



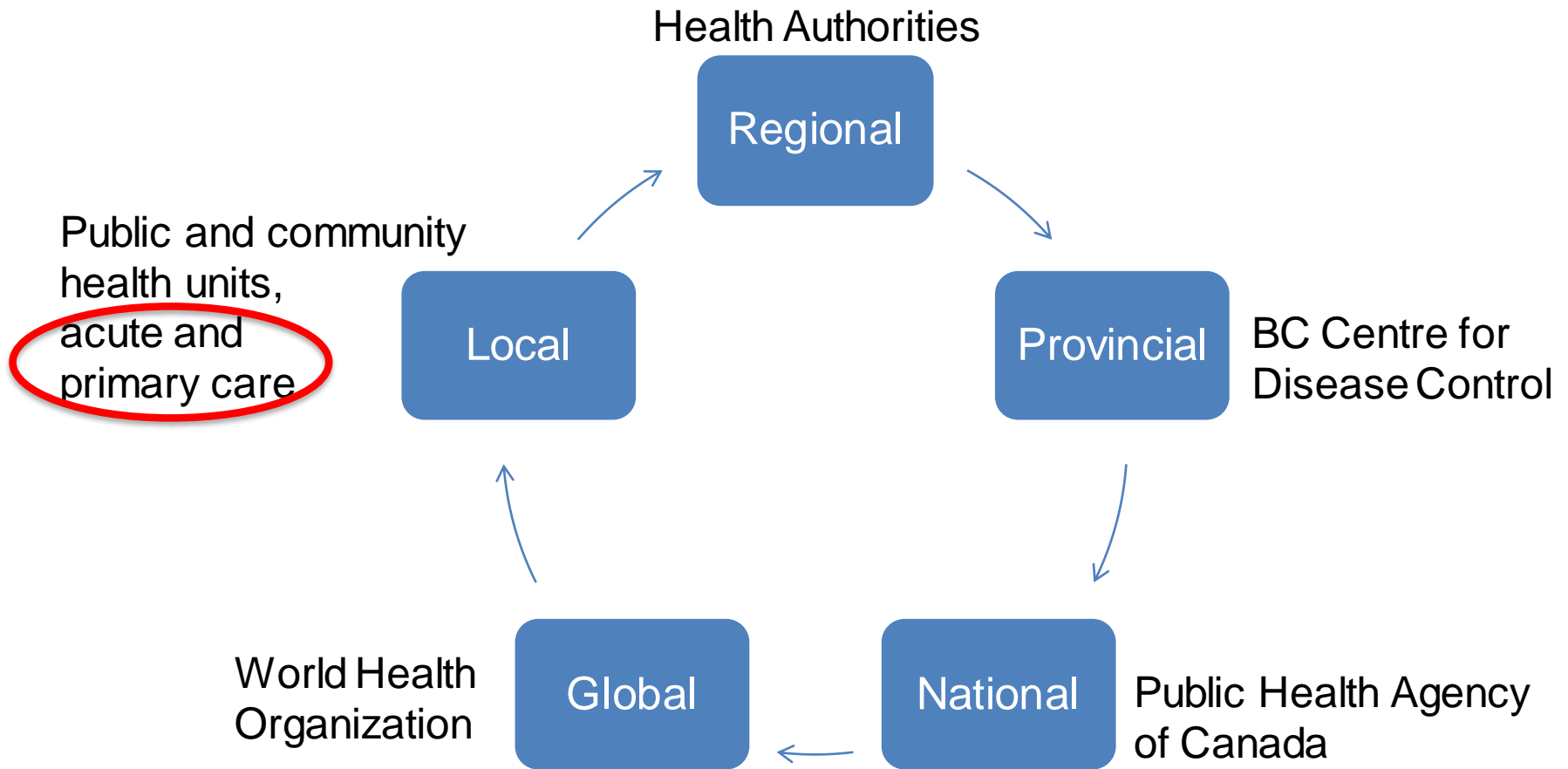
BC Centre for Disease Control  
Provincial Health Services Authority

# Measles and Public Health

# Learning Objectives

- Define the role of public health in relation to communicable disease control
- Recognize the role infection prevention and control in public health
- Examine the resurgence of measles disease
- Describe measles immunization recommendations and coverage rates
- Define vaccine hesitancy

