Local Measles Preparedness

Healthcare and Schools

June 2nd, 2025

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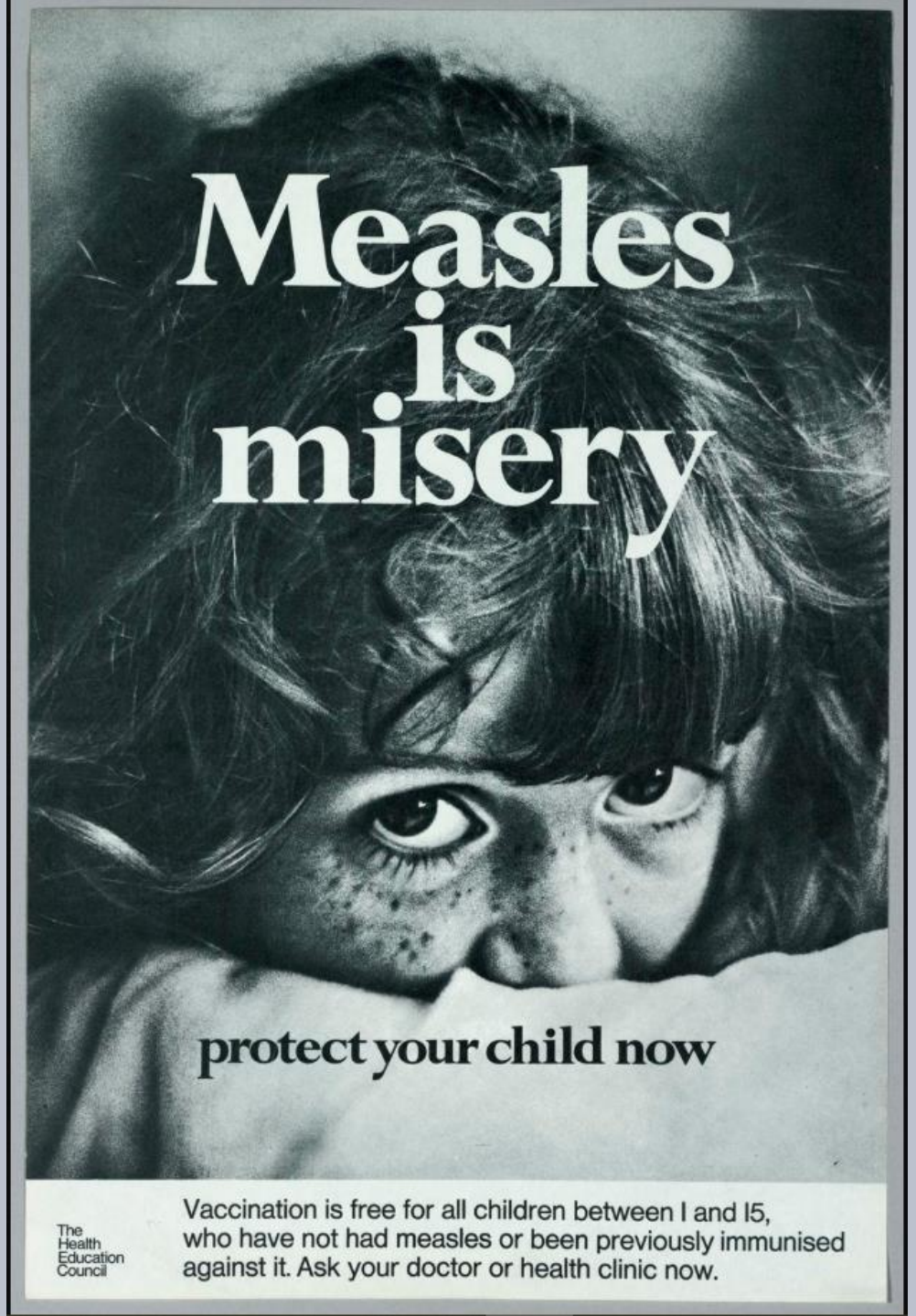
Health Officer
Grant County Health District
Adams County Health Department


MEASLES
Measles Symptoms include:
• High fever (can go up to 104° F)
• Cough
• Runny nose
• Red and watery eyes
• Rash breakout 3-5 days after symptoms begin
Measles Can Be Serious
• 1 out of 5 people who get measles will be hospitalized.
• One person can make 12 people sick.
• If someone in your family has measles, please try to stay away from other people.
WE WANT TO KEEP YOU AND YOUR LOVED ONES SAFE
The vaccine for measles is available through your local health department if you are wanting to get it.
South Plains Public Health District
24 HOUR HOT LINE
1-800-350-6510
MASERN
SARAMPIÓN


F. WINTERBORNE
WATERY EYES
RUNNY NOSE
DRY COUGH
A FEVERISH COLD?
It may be -
MEASLES
Let your Doctor know early
D.C.44 ISSUED BY THE CENTRAL COUNCIL FOR HEALTH EDUCATION Tavistock House, Tavistock Square, London, W.C.1


Measles is misery
protect your child now
The Health Education Council
Vaccination is free for all children between I and I5, who have not had measles or been previously immunised against it. Ask your doctor or health clinic now.

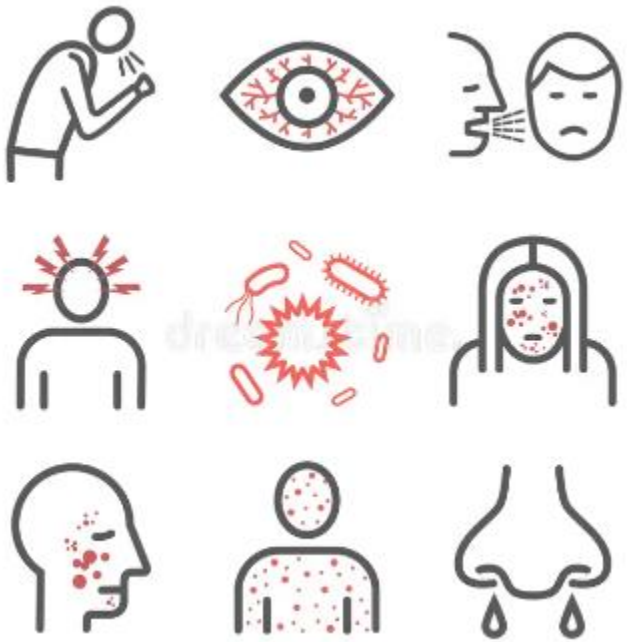
Plan for Today

- **A Brief Review of Measles Disease**
  - Definition, key features, rash images
  - Clinical criteria for testing
  - Understanding "Immune to measles" when cases present
- **Review Steps to Tackle Measles once it Appears**
  - Get Ready Schools
  - Get Ready Healthcare
- **Appendix: Better Understand the Measles Risk for Our Communities**

Tackling Measles in Our Communities

- **Recognize** Suspected Measles
- **Test** for Measles to Confirm the Disease
- **Separate** the Sick and Those who are Likely to Become Sick from the Healthy
  - **Isolate** all Persons with Measles at Home
  - **Identify** all Exposed to Measles
  - **Exclude/Quarantine** all Exposed Persons Not Immune to Measles at Home
- **Provide** Post-Exposure Prophylaxis (PEP)
  - To the Non-Immune or Partially Immune
- **Return** those excluded back to school or work

RECOGNIZE MEASLES



Sarampion, Kor

Measles (Rubeola): Definition and Key Features

Morbilli

Measles is a highly contagious respiratory disease caused by the measles virus (MeV) that spreads via airborne route and causes febrile rash illness in nearly all people without immunity to it (infectivity nearly 100%).

Key distinguishing symptoms (3C + K + F):

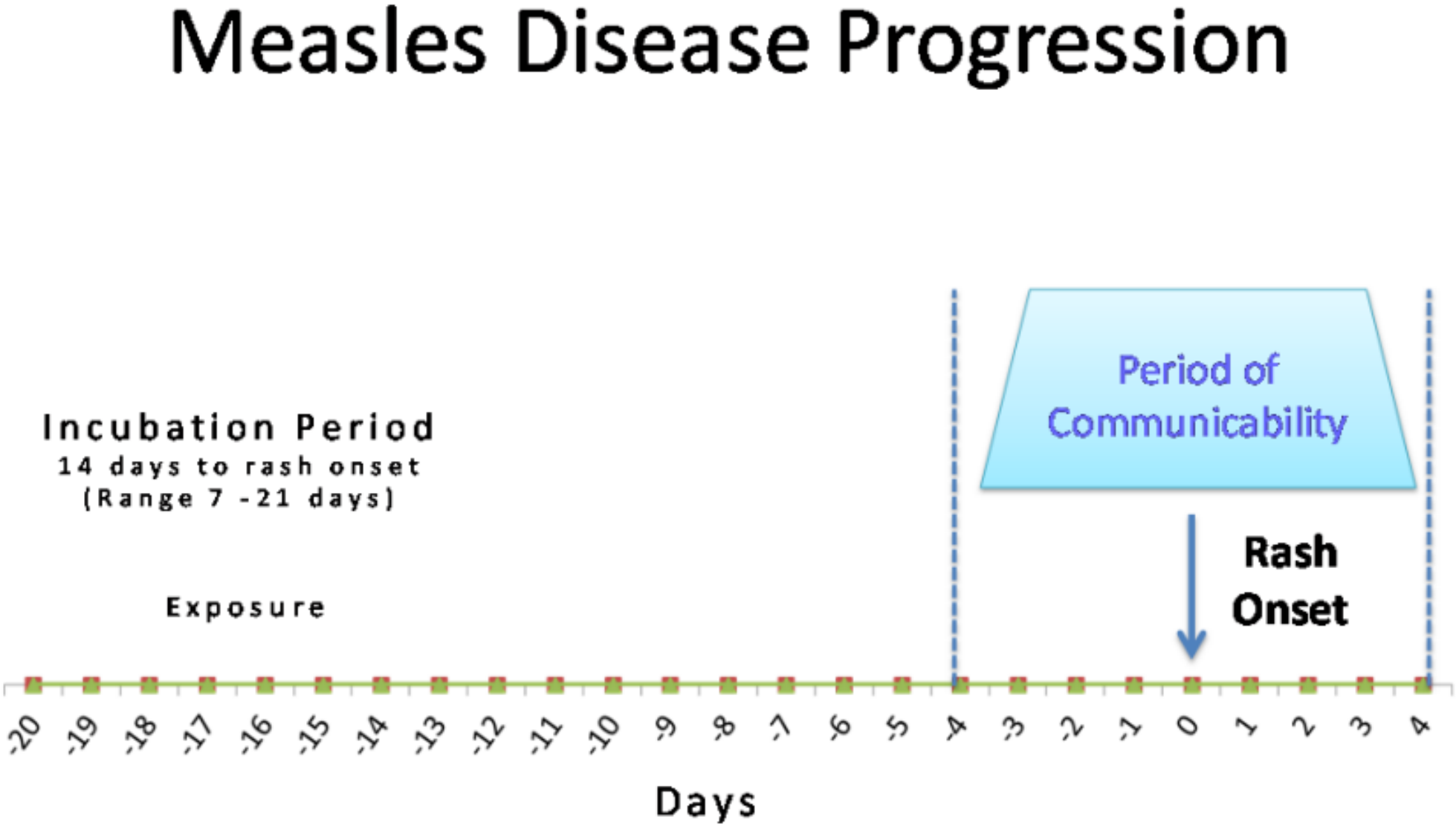
COUGH (mostly dry, nonproductive), >90%
CORYZA (nasal lining inflammation), >90%
CONJUNCTIVITIS (eye inflammation), >90%
Koplik spots (tiny white mucosal spots), 40-70%
Fever (more than 104F common); >95%

Measles Clinical Case Definition (CSTE, CDC, DOH)

- An illness characterized by ALL the following:
  - a generalized rash lasting ≥ 3 days
  - a temperature ≥ 101.0°F (≥ 38.3°C)
  - cough or coryza or conjunctivitis

Confirmed case: Acute febrile rash illness with at least one of the following: isolation of measles virus from a clinical specimen OR positive PCR test OR IgG seroconversion or significant rise in measles IgG antibody OR positive IgM test OR epi-linked to a lab confirmed case.	**Probable case** *(not used in WA)*: In the absence of a more likely diagnosis, meets the clinical case definition, has noncontributory or no measles laboratory testing, and is not epi-linked to a lab confirmed case.

