

TITLE:

Health status and access to health care among homeless adults in a universal health insurance system

AUTHORS

Erika Khandor, MHSc, erika.khandor@utoronto.ca (1),

Kate Mason, MHSc, masonk@smh.toronto.on.ca (1),

Laura Cowan, RN, BScN, laura@streethealth.ca (1),

Kate Rossiter, MA, PhD, km.rossiter@gmail.com (2),

Stephen W. Hwang, MD, MPH, hwangs@smh.toronto.on.ca (3, 4)

(1) Street Health Community Nursing Foundation, Toronto

(2) [Wilfrid Laurier](#) University, Health Studies Program

(3) Centre for Research on Inner City Health, The Keenan Research Centre in the Li Ka Shing Knowledge Institute of St. Michael's Hospital, Toronto

(4) Division of General Internal Medicine, Department of Medicine, University of Toronto

(5)

Erika Khandor is an epidemiologist with Toronto Public Health. Kate Mason is a Research Coordinator at the Centre for Research on Inner City Health, St. Michael's Hospital. At the time of the study and for the preparation of this manuscript, Erika Khandor and Kate Mason were Research Coordinators at Street Health Community Nursing Foundation. Laura Cowan is the Executive Director at Street Health Community Nursing Foundation. Kate Rossiter is an Assistant Professor in Health Studies at Wilfred Laurier University. Stephen Hwang is a Research Scientist at the Centre for Research on Inner City Health, St. Michael's Hospital and the Director, Division of General Internal Medicine, University of Toronto.

CORRESPONDING AUTHOR

Kate Mason

Centre for Research on Inner City Health, St. Michael's Hospital,

30 Bond Street, Toronto, Ontario M5B 1W8, Canada

Email: masonk@smh.toronto.on.ca

Phone: 416-864-6060 ext. 6513

Fax: 416-864-5485

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ABSTRACT

Background & Objectives: Relatively few studies of access to health care among homeless people have been conducted outside the United States. We conducted a survey of homeless adults in Toronto, Canada, to document their health status and access to health care within a system of universal health insurance.

Methods: Homeless adults (n=368) were randomly selected and interviewed at 26 homeless shelters and meal programs in Toronto. Data were collected on demographic characteristics, health status, health determinants, and access to health care. Data from study participants were compared with available general population data.

Results: Compared with the general population, homeless adults were more likely to rate their general health as fair or poor than the general population (40% vs. 9%) and had higher rates of all physical and mental health conditions for which comparison data were available. Study participants reported substantial barriers to health care: 59% did not have a family doctor (vs. 9% in the general population); 34% did not possess a health insurance card, which must be presented as proof of insurance when receiving health care services; and 28% reported having been refused care in the past year because they did not possess a health insurance card. An experience of having been judged unfairly or treated with disrespect by a doctor or medical staff within the past year was reported by 40% of study participants.

Conclusion: Within a universal health insurance system, homeless adults continue to experience poor health status and substantial obstacles to accessing health care. Further efforts are needed to address the barriers to appropriate health care and good health that persist for this population despite the provision of health insurance.

INTRODUCTION

Homelessness is a serious social problem that affects a large number of people in urban centres across the world. It is widely recognized that homeless people have much poorer health than the general population and often have problems accessing appropriate health care. Homeless people experience a disproportionate burden of chronic and multiple health issues^{1,2} and mortality rates for homeless people are significantly higher than for the general population^{3,4,5}.

Most studies of access to health care among homeless people have been conducted in the United States^{6,7,8}. Relatively little research has described the health status and access to health care of homeless people in countries with universal health insurance. In Canada, which has had a system of universal health insurance for more than four decades, the majority of studies involving homeless people have focused on very specific health issues such as the prevalence of HIV infection and hepatitis C, and specific sub-populations such as street-involved youth^{9,10,11,12}.

