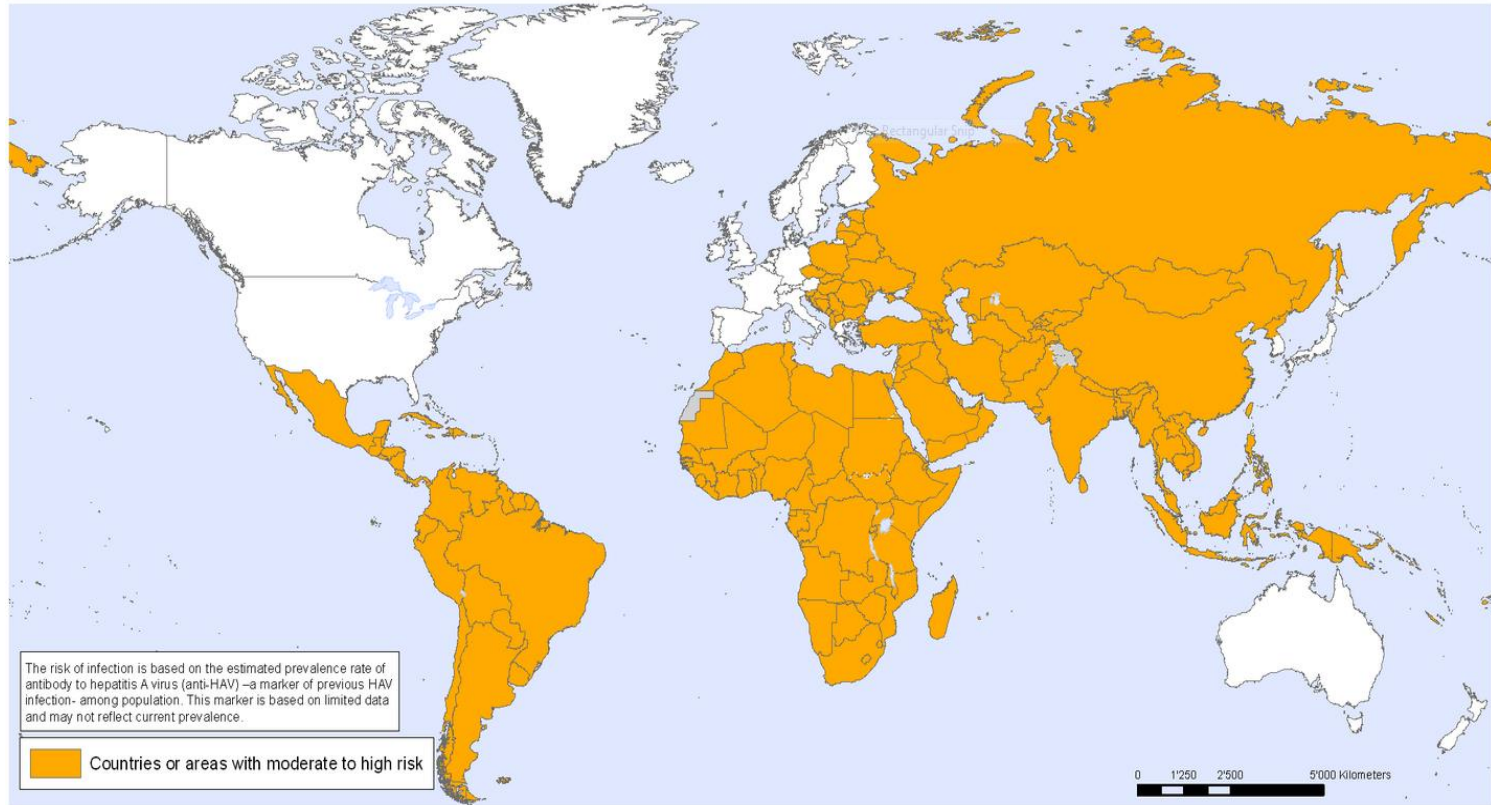
- How is it transmitted?

Acquired by direct person-to-person contact or by ingesting contaminated water (or ice), seafood from contaminated waters, or raw fruits or vegetables contaminated during handling. Infected individuals are contagious 2 to 3 weeks before symptoms appear until a week after jaundice has developed. The disease confers permanent immunity.