# Public Health

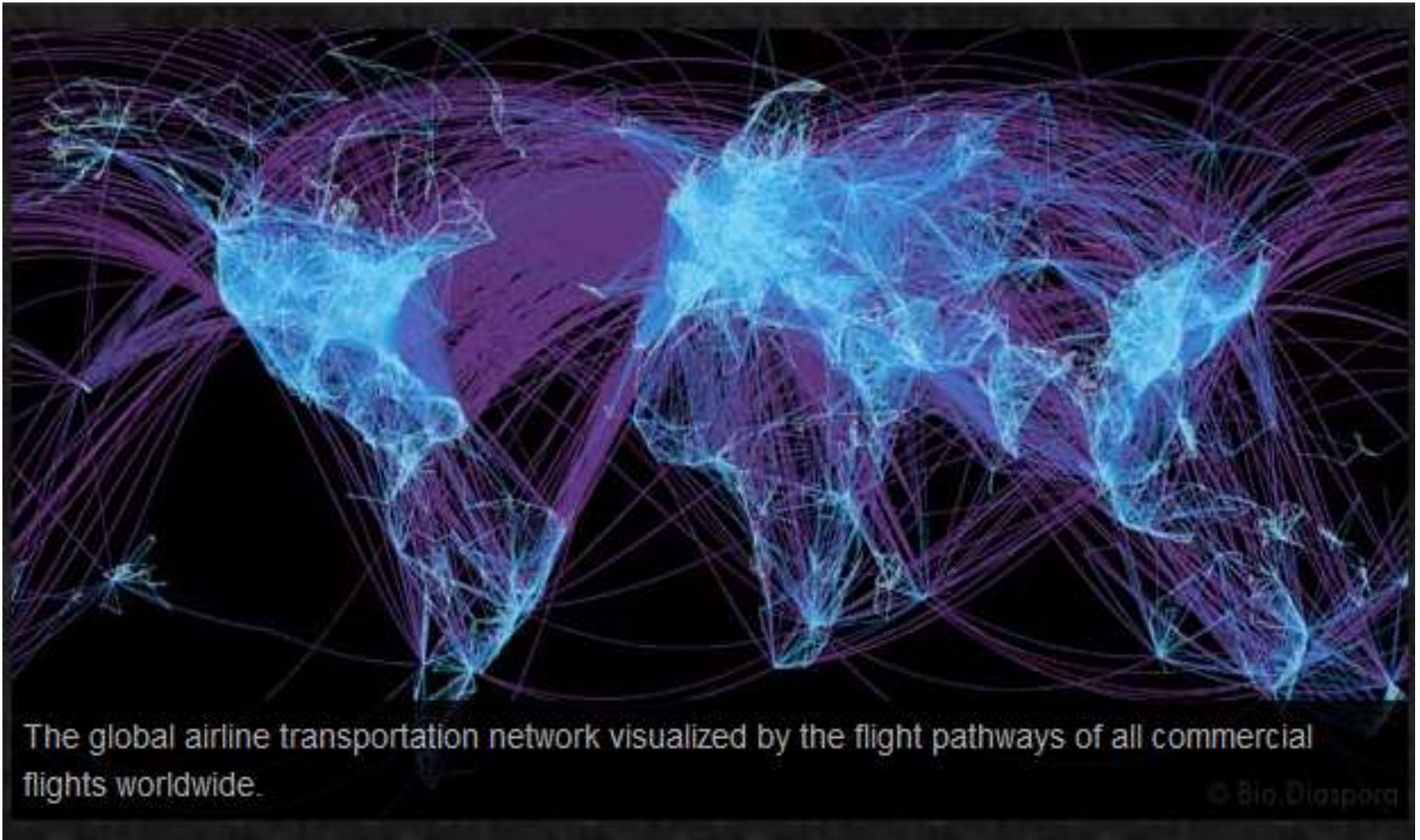


# The Role of IPC in PH

## Infection Prevention is Everybody's Business

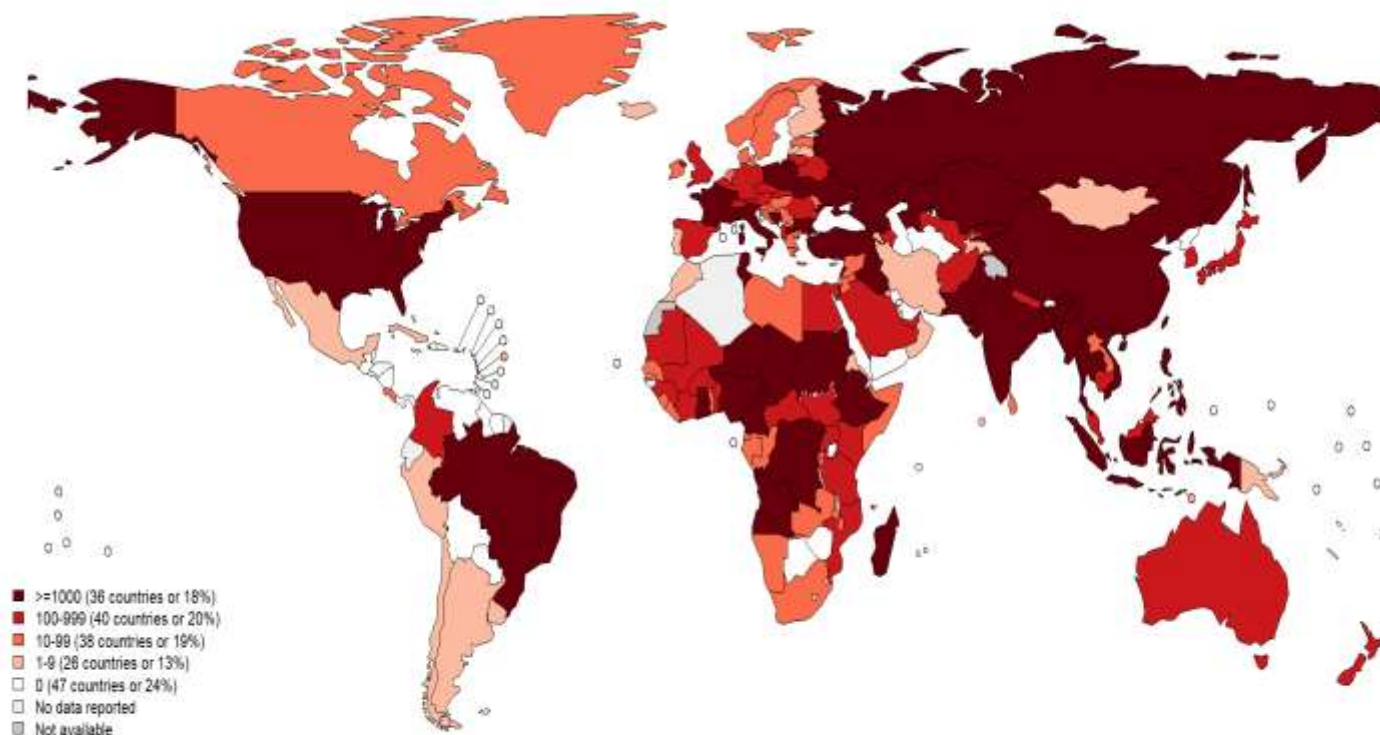


# We are all connected



# Number of Reported Measles Cases (6M period)

| Top 10*     |       |
|-------------|-------|
| Country     | Cases |
| Madagascar  | 86376 |
| India**     | 44020 |
| Ukraine     | 41933 |
| Philippines | 32414 |
| Nigeria     | 23342 |
| Kazakhstan  | 7925  |
| DR Congo    | 6443  |
| Myanmar     | 4206  |
| Sudan       | 3296  |
| Angola      | 2840  |



# Measles cases quadruple globally in 2019, says UN

© 16 April 2019



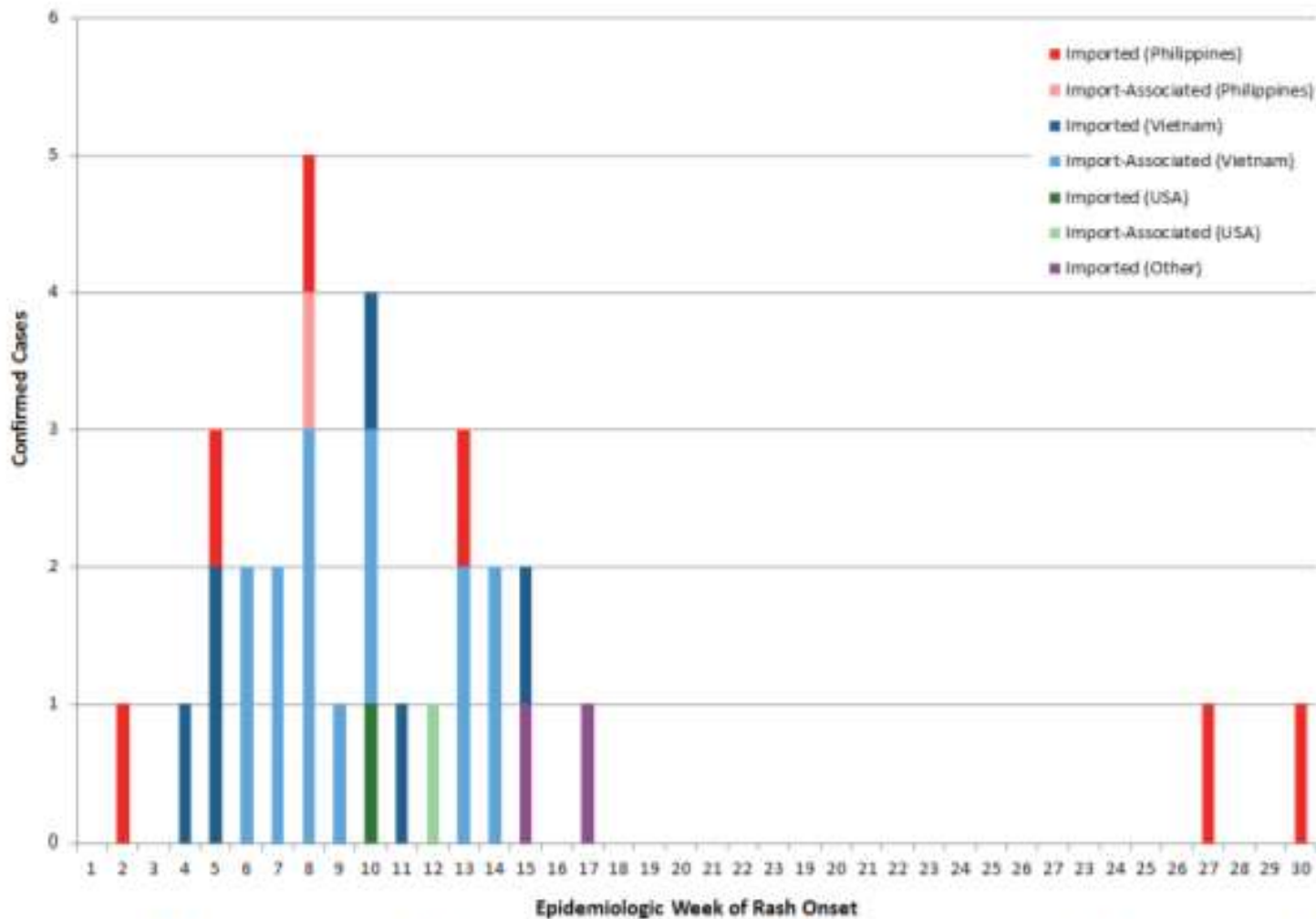
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GETTY IMAGES

