

# COVID-19 MOH Update

March 10<sup>th</sup>, 2022



# Outline

## 1. MOH Update

- *Dr. Chris Sarin*
- *Simon Sihota*

## 2. COVID-19 Vaccine Update

- *Dr. Parminder Thiara*

## 3. Wastewater Surveillance

- *Dr. Rita Henderson* Models of Care Scientist & Assistant Professor – Cumming School of Medicine and University of Calgary
- *Dr. Kerry Black* Assistant Professor & Schulich Research Chair - University of Calgary

# MOH Update

Dr. Chris Sarin

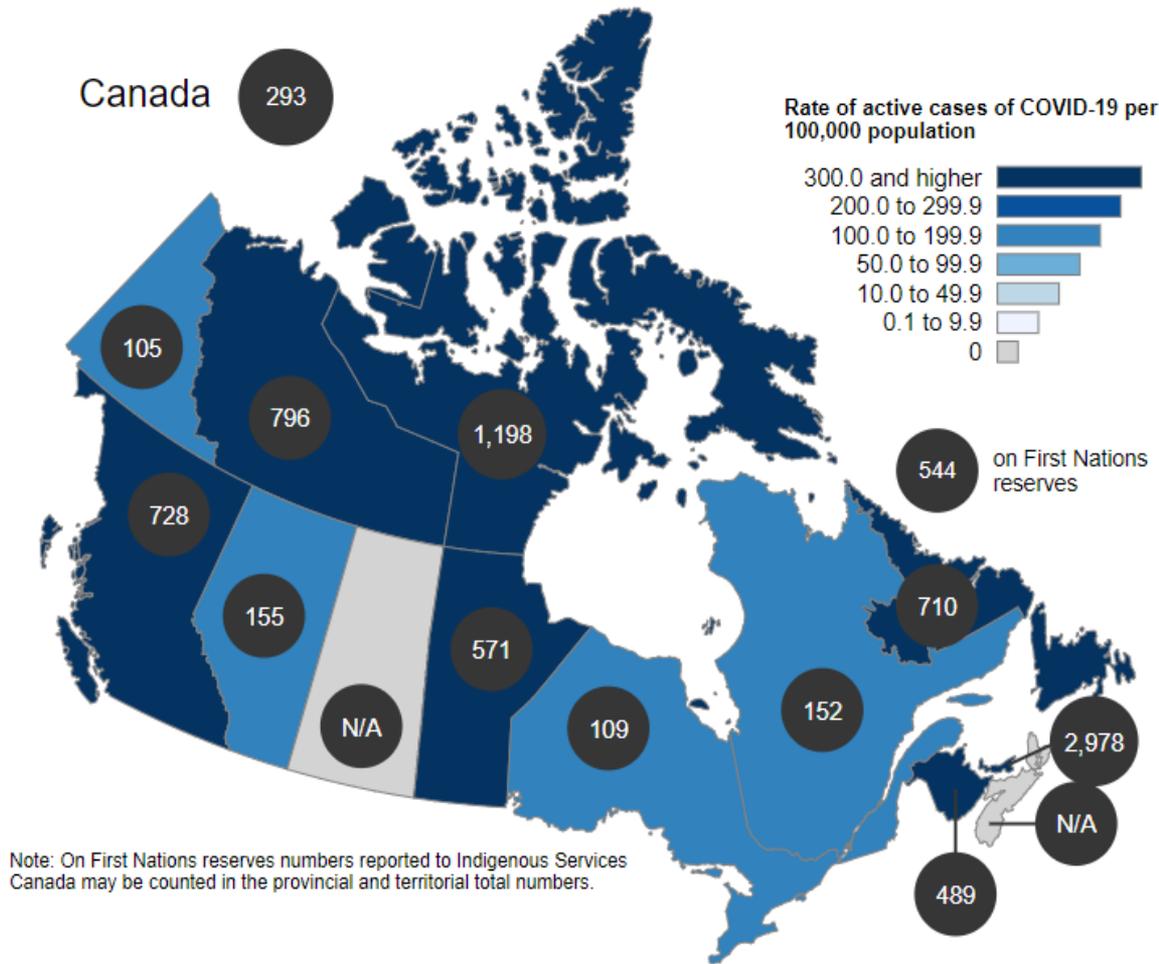
*Senior Medical Officer of Health*

Simon Sihota

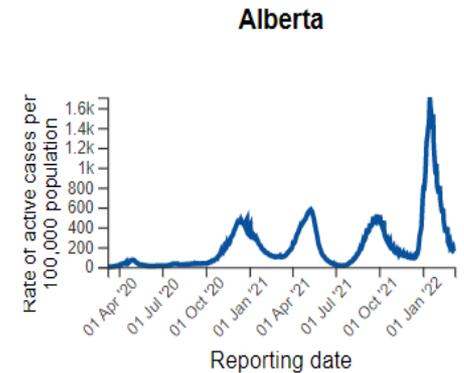
*Regional Manager, Environmental Public Health Services*



# Current Situation (as of March 9<sup>th</sup>, 2022)



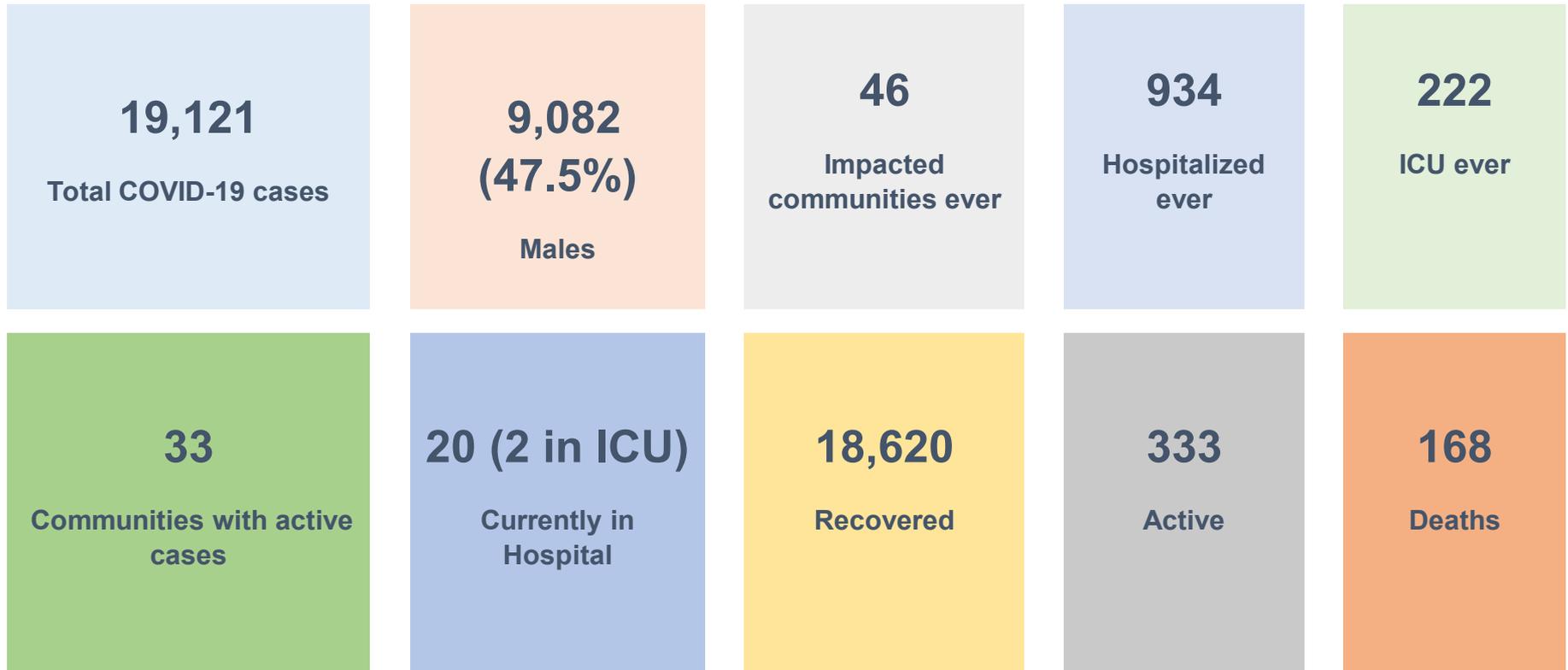
The rate of active cases of COVID-19 in **Alberta** was **155 per 100,000 population** as of March 9, 2022.