- How can it be prevented?

- 1) Wash hands before handling food
- 2) Wash hands before meals and after using the bathroom
- 3) Do not eat or drink beverages and foods that might be contaminated

Hepatitis A, countries or areas at risk



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Data Source: World Health Organization.
Jacobsen KH, Wiersma ST. Hepatitis A virus seroprevalence by age and world region, 1990 and 2005. *Vaccine* 2010 Sep;28(41):6653-7
Map Production: Public Health Information and Geographic Information Systems (GIS)
World Health Organization



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Yellow Fever



- What is it?

Viral infection that can cause fever, systemic symptoms, and even death.

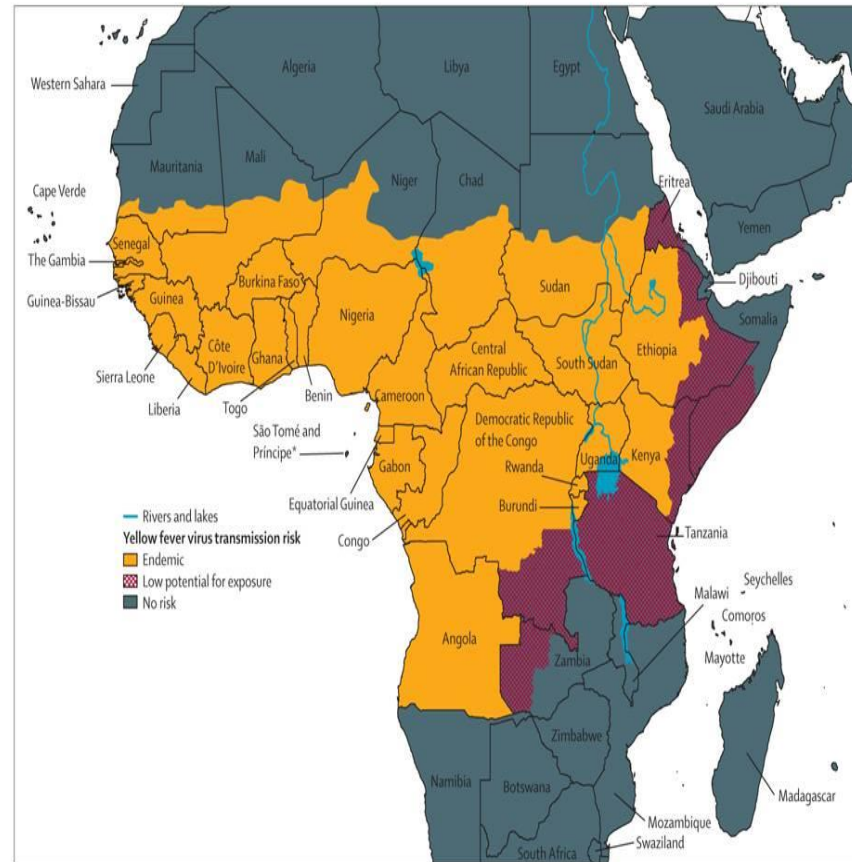
- How is it transmitted?

By the bite of an Aedes mosquito, which may bite at any time during the day, mostly in shady areas or inside dwellings. It is also found in forest areas where monkeys act as reservoirs for the virus. The disease is not transmitted with every mosquito bite. The incubation period varies from 3 to 6 days.

- How can it be prevented?

Apply an insect repellent, use bed netting, and wear light-coloured, long-sleeved shirts and long pants.

Yellow Fever



Chikungunya

- What is it?

A mosquito viral disease that causes fever and general malaise

- How is it transmitted?

