



peel health surveillance

data for action

Bon Voyage or Bad Voyage?

Surveillance of Travel-Related Infectious Diseases in Peel Region, Ontario

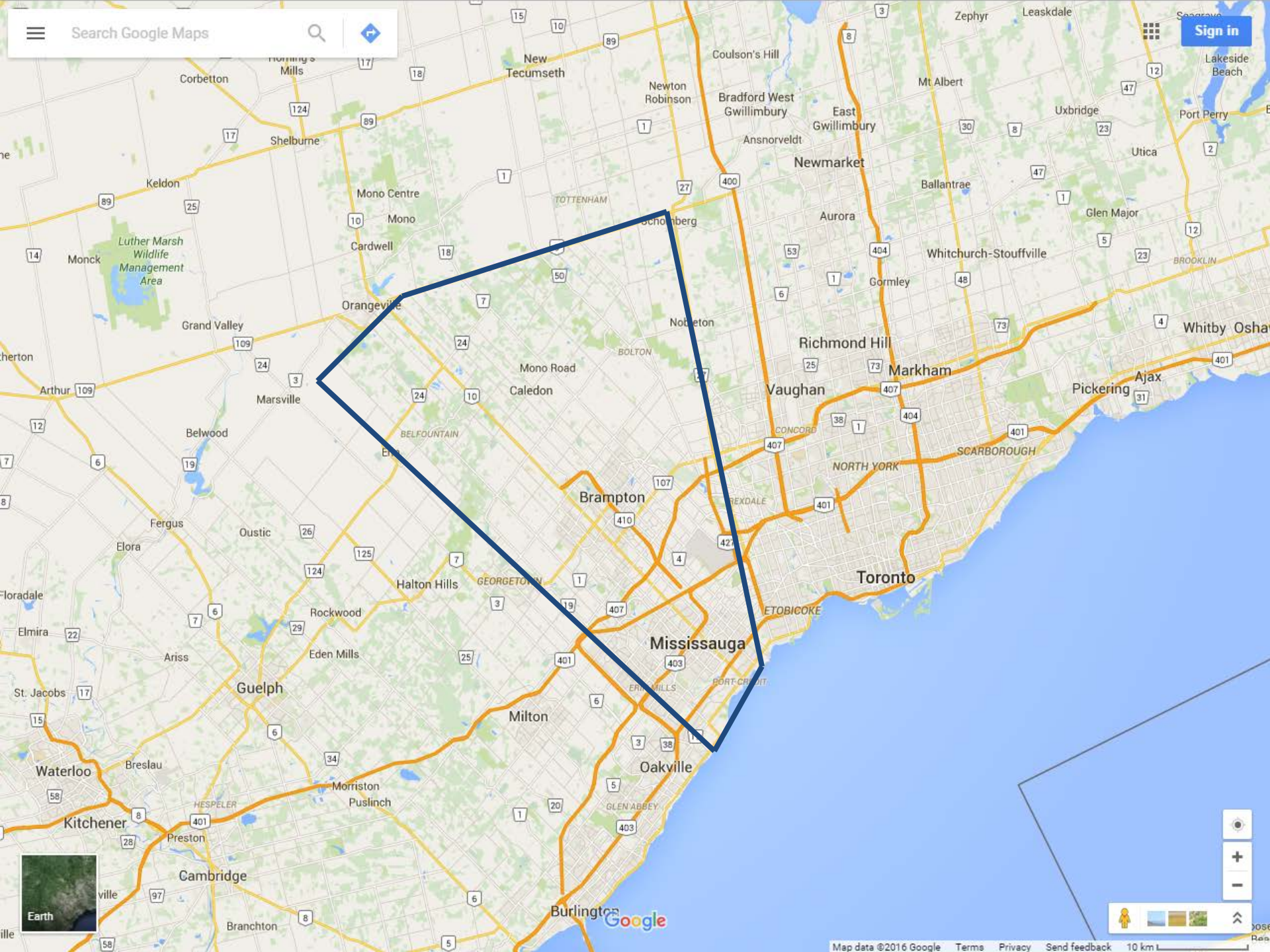
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Peel's Diverse Population

1.5 million people

67% ↑ in 20 years

>50% foreign-born

>20% “East Indian”



Source: <http://www.twentytwofifteen.com/wp-content/uploads/Diverse-Group-of-People.png>