Source: <https://health-infobase.canada.ca/covid-19/epidemiological-summary-covid-19-cases.html>

# Overview of Confirmed COVID-19 Cases in First Nations Communities on Reserve in Alberta, March 08, 2022

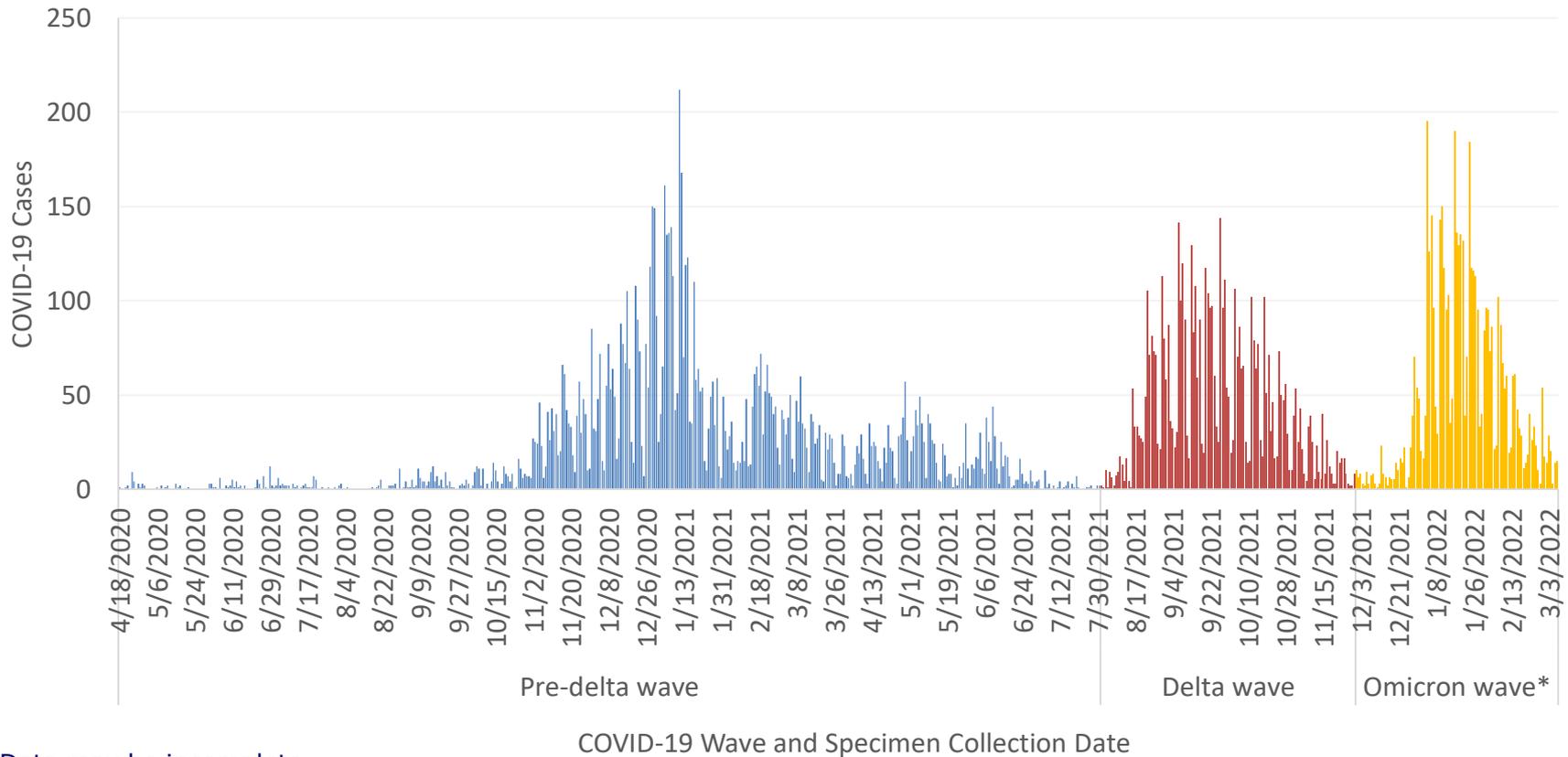
Source: FNIHB COVID-19 ER System via Synergy in Action (March 09, 2022)



# Confirmed COVID-19 Cases by Day and Wave, March 08, 2022

Source: FNIHB COVID-19 ER System via Synergy in Action (March 09, 2022)

COVID-19 Cases in First Nation Communities in Alberta by wave and specimen collection date