The World Health Organization says the latest figures paint "an alarming picture"

# Measles in BC - 2019



Confirmed cases of measles by epidemiological week, British Columbia, 2019 to July 26



# Vaccine Preventable Diseases



Measles



Mumps



Rubella



Tetanus



Pertussis

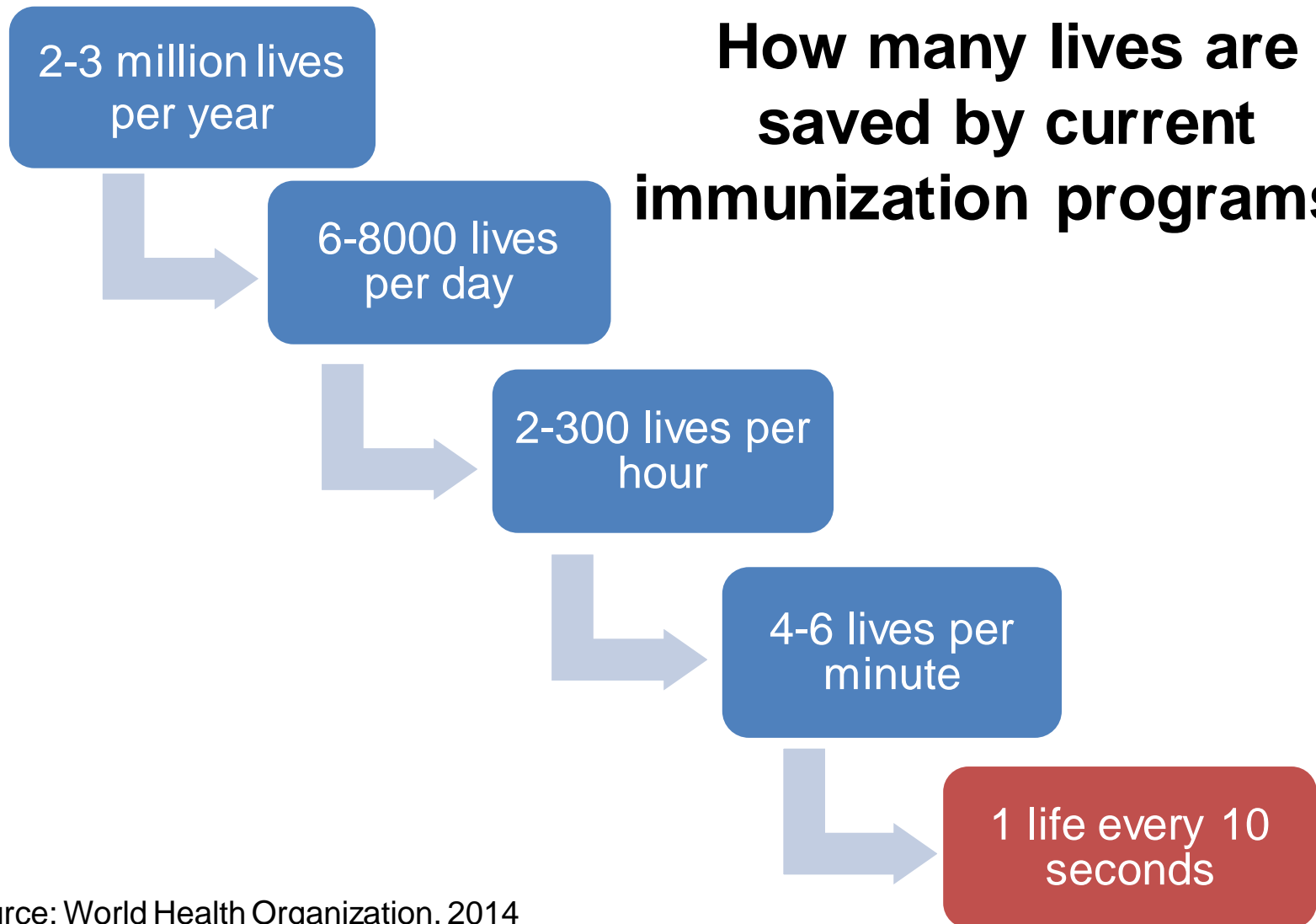


Polio



Varicella

## How many lives are saved by current immunization programs?





BC Centre for Disease Control  
Provincial Health Services Authority

# Measles Immunization

# Immunization Recommendations

- 2 doses of measles-containing vaccine are recommended for protection.
- MMR vs MMRV
- Why 2 doses?



## BC Routine Immunization Schedule INFANTS & CHILDREN

| Vaccine<br>(Click on the vaccine name to view the vaccine HealthLinkBC file)                                  | Child's Age |          |          |           |  |  |
|---|-------------|----------|----------|-----------|--|--|
|   | 2 Months    | 4 Months | 6 Months | 12 Months | 18 Months  | Starting at 4 years (kindergarten entry) |
| <b>DTaP-HB-IPV-Hib</b><br>(diphtheria, tetanus, pertussis, hepatitis B, polio, Haemophilus influenzae type b) | ✓           | ✓        | ✓        |           |  |  |
| <b>Pneumococcal Conjugate<sup>†</sup></b>   | ✓           | ✓        |          | ✓         |  |  |
| <b>Rotavirus</b>  | ✓           | ✓        | ✓        |           |  |  |
| <b>Meningococcal C Conjugate</b>  | ✓           |          |          | ✓         |  |  |
| <b>MMR</b><br>(measles, mumps, rubella)   |             |          |          | ✓         |  |  |
| <b>Varicella<sup>†</sup></b><br>(chickenpox)  |             |          |          | ✓         |  |  |
| <b>DTaP-IPV-Hib</b><br>(diphtheria, tetanus, pertussis, polio, Haemophilus influenzae type b)                 |             |          |          |           | ✓  |  |
| <b>Tdap-IPV</b><br>(tetanus, diphtheria, pertussis, polio)  |             |          |          |           |  | ✓  |
| <b>MMRV<sup>†</sup></b><br>(measles, mumps, rubella, varicella)   |             |          |          |           |  | ✓  |
| <b>Influenza</b><br>(inactivated)   |             |          |          | ✓*        | * (annually for children 6 months to 4 years of age) |  |
| <b>Hepatitis A<sup>†</sup></b><br>(For Aboriginal children only)  |             |          | ✓        |           | ✓  |  |

