

**Submission Id:** 3990

**Title**

*māmawōhkamātowin (working together) to enhance wellness: respiratory health and the house*

**Priority 1 (Research Category)**

Social determinants and vulnerable populations

**Presenters**

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**Abstract**

Context: When environmental tobacco smoke (ETS) is combined with other home-based exposures, such as mold, the risks to respiratory health are dramatically increased. Objective: To understand the relationships between the house, ETS and respiratory health outcomes of those living in the house. Design: The overall design was informed by the integration of community-based participatory research and transformative action research. This approach facilitated the process of co-creation, identifying issues of concern to the community, and utilizing the strengths and contributions of the community. Setting and Participants: One adult from each of the 238 homes in Sturgeon Lake First Nation, Saskatchewan, Canada. Intervention(s): Co-created community-based survey and house assessments. Results: The participation rate was 100% with 238 of 238 houses participating in both the survey and the house assessment. Almost half (47%) of the houses were smoke-free. Crowding was present in 67% of the houses with 19% having more than two persons/bedroom. House assessments revealed: 58% of homes had visible mold; 74% reported dampness in the house; 39% of houses reported a moldy/musty smell with 65% always having the smell present. Residents in the houses were treated for: wheeze (34.3%); bronchitis (27.9%); ear infection (23%); asthma (19.6%); tonsillitis (15.7%); pneumonia (13.2%); croup (9.4%); and respiratory viruses (8.0%). In the last five years hospitalizations for respiratory conditions were: pneumonia (14.8%); bronchitis (11.9%); asthma (9.4%); ear infection (8.0%); and tonsillitis (4.8%). Analysis reveals that when crowding was present in the house, the home was more frequently smoke-free. Moldy smell and visible mold in the house were significantly associated with respiratory health including tonsillitis, bronchitis, pneumonia, respiratory viruses, asthma, croup, ear infections, and wheeze. Having a moldy smell was strongly associated with both treatment and hospitalization for these conditions. Conclusions: Although smoke-free homes were important; mold in homes was more strongly associated with both treatment and hospitalization for respiratory conditions.