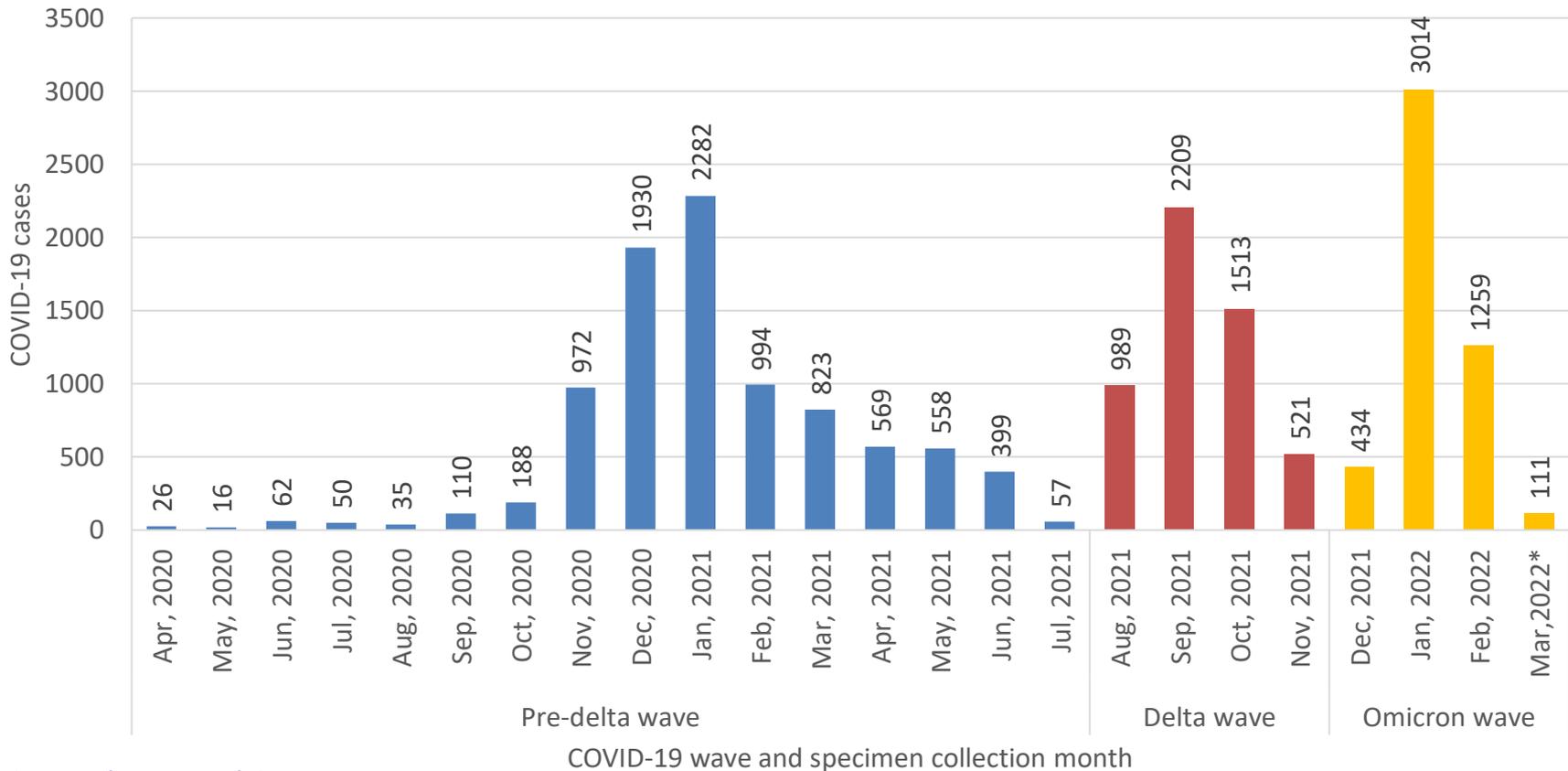


\*Data may be incomplete

# Confirmed COVID-19 Cases by Month and Wave, March 08, 2022

Source: FNIHB COVID-19 ER System via Synergy in Action (March 09, 2022)

COVID-19 cases in First Nations communities in Alberta by wave and specimen collection month



\*Data may be incomplete

# COVID-19 Cases by Wave and Selected Indicators, March 08, 2022

Source: FNIHB COVID-19 ER System via Synergy in Action (March 09, 2022)

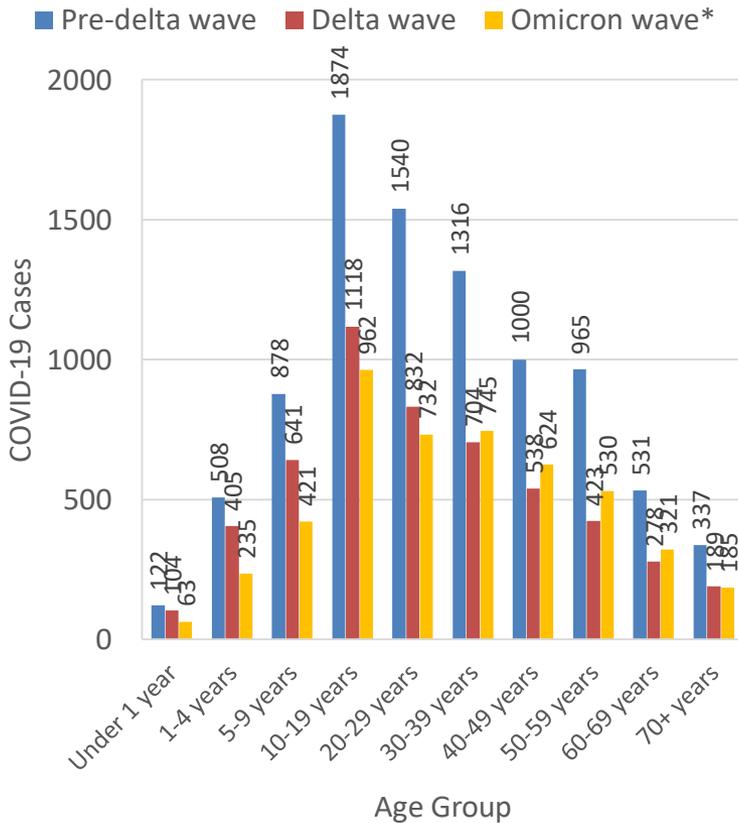
Indicator	Total (all waves)	Pre-delta wave	Delta wave	Omicron wave*
Total COVID-19 cases	19,121	9,071	5,232	4,818
Total Hospitalizations (ever)	934	515	295	124
Total ICU Admissions (ever)	222	123	76	23
Total Deaths (ever)	168	95	55	18
Case Hospitalization Rate (per 100 COVID-19 cases)	4.9	5.7	5.6	2.6
Case ICU Admission Rate (per 100 COVID-19 cases)	1.2	1.4	1.5	0.5
Case Fatality Rate (Per 100 COVID-19 cases)	0.9	1.0	1.1	0.4

\*Data may be incomplete

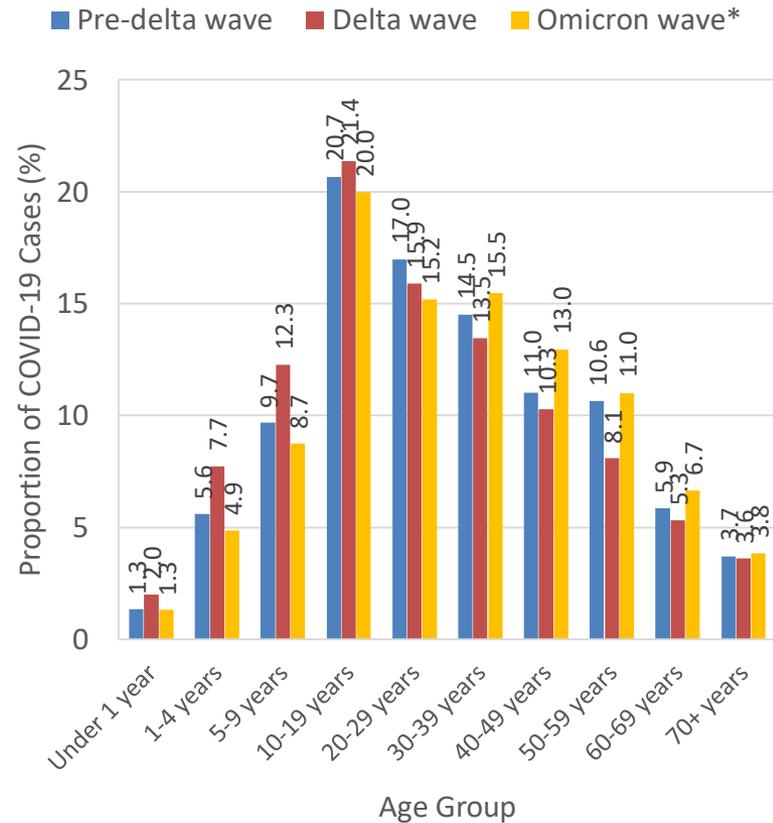
# COVID-19 Cases by Wave and Age Group, March 08, 2022

Source: FNIHB COVID-19 ER System via Synergy in Action (March 09, 2022)