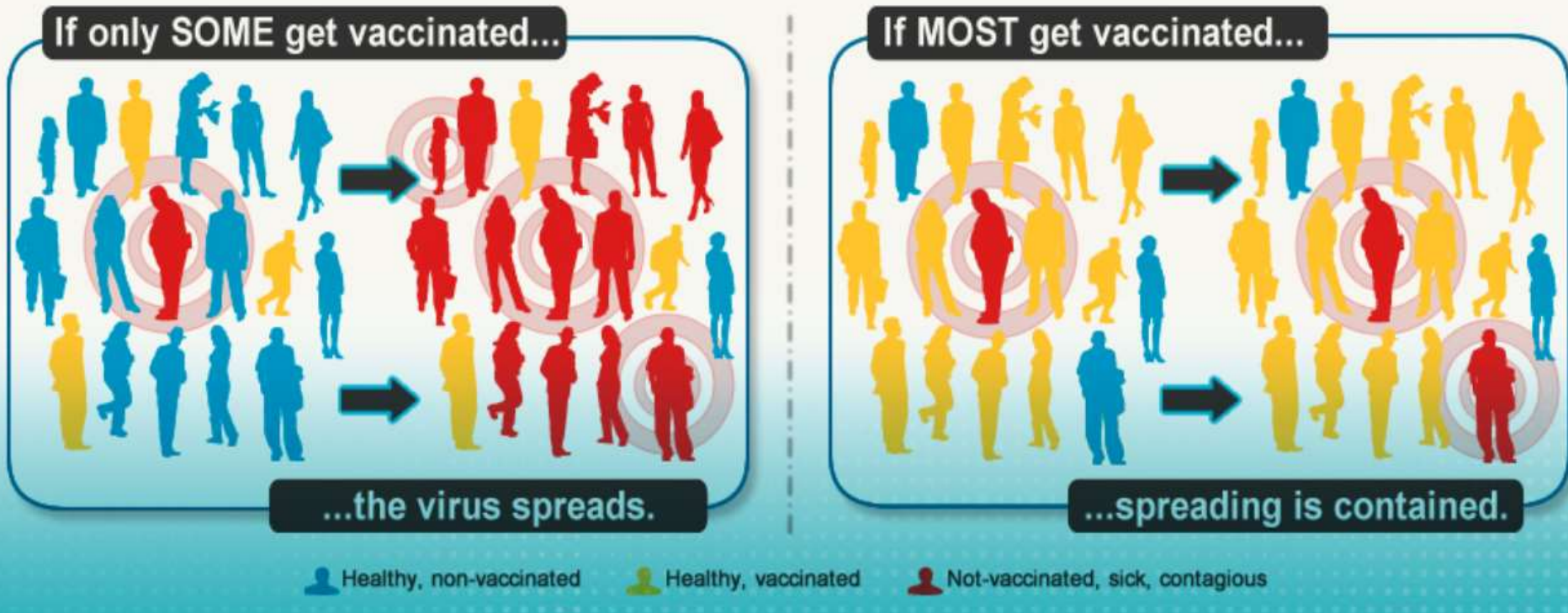


# Who else should get the vaccine?

- Susceptible individuals born in or after 1970 (1957 for health care workers) should have 2 doses, 4 weeks apart.
- What about those born before 1970?

