Let’s Talk About Measles!

A Regional Update

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March 24, 2025

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This deck is intended to provide First Nations in Alberta with information regarding Measles.

Measles Returning

HEALTH

Measles Add Topic +

U.S. measles cases top 2024 total as outbreaks surpass 300 infections in 15 states

Mary Walrath-Holdridge
USA TODAY

Published 4:38 p.m. ET March 14, 2025 | **Updated 3:39 p.m. ET March 17, 2025**

Ontario sees another sharp increase in measles cases, outbreaks growing in Quebec and Alberta

120 new cases reported since March 14, bringing outbreak total to 470

Hannah Alberga · The Canadian Press · Posted: Mar 20, 2025 10:09 AM MDT | Last Updated: March 20

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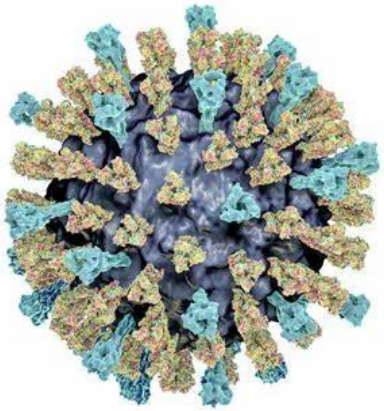
What Is Measles?



- Measles is a viral infection typically causing fever, cough, runny nose, red eyes, and rash.
- Measles initially looks similar to many other viral infections.
- Measles was eliminated in Canada in 1998 but remains common in many other parts of the world. In the past few years, measles cases have been rising worldwide.
- A highly effective vaccine is available.

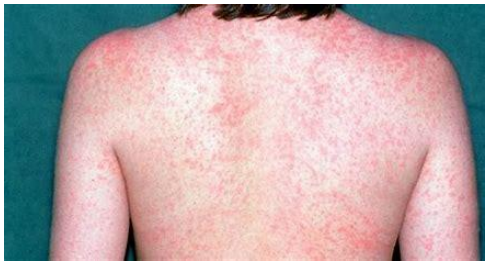
What Is The Timing of Measles Illness?

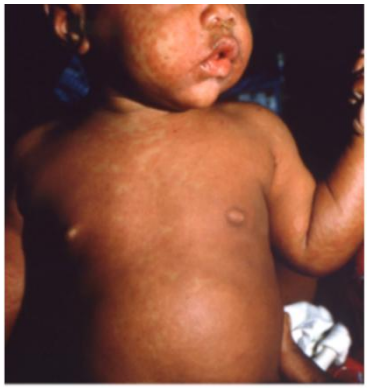
- The first symptoms (like a runny nose or red eyes) usually appear 7 to 18 days after being infected with the measles virus.
- About 3 to 7 days after symptoms begin, a non-itchy rash appears. This rash looks like red spots and blotchy patches that start on the face, and then spread down the body, arms and legs.
- The rash can last 4 to 7 days.

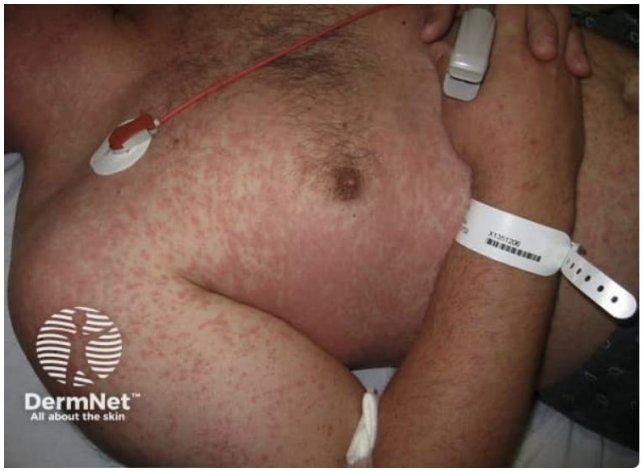
What Does The Rash Look Like?

Measles Images

- **RASH:**
  - Flat red/purple area with small bumps (or appears purple or darker than the surrounding skin in darker skin tones)
  - Not itchy
  - Begins on the face behind the ears
  - Within 24 to 36 hours, it spreads over the the trunk and extremities (including palms and soles)







