

# Research in the Age of COVID-19

Shirley Thompson & Ajarat Adegun



**RESEARCH IN THE AGE OF COVID**

An in-person roundtable workshop featuring reflections on the challenges, opportunities & surprises of doing research during the pandemic

**Special Guests:**

- MICHELLE DRIEDGER**  
Rady Health Sciences, Community Health, U of M
- STEWART HILL**  
Manitoba Keewatinowik Okimakanak Inc.
- KIERA LADNER**  
Political Science & Director of Mamawipawin, U of M
- SHIRLEY THOMPSON**  
Natural Resources Institute, U of M
- LORI WILKINSON**  
Sociology, U of M

**SEPTEMBER 21, 2022**  
**12:00-1:30 PM**  
**201 ST. JOHN'S COLLEGE**  
92 Dysart Rd, Winnipeg, MB R3T 2M5

**LIVE STREAM AVAILABLE**

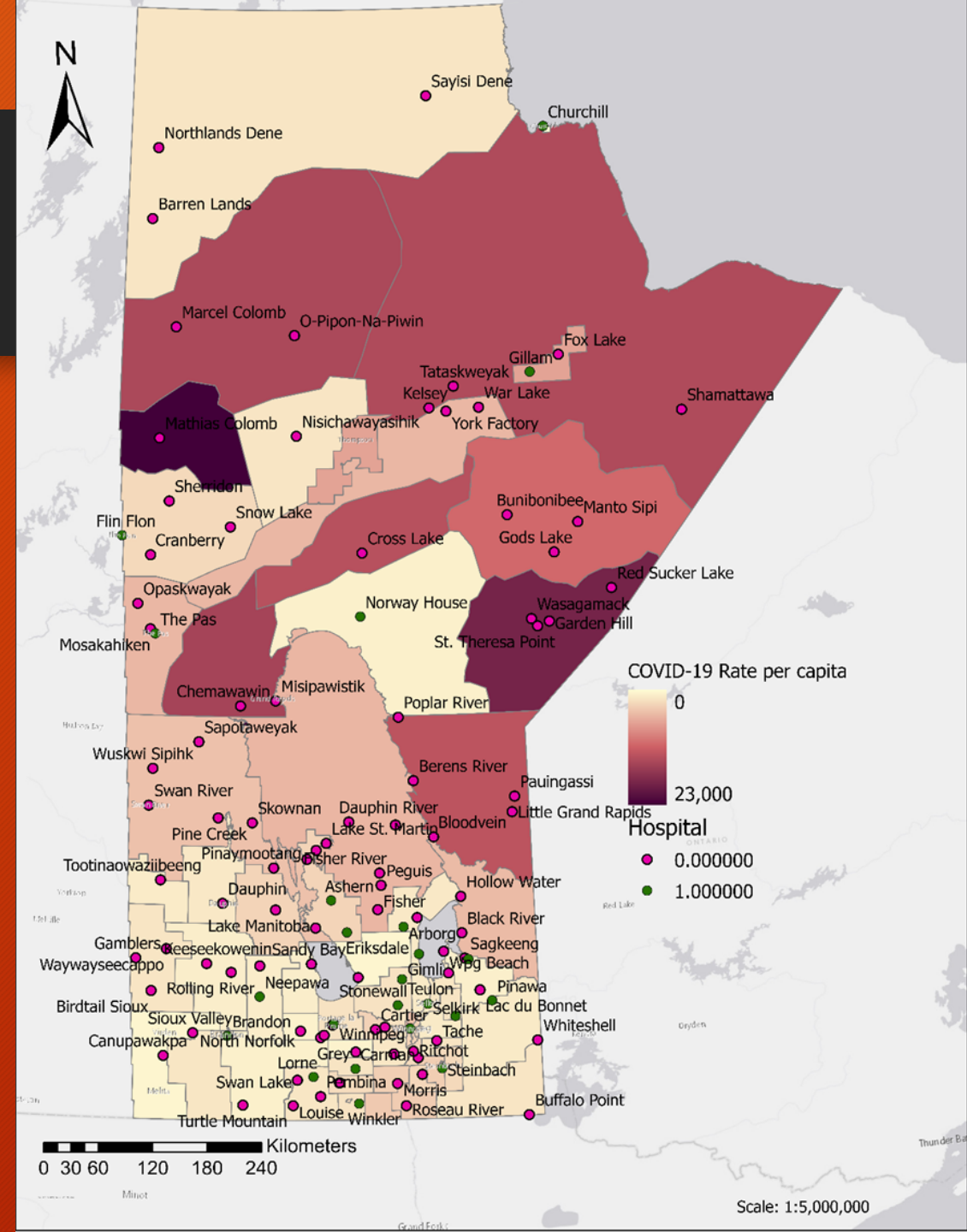
All welcome!  
Masking is required at all in-person U of M events  
Bring your own lunch!