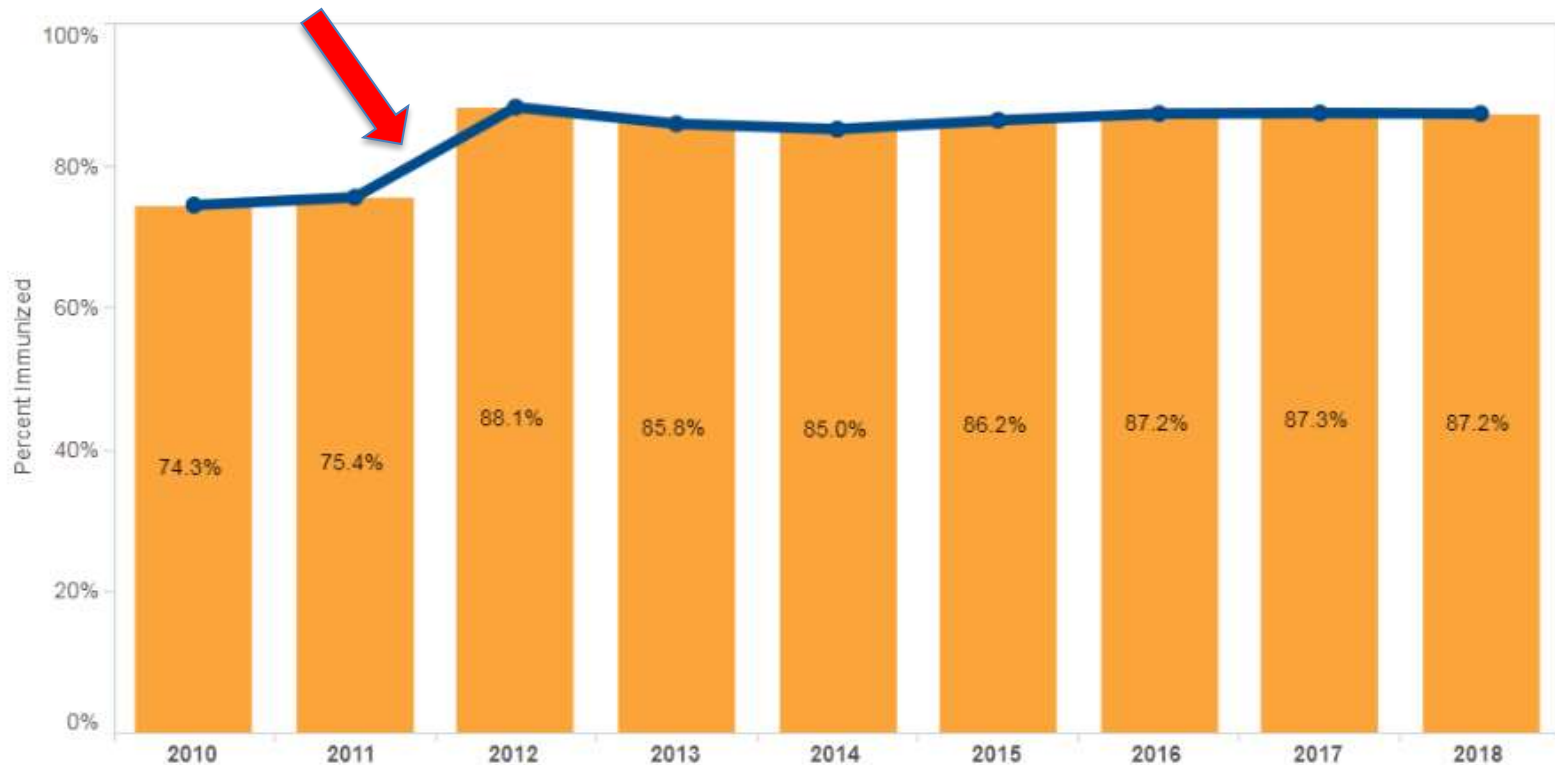
# Measles Vaccine Uptake Rates

# Herd Immunity

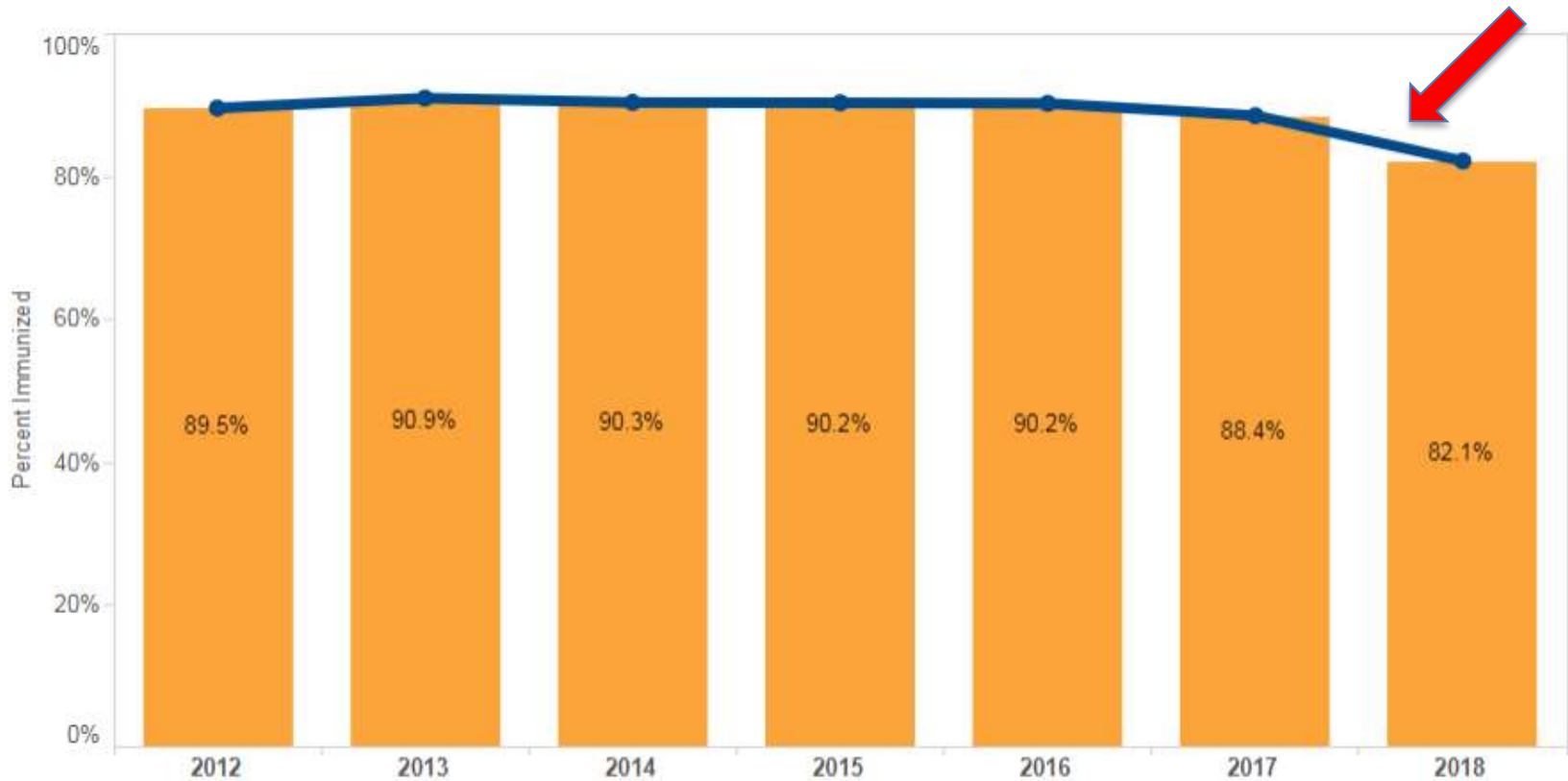




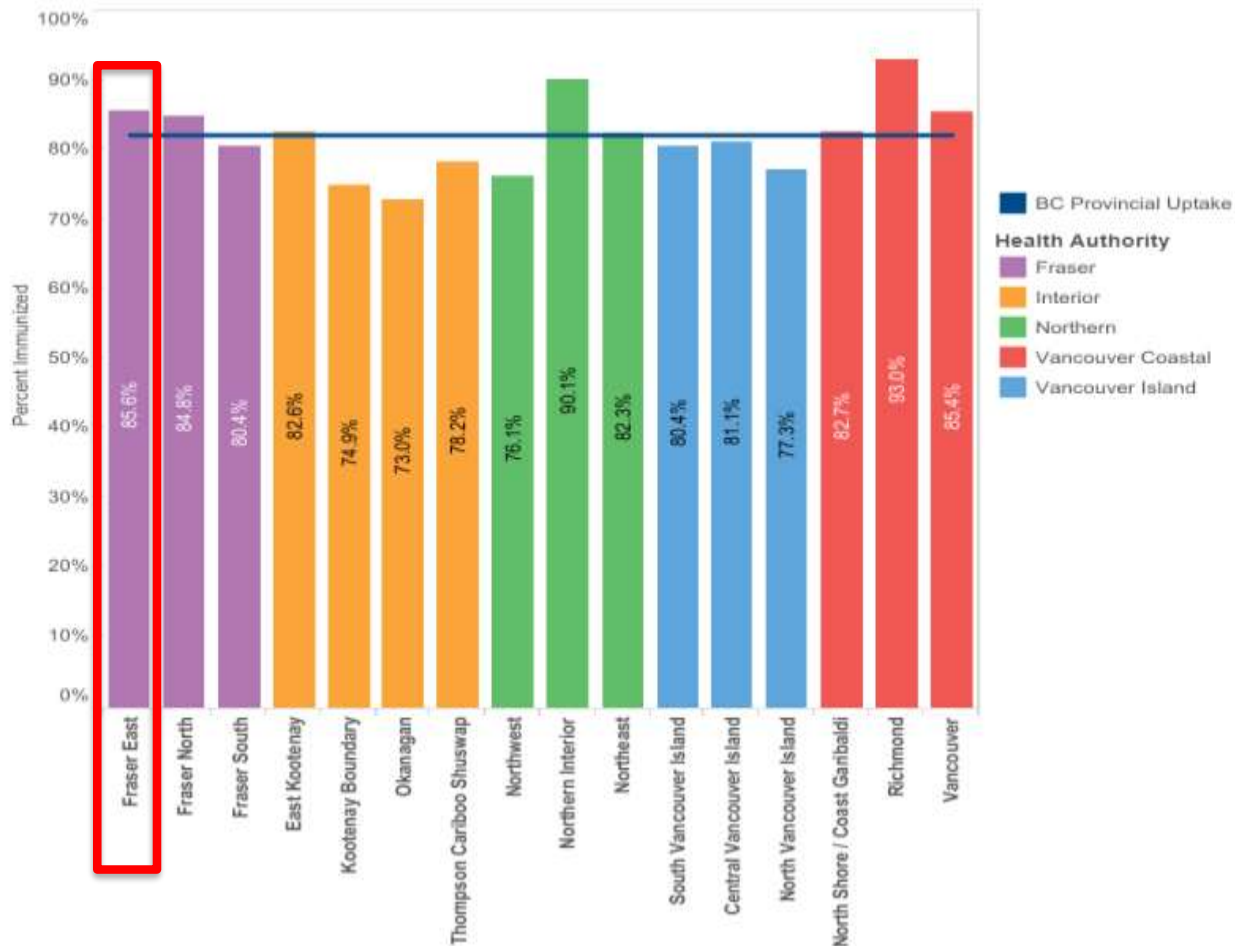
## Percent of Children Immunized Over Time 2 Year olds, MMR, All BC