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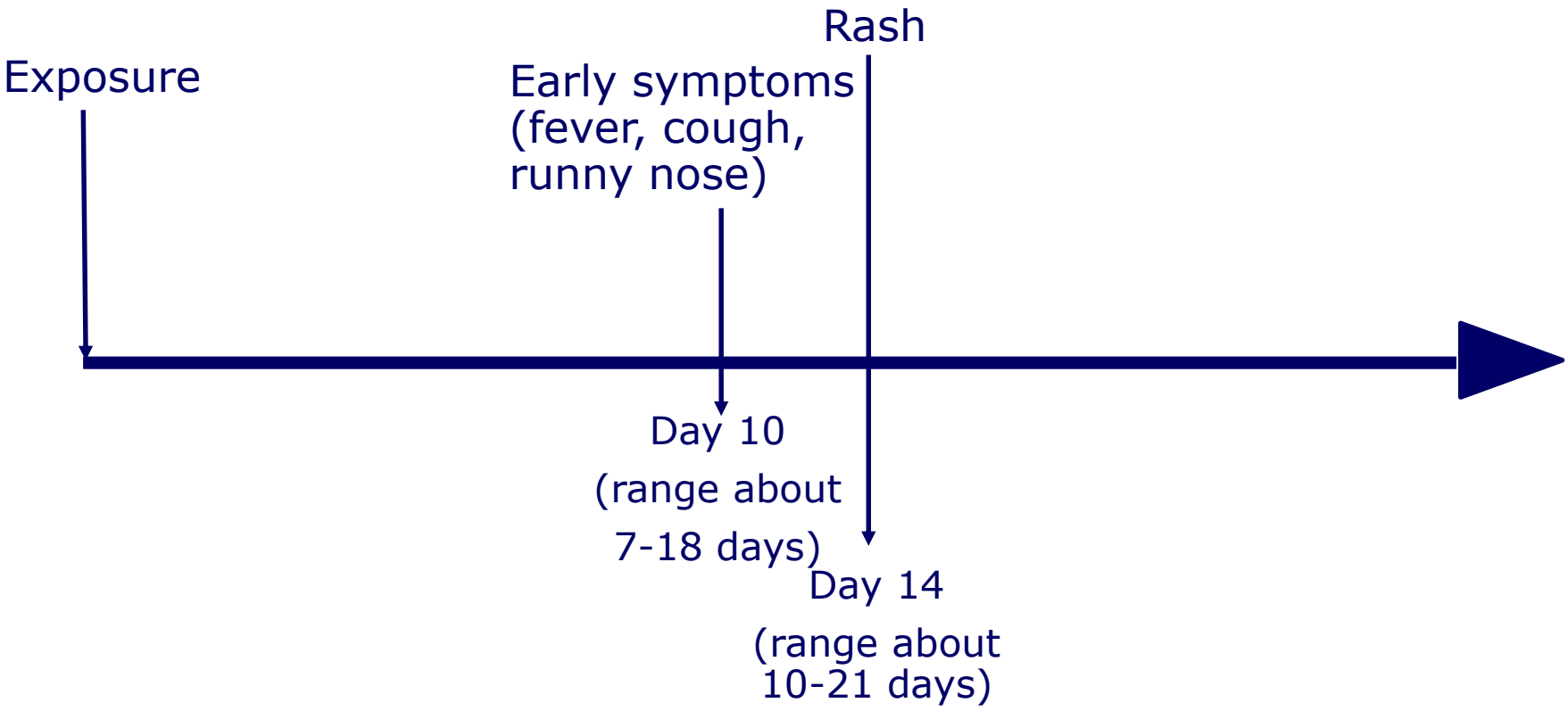
How Does Measles Spread?

- Measles is one of the most contagious viruses there is – about 90% of exposed unimmune people get infected.
- Measles can spread through the air through a room – the longer an infectious person is in a room, especially in a small, closed room, the more infectious particles there will be.
- The measles virus can persist in the air or on surfaces for up to 2 hours after a person who is infected has left the space.
- People infected with measles can spread it to others shortly **before** they have symptoms.

