Court File No. CV-21-00077187-0000

ONTARIO SUPERIOR COURT OF JUSTICE

B E T W E E N:

KRISTEN HEEGSMA, DARRIN MARCHAND, GORD SMYTH, MARIO MUSCATO, SHAWN ARNOLD, CASSANDRA JORDAN, JULIA LAUZON, AMMY LEWIS, ASHLEY MACDONALD, COREY MONAHAN, MISTY MARSHALL, SHERRI OGDEN, JAHMAL PIERRE, and LINSLEY GREAVES

Applicants

-and-

CITY OF HAMILTON

Respondent

APPLICANTS' APPLICATION RECORD

VOLUME 7 – TAB 90-93

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Counsel to the Applicants

TO:

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Barristers & Solicitors

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Counsel to the Respondent

VOLUME 7 INDEX – *HEEGSMA ET AL.* v. *CITY OF HAMILTON*

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90.	Affidavit of Kate Hayman dated Feb 28, 2023
a.	Exhibit A – Curriculum Vitae – Kate Hayman (P 17/33)
b.	Exhibit B – Encampment Outreach Evaluation Nov 2021 (P 27/33)
91.	Form 53 Acknowledgement of Expert's Duty dated June 13, 2022
92.	Transcript of the Cross Examination of Kate Hayman dated Aug 16, 2024
a.	Exhibit A – What Knowledge is needed? Teaching Undergraduate medical students to "go upstream" and advocate on social determinants of health 2020
b.	Exhibit B – Aug 21, 2020 Twitter feed
c.	Exhibit C – Antecedents of Physical and Sexual Victimization Among 'homeless Women: A comparison to homeless men
d.	Exhibit D – Understanding Encampments of People Experiencing Homelessness and Community Responses - USDHUD
DR. STEPHEN HWANG	
93.	Affidavit of Stephen Hwang dated February 27, 2023
a.	Exhibit A – Curriculum Vitae (P 6/132)
b.	Exhibit B – Homelessness and Health Jan 23, 2001 (P 101/132)
c.	Exhibit C – Handbook of Urban Health Populations, Methods and practice (P 107/132)

Court File No. CV-21-00077817-0000

ONTARIO

SUPERIOR COURT OF JUSTICE

BETWEEN:

KRISTEN HEEGSMA, DARRIN MARCHAND, GORD SMYTH, MARIO MUSCATO, AND SHAWN ARNOLD, ET AL.

Applicants

-and-

CITY OF HAMILTON

Respondent

AFFIDAVIT OF KATE HAYMAN

SWORN FEBRUARY 28, 2023

I, Doctor Kate Hayman, of the City of Toronto in the Province of Ontario, AFFIRM AND STATE:

1. I have personal knowledge with respect to the facts set out below, except where stated otherwise. Where the information is not based on my personal knowledge, it is based upon information provided by others which I believe to be credible and true.

Credentials and Nature of Work

2. A copy of my *Curriculum Vitae* is attached hereto as **Exhibit 'A'.**
3. I am an Emergency Physician.

Expertise in providing health care to unhoused or precariously housed population

4. I have been a physician for 12 years, and an independent practitioner for 7 years.
5. I have been providing health care to the unhoused and/or (precariously housed persons) for 12 years.

   I have been working with the unhoused, precariously housed persons for 12 years; this has been a primary focus of my clinical and academic practice since 2016.
6. Sanctioned encampment sites assist to overcome difficulties associated with providing health care to unhoused persons.

Episodic Themes in Clinic Practice

7. In my experience as an emergency physician, I have daily conversations with patients about where they will stay upon discharge from the hospital. In these conversations, patients who are houseless report that they will not, or prefer not reside in the shelter environment for a number of reasons and the basis of them are often times supported by research as I have outlined below:
   a. Patients report that their belongings have been stolen in shelters, including their prescription medications and identification.
   b. Patients report a fear of violence and sexual violence in shelters. In particular, Cis and trans-women and non-binary patients have reported fear of sexual violence

when staying in congregate settings; the threat of violence and lack of private space can also be triggering for people with a past history of interpersonal violence.

c. Patients report that staying in a congregate shelter setting can also be challenging to their substance use choices, as they have no control over the people who are staying around them. (In contrast to an encampment-type setting, where residents can choose their community members.) For people seeking abstinence or reduced use of drugs, shelters can pose risk of relapse or increased substance use. Patients have also reported that they use stimulants to mitigate safety risks when in shelters or when sleeping unsheltered outside, since it is safer to be awake in the nighttime.

d. Patients who are partnered or have a support network of friends cannot always choose to stay with their partner, as couples' rooms or beds are often not available in Toronto. Particularly for people who use drugs, staying with a partner or support person is imperative to reduce the risk of death by overdose.

e. Pets are often prohibited from shelters; when patients rely on animals for companionship, mental health, and safety this is a major barrier to staying in some shelter spaces.

f. Shelters have wide-ranging harm reduction policies and philosophies. Patients have been evicted from shelter for intoxication, using drugs where they can be seen by staff (which is safer than using alone in a hidden space), and for having drug paraphernalia on their person. The unpredictable nature of these policies and their enforcement (as reported to me by patients) can lead patients to avoid the shelter system entirely.

g. Many people who are houseless have also been in the carceral system and report that the rules in shelters remind them of prior periods of incarceration – they are unwilling to voluntarily re-experience this degree of control and regulation by staff members. A history of prior foster care or incarceration has been found to increase the risk of sleeping in an unsheltered environment.[1]

h. Patients, social workers, and peer support workers in the emergency department often must call the intake line hourly to obtain a shelter space offer. Once an offer is obtained, the space may be in a different part of the city than the patient's support network, pharmacy, outreach team etc. This often leads a patient to give up on trying to find an indoor space to sleep for the night.

These are some of the factors that lead the houseless patients that I see to stay in locations other than shelters. They may choose to instead sleep unsheltered outside, or in an encampment setting when possible.

8. Staying outside without a shelter poses significant risks to health. As an emergency physician, I have personally treated people who have died from hypothermia and overdose while outside, patients who have experienced trauma (including significant head injuries), patients who have been sexually assaulted while sleeping outside, and patients who have experienced heat-and cold-related illnesses such as severe sunburn, heat cramps, and frostbite. Staying in a tent – a structure that is designed to provide privacy and protect one from the elements - helps to reduce some of these risks.

[1] Ann Elizabeth Montgomery et al., "Homelessness, Unsheltered Status, and Risk Factors for Mortality: Findings From the 100 000 Homes Campaign," *Public Health Reports* 131, no. 6 (2016): 765-772.

9. People who are houseless are more likely to receive acute rather than preventive care (in comparison with low-income people who are housed), which increases morbidity and mortality from chronic health conditions. When compared with people staying in shelters, unsheltered people (those who "sleep rough") are also more likely to have skin conditions, poor liver function, and to report recent victimization.[2]
10. Women who are unsheltered ("sleep rough") are at particularly high risk for negative health outcomes, particularly those resulting from interpersonal violence. When compared with women who stay in emergency shelters, unsheltered women report: 3 times greater odds of fair or poor physical health, 12 times greater odds of poor mental health, increased non-injection drug and alcohol use, and increased risk of recent sexual assault. Despite this, they are less likely to have recently utilized health services than women who stay in emergency shelters.[3] Overall, houseless women are also at higher risk for sexual and physical assault than houseless men.[4]
11. People who are houseless (sheltered and unsheltered) are more likely to use substances than people who are housed and are more likely to experience substance-related harms, including fatal overdose. In some populations, death by overdose accounts for 24% of all-cause mortality in people who are houseless. That is, approximately 1 in 4 people who are houseless will die by overdose.[5] When admitted to hospital for substance-related conditions, houseless patients have a longer length of stay in hospital and are more likely

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[2] Lillian Gelberg, and Lawrence S. Linn, "Assessing the Physical Health of Homeless Adults," *Jama* 262, no. 14 (1989): 1973-1979.
[3] Adeline M. Nyamathi, and Lillian Gelberg, "Sheltered Versus Nonsheltered Homeless Women," *Journal of general internal medicine* 15, no. 8 (2000): 565-572.
[4] Suzanne L. Wenzel, Paul Koegel, and Lillian Gelberg, "Antecedents of Physical and Sexual Victimization Among omeless Women: A Comparison to Homeless Men," *American journal of community psychology* 28, no. 3 (2000): 367-390.
[5] Danielle R. Fine et al., "Drug Overdose Mortality Among People Experiencing Homelessness, 2003 to 2018," *JAMA network open* 5, no. 1 (2022): e2142676-e2142676.

to leave the hospital on their own decision than housed patients.[6] Simultaneously, people who are houseless also have challenges engaging in substance-use care: for example, becoming houseless is associated with methadone maintenance therapy discontinuation.[7]

12. In my clinical practice, houselessness – and particularly unsheltered houselessness – poses challenges for patients who are seeking treatment for substance use disorder. Patients report challenges getting to the same pharmacy daily for opioid agonist therapy (i.e., methadone, suboxone) when they must move between shelters or informal accommodations on a regular basis. They also report having medications stolen if they have "carries", for example pharmaceutical-grade hydromorphone (typically prescribed by a physician and dispensed in a daily supply at the pharmacy) to use as a safer alternative to street fentanyl. Patients also have challenges attending regular in-person appointments with their prescriber when they are forced to move frequently and are often unable to attend virtual appointments without a phone, a place to charge the phone, or a private place to discuss their substance use with their provider. Together, these factors mean that people with a very high risk of harms from substance use have the highest number of barriers to treatment. Having a stable place to stay, such as a tent without risk of eviction, may help to decrease some of the harms associated with transiency and decrease barriers to treatment.

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[6] Government of Canada, "Substance-Related Poisonings and Homelessness in Canada: A Descriptive Analysis of Hospitalization Data," June 23, 2021, accessed June 8, 2022, https://www.canada.ca/en/health-canada/services/opioids/hospitalizations-substance-related-poisonings-homelessness.html.

[7] Jan Klimas et al., "Factors Associated with Discontinuation of Methadone Maintenance Therapy (MMT) Among Persons Who Use Alcohol in Vancouver, Canada," *Drug and alcohol dependence* 186 (2018): 182-186.

MARCO Encampment Evaluation

13. I endorse the MARCO study attached as exhibit B.[8]

14. The MARCO study on Encampments surveyed 127 and interviewed 23 encampment residents in Toronto in 2021. This study is significant because it provides insight into encampment residents' health status and experiences, as reported by encampment residents themselves. Pertinent findings include:

    a. Encampment residents described finding a community or family of people they respected and could trust in the encampment. They helped to watch over each others' possessions and helped others when they needed it. This stands in contrast to the reports that I have received from patients about the lack of community and trust in the shelter system.

    b. 60% of the people surveyed had tried to find shelter during the pandemic; only 13% were always able to find a shelter bed when needed.

    c. 75% of the people who received and accepted an offer of shelter or housing returned to the encampment, for reasons including: kicked out (29%), did not like restrictions on pets, guests, belongings (16%), location (11%), violence (11%). These results are congruent with firsthand reports that I have received from patients about the challenges with staying in the shelter system.

    d. People staying in encampments reported that they felt their risk of getting COVID-19 was lower than if they had stayed indoors (e.g. in a congregate shelter). Being

[8] Lisa M. Boucher et al., "MARCO Brief Report: Encampment Outreach Evaluation," *MAP Centre for Urban Health Solutions*, *St. Michael's Hospital,* November, 2021, Accessed June 8, 2022, https://maphealth.ca/wp-content/uploads/Encampment-Outreach_MARCO-Nov-2021.pdf.

houseless is a known risk factor for acquiring COVID-19.[9] A recent history of housing instability (when compared with having a stable address) increased the likelihood of being tested for COVID-19 and having a positive test result. In the peak period of the early pandemic, people with housing instability were 20 times more likely to be admitted to hospital for COVID, 10 times more likely to be admitted to an intensive care unit, and 5 times more likely to die.[10] People staying in shelters during the pandemic were subjected to regular asymptomatic testing, daily screening, mandatory masking, and relocation to an isolation shelter if they tested positive for COVID. Sheltered patients reported to me that these measures often felt invasive and punitive, and they were uncertain whether or not they were helping to keep them safe when the physical environment remained crowded.

Advantages and Disadvantages of Living in a Tent/Encampment: Aggregate Themes Amongst this demographic

15. In my experience as an emergency care provider, I have identified the following benefits of living in an encampment versus without:

    a. Improved access to healthcare, including primary and preventive care, substance use treatment, and wound care. People staying in encampments are able to maintain connection to outreach healthcare workers and system navigators, as well as housing services. Harm reduction workers are able to provide supplies (e.g. sterile

[9] Tara Kiran et al., "Association of Homelessness with COVID-19 Positivity among Individuals Visiting a Testing Centre: A Cross-Sectional Study," *Healthcare Policy* 17, no. 3 (2022): 34.
[10] Lucie Richard et al., "Testing, Infection and Complication Rates of COVID-19 Among People with a Recent History of Homelessness in Ontario, Canada: A Retrospective Cohort Study," *Canadian Medical Association Open Access Journal* 9, no. 1 (2021): E1-E9.

needles, sharps containers, clean cookers) to people in the encampment to reduce the risk of blood-borne viral illnesses such as HIV and hepatitis. People are also able to present to the same pharmacy daily to obtain their methadone maintenance therapy, other opioid agonist therapy, or safer opioid supply medications. Staying in an encampment provides people with a (safer) place to store their medications and healthcare supplies.

b. Encampments decrease isolation from community and services. When people know they will be evicted by authorities, they will move further into the margins where they are less visible and more alone to avoid eviction enforcement by the authorities. By moving further into the margins such as to forests, train tracks, abandoned buildings, people place themselves at greater risk of harm because they are alone and disconnected from routine services. This places them at greater risk of interpersonal violence, overdose, and loss of connection to outreach services.

c. Encampments give people a sense of community as opposed to when people are alone and hiding from authorities as they avoid ticketing for sleeping in public. The benefits of this may include increased mental health stabilization, decreased stimulant use (as stimulants are often used to maintain alertness as a safety mechanism), increased chances of being saved during an overdose, and emotional support. Having people available to watch one's possessions also makes it more possible to leave the site to attend healthcare appointments, meet with caseworkers, pick up food or social assistance, and go to the pharmacy.

d. Encampments provide greater privacy when compared with sleeping "rough", for example, on subway grates, in bus stops, or in other partially open public shelters. This provides opportunities for people to change their clothes, remove shoes/boots (which is critical in preventing foot infections and skin breakdown), and is helpful for mental health. This privacy also helps people to get rest and to store their possessions.

e. Encampments reduce sleep deprivation experienced by those without a location or tent, who might wander and stay up at night with nowhere to sleep and fear of violence and theft if they sleep in the open alone.

f. Encampments provide some shelter from cold, rain, and sun. While there are limitations to the shelter provided by tents, they represent a significant improvement in comparison with sleeping outside in an unsheltered environment.

Advantages of living in an encampment versus shelter

16. When people are in crisis, decisions about where to stay are pragmatic choices among best available options, based on circumstances at that time. Encampments represent a lack of other desirable options for housing and shelter and have several distinct advantages:[11]

a. Couples or "survival partners" can remain together. Often there are insufficient shelter options for couples, and they are forced to choose between separating or remaining on the street. Particularly for people with past experiences of trauma,

[11] United States, Department of Housing and Urban Development, *Understanding Encampments of People Experiencing Homelessness and Community Responses: Emerging Evidence as of Late 2018*, by Rebecca Cohen, Will Yetvin & Jill Khadduri (June 2019) at 4.

including traumatic childhood separations from parents and/or siblings, involuntary separation can be very harmful to mental health. Without reliable access to phones, physical separation can lead to complete lack of contact with ones' partner. For people who use drugs, separation from a partner can also increase the risk of overdose (including overdose death).

b. People can remain with their pet, rather than being forced to leave the animal with animal services to obtain shelter. Many people who are houseless have pets as informal emotional support animals (that is, they function to provide significant emotional support but are not formally certified as guide dogs or emotional support animals and are therefore not allowed into shelter). Many shelter spaces will not accommodate animals without formal certification as support animals. People develop strong attachments with their pets that yield psychological benefits. People experiencing houselessness report that pets provide a reason to live, reduce substance use, and increase healthcare seeking.[12] Pet dogs also offer protection and safety when living on the street. Some people who are houseless may have had longer-lasting, more therapeutic bonds with their animal than with family, friends, or partners.[13] Their animals are a major source of support and loss of a pet can be very traumatizing.[14]

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[12] Nick Kerman et al., "A Multilevel Intervention Framework for Supporting People Experiencing Homelessness with Pets," *Animals* 10, no. 10 (2020): 1869.
[13] Michelle Cleary et al., "The Homeless and Their Animal Companions: An Integrative Review," *Administration and Policy in Mental Health and Mental Health Services Research* 47, no. 1 (2020): 47-59.; Kerman et al., "A Multilevel Intervention Framework".
[14] Kerman et al, "A Multilevel Intervention Framework. "; Cleary et al., "The Homeless and Their Animal Companions."

c. In comparison with shelter, encampments may provide more continuity of location and ability to plan. As identified in the MARCO study, being "kicked out" (service restricted/evicted) from shelter is common.[15] People who have experienced trauma, have mental health diagnoses, and use drugs may exhibit behaviours that -- despite being secondary to illness and not harmful to co-residents – are not tolerated by shelter staff, leading to frequent service restrictions. People can be service restricted at any time of day or night, and these service restrictions happen without opportunities for advance planning. This is extremely disruptive to healthcare access and planning. For example, I have previously met patients who were evicted from shelter within blocks of their pharmacy, primary care clinic, and the supervised injection site that they usually rely on to reduce overdose risk. The only alternative shelter beds available are often 10-20 kilometres away, making it impossible to maintain connection with their current services. This rapid, unplanned relocation is incredibly destabilizing and can increase the risk of serious harm. Staying in an encampment provides geographic stability without the same risk of unpredicted eviction by staff. These benefits are negated when encampments are moved.

d. Persons attempting to maintain sobriety are at risk of compromising it if they are at a shelter where drug or alcohol use is high.

[15] Boucher et al., "MARCO Brief Report, " 5.

e. Persons attempting to use substances in a safer way may be unable to enter shelter with harm reduction materials such as clean injection or smoking kits.

f. Persons with a history of trauma or abuse may be triggered by a congregate setting of strangers.

Experience attempting to access shelter for my patients

17. In the emergency department, I work with a team of social workers and peer support workers to find shelter for patients on a daily basis. It is extremely common to find that there are no available shelter beds in the city. If a bed is available, it may not be acceptable to the patient for the reasons outlined above. In my setting, patients often get frustrated waiting in the emergency department with no knowledge of when a bed may become available. This leads to them leaving the emergency department to seek informal shelter or sleep outside. When patients leave the emergency department for informal shelter, without a clear idea of where they will be going, it is often impossible to organize follow-up plans. If a patient is going to a house, a pre-specified shelter location, or a known encampment location, we can make referrals to community providers to provide ongoing supports (for example, we can connect with outreach nurses to check in on the patient and support with wound care in an encampment). When there is no clear discharge location and the patient does not have a reliable cell phone, follow-up care is significantly more challenging. Having a place to rest is also helpful for recovery, which is not possible when a patient is wandering on the street immediately after discharge.

Sworn remotely by Kate Hayman at the City of Toronto in the Province of Ontario, before me on February 28, 2023 by "zoom" videoconference in accordance with O. Reg. 431/20, Administering Oath or Declaration Remotely.

Commissioner for Taking Affidavits

Kate Hayman

Bibliography

Boucher Lisa M., Zoe Dodd, Samantha Young, Abeera Shahid, Kimia Khoee, Kris Norris, Melanie Brown, Kahiye Warsame, Linn Holness, Claire Kendall, D. Mergarten, Terry Pariseau, Michelle Firestone, Ahmed M. Bayoumi. "MARCO Brief Report: Encampment Outreach Evaluation." *MAP Centre for Urban Health Solutions*, *St. Michael's Hospital.* November, 2021. Accessed June 8, 2022. https://maphealth.ca/wp-content/uploads/Encampment-Outreach_MARCO-Nov-2021.pdf.

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THIS IS EXHIBIT "A" TO THE
AFFIDAVIT OF KATE HAYMAN
AFFIRMED REMOTELY BEFORE ME AT
THE CITY OF TORONTO DURING A "ZOOM" VIDEOCONFERENCE
IN ACCORDANCE WITH O.REG. 431/20,
ADMINISTERING OATH OR DECLARATION REMOTELY
THIS 28TH DAY OF FEBRUARY, 2023

SHARON CROWE

Commissioner for Taking Affidavits, etc.

Curriculum Vitae

A6197

Kate Hayman
Kate.Hayman@uhn.ca
519-860-9866

A. Date Curriculum Vitae is Prepared: 2021 December 2

Only includes Activities from March 2015 to December 2021

B. Biographical Information

Primary Office	University Health Network Department of Medicine Division of Emergency Medicine Toronto, Ontario, Canada
Telephone	519.860.9866
Email	khayman2010@gmail.com

1. EDUCATION

Degrees

2015 Sep - 2017 May	Certificate of Master Teacher, Clinical Teaching, Dept of Medicine, University of Toronto, Toronto, Ontario, Canada
2013 - 2014	MPH, Health in Crisis and Humanitarian Assistance, Johns Hopkins Bloomberg School of Public Health, Baltimore, Maryland, United States, Supervisor(s): Dr. Shannon Doocy
2006 - 2010	MD, Doctor of Medicine, University of Western Ontario, London, Ontario, Canada
2003 - 2006	BSc, Arts and Sciences – no degree conferred, McGill University, Montreal, Quebec, Canada

Postgraduate, Research and Specialty Training

2013 - 2014	Co-Chief Resident, Division of Emergency Medicine, Department of Medicine, University of Western Ontario, London, Ontario, Canada
2010 - 2015	Emergency Medicine Residency, University of Western Ontario, London, Ontario, Canada

Qualifications, Certifications and Licenses

2015 Jun - present	Fellow, Emergency Medicine, Royal College of Physicians of Canada, Canada

2. EMPLOYMENT

Current Appointments

2016 Nov – present	Assistant Professor, Division of Emergency Medicine, Department of Medicine, University of Toronto, Toronto, Ontario, Canada
2015 Jul - present	Active Staff Physician, Division of Emergency Medicine, Department of Medicine, University Health Network, Toronto, Ontario, Canada
2014 - present	Instructor, Advanced Trauma Life Support, American College of Surgeons, Ontario, Canada

Previous Appointments

CLINICAL

2020 April – 2021 Mar — Co-Medical Director and Physician, COVID Recovery Sites, Inner City Health Associates, Toronto, Ontario, Canada

2018 Nov - 2019 Feb — Medical Activity Manager, MSF Holland, Northeast Syria, Médecins Sans Frontieres, Tal Abyad, Ar Raqqah, Syrian Arab Republic
Provided medical and trauma care and training in emergency department. Didactic and hands-on training focused on management of non-communicable diseases, burns, vaccine-preventable disease and mass casualty triage. Trainees included physicians, nurses, nurse assistants, paramedics and nurse assistant students. Organized and supervised mass casualty training drill for all hospital staff. Set emergency care objectives for 2019 project planning cycle.

2017 Dec - 2017 Dec 30 — Emergency Physician, MSF Holland, Mediterranean Search and Rescue, Médecins Sans Frontieres, Catania, Italy
Provided primary and emergency care to asylum seekers and migrants near Libyan coast. Provided basic life support training for medical and non-medical team members, organized and mass casualty training.

2017 Jun - 2017 Nov — Medical Activity Manager, MSF Holland, Medecins Sans Frontieres, Kirkuk, Kirkuk, Iraq
Provided training, oversight, and team management for national staff. Delivered training in emergency department, assisted in planning and leadership of MSF's medical response to movement of internally displaced persons within Kirkuk District. Performed rapid health assessments in three areas with view to start new medical activities.

3. HONOURS AND CAREER AWARDS

Teaching and Education Awards

LOCAL

Nominated

2020 Mar — **Robert Sheppard Award for Health Equity and Social Justice**, Dept of Medicine, Faculty of Medicine. (Postgraduate MD)
Co-nominated for this award with Drs. Claire Acton and Evelyn Dell for creation of Equity, Diversity, Advocacy and Cultural Safety curriculum for emergency medicine trainees.

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

2018 Jan 1 - present — **Associate**, MSF Canada Association, NA

2013 - present — **Member,** Independent Practitioner Status, Canadian Emergency Ultrasound Society

2009 - present — Canadian Association of Emergency Physicians

Administrative Activities

PROVINCIAL / REGIONAL

Decent Work and Health Network

2015 Jul 1 - present Steering Committee Member, Ontario, Canada.

LOCAL

Emergency Medicine Program, University of Toronto

2019 Mar - present Co-lead: Equity, Diversity, Advocacy and Cultural Safety Curriculum, Faculty of Medicine, Dept of Medicine, Emergency Medicine, Postgraduate MD, Toronto, Ontario, Canada.

Global Health Emergency Medicine, Divisions of Emergency Medicine, University of Toronto, Toronto, Ontario, Canada

2018 Jan - present Health Equity subcommittee - Co-Chair

University Health Network, Toronto, Ontario, Canada

2021 Jan – present Member, Outpatient Care Council

2019 – Mar 2020 Member, Social Needs Steering Committee

University Health Network Emergency Departments, Toronto, Ontario, Canada

2019 Nov - present Co-lead: Health Equity and Disadvantaged Populations

2016 Sep – 2020 Sep UHN Simulation Committee

C. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDED

2021 Dec – 2022 Nov **Co-Principal Applicant.** MARCO:POLO Marginalization & COVID-19: Promoting Opportunities for Learning & Outreach. Canadian Institutes of Health Research (CIHR) Operating Grant. Emerging COVID-19 Research Gaps & Priorities - Urban Populations. Principal Applicant: Bayoumi AM. Co-Principal Applicants: Firestone M, Boucher L, Dodd Z, Durbin A, **Hayman K,** Isaacs BJ, Kolla G, Matheson FI, Steer LA, Yakubovich AR, Young SV. Co-Applicants: Beder M, Brothers T, Dobrow M, Du Mont J, Holness L, Huijbregts M, Hwang S, Hynie M, Kendall C, Kenny K, Long C, Maguire J, Nisenbaum R, Shankardass K, Strike C, Walker D. Collaborators: Arcenal M, Delgado R, Heineck K, Lunsky Y, Marcolin A, Pepper V. 313,804 CAD. [Grants].

2018 Jun - present **Co-Investigator**. The State of Advocacy Training in Canada's Family and Emergency Medicine Training Programs. Faculty of Medicine, University of Toronto. Education Development Fund. PI: Hulme, Jennifer. Collaborator(s): Wright, Sarah, Rouleau, Katherine Sherbino, Jonathan, **Hayman, Kate**, Landes, Megan, Sharma, Malika, Pinto, Andrew Atkinson, Kate, Lavelle, Conor, Macdonald, Madeline. 19,800 CAD. [Grants]

2014 - 2019 **Principal Investigator**. Does utilization of an intubation safety checklist improve patient safety during simulated resuscitation scenarios? CAEP 2014 Research Grant Competition.

Collaborator(s): **Hayman K**, Klingel M, Forristal C, Smith N, Ouellette D. 5,000 CAD. [Grants]
Grant to support proposed research project. Study currently ongoing.

2017 Jul - 2018 Oct **Co-Investigator**. Employment and better employment through relationships project (EMBER): Phase II. Atkinson Foundation. PI: Pinto, Andrew. Collaborator(s): Deena Ladd, **Kate Hayman**, Yogendra Shakya, Lynn Anne Mulrooney, Julia Barnett, Morgan Lay, Linn Holness, Tajnin Islam, Flora Matheson. 126,000 CAD. [Grant supporting both advocacy and research]
Grant funds Decent Work and Health Network, supporting advocacy and research on employment as a social determinant of health.