Measles: The "Simple Progression Graph" (in the unvaccinated)



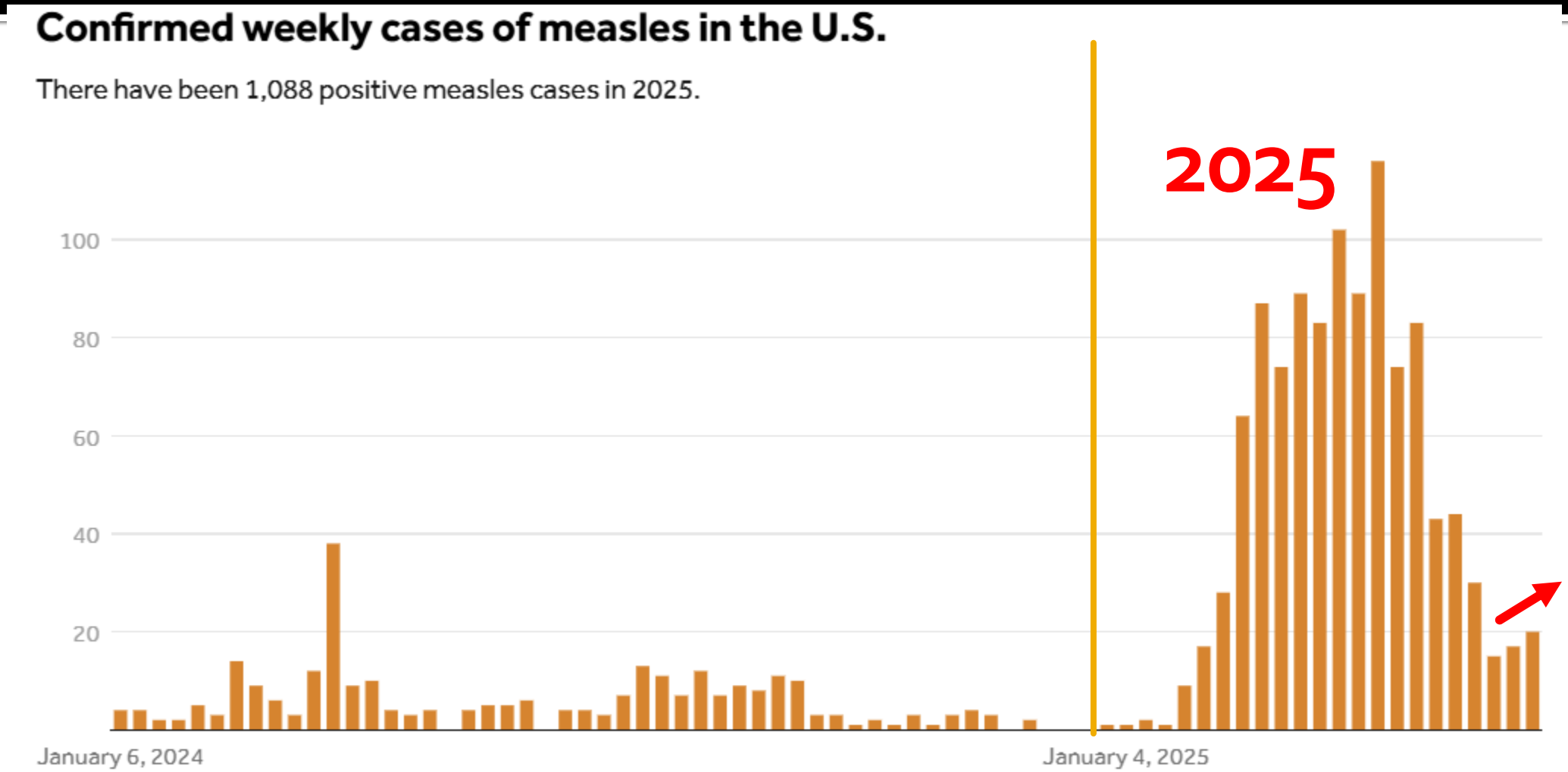
Measles Can Be Serious

About 1 out of 5 people who get measles will be hospitalized.

1 out of every 1,000 people with measles will develop brain swelling due to infection (encephalitis), which may lead to brain damage.

1 to 3 out of 1,000 people with measles will die, even with the best care.

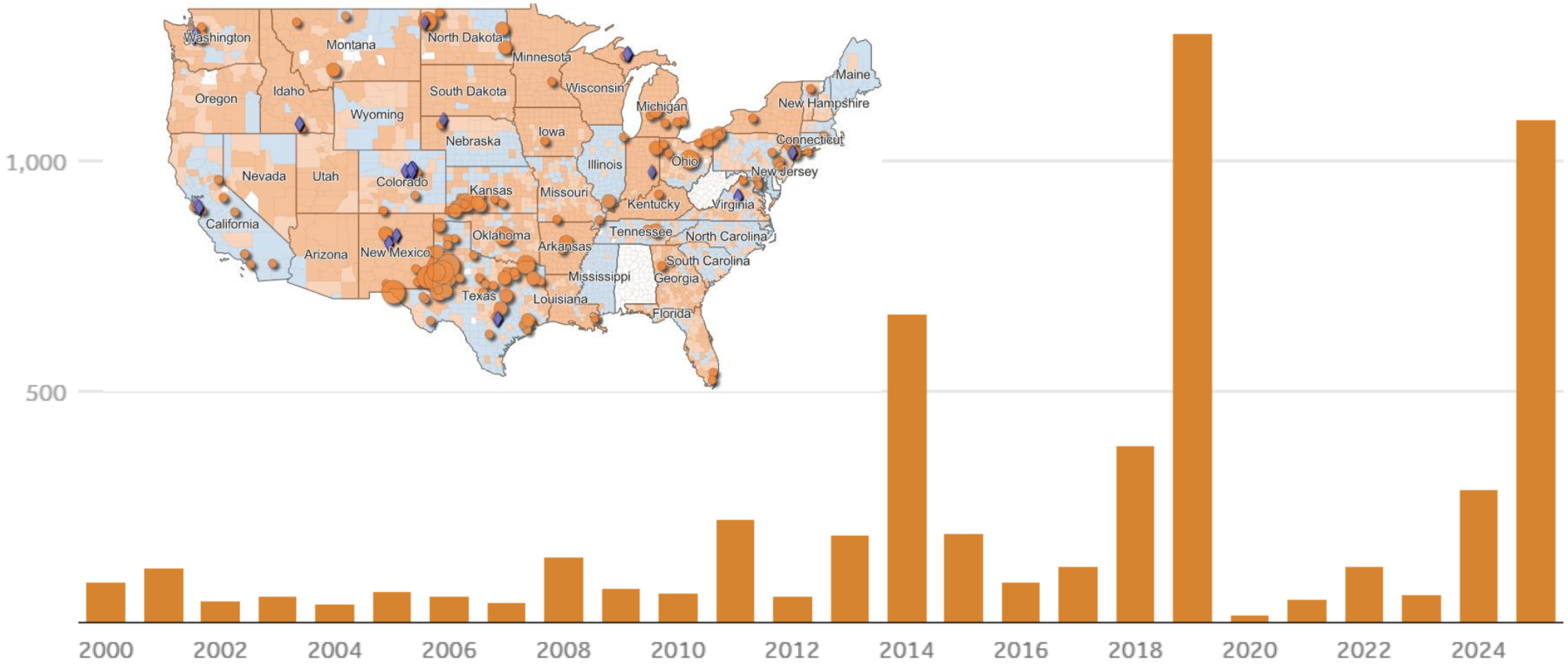
U.S. Measles Weekly Reported Cases Accelerating Again