COVID-19 cases in First Nations communities by wave and age group



Proportion of COVID-19 cases by wave in First Nation Communities by age group

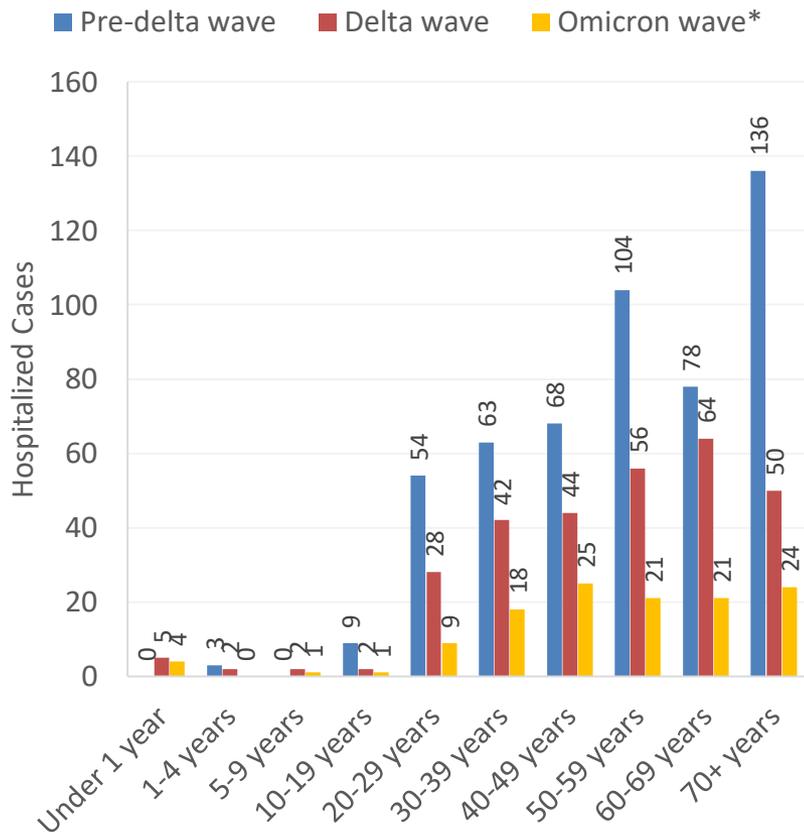


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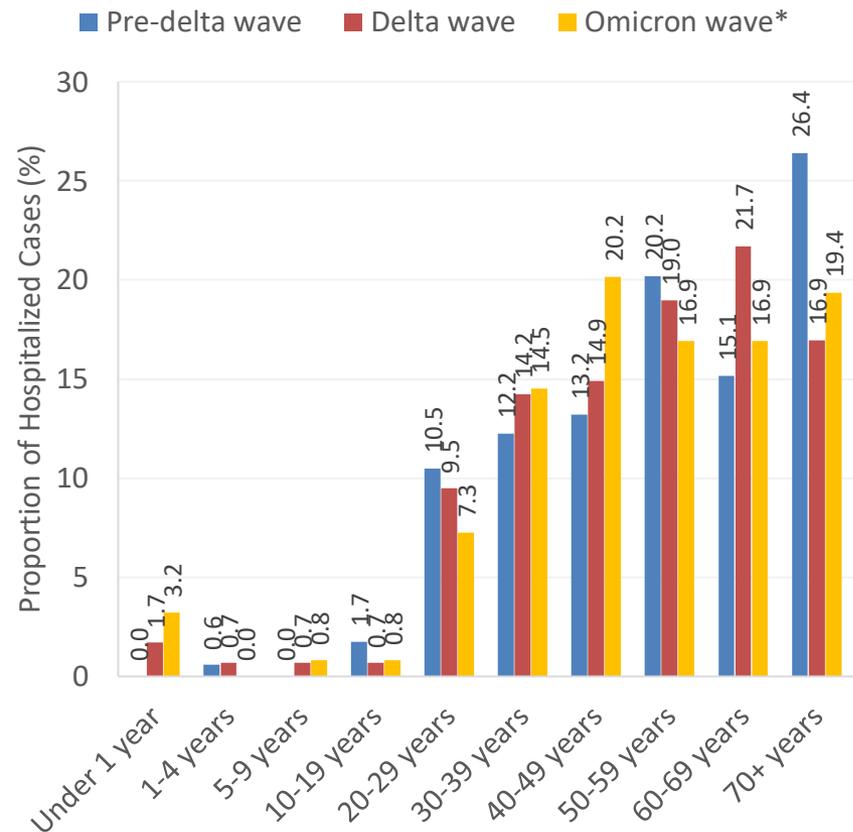
# Hospitalized COVID-19 Cases by Wave and Age Group, March 08, 2022

Source: FNIHB COVID-19 ER System via Synergy in Action (March 09, 2022)