2017 Jun - 2018 Jun **Principal Investigator**. Teaching medical students to "go upstream" and advocate on social determinants of health using case-based learning. University of Toronto. Education Development Fund. CFC 107917. Collaborator(s): Andrew Pinto, Malika Sharma, Mei Wen, Tracey Mann, Farooq Khan. 8,000 CAD. [Grants]
Educational innovation targeting second year medical students, with qualitative analysis of findings.

NON-PEER-REVIEWED GRANTS

FUNDED

2019 Jul - present **Co-Investigator**. Understanding the Experiences of Refugee Claimants in Toronto Emergency Departments: A Qualitative Analysis. University Health Network. Collaborator(s): Siu C, Hulme J, Rao S, Gajaria A. 2,980 CAD. [Grants]
Operational Funding.

2019 Jun - present **Co-Investigator**. Decent Work: An Antidote for a Healthcare System Under Strain. Atkinson Foundation. Collaborator(s): Jimenez C, Mclaren J, Beckett R, Dhunna S, Sumner A, Ladd D, Begum N. 126,609.87 CAD. [Grants]
Funding for research and advocacy activities.

2019 Mar - present **Principal Investigator**. Understanding the Experiences of Refugee Claimants in Toronto Emergency Departments: A Qualitative Analysis. Medical Student Education Research Grant. Compassionate Care Stream. Collaborator(s): Rao, Sampreeth
Hulme, Jennifer
Siu, Colin. 5,000 CAD. [Grants]

2018 Jun - present **Principal Investigator**. Advocacy Writing as Resident Education. Faculty of Medicine, University of Toronto, Matched by UHN Emergency Medicine. Medical Humanities Education Grant. Collaborator(s): Hulme, Jennifer
Lavelle, Conor
Bigham, Blair. 6,000 CAD. [Grants]

2018 Jul - 2019 Dec **Co-Investigator**. The Gender Pay Gap Among ER Physicians in Canada: An Exploratory Study within the GTA. Centre for Industrial Relations and Human Resources, University of Toronto. SSHRC Institutional Grant. PI: Pohler, Dionne. Collaborator(s): **Hayman, Kate**; Landes, Megan. 823.76 CAD. [Grants]

D. Publications

1. PEER-REVIEWED PUBLICATIONS

Journal Articles

1. Formosa E, Kishimoto V, Orchanian-Cheff A, **Hayman K**. Interventions to address homelessness in the emergency department: A systematic review. Canadian Journal of Emergency Medicine. 2021; 23: 111–122. **Senior Author.**

2. Forristal C, **Hayman K**, Farooki N, Smith N, Mal S, Columbus M, Van Aarsen K, McLeod S, Ouellette D. Does utilization of an intubation safety checklist reduce dangerous omissions during simulated resuscitation scenarios: A multi-center randomized controlled trial. Canadian Journal of Emergency Medicine. 2020; 23(1):45-53. **Co-Principal Author.**

3. McLaren J, **Hayman K**, Sheikh H. CAEP Position Statement on Sick Notes for Minor Illness. Canadian Journal of Emergency Medicine. 2020;22(4):475–476. **Coauthor or Collaborator**.

4. **Hayman K**, Wen M, Khan F, Mann T, Pinto A, Ng SL. Missing the target? Teaching undergraduate students to “go upstream” and advocate on social determinants of health. Canadian Medical Education Journal. 2019 Nov 1. In Press. **Principal Author**.

5. Riggan MA, **Hayman K**, Chen BC, Hoffman RS. Phenobarbital for acute alcohol withdrawal: a prospective randomized double-blind placebo-controlled study. J Emerg Med. 2016 Jun;50(6):895-6. **Coauthor or Collaborator**.

6. Sharma D, **Hayman K**, Stewart B, Dominguez L, Trelles M, Saqeb S, Kasonga C, Hani T, Mupenda J, Naseer A, Wong E, Kushner A. Surgery for conditions of infectious etiology in resource-limited countries affected by crisis: the Medicins Sans Frontieres Operations Centre Brussels Experience. Surgical Infections. 2015 Dec;16(6):721-7. **Coauthor or Collaborator**.

7. Sharma D, **Hayman K**, Stewart B, Dominguez L, Trelles M, Saqeb S, Kasonga C, Hani T, Mupenda J, Naseer A, Wong E, Kushner A. Care of surgical infections by Medicins Sans Frontieres Operations Centre Brussels in 2008-14. Lancet. 2015 Apr;387:Suppl 2:S31. **Coauthor or Collaborator**.

Online Resources

1. Alia Dharmasi, Soojin Yi, **Kate Hayman**. Suspected COVID=19. Baylis, Jared, editor(s). (Canada): EMSimcases; 2020 Feb 18. Available from: https://emsimcases.com/?s=covid. **Coauthor or Collaborator**.

2. **Kate Hayman**, Dawn Lim. Iron overdose in a pregnant patient. Caners, Kyla, editor(s). (Canada): EMSimcases; 2018 Feb 13. Available from: https://emsimcases.com/2018/02/13/iron-overdose-in-a-pregnant-patient/. **Co-Principal Author**.

3. Anne Rucchetto, **Kate Hayman**. Fighting the Flu with Labour Laws: The Case for Paid Sick Days. (Canada): healthydebate.ca; 2017 Feb 15. Available from: http://healthydebate.ca/opinions/paid-sick-leave. **Co-Principal Author**.

2. NON-PEER-REVIEWED PUBLICATIONS

Editorials

1. Danyaal Raza, **Kate Hayman**. How labour policy in both Canada and the US affects the spread of coronavirus. Macleans Magazine. 2020 Mar 13. Available from: https://www.macleans.ca/opinion/how-labour-policy-in-both-canada-and-the-u-s-affects-the-spread-of-coronavirus/. **Coauthor or Collaborator**.

Newspaper Articles

1. Jesse McLaren, **Kate Hayman**, Carolina Jimenez. From flu to coronavirus: bring back paid sick days. Toronto Star (Opinion). 2020 Feb 5. Available from: https://www.thestar.com/opinion/contributors/2020/02/05/from-flu-to-coronavirus-bring-back-paid-sick-days.html. **Coauthor or Collaborator**.

2. Mclaren, Jesse & **Hayman, Kate**. Wake hike, paid sick days part of hallway medicine cure. Toronto Star (Opinion). 2018 Aug 21. Available from: https://www.thestar.com/opinion/contributors/2018/08/21/wage-hike-paid-sick-days-part-of-hallway-medicine-cure.html. **Coauthor or Collaborator**.

3. Mclaren, Jesse & **Hayman, Kate**. Tim Horton's response undermines health. Toronto Star. 2018 Jan 19;Opinion. Available from: https://www.thestar.com/opinion/contributors/2018/01/19/tim-hortons-response-undermines-health.html. **Coauthor or Collaborator**.

Online Resources

1. **Hayman K**, Loubani T. Thromboembolic disease" Global Health Emergency Medicine Teaching Module. (Canada); 2016. Available from: http://ghem.ca/module-category/medical-emergencies/. **Principal Author**.

2. Zbar A, Fitzgerald-Husek A, **Hayman K**. Health and Homelessness Reference Guide for Healthcare Providers. (Canada); 2016. Available from: healthandhomelessness.weebly.com. **Coauthor or Collaborator**.

E. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations

2018 Sep 27 **Invited Speaker**. Physician Advocacy: Decent Work and Health Network. Gary Bloch. Toronto, Ontario, Canada. Presenter(s): **Kate Hayman**. Presented to Min-Iren, delegation of Japanese Physicians who participated in an exchange on social policy change toward equity, health, and peace.

2. NATIONAL

Invited Lectures and Presentations

2021 Nov 30 Invited Lecture. COVID, Homelessness, and the Overdose Crisis: Lessons learned for the ED. Emergency Department Administration Conference, Canada. Presenter: **Hayman, K**

2021 Jun 21 Invited Lecture. "COVID, Homelessness, and the Overdose Crisis: Interventions for Overlapping Pandemics". Canadian Association of Emergency Physicians Conference. Canada. Presenter: **Hayman, K.**

2021 May 21 Panelist. Trauma-informed care in the emergency department. Canadian Association of Emergency Physicians National Grand Rounds Series. Canada. Presenters: **Hayman K,** Bromberg R, Sampsel K, Liu J.

Presented Abstracts

2015 Jun **Moderator**. Can paramedics safely transport patients with ST-segment elevation myocardial infarction (STEMI) directly to a PCI capable centre? Canadian Association of Emergency Physicians Conference. Canada. Presenter(s): **Hayman K**, McLeod SL, Dukelow A, Lewell M. Poster presentation.

A6203

Media Appearances

2017 May 10 **Interviewee**. Paid Sick Leave and Personal Emergency Leave. Interviewer: Mike Crawley. CBC News. Ontario, Canada. Available from: http://www.cbc.ca/news/canada/toronto/good-life-fitness-personal-trainers-sick-pay-work-ontario-1.4106196.

3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations

2019 Mar 14 **Invited Lecturer**. Advocacy writing in medical education. Erin Cameron. Thunder Bay, Ontario, Canada. Presenter(s): **Kate Hayman**. Invited to discuss Advocacy writing as a tool for operationalizing the health advocate role. Will discuss research findings with medical students and residents with faculty at the Northern School of Medicine.

Media Appearances

2020 Feb 27 **Invited Speaker**. The cost and benefit of Paid Sick Days. Interviewer: Steve Paikin. The Agenda, TVOntario. Ontario, Canada.

2020 Feb 13 **Invited guest**. Paid Sick Days. Interviewer: Rita Celli. Ontario Today, CBC. Ontario, Canada. Invited expert on the health impacts of paid sick days. Available from: https://www.cbc.ca/listen/live-radio/1-45-ontario-today/clip/15760727-doctors-say-covid19-underlines-the-need-to-bring-back-paid-sick-days.

2017 May 24 Paid Sick Days for all Ontarians. Interviewer: Matt Galloway. Metro Morning, CBC. Toronto, Ontario, Canada. Presenter(s): **Kate Hayman**. Described negative health impact of current legislation that does not ensure paid sick leave for all Ontarians.

4. LOCAL

Invited Lectures and Presentations

2018 Oct 18 **Facilitator**. Meeting the needs of emergency department patients experiencing poverty: A panel discussion. University Health Network. Toronto, Ontario, Canada. Presenter(s): **Kate Hayman**, Nicole Furey, Kai Wong, invited members of Toronto Lived Experience Advisory Group. Facilitated panel discussion about the experiences of patients utilizing our emergency departments, with view to improving care for marginalized populations.

2017 Apr 12 **Invited Speaker**. Decent Work and Health Network. St. Joseph's Family Medicine Residents. Toronto, Ontario, Canada. Presenter(s): **Kate Hayman**, Tracey Mann. Presented on Decent Work and Health Network, followed by facilitated discussion about work as a social determinant of health.

F. Teaching and Design

1. INNOVATIONS AND DEVELOPMENT IN TEACHING AND EDUCATION

2019 Jan - present Equity, diversity, advocacy and cultural safety curriculum co-lead, Postgraduate MD, Faculty of Medicine, Dept of Medicine, Emergency Medicine
Developing equity, diversity, advocacy and cultural safety curriculum for emergency medicine residents in Royal College Training stream. Curriculum will be 8 hours of in-class time over 2 years.
Planned dissemination of curriculum development and assessment at national level.

A1919

2014 - 2015 Resident Journal Club, Postgraduate MD, Faculty of Medicine, Dept of Medicine, Emergency Medicine
Initiated resident journal club for emergency medicine training program, to fill perceived gaps in critical appraisal skills for emergency trainees.

G. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Undergraduate Education

2018 Sep - 2019 Apr **Primary Supervisor**. B. Sc. Vanessa Kishimoto. Supervisee Position: Human Biology Research Student (Undergraduate Year 4), Supervisee Institution: University of Toronto. *Determining Evidence Base & KT Opportunities for Health Equity in the ED*. Supervisor(s): Kate Hayman, Jennifer Hulme.

Graduate Education

2018 May - 2018 Sep **Co-Supervisor**. Master of Public Health. Kai Wong, Public Health Sciences. Supervisee Position: Public Health Practicum Student - Health Promotion, Supervisee Institution: Dalla Lana School of Public Health. *Non-thesis Project*. Supervisor(s): Kate Hayman, Jennifer Hulme.

Undergraduate MD

2019 Feb - present **Primary Supervisor**. Year 2. Sampreeth Rao. Supervisee Position: Medical Student, Year 2, Supervisee Institution: University of Toronto. *Understanding the experience of refugees in Toronto's emergency departments*, *Non-thesis Project*. Supervisor(s): Kate Hayman, Jennifer Hulme. Collaborator(s): Colin Siu.

2018 Jun - 2020 **Primary Supervisor**. Year 2. Evan Formosa. Supervisee Position: Medical Student, Year 2, Supervisee Institution: New York Medical College. *Emergency department interventions for homeless patients: A systematic review*, *Non-thesis Project*. Awards: Medical Student Summer Research Fellowship ($1000). Collaborator(s): Patricia Hoyek, Vanessa Kishimoto.

Postgraduate MD

2018 Jul - present **Primary Supervisor**. Core Program. Colin Siu. Supervisee Position: Emergency Medicine Resident, Supervisee Institution: University of Toronto. *Understanding the experience of refugees in Toronto's emergency departments*. Supervisor(s): Kate Hayman, Jennifer Hulme. Collaborator(s): Sampreeth Rao.

2014 Jul - 2019 **Primary Supervisor**. Core Program. Chantal Forristal, Medical Science. Supervisee Position: Emergency Medicine Resident, Supervisee Institution: University of Western Ontario. *Does utilization of an intubation safety checklist reduce dangerous omissions during simulated resuscitation scenarios?*. Supervisor(s): Kate Hayman, David Ouellette. Collaborator(s): Sameer Mal, Norma Smith, Shelley McLeod.

THIS IS EXHIBIT "B" TO THE
AFFIDAVIT OF KATE HAYMAN
AFFIRMED REMOTELY BEFORE ME AT
THE CITY OF TORONTO DURING A "ZOOM" VIDEOCONFERENCE
IN ACCORDANCE WITH O.REG. 431/20,
ADMINISTERING OATH OR DECLARATION REMOTELY
THIS 28TH DAY OF FEBRUARY, 2023

SHARON CROWE

Commissioner for Taking Affidavits, etc.

MARCO Brief Report

A6206

Encampment Outreach Evaluation

November 2021

MAP Centre for Urban Health Solutions
UNITY HEALTH TORONTO
UNIVERSITY OF TORONTO

A1922

About the MARCO Study

A6207

The MARCO project is evaluating how local efforts responding to the COVID-19 pandemic serve people experiencing marginalization, and how these interventions can be improved. Changes in society to control the pandemic have affected everyone, but they place a particularly heavy burden on people who are marginalized.

We evaluated programs that support many communities who may be experiencing marginalization during COVID-19, including people experiencing homelessness, people with developmental disabilities, people who use drugs, and women who are experiencing violence. The MARCO Community Committee and Steering Committee chose the programs. The programs include:

- COVID-19 Isolation and Recovery Sites (CIRS)
- Encampment Outreach
- Substance Use Service (SUS) at the COVID-19 Isolation and Recovery Site
- Toronto Developmental Service Alliance's Sector Pandemic Planning Initiative (SPPI)
- Violence Against Women (VAW) Services

About this Report

This report is a brief summary of one of the MARCO Evaluations. This report highlights the key findings of the Encampment Outreach evaluation. The final, full length report will be released in December 2021.

The views contained in this report do not necessarily express the views of any MARCO community partner, funding agencies, MAP, St. Michael's Hospital, Unity Health Toronto, the University of Toronto, or any other organization with which MARCO authors or project team members may be affiliated.

Suggested Citation

Boucher LM, Dodd Z, Young S, Shahid A, Khoee K, and Norris K (Co-lead authors), Brown M, Warsame K, Holness L, Kendall C, Mergarten D, Pariseau T, Firestone M, Bayoumi AM. MARCO Encampment Outreach Evaluation Brief Report. Toronto, Ontario: MAP Centre for Urban Health Solutions, St. Michael's Hospital. November, 2021. Available from https://maphealth.ca/wp-content/uploads/Encampment-Outreach_MARCO-Nov-2021.pdf

Acknowledgements

MARCO gratefully acknowledges funding from: the Temerty Foundation and the University of Toronto through the Toronto COVID-19 Action Initiative; the University of Toronto's Faculty of Medicine Equity, Diversity, and Inclusion fund; and the St. Michael's Hospital Foundation.

We also wish to thank all individuals who participated in this evaluation for sharing their important perspectives, as well as all members of the larger MARCO study team and other community groups that assisted our evaluation.

Land Acknowledgement

We wish to acknowledge the sacred land on which MAP and Unity Health Toronto operate. It has been a site of human activity for 15,000 years. This land is the territory of the Huron-Wendat and Petun First Nations, the Seneca, and most recently, the Mississaugas of the Credit First Nation. The territory was the subject of the Dish With One Spoon Wampum Belt Covenant, an agreement between the Iroquois Confederacy and Confederacy of the Ojibwe and allied nations to peaceably share and care for the resources around the Great Lakes. Today, the meeting place of Toronto is still the home of many Indigenous people from across Turtle Island and we are grateful to have the opportunity to work in the community, on this territory. We are also mindful of broken covenants and the need to strive to make right with all our relations.

Website: maphealth.ca/marco Email: marco@unityhealth.to

A1923

What we did and what we learned

What was evaluated?

Even before the COVID-19 pandemic, some people experiencing homelessness lived in encampments under bridges, in parks and ravines around Toronto. Since the pandemic started, a growing number of people have been staying in encampments, which have become more visible.

New outreach groups formed and existing agencies and organizations working with people experiencing homelessness adapted to reach out to encampment residents and provide alternatives to services that were closed or limited due to COVID-19. Outreach groups included community-based organizations, volunteer groups, and city services.

We studied encampment outreach in Toronto during the pandemic to understand how these supports met the needs of encampment residents. The questions we focused on were:

- Did supports meet people's most important needs? Which needs were left unmet?
- What outreach supports and shelter or housing options were offered to people?
- In what ways did these supports affect people's lives, both positive and negative?

Our evaluation included several steps:

1. We met with key community members and groups to plan the study.
2. We conducted 127 surveys and 23 interviews with encampment residents at six encampments in Toronto between March and June 2021.
3. We looked for patterns from the surveys and common themes in the interviews.

We also conducted 16 interviews with encampment outreach workers and volunteers. We will share findings from these interviews in a future report.

Who did we talk to?

38% of people we surveyed identified as female, and one in four identified as 2SLGBTQ+. A large number were from racialized groups, including 26% Indigenous, 16% Black, and 11% other racialized identities. People were between 21 and 64 years of age.

The people who answered our survey listed over 30 different encampments they had stayed in during the pandemic. Many had stayed in more than one encampment, and 39% were no longer staying in an encampment at the time they were surveyed.

What were the key findings?

Encampment Living:

- The month prior to the pandemic, people stayed in many locations, including 17% in an encampment, 29% elsewhere on the street, 20% in a rented place, 16% with family or friends, and 13% in a shelter.
- Half of the people surveyed reported that they moved to an encampment for reasons related to the pandemic. People also said they moved to encampments because they

People experiencing homelessness have a firm understanding of their own needs and should be listened to. Until we collaborate with people living outside to create more permanent housing options that meet their needs, encampments will continue to exist.

were not able to find housing, did not know where else to go, knew people in encampments, felt that shelters were not safe or secure, or wanted more freedom than shelters provided. Many people moved back and forth between encampments and other spaces, like shelters, shelter hotels, and respites.

- Many people described finding a community or family in the encampments among people they respected and could trust. Residents often supported each other and worked together on daily tasks, including watching each other's personal possessions, sharing food or other items, and helping people when they needed assistance. These relationships led people to visit residents in encampments after they had moved on to other shelter or housing.

Outreach Supports:

- Overall, encampment residents greatly appreciated the support they received from community-based and volunteer outreach groups.
- 69% of encampment residents said that outreach supports met their basic survival needs, like food and drink, shelter supplies and warmth, and harm reduction supplies.
- Many encampment residents valued the ways in which community-based outreach workers and volunteers provided supports:
    - Workers and volunteers were often present in the encampments. Most residents felt they could count on workers and volunteers when they needed them.
    - Workers and volunteers were flexible and respected residents' points of view. Many residents said workers and volunteers asked for their input and adapted supports to best respond to their needs.
    - Workers and volunteers provided social support through a kind and compassionate approach. This helped to meet some residents' social and mental health needs.
- Residents indicated that certain outreach workers or groups were less caring and more judgemental. Residents found this approach upsetting and not helpful. Some noted that it was harder to trust workers when they acted like security, such as recording what residents were doing or telling them what to do.
- Some residents interacted with city outreach workers when they were getting shelter offers and reported feeling rushed or forced into decisions by threat of eviction.
- The greatest unmet need that residents identified was permanent housing.
- Some residents said they got everything they needed at the encampments, but others said they did not have good access to hygiene, technology, and mental health supports.

Shelter and Housing Offers:

- 60% of people surveyed tried to find a shelter bed or shelter hotel room during the

pandemic at least once, and only 13% of them were able to find one every time. Of those who tried, 68% were told that no shelter was available.

- 55% of people were offered a shelter or housing option by city staff at least once. Of those who received offers, 77% were offered a bed in a shelter hotel and only 4% were offered permanent housing.
- 75% of people who accepted an offer of shelter or housing returned to live in an encampment. The most common reasons they left the shelter or housing were:
  - 29% were kicked out
  - 16% did not like the restrictions, such as no pets, no guests, or a limit on the belongings they could bring
  - 11% felt the shelter or housing was too far away from where they wanted to be
  - 11% were worried about violence
  - Some people reported more than one reason
- Other reasons people gave for leaving or not accepting temporary shelter options included COVID-19 outbreaks, a lack of privacy, overdose risk and friends' deaths in these settings, disrespectful treatment by staff, not having their health needs met, and being tired of waiting for permanent options.

COVID-19 Risk in Encampments:

- 80% of people surveyed had been tested for COVID-19 and 13% of them reported testing positive.
- Encampment outreach workers and volunteers provided COVID-19 supplies, such as masks and hand sanitizer, to residents. Many residents reported distancing from others, washing or sanitizing hands, wearing masks, and not sharing drinks, food, or drug use equipment.
- Many encampment residents felt their risk of getting COVID-19 was greater in indoor living settings with many people in the same space, like shelters or respites. This is compared to encampments, where residents expressed they felt safer being outdoors.

A6210

A1926

What are the recommendations moving forward?

1. Organizations should be helped to expand or maintain their outreach services and hand out survival supplies to meet encampment residents' basic needs.

2. Encampment outreach supports should be responsive, flexible, and adapt to what encampment residents need. Supports should be offered frequently and consistently.

3. Encampment outreach and shelter or housing services should support people to build and maintain their community connections.

4. Conditions in temporary shelter settings should be improved. Encampment residents should not be pressured into leaving encampments or entering shelter or housing that does not meet their needs, especially considering the risks of getting COVID-19 or overdosing in shelter spaces.

5. The city government should put a priority on providing encampment residents and other people experiencing homelessness with permanent housing. Permanent housing should respect people's dignity and meet their needs.

6. Encampment residents should be included in decisions about encampments, shelters, and housing.

A6212

Affiliations

Bruyère Research Institute: Lisa Boucher, Claire Kendall

Canadian Mental Health Association: Terry Pariseau

South Riverdale Community Health Centre: Zoë Dodd

The Neighbourhood Group: Melanie Brown

Unity Health Toronto: Ahmed Bayoumi, Zoë Dodd, Michelle Firestone, Kris Norris, Linn Holness, Kimia Khoee, Kahiye Warsame, Samantha Young

University of Toronto: Ahmed Bayoumi, Michelle Firestone, Samantha Young

University of Ottawa: Lisa Boucher, Claire Kendall, Abeera Shahid

A1928

Court File No. CV-21-00077817-0000

ONTARIO
SUPERIOR COURT OF JUSTICE

BETWEEN:

KRISTEN HEEGSMA, DARRIN MARCHAND, GORD SMYTH, MARIO MUSCATO, SHAWN ARNOLD, ET AL.

Applicants

-and-

CITY OF HAMILTON

Respondent

ACKNOWLEDGMENT OF EXPERT'S DUTY

1. My name is Kate Hayman. I live at Toronto, in the Province of Ontario.

2. I have been engaged by or on behalf of the Hamilton Community Legal Clinic to provide evidence in relation to the above-noted court proceeding.

3. I acknowledge that it is my duty to provide evidence in relation to this proceeding as follows:

   (a) to provide opinion evidence that is fair, objective and non-partisan;

   (b) to provide opinion evidence that is related only to matters that are within my area of expertise; and

   (c) to provide such additional assistance as the court may reasonably require, to determine a matter in issue.

4. I acknowledge that the duty referred to above prevails over any obligation which I may owe to any party by whom or on whose behalf I am engaged.

Date June 13, 2022

Signature

Court File No. CV-21-77187

ONTARIO
SUPERIOR COURT OF JUSTICE

BETWEEN:

KRISTEN HEEGSMA, DARRIN MARCHAND, GORD SMYTH, MARIO MUSCATO, SHAWN ARNOLD, BRADLEY CALDWELL, CHRISTINE DELOREY, GLEN GNATUK, TAYLOR GOGO-HORNER, CASSANDRA JORDAN, JULIA LAUZON, AMMY LEWIS, ASHLEY MACDONALD, COREY MONAHAN, MISTY MARSHALL, SHERRI OGDEN, JAHMAL PIERRE, LINSLEY GREAVES and PATRICK WARD

Applicants

- and -

CITY OF HAMILTON

Respondent

CROSS-EXAMINATION OF DR. KATE HAYMAN,
on behalf of the Applicants,
on her affidavit dated February 28, 2023,
held via Zoom Videoconference hosted by
the offices of Nimigan Mihailovich Reporting Inc.,
Hamilton, Ontario, on Friday, August 16, 2024,
at 10:04 a.m. EDT

APPEARANCES:

Sujit Choudhry — for the Applicants
Sharon Crowe
Curtis Sell
Michelle Sutherland
Nnonyechi Okenwa

Bevin Shores — for the Respondent
Jordan Diacur
Vivian Caldas

ALSO PRESENT:

Jojo Johnson — Articling Student

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LIST OF UNDERTAKINGS, REFUSALS, & UNDER ADVISEMENTS

Undertakings (U/T) found at pages:
6

Refusals (REF) found at pages:
NONE

Under Advisements (U/A) found at pages:
NONE

LIST OF EXHIBITS

A6214

NO.	DESCRIPTION	PAGE
A	"Canadian Medical Education Journal" article titled "What knowledge is needed? Teaching undergraduate medical students to 'go upstream' and advocate on social determinants of health"	10
B	Screen captures of tweets from the account @Hayman_Kate	12
C	"Antecedents of Physical and Sexual Victimization Among Homeless Women: A Comparison to Homeless Men," from the "American Journal of Community Psychology"	30
D	Study entitled "Understanding Encampments of People Experiencing Homelessness and Community Responses, Emerging Evidence as of Late 2018."	37

Zoom Videoconference

--- Upon commencing on Friday, August 16, 2024, at 10:04 a.m. EDT

AFFIRMED: DR. KATE HAYMAN

CROSS-EXAMINATION BY MS. SHORES:

1 **Q.** Good morning, Dr. Hayman. As I introduced off record, my name is Bevin Shores. My pronouns are she and her. I'm a lawyer for the respondent, the City of Hamilton, in this matter and we're here for a cross-examination on your affidavit sworn February 28, 2023.

