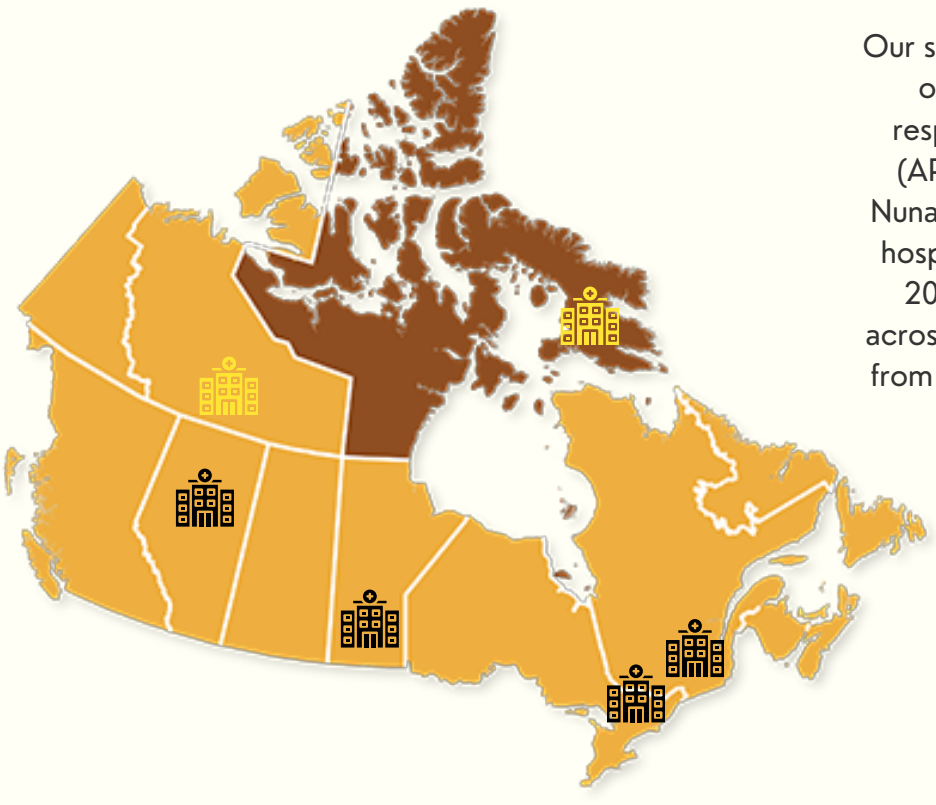
Hospital Admissions for Acute Respiratory Tract Infections Among Infants from Nunavut and the Burden of Respiratory Syncytial Virus: A 10-Year Retrospective Cohort Study



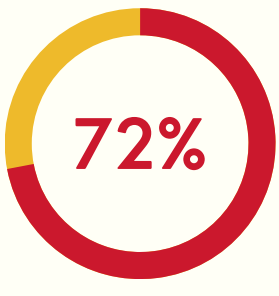
Our study is the largest review of the burden of acute respiratory tract infections (ARIs) among infants from Nunavut, covering 10 years of hospital admissions (2010 to 2020) to all six hospitals across Canada where children from Nunavut are referred to.

Regional hospitals

Tertiary hospitals

We identified 1189 ARI admissions of infants from Nunavut over the 10 year period. Of these hospitalized infants:

Regional hospital admissions only

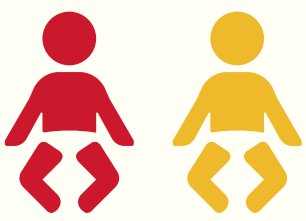


Hospitalized outside of Nunavut

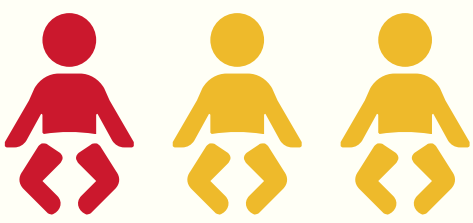
Admitted into intensive care

Underwent mechanical ventilation

For every 1000 infants, about 134 may be admitted to the hospital each year due to acute respiratory infections (incidence rate 133.9 per 1000, 95% CI: 126.8, 141.3)



Respiratory syncytial virus (RSV) was the most common infection found in **46% cases (**334 of 730 admissions with laboratory testing). The rate of RSV varied from year to year.



32% of those with RSV-associated admissions were **older than six months,** which is a larger proportion of older infants in Nunavut compared to their counterparts in southern Canadian centers.

Compared to other infections, **RSV-associated admissions had higher odds of:**

- **Admission into intensive care** (aOR 1.65, 95% CI: 1.13, 2.41)
- **Oxygen therapy** (aOR 2.24, 95% CI: 1.59, 3.17)
- **CPAP/biPAP** (aOR 2.05, 95% CI: 1.24, 3.43)
- **Length of hospital stay over 7 days** (aOR 1.40, 95% CI: 1.03, 1.90)

aOR – adjusted odds ratios controlled for age, time period, preterm birth, and region of residence

Link to Publication: https://doi.org/10.1016/j.lana.2025.101021