Hospitalized cases (ever) in First Nations communities by wave and age group



Hospitalized COVID-19 cases in First Nations communities by wave and age group

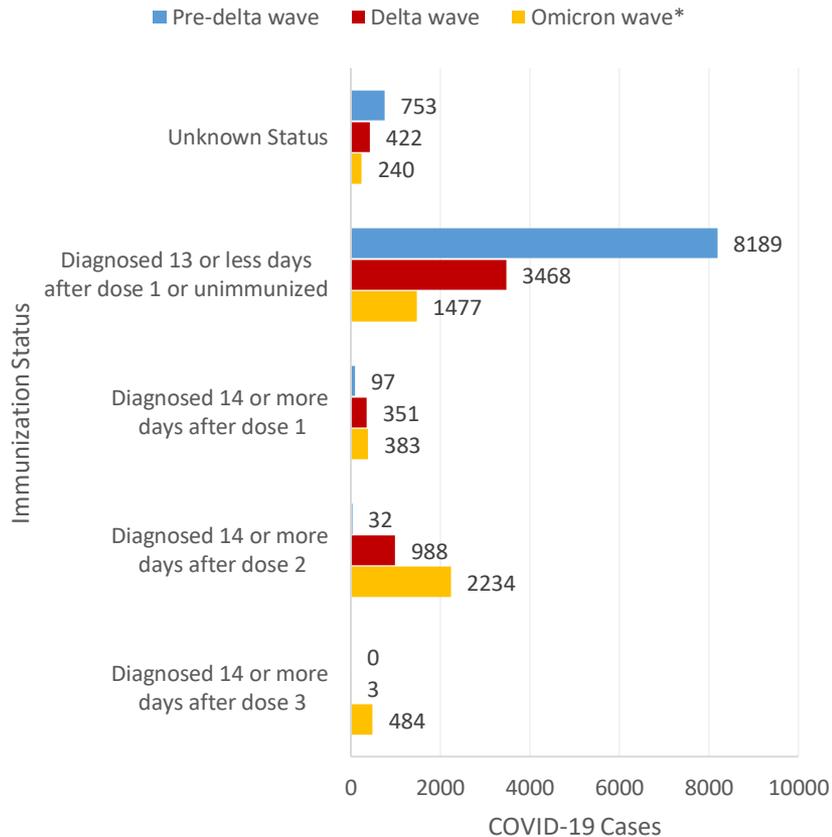


\*Data may be incomplete

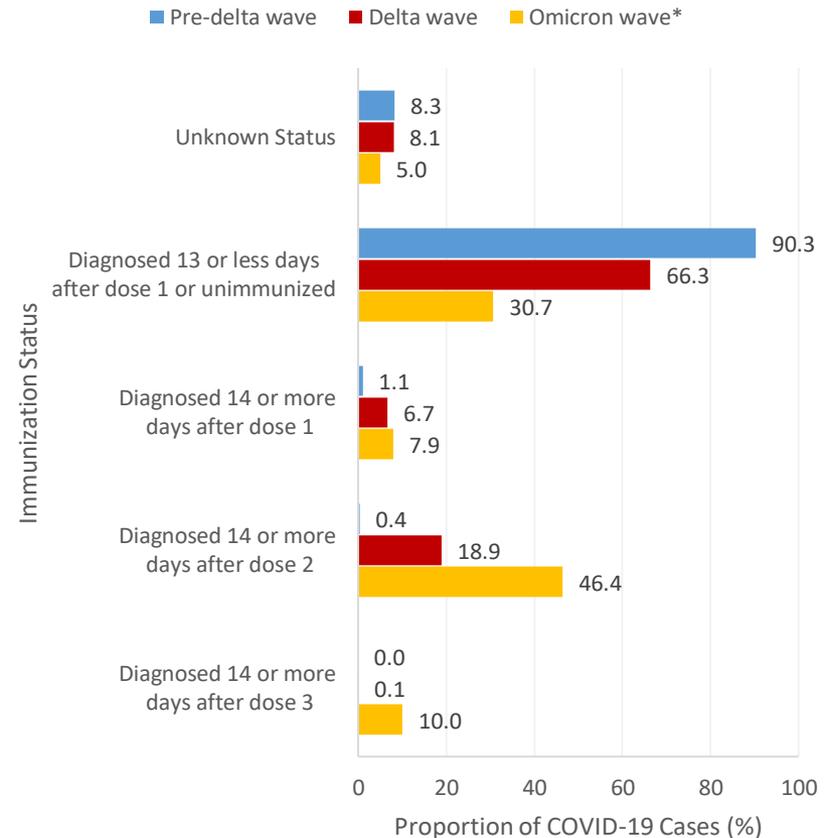
# COVID-19 Cases by Wave and Immunization Status, March 08, 2022

Source: FNIHB COVID-19 ER System via Synergy in Action (March 09, 2022)

COVID-19 caes in First nation communities by wave and immunization status



Proportion of COVID-19 cases in First Nations communities by wave and immunization status

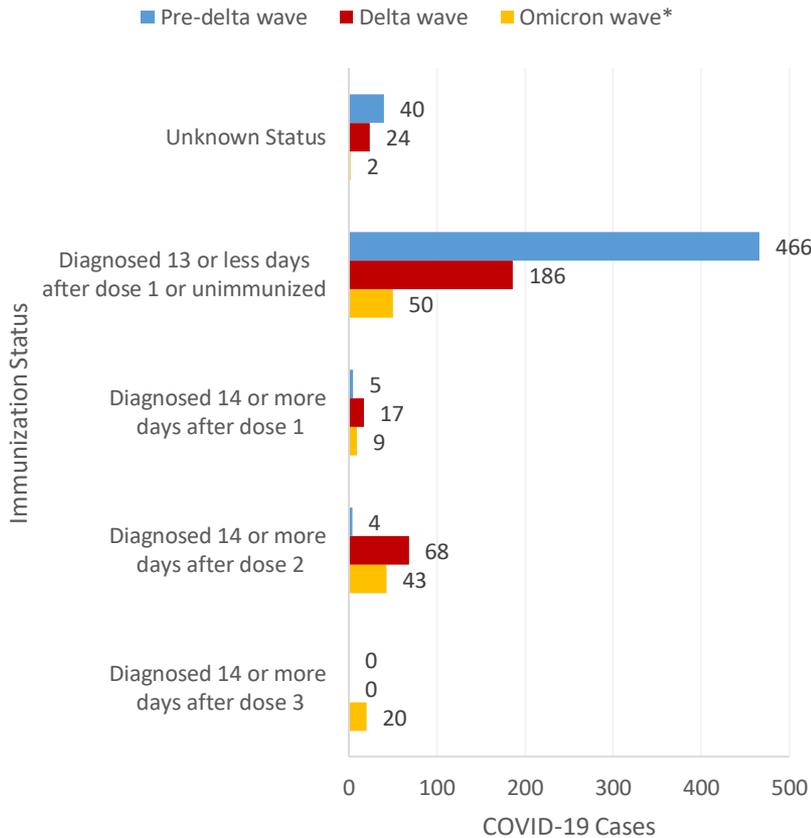


\*Data may be incomplete

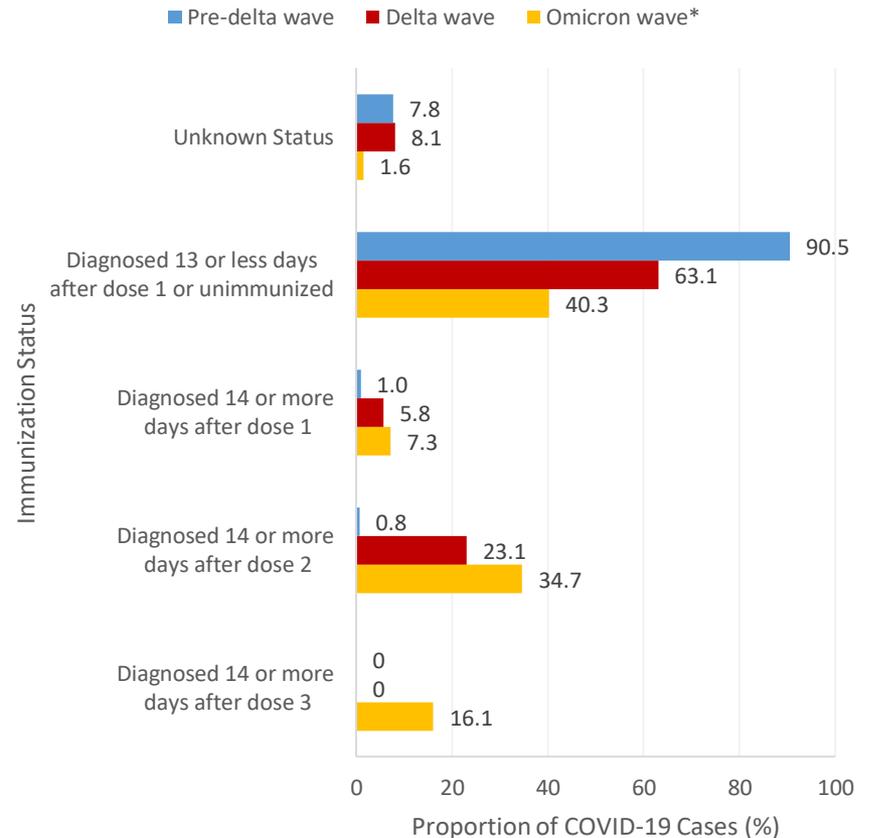
# COVID-19 Hospitalizations by Wave and Immunization Status, March 08, 2022

Source: FNIHB COVID-19 ER System via Synergy in Action (March 09, 2022)

Hospitalized (ever) cases in First Nations communities by wave and immunization status



Proportion of hospitalized (ever) cases in First Nations communities by wave and immunization status



\*Data may be incomplete

# Total COVID-19 Hospitalizations in Alberta by Vaccine Status count and rate (per 100,000 population) in the past 120 days

Age group	3 doses & hospitalized (n)	3 doses & hospitalized (rate per 100K)	2 doses & hospitalized (n)	2 doses & hospitalized (rate per 100K)	Unvaccinated & hospitalized (n)	Unvaccinated & hospitalized (rate per 100K)
Under 5 years	0	0.00	0	0.00	344	128.46
5-11 years	0	0.00	1	1.04	93	43.73
12-29 years	28	15.38	400	62.20	270	194.21
30-39 years	70	31.72	459	125.23	310	301.25
40-49 years	63	25.87	295	104.65	294	439.09
50-59 years	132	46.53	354	176.41	374	704.60
60-69 years	217	68.12	555	452.81	510	2456.23
70-79 years	406	201.52	536	1169.85	494	6530.94
80+ years	763	718.50	508	2274.15	416	4845.97
5+ years	1679	107.89	3108	174.72	3105	507.72

# Easing of Public Health Measures

Alberta entered **Step 2** on March 1st.