Measles Timeline – time from exposure to illness



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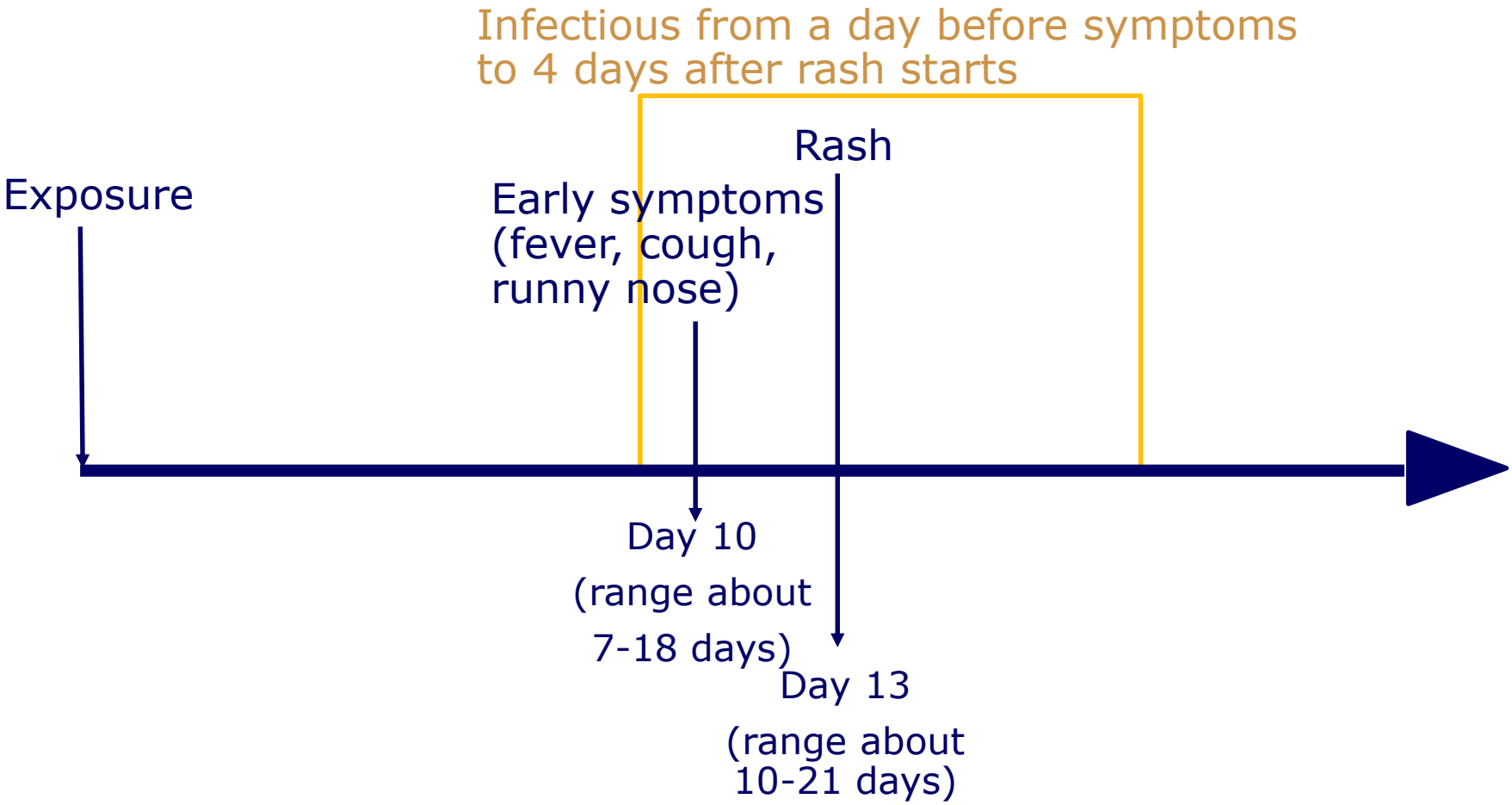