# COVID-19 rates juxtaposed with the Availability of Hospitals in Manitoba communities

## DATA MAPPED:

- COVID-19 case rates for October 2020 – June 2021 obtained from Public Health Information Monitoring System (PHIMS) database available on the Government of Manitoba GeoPortal open data for Regional Health Areas (RHAs) (Government of Manitoba, 2021a)
- Hospitals in Manitoba (Government of Manitoba, 2021b).

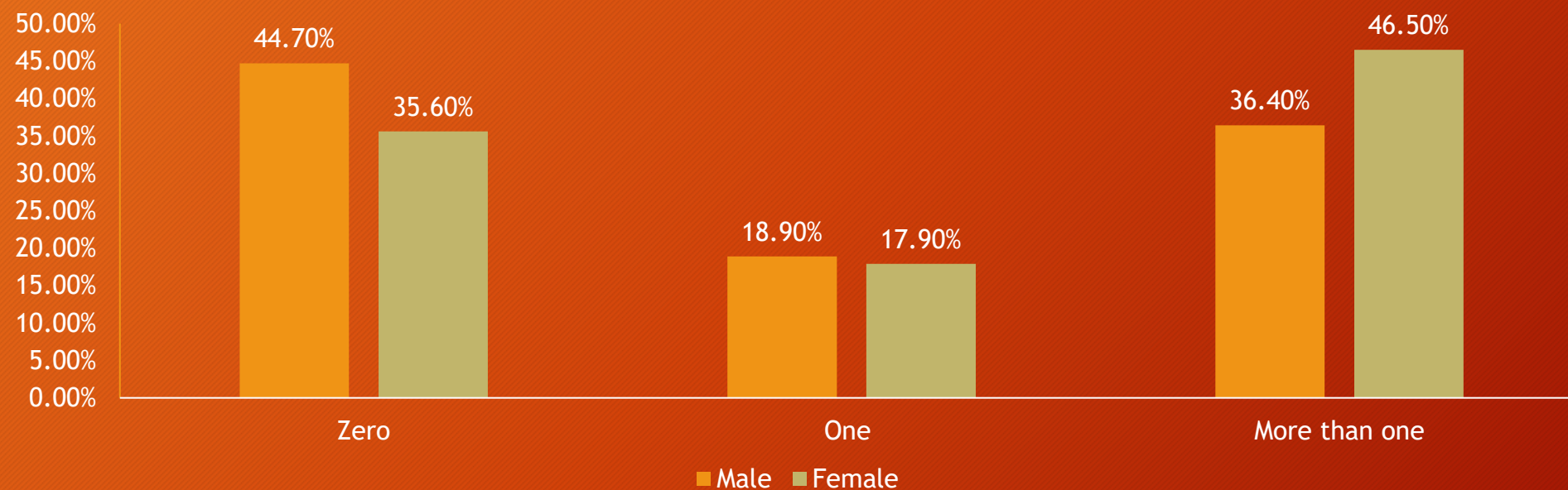
Adegun, A., & Thompson, S. (2021). Higher COVID-19 rates in Manitoba's First Nations compared to non-First Nations linked to limited infrastructure on reserves and the Indian Act. *Journal of Rural and Community Development*.