## Percent of Children Immunized Over Time 7 Year olds, Measles, All BC

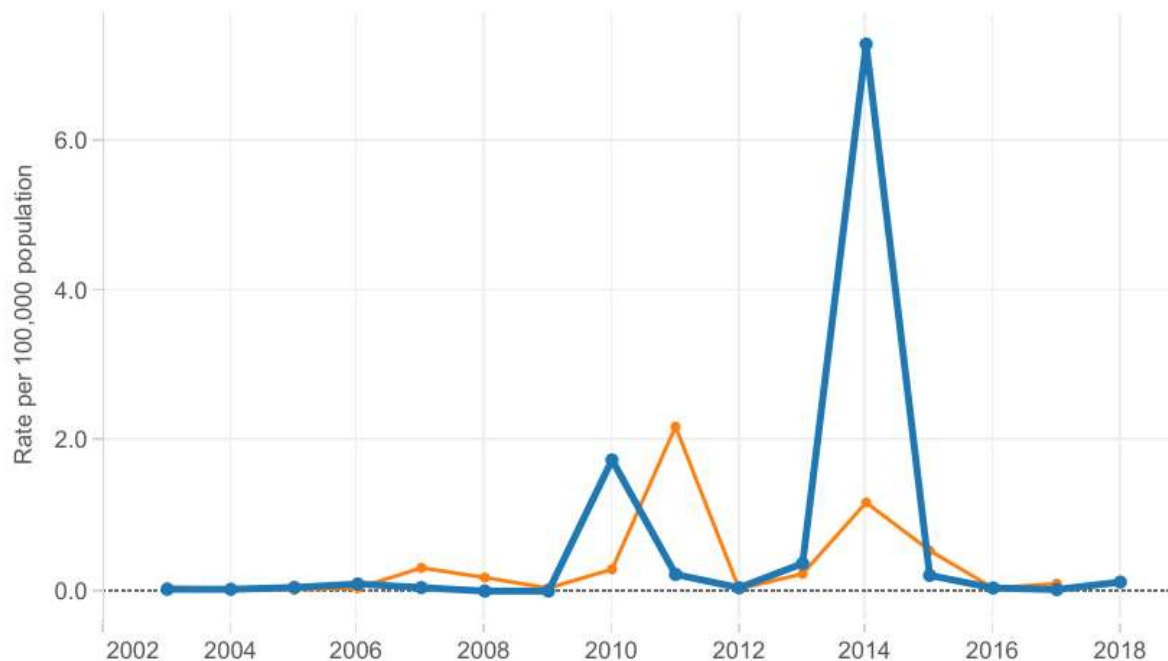


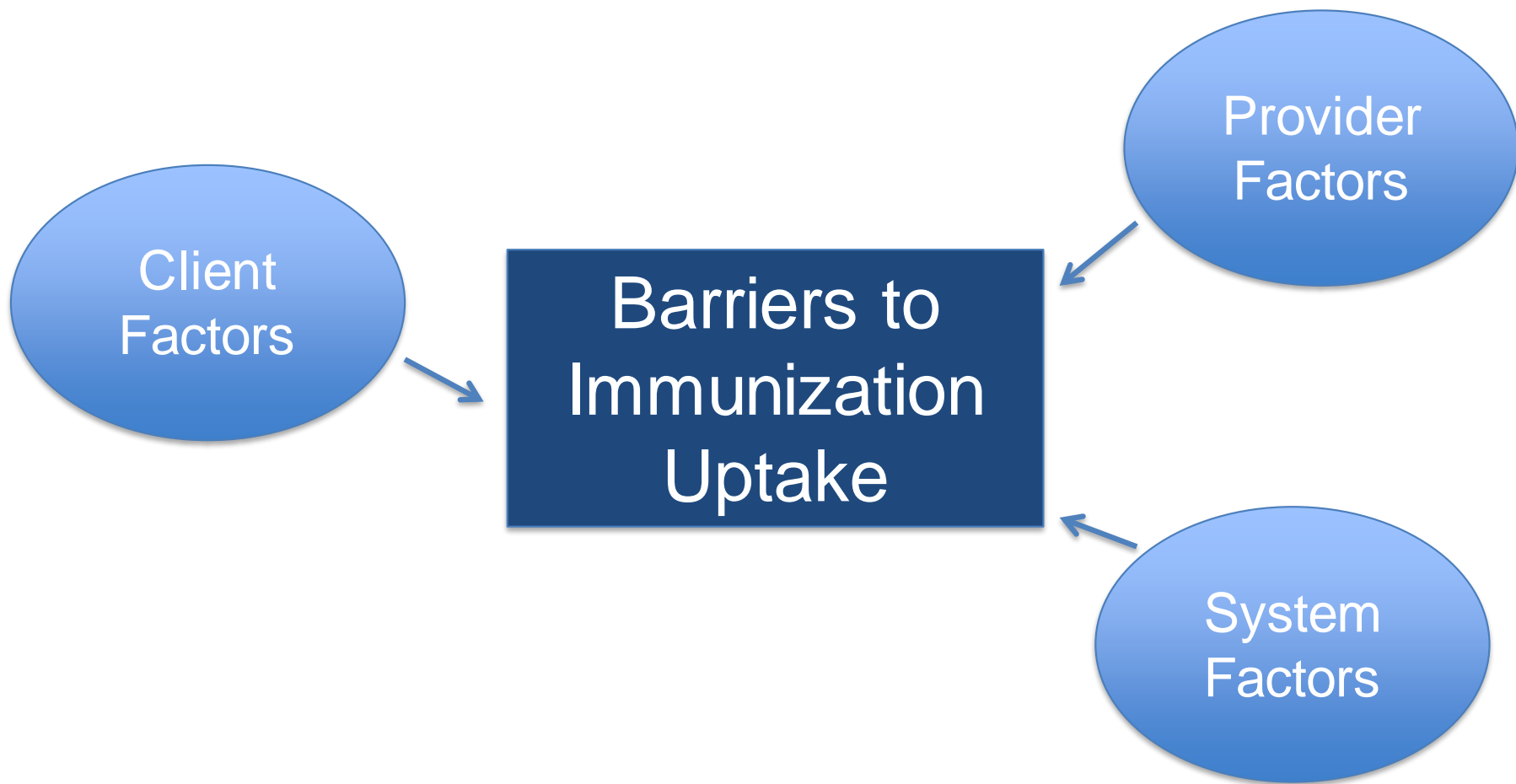
## Percent of Children Immunized by BC Health Region Age 7 years – Measles 2018