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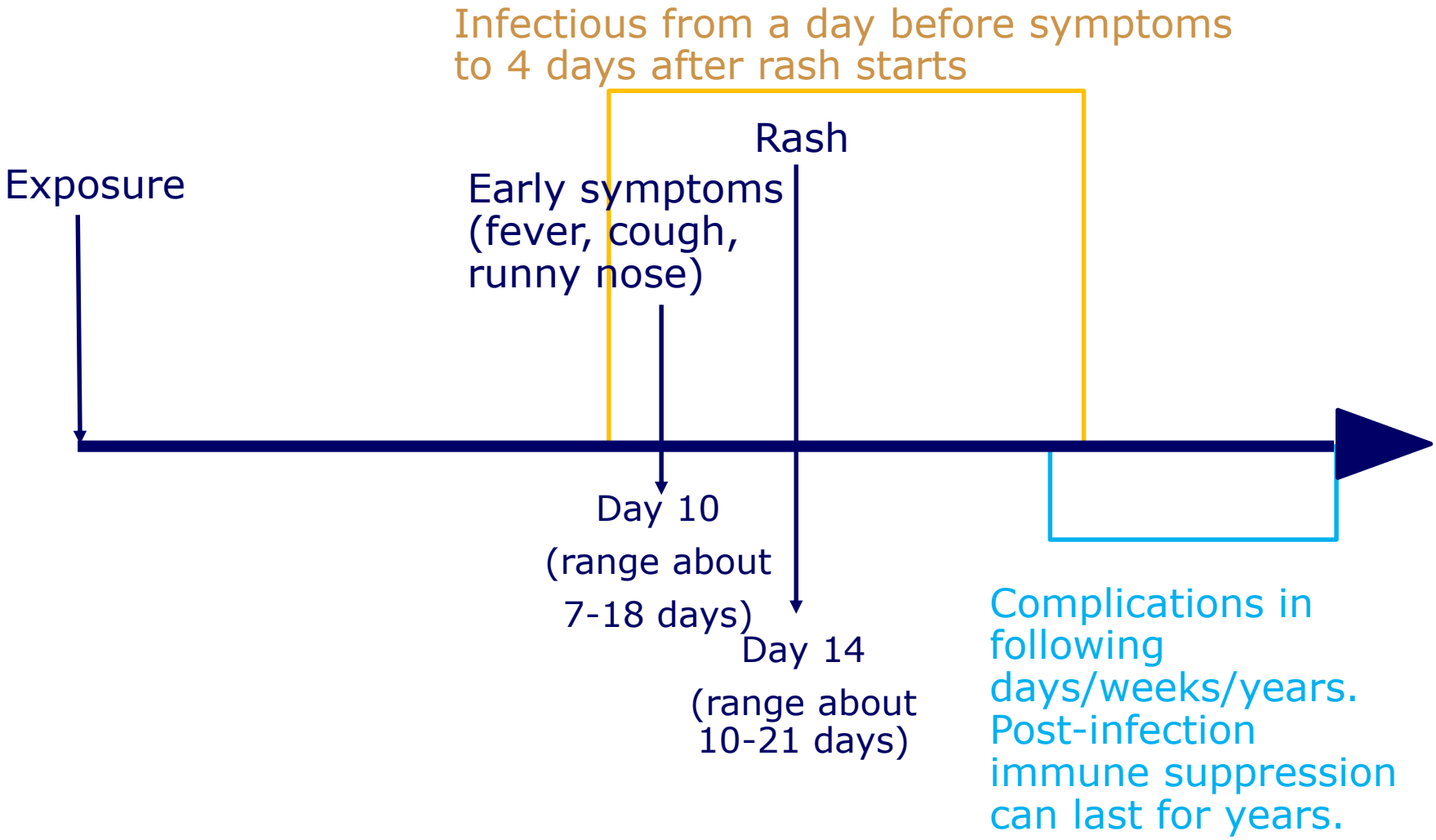

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What Are Complications Of Measles?

- Ear infections, diarrhea, and pneumonia are the most common complications.
- Ten to 20% of people who get measles need hospital care
- Measles weakens the immune system and puts people at risk of other infections. The immune system can take years to recover.
- About 1 in 1000 cases experience brain inflammation, which can lead to blindness, hearing loss, brain damage, or other serious problems.
- About 1 to 3 in 1000 cases are fatal.
- Rare fatal late-onset brain disease several years after infection

Who Is Most At Risk Of Complications?

- Children younger than 5 years of age
- Adults older than 20 years of age
- Pregnant women
- People with weakened immune systems, such as from leukemia or HIV infection

Who Is Considered Immune To Measles?

- Adults born earlier than 1970 (turning 56 or older this year) are assumed to have had measles disease in childhood and considered likely protected, unless they work in health care.
- Healthcare workers in this older age group are at higher risk of exposure so they need to have two documented doses of measles-containing vaccine to be considered protected.
- Anyone born in 1970 or later (turning 55 this year or younger) must have one of the following to be considered immune:
  - Two documented doses of measles containing vaccine (after a year of age and at least one month apart)
  - History of lab-confirmed measles disease
  - Laboratory evidence of measles immunity

Current Status: Measles Cases in Alberta

Confirmed cases as of 12:30 pm March 21, 2025

Zone	New cases	Total cases
North	0	8
Edmonton	0	4
Central	0	0
Calgary	0	2
South	0	0
Total	**0**	**14**

- Measles cases in Alberta shown at https://www.alberta.ca/measles
- Measles exposures in Alberta in March Active Health Advisories | Alberta Health Services

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Current Status: Measles Cases In Canada

As of March 8, 2025:

- 278 confirmed cases have been reported in Canada
- 238 reported by the province of Ontario
- 32 reported by the province of Quebec
- 6 reported by the province of Manitoba
- 2 reported by the province of British Columbia

In 2023: 12 confirmed cases were reported in Canada

In 2024: 146 confirmed cases were reported in Canada

Source: Measles & Rubella Weekly Monitoring Report

Current Status: Measles Risk in Alberta

Driven by 3 factors…

Global surge* in cases related to lower vaccination rates. Including from disrupted vaccine delivery channels during the COVID-19 pandemic.

Includes common travel destinations for Albertans! (e.g. US, UK)

Low vaccine coverage rates in Alberta

Seasonality

What Happens If There Is A Case In My First Nation?