Before we get into the cross-examination, I'd like to confirm: Where are you participating in this Zoom examination from?

A. I am currently in Toronto, Ontario, at my home.

2 **Q.** Okay. And are you alone in the room?

A. I am.

3 **Q.** All right. And if there are any interruptions or difficulties with your connection, please just let us know; okay?

A. Okay.

MR. CHOUDHRY: Counsel, if I could -- Ms. Shores, I've just also -- I've advised an

A1930

1 of our witnesses that they are allowed to have a
2 paper copy of their affidavit and exhibits with
3 them that they can reference.
4 In fact, Dr. Hayman, could you show
5 that to Ms. Shores?
6 But she has no other notes; okay?
7 So those are just her exhibits and affidavit.
8 MS. SHORES: All right. Thank you,
9 Counsel.
10 4 Q. So Mr. Choudhry anticipated my
11 next question. So you're to have no assistance in
12 giving your answers, and if you are referring to
13 any materials in giving your answers, just be
14 aware that we need to state what you're referring
15 to. It needs to be made an exhibit, and then
16 we'll need to explain how it informs your
17 evidence. Is that understood?
18 **A. Yes, it is.**
19 5 Q. All right. You've been
20 affirmed to tell the truth today?
21 **A. Yes.**
22 6 Q. What do you understand your
23 role is in this litigation?
24 **A. So I understand that my role**
25 **is to provide expert witness based on my**

1 **experience as an emergency physician where I treat**
2 **many people experiencing houselessness.**
3 7 Q. Now, I don't believe you've
4 been qualified to give evidence as an expert
5 witness in a court in Ontario yet; is that
6 correct?
7 **A. That is correct.**
8 8 Q. And your affidavit sworn
9 February 28, 2023, does not have a Rules of Civil
10 Procedure Form 53 appended to it?
11 **A. I would just defer to counsel**
12 **for clarification on that point.**
13 9 Q. Have you signed a Rules of
14 Civil Procedure Form 53, Acknowledgement of
15 Expert's Duty?
16 --- (Reporter interjection.)
17 --- (Off-the-record discussion.)
18 U/T MR. CHOUDHRY: Ms. Shores, I'm
19 advised that Form 53s have been signed by the
20 expert witnesses, and I apologize if those haven't
21 been served on the City.
22 So what I can do is provide an
23 undertaking to you to provide those forthwith, and
24 my cocounsel is looking into that right now.
25 MS. SHORES: Noted.

1 10 Q. Dr. Hayman, at the time you
2 wrote your report for -- I'm sorry. At the time
3 that you swore your affidavit, what instructions
4 had been provided to you with respect to your
5 evidence in this proceeding?
6 **A. So I was instructed to provide**
7 **evidence based on my expertise as an emergency**
8 **physician and an academic emergency physician who**
9 **also does research in this area.**
10 11 Q. And what specific issues or
11 questions were you instructed to address?
12 **A. I was instructed to provide**
13 **evidence about my understanding about the health**
14 **issues that people face when experiencing**
15 **houselessness, particularly nuanced understanding**
16 **about health issues related to unsheltered**
17 **homelessness where people stay without a tent; in**
18 **my clinical experience, some of the benefits,**
19 **potentially, of staying in an encampment; and some**
20 **of the reasons why people stay in encampments,**
21 **such as access to shelter, or reasons why they**
22 **choose to stay in encampment versus shelter based**
23 **on clinical encounters that I've had.**
24 12 Q. And any factual assumptions
25 that your opinions are based on are set out in the

1 body of your affidavit?
2 **A. That is correct.**
3 13 Q. And any documents you relied
4 on in forming your opinion -- I noted there are
5 several footnotes and there's one report appended
6 as an exhibit. Those are the documents that you
7 relied on in forming your opinion?
8 **A. That's correct.**
9 14 Q. You didn't conduct any
10 research of your own in the formation of your
11 opinion?
12 **A. No, I did not.**
13 15 Q. I'd like to take you to your
14 CV, which is appended as Exhibit A. I'm going to
15 put that up on the screen. You can either refer
16 to the version on the screen or the version in
17 front of you.
18 Are you able to see that?
19 **A. I am, yes.**
20 16 Q. I'm going to take you to
21 Section D of your CV, called "Publications," item
22 number 4. You list a journal article, and you
23 identify yourself as a principal author. And the
24 title of the article is "Missing the target?
25 Teaching undergraduate students to 'go upstream'

and advocate on social determinants of health."
You agree that's one of your publications?
A. I do.
17 **Q.** You were the principal author of that article?
A. That's correct.
18 **Q.** Now, I have obtained what I believe is a copy of the article, and I've placed it on the screen here.
Do you recognize this document?
A. I do.
19 **Q.** Okay. And you'll agree with me that it is the "Canadian Medical Education Journal" article titled "What knowledge is needed? Teaching undergraduate medical students to 'go upstream' and advocate on social determinants of health"?
A. Yes.
20 **Q.** Okay. So this is the article referenced at item 4 under "Publications" on your CV?
A. Yes.
MS. SHORES: Okay. Let's just mark this for identification as Exhibit A, please.

EXHIBIT NO. A: "Canadian Medical Education Journal" article titled "What knowledge is needed? Teaching undergraduate medical students to 'go upstream' and advocate on social determinants of health"
MS. SHORES:
21 **Q.** Now, if I can take you, Dr. Hayman, to page 2 of the document, but I think the first part of the body of the article, under the heading "Background," it's written here:
"Upon completion of training, Canadians expect our physicians to respond to community needs and advocate for change both within and beyond the immediate clinical environment." (As read.)
You agree that's -- you agree with that statement?
A. Yes, I do.
22 **Q.** That's a statement in the journal article that you wrote?
A. That is correct.
23 **Q.** And, again, at page number of the article e60, under the subheading

"Discussion," the third paragraph, it's stated, and I quote again:
"Canadian medical students should graduate capable of communicating with the public and stakeholders -- for example, through op-eds and deputations -- and capable of identifying appropriate stakeholders at varied levels of government." (As read.)
Do you agree with that statement?
A. I do.
24 **Q.** And that's a statement in the article that you wrote?
A. That is correct.
25 **Q.** You're a member of the group Health Providers Against Poverty?
A. I am not currently an active member of that group. I have been a member of that group in the past.
26 **Q.** When did you cease your involvement, or your active involvement with that group?
A. I would have to look back on personal records to clarify, but I have not

attended any meetings in the last two or more years.
27 **Q.** Now, I looked up that group and I understand, based on their website, they self-describe as a group of health providers working to eliminate poverty and reduce health inequities in Canada. You agree that's an accurate description of the group?
A. I do.
28 **Q.** You use the social media platform named X, formerly Twitter?
A. I do.
29 **Q.** Your handle is @Hayman_Kate?
A. That's correct.
30 **Q.** Now, I'm going to place up on the screen some screen captures of tweets made by the account @Hayman_Kate.
For the record, I'll identify this as not a complete list of all tweets by the account @Hayman_Kate. These are only a few that I'd like to draw your attention to, and I'm going to mark this for identification as Exhibit B.
EXHIBIT NO. B: Screen captures of tweets from the account @Hayman_Kate

MS. SHORES:

31 Q. So let's identify these. The first one at the very top -- are you able to read what's on the screen?

A. Yeah. So this is a tweet from August of 2020 that says:

"Join me in a national campaign to end homelessness in Canada, once and for all."

32 Q. And there's a website address, RecoveryForAll.ca?

A. That's correct.

33 Q. And I looked it up. Recovery for All is an initiative by the Canadian Alliance to End Homelessness?

A. That sounds correct. I would have to look back at the tweet to confirm exactly. It was three years ago.

34 Q. That's fair.

You wrote that tweet?

A. I did.

35 Q. And you wrote that to encourage people to take action to end homelessness?

A. That is correct.

36 Q. The next capture of a tweet is

dated March 30, 2021, and it states:

"As a doctor and neighbour, I am very distressed about upcoming encampment evictions. Evictions are not about protecting health." (As read.)

And then there's three bullet points beneath it:

"The weather is getting warmer, i.e. safer; COVID outbreaks in shelters are very bad; forced relocation is harmful to mental and physical well-being." (As read.)

And then there's a graphic underneath that reads:

"I support my neighbours in tents. No encampment evictions."

You wrote that tweet?

A. I did.

37 Q. And you included that graphic?

A. I did.

38 Q. And you wrote that to encourage people to take action to end homelessness? Or, I'm sorry, you wrote that to encourage people to oppose encampment evictions?

A. I wrote that to share my perspective as a physician about the ongoing

encampment evictions in my neighbourhood.

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39 Q. And to share your viewpoint that you oppose encampment evictions?

A. That is correct.

40 Q. There's another tweet dated May 27, 2021, which reads:

"In the past year, I've spoken with hundreds of people experiencing homelessness, and the vast majority express a strong preference for hotel settings. Toronto, I hope we can do better and ensure that people are offered housing rather than a return to congregate settings." (As read.)

And that's in response to a tweet by someone named Kelly Doran, according to her Twitter name, stating:

"NYC planning moves of people experiencing homelessness from hotels back to congregate shelters." (As read.)

So I understand you did not write the tweet with the name Kelly Doran, but the previous statement, you wrote that?

A. That is correct.

41 Q. Okay. And you wrote that to encourage people, Torontonians in particular, to support hotels for people experiencing homelessness as opposed to shelters?

A. I wrote that tweet to share my expertise. At that time, I was providing care to many people who were transitioning between situations in my role as the medical director of a COVID recovery and isolation site, and I wanted to share that perspective and bring to light that some of these hotel shelters were closing and people were being returned to congregate settings.

42 Q. Okay. And the final tweet that I'll take you to is one dated June 26, 2023, and it reads:

"Toronto, get out and vote --" with three exclamation points. "As an emergency doctor who sees many people experiencing homelessness, I voted for @OliviaChow. She is the candidate most likely to improve access to housing and emergency shelter. I want to work and live in a city

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1 where everyone is safe and housed."
2 (As read.)
3 And underneath, there's a picture. It appears to
4 be you with a baby. So is that you?
5 **A. That is me.**
6 43 Q. And you wrote that tweet?
7 **A. I did write that tweet.**
8 44 Q. Okay. And you wrote that to
9 encourage people to vote for a candidate who you
10 believe is most likely to improve access to
11 housing and emergency shelter?
12 **A. That's correct.**
13 45 Q. Okay. So you'd agree you're
14 an advocate for people experiencing homelessness?
15 **A. Yes, I would agree.**
16 46 Q. And your involvement in this
17 case is part of that work advocating for people
18 experiencing homelessness?
19 **A. Yes. I am involved in this**
20 **case because I think the housing situation is**
21 **important, and I think that I have something to**
22 **offer in terms of my clinical expertise in this**
23 **area as well.**
24 47 Q. I'm going to return to your
25 CV, going back to the first page. So again for

18

1 the record, we're now at Exhibit A to your
2 affidavit, not Exhibit A to this examination.
3 Your primary office is at
4 University Health Network in Toronto?
5 **A. That's correct.**
6 48 Q. You're an emergency medicine
7 physician?
8 **A. That's correct.**
9 49 Q. You don't practise in
10 Hamilton?
11 **A. That is correct.**
12 50 Q. And unless I misread your CV,
13 I don't believe you've ever practised in Hamilton?
14 **A. That's correct.**
15 51 Q. I'll take you now to your
16 affidavit. I'll start with paragraph 5. You've
17 written:
18 "I have been providing health care
19 to the unhoused and/or precariously
20 housed persons for 12 years. I
21 have been working with the
22 unhoused, precariously housed
23 persons for 12 years. This has
24 been a primary focus of my clinical
25 and academic practice since 2013."

19

1 (As read.)
2 I'm going to ask you some general questions
3 informed by that experience.
4 Do you agree that some needs are
5 higher priority than others? So, for example, I'm
6 going to give you a complete hypothetical.
7 Someone who can't breathe and who also hasn't
8 eaten in 24 hours, their need for air would take
9 precedence over their need for food. Do you
10 agree?
11 **A. Yeah. I believe you're**
12 **referring, sort of in general, to the concept of**
13 **triage in emergency medicine, and I do agree with**
14 **the principle of triaging needs.**
15 52 Q. Okay. I wasn't going to use
16 the word "triage" because I was a little concerned
17 I'd use it improperly. You're the expert, not me.
18 Okay. So I'll put a couple of
19 other examples to you. So if that same patient
20 who couldn't breathe, hadn't eaten in 24 hours was
21 also feeling socially isolated, once you got them
22 breathing again, their need for food would be the
23 first thing to address, in priority to their
24 feelings of social isolation?
25 **A. So I would have a challenging**

20

1 **time answering that question without seeing the**
2 **patient in front of me and understanding a lot of**
3 **the nuance of their situation in terms of, you**
4 **know, once I've addressed the emergent threat to**
5 **their life and they can become a participant**
6 **actively in the decision-making and in the**
7 **conversation, their perspective on what is the**
8 **most important thing to them right now also**
9 **becomes tremendously valuable.**
10 **So it would be hard for me as a**
11 **physician to really determine what is most**
12 **critical to them once the emergency threat to life**
13 **has been addressed. I hope that makes sense.**
14 53 Q. That does. Thank you.
15 And let's zero in a little bit
16 further. And, again, we're speaking entirely
17 hypothetically, and I realize there are limits to
18 that.
19 If someone presents who doesn't
20 have shelter, you'd agree that the need to provide
21 them with shelter will take precedence over other
22 needs that aren't as high priority?
23 **A. Again, a lot of that**
24 **decision-making really has to do with the**
25 **conversation with the patient to determine what is**

1 **their most urgent need in this moment, and many of**
2 **the patients who I see have multiple, significant**
3 **pressing needs that are simultaneous, and they are**
4 **consistently trying to rebalance that**
5 **prioritization.**
6 **I understand my job as a physician**
7 **to share my medical expertise with them and to**
8 **jointly make decisions about what is best for**
9 **their health, based in large part on their**
10 **understanding of what is best for their health.**
11 **54** **Q.** And so the need for shelter
12 may change depending on the circumstances -- or,
13 I'm sorry, the relative need for shelter may
14 change depending on the circumstances of the
15 individual or even the surrounding circumstances;
16 right?
17 **A. Yeah. I would say that's**
18 **correct.**
19 **55** **Q.** Okay. So, for example, if
20 it's very nice out, if it's very mild, it's not
21 precipitating, it might be more important to
22 attend to one of their other competing needs?
23 **A. It may be. It would also**
24 **depend on the experiences of that person and how**
25 **they're prioritizing the competing needs in their**

1 **life at that time.**
2 **56** **Q.** Okay. And, certainly, people
3 don't need to have a roof over their heads every
4 single minute of every single day in order to have
5 their survival needs met?
6 **A. For most people, that would be**
7 **true. It would depend on the health needs, again,**
8 **of that individual. For example, if they had**
9 **multiple disabilities, if they were on antibiotics**
10 **that potentially could cause harm with significant**
11 **sun exposure, there would be specific, unique**
12 **clinical circumstances to each individual that**
13 **would help determine how critical their need for**
14 **shelter was in that moment.**
15 **57** **Q.** I'm going to take you to
16 paragraph 7, subparagraph (c) of your affidavit,
17 and you've written here:
18 "Patients report that staying in a
19 congregate shelter setting can also
20 be challenging to their substance
21 use choices, as they have no
22 control over the people who are
23 staying around them." (As read.)
24 And then you go on to note parenthetically:
25 "In contrast to an encampment-style

1 setting, where residents can choose
2 their community members." (As
3 read.)
4 You made that statement?
5 **A. I did.**
6 **58** **Q.** And you'd agree with me that
7 encampment residents can't entirely control their
8 community members; right?
9 **A. I would agree that it depends**
10 **on the circumstances and the situation in an**
11 **encampment. I have met people who have stayed in**
12 **encampments that are relatively small communities**
13 **where they may have a larger degree of control**
14 **over their community members than in a congregate**
15 **shelter or another shelter setting where the**
16 **operator of the shelter is the primary**
17 **decision-maker in who stays in that facility.**
18 **59** **Q.** And, certainly, there are
19 circumstances where someone might be living
20 encamped and someone comes up that they don't want
21 to be around, and their choices are just to deal
22 with it or move?
23 **A. I think that that is possible.**
24 **I can't speak to that circumstance in my expertise**
25 **as an emergency physician necessarily, though.**

1 **60** **Q.** Okay. Staying with paragraph
2 7(c), going to the second sentence, you also note:
3 "For people seeking abstinence or
4 reduced use of drugs, shelters can
5 pose risk of relapse or increased
6 substance use." (As read.)
7 So if I understand correctly, you're flagging that
8 shelters are bad for people trying to maintain
9 sobriety because they'll be around drug use?
10 **A. So shelters, as I believe I**
11 **have outlined elsewhere in my affidavit, have a**
12 **wide-ranging tolerance to harm reduction**
13 **principles and to drug use in this space. In**
14 **Toronto, where I practise, when people are matched**
15 **to a shelter, they typically have no choice. So**
16 **when they get a bed, they get a bed at that**
17 **shelter.**
18 **It may be a shelter that has**
19 **relatively little drug use, or it may be a shelter**
20 **where there is a lot of active drug use. If**
21 **someone has chosen to abstain from drugs and**
22 **they're matched to a shelter option where there is**
23 **a high amount of drug use and there is a very**
24 **harm-reduction-positive philosophy, they have told**
25 **me that they feel that threatens their sobriety.**

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61 Q. Okay. And to be clear, you don't have any practice experience with the shelters in the city of Hamilton?

A. I do not have practice experience with the shelters in the city of Hamilton. However, I think many of these themes that patients have expressed to me are likely similar in Toronto.

For example, I trained in London and in other parts of the Greater Toronto and Hamilton Area. I don't anticipate that some of these issues that clients have expressed would be markedly different between Toronto and Hamilton.

62 Q. In the last sentence of subparagraph 7(c), it's written here:

"Patients have also reported that they use stimulants to mitigate safety risks when in shelters or when sleeping unsheltered outside, since it is safer to be awake in the nighttime." (As read.)

You'd agree with me that there are also safety risks when sleeping in a tent?

A. There may be safety risks when sleeping in a tent.

Patients have described to me that they feel safer sleeping in a tent than they do sleeping, for example, in an alleyway in the dark, where I have had women tell me they feel absolutely unsafe and use stimulants to ensure that they are not left sleeping in an alleyway after dark where they feel at risk of sexual assault, for example, and I have had patients tell me that sleeping in a tent, in their opinion, helps to mitigate those risks.

63 Q. Okay. I want to talk a little bit more about your understanding of safety risks, or your opinion on safety risks. You'd agree with me that a tent won't do much to prevent someone with bad intentions from accessing the person inside?

A. I don't think I can opine on that. Access to a tent -- I think there are many circumstances that could change access or not. I would say I think the visibility in a tent is quite different than visibility in an alleyway, for example.

64 Q. You'd agree with me that when it's cold outside, hypothermia and frostbite are still a risk for a person in a tent?

A. So in my expertise as an emergency physician, one of the critical factors in hypothermia is wet weather. So many people -- I have seen someone previously who died from hypothermia when it was approximately 10 degrees outside and raining.

What a tent does is it protects people from getting wet, when it's a functional tent. So it may not prevent hypothermia in extremes of temperature, but it can help to mitigate that risk significantly and critically by providing protection from wind and from rain, which increase the rate of a body cooling.

65 Q. And you referenced extremes of temperature. Those temperature extremes would also pose a risk of frostbite, potentially, to a person, notwithstanding that they're in a tent?

A. That is possible. I have not personally treated anyone who sustained frostbite injuries while staying in a tent in my practice as an emergency physician.

66 Q. You agree that thefts can happen in encampments?

A. That deaths can happen?

67 Q. Theft.

A. Theft.

I -- it's not something that patients have reported to me. I would agree that hypothetically that could occur, yes.

68 Q. People can bring weapons into encampments?

A. Again, that is not in my expertise as an emergency physician.

69 Q. People exhibiting violent behaviour can go to encampments?

A. I -- again, people's behaviour, it's not -- I don't police encampments. So I can't comment specifically on that or not.

70 Q. Okay. So you don't know?

A. It's not in my clinical expertise.

71 Q. People can bring drugs into encampments?

A. Yes.

72 Q. People consume drugs in encampments?

A. Yes.

73 Q. Discarded drug paraphernalia can be left in encampments?

A. I have not personally

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witnessed that, nor have I heard reports of that in the area where I live and work. Theoretically, that could be possible, but it is not something that I have any firsthand experience of.

74 **Q.** And I take it you have no knowledge of the frequency of discarded drug paraphernalia surrounding encampments in the city of Hamilton?

A. I do not.

75 **Q.** Paragraph 10 of your affidavit, I'll next refer you to. The last sentence, you state:

"Overall, houseless women are also at higher risk for sexual and physical assault than houseless men." (As read.)

And there's Footnote 4. Footnote 4 corresponds to the study titled "Antecedents of Physical and Sexual Victimization Among Homeless Women: A Comparison to Homeless Men," authored by Wenzel, Koegel and Gelberg in the "American Journal of Community Psychology." That's a source you cite for that statement?

A. That's correct.

76 **Q.** I'm going to go next to that

study. I'm placing it up on the screen. So I've pulled what I believe is the study you're referring to.

This is a document called "Antecedents of Physical and Sexual Victimization Among Homeless Women: A Comparison to Homeless Men," published in the "American Journal of Community Psychology," Volume 28, Number 3, from the year 2000. Is that the study you were citing?

A. I believe so, although in full transparency I wrote this affidavit more than 18 months ago. So I don't recognize it from sight, but it --

77 **Q.** That's fair enough. I'm going to take you to some particular paragraphs, and if that jogs your memory, let me know.

So let's mark this for identification as Exhibit C.

EXHIBIT NO. C: "Antecedents of Physical and Sexual Victimization Among Homeless Women: A Comparison to Homeless Men," from the "American Journal of Community Psychology"

MS. SHORES:

78 **Q.** I'm going to direct you to -- I believe it's journal page 379. At the very bottom under the heading title "Discussion," the authors of this study write:

"Descriptive analyses do not support previous findings that homeless women experience higher rates of victimization than homeless men --"

and then it continues two pages down

"-- e.g., Geissler et al., 1995; however, more homeless women than men in this study experienced sexual violence." (As read.)

Now -- oh, I'm sorry. They continue on. I should read the rest of the paragraph:

"In interpreting these findings, it is important to note that, unlike other studies that found higher rates of violence among homeless women than men, we utilized a very recent prevalence of victimization. A more expansive time window and thus a greater representation of experiences may have yielded a

different picture." (As read.)

So the authors have qualified this statement, but you'll agree with me that they're identifying that their descriptive analyses in the study did not support previous findings that homeless women experience higher rates of victimization than homeless men, other than sexual violence; right?

A. I would have to go back and read the paper in more detail to definitively confirm that. But from what you've shown, that -- that seems to be an accurate understanding of the text that you've shown.

79 **Q.** Okay. And you'll also agree that this study, if you remember, does not distinguish the risk of victimization as between women who live in encampments versus some other form of shelter, be it temporary or no shelter?

A. I would have to review the paper in more detail to see if the authors differentiated on that point.

80 **Q.** Okay. Well, to tie it back to the statement in paragraph 10 of your affidavit, you certainly weren't relying on this study to make a proposition that sexual or physical assault risk for women changes based on whether they're in

1 an encampment or not?
2 **A. I was not relying on that**
3 **paper to make a statement about whether they are**
4 **in an encampment or not. That is correct.**
5 **81** **Q.** At paragraph 13 of your
6 affidavit under the heading "MARCO Encampment
7 Evaluation," you write:
8 "I endorse the MARCO study attached
9 as Exhibit B."
10 I'm going to take you to that MARCO
11 report. So going to Exhibit B of your affidavit
12 -- and, again, for the record, this is Exhibit B
13 to the Affidavit of Kate Hayman, not Exhibit B to
14 this examination.
15 The document is entitled "MARCO
16 Brief Report, Encampment Outreach Evaluation,
17 November 2021." Do you recognize that?
18 **A. I do.**
19 **82** **Q.** Okay. So going to the very
20 first page past the title, under the heading
21 "About the MARCO Study" at the top, it states:
22 "The MARCO project is evaluating
23 how local efforts responding to the
24 COVID-19 pandemic serve people
25 experiencing marginalization and

1 how these interventions can be
2 improved." (As read.)
3 So you agree that this study was performed in the
4 context of the COVID-19 pandemic?
5 **A. That is correct.**
6 **83** **Q.** And under the heading a little
7 further down, the heading titled "About This
8 Report," the authors write:
9 "This report is a brief summary of
10 one of the MARCO evaluations. This
11 report highlights the key findings
12 of the encampment outreach
13 evaluation. The final, full-length
14 report will be released in December
15 2021." (As read.)
16 The final, full-length report isn't discussed in
17 your opinion; correct?
18 **A. It is not discussed, no.**
19 **84** **Q.** Okay. You were not a
20 participant in the preparation of the MARCO study;
21 correct?
22 **A. I was a participant in the**
23 **preparation of the MARCO study specifically on the**
24 **COVID-19 isolation and recovery sites and the**
25 **substance-use services. I was not a participant**

1 **in this component of the MARCO study on**
2 **encampments.**
3 **85** **Q.** Now, I'll take you to page 3
4 of the MARCO brief report. At the bottom of the
5 first column, the authors write:
6 "Our evaluation included several
7 steps:
8 "1. We met with key community
9 members and groups to plan the
10 study.
11 "2. We conducted 127 surveys and
12 23 interviews with encampment
13 residents at six encampments in
14 Toronto between March and June
15 2021.
16 "3. We looked for patterns from
17 the surveys and common themes in
18 the interviews." (As read.)
19 So this study, from what the authors say, is a
20 summary of surveys that report the self-reported
21 experiences and preferences of unhoused people?
22 **A. As well as the people who were**
23 **supporting them, yes.**
24 **86** **Q.** Okay. Well, I do want to take
25 you to the next paragraph, then, because the

1 authors write:
2 "We also conducted 16 interviews
3 with encampment outreach workers
4 and volunteers. We will share
5 findings from these interviews in a
6 future report." (As read.)
7 So I take it from that statement that those
8 findings actually aren't included in this brief
9 summary; correct?
10 **A. That is my understanding.**
11 **87** **Q.** So just on the topic of the
12 experiences of people living in encampments, I
13 want to refer you to another source that you've
14 cited, in fairness to you, elsewhere in your
15 affidavit.
16 So in your affidavit at Footnote
17 11, which is a footnote to paragraph 16, you cite
18 the United States Department of Housing and Urban
19 Development, "Understanding Encampments of People
20 Experiencing Homelessness and Community Responses,
21 Emerging Evidence as of Late 2018."
22 I'm going to take you to that
23 study. So I place this up on the screen here, a
24 document titled "Understanding Encampments of
25 People Experiencing Homelessness and Community

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1 Responses, Emerging Evidence as of Late 2018."
2 You'll agree that's the study cited in your
3 affidavit?
4 **A. To the best of my**
5 **recollection, yes.**
6 MS. SHORES: Okay. I'm going to
7 mark that as Exhibit D for identification to your
8 examination.
9 EXHIBIT NO. D: Study entitled
10 "Understanding Encampments of
11 People Experiencing Homelessness
12 and Community Responses, Emerging
13 Evidence as of Late 2018."
14 MS. SHORES:
15 88 Q. Now, I'm going to take you to
16 page, I believe, 19 of the report. So page 19,
17 and, just to orient you, the passage I'll direct
18 you to is under a heading that begins on the
19 preceding page called "Challenges to Collecting
20 Data on People in Encampments." The last
21 paragraph under that heading states:
22 "Data collection efforts are also
23 hampered by the transient nature of
24 people experiencing unsheltered
25 homelessness and the limited

1 capacity of outreach teams to
2 comprehensively canvass the less
3 visible and less accessible
4 geographies within their
5 communities. Intensive and
6 time-consuming outreach and
7 follow-up efforts are required to
8 collect information about
9 encampment residents over time.
10 Mental illness and substance use
11 can also complicate data collection
12 because the responses of affected
13 individuals to questions may be
14 unreliable." (As read.)
15 Do you agree that that's a limitation on survey
16 data?
17 **A. Sorry, what specifically are**
18 **you referring to? That mental illness and**
19 **substance use can complicate data collection?**
20 89 Q. Yes.
21 **A. So I would -- I would state**
22 **that, generally, in my experience as an evaluator,**
23 **people tend to respond to survey data during a**
24 **period of the day when they are awake, and not**
25 **intoxicated, enough to engage with the researcher.**

1 **I would agree with the general**
2 **limitations that they have outlined here in terms**
3 **of some of the difficulties about doing research**
4 **with people experiencing unsheltered houselessness**
5 **and also stay in encampments.**
6 90 Q. And that potential challenge
7 to the reliability of the data collection isn't
8 referenced in the MARCO brief report; correct?
9 **A. That is correct. I would say**
10 **the MARCO brief report really sought to**
11 **understand, I believe as you said, the experiences**
12 **of -- firsthand experiences of people who were**
13 **staying in encampments.**
14 **And, again in my understanding, in**
15 **terms of methodology, people tend to engage with**
16 **this work during periods of relative sobriety, not**
17 **during periods of intoxication or when they would**
18 **be highly unreliable.**
19 91 Q. So let's just talk briefly
20 about some of the results of the surveys conducted
21 in preparation of this MARCO brief report. I'm
22 directing you to page 5 of the report. The
23 second -- I'm sorry, the second full bullet point
24 down, it reads:
25 "75 percent of people who accepted

1 an offer of shelter or housing
2 returned to live in an encampment.
3 The most common reasons they left
4 the shelter or housing were:
5 "29 percent were kicked out;
6 "16 percent did not like the
7 restrictions, such as no pets, no
8 guests, or a limit on the
9 belongings they could bring;
10 "11 percent felt the shelter or
11 housing was too far away from where
12 they wanted to be;
13 "11 percent were worried about
14 violence;
15 "Some reported more than one
16 reason." (As read.)
17 This brief report doesn't indicate the particular
18 questions the participants were asked; correct?
19 **A. That's correct.**
20 92 Q. Okay. And if we look at the
21 bullet point "29 percent were kicked out," there's
22 no indication that the authors of this study made
23 any efforts to validate the accuracy of these
24 claims, that they were, in fact, kicked out of
25 shelter; correct?