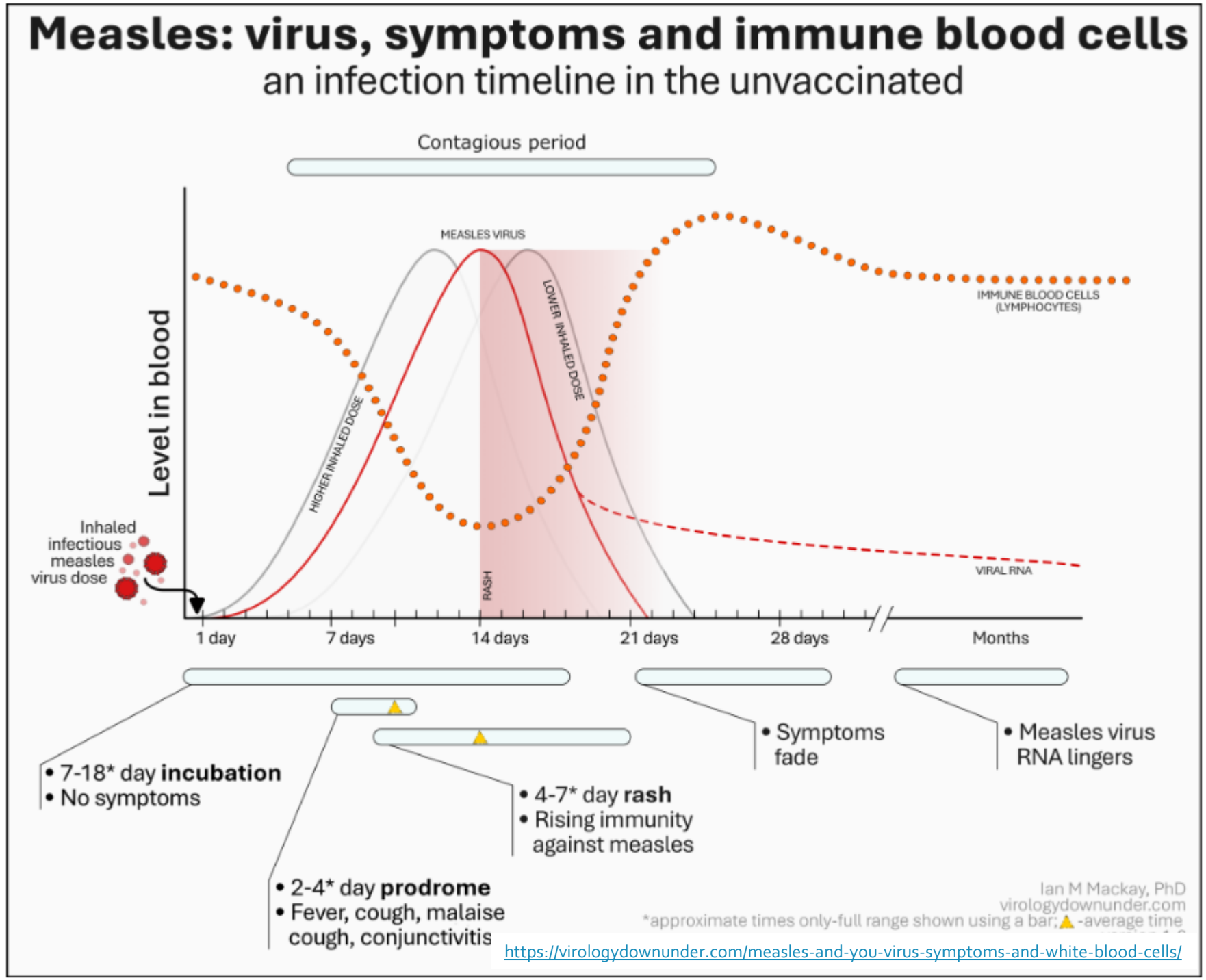
U.S. Measles Annual Reported Cases

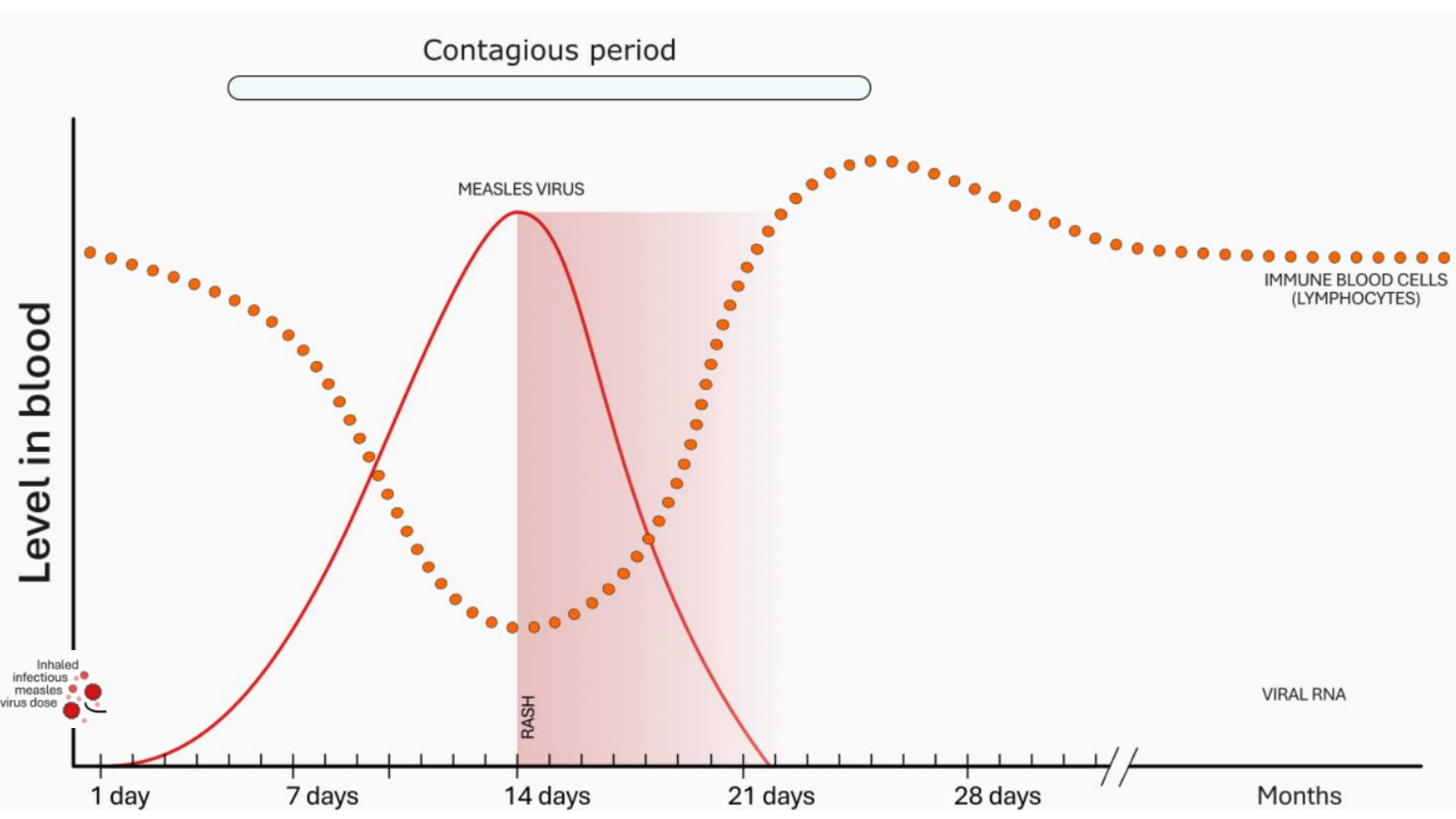
Confirmed measles cases by year, 2000–2025

There have been 1,088 positive measles cases in 2025.



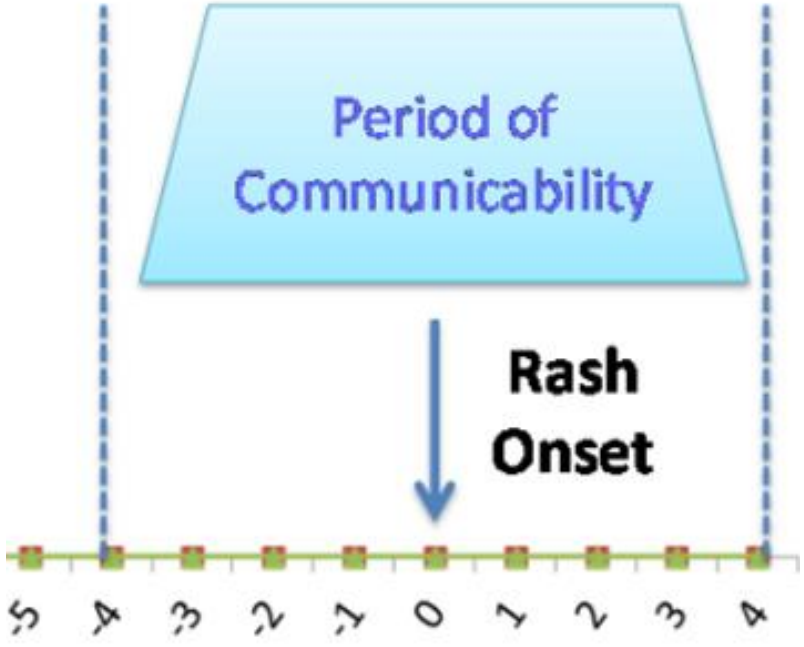
CDC data as of May 30.


Measles: virus, symptoms and immune blood cells
an infection timeline in the unvaccinated
Contagious period
Level in blood
MEASLES VIRUS
HIGHER INHALED DOSE
LOWER INHALED DOSE
RASH
IMMUNE BLOOD CELLS (LYMPHOCYTES)
VIRAL RNA
Inhaled infectious measles virus dose
1 day
7 days
14 days
21 days
28 days
Months
• 7-18* day incubation
• No symptoms
• 2-4* day prodrome
• Fever, cough, malaise cough, conjunctivitis
• 4-7* day rash
• Rising immunity against measles
• Symptoms fade
• Measles virus RNA lingers
Ian M Mackay, PhD
virologydownunder.com
*approximate times only-full range shown using a bar; ▲-average time
https://virologydownunder.com/measles-and-you-virus-symptoms-and-white-blood-cells/


Contagious period
MEASLES VIRUS
IMMUNE BLOOD CELLS
(LYMPHOCYTES)
Level in blood
Inhaled
infectious
measles
virus dose
RASH
VIRAL RNA
1 day
7 days
14 days
21 days
28 days
Months

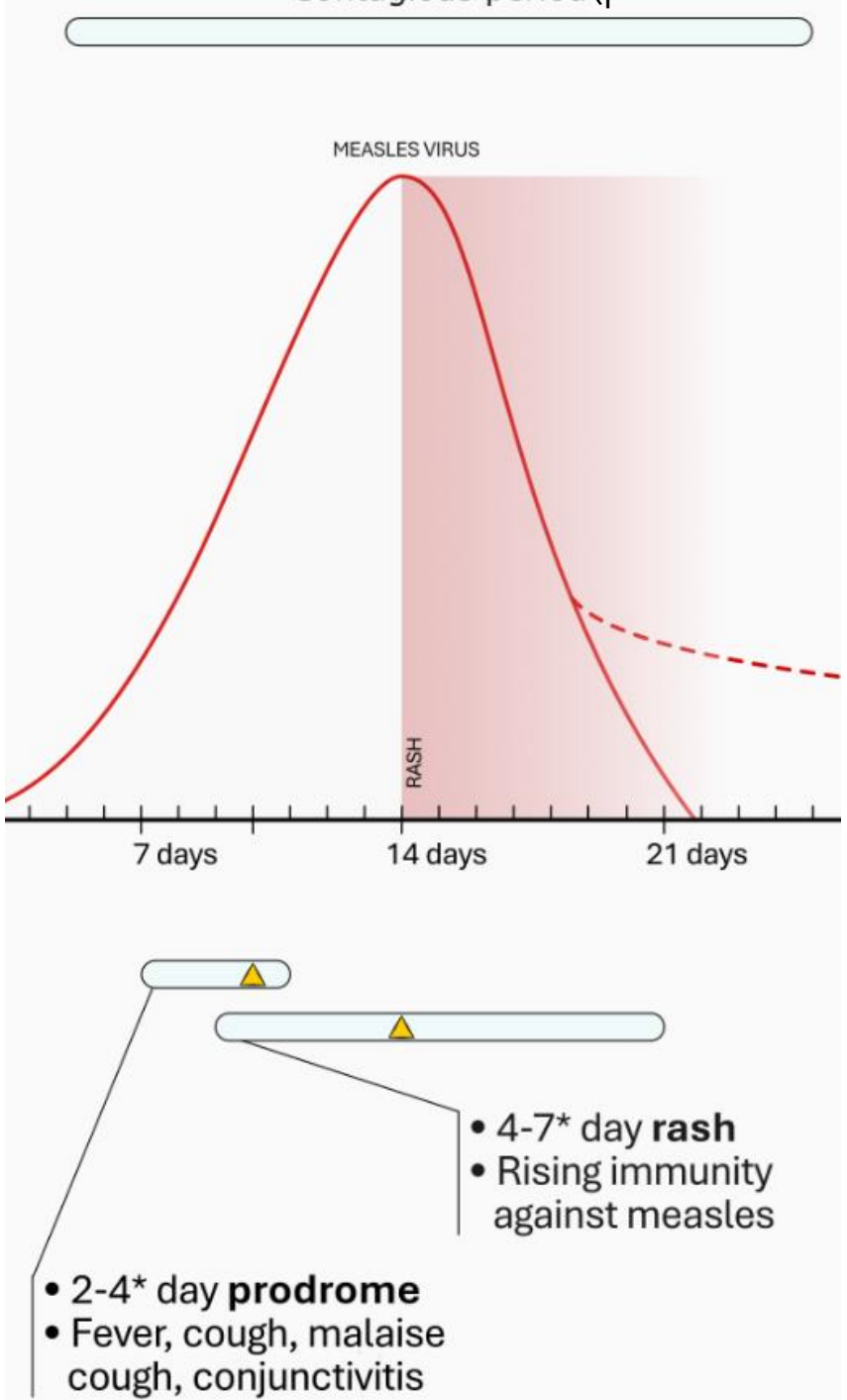
Measles Contagious Period

- CONTAGIOUS from the first symptom onset (any of the 3C, F, K), usually up to 4- 5 days prior to rash onset, and remain contagious for at least 4 days after rash onset.
- Not considered contagious on the 5th day AFTER rash onset.



Measles Contagious Period

Theoretically possible duration of the Contagious period (person's immune system determines the rash start)



The Measles "Maculopapular" Rash, Red & Raised (and starting on the face /hairline)

Measles rash on a child's face.

The child's forehead shows the characteristic maculopapular rash associated with measles.

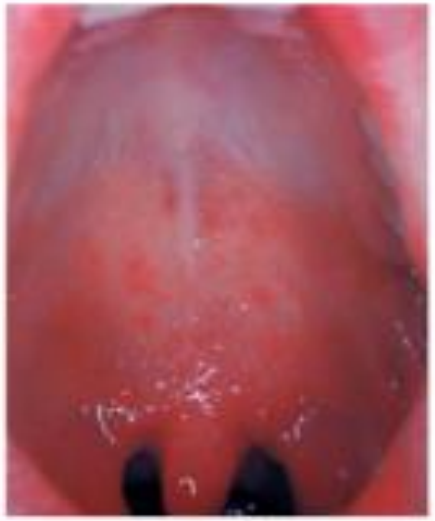
Povorozniuk Liudmyla / Getty Images

The Measles Rash (trunk)

The Measles Rash: Trunk (Adult)

Measles: Koplik Spots

Photos of Measles and People with Measles



Patient who presented with Koplik's spots on palate due to pre-eruptive measles on day 3 of illness

Face of boy after 3 days with measles rash

Skin of a patient after 3 days with measles rash

Child with measles rash after 4 days

Face of child with measles

Eyes of child with measles

Skin sloughing off of a child healing from measles infection

cdc.gov/measles/symptoms/photos.html

https://www.cdc.gov/measles/hcp/clinical-overview/index.html

TEST FOR MEASLES

Think Measles, Isolate and Test: (1B ∧ 1C) + (D V E V F)

one B AND one C PLUS D OR E OR F (WA DOH)

Washington State Department of HEALTH

	(Fever deemphasized)	Yes	No	Comments
A)	**What is the highest temperature recorded?**		°F	Fever onset date: ____/____/_____
B)	**Does the rash have any of the following characteristics?**			Rash onset date: ____/____/_____
	Was the rash preceded by one of the symptoms listed in (C) by 2-4 days?			Measles rashes are red, maculopapular rashes that may become confluent – they typically start at hairline, then face, and spreads rapidly down body.
	Did fever overlap rash?			
	Did rash start on head or face?			
C)	**Does the patient have any of the following?**			Rash onset typically occurs 2-4 days after first symptoms of fever (≥101°F) and one or more of the 3 C's (cough, conjunctivitis, or coryza).
	Cough			
	Runny nose (coryza)			
	Red eyes (conjunctivitis)			
D)	**Unimmunized or unknown immune status?**			Dates of measles vaccine: #1 ____/____/_____ #2 ____/____/_____
E)	**Exposure to a known measles case?**			Date and place of exposure:
F)	**Travel, visit to health care facility, or other known high-risk exposure in past 21 days?**			See local health department for potential exposure sites.