# Chronic Health Conditions

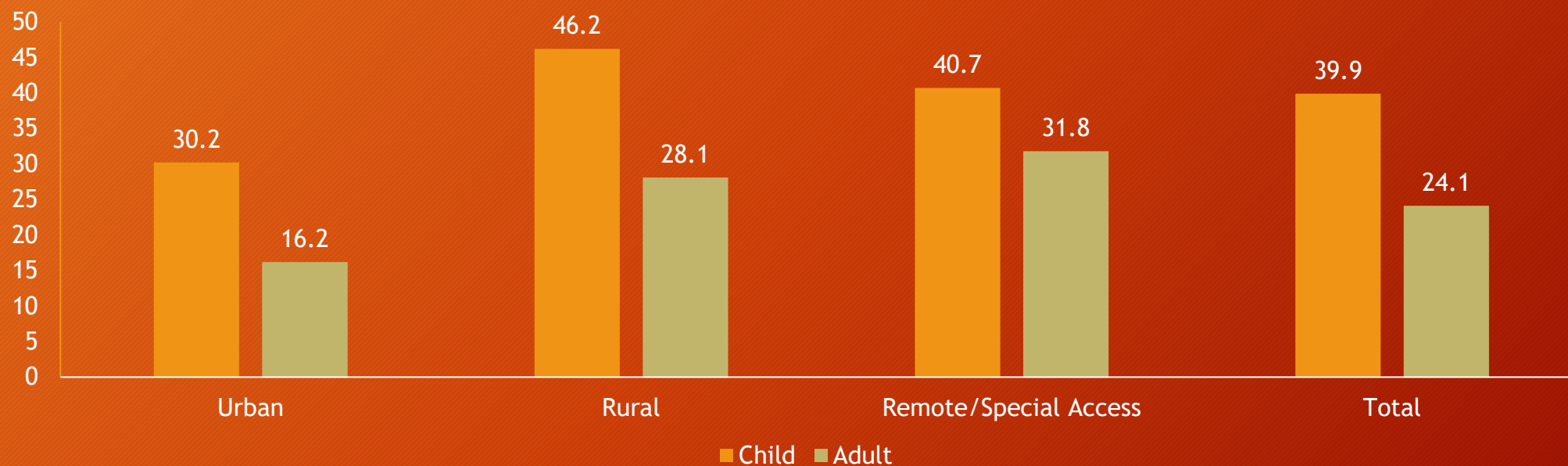
## Percentage of First Nations Adults with Chronic Health Conditions



First Nations Information Governance Centre (FNIGC), 2020.