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1 **A. That is correct. I would like**
2 **to differentiate, though. If someone understands**
3 **that they've been service-restricted from a**
4 **shelter, the details of that service restriction,**
5 **in my experience caring for them in the emergency**
6 **department, are often not as relevant.**
7 **If someone understands that they**
8 **cannot return to a shelter, whether that is, in**
9 **fact, the shelter policy or the person's**
10 **understanding, in my experience, they tend not to**
11 **return to that shelter.**
12 **So I think the individual's**
13 **understanding about if they've been kicked out or**
14 **the terms of their service restriction, in my**
15 **experience, is more influential to their behaviour**
16 **than sometimes what those specific details may be.**
17 **And I say that as an emergency**
18 **physician who has often called shelters to try to**
19 **understand the specific details when I'm trying to**
20 **understand if someone can return or not. So I**
21 **think the person's firsthand understanding of the**
22 **situation may be more relevant to the specific --**
23 **on the shelter end in their decision-making about**
24 **where they can stay.**
25 **93 Q.** I'm going to take you back to

1 paragraph 16 of your affidavit. So paragraph 16,
2 on page 10, reads at the very beginning:
3 "When people are in crisis,
4 decisions about where to stay are
5 pragmatic choices among best
6 available options, based on
7 circumstances at that time.
8 Encampments represent a lack of
9 other desirable options for housing
10 and shelter and have several
11 distinct advantages," colon. (As
12 read.)
13 And then you go on to list things in a number of
14 paragraphs. But for that passage that I just
15 read, there's a footnote, again, Footnote 11,
16 being the "Understanding Encampments" study that
17 we previously identified as Exhibit D. So that's
18 the source that you're citing for that statement?
19 **A. That source would have**
20 **informed a component of that statement, and some**
21 **of that statement is also based on my expert**
22 **opinion in talking to patients in terms of how**
23 **they make pragmatic choices.**
24 **94 Q.** Okay. So let's be really
25 clear about that. So Footnote 11 refers to, it

1 says at the very end, "at 4." That's page 4 of
2 the "Understanding Encampments" study?
3 **A. I would have to go back and**
4 **refer to it again.**
5 **95 Q.** Okay. Let's go to page 4.
6 So, again, we're at page 4 of Exhibit D to this
7 examination, and if we read the first paragraph
8 under the heading "Explanations for the Increase
9 in Encampments," the second sentence:
10 "According to a key informant who
11 is helping communities understand
12 how to deal with encampments, when
13 people are in crisis, their
14 decisions about where to stay
15 represent pragmatic choices among
16 the best available alternatives,
17 based on individual circumstances
18 at a particular moment in time.
19 Encampments form in response to the
20 absence of other, desirable options
21 for shelter." (As read.)
22 So if we go back to your statement, what the study
23 at Exhibit D doesn't say is that encampments offer
24 several distinct advantages. You'd agree?
25 **A. Again, I would have to go**

1 **back -- I would have to go back to reference the**
2 **study.**
3 **96 Q.** Okay. All right. Well, let's
4 do that. Let's take a little bit more time to go
5 into that study. So I'm going to return to
6 paragraph 4 again of Exhibits D. This is the
7 "Understanding Encampments" study. In the second
8 paragraph under "Explanations for the Increase in
9 Encampments," the authors write:
10 "Within this underlying context,
11 several related factors seem to
12 influence whether people
13 experiencing homelessness form or
14 go to encampments rather than stay
15 in shelters or on their own in
16 unsheltered locations. Primary
17 among those factors are (1)
18 shortcomings in the shelter system,
19 (2) a sense of safety and community
20 within encampments, and (3) a
21 desire for autonomy and privacy."
22 (As read.)
23 So this is summarizing, you'll agree, factors that
24 seem to influence whether people experiencing
25 homelessness form or go to encampments rather than

1 stay in shelters or unsheltered locations;
2 correct?
3 **A. That is summarizing some of**
4 **the factors.**
5 **97** **Q.** Okay. But to put a finer
6 point on it, the authors of the study aren't
7 offering a conclusion that encampments are better
8 than shelter or unsheltered locations for those
9 reasons?
10 **A. No, they are not concluding**
11 **that encampments are necessarily better for all**
12 **people for those reasons.**
13 **98** **Q.** I'm going to take you back to
14 your affidavit, paragraph 16, and some of the
15 distinct advantages that are identified at
16 paragraph 16. Subparagraph (a), you reference
17 couples or survival partners.
18 You'd agree with me that if there's
19 abuse between a couple, separating them might
20 actually aid the person experiencing the abuse to
21 get help?
22 **A. So what I'm describing are the**
23 **best available options that people are making when**
24 **in crisis. So when I'm referring to couples or**
25 **survival partners remaining together, I'm**

1 **referring to couples who are choosing to remain**
2 **together.**
3 **And just to elaborate on that, if I**
4 **can go to my affidavit, these are people with past**
5 **experiences of trauma, including traumatic**
6 **childhood separations from parents and/or siblings**
7 **where involuntary separation can be very harmful**
8 **to mental health. I am not referring in this**
9 **paragraph in any way to people who are fleeing an**
10 **abusive relationship.**
11 **These are people who are choosing**
12 **to remain with their partner out of a volitional**
13 **choice that they've made, which is a very**
14 **different circumstance and is often a circumstance**
15 **that cannot be accommodated in a shelter system**
16 **where I work.**
17 **99** **Q.** You'd agree that in an abusive
18 relationship, "volitional choice" is certainly a
19 loaded term, and what someone may feel is an
20 option to them in the circumstances may not
21 represent the full expression of their volition?
22 **A. As an emergency physician, I**
23 **can support someone in making the best available**
24 **choice, including, in the Canadian context, in an**
25 **abusive relationship. But what I'm referring to**

1 **here are the tremendous benefits that someone has**
2 **when they stay with an intimate partner or a**
3 **partner by choice.**
4 **I've referred to a survival**
5 **partner. So, for example, that may be someone who**
6 **stays with them to ensure that they don't die of a**
7 **drug overdose or stays with them to provide some**
8 **degree of safety and security from other people in**
9 **the context where they're living.**
10 **That's critically important to**
11 **someone's well-being, and it is not my position,**
12 **legally or medically, to separate someone from**
13 **their survival partner if that is the decision**
14 **that they make.**
15 **100** **Q.** And with respect to
16 specifically acting as prevention for someone
17 overdosing and fulfilling that role as a survival
18 partner, you'd agree that that can also be done by
19 someone with harm reduction training if they're
20 present; correct?
21 **A. That's correct. But I have no**
22 **experience in the shelter system, in any location,**
23 **including in a highly medicalized location of the**
24 **recovery and isolation site, where a harm**
25 **reduction worker could be present 24 hours a day,**

1 **seven days a week to support someone in reducing**
2 **the risk of overdose.**
3 **That is possible when a coupled**
4 **relationship or when two survival partners can**
5 **remain together, or very near possible. The**
6 **degree of support and supervision for overdose**
7 **prevention that can be obtainable from a community**
8 **member or partner as opposed to a harm reduction**
9 **worker is fundamentally different.**
10 **101** **Q.** And you don't have any
11 knowledge of the availability of trained harm
12 reduction workers at the shelters in the city of
13 Hamilton?
14 **A. In the city of Hamilton, I do**
15 **not. But it would be -- it would be very, very**
16 **surprising to me, based on my in-depth knowledge**
17 **of the shelters in Toronto, if there was a**
18 **facility where harm reduction workers were**
19 **available to supervise someone 24 hours a day,**
20 **seven days a week with the same degree of**
21 **supervision that is available from a couple or a**
22 **survival partner.**
23 **102** **Q.** At subparagraph (b) at 16, you
24 state:
25 "People can remain with their pet,

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1 rather than being forced to leave
2 the animal with animal services to
3 obtain shelter." (As read.)
4 Now, just on the topic of pets, you'd agree that
5 pets, as opposed to service animals, they don't
6 have any sort of specialized training; correct?
7 **A. That is correct.**
8 **103** **Q.** It's even possible that pets
9 can be aggressive?
10 **A. That is correct.**
11 **104** **Q.** And it's possible that someone
12 could bring an aggressive pet into an encampment?
13 **A. That is correct.**
14 **105** **Q.** And there's nothing stopping
15 an aggressive animal from harming another person
16 or another animal in an encampment?
17 **A. That is correct, although I**
18 **would say aggression, in my understanding, tends**
19 **to be situationally related, and many people I**
20 **have met who are experiencing homelessness who**
21 **have an animal that can at times demonstrate**
22 **aggression often does that to protect the person**
23 **that it is accompanying.**
24 **106** **Q.** Now, you'd also agree with me
25 that if a person or their pet or their service

1 animal was attacked by an aggressive animal, that
2 would be traumatizing to that person?
3 **A. That's possible, yes.**
4 **107** **Q.** Now, at subparagraph (c) of
5 paragraph 16, second sentence, you state:
6 "As identified in the MARCO study,
7 being 'kicked out' --
8 service-restricted/evicted -- from
9 shelter is common." (As read.)
10 And then you go on to state:
11 "People who have experienced
12 trauma, have mental health
13 diagnoses, and use drugs may
14 exhibit behaviours that, despite
15 being secondary to illness and not
16 harmful to co-residents, are not
17 tolerated by shelter staff, leading
18 to frequent service restrictions."
19 (As read.)
20 Certainly, your evidence is not that the only
21 reason for service restriction is behaviours that
22 are not harmful to co-residents?
23 **A. That is correct. That is not**
24 **the only reason, but I can give you one example.**
25 **Someone may respond to a lot of stimuli by yelling**

1 **very loudly. Very loud yelling is not necessarily**
2 **causing physical harm to the people around them**
3 **but may be intolerable in a shelter situation.**
4 **That is a common reason that I've**
5 **seen for conflict resulting between shelter staff**
6 **and the client, and people have been evicted for**
7 **reasons such as yelling, swearing, talking in a**
8 **loud voice, which is not causing physical harm to**
9 **the other people in the situation.**
10 **108** **Q.** You'd agree with me that
11 yelling and talking in a loud voice might be
12 disturbing to other people trying to rest in a
13 shelter; correct?
14 **A. It could be, depending on the**
15 **physical layout of the space.**
16 **109** **Q.** And you don't have any
17 knowledge that, in the city of Hamilton, an
18 immediate service restriction -- in other words,
19 meaning someone is kicked out of the shelter --
20 results from one occasion of raising their voice,
21 swearing or yelling?
22 **A. I do not have knowledge of**
23 **that happening specifically in Hamilton. However,**
24 **I do not have any reason to believe that the**
25 **behaviours of the shelter staff and the behaviours**

1 **of the shelter residents would be markedly**
2 **different in the Toronto context than in the**
3 **Hamilton context.**
4 **And I do have extensive experience**
5 **meeting people who have been kicked out of**
6 **shelter, particularly late at night, for what they**
7 **report as behavioural concerns such as yelling.**
8 **110** **Q.** But, again, you don't have any
9 experience with City of Hamilton shelters. You're
10 drawing a conclusion based on your experience in
11 the city of Toronto?
12 **A. I do not work in the city of**
13 **Hamilton. I do not have direct experience with**
14 **the City of Hamilton shelters. That is correct.**
15 **111** **Q.** And you haven't reviewed any
16 policies for City of Hamilton shelters with
17 respect to service restrictions and when and how
18 they may be imposed?
19 **A. That's correct. I have not.**
20 **112** **Q.** Bear with me one moment.
21 At paragraph 16(f) of your
22 affidavit, you state:
23 "Persons with a history of trauma
24 or abuse may be triggered by a
25 congregate setting of strangers."

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1 (As read.)
2 But you'd agree that encampments may also involve
3 contact with strangers?
4 **A. They may. But, again, people**
5 **in encampments may have control over how many**
6 **people are in the environment based on how big the**
7 **encampment is, and there is a different level of**
8 **control over who is staying in the immediate**
9 **vicinity around you, compared within a shelter**
10 **setting where the people controlling where people**
11 **are sleeping and who can come into and out of the**
12 **building is in the control of the shelter staff**
13 **rather than the residents in that community.**
14 **113 Q.** You'd agree that it's possible
15 that someone could potentially encounter someone
16 who has caused their trauma in the past if they're
17 in an encampment?
18 **A. That is possible. It is also**
19 **possible in a shelter setting.**
20 **114 Q.** At paragraph 17, you state at
21 the second sentence:
22 "It's extremely common to find that
23 there are no available shelter beds in the city."
24 I just want to be clear. The city
25 you're referring to is the city of Toronto?

1 **A. That is correct.**
2 **115 Q.** Not Hamilton?
3 **A. That's correct. I don't call**
4 **a central intake or call shelters of Hamilton. So**
5 **I cannot speak to that point.**
6 **116 Q.** And further down in that
7 paragraph -- let me find my spot. About halfway
8 down -- I'll highlight it on the screen here, just
9 so you can see the sentence I'm referring to:
10 "When patients leave the emergency
11 department for informal shelter,
12 without a clear idea of where they
13 will be going, it is often
14 impossible to organize follow-up
15 plans." (As read.)
16 I ask you, though: Is it not possible to refer
17 them to some sort of outpatient care or community
18 health provider that they can attend?
19 **A. So, in my experience, it can**
20 **often be very hard for someone who doesn't have a**
21 **regular place where they stay, be it an encampment**
22 **or a shelter or a home, to attend a community**
23 **clinic. Part of the reason for that is they may**
24 **end up in a part of town that is quite far from**
25 **that clinic.**

1 **If they don't have access to charge**
2 **a device, or they don't have a device, it can be**
3 **very hard to keep track of time sometimes, and it**
4 **can be hard to attend a regularly scheduled**
5 **appointment if you are engaged, for example, in**
6 **active substance use or if you have significant**
7 **mental health challenges, which many people in**
8 **this population do.**
9 **In my experience, it is often more**
10 **helpful to connect people with drop-in care or**
11 **care where, for example, a street outreach team**
12 **comes to them at a time that is often more**
13 **convenient to them than a lot of what happens in**
14 **our medical system, where appointments may be very**
15 **early in the morning, they often involve a lot of**
16 **waiting, may be at a location that is not**
17 **possible, may involve transportation that is not**
18 **possible.**
19 **Many of those limitations make it**
20 **much preferable, for example, to have a street**
21 **outreach team visit a patient, a client, in a**
22 **known encampment location where we know they can**
23 **be found, where the client feels safe, where they**
24 **feel in control of the situation and they don't**
25 **have to face a lot of the limitations of attending**

1 **follow-up care in our health-care system.**
2 **117 Q.** Thank you, Dr. Hayman.
3 I have no further questions for
4 you, other than just confirming: You understood
5 all of my questions today?
6 **A. I have.**
7 MS. SHORES: Thank you.
8 MR. CHOUDHRY: Ms. Shores, I'm
9 going to propose that, since I'm with my
10 cocounsel, we'd like to confer before we decide
11 the scope of redirect. So I propose that we take
12 a bit of a break.
13 Dr. Hayman, you're under oath and
14 so you can't communicate with us, as you know, or
15 with anyone else while you're still in this
16 examination. Can you confirm you understand that?
17 THE WITNESS: I do.
18 MR. CHOUDHRY: Thank you very much.
19 So, Ms. Shores, if you could just
20 give Ms. Crowe and I about ten minutes or so, just
21 to confer?
22 MS. SHORES: Of course.
23 MR. CHOUDHRY: And, Dr. Hayman,
24 you're free to use the washroom, to get a coffee,
25 to do whatever you need to do, but just please

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1 don't be talking with anyone else. That's very
2 important.
3 THE WITNESS: Noted. Thank you.
4 MR. CHOUDHRY: Ms. Shores, anything
5 else before we let Dr. Hayman have a break?
6 MS. SHORES: No.
7 MR. CHOUDHRY: Okay, good. Thank
8 you very much.
9 --- Recess taken at 10:59 a.m.
10 --- Upon resuming at 11:08 a.m.
11 REEXAMINATION BY MR. CHOUDHRY:
12 **118** **Q.** Dr. Hayman, my name is Sujit
13 Choudhry. It's nice to see you again. We just
14 have a few questions on redirect, and it's about
15 survey methods and the value of survey methods and
16 survey-methods-based research in peer-reviewed
17 medical research.
18 I know Ms. Shores asked you a
19 number of questions about survey methods and their
20 limitations. So I have a couple of brief
21 follow-up questions. I know we're not engaged --
22 it's not a workshop on survey methods, but it's
23 relevant, I think, and so I'd like to just ask you
24 a couple of questions.
25 And, again, as with Ms. Shores, I

1 can speak a bit quickly, I'm afraid. So if you
2 want me to repeat a question or slow down, you
3 should just tell me; okay?
4 **A. Okay.**
5 **119** **Q.** So, Dr. Hayman, are you able
6 to explain the use of patient surveys in
7 contemporary medical research generally?
8 **A. So I think the indications for**
9 **patient surveys could be broad. But in general,**
10 **asking a patient for their firsthand experience**
11 **gives additional perspective on the patient's**
12 **understanding of their health condition or their**
13 **social situation, as well as their understanding**
14 **of their mental and physical health.**
15 **Patient surveys often differ from**
16 **other parts of the medical literature, which might**
17 **be based on, for example, quantitative data about**
18 **health statistics, in that they oftentimes, not**
19 **always, seek to gather a more in-depth**
20 **understanding of the person's lived experience.**
21 **120** **Q.** How widely used are they in
22 contemporary medical research?
23 **A. I would say very widely used**
24 **in terms of papers that I read.**
25 **121** **Q.** Okay. So are they used just

1 in research about the houseless, or are they used
2 in other areas of medical research as well?
3 **A. No, they're used broadly.**
4 **122** **Q.** Right. And so in your
5 experience as an academic clinician, is their use
6 in research about the houseless any different than
7 their use in other areas of medical research?
8 MS. SHORES: Sorry, hang on one
9 second. Counsel, how did you describe the
10 expertise of Dr. Hayman?
11 MR. CHOUDHRY: She's an academic at
12 -- she's a professor at the University of Toronto.
13 MS. SHORES: I'm going to note for
14 the record that, again, because Dr. Hayman has not
15 been admitted as an expert with any particular
16 expertise, there may be some positions about the
17 scope or effect of her next answer.
18 But go ahead and answer,
19 Dr. Hayman. I'm not objecting. I'm just noting
20 the position on the record.
21 THE WITNESS: I apologize. Could
22 you repeat the question for me?
23 MR. CHOUDHRY:
24 **123** **Q.** The question is, Dr. Hayman,
25 based on your expertise, how do you compare the

1 use of survey methods in the research that you've
2 described in your affidavit around the houseless
3 and medical research using certain methods with
4 respect to other patient populations?
5 **A. So in my understanding, many**
6 **of the limitations and benefits of surveying this**
7 **population is similar to the general population.**
8 MR. CHOUDHRY: Okay. Thank you.
9 Those conclude my questions,
10 Ms. Shores and Dr. Hayman. Thank you.
11 MS. SHORES: Off record.
12 --- Whereupon the proceedings adjourned at
13 11:12 a.m.
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This is to hereby certify that the foregoing is a true and accurate transcript of DR. KATE HAYMAN to the best of my skill and ability.

_____

Kristy Fulton

Court Reporter

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Ex # A m/dy 8/16/2024 Pg 1 of 5
Examiner Dr. Kate Hayman
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Canadian Medical Education Journal

Brief Report

What knowledge is needed? Teaching undergraduate medical students to "go upstream" and advocate on social determinants of health

Quelles sont les connaissances requises ? Enseigner aux étudiants de premier cycle en médecine à aller « en amont » et à se porter à la défense des déterminants sociaux de la santé

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Abstract

Background: We rarely teach medical students the skills required to engage in policy change to address the structural factors that underpin the social determinants of health, which are driven by the unequal distribution of power and resources in society. Acquiring the knowledge and skills to influence policy can empower students to *act on* healthcare inequities rather than simply be aware of them.

Methods: Using Metzl and Hansen's structural competency framework, we designed and piloted an intervention for medical students. Participants attended a workshop, presented to a hypothetical political stakeholder, and wrote an opinion editorial piece. Students participated in a focus group that was audio-recorded and transcribed. We coded and analyzed presentations, editorials, and transcripts to develop a thematic analysis.

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Results: Nine students participated in the workshop. They chose structural interventions and presented potential solutions to structural barriers in written and oral outputs. Students identified a lack of knowledge about health and political systems as a potential barrier to future advocacy work.

Conclusion: Medical trainees require training in specific advocacy skills such as oral and written communication, however this alone may be insufficient. As future advocates, trainees must also acquire a specific skill set and associated knowledge about health systems and policy to navigate the systems in which they will practice.

Résumé

Contexte : Nous enseignons rarement aux étudiants en médecine les habiletés nécessaires pour participer aux changements de politique afin d'aborder les facteurs structurels sous-jacents aux déterminants sociaux de la santé, et la distribution inégale du pouvoir et des ressources dans la société. L'acquisition de connaissances et d'habiletés aptes à influencer les politiques peut encourager les étudiants à *s'engager* pour contrer les inégalités en matière de soins de santé plutôt que d'en être simplement conscients.

Méthodes : À l'aide du cadre de compétence structurelle de Metzl et Hansen, nous avons conçu et piloté une intervention pour les étudiants en médecine. Les participants ont assisté à un atelier présenté à un décideur politique simulé pour l'occasion, à la suite duquel il sont rédigé un article d'opinion. Les étudiants ont participé à un groupe de discussion qui a été enregistré et transcrite. Nous avons codifié et analysé les présentations, les articles d'opinion, et les transcriptions pour développer une analyse thématique.

Résultats : Neuf étudiants ont participé à l'atelier. Ils ont choisi des interventions structurelles et présenté des solutions potentielles aux obstacles structurels dans leurs épreuves écrites ou orales. Les étudiants ont indiqué que le manque de connaissances sur le système de santé et le système politique représente un obstacle potentiel au futur travail de défenseur.

Conclusion : Les stagiaires en médecine ont besoin de formation spécifique sur les habiletés de communication orale et écrite pour se porter à la défense des patients; cependant, cette formation à elle seule peut s'avérer insuffisante. En tant que futurs promoteur de la santé, les stagiaires doivent également acquérir des habiletés spécifiques et des connaissances associées aux systèmes et aux politiques de santé pour naviguer à travers les systèmes dans lequel ils exerceront leur pratique.

Background

Upon completion of training, Canadians expect our physicians to respond to community needs and advocate for change both within and beyond the immediate clinical environment.[1] Effective advocacy requires knowledge in addition to the traditional medical repertoire including skills that must be taught and practiced.[2] However, we rarely teach students the knowledge and skills necessary to engage in policy change that would improve the social determinants of health (SDOH) of patients.[3] When we teach the SDOH as content to be learned, rather than inequitable conditions to remediate, educators risk perpetuating the inequities they may seek to change.[3] Acquiring the knowledge and skills to advocate and influence policy might prepare students to *act on* healthcare inequities in an informed manner, rather than simply *to know* them.[4,5]

Prior studies have described curricular interventions designed to teach advocacy skills such as editorial writing[6] and writing letters to the editor.[7] However, researchers did not examine the content or the quality of the written pieces. Also, the topics that students chose (e.g. pool safety, choking hazards, vaccine refusal) suggested that their understanding of advocacy was focused on (individual) behavior change rather than addressing the structural determinants or resolving inequities.[7,8] Other efforts to teach advocacy, such as Political Action Days, teach students how to influence elected officials around concerns of the profession (e.g. medical student debt). These sometimes do not focus on addressing health inequities.[9]

Based on the current gaps in advocacy education—an identified basis of knowledge and skill, and a lack of attention to systemic and structural factors—we chose to develop an educational initiative based on

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Metzl and Hansen's Structural Competency paradigm. This initiative includes five intersecting knowledge and skill-sets, including recognizing the structures that shape clinical interactions, developing an extra-clinical language of structure, rearticulating "cultural" formulations in structural terms, observing and imagining structural interventions, and developing structural humility.[10] This framework has been utilized by educators in pre-health curriculum,[11] pre-clinical education,[12] and as a checklist by clinical trainees.[13] Within this framework, we developed and piloted a brief curricular intervention to allow medical students to practice advocacy.

Methods

Our study protocol received approval from the University Health Network Research Ethics Board (17-5068). Our goal was to recruit a convenience sample of second year (pre-clinical) medical students at the University of Toronto (Toronto, Canada) to participate. We obtained written consent from each participant prior to participation in the study. Using Metzl and Hansen's structural competency framework, we designed and piloted a three-hour workshop designed to equip attendees with skills in advocacy and policy change.[10] The workshop utilized case-based learning, using the example of local advocacy by physicians to address precarious employment. We asked students to identify a topic and target for advocacy. Students received two assignments: to participate in a group deputation to a hypothetical policymaker about their topic, and individually to write an opinion editorial. After the workshop, we invited students and facilitators to participate in semi-structured focus groups and provide feedback on the experience of the workshop. We recorded all deputations and focus groups and transcribed them verbatim.