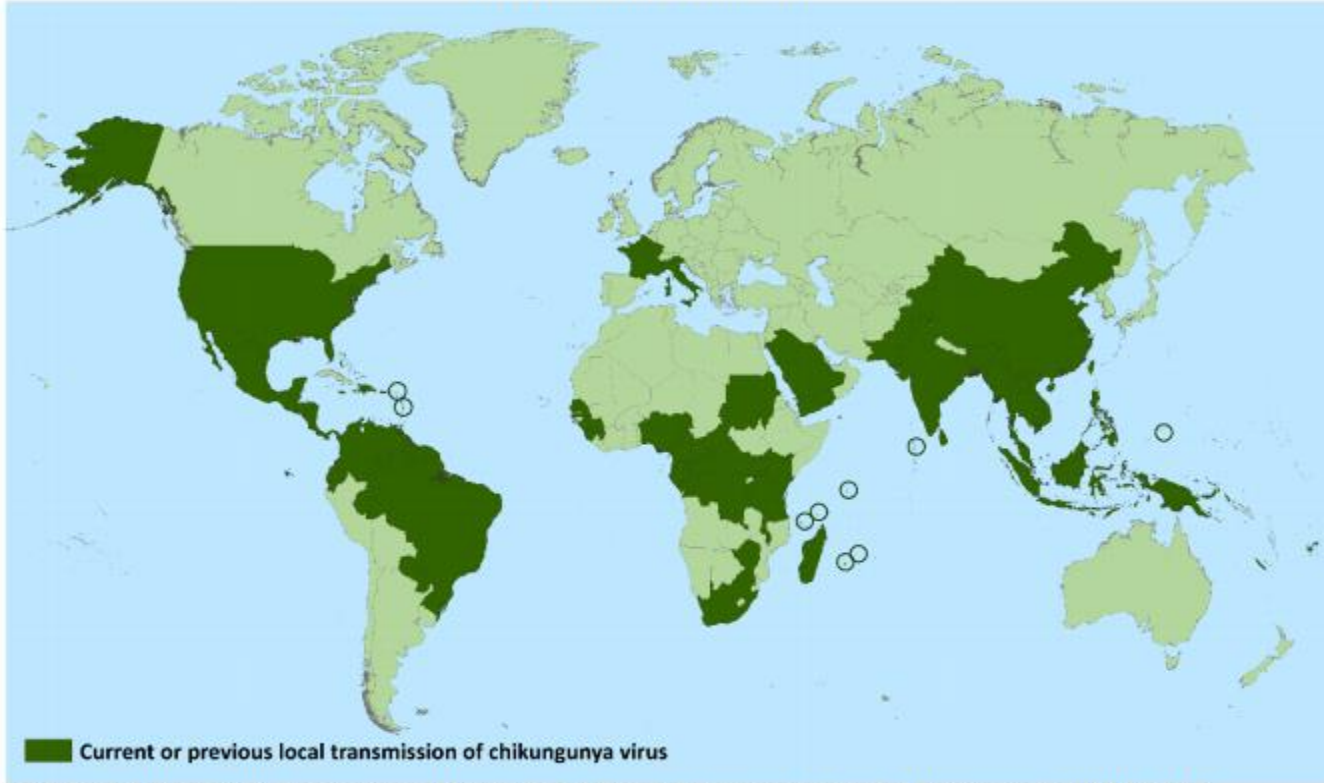
Spread through the bite of an infected mosquito carrying the chikungunya virus, mainly the *Aedes aegypti* and *Aedes albopictus* species.

Mosquitoes that carry chikungunya virus bite mainly during the daytime.

- How can it be prevented?

Protect yourself from mosquito bites.

Countries and territories where chikungunya cases have been reported*
(as of February 10, 2015)