Toronto is Canada's largest city, with a metropolitan area population of 5.5 million people.¹³ A survey conducted by the City of Toronto in 2006 estimated a minimum of 5,052 individuals to be literally homeless on a single night,¹⁴ and each year approximately 25,000 different individuals stay at shelters in Toronto.¹⁵ In 2007, Street Health, a community-based organization that provides health and social services to homeless and marginalized people in Toronto, conducted a comprehensive health survey of homeless adults. The objectives of this study were to document the health status of homeless people in Toronto and to describe this population's access to health care within Canada's system of universal health insurance.

METHODS

Interview Sites

Study participants were recruited and interviewed at shelters and meal programs across downtown Toronto. All existing single adult shelters and meal programs in Toronto were stratified by type of service, gender served (where appropriate), size and geographic area. If there was more than one site in a stratification cell, sites were randomly selected. A total of 18 shelters and 8 meal programs were thereby randomly selected for participation in the survey.

Eligibility and Stratification

For the purposes of this study, homelessness was defined as: having stayed in a shelter, in a public place or other sites not intended for human habitation, or with a friend or relative for at least 10 of the last 30 nights prior to being surveyed. People who did not meet this definition of homelessness were excluded from the study.

Our sample was stratified by gender and shelter use. Stratification ensured that approximately 25% of participants were female. In order to include the substantial portion of homeless people who are not regular shelter users, the sample was stratified to achieve a target of 80% shelter users and 20% non-shelter users, based on the proportion of homeless people staying in shelters

(82%) and on the street (18%) in a one-night 2006 census of homeless people in the City of TorontoError: Reference source not found.

Participant Selection

Enrollment at each site was proportionate to the number of unique individuals using the site each month and was stratified by gender in services serving both men and women. Participants were recruited by random selection using a random number table. This was accomplished differently depending on the recruitment site. In shelters, a 'bed list' of daily shelter users was provided by the shelter, and names were randomly selected from this list using the random number table. Selected participants were then approached, asked to participate in the study and screened for eligibility; this process of random selection and participant recruitment was repeated until the target number of participants was reached for each site. In meal programs, program attendees were counted and assigned numbers as they walked in the door, or by walking around the room and counting potential participants sitting at tables. Those whose counted number matched numbers from the random number table were approached, asked to participate and screened for eligibility.

Survey Instrument

The survey consisted primarily of closed-ended questions and collected data on demographic characteristics, health and well being, health determinants and access to health care. The survey included questions from the Canadian Community Health Survey (CCHS), a national population health survey conducted by Statistics Canada using in-person and telephone interviews. This approach allowed comparison of our study's findings to general population data.

Data Collection

Data were collected over a three-month period between November 2006 and February 2007. A group of fifteen peer researchers (people with lived experience of homelessness) administered the survey to study participants via face-to-face interviews. Peer researchers also provided input into the study design and assisted with data analysis. The survey took approximately 45-60 minutes to complete. All study participants gave written informed consent and received a \$15 honorarium for completing the survey. The study was approved by the St. Michael's Hospital Research Ethics Board.

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Data Analysis

Because this study's goals were primarily descriptive in nature, a sample size of 350 participants (approximately 1% of the total number of shelter users per year in Toronto) was selected to provide a 95% confidence interval of $\pm 5\%$ for key indicators of health status and health care access. Data were entered and analyzed using SPSS 15. A set of five variables (gender, ethno-

racial background, height, weight, and date of birth) were examined across all surveys for the purpose of identifying duplicate interviews. Using this procedure, 6 duplicate interviews with the same individual were identified and deleted from the dataset. Quantitative analyses focused on descriptive statistics. Comparisons with general population data were performed using chi-square tests. We computed comparative data for the general population of Toronto using the Canadian Community Health Survey (CCHS) Cycle 3.1 (2005) Public Use Microdata File. Supplemental general population data were obtained from published papers and reports.