# Overcrowding on First Nation Reserves

## Percentage of First Nations adults and children living in overcrowded households



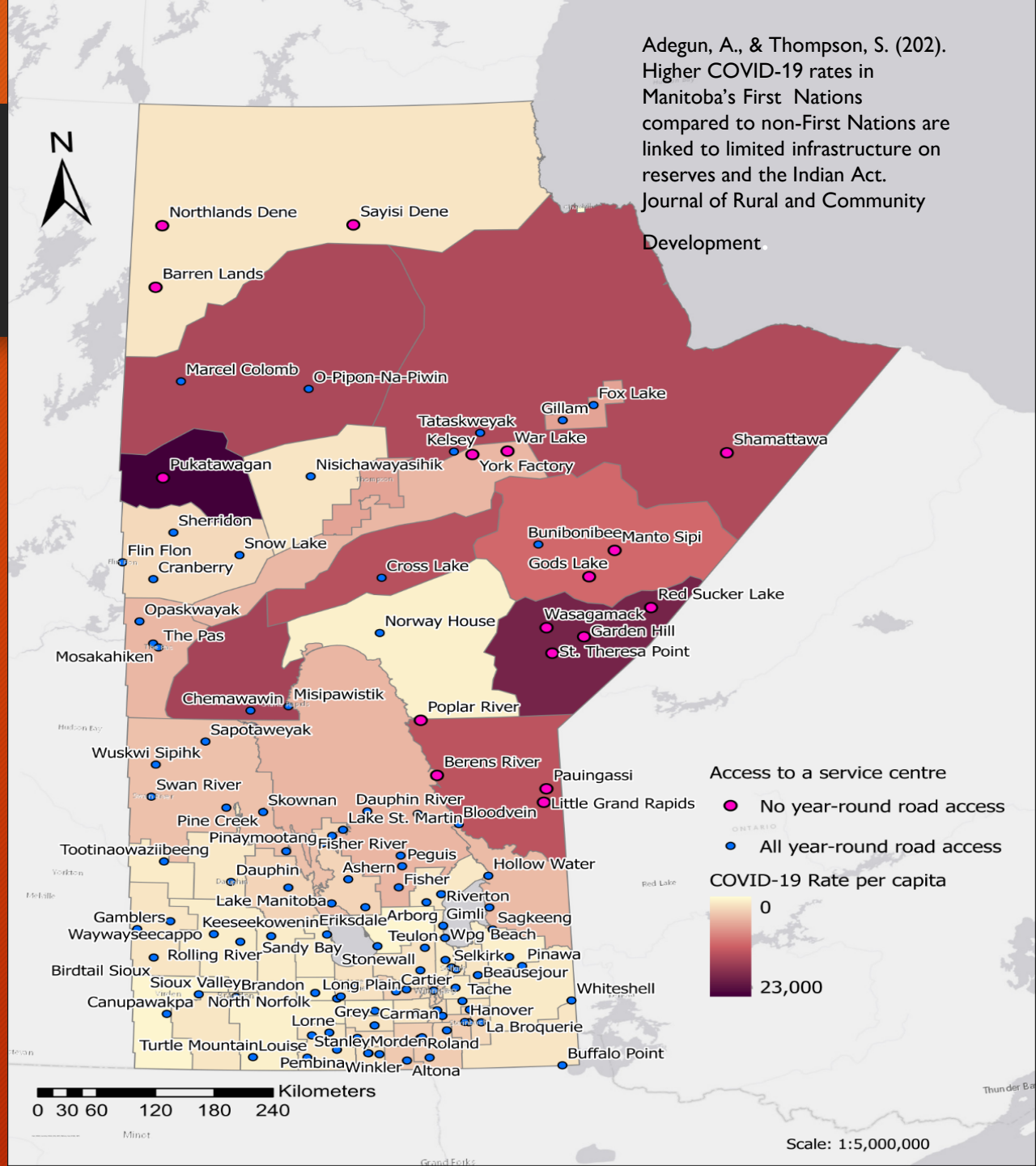


# Map of Road access to a service center juxtaposed with COVID-19 rates for Manitoba communities

## DATA MAPPED:

- COVID-19 case rates for October 2020 – June 2021 obtained from Public Health Information Monitoring System (PHIMS) database available on the Government of Manitoba GeoPortal open data for Regional Health Areas (RHAs) (Government of Manitoba, 2021a)
- First Nation Profiles (Indigenous and Northern Affairs Canada, 2019).

“Service center refers to the nearest community to which a First Nation can refer to gain access to government services, banks and suppliers ” (Indigenous Services and Northern Affairs Canada, 2019)