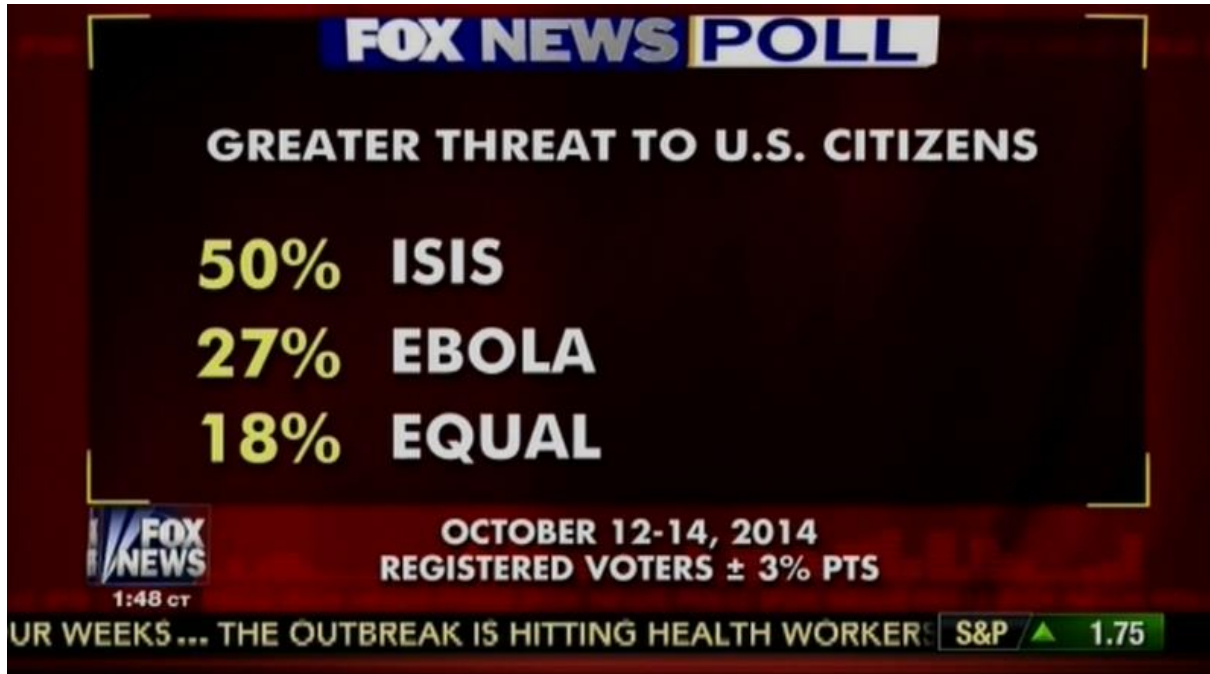
*Does not include countries or territories where only imported cases have been documented. This map is updated weekly if there are new countries or territories that report local chikungunya virus transmission.

The Ebola Virus

- What do you know about Ebola?
- Where did you get your information about Ebola?



News is often hyperbolic and sensationalist



Ebola Virus

- What are the symptoms?

There are many possible symptoms, including but not limited to fever, muscle pain, nausea, internal bleeding, and eventual organ failure.

The case-fatality rate varies from 25 to 90 percent, depending on the strain.

- How is it transmitted?

Human-to-human transmission always occurs through direct contact with the bodily fluids of an infected person

Source: www.who.int/mediacentre/factsheets/fs103/en/



Is it Flu or Ebola?



Flu (influenza)



The flu is common contagious respiratory illness caused by flu viruses. The flu is different from a cold.

Flu can cause mild to severe illness, and complications can lead to death.

Ebola



Ebola is a rare and deadly disease caused by infection with an Ebola virus.

How Flu Germs Are Spread



The flu is spread mainly by droplets made when people who have flu cough, sneeze, or talk. Viruses can also spread on surfaces, but this is less common.

People with flu can spread the virus before, during, and after they are sick.

How Ebola Germs are Spread



Ebola can only be spread by direct contact with blood or body fluids from

- A person who is sick or who has died of Ebola.

- Objects like needles that have been in contact with the blood or body fluids of a person sick with Ebola. Ebola cannot spread in the air or by water or food.

Who Gets The Flu?



Anyone can get the flu.

Some people—like very young children, older adults, and people with some health conditions—are at high risk of serious complications.

Who Gets Ebola?



People most at risk of getting Ebola are

- Healthcare providers taking care of Ebola patients.

- Friends and family who have had unprotected direct contact with blood or body fluids of a person sick with Ebola.

Signs and Symptoms of Flu

The signs and symptoms of flu usually develop within 2 days after exposure. Symptoms come on quickly and all at once.