- Measles is still relatively rare in Alberta – it is most important to suspect this disease if someone has been travelling, or has had an exposure to a confirmed case
- If someone thinks they have measles because they were exposed, or travelled, and then got symptoms of measles, **it is critical to phone ahead for advice rather than going directly to a health care centre or hospital.** You can phone Health Link at 811 or your local community health centre for advice.
- A person who is suspected to have measles should stay home and away from others (unless they are critically ill and need emergent care). They should follow the phone advice they receive, which could involve directions on how to be tested.
- If there is a confirmed case of measles in a First Nation, ISC Medical Officers of Health would notify leadership that a case has been identified, while also maintaining patient confidentiality

What Happens With Measles Cases?

Confirmed cases of measles get a phone call from public health to:

- Ask about timing of symptoms
- Ask about immunization history
- Ask who was in the same space as the case during the time they were infectious
- Ask about places the case might have been exposed to measles
- Provide information on how to limit spread of the virus to others
- Provide advice on what to do if the person gets sicker and needs health care services
- Cases not needing hospital care must stay home and away from others until they are non-infectious (cases are infectious from four days before to four days after rash starts)

What Happens If I'm Exposed?

People who are identified through contact tracing as being exposed to a case, and who are not clearly immune, will get a phone call from public health to:

- Let them know they have been exposed to measles
- Determine if they are protected against measles
- Ask if they are having any measles symptoms
- Ask about health conditions
- Provide education to prevent disease transmission
- Identify those at high risk for measles complications
- Talk about Post-Exposure Prophylaxis for contacts at highest risk, such as babies and pregnant women who are not immune
- Contacts who are not immune need to stay home and away from others for 21 days from last exposure

What Is The Difference Between A Measles Case And A Contact?

A case is a person who is infected with the measles virus and who can spread that virus to others from four days before their rash starts to four days after the rash starts.

A contact is a person identified through contact/exposure site tracing who may have been exposed to measles.

Contacts of measles cases who are not immune to measles need to stay away from others for 21 days from last exposure just in case they get sick.

People who have been around a contact are not at risk of infection unless that contact becomes a case.

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Immunization

Measles Immunization

- One dose of measles containing vaccine is about 85% protective.
- Two doses reach almost 100% protection.
- Currently, children in Alberta are offered a first dose of measles-containing vaccine at 12 months of age, with a second dose at 18 months old.
  - (Prior to 2021, the second dose was given at age 4-6.)

Measles Immunization

- Measles vaccine is given in a combination product with mumps and rubella vaccine (MMR) or also with varicella (MMR-V)
- Measles-containing vaccines are live-attenuated, so some **contraindications** include:
  - Primary or secondary immunodeficiencies
  - Pregnancy
  - Anaphylaxis or hypersensitivity to vaccine components
  - Solid Organ Transplant (SOT) recipients
  - Administration of immune globulins and/or blood products within the past 11 months

Measles Immunization – Younger Adults

- People born in 1970 or later (turning 55 this year or younger) are recommended to have two doses of measles-containing vaccine.
- Some adults in this age group will only have received one dose in the past.
- Anyone born in 1970 or later should check their immunization records and make sure they have documentation of two doses of measles containing vaccine to know they have the best protection

Measles Immunization – Older Adults

- People born before 1970 (turning 56 this year or older) are generally considered immune to measles as they most likely had disease as a child.
- People in this age group may be eligible for vaccine if:
  - They are a health care worker - health care workers of any age, because of higher risk of exposure, are recommended to have two doses of measles containing vaccine.
  - They are traveling outside the country.
  - They are traveling to an area where measles exposure is possible (at the moment, only specific areas in Ontario and a small area in Northern Alberta are included) – note that this eligibility can change over time, but at the moment, Calgary and Edmonton are **not** considered risk areas.

Measles Immunization - Children

- In the routine immunization schedule, children get a first dose of measles-containing vaccine at the age of 1 year (12 months)
- In the routine schedule, the second dose is given at 18 months of age
- In places where there is an immediate high risk of exposure, the second dose can be given sooner, but must be at least one month after the first dose.

Immunization - Early Extra Dose For Babies at High Risk of Exposure

- **Infants 6 months of age up to including 11 months of age**
  - Candidates for a solid organ transplant
  - Traveling to any country outside of Canada
  - Traveling to or through areas where measles is circulating in Canada

Parts of Alberta

Refer to the vaccines biological page for updated information on areas where measles is circulating in Alberta

Southern Ontario Region

- *Norfolk County*
- *Oxford County*
- *Elgin County*
- *City of St. Thomas*

Infants receiving a dose before 12 months of age should receive TWO more doses following the routine childhood schedule, at least FOUR weeks apart!

How Can Patients Find Their Immunization History?

- Locating your own paper records, “yellow card”
- Ask the health centre
- MyHealth Records account
- Call 811, Health Link or text “vaccine record” to 88111
- Note for immunizations given within a First Nation to be visible in MyHealth Records or seen by 811, they need to be submitted to ImmAri. Not all historical records have been submitted.