The following changes came into effect at that time:

- Remaining school requirements were removed (i.e. Kindergarten to grade 6 cohorting).
- Youth screening activities for entertainment and sport activities were removed.
- Capacity restrictions on all large venues and entertainment venues were lifted.
- Restrictions were lifted on interactive activities, table limits, liquor sales and closing times for bars, restaurants and other food serving businesses.
- Indoor and outdoor social gathering limits were lifted, including for all wedding and funeral events.
- Mandatory work-from-home requirements were lifted.
- Provincial mask mandate was lifted, except:
  - on municipal and intra-provincial public transit for Albertans 13 and older
  - at AHS-operated and contracted facilities, and all continuing care settings

# Easing of Public Health Measures

## Step 3

The timeline for Alberta entering Step 3 is to be determined and will depend on hospitalization rates continuing to trend downward.

- COVID-specific continuing care measures will be removed.
- Mandatory isolation requirements will be removed (becomes a recommendation only).

For more information, refer to: <https://www.alberta.ca/covid-19-public-health-actions.aspx>

# Isolation Requirements

For **fully vaccinated individuals** (2 doses or 1 dose of Janssen) who test positive (with or without symptoms), the mandatory isolation period is:

- A minimum of 5 days or until symptoms resolve (whichever is longer) starting the first day of symptoms or positive test.
- Following isolation, a mask is required to be worn at all times when around others outside of home for up to 5 additional days. This means, they must eat or drink alone, away from others during this time.

For individuals **not fully vaccinated** (1 dose or less), the mandatory isolation period is:

- 10 days or until symptoms resolve, whichever is longer.

# Quarantine Recommendations

Individuals are no longer legally required to quarantine if they are a close contact of someone who has COVID-19 but they should follow the recommendations below.

## Household close contacts

- A household contact of a positive case who is not fully vaccinated, should:
  - stay home for **10 days** (i.e. not attend work, school or other activities)
  - monitor for symptoms - if they develop, isolate immediately

## Other close contacts

- If an individual has been exposed to COVID-19 by someone outside of their household, they should:
  - avoid high-risk locations such as continuing care facilities and crowded indoor spaces
  - monitor for symptoms - if they develop, isolate immediately

For more information, refer to: <https://www.alberta.ca/isolation.aspx>

# Continuous Masking and Eye Protection in Health Care Facilities

- Continuous masking for staff, physicians, volunteers, designated support persons and visitors province wide will remain in place at all acute care, continuing care and community sites, as well as in corporate and warehouse-type settings.
- Eye protection requirement remains in place for all health centre staff who work within 2 metres of patients, and/or coworkers, regardless of immunization status.
- This applies to all facilities including health centres, hospitals, continuing care and congregate living sites, as well as immunization clinics and home care.
- There are **no changes at this time** to [existing PPE policies](#).



# COVID-19 Vaccine Update

Dr. Parminder Thiara

*Deputy Medical Officer of Health*

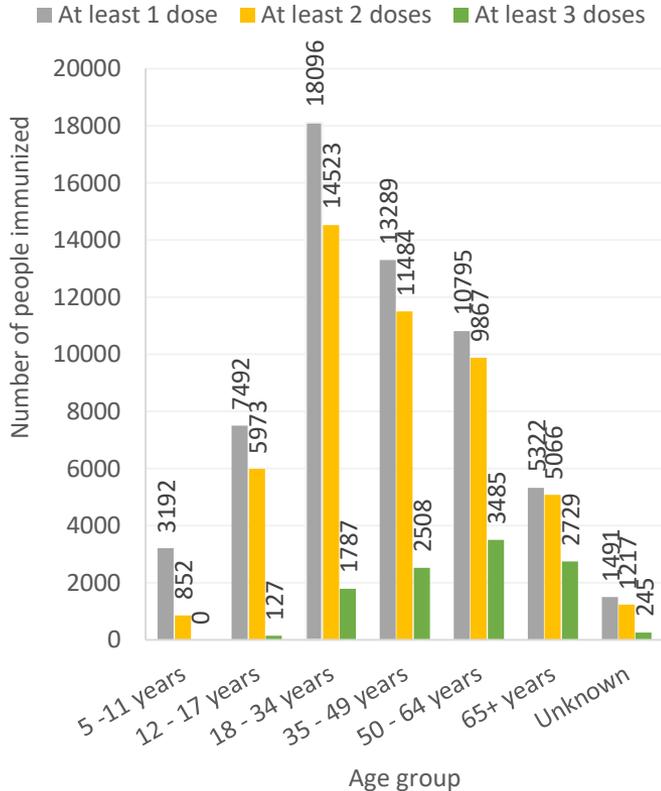
*Regional Director of Primary and Population Health*



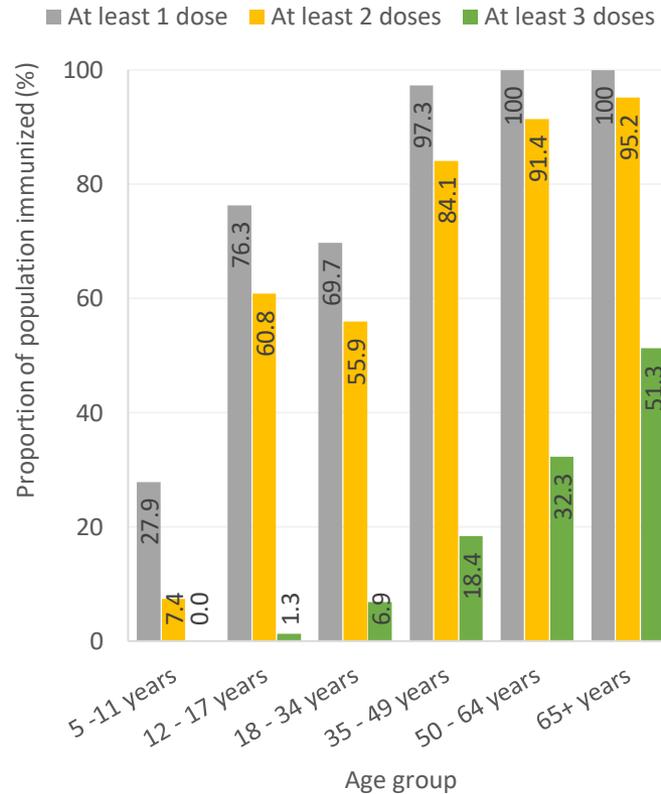
# COVID Immunization Activity – On Reserve in Alberta

Source: Okaki Slice Analytics (March 09, 2022)