- Fever or feeling feverish
- Headache
- Muscle or body aches
- Feeling very tired (fatigue)
- Cough
- Sore throat
- Runny or stuffy nose

Signs and Symptoms of Ebola



The signs and symptoms of Ebola can appear 2 to 21 days after exposure. The average time is 8 to 10 days. Symptoms of Ebola develop over several days and become progressively more severe.

- *People with Ebola cannot spread the virus until symptoms appear.*



- Fever
- Severe headache
- Muscle pain
- Feeling very tired (fatigue)
- Vomiting and diarrhea develop after 3–6 days
- Weakness (can be severe)
- Stomach pain
- Unexplained bleeding or bruising

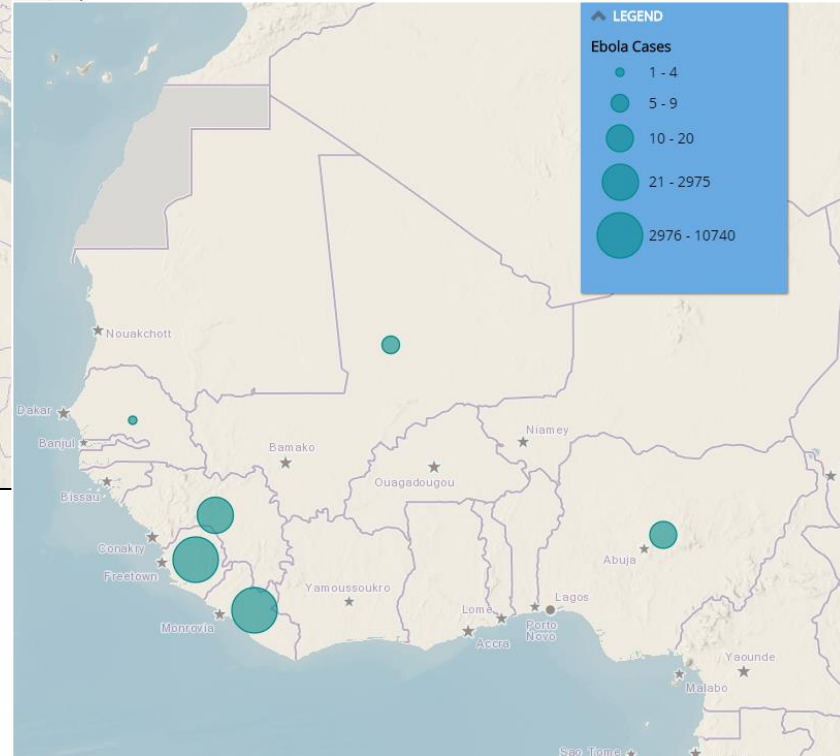
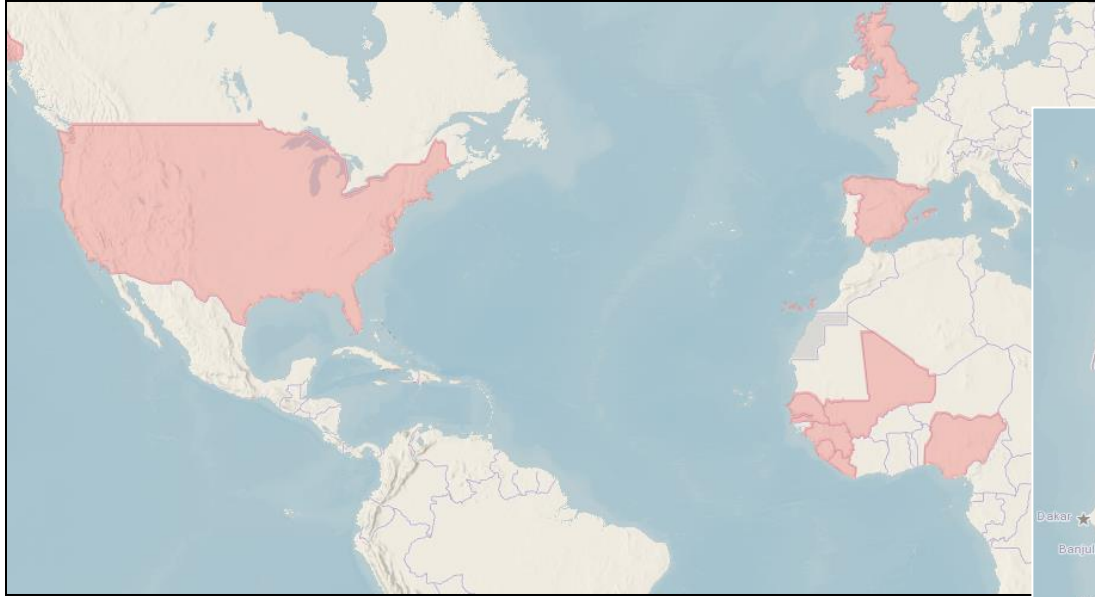
For more information about the flu and Ebola, visit www.cdc.gov/flu and www.cdc.gov/ebola.