MyHealth Alberta

Interesting Immunization Fact:

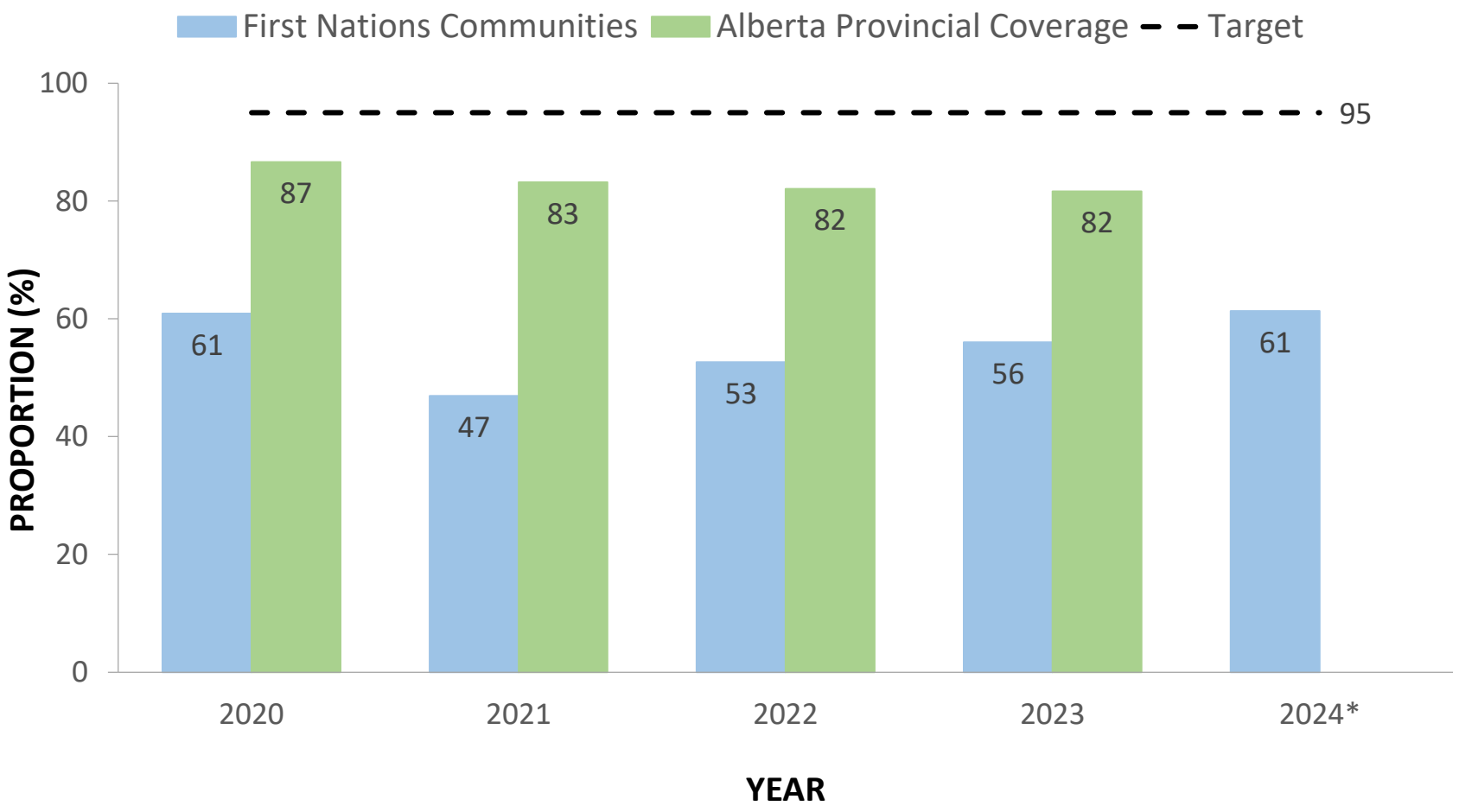
The vaccine can sometimes be given after exposure to measles!

Individuals who are exposed to measles may be protected from disease if they are given the MMR/MMRV vaccine within 72 hours of their exposure.

Context for Immunization Data

- Data provided below is from the immunization records system used in First Nations communities. Immunizations delivered outside the communities are included if the community has imported those records.
- The data below show inequities in percentages of the population who have been immunized when comparing overall coverage with First Nations and non-First Nations people in Alberta. There are many reasons for this, including, but not limited to:
  - With the small population size in many First Nations, the difference of one or two people receiving immunization can have a very large impact on percentages for these Nations,
  - Many logistical barriers can exist for families, including transportation, child care, and other challenges,
  - In some places, health care staff shortages have an impact, and
  - Level of trust in vaccines can be low in some places.