Number of people immunized by age group and type of dose



Proportion\* of population immunized by age group and type of dose



Dose administered

119,542

Number of people who have received at least one dose

59,679

Number of people who have received at least two doses

48,982

Number of people who have received at least three doses

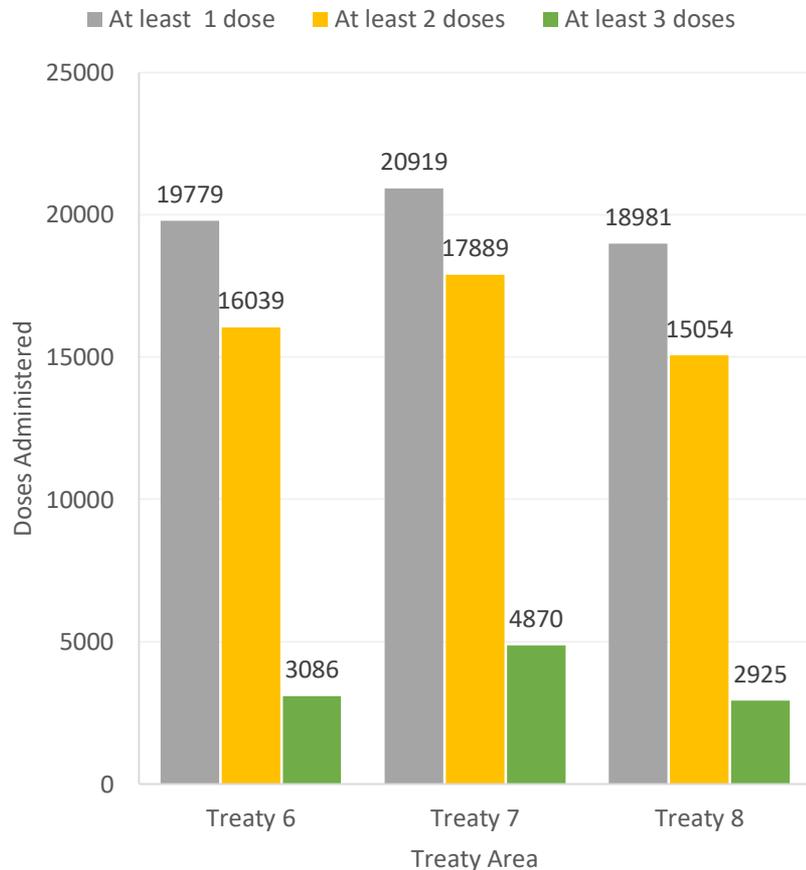
10,881

\*Percentages are calculated using unadjusted ISC-IRS on-reserve and Crown land population as of December 31, 2020. If the proportion of population immunized in any age group exceeds 100% because of population data limitation, we keep the proportion at 100% by adjusting the population to be equal to the number of first doses administered in that age group

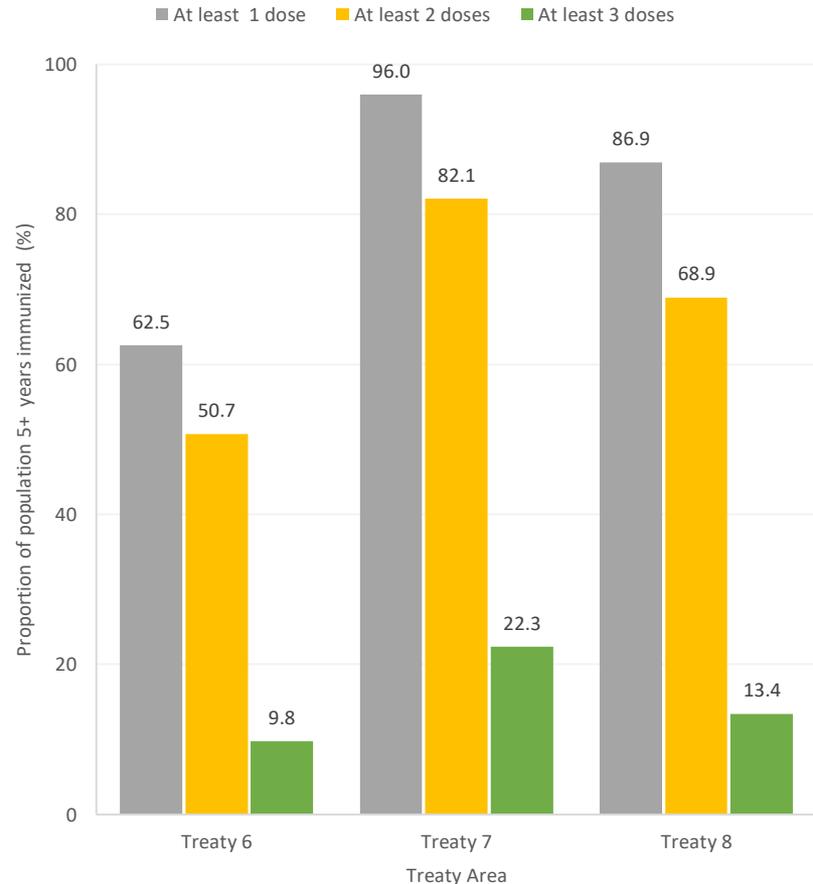
# COVID Immunization Activity – On Reserve in Alberta

Source: Okaki Slice Analytics (March 09, 2022)

Number of people immunized by Treaty area and type of dose



Proportion\* of population aged 5 years and older immunized by Treaty area and type of dose