October 15, 2014

Sources:

<http://www.cdc.gov/vhf/ebola/pdf/is-it-flu-or-ebola.pdf>

Where is the outbreak?



The worldwide risk is **limited**.

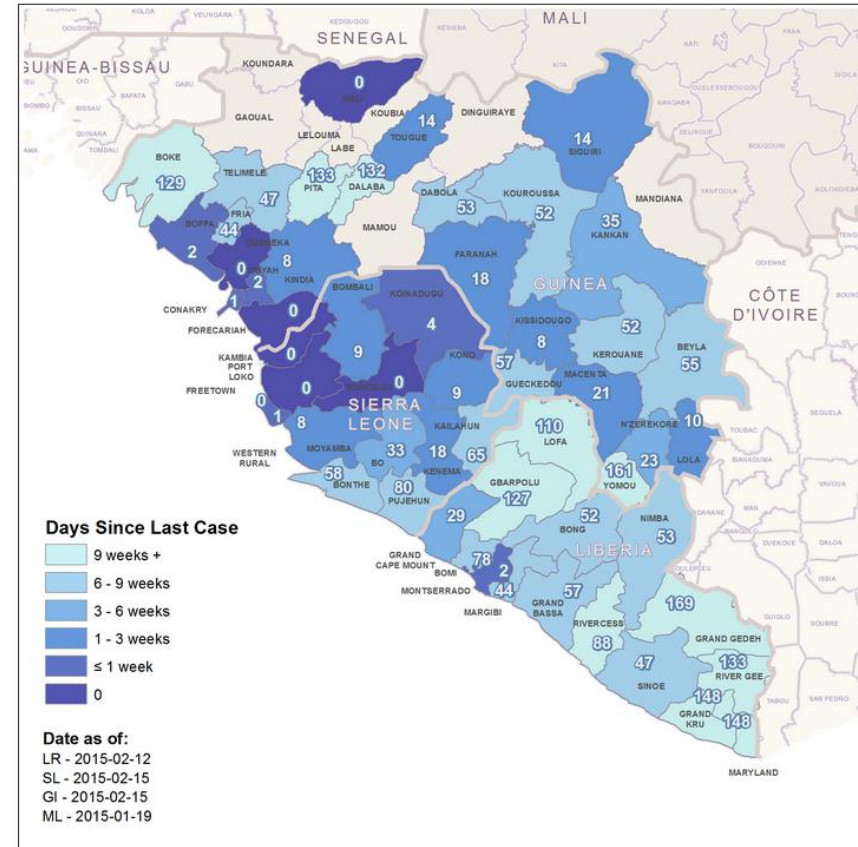
Source:

<http://maps.who.int/MapJournal/?appid=5b29178821dd4584b78dcb18d280326a&webmap=ba5db5b64e8d454f81498521c0002080>