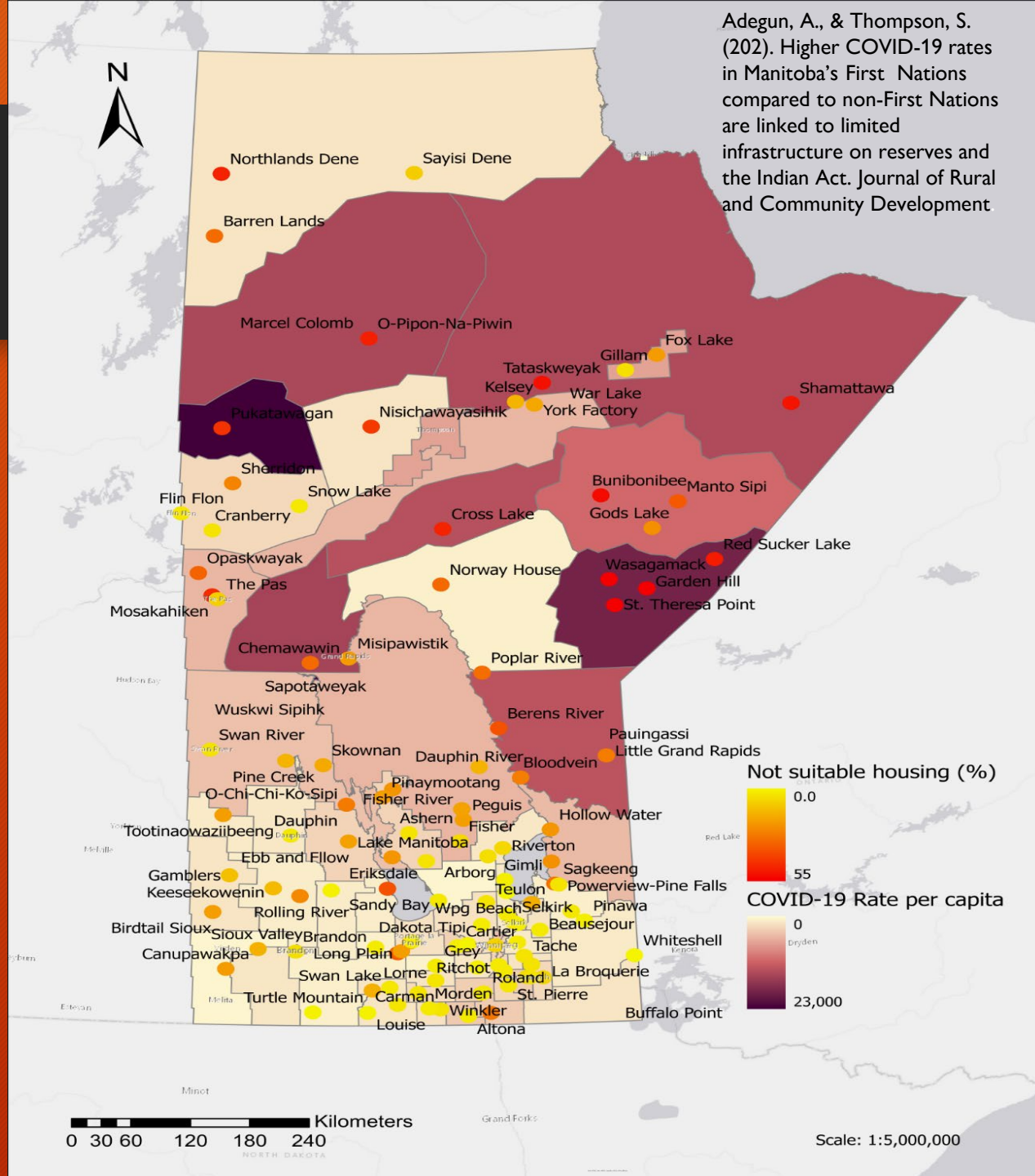
# Map: Not suitable Housing Rates juxtaposed with COVID-19 rates for Manitoba communities

## DATA MAPPED:

- COVID-19 case rates for October 2020 – June 2021 obtained from Public Health Information Monitoring System (PHIMS) database available on the Government of Manitoba GeoPortal open data for Regional Health Areas (RHAs) (Government of Manitoba, 2021a)
- Not Suitable Housing rates (Statistics Canada, 2017).