Our analysis focused on understanding how the intervention influenced students, exploring the outputs of the assignments using the lens of structural competency, and to identify opportunities for improvement. Two research assistants coded all transcripts of the deputations and focus groups, and the written assignments, using Microsoft Word (Version 16.22, Microsoft 2019). The five components of Metzl and Hansen's structural competency paradigm informed our initial coding framework.[14] Additional codes emerged as two research assistants analyzed the transcripts, and the entire study team identified key themes through consensus.[14]

Results

We recruited nine medical students to participate in the workshop on policy-level advocacy in October 2017. Eight students completed at least one of the assignments and five students completed both the assignments. Seven of the nine participating students had previous advocacy experience, and all participants identified as women. We will present our findings according to what students chose to do, how the elements of structural competency per Metzl and Hansen were demonstrated (or not) through their assignments, and the students' feedback on the educational experience.

What students chose to do

In groups, students performed deputations targeting varied stakeholders. Students required some guidance as to who precisely would be the best target, i.e. would actually have authority over the policy that needed to be changed. One group targeted a municipal Community Development and Recreation Committee seeking improved data collection for deaths among homeless persons. A second group targeted Members of Provincial Parliament seeking expansion of public health insurance to uninsured students. A third group targeted a committee of the federal government regarding national Pharmacare. Opinion-editorial topics included addressing homelessness, improving refugee health, the relationship between opioid misuse and poverty, and addressing domestic violence.

How structural competency manifested in students' work

Students produced outputs with appropriately referenced facts about the SDOH paired with narratives that emphasized the importance of the issue. For example, in an opinion editorial about the opioid crisis, the writer identified a higher minimum wage and access to subsidized post-secondary training as structural factors that might have helped prevent one patient's addiction to opiate medications. The students presented evidence with structural humility, for example, during a deputation a student stated: "*We are not experts in policy or*

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public health, nor have we personally experienced homelessness, but as medical students, we have already observed how gaps in healthcare provision lead to bad outcomes for homeless individuals." Students were able to imagine how interventions could address structural causes of ill health and presented potential solutions to barriers that would be faced in both the written and oral outputs.

Students' feedback on the educational initiative

Students valued the aspects of the workshop that focused on building skills in oral and written communication. These aspects differentiated the intervention from existing curriculum. One student stated "*We're often just vaguely taught that advocacy is a CanMEDS role for example, so my expectation was how to actually […] develop that skill, which the session did a good job of doing."*

Learning the "logistics" of advocacy work, such as how to identify the right stakeholders to engage with and how to approach them, emerged as key to advocacy on SDOH. For example, a participant reflected that *"what could be improved was looking at the logistical sense of advocacy and being aware of the administrative steps."* Students lacked knowledge on how to depute and how to take an op-ed from an idea through to publication. After the exercise, one student stated: "*How do you even go to a deputation, where do you go, who do you get involved with…"* Another student reflected "*will I ever be able to do this, because I don't know where to start?"*

Discussion

In developing this intervention, we focused on applying a structural competency framework as a theory-based guide to advocacy education – one that could provide a foundation of both knowledge and skill – and selected assignments/assessments that could test whether students were able to transfer this knowledge and skill to a relevant structural advocacy situation. We asked students to produce an advocacy output (i.e. a deputation and an opinion-editorial) with some guidance about how to structure these outputs. Student did target structural advocacy as opposed to individual, so this shows some improvement upon prior interventions; students also demonstrated elements of structural competency, lending support to Metzl and Hansen's framework. However, students lacked some requisite knowledge and were left with a sense of still not knowing what to do.

Our study findings and limitations lead us to important discussion points about the underlying knowledge required as part of advocacy training. Most of our students had previous advocacy experience and already demonstrated an understanding of structural determinants of health; hence our findings may not be generalizable to all medical students. Our participants all identify as women and are at a similar early point in their training, which might also limit the generalizability of findings. We assumed that medical students had an understanding of the organization of the health system, including political, economic, and social structures that impact the social determinants of health. We also assumed that students would be able to identify the targets of advocacy, including government committees, policymakers, the public or community stakeholders. These assumptions related to underlying knowledge that would be required to engage most effectively with advocacy. Metzl and Hansen's framework provides a theory about advocacy, but a foundation of knowledge is required for specific acts of advocacy. Future work would need to identify such knowledge and – while perhaps unrealistic to teach all such knowledge within medical school – provide students with paths to acquire such knowledge before engaging in advocacy.

Canadian medical students should graduate capable of communicating with the public and stakeholders (for example, through op-eds and deputations), and capable of identifying appropriate stakeholders at varied levels of government.[1] However, the structures governing the health system and social determinants of health in Canada are complex and often confusing to health practitioners. In a study by Kuper et. al. on the non-bioscientific knowledge required for medical training, participants suggested that medical learners should be taught about public policy, policy change, and legislative process[15] Increased educational experiences that include skill-development in navigating and acting on the political and social structures affecting the social determinants of health would need to be integrated with requisite knowledge. For example, Lucey's proposed addition of social, economic and behavioural sciences as basic sciences required for the development of expertise.[16]

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Conclusion

The next generation of physician advocates require knowledge from many disciplines, fields, and sources, including biomedical, social, personal, and practical. The Metzl and Hansen structural competency framework provides a useful guide for advocacy education focused on advocacy skills. However, given research that demonstrates the importance of basic knowledge in supporting ongoing learning and practice within dynamic systems, we suggest additional attention to the basic knowledge required to engage in specific advocacy efforts.[17] Advocacy skills training may be required to ensure that medical students can address structural factors perpetuating inequities. Nevertheless, skills training alone is likely insufficient for Canadian medical students to fully embody the role of physician-advocate. Instead, we should teach these practical skills in integration with relevant underlying knowledge about health systems, health policy, and the SDOH.

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Kate Hayman

Join me in a national campaign to end homelessness in Canada, once and for all recoveryforall.ca #RecoveryForAll

Ex # B m/d/y 8/16/2024 Pg 1 of 4

Exam of Dr. Kate Hayman

Heegsma et al v City of Hamilton

Nimigan Mihailovich Reporting Inc.

Kate Hayman @hayman_kate · Mar 30, 2021

As a doctor & neighbour, I am very distressed about upcoming encampment evictions.

Evictions are NOT about protecting health:

- The weather is getting warmer (i.e. SAFER)
- COVID outbreaks in shelters are very bad
- Forced relocation is harmful to mental & physical wellbeing

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Kate Hayman @hayman_kate · May 27, 2021

In the past year, I've spoken with hundreds of people experiencing homelessness, and the vast majority express a strong preference for hotel settings.

Toronto, I hope we can do better and ensure that people are offered housing rather than a return to congregate settings.

> **Kelly Doran MD MHS** @KellyMDoran · May 27, 2021
>
> NYC planning moves of people experiencing homelessness from hotels back to congregate shelters. Reporting by @mirelaiverac @WNYC wnyc.org/story/city-pre...

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Kate Hayman @hayman_kate · Jun 26, 2023

Toronto, get out & vote!!!
As an emergency doctor who sees many people experiencing homelessness, I voted for @oliviachow — she is the candidate most likely to improve access to housing & emergency shelter. I want to work & live in a city where everyone is safe & housed.

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American Journal of Community Psychology, Vol. 28, No. 3, 2000

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Ex # C m/d/y 8/16/2024 Pg 1 of 24
Exam of Dr. Kate Hayman
Heegsma et al v City of Hamilton
Nimigan Mihailovich Reporting Inc.

Antecedents of Physical and Sexual Victimization Among Homeless Women: A Comparison to Homeless Men[1]

Suzanne L. Wenzel,*,†,[2] Paul Koegel,* and Lillian Gelberg†

**RAND Corporation, †University of California, Los Angeles*

Homeless women experience extensive health risks including physical and sexual victimization. Few studies that have gathered information on homeless persons have reported results separately for women or have compared them directly with men. Research that both investigates antecedents of victimization among homeless women and compares them to those for men is necessary to determine whether prevention efforts must be different for each group. We investigated potential antecedents of recent (past 30 days) physical and sexual victimization in a probability sample of 394 homeless women and compared findings to those for 1159 homeless men. As hypothesized, mental disorder, substance dependence, and engaging in economic survival strategies significantly predicted victimization among homeless women. With few dissimilarities, these characteristics also predicted victimization among homeless men. Although differences in the needs and experiences of homeless women and men must be recognized, both women and men require assistance to establish and maintain safe residences, treatment of any substance use and mental disorder, and alternatives to economic survival strategies that place them at risk for victimization.

KEY WORDS: homeless women; homeless men; violence; victimization.

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Homeless women are among the most highly impoverished members of our society (e.g., Bassuk, 1993; Benda & Dattalo, 1990) and experience extensive and severe health risks including physical and sexual violence (Breton & Bunston, 1992; Gelberg, 1996; Ugarizza & Fallon, 1994). A number of studies have found that homeless women experience higher rates of victimization than their housed counterparts (Bassuk, 1993; Bassuk, Weinreb, Buckner, Salomon, & Bassuk, 1996; Bassuk & Rosenberg, 1988; D'Ercole & Struening, 1990; Milburn & D'Ercole, 1991; Padgett & Struening, 1992), although this finding is not uniform across studies and depends on definition, time frame, and measurement of victimization and characteristics of the nonhomeless comparison samples (Bassuk *et al.,* 1996, 1997; Browne & Bassuk, 1997; Goodman, 1991). Homeless women have been found at greater risk than homeless men of both sexual and physical assault (Geissler, Bormann, Kwiatkowski, Braucht, & Reichardt, 1995; North & Smith, 1993; Padgett & Struening, 1992).

Studies have examined the prevalence, characteristics, and risk factors of victimization among women in the general population, but survey research with a focus on homeless women is sparse (Bassuk *et al.,* 1997; Bassuk, Melnick, & Browne, 1998; Benda & Dattalo, 1990; North & Smith, 1993; Robertson & Winkleby, 1996). Thus, there is very limited understanding of the risk factors for violence among profoundly impoverished (homeless) women. Further, although limited research has shown that homeless women deserve consideration as a group distinct from homeless men (Bassuk, 1993; Benda & Dattalo, 1990; Geissler *et al.,* 1995; Koegel, Sullivan, Burnam, Morton, & Wenzel, 1999; North & Smith, 1993), few studies of homeless persons have reported results separately for women or have compared them with men (North & Smith, 1993). Research that investigates risk factors for victimization among homeless women and also compares them to those for men is necessary to determine whether prevention efforts must be different for each gender (Davidson, 1996). To our knowledge, no previous study has utilized sizable probability samples of homeless women and men to investigate comprehensively the factors that may place women at risk of assault *and* compare risk factors for women to those for men.

Antecedents of Physical and Sexual Victimization

Different theories have been proposed to explain victimization risk in the general population. The structural-choice model (Miethe & Meier, 1990), a synthesis of key concepts underlying several popular theories of victimization risk, may provide a suitable framework for understanding physical and sexual victimization among homeless women as well as men.

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The model stresses both the macrolevel ("structural") processes that contribute to a criminal opportunity structure and the micro-level ("choice") factors that promote the selection of targets for victimization. "Structural" features are proximity to high-crime areas and exposure to offenders; "choice" factors are the potential "value" of a crime target to an offender and level of guardianship. This model accommodates interpersonal dynamics affecting selection of victimization targets in a sociospatial context (Miethe & Meier, 1990).

Common measures of *proximity* are place of residence and perceived safety of one's neighborhood (Lynch, 1987; Miethe & Meyer, 1990). Proximity to higher-crime areas has been an important predictor of victimization (Rodgers & Roberts, 1995), and certainly, living situation is of special relevance for homeless persons. It is reasonable that those who spend more time in exposed locations (i.e., outdoors) would be at higher risk than those who spend their nights in shelters or similar protected facilities. Many subsistence services for homeless persons are located in higher-crime areas. Studies have not yet systematically explored the relationship of homeless persons' specific living environments to victimization (North, Smith, & Spitznagel, 1994).

Exposure to criminal opportunities represents accessibility to victimization and includes engaging in risky activities, visiting risky places, and nonhousehold primary activity (Lynch, 1987; Miethe & Meier, 1990; Sampson & Lauritsen, 1990). Homeless persons may be exposed to situations and engage in behaviors that place them at risk (e.g., panhandling and selling items on the street such as food stamps, drugs, and sexual favors) (Baumohl & Miller, 1984; Whitbeck & Simons, 1993).

Although not mentioned by Miethe and Meier (1990), problems with alcohol or illicit drugs also deserve consideration since they may increase exposure to criminality (Alexander, 1996; Bennet, 1995; Sampson & Lauritsen, 1990) and may increase one's level of vulnerability. Substance problems are significant risk factors for victimization, particularly sexual victimization (Burnam *et al.,* 1988). Among homeless persons, several studies have found relationships between substance use and victimization (Gelberg & Linn, 1988; Padgett & Struening, 1992; Stein & Gelberg, 1995).

One element of *choice* is "target attractiveness" (Miethe & Meier, 1990), of special relevance in financially motivated crimes such as robbery. Major indicators have been social class rank and amount of cash carried in public (Miethe & Meier, 1990). Homelessness represents a rather consistently impoverished condition, although the amount of cash carried by individual homeless persons may vary somewhat. It is not clear whether such variation would increase the risk of physical and sexual assault among homeless persons in the absence of economic motivation.

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Physical or social guardianship, the second component of choice, has previously been defined as whether persons over the age of 16 (such as a spouse) live with one and whether one owns a dog, has a burglar alarm, or has a friend living in the neighborhood (Miethe & Meier, 1990). A number of these definitions may have limited applicability to women generally and, especially, to persons in nonresidential situations. For women, the company of men does not necessarily offer protection from assault (Breton & Bunston, 1992; Browne & Bassuk, 1997; Fisher, Hovell, Hofstetter, & Hough, 1995). For homeless persons, living environments may confer risk instead of protection and thus it may be more appropriate to explore the level of *supportiveness* of social relationships, where support may reduce risk of victimization (Dutton, Hohnecker, Halle, & Burghardt, 1994), rather than simple proximity of other persons.

Personal vulnerability factors should be considered to enhance the applicability of the Miethe and Meier model to women and homeless persons: childhood abuse, mental illness, and physical health limitations. Childhood physical and sexual abuse have been associated with adult physical and sexual victimization in general population studies (Gidycz, Hanson, & Layman, 1995; Malinosky-Rummell & Hansen, 1993; Moeller, Bachmann, & Moeller, 1993; Nash, Hulsey, Sexton, Harralson, & Lambert, 1993). Studies of homeless women have yielded similar associations (Browne & Bassuk, 1997; Simons & Whitbeck, 1991). Like substance abuse, mental illness has a striking prevalence in the homeless population (Breakey, Fischer, & Kramer, 1989; Koegel, Burnam, & Farr, 1988) and is a robust risk factor for victimization (Burnam *et al.,* 1988; Goodman, Dutton, & Harris, 1995) since it may critically interfere with vigilance and self-protective behavior. Homeless persons are often burdened with poor physical health (Gelberg, 1996). Although serious health consequences may result from violence, impaired physical health and mobility may diminish the capacity for vigilance and self-defense in a hazardous environment.

The Meithe and Meier model and previous research suggest a number of possible predictors of victimization. We hypothesize that homeless women who engage in risky survival strategies such as panhandling and selling items on the street will be more likely to experience victimization than homeless women who do not. We also predict that homeless women who experience substance dependence will have a greater occurrence of recent physical or sexual victimization than homeless women who do not. Given the limited research highlighting the needs of homeless women as distinct from men and that separate violence prevention strategies are advocated for women, we asked whether the predictors of victimization for homeless women would be different from those for men.

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METHOD

Participants and Procedures

Research participants were 394 homeless women and 1159 homeless men ages 18 through 77 who were interviewed as part of RAND's Course of Homelessness (COH) Study (Koegel & Burnam, 1991). The COH Study, funded by the National Institute of Mental Health, selected the 1563 homeless persons from shelters, soupkitchens, and streets in the Westside and downtown Skid Row areas of Los Angeles County, the two areas of the County having the greatest concentrations of homeless persons, using probability sampling techniques.

Data collection took place in a stratified random sample of blocks in the Westside and downtown areas and in 77 shelters and meal programs (Koegel, Burnam, & Morton, 1996). Only three sites serving homeless persons refused to participate. The homeless women and men completed structured, 1.5- to 2-hr face-to-face interviews. Eighty-nine percent of the 5342 people approached for eligibility screening interviews and 88% of those invited to participate in the study after screening agreed to do so. In the COH Study, a homeless person was defined as one who had spent at least 1 night in the past 30 days in either (a) a setting that was defined as a temporary shelter or not designed to be a shelter, excluding those doubled up with family or friends, or (b) a program for homeless people that defined stays as temporary (Koegel *et al.,* 1996).

Sample Design

The sampling plan utilized elements of the "service-setting" (Burnam & Koegel, 1988) and the "blitz" sampling approaches (Rossi, Fisher, & Willis, 1986). To obtain a representative sample of homeless persons in each of the two COH study sites, three nested sampling strata were defined (persons who use shelter beds, who use soup lines but not shelter beds, and who use neither). Within the bed and meal strata, respondents were sampled in proportion to the number of homeless persons served by a facility in a 30-day period. Persons who used neither beds nor soup lines were randomly sampled while they slept outside at night [(Rossi *et al.,* 1986); see Koegel *et al.* (1996) for a more detailed discussion of the sampling plan]. Women, who comprise 17% of homeless persons in the Westside and Skid Row areas, were oversampled to represent 26% of the total COH Study sample.

Weights were calculated for all respondents to take advantage of the

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probability sampling techniques used to obtain a representative sample of homeless persons. The weight variable is based on the reciprocal of an estimated probability of selecting each homeless person into the COH Study sample [see Koegel *et al.,* (1996) for a more detailed discussion]. Probabilities were estimated based on two stochastic models that make assumptions about homeless persons' patterns of migration through shelters, soupkitchens, and streets. One model assumes that homeless persons visit the same facilities and street locations over time, and the other assumes that homeless persons make random decisions regarding visits to available facilities and street locations. The weight variable in this study is an average of these two models normed for the male and female subsamples individually.

Variable Definition

We define recent physical or sexual victimization, our dependent variable, as any self-reported physical assault or attack within the past 30 days or any self-reported sexual assault or attack within the past 30 days. A single, dichotomous variable was created for this purpose from two ''yes/no'' questions from the COH Study: (1) ''Within the past 30 days, have you been physically assaulted or attacked, not including sexual assault?'' and (2) ''Have you been sexually assaulted within the last 30 days?'' These questions were developed for a study of Skid Row homeless adults in the 1980s (Koegel *et al.,* 1988), but it must be noted that behavioral descriptions are now the standard rather than direct questions about rape and assault. Requiring persons to label experiences as assault is less likely to reveal victimization than behavioral indices that simply describe experiences (Finkelhor, 1994a, b; National Research Council, 1996; Peters, Wyatt, & Finkelhor, 1986).

Proximity variables examined as potential antecedents of victimization are area of city where interviewed (Westside versus Downtown Skid Row) and a usual sleeping place outdoors (i.e., street or other outdoor place) during the past 30 nights as opposed to any other place. The downtown Skid Row area is generally thought to be more dangerous than the Westside, especially for homeless women. We contrasted outdoor locations with others to reflect our expectation that outdoor sleeping locations would be associated with the most danger for women (North *et al.,* 1994).

Variables representing exposure to criminal opportunities are engaging in survival strategies during the past 30 days and a recent (i.e., 6-month) diagnosis of substance dependence. Engaging in survival strategies was defined as receiving any income during the past 30 days from panhandling;

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recycling cans or other used items that can be returned for cash; or selling items on the street such as food stamps, vouchers, bus passes, drugs, or sexual favors. Recent diagnoses of alcohol and drug dependence were obtained through the Diagnostic Interview Schedule (DIS), Version III-R (Robins, Heltzer, Croughan, & Ratcliff, 1981), a structured instrument that permits trained lay interviewers to collect data that are then used to make diagnoses using a scoring algorithm. DIS diagnoses are based on American Psychiatric Association criteria (Diagnostic and Statistical Manual; DSM-III-R). We created combination variables from these diagnostic variables to indicate whether one had a diagnosis of alcohol dependence only, a diagnosis of other drug dependence only, or diagnoses of both alcohol and other drug dependence.

To assess choice, we used the total self-reported income from jobs, benefits, and family and friends during the past 30 days (target attractiveness); whether one was currently married or living as married; and level of social support (guardianship). Income was not normally distributed, thus we created an ordinal variable for regressions that represented four levels of income. Social support was an average index of perceived support available from partners, family, friends, and social service providers derived from 5-point Likert scale items from Sherbourne and Stewart (1991).

Personal vulnerability factors include childhood abuse, serious mental illness, and physical health limitations. A dichotomous variable was created for childhood abuse from two "yes/no" questions asking whether, during the ages of 6 to 18, any adult members of their household physically assaulted them (i.e., hit them so hard it left bruises or required medical care) or sexually assaulted them (i.e., masturbated in front of them, touched them in sexual way, forced the child to touch the adult in a sexual way, or had sex with them) (Koegel *et al.,* 1988). DIS diagnoses were also obtained for serious mental illness (i.e., schizophrenia, depression, and mania) based on American Psychiatric Association criteria (DSM-III-R) (Koegel *et al.,* 1999). Three dichotomous items from the RAND Physical Functional Status Scale (Stewart & Kamberg, 1992) assessed respondents' physical health limitations (inability to walk one block; bend, lift, or stoop; or walk uphill or climb stairs) that lasted over 3 months. We developed one dichotomous item to assess whether any of the three limitations was present for more than 3 months.

Analyses

The Pearson chi-square test and Student's *t* test examined relationships between recent victimization and the potential predictors from the struc-

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tural-choice model. We screened three demographic variables for possible inclusion in subsequent multivariate analyses: age, educational level (achieved at least high school or GED level versus did not), and ethnic group (Black non-Hispanic, White non-Hispanic, Hispanic, Asian, and Native American). Only ethnicity was associated with victimization and was retained for multivariate analyses. Preliminary analyses for each gender supported a simplified categorization of Black or White non-Hispanic versus Hispanic or other ethnic group. Variable intercorrelations were examined for evidence of multicollinearity before multivariate analysis. No coefficients exceeded .60; thus, we excluded no variables due to high intercorrelations.

Separate logistic regression equations for men and women using the SAS LOGISTIC procedure (SAS Institute, Inc., 1990) assessed the contribution of all potential antecedents simultaneously (with the exception of statistically insignificant demographic variables) to recent adult victimization. Where findings indicated differences in predictors between men and women, we created variables to represent all possible combinations of gender with predictors that appeared different by gender in their relationship to victimization. To test gender differences, each combination variable, along with other potential predictors from the separate models for men and women, was assessed in an additional regression equation with the full sample of men plus women. Except for sample sizes, all results reported here are based on weighted analyses. We considered test results significant at $p < .05$.

RESULTS

Sample Description

Women. The women were 35 years old on average (SD = 10.0 years); most (57%) were Black non-Hispanic, almost a tenth were Hispanic, and 12% were Asian, Native American, or members of another non-Anglo ethnic group. Twenty-three percent reported being either physically or sexually victimized in the 30 days before their interview; 18% had been physically victimized, 9% had been sexually victimized, and 2% had been sexually but not physically victimized.

Previous studies have found that homeless women with children in their care and those without differ, particularly in that women with children have fewer mental and substance problems (Burt & Cohen, 1989; Robertson, 1991; Smith & North, 1994). This deserves acknowledgment, although we do not treat parenthood as a variable in the structural-choice model.

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Over three-fourths (78%) of the women had had children (excluding those by adoption). Over a third (35%) of all women had children living with them during the past year who were either children of their own or children for whom they acted as a parent, and 43% of those (or 15% of all women) had such children living with them at time of interview. Women with children at interview were younger than women without children, had a higher past-month income, and were less likely to have been physically or sexually victimized, to be living outdoors, to have recent alcohol dependence, and to have engaged in survival strategies.

Men. The men were 37 years old on average (SD = 10.0 years); 54% were Black non-Hispanic, 18% were Hispanic, and 5% were Asian, Native American, or members of another non-Anglo ethnic group. Physical victimization occurred in 20% and sexual victimization occurred in only 1% of the men in the past 30 days prior to the interview; 21% reported either physical or sexual victimization. None reported being only sexually victimized. Many (58%) had fathered children. Fifteen percent had children living with them during the past year; of those, only 2% had children living with them at the time of the interview.

Bivariate Analyses

Women. As shown in Table I, White non-Hispanic and Black non-Hispanic women appeared to be at less risk of victimization. Women whose usual sleeping place was outdoors during the past month were more likely to experience physical or sexual victimization. Drug dependence alone and experiencing both drug and alcohol dependence were associated with greater victimization risk. Women who received income in the past month from survival strategies were more likely to have been victimized, as were women with a higher level of income from jobs, benefits, and friends or family. Personal vulnerability factors of schizophrenia, mania, and physical health limitations were also more likely among victimized than nonvictimized women.

Men. As shown in Table II, homeless men who experienced victimization were more likely to be Hispanic or of other non-Black, non-White ethnicity. Victimized men were also more likely to have usually slept outdoors. Alcohol dependence alone was associated with a greater likelihood of victimization, but drug dependence alone and dependence on both alcohol and other drugs were unrelated to victimization. Income from survival strategies and the personal vulnerability factors of depression, schizophrenia, mania, and physical health limitations also contributed to victimization risk.

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Table I. Characteristics of Homeless Women in the Baseline Sample of the RAND Course of Homelessness Study, by Recent (Past 30 Days) Physical or Sexual Victimization Status

Variable	Physical or Sexual Victimization (N = 70)	Neither Type of Victimization (N = 324)	Total (N = 394)[a]	Test[b]	p
Demographics					
Age (mean)[c]	33.6	35.4	35.0	−1.5	.142
Ethnic group				7.4	.006
White, non-Hisp. or Black, non-Hisp.	69.3	82.5	79.5		
Versus Hispanic or Other	30.7	17.5	20.5		
At least high school education	71.4	66.0	67.2	0.8	.350
Proximity					
Interviewed Downtown (vs. Westside)	63.1	56.8	58.2	1.1	.283
Usual sleeping place outdoors past month	41.4	24.6	28.4	9.5	.002
Exposure					
Drug dependence only[d] (6-month diagnosis)	12.8	6.2	7.7	4.2	.041
Alcohol dependence only (6-month diagnosis)	20.3	14.3	15.7	1.9	.168
Both drug and alcohol dependence	24.3	7.9	11.7	18.0	.001
Any income from survival strategies past month	59.2	29.2	36.0	26.2	.001
Target attractiveness					
Total income past month[e]				10.1	.018
<$101	29.6	35.5	34.2		
$101–$250	4.5	15.5	13.1		
$251–$500	25.6	23.6	24.1		
>$500	40.2	25.4	28.6		
Married or living as married	29.8	28.3	28.6	0.1	.793
Target attractiveness					
Social support (mean)[c]	2.5	2.7	2.6 (.94)	−1.6	.105
Personal vulnerability					
Major depression (6-month diagnosis)	24.7	16.8	18.6	2.8	.095
Schizophrenia (6-month diagnosis)	13.4	2.3	4.8	18.3	.001
Mania (6-month diagnosis)	12.3	3.0	5.1	12.3	.001
Physical health limitation	37.3	24.5	27.4	5.5	.019
Childhood physical or sexual abuse	40.3	30.2	32.4	3.1	.080

[a]Column values are percentages unless noted otherwise; all results are based on weighted analyses except that sample sizes are unweighted.
[b]Pearson chi-square test values unless noted otherwise. Degrees of freedom = 1; except total income df = 3, age df = 1,392, and social support df = 1,392.
[c]t test.
[d]Two and one-half percent of women were diagnosed with recent marijuana dependence, 4% with recent heroin dependence, <1% with recent amphetamine dependence, and <1% with recent opiate, hallucinogen, or PCP dependence.
[e]Treated as an ordinal variable in regressions.