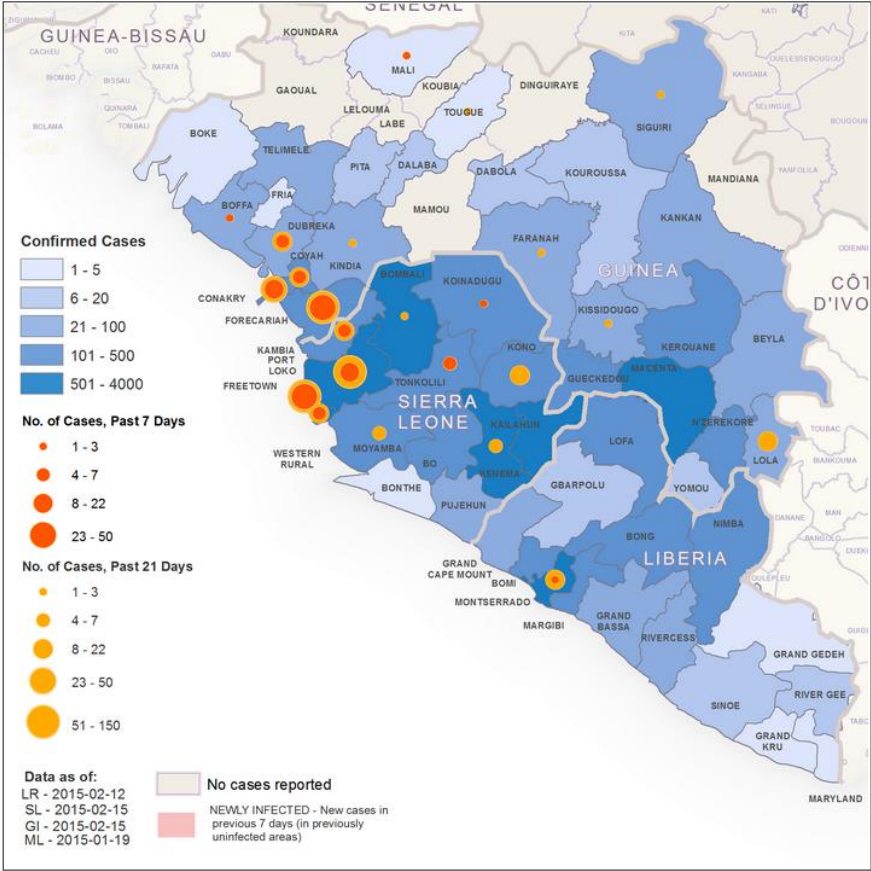
World Health Organization

“With adequate levels of preparation, introductions of Ebola can be contained with a rapid and adequate response”

- WHO’s preparedness activities aim to ensure all countries are ready to effectively and safely detect, investigate and report potential EVD cases, and to mount an effective response.
- WHO provides this support through country visits by preparedness support teams (PSTs), direct technical assistance to countries, and the provision of technical guidance and tools.



Geographical Distribution of New and Total Confirmed Cases- February



Source: <http://apps.who.int/ebola/en/ebola-situation-report/situation-reports/ebola-situation-report-4-february-2015>

United Nations

- Formed the **Global Ebola Response Coalition**
- appointed public health expert Dr. David Nabarro as **Special Envoy on Ebola**
- an additional \$1 billion to fund the Ebola response in 2015

Medecins Sans Frontieres (Doctors Without Borders)

- 302 international and around 4,000 national locally hired staff in the region
- 8 Ebola case management centers (CMCs), providing approximately 650 beds in isolation, and one transit center
- admitted more than 8,100 patients; 4,960 were confirmed as having Ebola; more than 2,300 patients have survived
- more than 1,400 tonnes of supplies have been shipped to the affected countries since March

The Red Cross

- In 16 countries with response and preparedness activities
- 200 International Staff and 6,019 Volunteers

Local governments

- Initial response underestimated Ebola, and the governments were slow in responding
- The affected countries introduced border closures (against the advice of WHO)
- Nigeria, Liberia, Sierra Leone and Guinea closed their schools temporarily
- Liberia Football Association suspended activity and converted grounds into Ebola treatment centre
- in Guinea, when local community organizations worked closely with MSF to fight Ebola, the survival rate was **75 percent**

Keep in Mind...