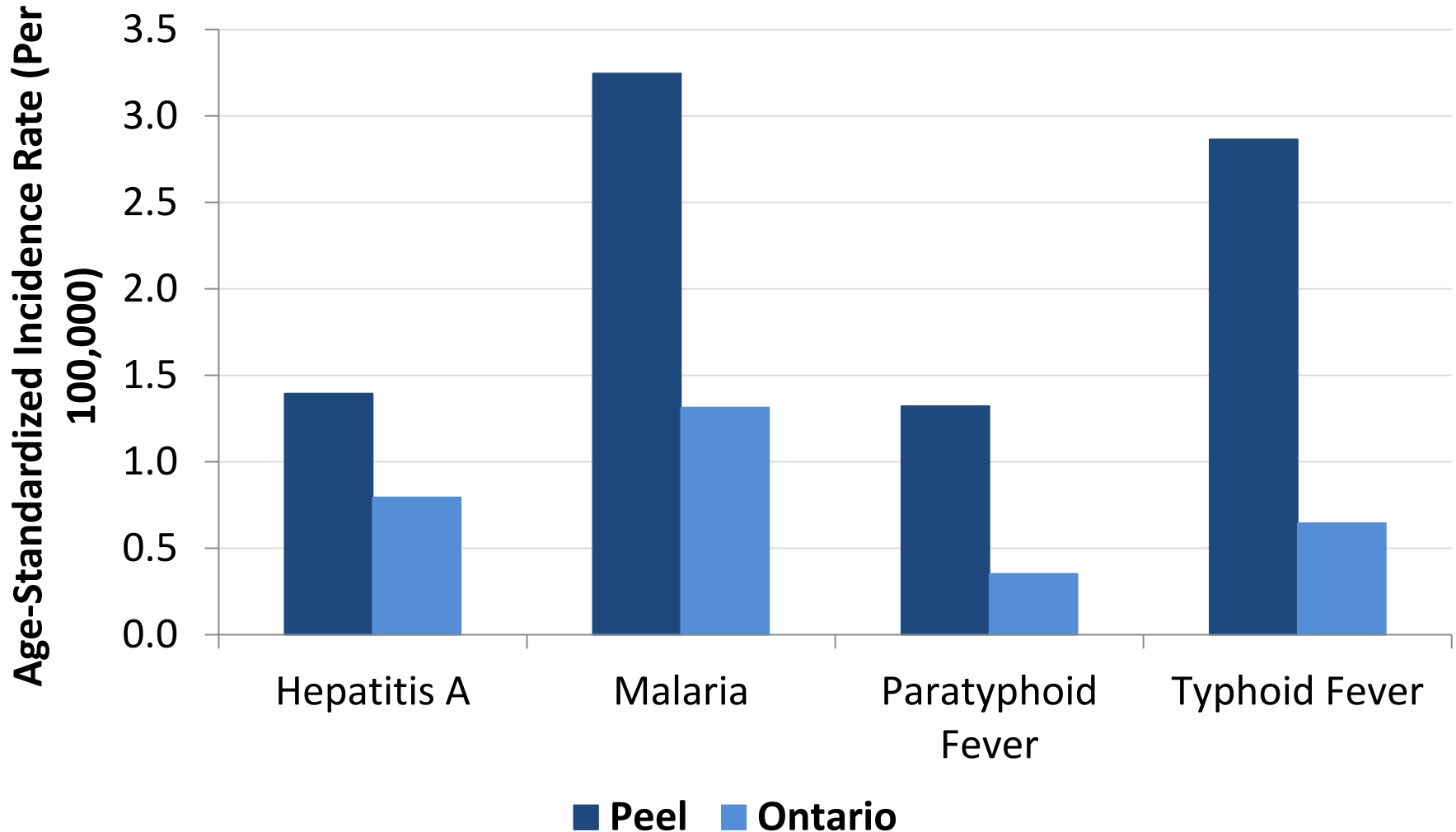


Visiting Friends and Relatives (VFR)

- An immigrant who travels to his/her birth country to visit friends or relatives
- Experience higher rates of travel-related infectious diseases:
 - Travel to higher-risk destinations
 - Lack of awareness or underestimation of risk
 - Lack of pre-travel health care encounter
 - Longer trips



Peel disease rates (2011-2015) are higher than Ontario's



Enhanced Surveillance of Travel-Related Diseases

- Data collection from 2012-present
- Hepatitis A, malaria, paratyphoid and typhoid fever
- Additional questions asked during routine public health case management:
 - Detailed destination information
 - Pre-travel medical consultation
 - Travel purpose, type of accommodation and duration
 - Use of preventive measures (e.g., vaccination)



Results (2012-2015):

Most cases were travel-related

	Hepatitis A	Malaria	Paratyphoid Fever	Typhoid Fever
Total Cases	72	163	60	133
	↓	↓	↓	↓
Travel Cases	56 (78%)	114 (70%)	52 (87%)	117 (88%)

Non-Travel Cases:

Recent immigrant – 36 (40%)

Local transmission – 21 (24%)

Visitor to Canada – 16 (18%)