✓ **Measles should be highly suspected if you answered YES to at least one item in B and C, PLUS a YES in D or E or F. IMMEDIATELY:**

Evaluating a patient presenting with rash when there is no local measles transmission[1]

START HERE

Needs ALL 3:
- ❑ Fever[2]
- ❑ Generalized, maculopapular rash
- ❑ No vesicular lesions / vesicles[3]

No → **Measles unlikely. If vesicular rash, consider varicella or alternative cause of rash.**

Yes

Epidemiologic risk for measles in the 21 days before rash?
ANY of the following:
- ❑ International travel in last 21 days
- ❑ Domestic travel in last 21 days to an area with known measles transmission
- ❑ Known exposure to measles

No → **Measles clinical criteria?[4]**
- ❑ Fever[2] and rash
  AND
- ❑ Cough, runny nose, OR conjunctivitis

No → **Measles unlikely. If measles still suspected, contact state or local health department for guidance.**

Yes

Received MMR vaccine in the last 21 days?

Yes → **Likely a reaction to MMR vaccination[5]**

No

Prior measles vaccination?
- ❑ Age ≤6 years: 1 dose MMR*
- ❑ Age >6 years: 2+ doses MMR

*or other measles-containing vaccine

Yes → **Measles uncommon among people with age-appropriate vaccination. Measles can occur among vaccinated people, but generally during intense exposure (e.g., daycare or household exposure).**

If measles suspected based on clinical presentation or severity of illness, contact state or local health department for guidance.

No → **Suspect measles. Immediately contact local or state health department to discuss testing options. See Testing Recommendations.**

Yes

Suspect measles. Immediately contact local or state health department to discuss testing options. See Testing Recommendations.

Notes

1. This testing algorithm is intended to be used by bedside providers in settings where there is not local measles transmission. This assumes that the pre-test probability for most people without known epidemiologic risk for measles and who do not meet case criteria will be low. In settings with active measles transmission, the threshold at which to pursue testing may be lower, and a more permissive algorithm could be considered.
2. Either a measured or patient/family-reported fever is adequate; fever may not be measured at the time of healthcare evaluation due to normal fluctuation or to use of anitpyretics (e.g., ibuprofen).
3. A vesicular rash is not consistent with measles, and should prompt consideration for other causes of rash (e.g., varicella/chickenpox)
4. Measles clinical criteria (per CSTE* case definition) include ALL of the following:
   - ❑ Generalized maculopapular rash
   - ❑ Fever
   - ❑ Cough, coryza (runny nose), or conjunctivitis (also known as the "3 C's")
5. Up to 5% of MMR recipients will get a short-lived, mild febrile rash. This is more common with the first dose of MMR. People who experience this vaccine reaction are not contagious to others around them. If a person has received MMR within 21 days before rash onset, but also has epidemiologic risk for measles, then specialized testing may be required and should be discussed with local or state public health authorities.

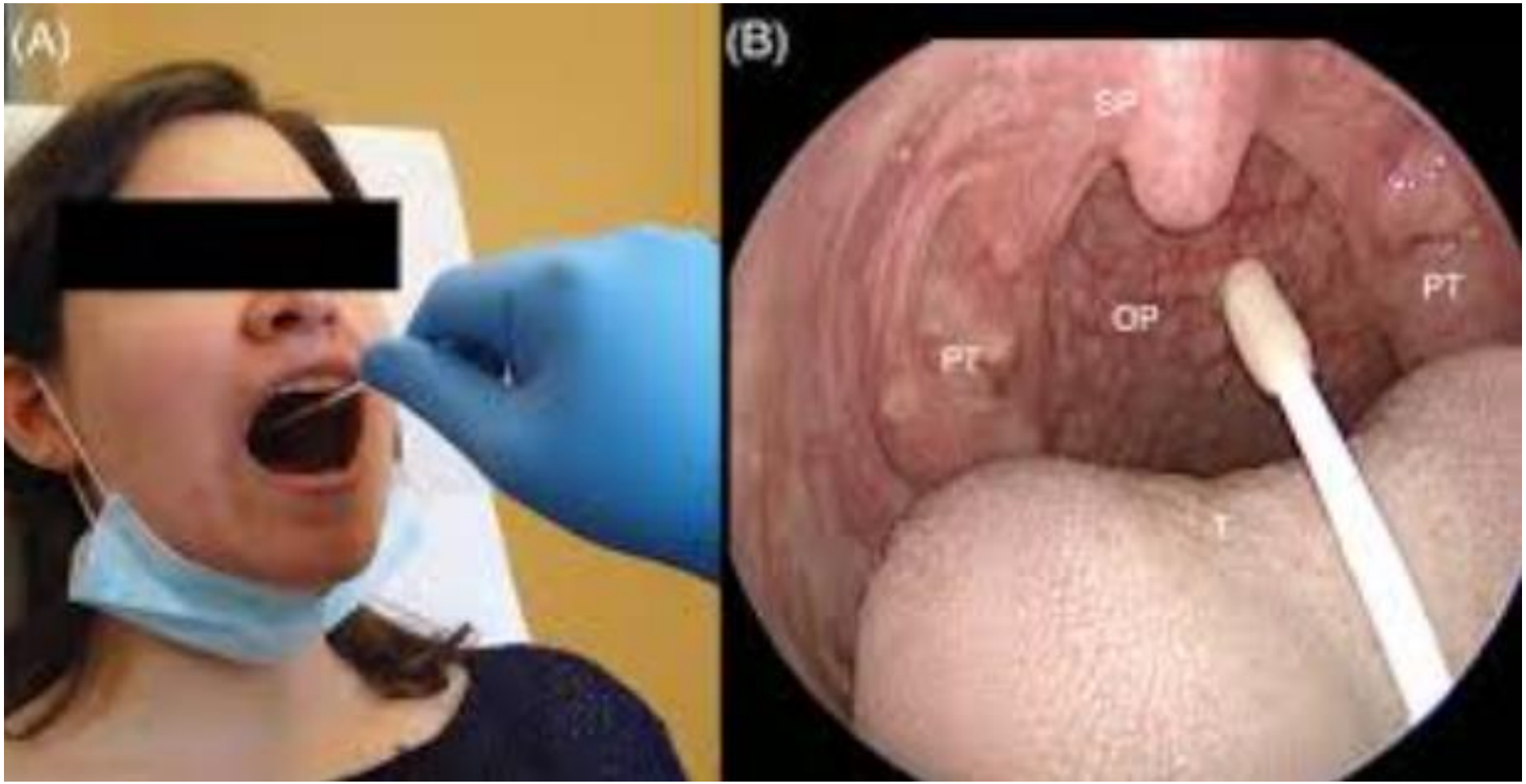
*CSTE: Council of State and Territorial Epidemiologists: https://ndc.services.cdc.gov/case-definitions/measles-2013/

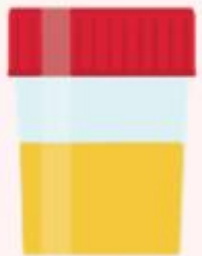
Get Ready: Measles Testing 1-2-3

- Test all persons with measles-like disease (Call Public Health NOW).
- **Collect a nasopharyngeal (NP) or oropharyngeal/throat (OP) swab for measles RT-PCR (ASAP, up to 9 days after rash onset)**
  - ONLY synthetic swab, plastic stick, place into 2-3ml of VTM, tighten, seal.
  - Negative PCR does NOT rule out measles.
- **Collect 50cc of urine (20ml minimum)**
  - Voided into a sterile container, stored refrigerated (not frozen).
  - Urine measles PCR usually for all >72 hours after rash onset.
- **Obtain serum for measles IgM and IgG**
  - Helps in most persons under investigation in low-incidence setting.
  - Positive IgM does not always mean measles.

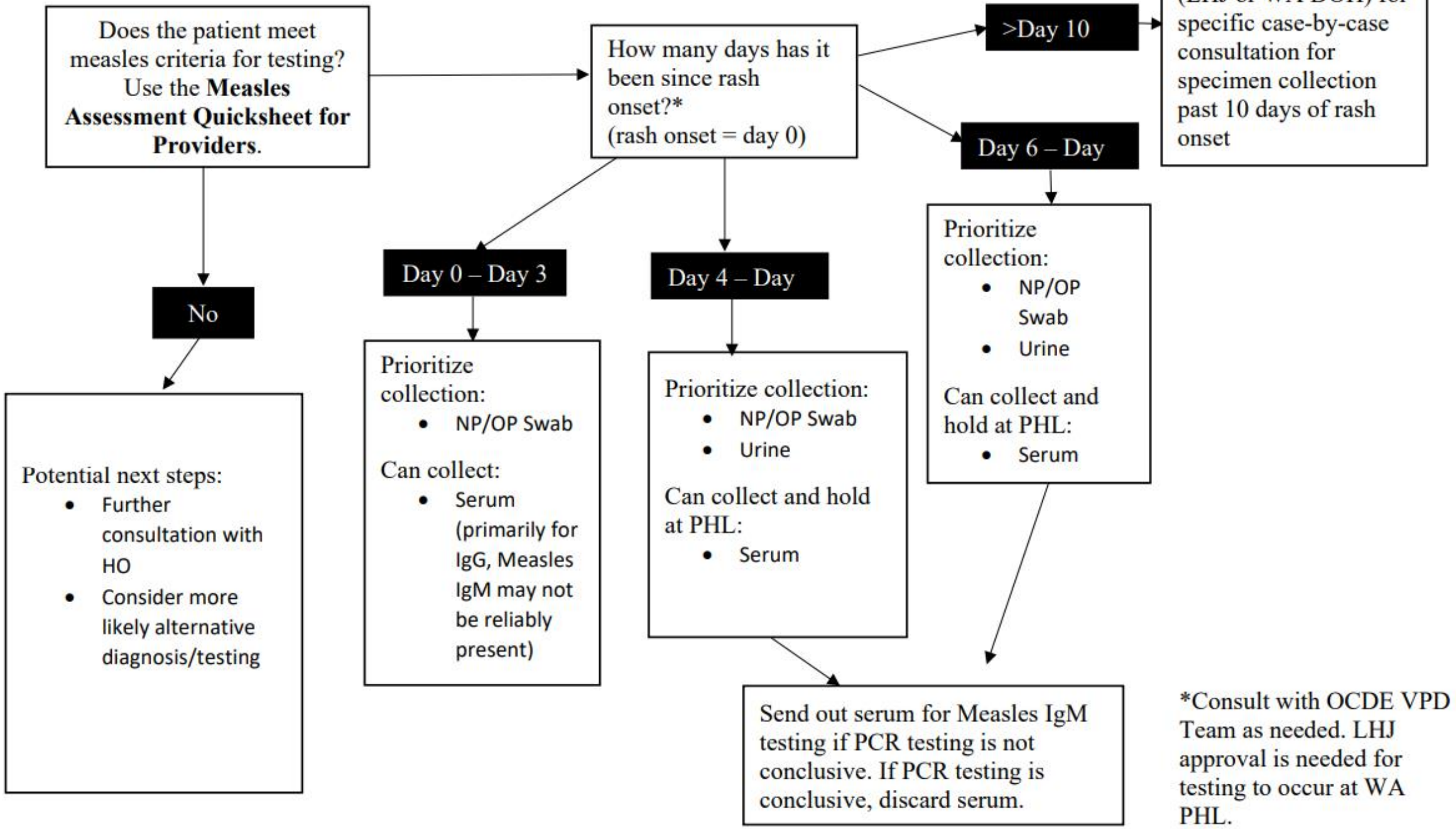
Nasopharyngeal Swab Collection (the correct way)

Oropharyngeal Swab Collection (the correct way)



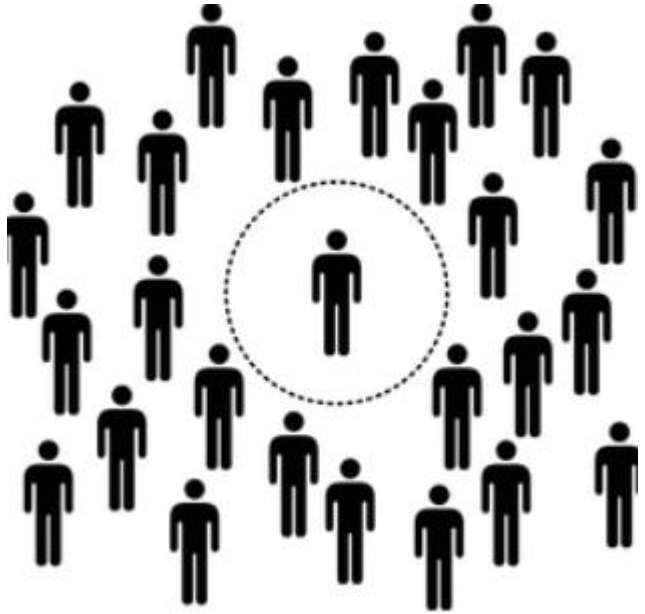
	Measles Tests		When to Collect?
Acute Disease	PCR	Nasopharyngeal (NP) or Throat (OP) Swab 	As soon as possible upon suspicion of measles: ideally **0-3 days** after rash onset, up to **10 days** after rash onset.
Acute Disease	PCR	Urine 	**Within 10 days** of rash onset **Collecting a urine specimen along with an NP/OP swab may improve test sensitivity, especially if at the end of the PCR detection window.*
Acute Disease	IgM	Serum 	Collect with specimen for PCR. Can be negative up to 3 days after rash onset. IgM **can be detected for 6–8 weeks** after acute measles.
Immunity	IgG	Serum 	When assessing evidence of immunity, can be detected ~**2 weeks** after MMR vaccination

MEASLES SPECIMEN COLLECTION AND TESTING DECISION TREE



*Consult with OCDE VPD Team as needed. LHJ approval is needed for testing to occur at WA PHL.