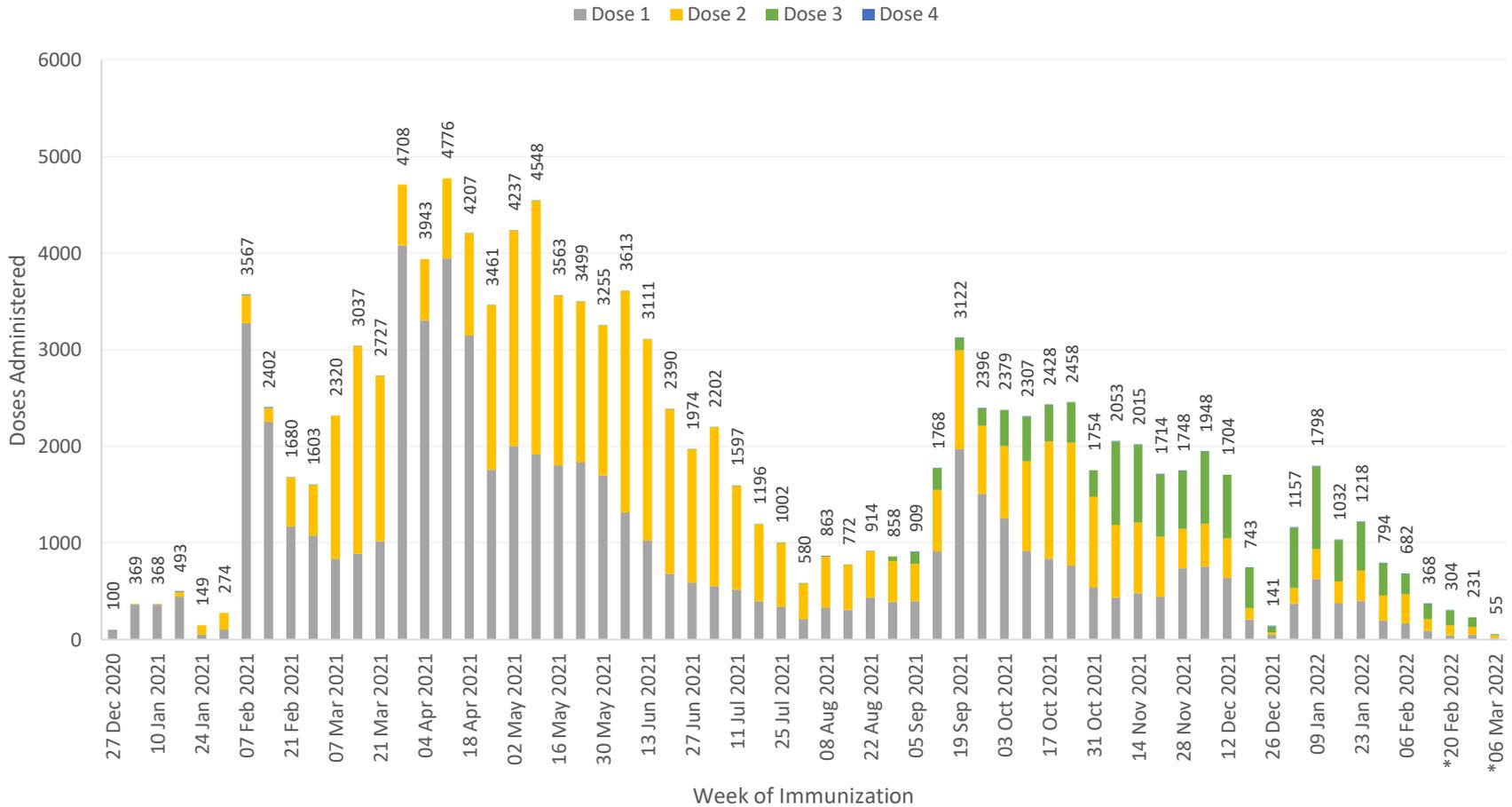


\*Percentages are calculated using unadjusted ISC-IRS on-reserve and Crown land population as of December 31, 2020. If the proportion of population immunized in any age group exceeds 100% because of population data limitation, we keep the proportion at 100% by adjusting the population to be equal to the number of first doses administered in that age group

# COVID Immunization Activity – On Reserve in Alberta

Source: Okaki Slice Analytics (March 09, 2022)

COVID-19 doses administered by week of immunization and type of dose



\*May be incomplete due to late reporting

# Third Dose for Adolescents Ages 12-17

## First Nations, Métis and Inuit adolescents (eligible now)

- All First Nations, Métis and Inuit adolescents ages 12 to 17 are eligible for a booster dose now regardless of where they live.

## Starting March 14<sup>th</sup>:

- All adolescents ages 12 to 17 can get a booster dose 5 months after their second dose.
- Appointments can now be booked for March 14<sup>th</sup> onward.

# Novavax COVID-19 Vaccine

- On February 17<sup>th</sup>, Health Canada authorized the Novavax Nuvaxovid<sup>®</sup> [COVID-19 vaccine](#) for the prevention of COVID-19 in adults 18 years of age and older.
- This is the 5<sup>th</sup> COVID-19 vaccine authorized in Canada.
- Nuvaxovid<sup>®</sup> is a [protein-based vaccine](#) that is administered as a two-dose regimen of 5 mcg per dose, 21 days apart.
- Clinical trials showed that beginning 1 week after the second dose, this vaccine was:
  - 90% effective in protecting trial participants aged 18 and above against COVID-19.
  - 100% effective against severe outcomes
- More information can be found at: <https://www.canada.ca/en/health-canada/services/drugs-health-products/covid19-industry/drugs-vaccines-treatments/vaccines/novavax.html>

# Wastewater Monitoring for COVID-19

Dr. Rita Henderson

*Models of Care Scientist & Assistant Professor – Cumming School of Medicine and University of Calgary*

Dr. Kerry Black

*Assistant Professor & Schulich Research Chair – University of Calgary*





UNIVERSITY OF  
CALGARY

# Community-based wastewater monitoring for COVID-19 with small and remote First Nations

**Rita Isabel Henderson, PhD**  
Assistant Professor, Models of Care Scientist  
Department of Family Medicine, Cumming School of Medicine

**Kerry Black, PhD, P.Eng**  
Canada Research Chair, Integrated Knowledge, Engineering & Sustainable Communities  
Centre for Environmental Engineering Research and Education (CEERE)

March 2022



CIHR IRSC  
Canadian Institutes of Health Research  
Institut de recherche en santé du Canada

# Welcome



- Team:

- UCalgary Co-Leads – Dr. Black, Dr. Parkins ,Dr. Henderson; Co-applicants: Dr. Ryan, Dr. Hubert, Dr. Achari, Collaborators: Kevin Frankowski & ACWA
- ISC Co-Leads – Dr. Sarin; Collaborators: Simon Sihota, Dr. Thiara, ISC Team
- Community Partners: Blackfoot Confederacy Tribal Council, Samson Cree Nation

## Objectives

1. Partner with smaller and/or rural and remote First Nations in Alberta to expand wastewater testing for COVID-19 in communities;
2. Identify and address barriers in small rural and remote First Nations to community-based, Nation-led approaches to sample extraction, laboratory testing, and mobilizing findings for community protection;
3. Build a community of practice network and data-dashboard system across First Nations engaging in wastewater COVID-19 surveillance to grow capacity for such programs in under-served contexts.

# Transdisciplinary Approach

Bring together insight from distinct disciplines (e.g., medicine, engineering, laboratory science, public works) to promote:

- (a) resolving infrastructure-related barriers to wastewater surveillance
- (b) community-led approaches to meaningful participation in the tracking of SARS-COV2
- (c) collaborative and co-created strategies to mitigate disease spread, and
- (d) Indigenous-centered knowledge mobilization strategies.
- (e) Ethics-centered approach

# Community Buy-In

- Role of Leadership & Administration
- Role for Infrastructure & Health Programs
- Early identification of challenges to implementation
- Role for Community-based Researchers
- Community Champions and role of Tribal Councils or other technical support organizations

## Work to Date



Partnering with First Nations that are larger and closer to urban centres than most in Alberta

### Key Lessons:

- Growing cross-sector collaboration in FNs
- Identifying reliable sample sources
- Troubleshooting sampler installation

# “Sampler” Device & Lab Transportation



- Transportation time
- Sampler Operations

# Ongoing Questions & Challenges

- Infrastructure-related challenges
- Resource-related challenges
- Higher costs for transportation
- Long-term sustainability of the project
- Community relevance

## Wider Relevance

- Growing capacity for such technology may have ongoing pandemic benefits, but could theoretically be expanded to other disease or drug indicators
- Promoting Nation-based data-generation better informs Nation leadership for timely health protection measures
- When data is a tool to monitor risk, disease prevention is always cheaper and more effective than treating disease itself

## How to get in touch

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- **Kerry Black, PhD, P.Eng**

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# Questions?

# [VCHELP@FNTN.CA](mailto:VCHELP@FNTN.CA)



Indigenous Services  
Canada

Services aux  
Autochtones Canada

Canada

# Acknowledgements

Dr. Rita Henderson, Models of Care Scientist & Assistant Professor –  
Cumming School of Medicine and University of Calgary

Dr. Kerry Black, Assistant Professor & Schulich Research Chair – University of  
Calgary

Dr. Chris Sarin, Senior Medical Officer of Health – FNIHB

Dr. Parminder Thiara, Deputy Medical Officer of Health – FNIHB

Simon Sihota, Regional Manager, EPHS - FNIHB

Ibrahim Agyemang, Senior Epidemiologist – FNIHB

TSAG Telehealth Team (Michelle Hoeber, Brooke Hames and team)

FNIHB Technical Team