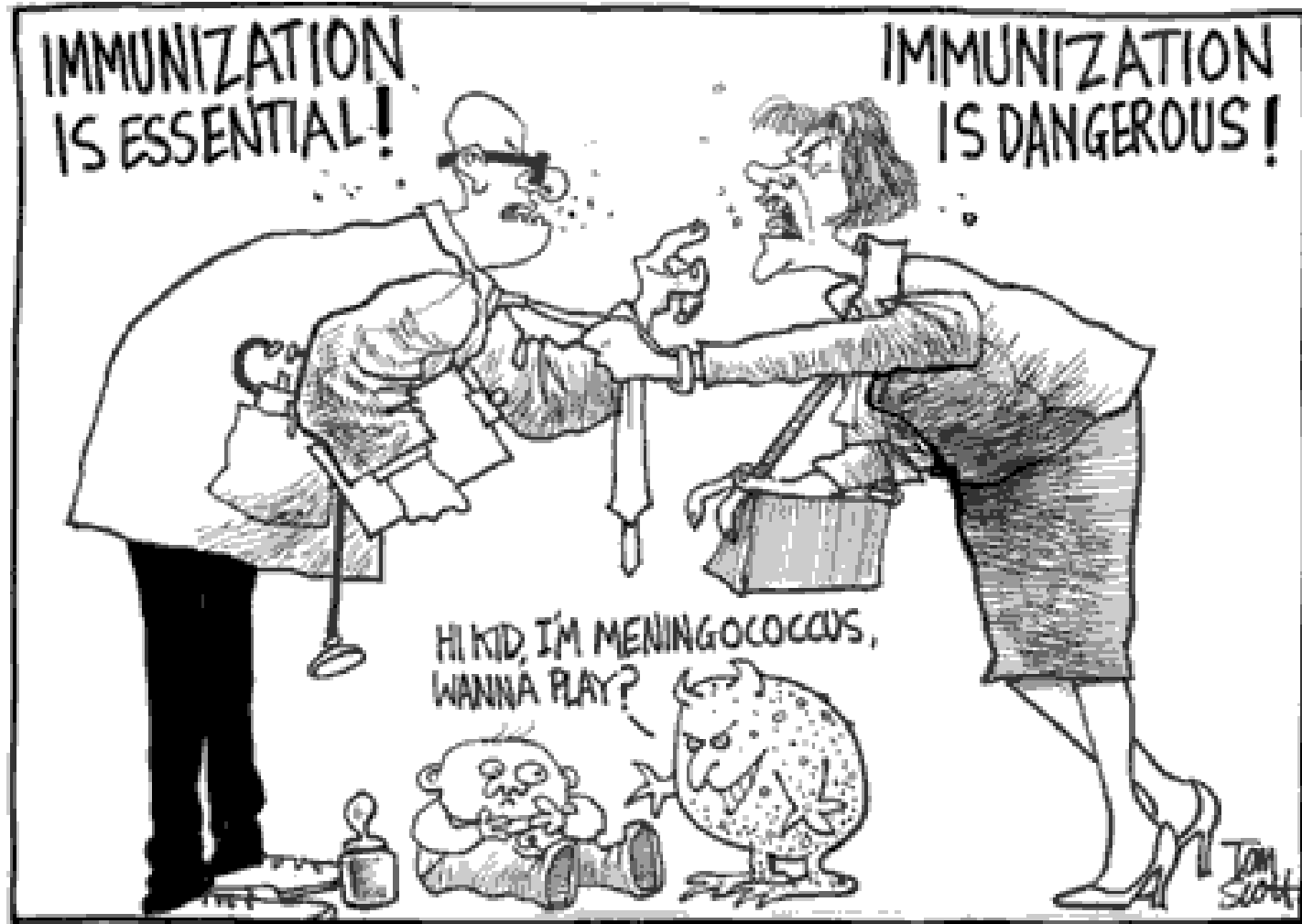
# Measles cases in BC: 2003 - 2018

Measles, 2003 to 2018, All BC



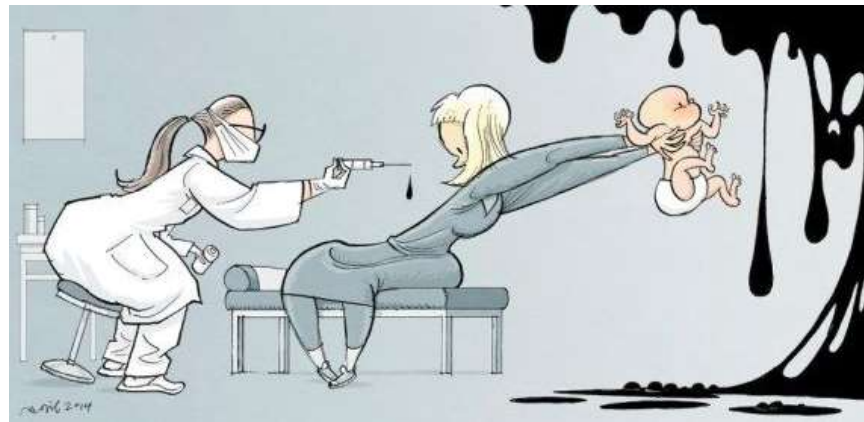


# Immunization Communication



# What is Vaccine Hesitancy?

Vaccine hesitancy is a term used to describe a refusal of vaccination or a delay in an immunization schedule due to concerns about immunization.