"Housing suitability refers to whether a private household...has enough bedrooms for the size and composition of the household" (Statistics Canada, 2016)

Adegun, A., & Thompson, S. (202). Higher COVID-19 rates in Manitoba's First Nations compared to non-First Nations are linked to limited infrastructure on reserves and the Indian Act. Journal of Rural and Community Development





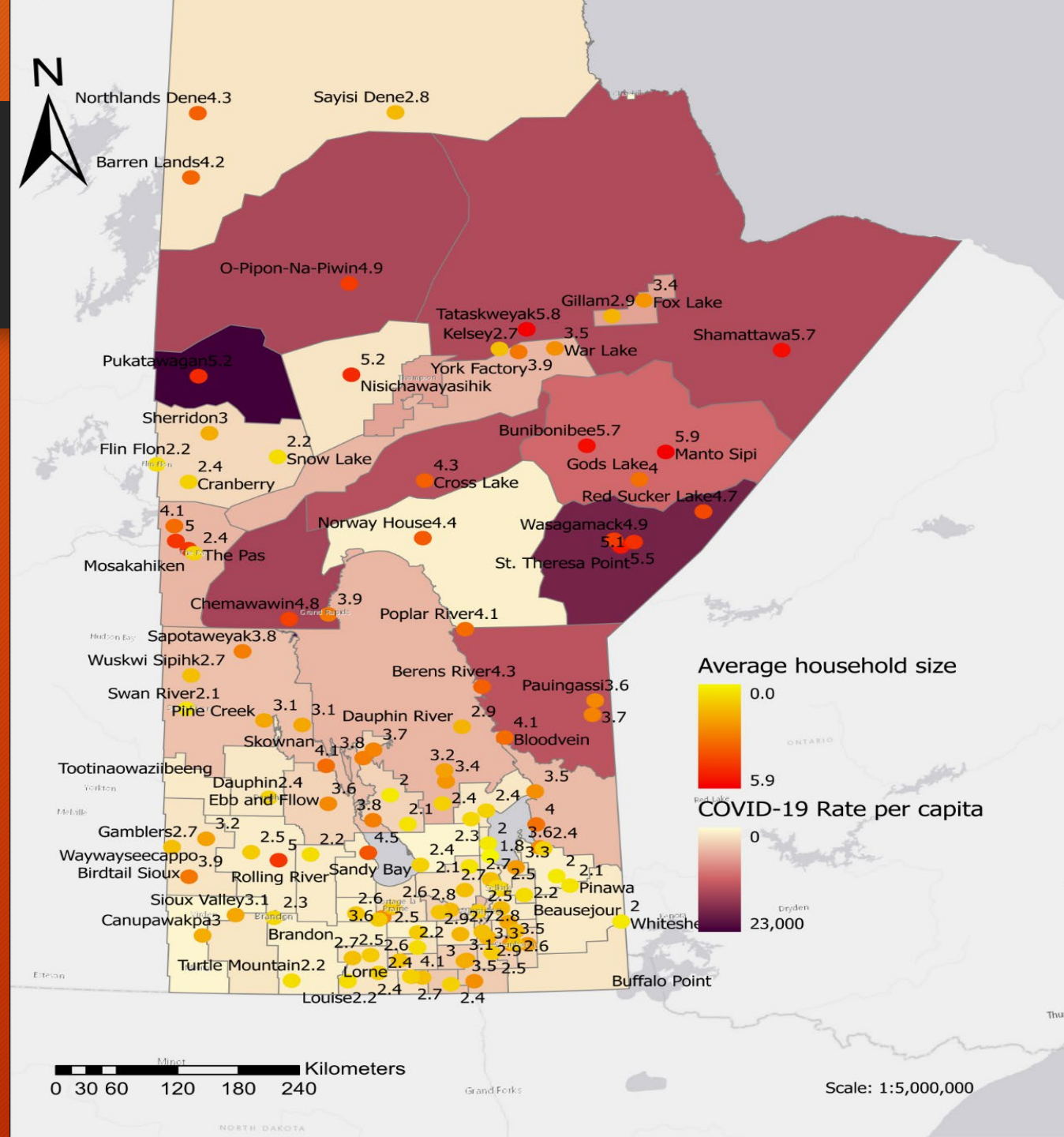
# Average Household size juxtaposed with COVID-19 rates for Manitoba Communities

## DATA MAPPED:

- COVID-19 case rates for October 2020 – June 2021 obtained from Public Health Information Monitoring System (PHIMS) database available on the Government of Manitoba GeoPortal open data for Regional Health Areas (RHAs) (Government of Manitoba, 2021a)

- Average household size (Statistics Canada, 2017).