SEPARATE THE SICK FROM THE HEALTHY



Get Ready Healthcare: Person with Suspected Measles on Premises

WHAT TO DO IF YOU HAVE A SUSPECTED CASE

1. **Immediately mask and isolate the patient** in a room with a closed door (negative pressure room if available). Follow standard and airborne precautions.
2. Only allow health care workers with **presumptive evidence of measles immunity*** to attend the patient; they must use N-95 masks.
3. **Evaluate the patient and order measles confirmatory testing** (collect a throat or nasopharyngeal swab for RT-PCR and serum for IgM measles testing).
4. **Contact infection control** if available at your facility.
5. **Immediately report this suspected case** to your local and/or state health department.

Get Ready Schools: A Person with Measles on Premises

Immediately mask with N95 (both you and the person).

Place the person into an isolation (private) room.

Contact Public Health and plan for pickup and testing.

Both Schools and Healthcare: **IDENTIFY ALL EXPOSED**

- Review attendance records, visitor logs, patient schedules for all persons on premises at the time of measles present (names; address; DOB; Phone; MMR vaccination dates).
- Distribute the Public Health provided measles exposure notification to families of children, patients, staff, and volunteers.
- Enforce Public Health exclusion order for all exposed and staff without immunitiy

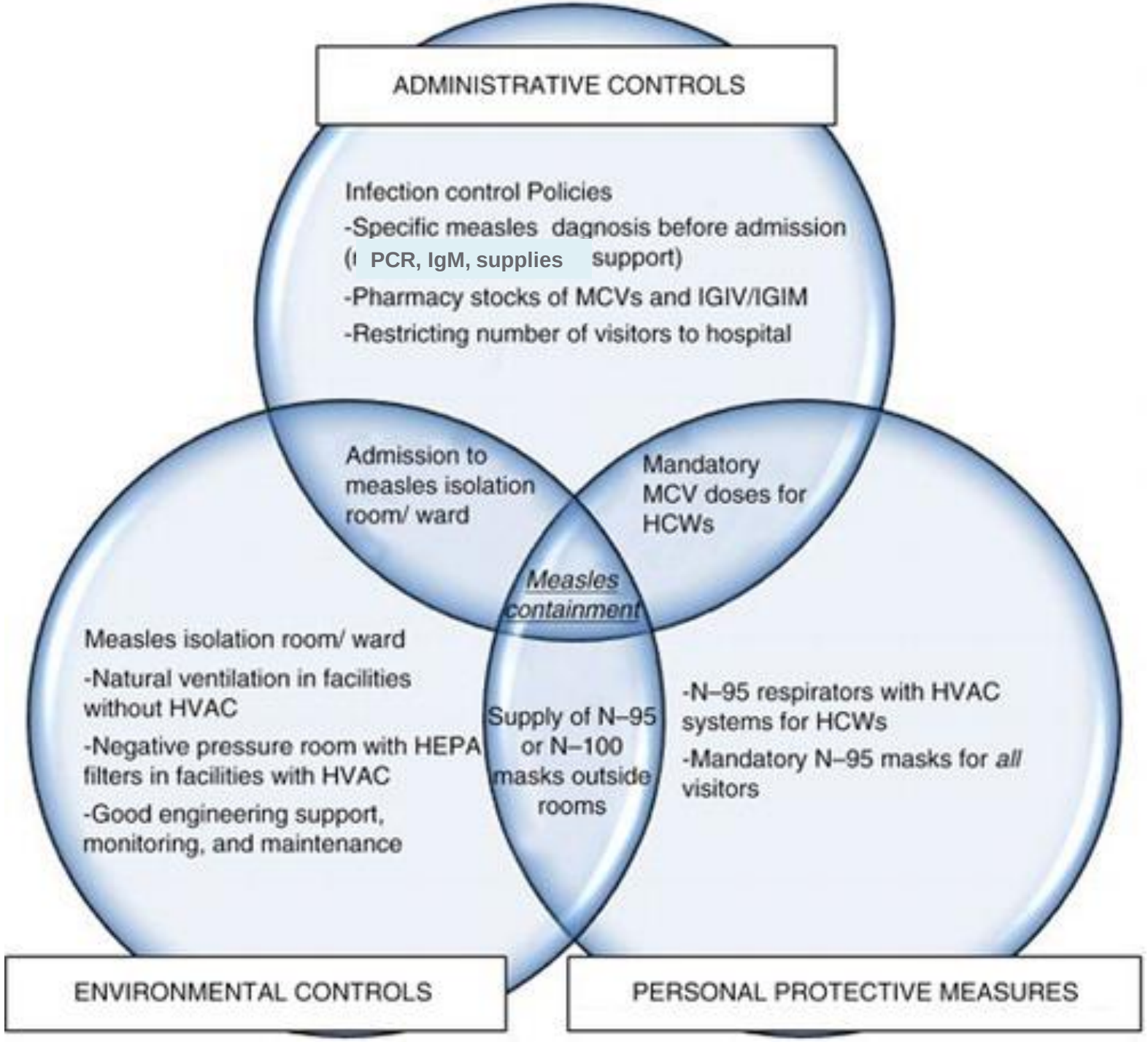
Get Ready Healthcare: Person with Measles or Exposure to Measles (Contact) on Premises

- OUTPATIENT VISIT FOR MEASLES OR CONTACT ("we think we have measles" or "we were in contact with measles and have (any) symptoms"):
  - ALWAYS call ahead (school nurse, patient, PH);
  - EVERYONE to wear N95 (patient, caregivers, staff);
  - ALWAYS use an alternate entry (avoid patient care areas);
  - ALWAYS use a designated ISOLATION room (no use x 2H).

Get Ready Healthcare: Hospitalized Person with Suspected Measles

- HOSPITALIZED PERSON WITH MEASLES
  - **Standard Precautions + Airborne Precautions**
    - until 4 days have passed since the onset of the rash (Day 0)
    - or for the duration of illness if the patient is immunocompromised
  - Activate All Available Containment Options
    - Administrative, Environmental and Personal Protective Controls.

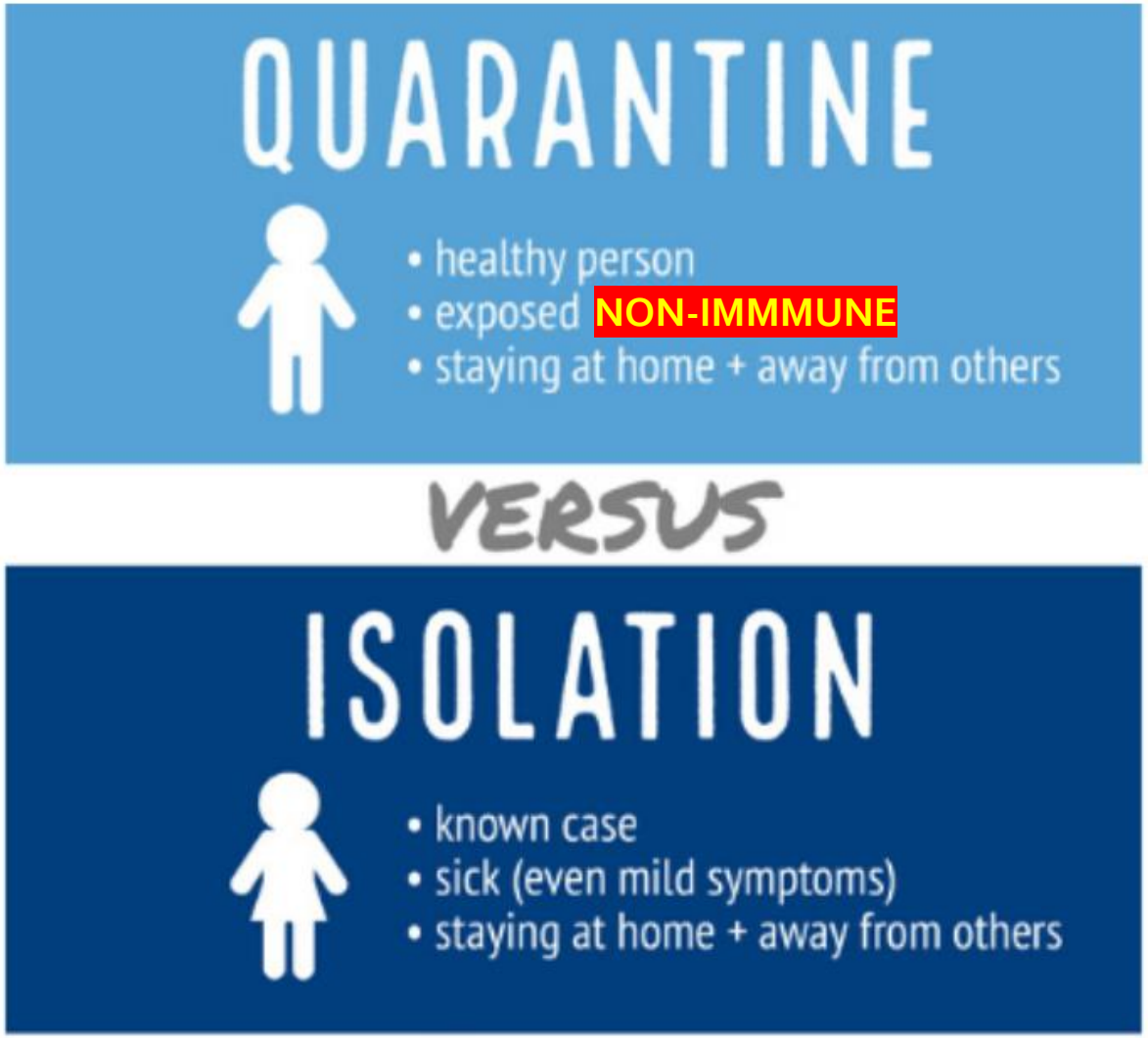
Get Ready Healthcare: Components of Measles Containment Plan (Infection Control)