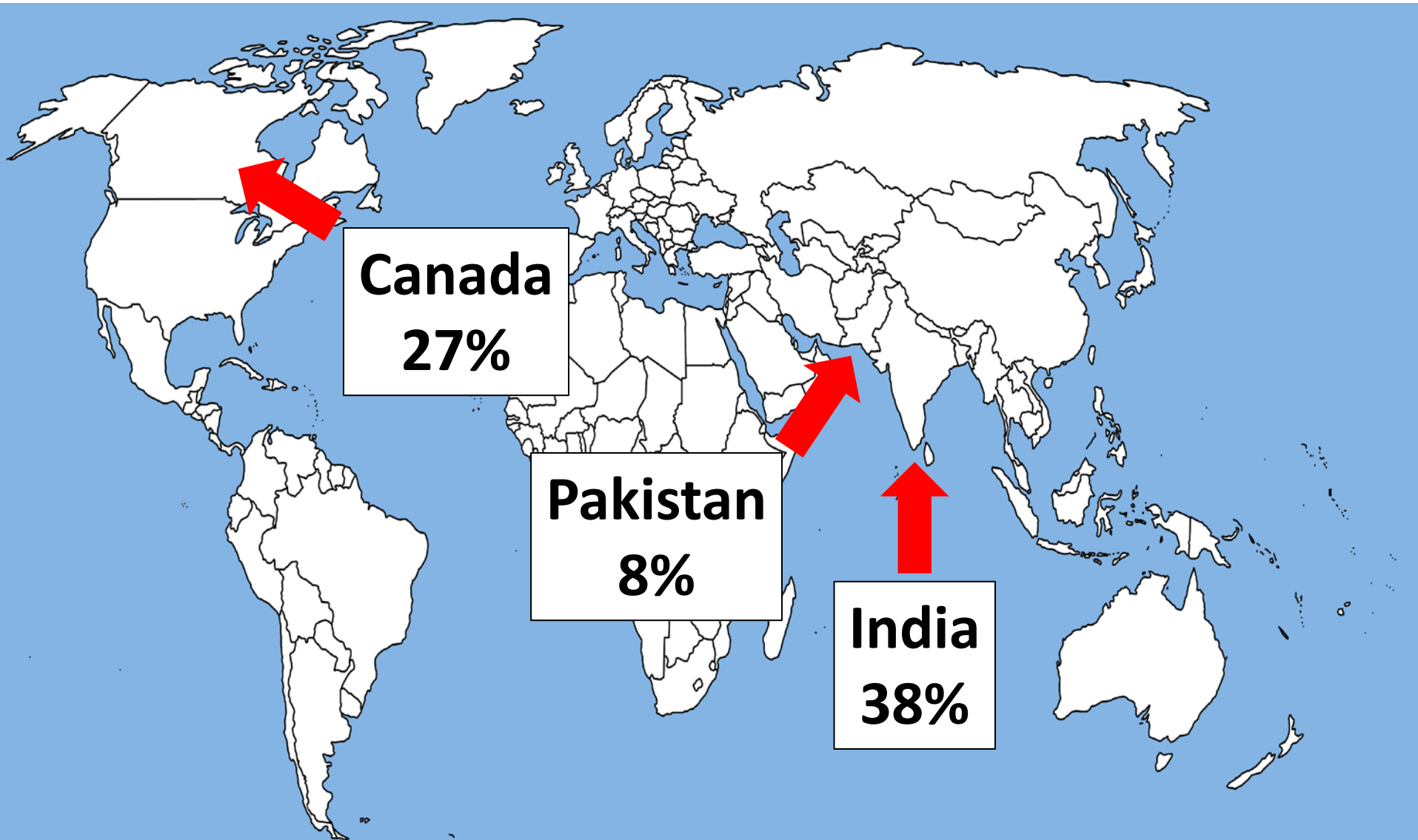
Unknown – 16 (18%)

Results (2012-2015):