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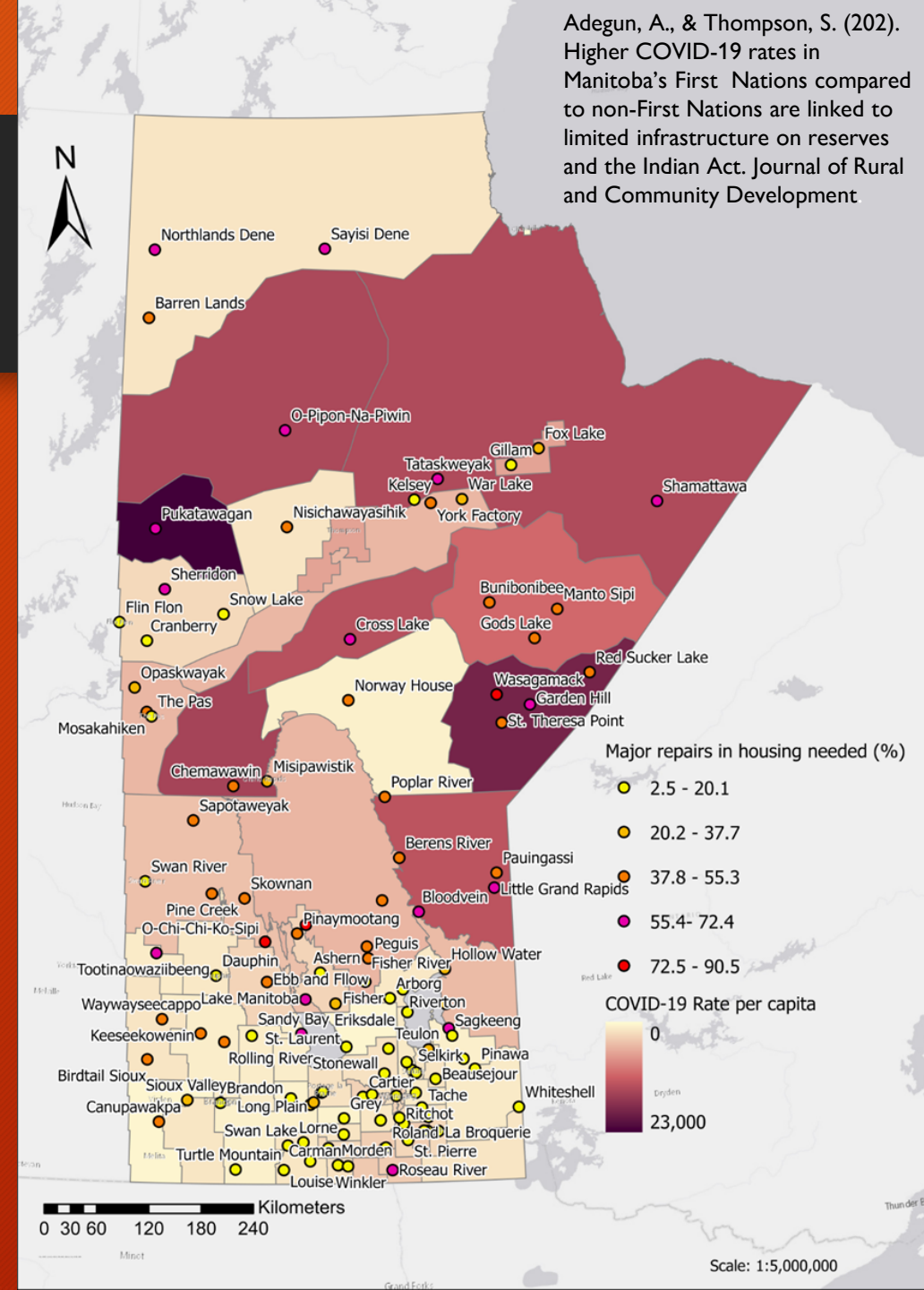


# Rates of Major Repairs in Housing Needed juxtaposed with COVID-19 rates in Manitoba communities

## DATA MAPPED:

- COVID-19 case rates for October 2020 – June 2021 obtained from Public Health Information Monitoring System (PHIMS) database available on the Government of Manitoba GeoPortal open data for Regional Health Areas (RHAs) (Government of Manitoba, 2021a)
- Major repairs in housing needed (Statistics Canada, 2017).