https://www.tandfonline.com/doi/full/10.3402/ehtj.v8.24173

Get Ready: Exclusion of Measles Cases and Contacts

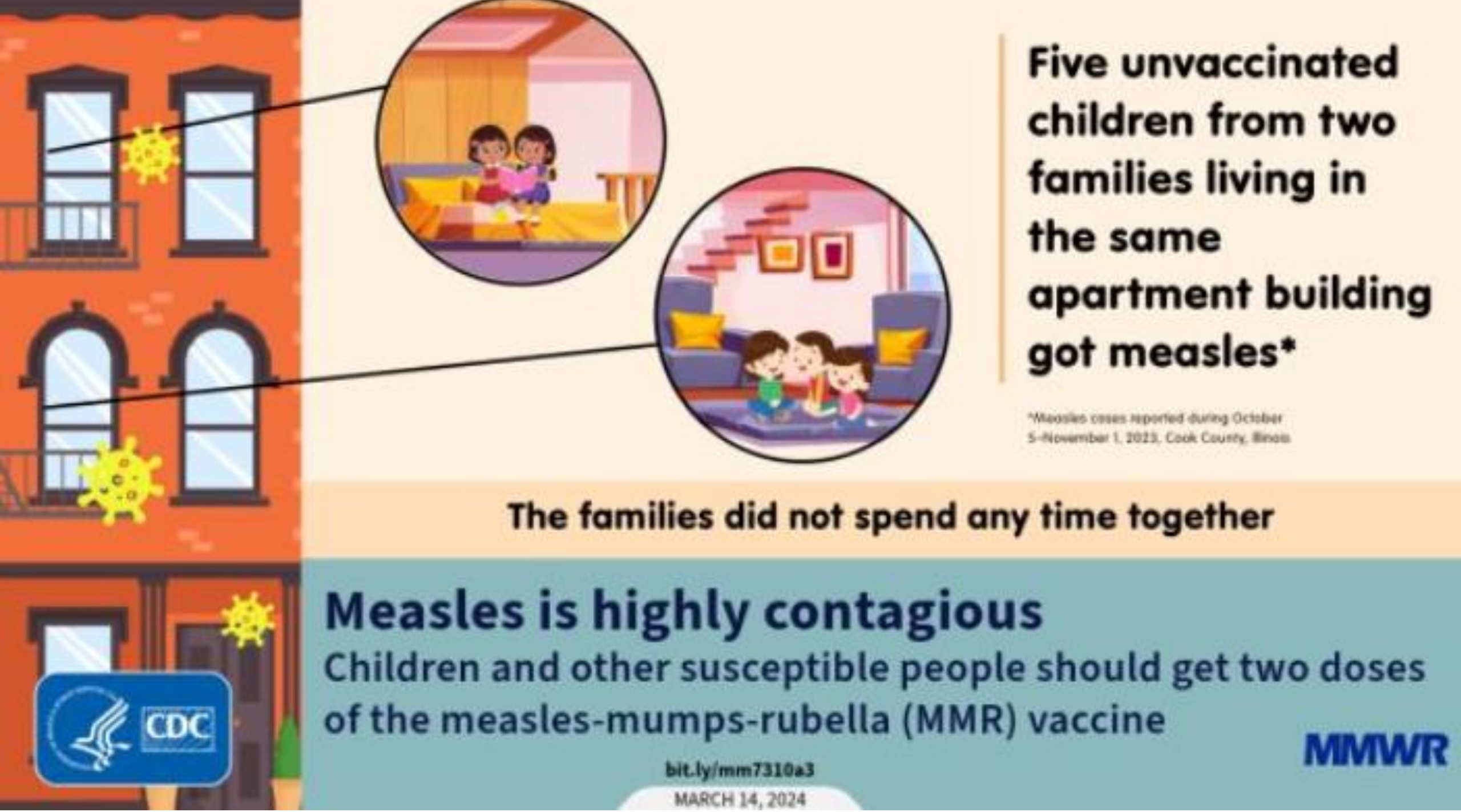
EXCLUSION TYPE:



ISOLATE THOSE WITH MEASLES

ISOLATE: until 5th day after rash onset (Day 0)

- Anyone with Measles (suspected or confirmed): ISOLATE during CONTAGIOUS PERIOD (from symptoms onset until 5th day since the rash), or all symptomatic days if immunocompromised, AND:
  - **stay home and do NOT go to childcare, school, work, public places;** and
  - **prohibit contact with susceptible children (particularly infants), pregnant women, and immunosuppressed individuals;** and
  - **avoid contact with susceptible family members and visitors;** and
  - **avoid exposing people at health care facilities by calling ahead to arrange preventing contact with others.**


Five unvaccinated children from two families living in the same apartment building got measles*
*Measles cases reported during October 5–November 1, 2023, Cook County, Illinois
The families did not spend any time together
Measles is highly contagious
Children and other susceptible people should get two doses of the measles-mumps-rubella (MMR) vaccine
CDC
MMWR
bit.ly/mm7310a3
MARCH 14, 2024

QUARANTINE /EXCLUDE THOSE NOT IMMUNE TO MEASLES

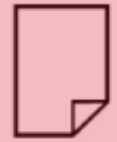
QUARANTINE: Persons Not Immune to Measles

- WAC 246-105-080: students and staff at any childcare or school in WA who have been exposed (to measles) and are not immune must stay home.
  - Staying home reduces the risk of spread to others who are unprotected (infants, pregnant and immunosuppressed).
- Exclusion starts 7 days after first exposure through 21 days after the last exposure (or 21 days after the last case in the building).
  - Exclusion may need to be significantly longer than 21 days.
- It's important that those excluded stay home from all public activities, not just school and childcare.

Number Of People With Measles Needed Before Non-immune Children /Staff Will Be Excluded

- **ONE (1)** 
  - Because measles is one of the most contagious diseases (with consequences to many), **anyone with a potential exposure and not immune to Measles must be excluded** when even **one** case is identified.

QUARANTINE: So, who is immune? (the easy version)

1	2	3
Birthday before 1957	Documented vaccinations	Lab test results
		
People born before the introduction of measles vaccine probably had measles virus.	Record of a measles vaccination: • Children ages 1-3 = 1 dose • Students ages 4+ = 2 doses • Most adults = 1 dose	A lab test that shows immunity through vaccination or through previous measles infection and a full recovery.

❁ Healthcare providers, international travelers, and students need two doses of MMR.

❁ Measles doses administered between 1963 and 1967 are considered invalid and must be repeated.

QUARANTINE: "Who is immune" gets complicated

Determine measles immune status of exposed contacts. Persons are considered immune to measles if they https://www.cdc.gov/vaccines/pubs/surv-manual/chpt07-measles.html

a. were born before January 1, 1957 (except for health care workers who should consider receiving at least one dose of measles-containing vaccine), or

b. ~~have documentation of health care provider-diagnosed measles, or~~

c. have laboratory evidence of immunity to measles, or

d. have written documentation of adequate vaccination to measles that includes the date of administration (self-reported doses or parental history of vaccination alone are not acceptable).

- Preschool children: one MMR given after 12 months of age
- K–12 and adults at high risk (i.e., post-high school educational and college students, healthcare personnel, and international travelers): 2 MMR, with the first dose given on or after the first birthday and with a minimum of 28 days between the first and the second dose.
- All other adults born during or after 1957: history of having received at least one dose of live measles virus vaccine on or after the first birthday*

* Persons who were vaccinated with an inactivated vaccine that was available from 1963-1967, and have not been re-vaccinated, may however be at risk for measles.

QUARANTINE: Exclusion of Non-immune (Susceptible) Persons Exposed to Measles in WA

- **HEALTHCARE SETTING: determine**
  - Exclude ALL SUSCEPTIBLE starting **5 DAYS after FIRST POSSIBLE EXPOSURE** until 21 days have passed (or 21 days after last patient in-house, prohibit patient care while cases in the community).
- **SCHOOL AND CHILDCARE SETTING**
  - Exclude ALL SUSCEPTIBLE starting **IMMEDIATELY or 5 DAYS (depending on the situation) after FIRST POSSIBLE EXPOSURE** until 21 days have passed (and/or 21 days after the last case in the building).

EXCLUDE (quarantine) Non-immune (Susceptible) Persons Exposed to Measles in WA

- WA DOH Guidelines do NOT provide for a return to school or healthcare work of non-immune persons exposed to measles:

THE EXPOSED MUST STAY OUT FOR 21 DAYS after exposure
(regardless of any vaccine received AFTER the exposure; no provision for an early return before 21 days are up in Washington, unless found as having been immune prior to the exposure)

PROVIDE POST-EXPOSURE PROPHYLAXIS (PEP)

Get Ready: Post-Exposure Prophylaxis (PEP) in All

- After exposure to measles, the non-immune or the partially immune **SHOULD BE OFFERED PEP as soon as possible:**
  - **MMR vaccination within 72 hours of exposure,** or
  - **Immune globulin (IG) within 6 days of exposure**
    - for those at higher risk of complications: infants, pregnant women, and the immunocompromised

- The choice of PEP is based on elapsed time from exposure or medical contraindications to vaccination.

Post-Exposure Prophylaxis for Measles

If you are exposed to measles and are 'susceptible'—unvaccinated, under vaccinated, or do not know your vaccination status—you may be able to receive medical intervention that prevents disease or reduces symptoms.

Timing is important!

There are two possible options for post-exposure prophylaxis:

- One dose of measles, mumps, and rubella (MMR) vaccine, **administered within 72 hours of exposure**.

- Immunoglobulin, administered **within 6 days of exposure**.

RETURN TO SCHOOL

Managing the Non-Immune Exposed at Schools

- All EXPOSED AND NON-IMMUNE students + school staff born in or after 1957 **will be excluded** and should be:
  - **vaccinated WITHIN 72 hours of exposure OR**
  - **receive IG WITHIN 6 days (infant, pregnant, immcom)**

- NOT EXPOSED + NON-IMMUNE should also be offered MMR ASAP.
  - Recommend a second MMR to all persons >1 y.o. with previous only one MMR as long as 28 days have passed since the first dose.

Managing the Partially Immunized + Exposed (School)

- Exposed with ONE prior MMR dose **CAN RETURN** to school or childcare after they receive their second dose of MMR
  - should be educated about symptoms of measles and told to stay home if symptoms develop.

- Exposed partially immunized persons (only ONE prior MMR) who continue to refuse the recommended measles vaccination(s) following exposure to measles **NEED TO BE EXCLUDED** from the school or childcare until 21 days after rash onset in the LAST CASE.

Managing the Return to School

- Excluded non-immune persons can return to school AFTER 21 DAYS of exclusion, provided there are no measles on premises and all non-immune and exposed have been RELIABLY excluded
  - If the process of identifying and excluding (because of additional cases) is not completed or is not reliable or feasible: a return of the non-immune must be delayed up to 21 days after the last case on premises.
  - If another case of measles occurs: the non-immune will be excluded again.
  - Non-immune status needs to be re-determined.

Role of the laboratory test (IgG) at schools

- Non-immune, previously unimmunized persons exposed to measles **can obtain IgG titers ASAP** to determine immunity.
  - Call healthcare ahead of time, inform of exposure, wear N95 mask.
- Home quarantine /exclusion is REQUIRED while awaiting results.
- IgG test results:
  - If the test is **positive** for measles IgG: **Can STAY AT WORK**
  - If the test is **negative** for measles IgG: **EXCLUDE days 5 -21** after the last exposure, regardless of receiving vaccine within 72 hours or IG within 6 days of exposure.

RETURN
TO HEALTHCARE WORK

Managing those Exposed at Healthcare Work

- **Health care workers (HCWs) include:** volunteers, trainees, nurses, physicians, technicians, receptionists, and other clinical support staff in ANY patient care.
- **Immunity in HCWs:**
  - documented 2 doses of MMR for all (also preferred for those born prior to 1957), OR
  - laboratory evidence of immunity (blood test).

- Only HCWs with documented immunity to measles should enter the room of a suspected measles patient.