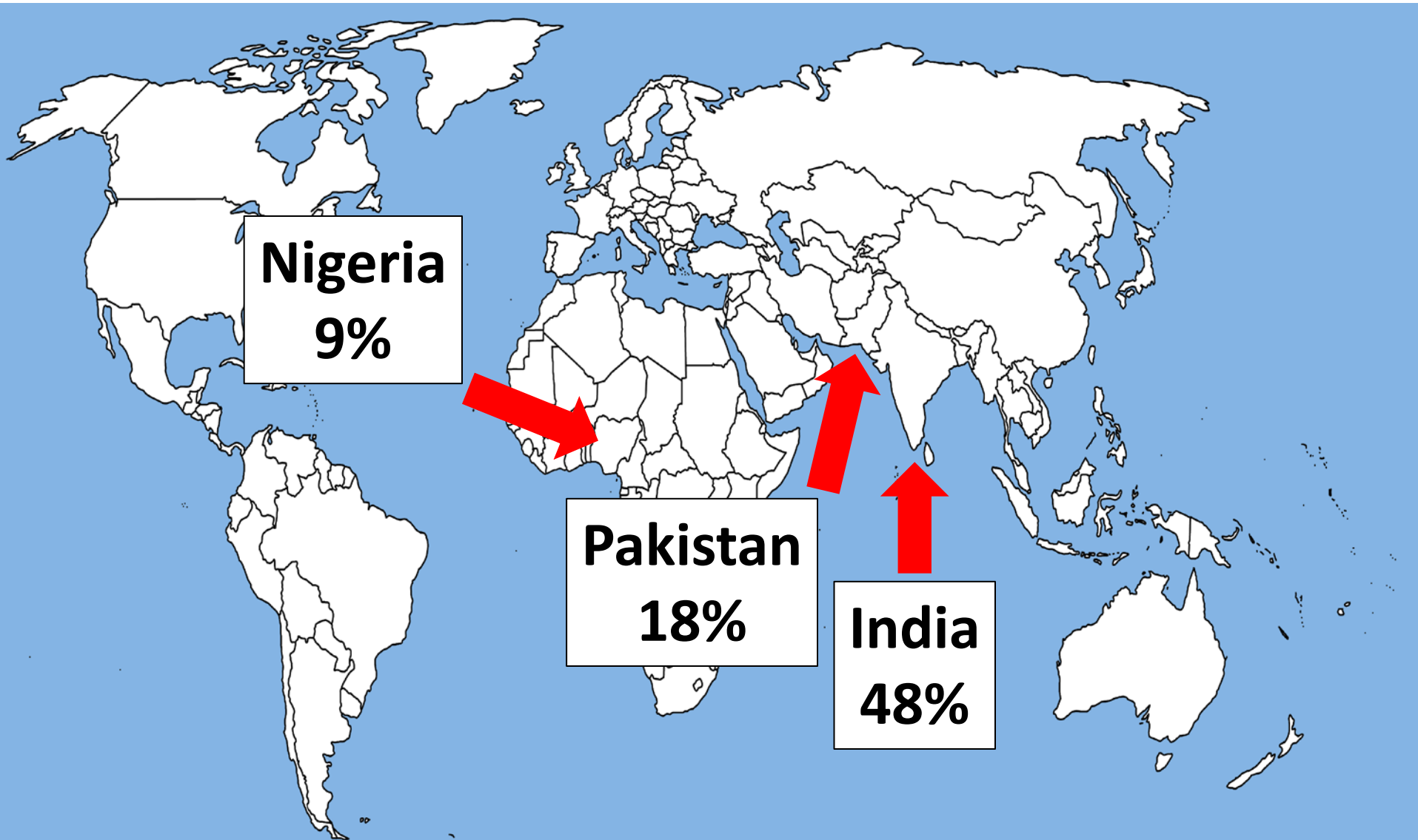
Demographics varied by disease

	Hepatitis A	Malaria	Paratyphoid Fever	Typhoid Fever
Sex:				
Female	52%	31%	37%	50%
Male	48%	69%	63%	50%
Age (years):				
Median	18	43	27	20
Range	2 - 74	<1 - 84	4 - 76	1 - 80

Country of Birth for Travel-Related Cases



Travel Country



Results (2012-2015):

Few cases had a pre-travel consult



Hepatitis A: 5%

Malaria: 22%

Paratyphoid: 10%

Typhoid: 9%

Results (2012-2015):

Most of Peel's travel cases are VFRs

Purpose of Travel	
VFR	89%
Holiday/Tourism	8%
Business	3%
Other	4%

Accommodation	
Friends/relatives	89%
Hotel/resort	13%
Homestay	12%
Apartment/condo	3%
Hostel	<1%
Other	2%

Results (2012-2105):

Cases are abroad for long periods of time

	Hepatitis A	Malaria	Paratyphoid Fever	Typhoid Fever
Duration (days):				
Median	49	36	33	38
Range	5 - 380	3 – 1,110	10 - 185	7 - 343

Data Challenges

- Gap in denominator data regarding number of travellers to other countries
 - Unable to quantify risk of disease associated with travelling to certain destinations



Data Informing Public Health Action

- Continued surveillance for travel-related diseases
 - Addition of question regarding reason for no pre-travel consult
- Rapid review of literature to determine how to increase uptake of preventive measures against travel-related disease (<https://www.peelregion.ca/health/library/pdf/travellers-preventive-measures.pdf>)
- Research partnership between Peel Public Health, University of Toronto and community organizations
 - Understand risk perception and barriers/facilitators to pre-travel medical consultations in South Asian communities



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Questions?



<http://www.mrmediatraining.com/wp-content/uploads/2013/07/Audience-Questions-Hands-Raised.jpg>



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