“Major repairs include defective plumbing or electrical wiring, structural repairs to walls, floors, ceiling” (FNIGC, 2020)





# Statistical Results

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**Preliminary Pearson Correlation to test relationship between variables**

	<b>Rate (cases per 100,000)</b>
<b>Rate (cases per 100,000)</b>	<b>1.000</b>
<b>Houses not suitable</b>	<b>0.623</b>
<b>Major repairs in housing needed</b>	<b>0.561</b>
<b>Average household size</b>	<b>0.532</b>

**Independent group T-test**

	<b>Rate (cases per 100,000)</b>
<b>Communities without all year-round road access</b>	<b>(t = 2.281, P &lt; 0.05)</b>
<b>Hospitals</b>	<b>(t = 2.024, P &lt; 0.05)</b>

Adegun, A., & Thompson, S. (2021). Higher COVID-19 rates in Manitoba's First Nations compared to non-First Nations linked to limited infrastructure on reserves and the Indian Act. Journal of Rural and Community Development.

- **One in 10 (9.6%) First Nations Adults lacked access to healthcare needed in the previous 12 months (FNIGC, 2020)**
- **38% of First Nations adults in remote/special access communities live in homes needing major repairs (FNIGC, 2020)**
- **46% of First Nations adults in remote/special access communities reported mould in their homes in the previous 12 months – almost 4X higher than the general population at 13% (Statistics Canada, 2015)**
- **Over one-quarter (28%) of First Nations adults do not have access to drinking water all year-round (FNIGC, 2020)**



# References

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- Adegun, A., & Thompson, S. (202). Higher COVID-19 rates in Manitoba's First Nations compared to non-First Nations linked to limited infrastructure on reserves and the Indian Act. *Journal of Rural and Community Development*.
- First Nations Information Governance Centre, RHS Statistics for Shaping a Response to COVID-19 in First Nations Communities, (Ottawa: 2020). 20 pages. Published in May 2020.
- Government of Manitoba. (2021a). Manitoba COVID-19. Retrieved from <https://geoportal.gov.mb.ca/app/f55693e56018406ebbd08b3492e99771>.
- Government of Manitoba (2021b). Map of Manitoba's Health Facilities. Retrieved (July 2, 2021) from <https://www.gov.mb.ca/health/waittime/map.html>
- Indigenous and Northern Affairs Canada. (2019). First Nation Profiles. Retrieved from <https://fnp-ppn.aadnc-aandc.gc.ca/fnp/Main/Definitions.aspx?lang=eng>
- Komenda, P., Lavalley, B., Ferguson, T. W., Tangri, N., Chartrand, C., McLeod, L., ... & Rigatto, C. (2016). The prevalence of CKD in rural Canadian Indigenous peoples: results from the First Nations Community Based Screening to Improve Kidney Health and Prevent Dialysis (FINISHED) screen, triage, and treat program. *American Journal of Kidney Diseases*, 68(4), 582-590.
- Statistics Canada. (n.d.a). Table 38-10-0018-01 Indoor air quality–Households and the environment survey, indoor air quality, Canada, provinces and census metropolitan areas (CMA), every 2 years (percent), CANSIM (database). Retrieved from <https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=3810001801>.
- Statistics Canada. 2017. Census Profile. 2016 Census. Statistics Canada Catalogue no. 98-316-X2016001. Ottawa. Released November 29, 2017. <https://www12.statcan.gc.ca/census-recensement/2016/dp-pd/prof/index.cfm?Lang=E> (accessed September 27, 2021)