- This is an outbreak regionalized in West Africa
- Most affected countries suffer from weak health care systems and a lack of infrastructure
- Basic hygiene practices can help stem Ebola infection:
 - **regular hand washing**
 - **changing of clothes, bedding, and boots before/after contact with patients or medical tools**
 - **following proper burial protocols**



1.7M

People
received food
from WFP



Ebola Response in 2014

Together in Action

\$1B

Mobilized in
financing
by World
Bank Group



5,177

Metric tonnes
of supplies
sent by
UNICEF



1.5M

People
sensitized
face-to-face
via UNDP



32,000

Samples
tested in 25
mobile labs
deployed by
WHO



7B

Global voices
united to end
Ebola



**GLOBAL
EBOLA
RESPONSE**



Ebola in North America

USA

- There have been four confirmed cases
- The first died in hospital
- Three others recovered and were released within 3 weeks of diagnosis
- These were isolated incidents and did not infect others after arrival to the USA

Canada

- While around 25 people have had suspicious symptoms since the outbreak, there have been zero confirmed cases

Sources:

<http://www.cdc.gov/vhf/ebola/outbreaks/2014-west-africa/united-states-imported-case.html>

<http://www.cbc.ca/news/politics/ebola-tested-in-25-cases-in-canada-all-negative-1.2800855>

Should We Be Scared?

Developed countries have the ability to control the spread of illnesses such as Ebola because of very specific infectious disease protocols that are in place on a provincial and federal level.

“What we should be afraid of is not Ebola, but the way we are handling it. Are health care providers prepared? Are containment processes being created and updated? Have we trained staff, have we planned, and have we informed the at-risk population properly? Above all, have we taken fast action to stem the spread of the disease in the countries that are hardest hit by it?”

- Robin Ingle

Source: <http://www.robiningle.com/halloween-a-festival-of-fear/>

Keep things in perspective...

Death by Odds

(rounded
numbers)

- Heart disease and cancer: 1 in 7
- Chronic lower respiratory disease: 1 in 29
- Motor vehicle incident: 1 in 112
- Falls: 1 in 152
- Drowning: 1 in 1,000
- Choking from ingestion of food: 1 in 3,500
- Bee sting: 1 in 76,000
- Bitten by a dog: 1 in 104,000
- Struck by lightning: 1 in 136,011

Sources: National Safety Council

http://www.nsc.org/NSCDocuments_Corporate/2014-Injury-Facts-Odds-Dying-43.pdf

Injury Facts, 2014 Edition.

Duty of Care

Do You Know What It Is?

What is duty of care?

A **legal standard** placed on an organization requiring that it exercise **due diligence** in taking **all reasonable steps** to protect employees and anyone under their care from **foreseeable** harm.



Bill C-45

Bill C-45, Canada's
Criminal Code:
Organizations owe
a “Duty of Care” to
those under their
care



Educational
Institutions must
take **reasonable**
steps to protect
students and staff,
whether in Canada
or abroad

10 Duty of Care Best Practices

1. Increase awareness and know-how of DOC at the admin level
2. Objectively assess your school's vulnerabilities
3. Establish and ensure compliance with DOC policies and procedures
4. Conduct due diligence
5. Communicate, educate, and train
6. Assess risk prior to every departure
7. Track travelling employees at all times
8. Implement an emergency response notification system for students, faculty, and staff
9. Implement an employee emergency response system
10. Ensure vendors are aligned

Source: Claus, Lisbeth. Duty of Care: Scholastic Sector. http://www.internationalsosfoundation.org/?wpfb_dl=109

Remember These Travel Tips

1. Registration of Canadians Abroad (ROCA): Visit **travel.gc.ca/travelling/registration** to register before you go
2. Health insurance: Make sure you have appropriate coverage
3. Vaccinations and medications: Do research on what's needed for your host countries and get immunized before you travel
4. Prescription medications: Get a list from your pharmacist of all the medications that you take and familiarize yourself with their generic names
5. Travel health advisories: Be aware of advisories and health conditions at your destination

**Insurance with
emergency medical
assistance** is one of
the most important
things you can pack!



“Be brave. Take risks. Nothing can substitute experience.”

Paulo Coelho



Time for your Questions!

Thank you!



Richard Heinzl, M.D.

Medical Director, Ingle International & Intrepid 24/7

Email: rheinzl@novushealth.com



Alexandra Maccarone, EPC

VP, Member Services, Ingle International

Email: amaccarone@ingleinternational.com

www.ingleinternational.com