RESULTS

In total, 380 people were interviewed, and 368 surveys were usable after the exclusion of duplicate and incomplete surveys. Demographic characteristics of the 368 study participants are shown in **Table 1**. In keeping with sample stratification, 287 (78%) participants were shelter users and 81 (22%) were non-shelter users.

A total of 282 study participants (77%) were Canadian-born, and 261 (72%) had lived in Toronto for 10 years or longer. The mean age of participants was 42 years and the mean number of years homeless over lifetime was 4.7 years. Homeless people in our study had extremely low incomes with 133 (36%) reporting monthly incomes of \$200 (Canadian dollars) or less.

Study participants were asked to rate their health and well-being in a variety of ways. Compared with the general population, homeless people in our study reported significantly worse self-rated overall health and self-rated mental health than the general population (**Table 2**).

A total of 271 homeless individuals (74%) reported having at least one serious chronic physical health condition, 192 (52%) reported having two or more and 137 (37%) reported three or more. **Table 3** shows the prevalence of specific chronic physical health conditions among survey respondents and provides comparison data for the general population (where available). Compared with the general population, homeless participants in our study had significantly higher rates of all chronic physical health conditions for which comparison data was available. Homeless study participants were approximately 20 times as likely to have epilepsy compared with the general population of Toronto, 5 times as likely to have heart disease, 4 times as likely to have cancer, 3.5 times as likely to have asthma, 3 times as likely to have arthritis or rheumatism and twice as likely to have diabetes.

A total of 128 study participants (35%) reported that they had received a diagnosis of a mental health problem by a doctor or psychiatrist in their lifetime. **Table 3** presents the prevalence of specific diagnosed mental health conditions for survey respondents and provides comparison data for the general population (where available). Study participants had very high rates of suicidal ideation (23%) and attempted suicide (10%) within the past year (**Table 3**). We also found that homeless individuals had experienced high rates of physical and sexual violence within the past year (**Table 1**).

Although the burden of health conditions was much higher for homeless individuals in our study than in the general population, homeless study participants reported significant barriers to accessing the health care system. Thirty-seven respondents (10%) reported that they had not accessed any type of health care in the past year. Our study found that homeless people have

worse access to primary care compared with the general population, with 105 (29%) homeless study participants reporting that they had no usual source of health care. In addition to the substantial portion of survey respondents with no usual health care provider, 55 (15%) named a usual source of health care that does not provide comprehensive or stable care, including emergency departments (5%), walk-in clinics (4%), or outreach services geared towards homeless people such as temporary clinics at drop-ins and mobile vans (6%). A total of 219 homeless individuals (59%) reported that they did not have a family doctor, which is significantly higher than for the general population of Toronto, where only 9% report not having a family doctor¹⁶. A total of 129 homeless survey respondents (35%) reported that they had not had a physical check up in three or more years.

Table 4 shows survey respondents' health care utilization in the year prior to the survey, including sources of care and mean frequency of use. Emergency departments were the most frequently used source of health care. Among homeless individuals in our study, 126 (34%) did not have an Ontario Health Card, which is necessary to receive health care services paid for by government health insurance. In total, 102 study participants (28%) had been refused care in the past year because they did not have an Ontario Health Card. **Table 4** presents places these homeless individuals reported being denied health care on this basis; the most common places were privately-run walk-in clinics and hospital emergency departments.

Discrimination by health care providers was commonly reported by homeless individuals in our study. A total of 145 study participants (40%) reported that they had been judged unfairly or treated with disrespect by a doctor or medical staff at least once in the past year. Homelessness was the most common reason survey respondents felt they were judged unfairly or treated with disrespect by health care providers. Additional reasons for discrimination reported by study participants are displayed in **Table 4**. Poor treatment by hospital security guards was an additional barrier reported by a substantial number of respondents, with 74 respondents (21%) reporting that they had been verbally or physically assaulted by hospital security in their lifetime.