Managing those Exposed at Healthcare Work

- All exposed HCWs without a documented proof of measles immunity who choose to not test or vaccinate **will be excluded and MUST NOT RETURN to work**
  - starting on the **5th day after their first exposure**
  - through the **21st day after the last exposure**
    - Should only return to non-patient care areas or stay at home if still within 21 days since the last case in the facility or ongoing community transmission

Managing the Non-Immune Exposed HCWs

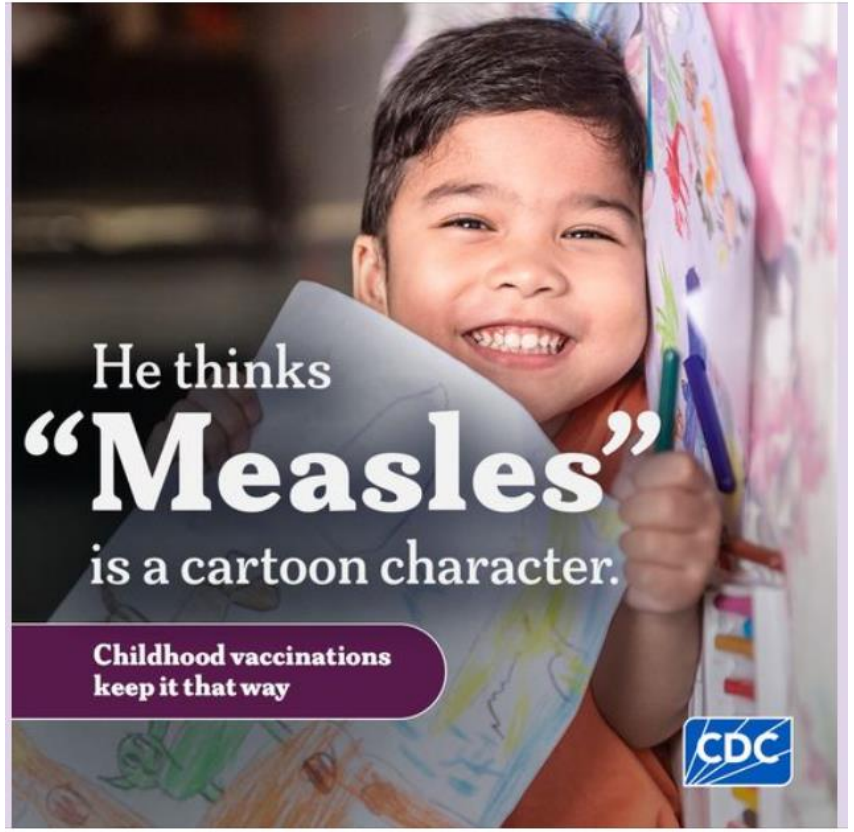
- Exposed HCW **born on or after January 1, 1957** without prior MMR:
  - Give a dose of MMR immediately BUT NO LATER than 72 hours after exposure. Exclude all who do not get MMR within 72 hours.
  - THEN also check measles IgG ASAP to verify immunity:
    - If the test is **positive** for measles IgG: Can STAY AT WORK
    - If the test is **negative** for measles IgG: EXCLUDE days 5 -21 after the first exposure.
- Exposed HCW **born before January 1, 1957 +** no immunity evidence:
  - Measles IgG SHOULD BE CONSIDERED to verify immunity:
    - If the test is **positive** for measles IgG: Can STAY AT WORK
    - If the test is **negative** for measles IgG: EXCLUDE days 5 -21 after the first exposure (still give MMR preferably within 72 hours for any future exposure after return; timing!)

Managing the Partially Immunized Exposed HCWs

- Exposed HCWs with only **one documented MMR:** give an additional (second) dose of vaccine ASAP.
  - If the second dose can be **given within 72 hours of exposure**, consider the person immune: **Can STAY AT WORK.**
  - If MMR **cannot be given within 72 hours**, check **measles IgG** blood test.
    - If the test is **positive** for measles specific IgG: **Can STAY AT WORK**
    - If the test is **negative** for measles specific IgG: **EXCLUDE** from day 5 after the first exposure through day 21 after the last exposure.
      - If furloughing is not possible due to large numbers exposed, these staff should have their temperatures taken and prodromal symptoms checked DAILY when they come to work (5th through 21st day). Anyone with a fever, cough, coryza, or conjunctivitis should be excluded for the duration of symptoms and assessed for measles if a rash develops. This screening must be followed rigorously.

How to Prepare Now

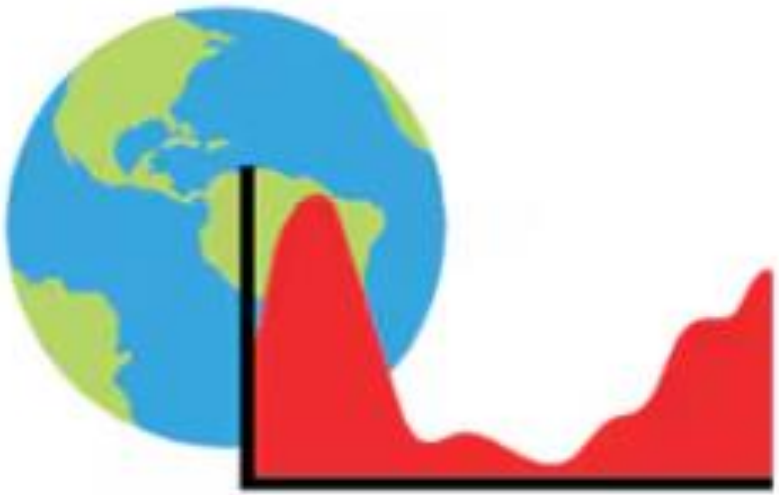
- Know the signs and symptoms of measles.
- Ensure students and staff have documented 2 doses of the MMR vaccine, other proof of immunity (or a legal exemption) on file.
- Gather and keep UTD immunization and exemption records for all.
  - Make sure these records are always current and available.
- Inform unvaccinated staff and families of unvaccinated children that they may need to stay home for 21 days or longer (after the last exposure or 21 days after the last measles on premises).
- Be prepared to recognize measles, test for it, separate the sick from the health, isolate, quarantine, and safely return to school or work.



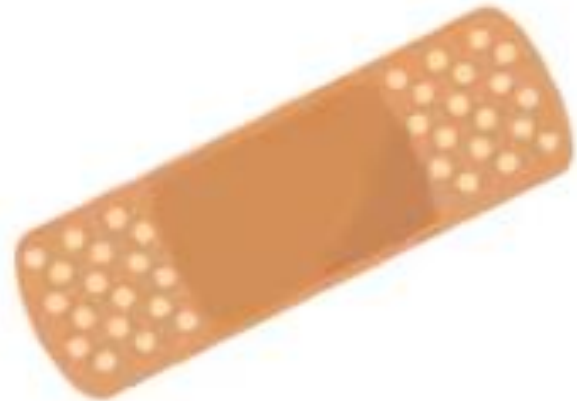
QUESTIONS AND ANSWERS

UNDERSTANDING THE RISK FOR OUR COMMUNITIES

Measles outbreak risk in the U.S. depends on two main factors:



Global measles activity



Declining MMR vaccination coverage in the U.S.

The best protection against measles is knowing IF you were vaccinated, WHEN you were vaccinated, and whether you should get an MMR vaccine.

Born before 1957

Nope. You were probably already exposed to measles.

Vaccinated between 1957-1962

Maybe. Check with your doctor.

Vaccinated between 1963-1967

Yes! The measles vaccine you received is considered ineffective and you will need another dose.

Vaccinated between 1968-1989

Maybe. Check with your doctor.

Vaccinated after 1989

Nope. If you received two doses, your vaccines are considered effective.

Did you know?

Two doses of measles vaccine (MMR) are **97% effective** at protecting people against measles and preventing complications.

Not sure about your vaccine status? Check with your doctor and remember, it's completely safe to get vaccinated, even if you already have immunity, either from infection or a previous vaccine.

Almost all people in the U.S. with measles* either traveled internationally or were around someone who traveled internationally

When travelers bring measles into the U.S., it can spread and cause outbreaks among people who are not vaccinated

Clinicians, offer measles vaccination to international travelers and unvaccinated people to keep measles from spreading in the U.S.

*Jan 1, 2020-March 28, 2024

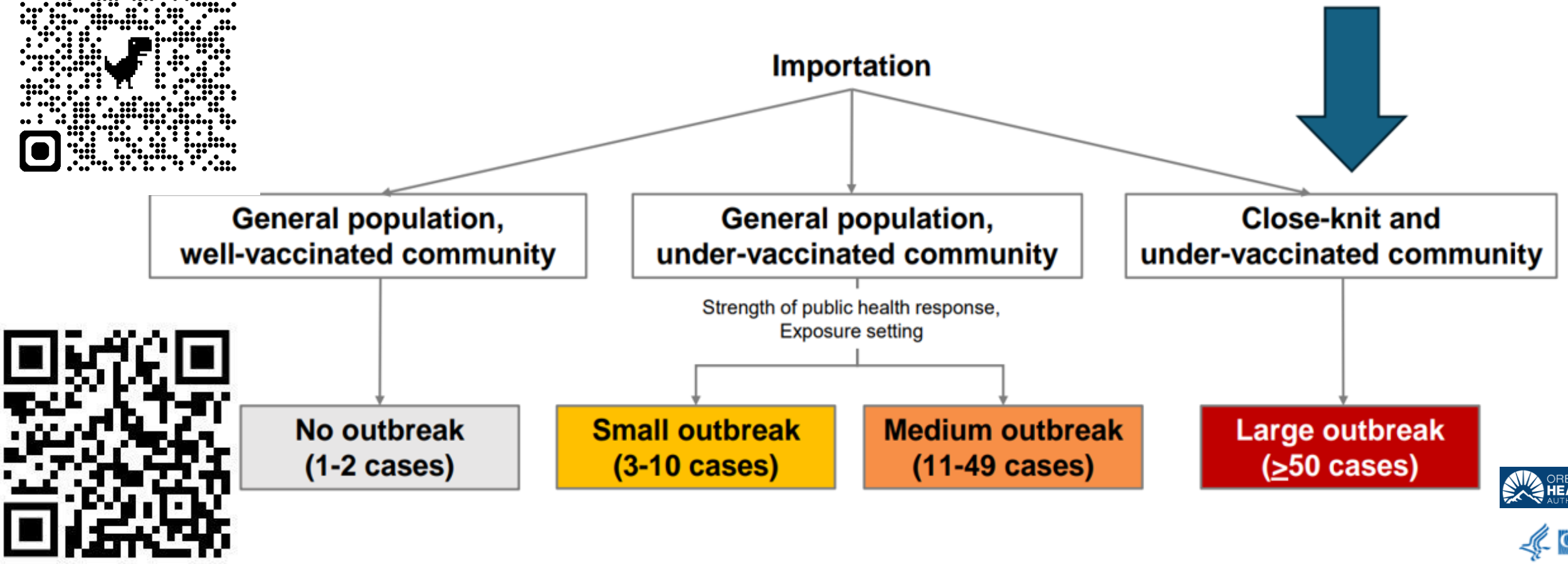
bit.ly/mm7314a1

APRIL 11, 2024

MMWR

Measles Outbreaks Categories (focus on the close-knit and hidden-away)

U.S. measles outbreaks generally fall into three categories



Measles: any neglected clusters in your schools?