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Table II. Characteristics of Homeless Men in the Baseline Sample of the RAND Course of Homelessness Study, by Recent (Past 30 Days) Physical or Sexual Victimization Status

Variable	Physical or Sexual Victimization (N = 206)	Neither Type of Victimization (N = 953)	Total (N = 1159)[a]	Test[b]	p
Demographics					
Age (mean)[c]	37.0	37.2	37.2	−0.3	.793
Ethnic group				8.5	.003
White, non-Hisp. or Black, non-Hisp.	69.4	78.4	76.6		
Versus Hispanic or Other	30.6	21.6	23.4		
At least high school education	68.4	70.8	70.4	0.5	.477
Proximity					
Interviewed Downtown (vs. Westside)	69.1	73.3	72.5	1.6	.199
Usual sleeping place outdoors past month	46.8	31.4	34.5	19.8	.001
Exposure					
Drug dependence only[d] (6-month diagnosis)	12.2	13.3	13.1	0.2	.678
Alcohol dependence only (6-month diagnosis)	36.1	19.8	23.1	28.0	.001
Both drug and alcohol dependence	14.4	17.8	17.1	1.5	.221
Any income from survival strategies past month	62.9	51.3	53.6	9.5	.002
Target attractiveness					
Total income past month[e]				5.5	.140
<$101	31.0	33.1	32.7		
$101–$250	20.6	25.9	24.9		
$251–$500	24.2	23.0	23.3		
>$500	24.1	17.9	19.1		
Married or living as married	5.1	6.2	6.0	0.4	.555
Target attractiveness					
Social support (mean)	2.40	2.52	2.5 (1.0)	−1.8	.077
Personal vulnerability					
Major depression (6-month diagnosis)	27.4	12.7	15.7	30.7	.001
Schizophrenia (6-month diagnosis)	10.1	4.5	5.7	10.8	.001
Mania (6-month diagnosis)	7.4	3.2	4.1	5.5	.003
Physical health limitation	27.1	17.9	19.7	9.4	.002
Childhood physical or sexual abuse	15.6	15.8	15.7	0.1	.947

[a]Column values are percentages unless noted otherwise; all results are based on weighted analyses except sample sizes are unweighted.
[b]Pearson chi-square test values unless noted otherwise; degrees of freedom = 1, except total income df = 3, age df = 1,1157, and social support df = 1,1130.
[c]t test.
[d]Six percent of men had diagnoses of recent marijuana dependence, 4% heroin dependence, 2% amphetamine dependence, and 1% opiate, hallucinogen, or PCP dependence.
[e]Treated as an ordinal variable in regressions.

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Multivariate Analyses

Women. In the regression for homeless women, the odds of being victimized during the previous month were significantly greater among Hispanic and other non-Black and non-White women (OR = 2.97, 95% CI = 1.34–6.61, p = .008). Women who were dependent only on drugs other than alcohol (OR = 4.20, 95% CI = 1.30–13.55, p = .016), who were dependent on both alcohol and other drugs (OR = 6.02, 95% CI = 2.24–16.22, p = .0004), who received income from survival strategies (OR = 3.93, 95% CI = 1.85–8.36, p = .0004), and who earned a greater amount of income from legitimate sources (OR = 1.61, 95% CI = 1.19–2.17, p = .002) were also more likely to have been victimized. A usual living place outdoors and dependence on alcohol achieved trend status (respectively, OR = 1.90, 95% CI = .91–4.06, p = .089, and OR = 2.37, 95% CI = .98–5.70, p = .055). Mania and physical health limitations were also associated with victimization (respectively, OR = 4.61, 95% CI = 1.11–19.15, p = .036, and OR = 2.11, 95% CI = 1.01–4.38, p = .046); however, confidence intervals were broad for mania and schizophrenia, suggesting too few cases to support stable estimates. Depression did not predict victimization.

Men. As for the women, the odds of being victimized during the previous month were significantly greater among Hispanic and other non-Black and non-White men (OR = 1.70, 95% CI = 1.15–2.51, p = .007). Unlike the women, the proximity variables of interview site and usual living place were significantly associated with victimization. Men who were living in downtown Skid Row areas at time of interview were more likely to have been victimized (OR = .59, 95% CI = .40–.89, p = .011), as were men whose usual living place during the previous 30 days was outdoors (OR = 1.85, 95% CI = 1.31–2.62, p = .0005). Men who were dependent only on alcohol were more likely to have been victimized (OR = 2.07, 95% CI = 1.40–3.07, p = .0003), as were men who received income from survival strategies in the past month (OR = 1.70, 95% CI = 1.20–2.43, p = .003). Schizophrenia and mania were not associated with victimization, although the odds of being victimized were significantly greater for men with diagnoses of depression (OR = 2.23, 95% CI = 1.42–3.50, p = .0005).

Total Sample. Based on results of regression analyses performed for women and men separately, we combined gender with site of interview, drug dependence only, dependence on both alcohol and other drugs, depression, mania, and physical health limitations. For example, in addition to the variables analyzed as predictors in the separate regressions for men and women, three variables were entered into a regression model to test for differences between men and women in depression as an antecedent of

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victimization: no depression, gender is male; depression, gender is female; and depression, gender is male. We tested the six sets of combination variables in six separate models.

Combination variables were significant in two of the six regressions. These were dependence on both alcohol and other drugs with gender and site of interview with gender. Combinations of gender with drug dependence only, depression, mania, and physical health limitations were not statistically significant. In Table III are results for the regression model that tested combinations of gender and dependence on both alcohol and other drugs. We abstract below the significant findings for the regression examining the combination of interview site and gender. Except for the different sets of combination variables tested in each model, findings for other predictors were the same across models.

As in the separate samples of men and women, Hispanic and other non-Black and non-White ethnic status was associated with a higher probability of being victimized during the previous 30 days in the total sample. The odds of being victimized were also greater for persons who were interviewed Downtown rather than in the Westside areas of Los Angeles, a finding driven by the male sample and that represents a true difference in importance of site between males and females. In a regression assessing the combination of interview site and gender in relationship to victimization, the odds of being victimized were significantly decreased among men who were interviewed in locations on Los Angeles' Westside (OR = .44, 95% CI = .248–.781, p = .005).

As shown in Table III, having a usual sleeping place outdoors during the past month was associated with victimization during the past month, and a diagnosis of alcohol dependence also increased the odds of victimization. The combination of female gender and both drug and alcohol dependence was significant, indicating that having diagnoses of both alcohol and drug dependence is important for women but not for men. Receiving income from survival strategies and receiving a greater amount of income from legitimate sources in the past month were both associated with victimization. Major depression significantly predicted victimization, but there was no difference between men and women when depression was examined in combination with gender. The odds of being victimized were higher among those with diagnoses of schizophrenia.

DISCUSSION

Descriptive analyses do not support previous findings that homeless women experience higher rates of victimization than homeless men (e.g.,

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Table III. Antecedents of Recent (Past 30 Days) Physical or Sexual Victimization for Women and Men in the Baseline Sample of the RAND Course of Homelessness Study[a]

Variable	Parameter Estimate	SE	Odds Ratio	95% Confidence Interval	*p*
Hispanic, or other non-Black, non-White	.64	.17	1.90	1.36–2.67	.001
Interviewed Downtown (vs. Westside)	−.42	.17	.66	.47–.92	.016
Usual sleeping place outdoors past month	.62	.16	1.86	1.37–2.52	.001
Drug dependence (6-month diagnosis)	.22	.24	1.25	.78–2.00	.357
Alcohol dependence (6-month diagnosis)	.74	.18	2.09	1.48–2.96	.001
Neither drug nor alcohol dependence, male gender	−.11	.24	.90	.56–1.44	.659
Both drug and alcohol dependence,	1.47	.50	4.34	1.63–11.56	.003
Both drug and alcohol dependence, male gender	−.43	.33	.65	.34–1.24	.191
Any income from survival strategies past month	.63	.16	1.87	1.37–2.55	.001
Total income past month	.16	.07	1.17	1.03–1.34	.016
Married or living as married	.20	.27	1.22	.72–2.06	.465
Social support	−.12	.08	.89	.76–1.04	.131
Major depression (6-month diagnosis)	.62	.20	1.87	1.26–2.77	.002
Schizophrenia (6-month diagnosis)	.65	.30	1.91	1.05–3.47	.034
Mania (6-month diagnosis)	.26	.36	1.29	.64–2.61	.471
Physical health limitation	.27	.18	1.31	.93–1.87	.127
Childhood physical or sexual abuse	−.24	.20	.79	.53–1.16	.786

[a]Results of model using combination of gender and dependence on both alcohol and other drugs.

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Geissler *et al.,* 1995); however, more homeless women than men in this study experienced sexual violence. In interpreting these findings, it is important to note that, unlike other studies that found higher rates of violence among homeless women than men (e.g., Geissler *et al.,* 1995), we utilized a very recent prevalence of victimization. A more expansive time window and thus a greater representation of experiences may have yielded a different picture.

Analyses largely supported our hypotheses that personal vulnerability factors and exposure to criminal opportunities would be antecedents of recent victimization for the homeless women. Multivariate analyses revealed a higher rate of recent victimization among women with diagnoses of mania, of drug dependence only, and of both alcohol and drug dependence and among women who engaged in economic survival strategies. These findings suggest that exposure and personal vulnerability are important, unique antecedents of victimization among homeless women that deserve the attention of researchers and providers alike. Exposure and personal vulnerability were also important antecedents of victimization for the men, although the definitions of these model factors appeared to differ in some cases for men and women based on the separate regressions. Analyses using the total sample of men and women and incorporating tests of differences via gender-based combination variables, however, revealed more similarities than differences in antecedents. These similarities highlight a sense of urgency regarding the victimization of homeless women as well as men.

Depression and schizophrenia were significant predictors of victimization for the total sample of women and men. Although it is important to acknowledge that depression may *result* from adult and childhood assault (Beitchman *et al.,* 1992; Koss, 1990; Miller, Downs, & Testa, 1993), mental illness is also a well-established risk factor (e.g., Burnam *et al.,* 1988; North *et al.,* 1994). Depression may have a direct impact on victimization risk by reducing the level of vigilance in hazardous environments or by causing an appearance of greater vulnerability to perpetrators. Homeless women and men with mental health disturbances need special consideration to be protected from victimization. In future research, analytic models must accommodate personal vulnerability factors, and the nature of the linkage between psychiatric disorder and victimization requires clarification so that prevention efforts can be more specifically targeted.

As hypothesized for the women, substance dependence predicted victimization. Comorbid diagnoses of alcohol and drug dependence emerged as an important risk factor among women in analyses for the total sample, and alcohol dependence was important in understanding victimization for both men and women. Substance disorder has been consistently associated with victimization in general population studies (Fagan & Chin, 1990;

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Goldstein, 1985; Miller, 1990). Prior research found relationships between homeless women's substance problems and their victimization (e.g., North *et al.,* 1994; Padgett & Struening, 1992) but did not examine them in comprehensive predictive models with other potential risk factors or make distinctions in types of substance disorder (such as alcohol dependence alone or accompanying drug dependence). Researchers focusing on the needs of women have observed that few studies have examined the context of violence in the lives of homeless or durg-addicted women (Goodman *et al.,* 1995; National Research Council, 1996). What seems clear is that there is a close association between substance disorder and victimization that is extremely complicated and poorly understood (Gardner & Resnick, 1996). In accordance with the macro-level or structural features of the Meithe and Meier (1990) model, individuals with these disorders may be more likely to frequent environments that carry a high risk of assault. Acquisition and consumption of alcohol and drugs among homeless persons may occur in locales where there is little formal or informal social control and that may have high rates of interpersonal violence (Collins, 1990).

The complexity of the relationship between substance dependence and victimization is accentuated in that the likelihood of victimization with diagnoses of both alcohol and drug dependence was notable for women but not apparent for men. Within the framework of the Meithe and Meier (1990) model, this result suggests that homeless women with diagnoses of alcohol as well as other drug use disorders frequent particularly dangerous environments and are thus particularly prone to assault. Although future studies must shed light on this difference between women and men, previous arguments that homeless people with substance disorders must receive the benefit of accessible and effective treatment is still highly relevant (Koegel *et al.,* 1999; Wenzel, Koegel, & Gelberg, 1996).

Equally complex and deserving of more investigation is the finding that Hispanics, Asians, and Native Americans were more likely to have experienced victimization than White and Black non-Hispanics. This finding is perhaps most safely interpreted as a marker for other socioeconomic and cultural considerations not assessed in this study, since other research has determined that abuse is more related to social class, income and education than to race or ethnicity per se (Lindholm & Willey, 1986; O'Keefe, 1994).

Supporting the relevance of exposure to criminal activity is the hypothesis that women who received income in the past month through panhandling, recycling, or selling items on the street were more likely to have been victimized during that period of time. There are few opportunities for such impoverished individuals to support themselves through legitimate means (Simons & Whitbeck, 1991; Whitbeck & Simons, 1990, 1993), so

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survival techniques are quite common (Baumohl & Miller, 1984). In accordance with the macro-level, structural features of the Miethe and Meier (1990) model, these risky activities likely bring both women and men into contact with high-risk environments and with people who would directly exploit or otherwise harm them. This finding indicates the need for alternative economic support strategies that would ideally result in exits from homelessness.

Job training for better employment and education may be important in reducing reliance on survival strategies, but alone it is insufficient since a greater amount of income from legitimate sources also predicted victimization. It is reasonable that a homeless individual with money may be an attractive target to would-be assailants; it is unreasonable to expect that a homeless recipient of job training would accumulate enough assets in a timely fashion to establish a secure residence and protection from assault. Physical protection appears crucial since the hypothesis that victimization would be more likely among women living outdoors was confirmed, and since the finding also extended to the men (Coston & Finckenauer, 1993; North *et al.,* 1994; Whitbeck & Simons, 1993). Safer living conditions must be provided for homeless women and men to reduce risk of victimization (Gelberg, 1996; Jahiel, 1992; Padgett & Struening, 1992). In this study, men enjoyed more safety on Los Angeles' westside, an area that is considered less dangerous than Downtown's Skid Row. While this particular finding for the men may not generalize well to other areas of the nation, it emphasizes the relevance of the physical environment and exposure to criminal activity.

Limitations

This study has advanced the knowledge of risk factors for both homeless women and men, but there are caveats that point to areas for additional research. The cross-sectional nature of this work prohibits statements about causality and resolution of temporal ordering of variables. Longitudinal research with a more in-depth examination of assaultive experiences and their possible precursors over an extended period of time is necessary to clarify the specific linkages between victimization and the possible antecedents, although even a more sophisticated correlational study does not support causal statements. Future research must also explore whether risk factors differ for different kinds of victimization experiences. One of the greatest contributions of the present study may be in stimulating more hypothesis-testing and longitudinal research designs to delve further into this complicated issue.

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This study took advantage of data collected to understand the course of homelessness, and thus the variables may not represent the full range of factors needed to understand victimization risk. Also, as noted earlier, behavioral indicators of assault are preferred over questions using the label of assault. The use of single-question ''yes/no'' items may suppress estimates of physical and sexual abuse (Browne & Bassuk, 1997), and typically the more questions used to measure the experience of abuse, the higher the prevalence rate of abuse (Finkelhor, 1994a, b).

Although there were many similarities across homeless women and men, we have no information on whether women and men operationalized assault differently. Victims may use a number of coping strategies to deal with an abusive event, including denying abuse and reconstructing the meaning of the event and perceiving it as not abusive (Koss, 1990). Of additional concern is that a woman may not define forced coitus as sexual assault if the act was perpetrated by her partner (National Research Council, 1996), and substance-abusing women may see their physically or sexually abusive experiences as normal (Woodhouse, 1992). Qualitative research is needed to understand more thoroughly the context of violence in homeless women's lives, how they interpret violent acts, and how violence impacts them (Goodman *et al.,* 1995). Results and their implications may be more relevant to physical rather than sexual victimization given that most of the recent victimization experiences for women involved physical abuse and no men reported sexual abuse alone. Research including larger samples of sexually victimized homeless persons would aid in understanding how distinct the risk factors are for physical versus sexual assault.

CONCLUSIONS

The findings provide valuable initial insight into the violence prevention needs of homeless women and men and suggest directions for further research and intervention. While there are strong similarities among men and women in antecedents, efforts to prevent violence should recognize that the context of violence may still be very different for men and women (Benda & Dattalo, 1990; North & Smith, 1993). For example, a woman is much more likely than a man to be victimized by a person known to her than by a stranger (National Research Council, 1996). The field of substance abuse treatment research alone has demonstrated that women have multiple challenges and service needs that set them apart from men (Beckman & Amaro, 1986; Brown, 1992; Hawk, 1994; Kline & Strickler, 1993; Reed, 1987).

Homeless women and men require comprehensive assistance in estab-

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lishing and maintaining safe and permanent residences, many require assessment and ongoing intervention to deal with mental and substance use disorder, *and* they need appropriate educational and training opportunities to protect them from victimization and support exits from homelessness. The importance of structural characteristics reinforces Garske's (1996) caution that ''macro-level'' solutions to victimization must go beyond an exclusive focus on individual level factors. The need for such encompassing solutions also highlights that *prevention* of victimization requires more than eliminating the negative; *promotion* of comprehensive intervention strategies is required (Pransky, 1991). Compassion is an obvious reason to adopt such comprehensive recommendations, but there are also costly implications for a society that chooses to ignore the health-related needs of homeless and other impoverished persons.

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Understanding Encampments of People Experiencing Homelessness and Community Responses

Emerging Evidence as of Late 2018

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U.S. Department of Housing and Urban Development | Office of Policy Development and Research

Understanding Encampments of People Experiencing Homelessness and Community Responses:

Emerging Evidence as of Late 2018

January 7, 2019

Submitted by:
Rebecca Cohen
Will Yetvin
Jill Khadduri

Abt Associates

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Introduction

Cities, suburban communities, and rural areas across the United States have seen in recent years the rise of groups of people experiencing unsheltered homelessness together. The term *encampment* is widely used by journalists and researchers to describe these groups, but other terms include *tent cities, homeless settlements,* and *homeless camps.* Although their existence is not unprecedented, media reports suggest that the number of encampments has increased sharply in recent years (National Law Center on Homelessness and Poverty, 2017).

People experiencing unsheltered homelessness may perceive staying in an encampment as a safer option than staying on their own in an unsheltered location or in an emergency shelter; however, encampments can create both real and perceived challenges for the people who stay in them as well as for neighbors and the broader community. As community leaders seek to develop and deploy a response, they often are called on to balance multiple, sometimes competing priorities and demands from a diverse group of stakeholders, including community residents, business owners, public health and safety officials, and advocates for disadvantaged populations—as well as the people living in the encampments.

This paper documents what is known about homeless encampments as of late 2018, based on a review of the limited literature produced thus far by academic and research institutions and public agencies, supplemented by interviews with key informants. This paper is part of a larger research study sponsored by the U.S. Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation, and the U.S. Department of Housing and Urban Development, Office of Policy Development and Research. This study's goal is to contribute to our understanding of homelessness, including the characteristics of homeless encampments and the people who stay in them, as well as local ideas about how to address encampments and their associated costs.

What Are Encampments, and What Do We Need to Know About Them?

The term *encampment* has connotations of both impermanence and continuity. People are staying in temporary structures or enclosed places that are not intended for long-term continuous occupancy on an ongoing basis. Inhabitants may be a core group of people who are known to one another and who move together to different locations when necessary, or they may be a changing group of people who cycle in and out of a single location. The physical structures that make up encampments can take many forms, including tents on pallets and shanties, or lean-to shacks built with scavenged materials. Structures may be simple or complex multiroom compounds. People experiencing homelessness in encampments may also stay in groups of cars or vans or in manmade tunnels and naturally occurring caves.

Community reactions to encampments have taken a variety of forms. Some communities send police to quickly clear ("sweep") encampments, with no attempt to provide services or referrals to help people at the encampment find another place to stay. At the other end of the spectrum, some communities permit ("sanction") encampments formally. Local government or community organizations provide running water and places to prepare food and dispose of waste, as well as healthcare and other services.

The research questions that guided this review are shown in Exhibit 1. In the larger research study, we will attempt to provide information about encampments and the people who are staying in them and to answer these research questions. We sought preliminary information for these questions through a formal examination of the peer-reviewed literature; we also identified and examined non-peer-reviewed reports by academic institutions, public agencies, and other organizations (sometimes called *gray literature*). In addition to conducting literature reviews, we interviewed several key informants who are subject matter experts on encampments. We selected them because they are conducting research on encampments and related topics or they are helping communities devise and implement best practices for dealing with encampments.

Exhibit 1. Research Questions for the Study of Encampments

Understanding Encampments

1. What factors are driving the increase in people living in encampments?
2. What infrastructure or state or local ordinances or other policies impede or promote the establishment of encampments?
3. Who lives in encampments? Are there some subpopulations of people experiencing homelessness who are more likely to form or attach themselves to homeless encampments? Do people staying in the same encampment share certain characteristics? Are there any differences between the unsheltered population living in encampments and those who are unsheltered in other locations?
4. How large are encampments? Do their characteristics vary by size?
5. What types of social structures characterize encampments?
6. Why do people choose to live in encampments? What are the "pull" and "push" factors?

Community Efforts to Address Encampments

7. What steps are communities taking to prevent the establishment of encampments?
8. How are communities responding to encampments? What are the major activities, and which stakeholders are engaged?
9. Can approaches to encampments be categorized—for example, as sanctioning, clearing, or relocating?
10. How do responses to encampments relate to the broader homelessness services system?
11. How do responses to encampments differ across different types of communities?
12. In what ways do these efforts differ from efforts to serve the unsheltered population not living in encampments?

Costs Associated with Encampments

13. What are the direct costs incurred by communities in their efforts to address encampments?
14. How do costs differ depending on different community approaches?
15. How do the costs of managing or addressing encampments compare with the cost of emergency shelter and the cost of permanent supportive housing?
16. What health and safety issues have communities encountered with people staying in encampments?
17. What are the broader societal costs associated with encampments?

We summarize the nascent evidence on encampments in the following two sections. *Understanding Encampments* reviews what we know about why encampments form and what they look like. *Community Responses to Encampments* describes the factors that lead communities to adopt various approaches and what we know so far about their effectiveness. Then we describe the *Limitations of the Current Evidence on Encampments,* including some suggestions for additional research beyond the scope of this study. Finally, Appendix A describes how we conducted the literature review and key informant interviews, Appendix B provides additional details on selected studies that were particularly informative as we completed our review, and Appendix C summarizes selected practitioner resources to assist with addressing encampments.

Understanding Encampments

This section describes what we know as of late 2018 about encampments: why there has been a sudden increase in encampment homelessness in the past few years and how encampments vary in resident characteristics, in social structure, and regionally. As discussed herein, conditions can be harsh, volatile, and unhealthy. Still, people may live in encampments (rather than shelters or in other, unsheltered locations) for a variety of reasons, including factors that lead them to reject other types of shelter and factors that attract them to encampments. Section 3 will cover what we know about emerging community responses to encampments.

Explanations for the Increase in Encampments

Researchers generally agree that increases in homelessness are first and foremost the result of severe shortages of affordable housing, combined with a lack of political will to dedicate sufficient resources to address this problem (Shinn and Khadduri, forthcoming). According to a key informant who is helping communities understand how to deal with encampments, when people are in crisis, their decisions about where to stay represent pragmatic choices among the best available alternatives, based on individual circumstances at a particular moment in time. Encampments form in response to the absence of other, desirable options for shelter.

Within this underlying context, several related factors seem to influence whether people experiencing homelessness form or go to encampments rather than stay in shelters or on their own in unsheltered locations. Primary among those factors are (1) shortcomings in the shelter system, (2) a sense of safety and community within encampments, and (3) a desire for autonomy and privacy. Only one peer-reviewed article (Herring, 2014) mentions the potential for greater access to food and services or other material comforts as reasons that people congregate in encampments rather than stay on their own in unsheltered locations. Key informants and other peer-reviewed articles did not identify this as a primary factor influencing the decisions of people experiencing homelessness.

The Shelter System Falls Short

Shortcomings in the shelter system are consistently identified as a primary factor that "pushes" people to congregate in encampments. Many communities have literal shortages in the capacity of the shelter system to provide beds for everyone experiencing homelessness (Herring and Lutz, 2015; National Coalition for the Homeless, 2016; National Law Center on Homelessness and Poverty, 2014; Speer 2018a). In other communities, shelter beds are available but go unused because of regulations or conditions that are incompatible with potential clients' expectations or needs. Exhibit 2 lists some of the reasons cited in the literature and in key informant interviews why people experiencing homelessness may eschew shelters in favor of encampments. The availability and type of shelter available seem to be key drivers of encampments, as people weigh the disadvantages of staying in a shelter against their tolerance for the difficulties of staying in an unsheltered location (City of San Francisco, 2015; Herring and Lutz, 2015; National Law Center on Homelessness and Poverty, 2014).

Exhibit 2. Shortcomings in the Shelter System

Specific shortcomings in the shelter system that may contribute to increased numbers of people congregating in encampments:

- A supply of shelter beds insufficient to meet the demand; this problem may be exacerbated by limited funding for emergency shelters and by community opposition to creating new or expanded shelter and bridge housing facilities or permanent supportive housing.
- Restrictions in shelters that would result in separation from a partner, family member, or pet.
- Shelter entry/exit times and locations that are inconvenient or incompatible with people's daily routines, including work schedules.
- Concerns about the security of personal belongings; restrictions on the ability to store belongings and difficulty moving belongings in and out of shelters on a daily basis.
- Concerns about personal safety and exposure to germs and disease within shelters.
- Specific barriers to entry, including sobriety requirements and entry fees.
- General perceptions of shelters as "inhospitable," "alienating," "demeaning," and offering little or no support or case management to find permanent housing.

Sense of Safety and Community

People who stay in encampments may see them as offering greater safety and protection from police harassment and aggression (Burness and Brown, 2016), and from assaults or the theft of belongings (Donley and Wright, 2012; Speer, 2017), than if they were unsheltered on their own. This sense of "safety in numbers" may be particularly prevalent in long-standing and highly organized encampments, in which residents have established around-the-clock security patrols and mutually enforced norms and standards for behavior (Lutz, 2015; National Law Center on Homelessness and Poverty, 2014; Sparks, 2017a). In high-cost cities in particular, individuals' decision to congregate in an encampment may be influenced by the behavior of their peers, according to a key informant who is conducting research on encampments. Once a critical mass of people has determined that encampments are a way of dealing with their housing crisis, others may feel emboldened to follow suit. Some cities respond to the presence of an established encampment by providing bathroom facilities and other basic services, making encampments seem to be a reasonable alternative to constant moving, threats of eviction, or shelters.

Desire for Autonomy and Privacy

In contrast to the rules that govern many aspects of shelter stays, staying in an encampment means that people can generally come and go as they please. The ability to exercise autonomy and freedom of movement appears to be a powerful factor that draws some people to encampments (Lutz, 2015; National Law Center on Homelessness and Poverty, 2014; Sparks, 2017a). This independence is sometimes eroded in communities that "normalize" encampments, introducing regulations that restrict residents' activities in the process. When that happens, encampments may in effect become an extension of the same shelter system that people reject in favor of encampments (Herring, 2014; Speer, 2018a).