Measles Immunization Rates
Dose 1 by Age 2



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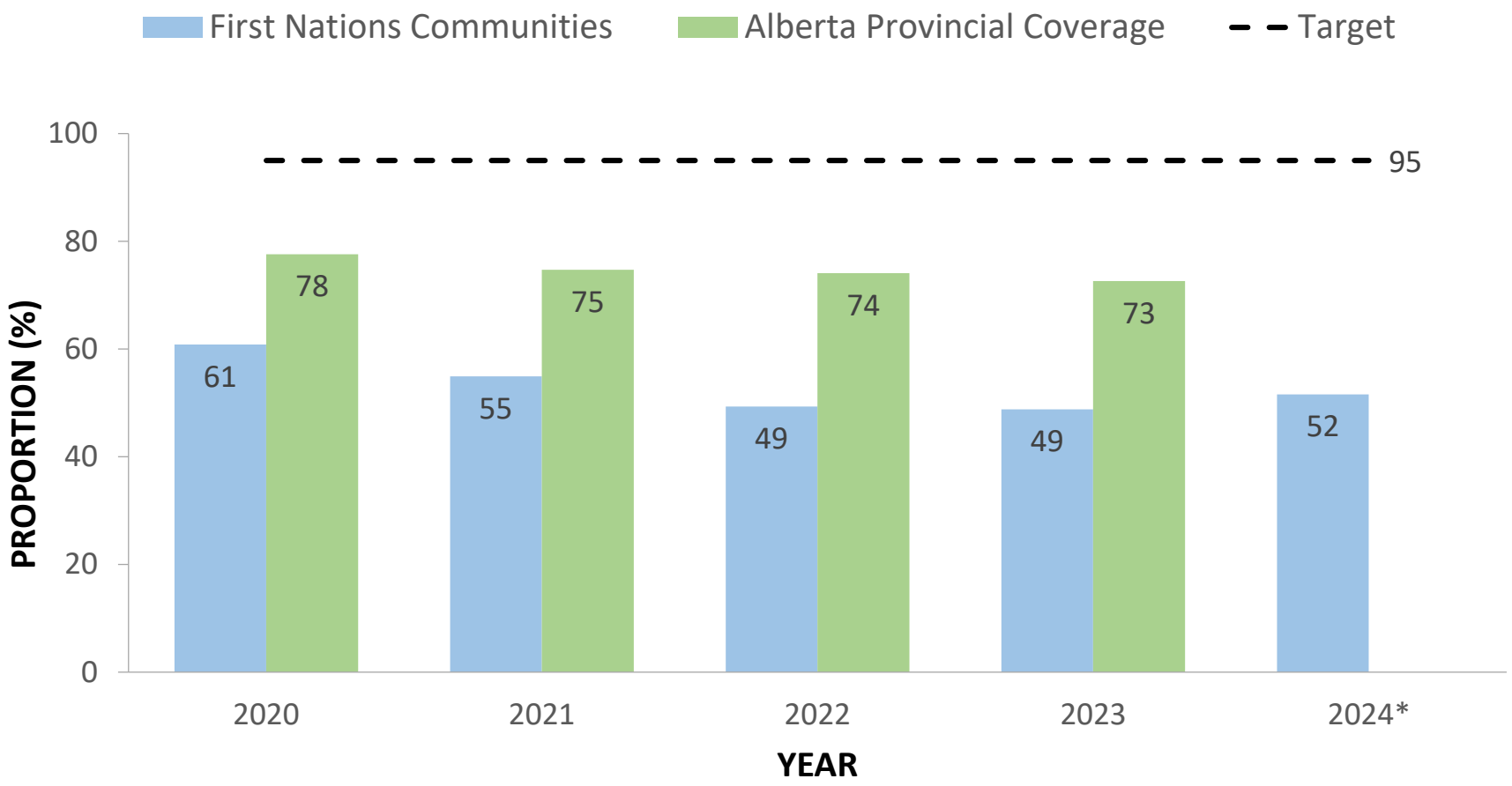
*2024 provincial data was not available at time of reporting