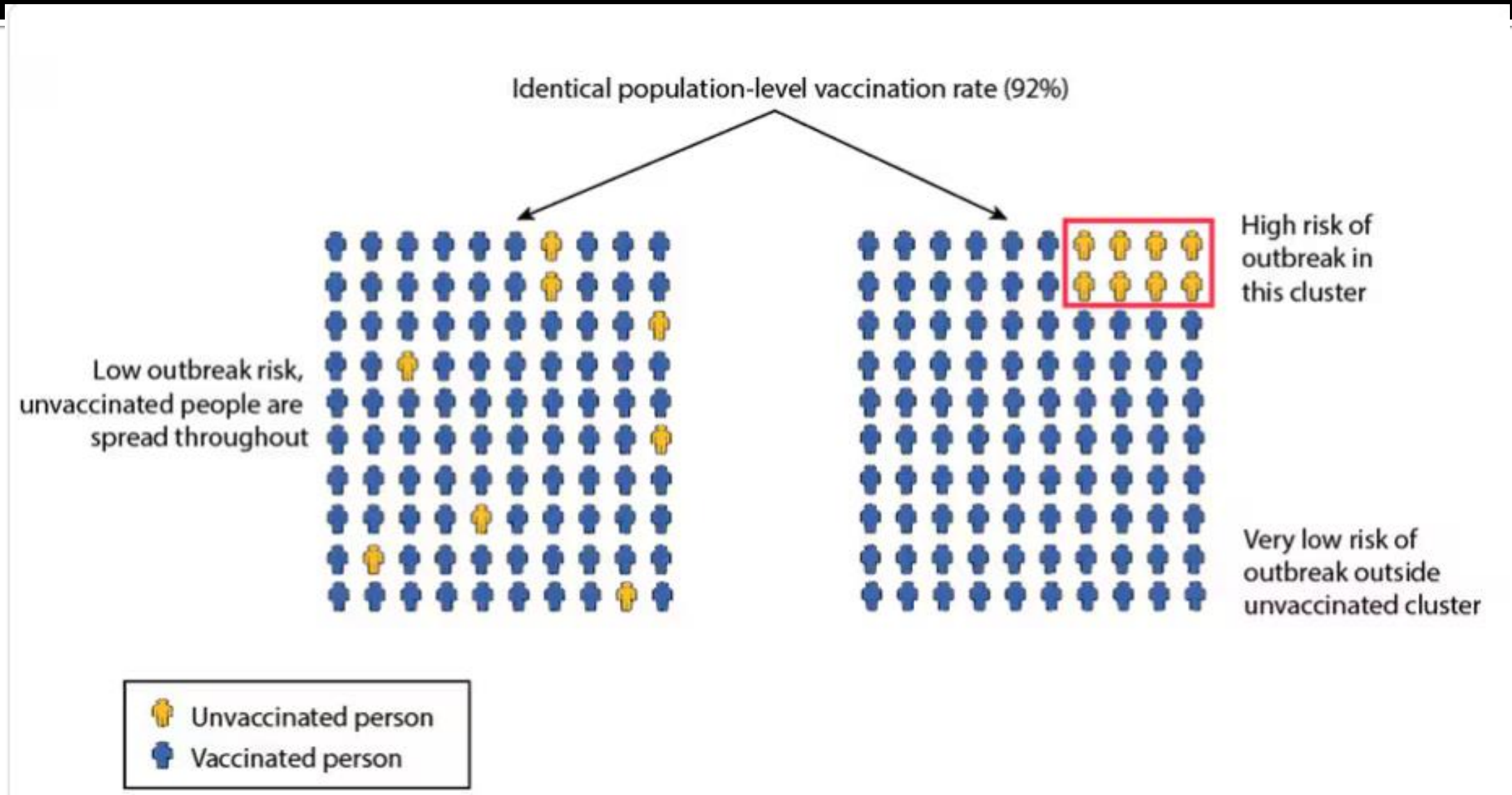
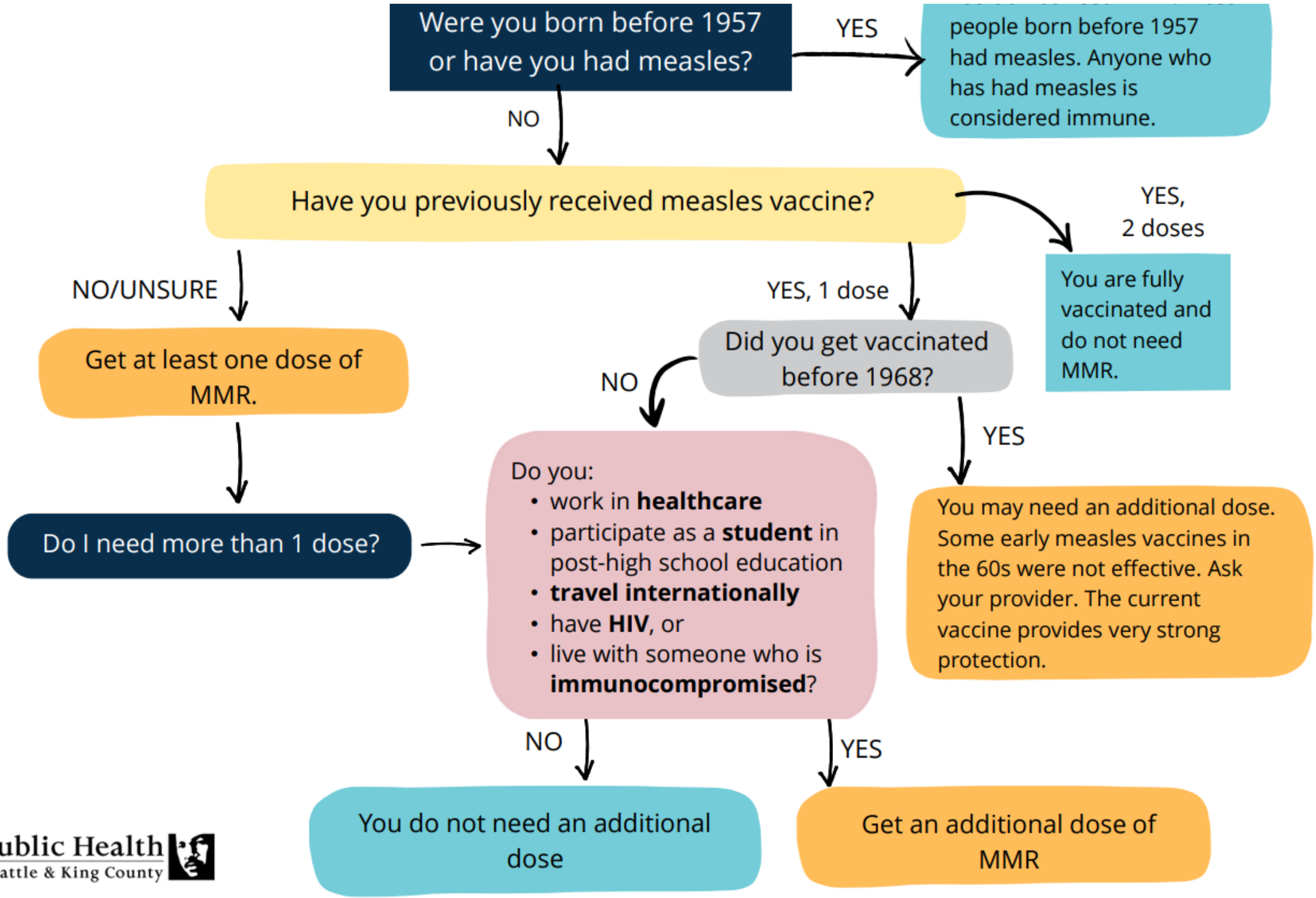


Table 1 below shows an example of a school with **100 children** and 1 infectious child, at different levels of MMR coverage. The model, a simplified version of the model used in this paper, assumes that the child with measles goes to school while infectious and there is no vaccination intervention.

MMR Coverage	# children susceptible	Chance of an outbreak
97%	6	16%
95%	8	29%
93%	10	36%
90%	13	51%
85%	18	61%
80%	22	64%
70%	32	78%

Table 1 below shows an example of a school with 100 children and 1 infectious child, at different levels of MMR coverage

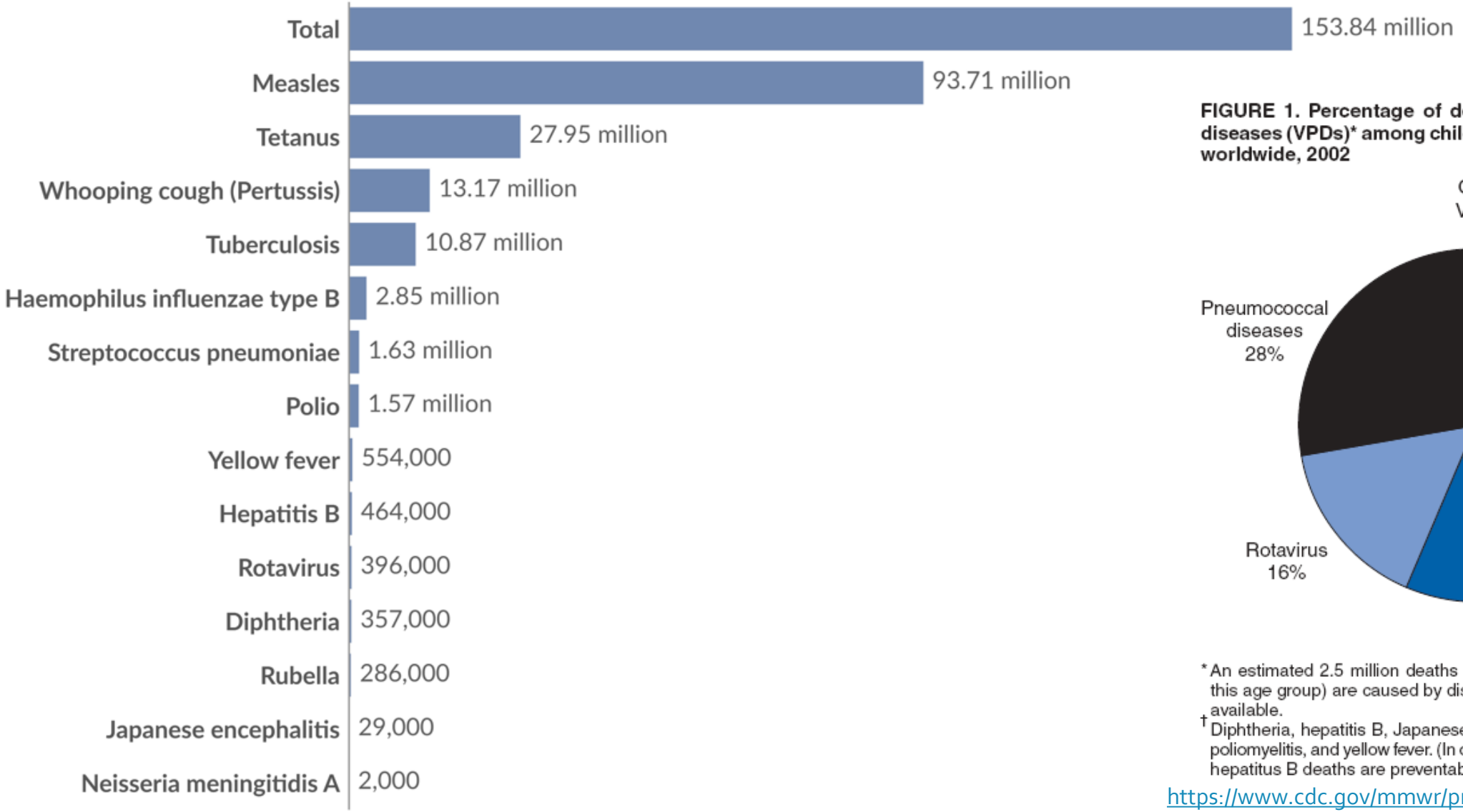


Public Health
Seattle & King County

Number of lives saved by vaccinations from 1974 to 2024, World

(excludes COVID-19 related deaths)

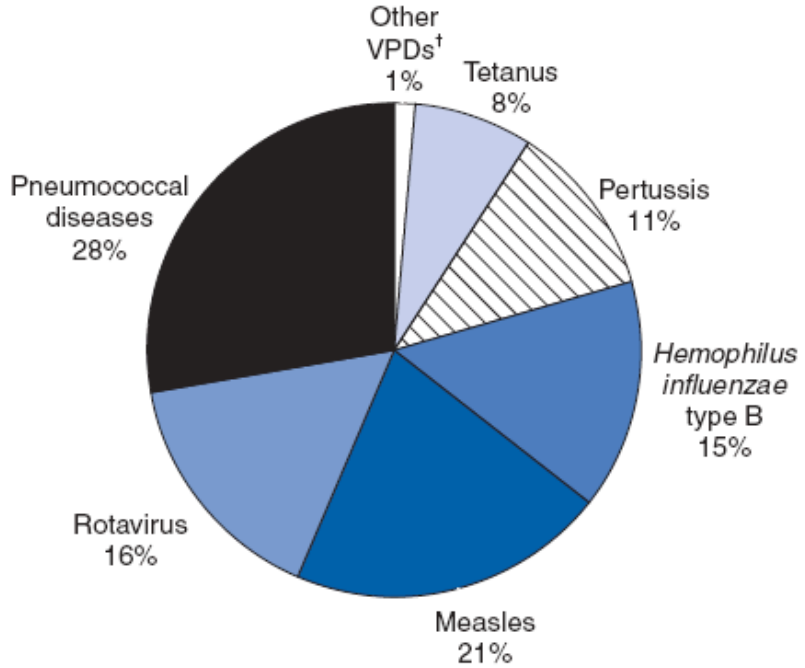
Our World in Data



Data source: Shattock et al. (2024). Contribution of vaccination to improved child survival: modelling 50 years of the Expanded Programme on Immunization.

OurWorldinData.org/vaccination | CC BY

FIGURE 1. Percentage of deaths from vaccine-preventable diseases (VPDs)* among children aged <5 years, by disease — worldwide, 2002



*An estimated 2.5 million deaths worldwide (of a total of 10.5 million for this age group) are caused by diseases for which vaccines are currently available.

†Diphtheria, hepatitis B, Japanese encephalitis, meningococcal disease, poliomyelitis, and yellow fever. (In older age groups, approximately 600,000 hepatitus B deaths are preventable by routine immunization.)

https://www.cdc.gov/mmwr/preview/mmwrhtml/mm5518a4.htm

Washington State Department of HEALTH

Infectious Disease Control Guide for School Staff

DOH 420-503 June 2024

https://doh.wa.gov/sites/default/files/2024-06/420-503-InfectiousDiseasesControlSchoolGuide.pdf

Safe Cleaning and Disinfecting Guidance for Schools

DOH 333-344 June 2024

Washington State Department of HEALTH

For more information or additional copies of this report:

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Email: SchoolEHS@doh.wa.gov

https://doh.wa.gov/sites/default/files/2024-02/333-344.pdf

Invitation to Explore: Immunization Dashboard