DISCUSSION

This study confirms that the health status of homeless adults in Toronto, Canada, is substantially worse than the health of the general population. It also demonstrates that despite their poor health status, homeless people have worse access to primary health care than the general population, and face considerable barriers to accessing care. These findings are consistent with Canadian literature which has shown that homeless people suffer from higher rates of chronic disease and mental health issues than the general population¹⁷, despite Canada's system of universal health insurance.

Our results illustrate many of the specific health concerns faced by homeless adults and highlight key areas where homeless people's health is worse than that of the general population. Across all categories where comparison data was available, including self-rated general health status and specific physical and mental health conditions, homeless people in our study fared far worse than the general population. Our findings on homeless people's health status are particularly concerning when considered alongside our results regarding barriers that homeless people face in

accessing health care. While homeless survey respondents bore a disproportionate burden of illness and ill health, they reported poor access to comprehensive and stable primary health care, and were far less likely to have a family doctor than members of the general population. In addition, many participants reported being refused health care, perceived discrimination and poor treatment in the health care system. The poor self-reported health status and high prevalence of physical and mental health concerns among homeless people in Toronto can be understood in light of the complex relationship between homelessness and health, which includes the direct impact of homeless people's poor living conditions on their health, the impact of risk factors such as poverty on healthError: Reference source not found, homeless people's difficulty managing chronic health conditions such as diabetes due to their living conditions¹⁸, and barriers to accessing appropriate health care faced by homeless individuals.

Although all residents of Canada have access to universal health care insurance, barriers and challenges exist that help to explain homeless people's poor access to health care in Toronto. Health care in Canada is publicly funded, but privately administered through a diverse group of service providers. These service providers include physicians in private practices; not-for-profit, privately run hospitals; and not-for-profit community-based health care services. In Toronto, there is no coordinated network of care for homeless people. Current challenges to the health care system in Ontario (the province in which Toronto is located) include an overall shortage of family doctors, as well as extensive wait times for specialist care and diagnostic tests. In order to receive publicly-funded medical services, residents of Ontario must hold a valid Ontario Health Card. Due to their precarious living situations, many homeless people do not have health cards because they are often lost or stolen, and can be very difficult to replace without having a permanent address, or without being able to prove permanent residency within Ontario. As our findings demonstrate, homeless people are often denied access to health care if they do not have a valid health card. The lack of coordination of homeless health care services, shortage of medical professionals, wait times for medical specialists and tests, and difficulties homeless people have securing and maintaining health cards are all factors that can prevent homeless people from accessing the health care they need. The discrimination and poor treatment by health care providers reported by participants in this study are additional important barriers to accessing needed care.

An additional consideration is that although government health insurance in Ontario covers physician and hospital-based services, diagnostic tests and some supplementary and preventative care, many key services including dental care, vision care, prescription medication, medical supplies and physiotherapy are not covered. This can mean that many homeless people living on low incomes and without supplementary health insurance cannot access the treatment they need for their health issues, thus contributing to their worse health status. The poor primary health care access and poor health status reported by participants in this study can help explain their high rates of hospitalization and hospital emergency department use.

Strengths and Limitations

A key strength of this study is that it has provided Street Health, as well as other community, research and government stakeholders with comprehensive, detailed information on the health status and access to health care of homeless adults in Toronto that would be otherwise

unavailable. Government census and population-level health surveys in Canada have largely failed to gather information on the health status of the homeless population. Homeless people are generally excluded from broad-based government surveys in Canada because they tend to be administered by telephone or mail, thereby excluding people without a telephone or permanent mailing address. Even when these surveys do reach homeless people, they are not designed to capture the unique circumstances and needs of many specific sub-populations such as homeless people. Thus, our study fills an important gap in knowledge and evidence about the health status and specific health issues and needs of the homeless population in Toronto. Another major strength of our study is that it directly involved homeless community members and other community stakeholders at each stage of the research process. This approach helped ensure that our research was relevant to a variety of stakeholders by grounding it in the perspectives and priorities of individuals who have experienced or are working on the issues first hand.