Access to Illegal Substances

Residents of encampments may or may not be using illegal substances. Nothing in the literature suggests that most or even many encampments are where people congregate primarily to support their drug addiction. That said, in at least one high-profile example, the location of an open-air drug market directly influenced the formation and continued existence of an encampment, according to a key informant studying encampments. In that instance, the availability of a dependable supply of heroin close-by led addicts to stay in encampments in the Kensington area of Philadelphia even though the city had available shelter space.

Variation in Encampments

Researchers and other experts have not yet developed a single, standard set of criteria defining a group of people experiencing unsheltered homelessness as an "encampment." In this review, the definition we used encompasses a wide variety of scenarios—from established settlements that have a well-defined set of mutually agreed-on and enforced rules to loose congregations that have little to no organization or cohesion. In this section, we describe what our literature search and key informant interviews revealed about the variation among encampments in resident characteristics and social structure; we then summarize how encampments may vary in different parts of the United States.

Resident Characteristics, Social Structure, and Motivations of Residents

The literature has little to say about characteristics that distinguish people experiencing unsheltered homelessness in encampments from those who experience unsheltered homelessness on their own. The U.S. Interagency Council on Homelessness is leading an effort to analyze data records for people experiencing homelessness, along with partner organizations including U.S. Department of Housing and Urban Development, the National Alliance to End Homelessness, California Policy Lab (a nonprofit partnership between the Universities of California Los Angeles and Berkeley), and the consulting firm OrgCode. That effort will provide insights into the characteristics and experiences of people experiencing homelessness in unsheltered locations, including whether they are distinctly different from people who experience sheltered homelessness; however, the data will not make it possible to distinguish people in encampments from people in unsheltered locations generally.

Some studies describe variations in the racial and ethnic composition of encampments. For example, one study conducted outside Orlando, Florida, engaged 39 people staying in encampments in focus groups. Nearly three-fourths of participants were men, and most were White—a demographic composition characterized by the local outreach team as generally representative of people experiencing unsheltered homelessness in the area. In contrast, downtown shelters in Orlando had a much larger population of African Americans (Donley and Wright, 2012). Seattle's evaluation of its sanctioned encampments also found fewer people of color in encampments relative to emergency shelters (City of Seattle, 2017). The demographic makeup of people staying in encampments in Oakland, California, seems to include a larger share of people of color, but individual encampments are segregated along racial and ethnic lines (Jones et al., 2015).

The internal organization and motivations of residents significantly vary among encampments. Some encampments have a strong social structure and organization, sometimes with oversight or assistance from local charitable or faith-based organizations. Residents may be required to assume responsibility

for day-to-day operations, including security patrols and other duties (City of Seattle, 2017; Lutz, 2015). Residents may vote in governance decisions, and they may be expected to attend weekly resident meetings in accordance with an encampment-wide code of conduct (Sparks, 2017a). A key informant conducting research on encampments described the social structure established by a group of mothers staying with their children in a recently cleared encampment in Oakland, California. Residents of the encampment prohibited drug use and shared responsibility for childcare. These expectations promote a sense of community and have been credited with helping encampment residents "feel human" and believe that they have something to contribute (Sparks, 2017b).

Other encampments have less cohesion and more informal rules and structure, which may on occasion result in friction and conflict among residents (Sparks, 2017a). Larger encampment "communities" may be less cohesive than smaller groups composed of family members and friends (City of San Francisco, 2015). In addition, the potential for exploitation exists in encampments, according to key informants conducting research on encampments. For example, younger people may offer to provide protection to older residents but then expect some form of compensation in exchange. Encampments formed around access to opioids in Philadelphia seem to have no leadership structure at all; however, according to a key informant conducting research on encampments, rarely do people living in an encampment have a complete lack of interaction with each other. People staying together in encampments tend to look out for one another and have some sense of solidarity.

Motivations of encampment residents may differ, as well. According to key informants who are helping communities develop responses to encampments, some residents of encampments are eager to access services and permanent housing. Others clear out in advance of a sweep, even if the sweep may provide them with access to services. Such variation might occur within one encampment if it is large enough. For example, when more than 700 people were cleared from the Santa Ana River encampment in Orange County, California, some people accepted help and were able to find housing or went to drug treatment centers, whereas others simply left for another encampment. When encampments have formed in areas that provide dependable access to illegal drugs in general and opioids in particular, referrals to housing and services are likely to be met with a mixed reaction, depending on the timing of individual residents' addiction trajectories and the characteristics of the shelters that are an alternative to staying in the encampment.

Regional Differences in Encampments

Cities in the Northeast, where winters can be harsh, are more likely than cities in other parts of the country to have relatively large shelter systems. According to a key informant who is conducting research on homelessness, this difference in the homelessness services system is reflected in the characteristics of people experiencing unsheltered homelessness, including those who stay in encampments. According to her observations, in cities with large numbers of shelter beds, the unsheltered population tends to have high rates of disability and mental health issues, which may create challenges to entering shelters. In contrast, in West Coast cities with limited shelter availability (or where barriers to shelter use are higher), the unsheltered population represents a greater mix of people, including those who do not have behavioral health disabilities but are unable to access shelter for other reasons. They may be recently homeless and unfamiliar with the shelter system, or they could be unwilling or unable to comply with the requirements of relatively high-barrier shelters on the

West Coast, or they may simply be unable to find an available shelter bed. As on the East Coast, many people in West Coast encampments are not able to tolerate or navigate the shelter system because of mental health or substance abuse disorders; however, West Coast encampments are also likely to include people who do not face those challenges.

According to researchers in the San Francisco Bay Area, those who stay in encampments may even have support from family members who visit regularly and bring food and medication or who invite them in to shower and do laundry (Jones et al., 2015). According to key informants who are researching encampments in the West, people who are now staying in encampments in western states could maintain stable housing without supportive services if they had rental assistance or other income support. For those individuals, the lack of access to affordable housing and shortages of shelter beds are the primary factors driving them to experience homelessness in encampments.

The physical nature of encampments often reflects regional differences in the geographic setting, including the natural features and available land. For example, an encampment in Southern California's Coachella Valley consists of a variety of structures detached and spread out across a contiguous area. In Columbus, Ohio, encampments are composed of tightly clustered tents and lean-tos. In San Francisco, people form encampments along the edges of highways and train tracks and under elevated freeways. In Las Vegas, encampments can be found in an underground tunnel system. The location of encampments balances two factors: maximizing convenience (that is, ease of access to the resources people use to address their daily needs) and minimizing visibility (that is, avoiding complaints to the city that could result in the encampment being cleared) (City of San Francisco, 2015).

Regional variation in encampments may also reflect the different ways that cities respond to encampments. Section 3 presents a typology of community responses to encampments and discusses the evidence—at this point, scant—on the effectiveness of those various approaches.

Community Responses to Encampments

Local responses to encampments are evolving in many communities, as stakeholders seek to identify the best strategies to address this growing phenomenon. Approaches vary along many dimensions but can be broken into four basic categories, as described in Exhibit 3. Specific activities range from sending police to quickly clear ("sweep") the encampment—providing little or no support to help people find another place to stay—to formally sanctioning encampments and providing onsite services.

Communities commonly use more than one response at a time to manage encampments, depending on resource availability, the location of encampments, and the characteristics of people congregating in encampments. For example, Las Vegas has created the Courtyard, a one-stop resource center that includes secure space to sleep outside, but it also deploys outreach teams that include law enforcement officers to clear encampments. Jurisdictions within the same region may adopt different strategies to address encampments. According to key informants helping communities to develop responses to encampments, communities may need to use a variety of approaches at the same time to serve populations that have different needs. When those efforts are not well coordinated across departments or neighboring jurisdictions, however, they may act at cross-purposes. For example, a jurisdiction that clears encampments, with little notice and no support, may undermine efforts to build relationships and trust in a neighboring jurisdiction that tacitly approves encampments.

Exhibit 3. Typology of Responses to Encampments

Category	Characteristics
Clearance With Little or No Support	• Notice of pending sweeps provided only a few days in advance, if at all • Belongings stored for a short period of time, if at all • Few or no shelter or service referrals provided • Regulatory or physical barriers to secure the site of the former encampment and keep it from being reoccupied
Clearance With Support	• Notice of pending sweeps provided weeks in advance, often by trained outreach workers who have experience working with people experiencing unsheltered homelessness • Longer term storage of belongings available • Referrals to shelter or services provided by outreach workers, who also accompany the first responders and sanitation crews who clear encampments

Category	Characteristics
Tacit Acceptance	• Encampments allowed to persist regardless of whether laws or ordinances explicitly authorize or prohibit their existence • Longer term storage of belongings available • Basic services or infrastructure provided, in particular to address public health and sanitation concerns (for example, portable toilets, showers, and potable water) • Outreach workers may visit the encampment to provide referrals to permanent housing, shelter, and services
Formal Sanctioning	• Encampments permitted by law or ordinance on public and or privately owned property, usually only in designated locations • May have established rules that govern the size, location, or duration of encampments • May have a public agency or nonprofit organization manage encampments • Infrastructure and public services—which may include laundry and potable water, common spaces for eating and meeting, lockers for storing belongings (including on a longer term basis), meal services and food donations, job training programs, access to mail and voice mail services—provided by the municipality and private or faith-based organizations and volunteers • May provide case management, including assistance applying for transitional or permanent housing and other benefits, appealing denials, and managing funds

Cities also use strategies to prevent encampments from forming. Some communities enact laws prohibiting activities associated with encampments, such as lying down or erecting structures on public space. More than one-third of U.S. cities have adopted camping bans, citing health and safety concerns (National Coalition for the Homeless, 2016). Researchers at the University of Denver identified more than 350 antihomelessness ordinances in Colorado's largest cities (Adcock et al., 2016). Other approaches include physical modifications to the built or natural environment, such as securing vacant lots and buildings to restrict access, clear-cutting brush that could provide cover for encampments, and installing sprinklers in areas where encampments might form (Chamard, 2010; National Law Center on Homelessness and Poverty, 2014). When an encampment is cleared, with or without support, the community may also impose new regulatory or physical barriers to keep the encampment from reemerging in the same location or in other parts of the community.

Factors that Drive Local Responses

Cities respond to encampments for a variety of reasons, and the goals of the interventions may vary—from cleaning up a business area, to helping people access shelter, to helping people obtain permanent housing. Even within the same jurisdiction, different stakeholders may have different definitions of success in dealing with encampments. For example, the transit authority may have a goal of breaking up encampments adjacent to a railroad bed, the department of public health may want to prevent the

spread of disease, the housing department may be working to end homelessness, and community homeless advocates may be focused on avoiding adverse consequences for the encampment population. Those differing views will also influence the strategy, or set of strategies, used by the city to address encampments (Burness and Brown, 2016; Jones et al., 2015) and can make comparing interventions across communities difficult. The factors that were most commonly cited in the literature as influencing cities' approaches to encampments are (1) community and political pressure, (2) resource availability, and (3) fear of litigation.

Community and Political Pressure

According to researchers and key informants who are helping communities devise strategies to address encampments, the "nuisance" factor is the key policy driver. Outreach teams or police usually are deployed only when community residents or other stakeholders complain about an encampment. At that point, interventions need to be visible and quick to demonstrate responsiveness to community concerns and to relieve political pressure (National Law Center on Homelessness and Poverty, 2014). In the absence of sufficient resources to move everyone into permanent housing, communities often employ a clearance strategy, with or without support, that moves people out of sight or farther from central business districts, where their presence can affect economic growth (Speer, 2018b).

Cities typically prioritize efforts in neighborhoods where political pressure is greatest. Not surprising, those neighborhoods often are not the locations with the highest levels of unsheltered homelessness and encampments, according to key informants who are helping communities devise strategies to address encampments. In areas with low visibility, with little or no community pressure, cities may pursue a policy of tacit acceptance—even if encampments exist in violation of a no-camping ordinance (Herring, 2014).

Resource Availability

Concern for community and resident well-being would, ideally, be the primary factor shaping cities' encampment response strategies; however, resource limitations may require city leadership to make trade-offs and choose an approach that works within existing constraints (Herring and Lutz, 2015; Loftus-Farren, 2011; National Law Center on Homelessness and Poverty, 2014). In Philadelphia, for example, according to a key informant conducting research on encampments, recent efforts that could be characterized as clearance with a high level of support were limited to two of four known opioid encampments because the city lacked funding to provide services and shelter for people congregating in all four. Without the ability to provide rent assistance or needed services, the city adopted a policy of tacit acceptance at the remaining two encampments. Cities may also create sanctioned encampments in lieu of providing permanent rent subsidies, or cities may pursue clearance with little or no support if they lack the resources to provide any additional assistance.

Fear of Litigation

Fear of legal challenges influences how cities approach closing encampments. Local jurisdictions want to avoid being taken to court over due process and cruel and unusual punishment challenges, according to a key informant engaged in research on encampments. This concern is likely to grow following the September 2018 ruling of the Ninth Circuit Court of Appeals in *Martin v. City of*

Boise.[1] Courts have found that depriving homeless people of the rights to perform survival activities in public spaces when no alternatives are available violates the 1st, 4th, 5th, 8th, and 14th Amendments to the Constitution (Kieschnick, 2018; National Law Center on Homelessness and Poverty, 2014). In *Martin v. City of Boise*, the court held that "as long as there is no option of sleeping indoors, the government cannot criminalize indigent, homeless people for sleeping outdoors, on public property."

Some legal challenges have resulted in settlements, which generally call for minimum notice before clearance of encampments, requirements for storage of personal belongings, and compensation for people who are swept from encampments and for their attorneys (National Law Center on Homelessness and Poverty, 2017). In January 2018, advocates brought a lawsuit against officials in Orange County, California, following the clearance of a massive encampment along the Santa Ana riverbed. As of October 2018, elements of a preliminary settlement agreement were more expansive and included a commitment to provide proactive outreach and engagement, as well as referrals to services, before evicting people from encampments; development of "standards of care" by the county for homelessness services programs; drawdown of funds already available to support "programs, services, and activities" for people experiencing homelessness; adoption of due process protections; establishment of a method for formally addressing requests for accommodations under the Americans with Disabilities Act; and referrals to collaborative courts[2] to handle citations.[3]

Effectiveness of Various Responses

The effectiveness of responses to encampments may be thought of as creating positive outcomes for the people who stay in encampments, creating positive outcomes for the broader community, or both. At this point, research that attempts to measure any such outcomes in a rigorous way is limited. Findings from anecdotal reports in individual cities are not broadly generalizable or transferable. To begin to address gaps in existing knowledge, the National Alliance to End Homelessness, U.S. Interagency Council on Homelessness, and U.S. Department of Housing and Urban Development are working with state and local partners to develop and test strategies for addressing unsheltered homelessness, including encampments. The Arnold Foundation (2018) is exploring the effectiveness of interventions that first responders can use to address unsheltered homelessness. Those projects are still in the early stages and are complicated, according to a key informant, by the absence of baseline data from which to evaluate the effectiveness of the responses. According to a researcher currently working on encampments, intensive outreach work will be needed to establish study samples, and a

[1] The Ninth Circuit has jurisdiction over nine states in the western United States, including Alaska and Hawaii, as well as the District of Guam and the District of the Northern Mariana Islands.

2 Collaborative courts are an alternative justice model that focuses on treatment and behavior change (rather than sentencing) to help defendants improve their lives. Homeless courts are one type of collaborative court. According to the California Association of Collaborative Courts, these are "special court sessions held in a local shelter or other community site designed for homeless citizens to resolve outstanding misdemeanor criminal warrants." https://www.ca2c.org/types-of-collaborative-justice-courts/

[3] Orange County Catholic Worker et al. v. County of Orange et al., Joint Statement of Settlement Progress (Central District of California, 2018) https://scng-dash.digitalfirstmedia.com/wp-content/uploads/2018/10/oc-homeless-plaintiffs-lawsuit-settlement.pdf.

high level of resources will be required to track people's experiences over time and to measure outcomes, but those efforts will be necessary to develop appropriate policy responses.

Without the availability of strong evidence, cities adopt approaches that seem to be best practices. Local responses also depend on the community's goals and priorities, which may include reducing crime, eliminating health hazards, or improving a business district—and may or may not include housing people experiencing homelessness. In the following sections, we provide descriptive and inferential information on the factors that may determine the effectiveness of responses, including the approach selected, the characteristics of encampment populations, and available resources. We summarize the current state of knowledge for various types of approaches.

Clearance with Little or No Support

Cities that adopt a policy of clearance with little or no support may justify this approach as "tough love" that encourages people in encampments to enter city-operated shelters (Lutz, 2015; National Coalition for the Homeless, 2016). The literature and key informants, however, agree that sweeps of encampments do little to increase shelter usage or otherwise resolve the problem of encampments (National Law Center on Homelessness and Poverty, 2014). Especially in communities with many low-visibility places, people are likely to simply pack up and move on to another location (Junejo, Skinner, and Rankin, 2016) or reestablish the encampment at the former site once the city has cleaned the area.

Clearance with little or no support may actually *reduce* the likelihood that people will seek shelter because it erodes trust and creates an adversarial relationship between people experiencing homelessness and law enforcement or outreach workers. In a survey of encampment residents in Honolulu, 21 percent of respondents said that they were less able or likely to enter shelters after sweeps, and 68 percent said that the sweeps had no effect on whether or not they went to shelters, although those responses seem mostly to be the result of undesirable shelter conditions (Dunson-Strane and Soakai, 2015). Another study conducted in Seattle finds that only one-third of encampment residents "accepted offers of alternative shelter after a sweep" (Junejo, Skinner, and Rankin, 2016: 16). Analyzing interviews with both outreach staff and encampment residents in Oakland, California, Jones and his colleagues hypothesized that continuous sweeps cause people experiencing unsheltered homelessness to "focus on short-term needs and immediate coping strategies," disrupting the level of stability necessary for encampment residents to engage in long-term planning (2015: 82). People forced to relocate during a sweep may have difficulty reconnecting with outreach workers who have been working with them, and any progress made toward moving into housing or accessing services could be lost. Experiences in Honolulu, Seattle, and Oakland suggest that sweeps are disruptive to people who are attempting to stabilize their lives and find a pathway to housing, and they may have lasting traumatic psychological and emotional impacts (Jones et al., 2015; Junejo, Skinner, and Rankin, 2016).

Clearance with Support

The support provided in responses that can be characterized as clearance with support may include extensive outreach in advance of clearance and referrals to existing shelters or housing programs. Communities may also make changes to policies on eligibility and rules for supportive housing or

drug treatment programs. They may create entirely new programs to facilitate entry by people formerly staying in encampments. For example, San Francisco created a new type of shelter, Navigation Centers, to provide shelter-averse people with room and board and access to case management and other services provided by public, nonprofit, and faith-based partners. The low-barrier model waives many of the policies commonly cited as obstacles to shelter: Navigation Centers do not have sobriety requirements, and people may come with their pets and partners, bring their belongings, and stay all day—there are no required entry or exit times. Space in the Navigation Centers is limited, however, and drop-ins are not accepted; instead, access is determined by the city's Homeless Outreach Team (SF HOT) case by case as space becomes available, with a focus on serving the most vulnerable people in San Francisco's encampments. Considerations by the outreach team include the length of time someone has been experiencing homelessness, shelter usage over a 6-month period, and motivation to move to permanent housing (San Francisco Health Network, 2018). Some evidence suggests that people strategically make themselves visible on the street in areas where the SF HOT will be making referrals so that they can gain access to the Navigation Centers, but no evidence indicates that people leave shelters in pursuit of a referral to a Navigation Center (City of San Francisco, 2015).

An evaluation of efforts to clear two encampments in Philadelphia's Kensington neighborhood provides a comprehensive look at another approach to clearance with support. After intensive and continuous outreach to and engagement of people staying in the Kensington encampments, outreach workers offered their clients emergency shelter in low-barrier "respite" and "navigation" centers, with access to case management and drug treatment services. The city also relaxed shelter admission requirements and rules and expectations for residents (Metraux et al., 2019). According to key informants developing policies to address such "drug encampments," enrolling people who are addicted to opioids and other substances into rehabilitation services may be difficult. Efforts to streamline access to drug treatment, however—including waiving requirements for identification and preauthorization and helping people get their documents in order—may ensure that treatment is available to them when they are ready to accept it.

Several key informants reported that communities are beginning to add social workers or community mental health workers to outreach teams. Law enforcement officials often are the only people on call to handle complaints around the clock, and community members may be more likely to call the police than to call a homeless hotline. When outreach teams include trained members, they can offer referrals to services and can begin to establish trust and build relationships with people experiencing homelessness in encampments. Without adequate funding for affordable, bridge, or permanent supportive housing, however, clients may end up back in encampments despite a robust outreach effort.

As of this review, policymakers and practitioners are developing promising practices to support residents of cleared encampments, and researchers are developing descriptive data and hypotheses for testing that approach.

Tacit Acceptance

Some cities tacitly accept encampments, not through sanctioning by law but by a lack of enforcement or by selective enforcement. Cities may tacitly accept homeless encampments to reduce the costs of

enforcing anti-camping ordinances or ordinances that prohibit lying down or sitting down in public places. Homeless people are permitted to congregate in areas that do not generate complaints from local businesses and residents (Herring, 2014). In Fresno, California, for example, police have carried out a more active clearance approach in the higher rent, downtown business districts, but they take a hands-off approach within an abandoned industrial zone (Herring, 2014; Speer, 2018b). In some cases, cities may provide basic services, such as potable water and security, without formally sanctioning the encampment (Loftus-Farren, 2011), and outreach workers charged with helping people resolve unsheltered homelessness may focus on people staying in the tacitly accepted encampments. In addition to having political reservations to sanctioning encampments, city officials may refuse to formally sanction encampments "on the grounds of increased liability, expenditures, and conflicts with health and zoning codes" (Herring, 2014: 298).

The literature we reviewed did not provide any indication of the effectiveness of tacit acceptance of encampments either in helping people resolve the circumstances that made them homeless or in limiting the negative consequences of encampments for the community.

Formal Sanctioning

Some cities formally sanction encampments through a variety of mechanisms: issuing temporary use permits; changing land use and zoning ordinances to permit encampments (which may place limits on the duration and number of people at each site); and creating designated campgrounds that have standards for operations and services to be provided on site. Some sanctioned encampments are managed publicly; others are self-governed but have public and private assistance and oversight.

- ***Publicly managed encampments.*** In some cases, sanctioned encampments are created and operated by the city, sometimes with nongovernmental community partners. Establishment of those encampments often is motivated by a desire to contain people who are unsheltered in a specified area where service delivery can be concentrated and public health risks controlled. For example, in 2017, the City of Las Vegas established the Courtyard Homeless Resource Center, where people can sleep in a secure, open-air, and sheltered courtyard with access to an array of amenities. The Courtyard is funded with public dollars and is currently operated by the city, with medical, employment, and other services provided on site through a variety of partners (City of Las Vegas, 2018).

- ***Safe parking programs*** provide similar structure and access to services for people who are experiencing homelessness and using a car, van, or RV as their primary place of shelter. People staying in their vehicles apply for a permit to safely and legally park overnight in designated lots that typically have some form of security and access to restrooms and other sanitation facilities. These programs are intended to offer transitional assistance for people who are interested in securing permanent housing and, as such, the programs provide access to extensive case management and other social services. Most programs use background checks to screen out sex offenders and recent violent felons, and program participants are required to have their own car insurance and comply with program rules and regulations. Safe parking programs are most common in West Coast cities. Program data from local jurisdictions in California indicate that participants have successfully accessed housing,

although rates of placement vary widely, from 5 percent in Santa Barbara to 65 percent in San Diego (Homelessness Policy Research Institute, 2018).

- ***Self-governed encampments with public and private assistance and oversight.*** Rather than establishing new areas for unsheltered people to congregate, some cities sanction existing encampments. This process typically involves establishing a legal framework for their continued existence and organizing services but allowing the encampment to continue as a self-governed enterprise. In 2011, the Seattle City Council adopted an ordinance to permit transitional encampments as an "accessory use" on land owned or controlled by a religious organization and established health and safety standards for those encampments. A similar ordinance passed in 2015 extended those standards to city-owned or private, nonreligious property. Seattle's Human Services Department selected several nonprofit organizations with experience supporting unsheltered homeless people to provide service-enriched case management, including referrals to diversion programs and shelters, access to legal services and rapid rehousing programs, and employment training and educational referrals at three newly established, permitted encampments (City of Seattle, 2017).

  In a city-sponsored evaluation (City of Seattle, 2017) that attempted to assess the effectiveness of formal sanctioning, Seattle documented a positive response from communities around the new encampments. Data and information about crime levels collected by the Seattle Police Department suggest that crime has not significantly increased in the areas surrounding the encampments since they were established. Authors of the evaluation view the self-managed governance structure positively, as an opportunity for residents to build confidence and leadership skills. Between September 2015 and May 2017, 759 people stayed in Seattle's six permitted encampments, and 16 percent (121 people) transitioned to permanent housing. It is unclear how generalizable these findings are to other communities.

Sanctioned encampments are best understood as an interim solution to address the immediate conditions of people experiencing unsheltered homelessness. Such encampments are not themselves a solution to homelessness, and cities will need to invest in permanent solutions, such as housing that is affordable to extremely low-income people, permanent supportive housing, mental health services, affordable healthcare, and perhaps also supervised drug consumption sites and low-barrier employment opportunities (Junejo, Skinner, and Rankin, 2016; Loftus-Farren, 2011; Parr, 2018). Currently, limited evidence suggests that sanctioned encampments help to reduce homelessness; we also do not know whether certain types of sanctioned encampments are more effective than others.

Limitations of the Current Evidence on Encampments

In this section, we describe limitations in the rigor and scope of the literature considered in preparing this review, as well as challenges to collecting data on the encampment population. We conclude with some recommendations for additional research found in the published literature or made by key informants interviewed as part of this scan of current evidence on encampments.

Scope and Rigor of the Current Literature on Encampments

Research on the nature and causes of homeless encampments is still in the nascent stages, as is evaluation of community responses to encampments. In many ways this is parallel to the state of research on homelessness during the 1980s, when modern homelessness, sheltered and unsheltered, first became apparent and was the focus of news reports and efforts to document and understand the phenomenon. As of late 2018, the research literature on encampments is primarily descriptive, relying on reviews of articles in the news media, along with some ethnographic research and fieldwork that includes interviews with encampment residents, service providers, city staff, and community members. Administrative data are used in only a few cases (Metraux et al., 2019; Speer, 2017). In general, sample sizes are small, with analysis limited to interviews with a small number of community stakeholders or encampment residents.[4] Researchers almost exclusively use convenience samples rather than representative samples of encampment populations. Evaluators have not yet begun to use methods that compare the results of a response to encampments with what would have happened in the absence of the policy or practice.

So far the literature focuses heavily on West Coast cities, especially Fresno and San Francisco, California; Portland, Oregon; and Seattle, Washington. An exception is a descriptive study by the National Law Center on Homelessness and Poverty (2014) that deliberately focuses on East Coast and Southern cities.[5] The ethnographic research reviewed for this paper focuses on people in encampments that are sanctioned, either formally or tacitly. This type of research, which relies on observation of people and conditions within encampments, would be more difficult to carry out in communities that have an encampment clearance policy.

Our scan of the literature identified only one study that begins to develop standards for evaluating the effectiveness of various responses to encampments. Jones and his colleagues (2015) provided standards for three criteria—effectiveness, equity, and implementation feasibility—and use them in connection with resident, service provider, and stakeholder interviews to assess whether alternative approaches would be more effective than a current policy of clearing encampments in Oakland, California (see Appendix B for a description of the study). Some local jurisdictions have started to track housing placements among people who formerly stayed in publicly sanctioned encampments

[4] Research methods and rigor differ little between the peer-reviewed literature and the reports of public agencies and other organizations. Both types of literature rely heavily on media reports and on qualitative interviews.