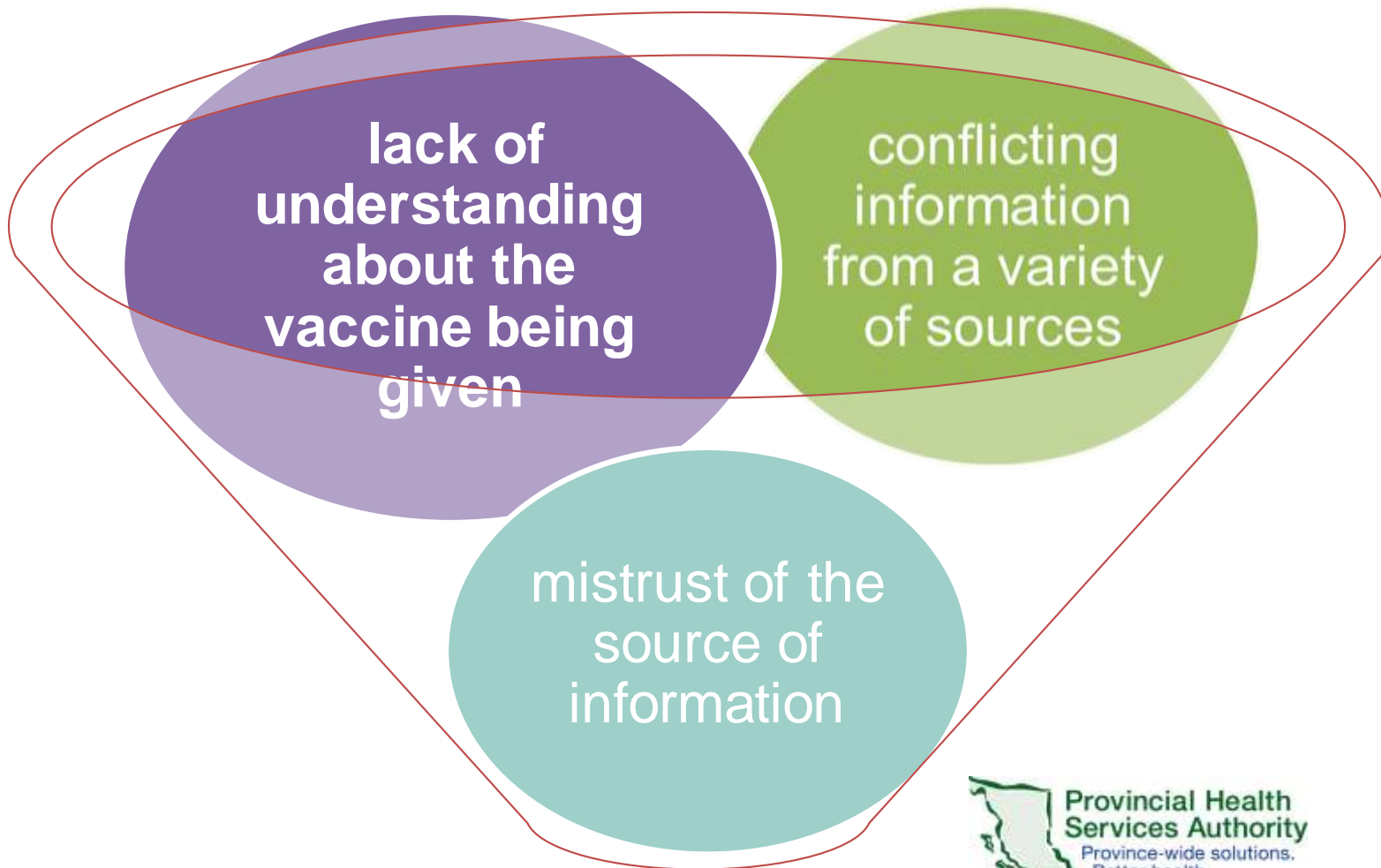


# Ten Threats to Global Health in 2019

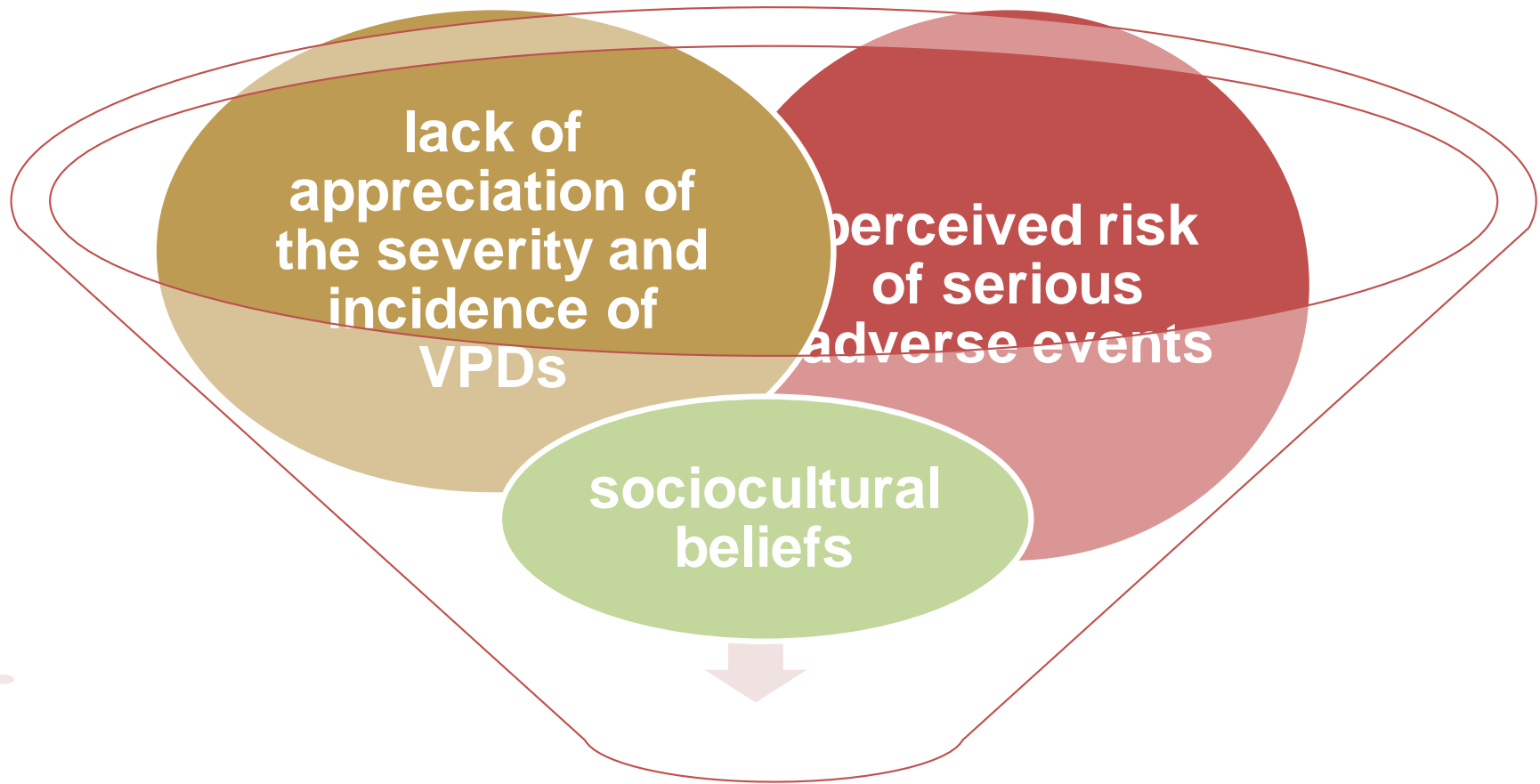
1. Air pollution and climate change
2. Non-communicable diseases
3. Threat of a global influenza pandemic
4. Fragile and vulnerable settings
5. Antimicrobial resistance
6. Ebola and high-threat pathogens
7. Weak primary care
8. Vaccine hesitancy
9. Dengue
10. HIV



# What influences vaccine hesitancy?



# What influences vaccine hesitancy?





QUICK REFERENCE



Immunization  
Communication Tool

For Immunizers

In the last 50 years  
immunization has  
saved more lives than  
any other health  
intervention.



ImmunizeBC

# Immunization Communication Tool For Immunizers



# Immunization Information on the Internet: Can you trust what you read?

This fact sheet can help you decide if vaccine information you find on the Internet is accurate.

**Note:** The words “immunization” and “vaccination” are often used interchangeably.

## 1. Is it clear who owns the website?

- Is the name of the organization or the name of the person responsible for the website in clear view?
- Websites you can trust do not hide their identity. Look for text that tells you more about the owner or author of the site, e.g. their credentials.
- Look for a page called “About Us” or “About [Sponsor’s Name]”. This page should provide contact details such as an e-mail address, telephone number, or mailing address.
- The website should be endorsed by a health agency or

## 3. Is the information on the website based on sound scientific study?

- Scientists discover truth by testing their findings again and again. This approach helps them to be sure that their thinking and methods are not flawed. It works to ensure that they are not making personal assumptions or that special conditions have not had an effect on the results.
- Studies that involve hundreds of people or cases have more credibility than accounts of a single case.
- The most useful studies compare the findings from

# Immunization Information for the Public

BC Centre for Disease Control | BC Centre for Disease Control | Immunization | Immunization & Vaccines | Immunize BC | X



ImmunizeBC



Home

About Vaccines & Diseases



Vaccine Safety

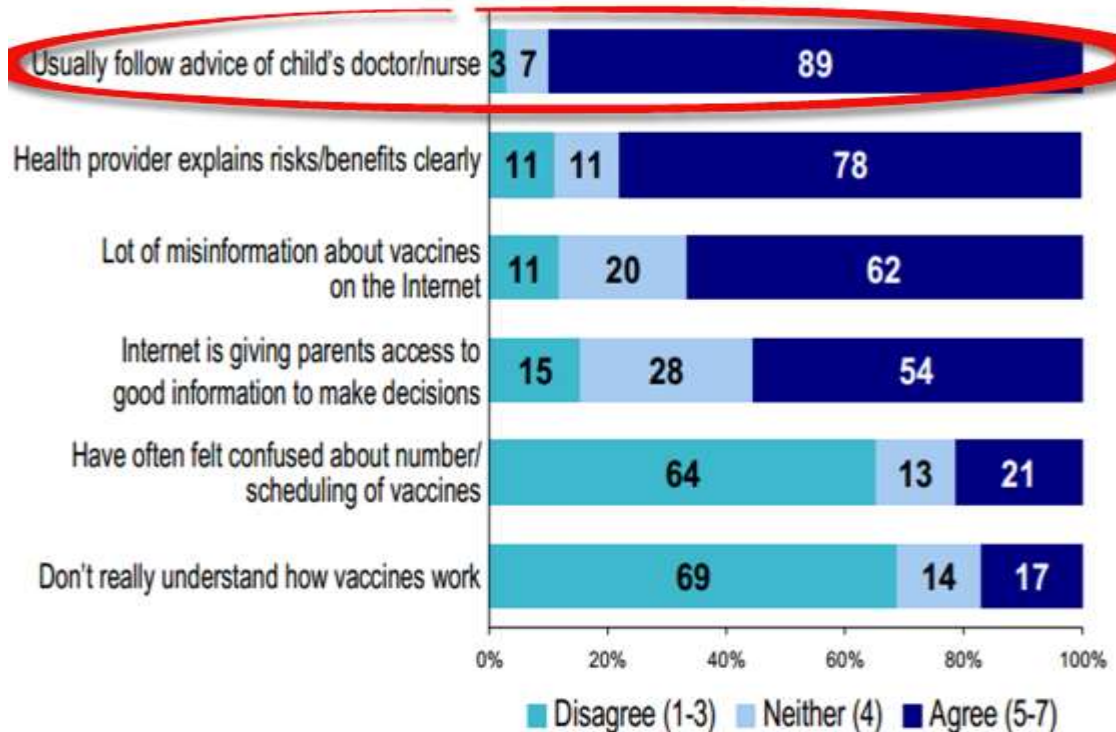
Vaccines

## Measles information for British Columbians

24/02/19: Two new measles cases & more possible public exposures confirmed

## Information about Vaccines

“Do you agree or disagree with the following statements?”



# The Power of Your Recommendation

- HCP are the most trusted source of information on vaccination for patients
- Main predictor of vaccine acceptance is recommendation of vaccination by a HCW

# Resources

- [BCCDC Communicable Disease](#)
- [BCCDC CD dashboard](#)
- [BCCDC Immunization coverage dashboard](#)
- [BC Immunization Manual](#)
- [Immunization Communication Tool for Immunizers](#)
- [ImmunizeBC](#)
- [Canadian Immunization Guide](#)
- [BCCDC News & Stories – Measles](#)
- [Immunize Canada – Immunization Information on the Internet: Can you trust what you read?](#)



# Thank you!