While our survey gathered comprehensive data on the health of people who are literally homeless in Toronto, there are certain limitations to this research. Our study only included people who were literally homeless, and as a result does not capture the experiences of people living in poor housing or overcrowded conditions, people at risk of becoming literally homeless, and people living on low incomes who spend a large part of their income on rent. Our study did not include the small portion of homeless individuals who do not use shelters or meal programs, and therefore our findings may not accurately reflect the experiences of this sub-group of the homeless population. Fewer women in Toronto use homeless services than men and there are fewer services targeted towards homeless women. A sample of homeless people that was not stratified by sex would have likely yielded a relatively small proportion of women. We therefore intentionally over-sampled women to ensure that they made up at least 25% of our sample, and as a result the gender breakdown of our sample is not likely to be representative of the actual proportion of women who are homeless in Toronto. In addition, our survey excluded individuals not comfortable or capable of being interviewed in English. As a result, our sample may not be representative of the actual diversity of the homeless population in the areas of: racial, ethnic and cultural backgrounds; languages spoken; immigration status; and country of origin. Finally, survey sites did not include shelters that focus their services on families, women escaping violence, and refugees. As a result, the health issues and needs of these particular sub-groups of homeless people are less likely to be reflected in the study findings.

Conclusions

The poor health status and access to primary health care of homeless people in Toronto relative to the general population demonstrated by this study, coupled with our findings on the substantial barriers to health care faced by homeless individuals, have important implications for policies, programs and services in our health care system and beyond. Although a universal health insurance system eliminates many important barriers to health care access for homeless and other economically disadvantaged populations, our study shows that the existing health care system is not adequately addressing the health care needs of homeless people in Toronto. Our findings suggest that increased efforts could be made in the health care system to ensure homeless people's access to appropriate health care and good health, such as enhanced efforts to provide accessible models of primary health care, better coordination of care for the homeless population, increased efforts to ensure access to health cards, enhancements to service provision

that address issues of discrimination and poor treatment, and improved access to medical services, medication and supplies that are currently not insured by our health insurance system. However, many of the barriers to health care and good health for homeless people identified in this study also suggest the need to go beyond the health care system to address poverty and homelessness themselves, by improving access to adequate incomes and increasing the availability of affordable and appropriate housing. The high rates of hospitalization and hospital emergency department use reported by homeless people in our study suggest that their current poor health status and lack of access to appropriate health care is putting significant pressure on an already strained health care system. Addressing the health care, income and housing needs of the homeless population may help to reduce many of the costs and challenges associated with homeless people's hospital use.

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Table 1: Demographic characteristics of survey respondents (n=368)

	Number	Percent
Gender		
Male	268	73
Female	97	26
Transgender or transsexual	3	1
Age distribution		
18 to 24	10	3
25 to 49	281	77
50 or older	75	20
Racial or cultural groups		
White or Caucasian	259	70
Black or African-Canadian	55	15
Aboriginal or First Nations	55	15
Hispanic or Latin American	15	4
East Asian	6	2
South Asian	3	1
South East Asian	4	1
West Asian	3	1
Level of education		
Have not graduated from high school	172	35
High school graduate	151	53
College or university graduate or higher	44	12
Monthly income level		
No income	23	6
\$1 to \$200	110	30
\$201 to \$400	49	14
\$401 to \$600	60	17
\$601 to \$800	35	10
\$801 to \$1000	32	9
\$1001 or more	52	15
Length of time spent homeless (throughout lifetime)		
One year or longer	286	78
Five years or longer	123	34
Experiences of violence in the past year		
Physical assault	128	35

Physical assault by police	45	12
Sexual assault (all respondents)	26	7
Sexual assault (female respondents only, n=97)	20	21

Table 2: Self-rated health of homeless respondents (n=368) compared with the general population.