Measles Immunization Rates
Dose 2 by Age 7



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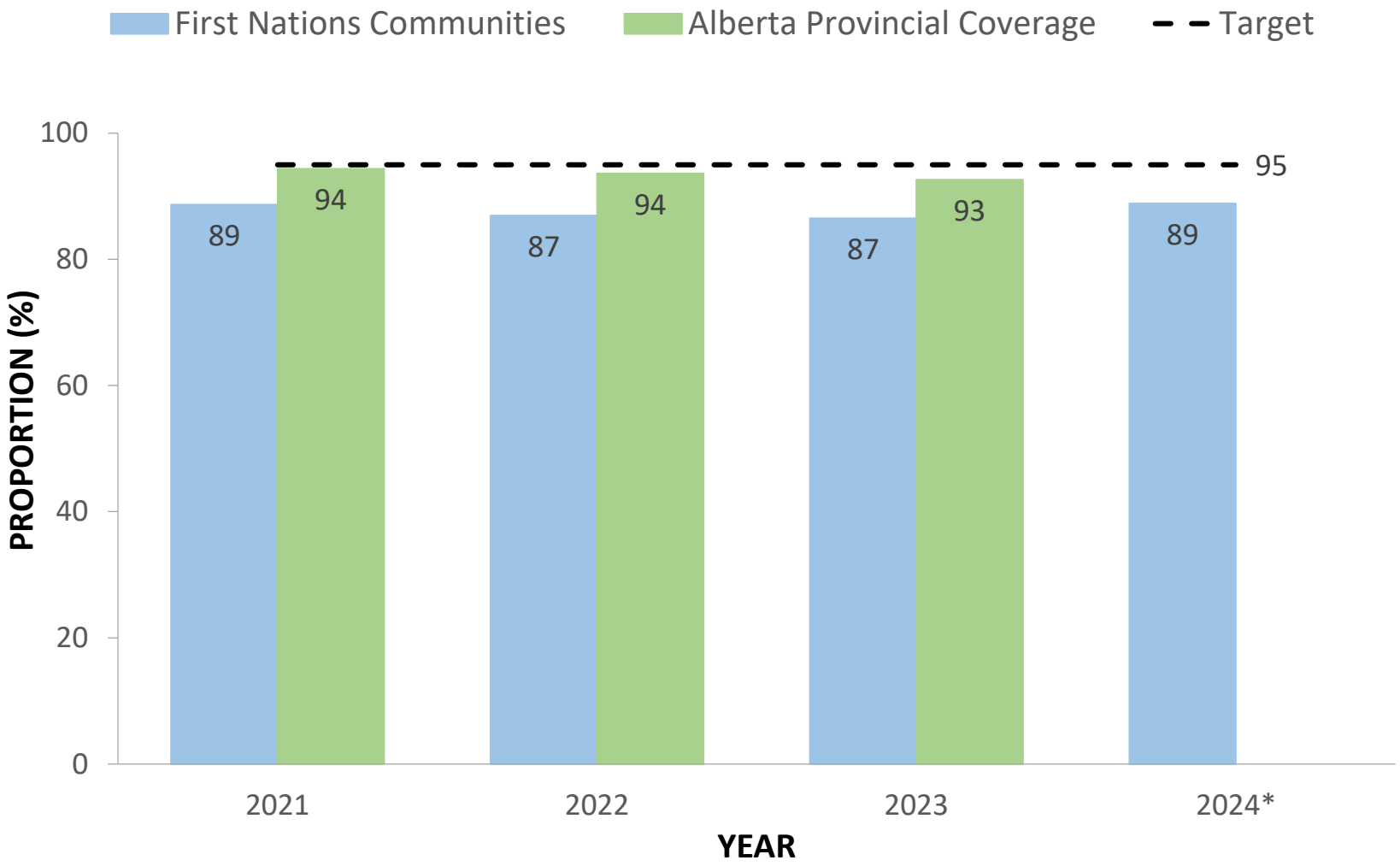
Measles Immunization Rates
Dose 2 by Age 17



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Recommendations

Communication is key!

Health Care Workers, regardless of age, should ensure they have two doses of a Measles-containing vaccine or previous Measles infection/immunity

Vaccination is our best preparation!

Consider business continuity in your areas if a large community exposure should occur.

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Other Resources

Additional Measles Resources

Indigenous Services Canada:
Don’t Wait, Vaccinate! Measles Fact Sheet

Dr. Chris Sarin’s Video on Measles

Immunize Canada’s Guide for Immunizers

Additional Resources for staff: Vaccine Hesitancy

- **OneHealth > Nursing > Nursing Education Immunization Resources**
- **MyHealthAlberta | Immunization benefits and safety**
  https://myhealth.alberta.ca/topic/immunization/pages/benefits-safety.aspx
- **Immunize Canada | Counselling the Public**
  https://immunize.ca/counselling-public
- **Vaccine Hesitancy Guide** (has sections for pediatric vaccine hesitancy and for working with patients that have experienced trauma from the health system)
  https://www.vhguide.ca/
- **CPHA | Building Vaccine Confidence in a Digital Age (course)**
  https://learning.cpha.ca/course/index.php?categoryid=16
- **National Collaborating Centres for Indigenous Health (NCCIH) and Infectious Diseases (NCCIH): Video on vaccine confidence**
  Vaccine Confidence on Vimeo