The Impact of Housing Needs on Physical and Mental Health: Evidence from the Canadian Housing Survey

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I have no conflict of interest to declare in relation to this presentation.

Background

▪ About 1 in 10 Canadian households are in core housing need.

▪ In 2021, unaffordable housing (19%), inadequate housing (7.4%), and unsuitable housing (4.4%).

▪ Housing needs may lead to homelessness, higher rates of chronic diseases, poor physical and mental health and unhealthy behaviours [1,2].

▪ Higher rates of postponement of care and acute healthcare utilization [3,4].

▪ The strain on the healthcare system.

Research Gap & Objectives

- Limited evidence on the health effects of housing needs in Canada.

To investigate the effect of housing needs on physical and mental health.

To examine the effects of housing cost burden and housing quality on physical and mental health.

Data & Methods 1

- Canadian Housing Survey (CHS) public use micro-data

  - ❖ Total sample (CHS 2018): 61,764

  - ❖ Study sample: 57,112

  - ❖ Exclusion: Households that are not examined for core housing needs.

    - o Households on reserves, zero or negative total income.

- Measuring health outcomes:

  - ❖ Mental health – 1 if self-reported mental health is excellent – good; 0 otherwise

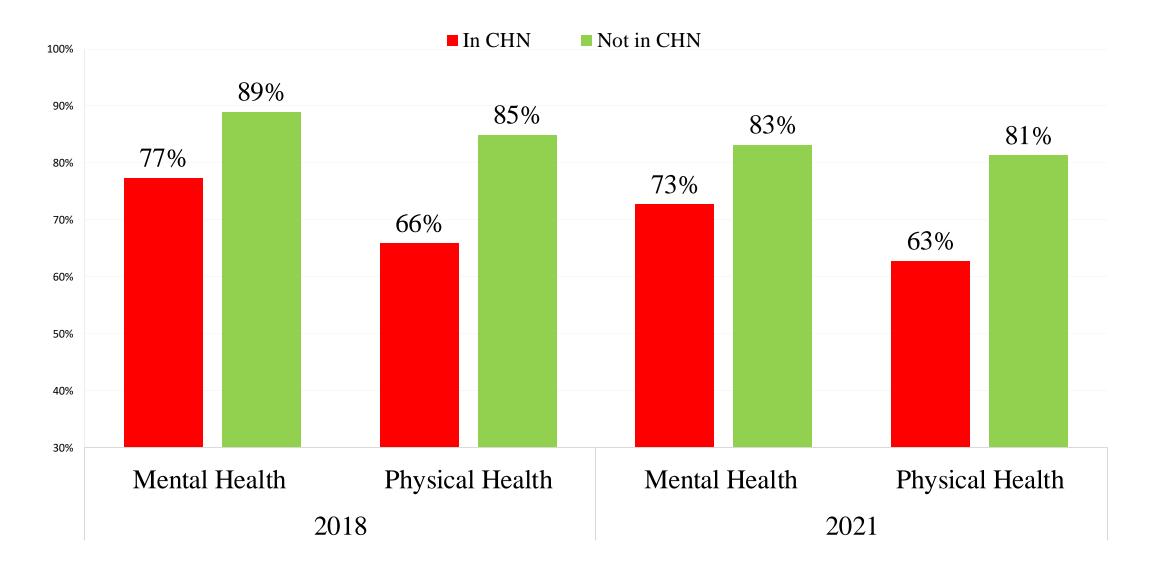 - ❖ Physical health – 1 if self-reported general health is excellent – good; 0 otherwise

Data & Methods 2

- Housing need variables:

  - ❖ Housing need – 1 if a household is in core housing need, 0 otherwise

  - ❖ Housing cost burden – 1 if shelter cost to income ratio is $>= 30\%$, 0 otherwise

  - ❖ Housing quality – 1 if housing requires major repairs, 0 otherwise

- A rich set of controls (23):

  - ❖ Individual, household, dwelling and neighbourhood characteristics

- Estimate using logistic regression and linear probability model.

Positive Health Outcomes and Core Housing Need(CHN) in Canada

RQ1 – effect of housing needs on physical and mental health

Individuals in households with *core housing needs* are **34% less likely** to report good physical and mental health.

	Physical Health		Mental Health	
	(1)	(2)	(3)	(4)
	Logistic	LPM	Logistic	LPM
Housing need	**0.66***	**-0.072***	**0.66***	**-0.056***
	(0.049)	(0.012)	(0.053)	(0.010)
N	47,654	47,654	47,610	47,610

Note: All control variables included. Reported odd ratios for logistic regression.
Standard errors in parenthesis.
*** $p<0.01$

RQ2a– effect of housing cost burden and quality on health

1. High *housing cost burden* **reduces** the likelihood of good physical and mental health by **21% and 29%.**

2. Poor *housing quality* **reduces** the likelihood of good physical and mental health by **49% and 43%.**

3. The effect of housing quality is stronger than that of housing cost burden.

	Physical Health		Mental Health	
	(1)	(2)	(3)	(4)
	Logistic	LPM	Logistic	LPM
Housing cost burden	**0.79*****	-0.034***	**0.71*****	-0.039***
	(0.050)	(0.008)	(0.048)	(0.007)
Poor housing quality	**0.51*****	-0.103***	**0.57*****	-0.074***
	(0.042)	(0.014)	(0.055)	(0.013)
N	48,092	48,092	48,047	48,047

Note: All control variables included. Reported odd ratios for logistic regressions.
Standard errors in parenthesis.
*** $p<0.01$

RQ2b – effects of severity of housing needs on health

1. A *moderate cost burden* reduces the likelihood of reporting good health by **16%—25%.**

2. A *severe cost burden* reduces the likelihood of reporting good health by **30%—38%.**

3. *Minor repairs* reduce the likelihood of reporting good health by **26%—35%.**

4. *Major repairs* reduce the likelihood of reporting good health by **51%—54%.**

	(1)	(2)
	Physical Health	Mental Health
Housing cost burden:		
Moderate	0.84***	0.75***
	(0.057)	(0.058)
Severe	0.70***	0.62***
	(0.075)	(0.067)
Poor Housing quality:		
Minor repairs	0.74***	0.65***
	(0.043)	(0.041)
Major repairs	0.46***	0.49***
	(0.039)	(0.049)

Sensitivity Tests

- We find consistent results from:

    1. Subgroup analysis:

        a. Exploiting the length of stay in the current unit

        b. Renters and Owners

        c. Age groups

    2. Analysis using Canadian Housing Survey 2021

Contribution and Limitation

- Pros:

  ❖ Pioneers utilizing the CHS for studying health – housing need link.

  ❖ Housing measures used enable practical policy implications.

- Cons:

  ❖ We cannot make any causal inferences.

Thank You

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References

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Control Variables

- Individual: Sex, Age

- Household: household size, household type, highest level of education completed, presence of visible minority, presence of indigenous household member.

- Dwelling: dwelling type, bedrooms, tenure, safety and security in home, air quality indoor, pests, mold or mildew.

- Neighbourhood: neighbourhood satisfaction, community satisfaction, smog and air pollution, vandalism, people using or dealing drugs, racial/ethnic/religious attacks.