	Survey Respondents		General Population^a	p-value
	Number	Percent	Percent	
Self-rated health				<0.001
Excellent or very good*	108	29	61	
Good	108	29	30	
Fair or poor	148	40	9	
Self-rated mental health				<0.001
Excellent or very good	121	33	74	
Good	99	27	21	
Fair or poor	140	38	5	

^a Source: CCHS Cycle 3.1 (2005), Toronto general populationError: Reference source not found

Table 3: Prevalence of chronic health conditions among homeless respondents (n=368) compared with the general population.

	Survey Respondents		General population ^a	p-value
	Number	Percent	Percent	
Chronic physical health conditions				
Arthritis or rheumatism	159	43	14	<0.001
Allergies other than food allergies	122	33	24	<0.001
Migraines	110	30	11	<0.001
Liver disease	97	26	10 ^b	*
Hepatitis C	83	23	0.8 ^c	*
Problem walking, lost limb, other physical handicap	86	23	n/a	
Asthma	77	21	6	<0.001
Heart disease	74	20	4	<0.001
High blood pressure	64	17	13	0.006
Chronic obstructive pulmonary disease (COPD)	61	17	1	<0.001
Stomach or intestinal ulcers	55	15	2	<0.001
Skin disease (e.g. eczema, psoriasis)	49	13	n/a	
Angina	43	12	2 ^d	<0.001
Anemia	41	11	n/a	
Diabetes	32	9	4	<0.001
Heart attack in lifetime	27	7	2 ^d	<0.001
Inactive or latent tuberculosis	26	7	n/a	
Epilepsy	22	6	0.3	<0.001
Fetal alcohol spectrum disorder (FASD)	19	5	1 ^e	*
Stroke in lifetime	16	4	n/a	
Hepatitis B	14	4	0.7-0.9 ^f	*
Cancer	15	4	1	<0.001
Congestive heart failure		3	1 ^d	0.002
HIV infection	11	2	.006 ^g	<0.001
AIDS	4	1.1	n/a	
Diagnosed mental health conditions				
Depression	64	17	8 ^h	*
Anxiety	39	11	1 ^h	*
Bipolar	31	8	1 ^h	*
Schizophrenia	19	5	1 ^h	*
Post-traumatic stress disorder	18	5	n/a	

Suicide: ideation and attempts

	Survey Respondents		General population ^a	p-value
	Number	Percent	Percent	
Seriously considered suicide in lifetime	147	40	7	<0.001
Seriously considered suicide in past year	86	23	23	<0.001
Attempted suicide in lifetime	90	25	n/a	
Attempted suicide in past year	36	10	n/a	

n/a denotes general population data not available

* p-value could not be computed due to limitations in available general population data.

^a Unless otherwise indicated, data source is CCHS Cycle 3.1 (2005), Toronto general population. Reference source not found.

^b Canadian general population¹⁹

^c Canadian general population²⁰

^d Ontario general population²¹

^e Canadian general population²²

^f Canadian general population²³

^g Toronto general population; calculation based on estimated number of prevalent cases²⁴ and census population data²⁵

^h Canadian general population²⁶

Table 4: Health care utilization and barriers to health care reported by survey respondents (n=368)

Sources of health care used by survey respondents in the past year	Number	Percent	Mean # of times
Emergency Department	197	54	5
Doctor's office	162	44	12
Services at shelters, drop-ins, health bus	153	42	15
Community Health Centre	112	31	11
Walk-in Clinic	108	29	4
Hospitalization (at least one night)	89	24	2
Refused health care in the past year due to lack of health card	102	28	
Places where health care was refused:			
Walk-in clinics	47	13	
Emergency departments	40	11	
Family doctor's offices	23	6	
Judged unfairly or treated with disrespect by health care providers in the past year	145	40	
Perceived reasons for discrimination:			
Homelessness	97	26	
Respondent's use of alcohol or drugs	79	21	
Perception that respondent was drug-seeking	69	19	
Gender	20	5	
Race or ethnic background	19	5	
Ability to speak English	11	3	
Sexual orientation	8	2	

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