[5] The cities are Lakewood, New Jersey; New Orleans, Louisiana; Providence, Rhode Island; and St. Petersburg, Florida.

(City of Seattle, 2017; Hunter et al., 2016), but assessing how rigorous and successful those tracking efforts will be is difficult.

Little information is available on the direct and indirect community costs associated with encampments. Some reports provide partial accounts of the costs of various activities associated with local responses to encampments. None attempt a rigorous analysis of the costs of a response type or a comparison with the costs of other interventions for people experiencing homelessness. Adcock and her colleagues (2016) provided a thoughtful methodology for calculating the cost of enforcing ordinances that criminalize homelessness in Denver and the state of Colorado, but that analysis pertains to unsheltered homelessness in general; it is not limited to encampments. Some case studies report expenditures associated with various activities related to encampments (City of Seattle, 2017; Jones et al., 2015). Complicating the documentation of costs, encampment-related expenditures often are spread across multiple agencies and contracts (for example, department of public works for refuse disposal, department of human services for case management), sometimes without a budget category or line item specific to encampments (Junejo, Skinner, and Rankin, 2016).

Challenges to Collecting Data on People in Encampments

Some local jurisdictions have started to collect and report data on the characteristics of people who stay in encampments. The types of information collected include these:

- Basic demographic data, such as gender, age, race, veteran status and discharge type, and first language (City of Seattle, 2017; Metraux et al., 2019)
- Earned income or benefits receipt (City of Seattle, 2017)
- History of domestic violence (City of Seattle, 2017)
- Physical and mental health conditions (City of Seattle, 2017)
- Duration of homelessness (City of Seattle, 2017; Hunter et al., 2016; Metraux et al., 2019)
- Current living conditions (Metraux et al., 2019)
- Where they were staying before the encampment (City of Seattle, 2017; Hunter et al., 2016)
- Potential barriers to entering shelter, such as pets, partners, or a significant number of belongings (Hunter et al., 2016)

That type of data may be collected during the intake process at sanctioned encampments, through outreach to people staying in tacitly accepted encampments, or during the process of encampment clearance. One of the key challenges of any data collection effort associated with encampments is capturing a representative sample of people. As described by a key informant who is conducting research on encampments, people who stay in unsanctioned encampments often strive to keep off the public radar, and they may differ in important ways from the subset of people who are visible for data collection efforts. According to this key informant, outreach workers are generally better received when they make low demands, offer something that people in encampments might want or need, and share demographic characteristics or lived experiences with those in encampments. People who stay

in encampments may be wary of authority figures and are more likely to welcome outreach workers who do not act or present as such. These same considerations may also apply to sanctioned encampments.

Data collection efforts are also hampered by the transient nature of people experiencing unsheltered homelessness and the limited capacity of outreach teams to comprehensively canvas the less visible and less accessible geographies within their communities. Intensive and time-consuming outreach and follow-up efforts are required to collect information about encampment residents over time. Mental illness and substance use can also complicate data collection because the responses of affected individuals to questions may be unreliable.

Suggestions for Additional Research

As part of this review of the current evidence base on encampments, we gathered suggestions from the key informants we interviewed—people who are conducting research on encampments or advising communities on strategies for addressing encampments—for additional research that could advance the field in a variety of ways. Some of the published literature we reviewed also included suggestions for additional research that would support deeper understanding of the nature of encampments and would inform program design going forward. These ideas for additional research include the following:

- ***Understanding the characteristics of people who are living in encampments.*** What are the characteristics of people in encampments, including their immediate past experience? Are they different in meaningful ways from other people experiencing unsheltered homelessness? Are there significant differences in the characteristics of people who live in different types of encampments—for example, in groups of cars or other vehicles compared with encampments of tents or other structures? How long have they lacked stable housing? Where were they living before their stay in the encampment? What were their circumstances that contributed to them staying in an encampment? How often are families with children living in encampments, and how are their characteristics, needs, and vulnerabilities different from those of individual adults? This type of information could help to improve the targeting of efforts to prevent homelessness and stays in encampments.

- ***Understanding the experience of people experiencing unsheltered homelessness in encampments***. How do they spend their days? How long do people stay in encampments, and where do they go when they leave encampments (how often do people continue to experience unsheltered homelessness, how often do they find housing, and how often do they go to shelters or other settings, including treatment programs)? What are their service utilization patterns and the costs of their service use? With a better understanding of the behaviors and needs of people who are living in encampments, practitioners and policymakers can design and implement more effective interventions that meet those needs. Research projects can draw on integrated data systems, real-time surveys, and interviews with people with lived experience. Some of the best early opportunities may be in states and local jurisdictions that already link data systems.

- ***Understanding the relative effect of interventions currently in use.*** Do people who receive extensive outreach and referrals in advance of an encampment clearance fare better than those who stay in formally sanctioned encampments? Do outcomes vary depending on who conducts the outreach? Do sanctioned encampments achieve higher rates of exits from homelessness than do other approaches to ending homelessness for unsheltered people? Do the outcomes of people who formerly stayed in encampments differ over time, depending on the type of assistance they receive?

- ***Exploring racial/ethnic disparities in access to the homeless services system.*** Studies in Oakland, Orlando, and Seattle point to the possibility of racial segregation, and perhaps self-segregation, of encampment populations—and, by inference, of populations using shelters. Research could explore the reasons for these patterns, including possible barriers to entry into shelters or to programs providing permanent housing that affect particular racial/ethnic groups.

- ***Understanding community responses to the presence of encampments.*** What are community members' expectations regarding responses to unsanctioned encampments in their neighborhoods and approaches to resolving them? How are community members' responses shaped by stigma or bias related to race, homelessness, poverty, mental health needs, and substance use? How do community members respond to sanctioned encampments, and are factors present that determine whether sanctioned encampments experience more or less acceptance? What strategies can public and private agencies use to keep community members informed of their approaches to assist people living in encampments?

Conclusion

In recent years, encampments of people experiencing homelessness have become pervasive in communities across the United States. They can be found in busy neighborhoods in large cities, isolated rural areas, and everywhere in between. Encampments may be as small as a cluster of 8 to 10 households next to a highway entrance ramp, or they may encompass multiple structures scattered across several acres of parkland or industrial areas. The encampments that are visible to outside observers take many forms, including tents, lean-to shacks and shanties, and groups of cars or vans; other encampments that are not so visible are hidden in manmade infrastructure or natural features. The motivations and circumstances of people staying in encampments are as varied as their size, shape, and location.

Despite this diversity, at the root of all encampments is a need for greater investment of resources to address severe shortages of affordable housing. Absent this commitment, people experiencing homelessness are forced to find other places to stay, and encampments may be the best alternative among a limited set of options. Articles in the peer-reviewed and gray literature document a consistent set of factors that contribute to people's decisions to stay in encampments rather than in shelters or in other, unsheltered locations. Shortages in the availability of shelter beds, policies that create barriers to entry, and undesirable conditions inside shelters all influence people to seek an alternative place to stay. When shelters cannot fulfill their needs for safety, sense of community, and the freedom to come and go at will, people experiencing homelessness may decide to stay in encampments.

Local jurisdictions are pursuing a variety of strategies to address encampments and the challenges they pose to health, safety, and well-being. The most rudimentary of those approaches is to "sweep" encampments, the primary goal of which is clearing out the people staying in them. Preliminary evidence suggests that this response of clearance without support results in disruption and trauma for inhabitants of the encampments but does little to resolve the problem. Encampments are quickly reestablished in a new location or even back on the recently cleared site. We know little about the effects of other responses that provide support to people in encampments, including responses that allow encampments to persist—through either tacit acceptance or formal sanctioning—and clearance efforts that are accompanied by outreach and referrals to housing and services.

Communities are experimenting with new service approaches to assisting people living in encampments. The Navigation Centers that were first established in San Francisco now are being replicated elsewhere but, so far, not based on strong evidence of their effectiveness. The logic is that removing many of the barriers that cause people to seek alternatives to emergency shelters and including intensive case management to help clients secure permanent housing will prevent encampments from forming and provide a transition to permanent housing for people moved out of encampments. Other cities are relaxing admission requirements for drug treatment programs to expedite entry by people in encampments. Still others are pairing first responders with trained outreach workers who can help make connections to appropriate services. More research will be needed to assess the results of these and other initiatives.

We do not know enough about the characteristics and experiences of people who stay in encampments. Collecting even baseline information can be difficult when many people actively try to escape public notice. Data collection challenges also complicate efforts to understand the costs and effectiveness of public responses to encampments. Practical and political barriers will have to be overcome to arrive at meaningful findings that can inform policymaking and practice.

This review of what we know as of late 2018 about encampments is part of a larger study sponsored by the U.S. Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation, and the U.S. Department of Housing and Urban Development, Office of Policy Development and Research that will help increase the body of knowledge. We will use interviews with stakeholders in nine communities and site visits to four communities to collect information on the causes and characteristics of encampments and on community responses to encampments. The site visits to four communities also will attempt to document the public costs of various strategies for addressing encampments.

Appendix A. Methods Used to Conduct the Literature Review and Interviews with Key Informants

Scan of Peer-Reviewed Literature

To identify relevant peer-reviewed literature, we searched EBSCO Discovery Service, which provides a comprehensive search of academic journals and databases, and Google Scholar. Specific search strings and limiters used are listed in Exhibit 4.

Exhibit 4. Search Strings and Limiters

Search string used:

- "homeless encampment" OR "tent city" OR "homeless settlement" OR "homeless camp"

Limiters used:

- Peer-reviewed journals
- Published on or after January 1, 2011
- Published in English

We compiled references and abstracts from all database returns using Zotero software. We then reviewed all abstracts, identifying 43 articles for retrieval and further review. We excluded articles if they focused on encampments serving a non-homeless population, such as refugees or protesters. We also excluded research on homeless encampments in an international context because experiences with encampments and unsheltered homelessness in other countries diverge in important ways from the experience in the United States.

We identified 16 articles from more than 500 returned results that addressed the research questions shown in Exhibit 1 in the introduction. Those 16 articles include several written by the same primary author that draw on a single dataset. Under other circumstances, we might exclude a portion of the similar articles from review; however, given the small body of research on encampments, we opted to consider them all.

Scan of Gray Literature

We searched websites of government agencies, nongovernmental organizations, and academic institutions to supplement the peer-reviewed literature and identify relevant unpublished literature, white papers, presentations, and research briefs. When a website included a search function, we used the search string identified in Exhibit 4 to identify relevant resources. We also scanned relevant website sections for pertinent materials.

We found reports, publications, and conference proceedings on the official websites of the following agencies and organizations: U.S. Department of Justice, National Alliance to End Homelessness, National Coalition for the Homeless, National Law Center on Homelessness and Poverty, Seattle University School of Law, University of Denver Sturm College of Law, and San Francisco Office of

the Controller. We identified 41 documents through this process, 17 of which were determined to be relevant to this project.

We identified additional resources during interviews with key informants and by following references in the peer-reviewed and gray literature.

Interviews with Key Informants

We conducted interviews with key informants to augment information collected during the literature reviews. We identified an initial list of interviewees based on recommendations from the U.S. Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation, and the U.S. Department of Housing and Urban Development, Office of Policy Development and Research staff and from project team members with expertise in homelessness, substance use disorder, and criminal justice. We identified additional individuals by asking at the conclusion of each interview for suggestions of other academics or practitioners who may be studying encampments.

Exhibit 5 lists the key informants we interviewed.

During the interviews, we asked about ongoing research projects focused on the recent growth in unsheltered homelessness and encampments; the characteristics of people in encampments and the factors that lead them to congregate there; and communities' responses, including their costs and effectiveness. We also asked key informants targeted questions about specific research projects or programs, based on our background research.

Exhibit 5. Key Informants

Name	Title	Affiliation	Date Interviewed
Sharon Chamard, PhD	Associate Professor	University of Alaska, Anchorage	November 8, 2018
Dennis Culhane, PhD	Dana and Andrew Stone Professor of Social Policy; Co-Principal Investigator, Actionable Intelligence for Social Policy	University of Pennsylvania	October 16, 2018
Margot Kushel, MD	Professor; Director of the Center for Vulnerable Populations	University of California, San Francisco	October 25, 2018 December 27, 2018
Stephen Metraux, PhD	Associate Professor; Director of the Center for Community Research & Service	University of Delaware	October 26, 2018
Colleen Murphy	Manager, Coordinated Entry System Access	Los Angeles Homeless Services Authority	November 16, 2018
Barbara Poppe	Founder and Principal	Barbara Poppe & Associates LLC	November 2, 2018
Kelly Robson	Chief Social Services Officer	HELP of Southern Nevada	October 29, 2018
Nan Roman	President and CEO	National Alliance to End Homelessness	November 1, 2018

Appendix B. Summaries of Selected Studies

In this appendix, we provide details on the approach, methodology, limitations, and key findings from selected studies in the peer-reviewed and gray literature. These studies were particularly informative as we completed our review.

City of Seattle, Human Services Department. (2017). *Seattle Permitted Encampment Evaluation.* Seattle, WA: City of Seattle.

This internal evaluation assesses the performance of three temporary, permitted encampments in the City of Seattle in 2016: Ballard, Interbay, and Othello. The encampments were created by the city on public land. They are operated by nonprofit partners with oversight from the city's Human Services Department. The authors used HUD's Annual Performance Report, Seattle Police Department data, and stakeholder interviews to inform their analysis, which focuses on (a) determining whether temporary, permitted encampments are an effective homelessness response strategy, and (b) identifying areas where the model works well or could be improved. Data collection challenges include people departing from the encampment before they interact with a case manager, case manager staff turnover, and missing responses (client doesn't know/client refused, data not collected).

The Human Services Department found that several features contributed to the success of the encampments:

- Inhabitants of encampments benefited from being able to stay in one location for a longer period, as they could make progress toward stability goals and build relationships with the community.
- The self-management model used at all three encampments empowered inhabitants and enabled them to build confidence, camaraderie, and leadership skills.
- The provision of structured case management services, including referrals to local shelters and rapid rehousing when appropriate, referrals to employee training and education, domestic violence services, and access to a mobile medical van.

The evaluation concludes that Seattle's sanctioned encampment model is successfully serving people who have been living outside in greenbelts, on the streets, in cars, and in otherwise hazardous situations. The neighboring communities have responded positively, and crime did not increase significantly when a permitted encampment was established.

Donley, A., and J. Wright. 2012. "Safer Outside: A Qualitative Exploration of Homeless People's Resistance to Homeless Shelters," *Journal of Forensic Psychology Practice* 12 (4): 288–306. doi:10.1080/15228932.2012.695645.

This study examines why people experiencing homelessness in Orange County, Florida, stay in encampments instead of available rooms in local shelters. The authors conducted a series of five focus groups with 39 people who lived in the East Orange encampments. All participants were

recruited for the study by the Orlando Homeless outreach team. Each focus group averaged 2 hours in duration and included, on average, eight people from two or three camp sites. The study is limited by the small and localized sample size; in addition, although the study was published in 2012, the focus groups were conducted in February of 2007. The authors do not discuss local preventive or punitive ordinances with regard to encampments in Orange County.

Participants "described their experiences with downtown [Orlando] homeless services and downtown itself in negative terms and said they would not venture back downtown for any conceivable reason, no matter how many services might be available there." Although participants gave many reasons for this decision, the most prevalent themes centered on the undesirable location of shelter facilities, prior negative experiences with shelters, and the sense of companionship, freedom, and safety associated with encampments.

Herring, C., and M. Lutz. 2015. "The Roots and Implications of the USA's Homeless Tent Cities," *City* 19 (5): 689–701. doi:10.1080/13604813.2015.1071114.

Herring and Lutz explain the resurgence of homeless encampments in the United States through comparative case studies of encampments in Fresno, California, and Seattle, Washington. They draw from interviews and field notes completed by both authors between 2009 and 2011, along with the preexisting peer-reviewed and gray literature on encampments. The authors chose to focus on Fresno and Seattle because those cities contain large, persistent camps—including some that are legally recognized and others that are illegal and tacitly accepted.

Herring and Lutz argue that homeless encampments were not rooted in the 2008 recession, nor can they be explained by a general expansion in the homeless population. Using their case studies as supplementary evidence, they conclude that the "crisis of welfare provision in the form of perpetual shelter shortages and repulsive shelter arrangements led homeless people to prefer large encampments and led advocates and city officials to recognize large encampments as legitimate shelter alternatives."

Jones, P., K. Parish, P. Radu, T. Smiley, and J. van der Heyde. 2015. *Alternatives to Unsanctioned Homeless Encampments.* Berkeley, CA: Goldman School of Public Policy, University of California, Berkeley.

The authors of this report interviewed Oakland, California, encampment residents, service providers, and city stakeholders to understand their needs and concerns. The needs assessment and interviews with Oakland stakeholders revealed that people living in encampments "face serious barriers to both housing and shelter use that makes unsanctioned camps their only viable alternative." Jones and his colleagues then studied best practice examples of two alternatives to Oakland's current approach of clearing encampments: (1) establishing city-sanctioned campgrounds and (2) adopting a Housing First approach. They examined those alternatives in four cities: Nashville, Tennessee; Ontario, California; Portland, Oregon; and Seattle, Washington.

Analyzing the data obtained from interviews in Oakland and the best practices from other cities, the authors assigned a score to each of these approaches (clearance, sanctioned encampments, and Housing First) with respect to three criteria:

- *Effectiveness*, defined as the "degree to which the policy in question addresses the immediate problems associated with homeless encampments, comprehensively and across both the short- and long-term."
- *Equity*, as a measure of the "differential consequences of the policy for different stakeholders or constituents" and that looks at the degree to which an intervention is likely to have disproportionate effects for any particular group.
- *Implementation feasibility*, or a city's capacity to implement each policy according to its original design.

The authors weighted the criteria to reflect stakeholders' stated preferences about the relative importance of each criterion. Effectiveness accounted for 50 percent of the score, equity for 30 percent, and implementation feasibility for 20 percent. Higher scores indicate more preferable alternatives for Oakland.

Jones and his colleagues conclude that Oakland officials could expect a city-sanctioned campground to perform best as measured by effectiveness, equity, and implementation feasibility, followed closely by a Housing First approach. Although the authors found clearing encampments to be the most easily implemented, it scored lowest on effectiveness and equity. Despite efforts to coordinate with outreach services and give sufficient notice to camp residents, the process of clearing camps "prevents residents from complying with important housing or health appointments." In short, the status quo in Oakland as of 2015 "serves as a cyclical disruption for camp residents and creates an additional barrier on their pathway to housing."

Metraux, S., M. Cusack, F. Graham, D. Metzger, and D. Culhane. 2019. *An Evaluation of the City of Philadelphia's Kensington Encampment Resolution Pilot.* Philadelphia, PA: City of Philadelphia.

This report is an independent process evaluation of the City of Philadelphia's Encampment Resolution Pilot (ERP). The ERP is a cross-departmental city initiative that was established to close down two outdoor homeless encampments in May 2018. The ERP process included extensive outreach to and engagement of people staying in the encampments and the establishment of Navigation Centers to provide them with access to housing and drug treatment assistance and intensive case management. The city also took steps to prevent the encampments from re-forming through police monitoring, continued outreach and community involvement efforts, and physical changes to the site.

To evaluate the ERP, Metraux and his colleagues draw on an array of data sources that include city documents and interviews with key stakeholders and persons directly involved with implementing the pilot. In addition, the authors had direct access to planning and operational activities, and they conducted ethnographic observations at the encampments and in the surrounding community. They

used a semi-structured interview guide with a sample of residents at the two encampments targeted by the ERP to elicit open-ended responses in four topic areas: living situation, typical day, background and service use, and perspectives on the encampment closure.

The report uses this information to assess the planning, implementation, and initial outcomes of the ERP and to determine strengths and limitations of the pilot.

National Law Center on Homelessness and Poverty. 2014. *Welcome Home: The Rise of Tent Cities in the United States.* Washington, DC: National Law Center on Homelessness and Poverty.

This report documents the rise of homeless encampments and tent cities across the United States and the legal and policy responses to that growth. The authors reviewed media reports on tent cities published between 2008 and April 2012 as well as existing literature on the subject. They also conducted telephone interviews with experts and service providers. Based on this preliminary research, the authors identified four sites for in-depth case studies: Lakewood, New Jersey; New Orleans, Louisiana; Providence, Rhode Island; and St. Petersburg, Florida. The sites were chosen on the basis of their locations, the size and prominence of the former or current encampments they hosted, and their perceived usefulness for gaining a broader understanding of the causes of and responses to homeless encampments. The authors chose to focus on the East Coast because a report documenting tent cities on the Pacific Coast already existed.

Their media survey found documentation of more than 100 tent communities in 46 states and the District of Columbia. While maintaining that the existence of tent cities itself reflects a severe lack of affordable housing, the report finds that **"**when adequate housing or shelter is not available, forced evictions of tent communities may violate human rights, and may also violate principles of domestic law." The authors argue that tent cities are a result of the absence of other reasonable options. Where alternative housing facilities are insufficient, municipalities should work together with people staying in encampments "in a manner that prioritizes the autonomy and dignity of homeless individuals and allows them to have a voice in the process."

Sparks, T. 2017a. "Citizens Without Property: Informality and Political Agency in a Seattle, Washington Homeless Encampment," *Environment and Planning A: Economy and Space* 49 (1): 86–103. doi:10.1177/0308518X16665360

Sparks, T. 2017b. Neutralizing Homelessness, 2015: Tent Cities and Ten Year Plans. *Urban Geography* 38 (3): 348–356. doi:10.1080/02723638.2016.1247600.

Sparks bases these two articles on his 2006 ethnographic fieldwork, including 6 months living and participating as a resident in Seattle's Tent City 3. In addition to participant observation, during his time in Tent City 3, he conducted 50 in-depth interviews with people staying there.

In "Citizens Without Property," Sparks documents the history of Seattle's encampments and offers an explanation for why people experiencing homelessness often do not to take advantage of social services and shelters, even when they are available. That is, within encampments, people

experiencing homelessness have a venue to "respond, resist, and remake the political landscapes of homelessness" and to "challenge their marginalization and create more habitable and emancipatory spaces." Sparks centers his theory around the social and political structures in Tent City 3, which allow residents to feel responsible, be independent, and participate in camp activities—in contrast to the demeaning treatment received at shelters.

In "Neutralizing Homelessness," Sparks claims that the "medicalization and personalization of homelessness" serves to "stabilize and maintain homelessness in seeming perpetuity"—that is, because of this flawed view of homelessness, people experiencing homelessness are blamed for their situation rather than systems, structures, or societal conditions being blamed. Well-intended service providers accept the narrative of "homeless as pathology" and create an environment that dehumanizes people who might otherwise seek assistance, leading them to stay in encampments, where they can be seen as "normal" people.

Speer, J. 2017. "'It's Not Like your Home': Homeless Encampments, Housing Projects, and the Struggle over Domestic Space" *Antipode* 49 (2): 517–35. doi:10.1111/anti.12275.

Speer, J. 2018a. "The Rise of the Tent Ward: Homeless Camps in the Era of Mass Incarceration," *Political Geography* 62: 160–169. doi:10.1016/j.polgeo.2017.11.005.

Speer, J. 2018b. "Urban Makeovers, Homeless Encampments, and the Aesthetics of Displacement," *Social & Cultural Geography* 1–21. doi:10.1080/14649365.2018.1509115.

In these three articles, Speer builds on interviews and ethnographic fieldwork conducted in Fresno, California, in 2013. Of the 24 people Speer interviewed, 9 were officials involved in homeless management, 8 were homeless, and 7 were local activists. She selected homeless participants from multiple racial/ethnic backgrounds, genders, and ages. The author returned to Fresno in 2016 to volunteer at an activist-led encampment and follow up with former research participants. To supplement fieldwork, Speer also relied on two local media sources and reviewed policy reports, legal documents, and online videos and radio programs depicting homeless activism and evictions. Speer believes Fresno to be an ideal city through which to examine the politics of home in relation to homelessness because of its large-scale encampments and intensive housing subsidy program.

"'It's Not Like Your Home'" focuses on how people staying in encampments define *home*. Participants appreciate the sense of community within encampments and the opportunities to exercise autonomy. Speer demonstrates that, by staying in encampments, "homeless Fresnans were creating a new kind of home in which individuals and families were part of a larger collective tied to each other through relations of mutual care."

"Urban Makeovers" probes the motivations behind Fresno's varying responses to homeless encampments. Drawing on personal interviews, media articles, and statements made by city officials and politicians, Speer claims that in the Fresno political discourse, homeless encampments are framed as "unpleasant objects that must be removed to make way for economic opportunities." Thus, "efforts to reinforce a 'live play work' aesthetic resulted in a politics of displacement and criminalization" as city officials worked to move those in encampments to the margins of town, sanction those marginalized encampments, and make them visually uniform and uncluttered.

"The Rise of the Tent Ward" goes beyond Fresno to look at city-sanctioned and -controlled encampments in King County, Washington; Ontario, California; Portland, Oregon; Reno, Nevada; and St. Petersburg, Florida. Speer terms these encampments as *tent wards* to reflect "how incarceration becomes enmeshed with the provision of care and shelter." She argues that these encampments "are not simply a cost effective form of shelter: they are a new node in a wider network of quasi-carceral spaces that govern homeless mobility" that "undermine structural efforts to address poverty and housing inequality."

Appendix C: Selected Practitioner Resources

In the course of conducting this literature review, the study team identified a number of resources that did not meet our criteria for inclusion in the review but may be informative for local leaders and practitioners who are seeking practical guidance on how to address encampments in their communities. We provide links to these resources below.

United States Interagency Council on Homelessness (USICH)

Following conversations with advocates, housing and services providers, and government officials, USICH prepared a suite of resources intended to help local communities develop an action plan to connect people experiencing homelessness in encampments with permanent housing. Those resources include a paper that discusses the key components of an action plan, a quick guide that provides an introduction to the concepts covered in the paper, and a planning checklist with action steps for each of the key components. Those resources were published in 2015 and are available for download at www.usich.gov/tools-for-action/ending-homelessness-for-people-in-encampments/.

USICH has also prepared a series of case studies of communities that are implementing strategies to address the housing and services needs of people experiencing homelessness in encampments. Published in 2017, the case studies describe lessons learned from the local experience in six communities: Charleston, South Carolina; San Francisco, California; Seattle, Washington; Chicago, Illinois; Philadelphia, Pennsylvania; and Dallas, Texas. Topics covered include the evolution of the city's approach to addressing encampments, key stakeholders and tips for engaging them, and challenges or surprises encountered in the implementation process.

In May 2018, USICH published a brief titled Caution is Needed When Considering "Sanctioned Encampments" or "Safe Zones". The brief urges communities to proceed with caution when considering the establishment of sanctioned encampments and lists key points to consider for those who decide to proceed. The brief concludes with a list of links to additional USICH resources.

Corporation for Supportive Housing (CSH)

CSH has made available for download an extensive set of templates, provider tools, and draft policies for addressing unsheltered homelessness. Although not specific to encampments, many of these resources may be helpful in working with people experiencing unsheltered homelessness in encampments. All resources are available for download at www.csh.org/communityresponse/.

National Alliance to End Homelessness

The National Alliance to End Homelessness publishes presentation notes and slide decks from sessions at its national conferences. Several sessions at recent conferences address encampments, including the following:

- Resolving Encampments: Evaluating Different Approaches (July 2018)
- Sanctioned Encampments: Questions You Should Ask (July 2018)
- Understanding Unsheltered Homelessness: What We Know So Far (July 2018)
- A Growing Unsheltered Population: Addressing Encampments (August 2016)

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———. 2018a. "The Rise of the Tent Ward: Homeless Camps in the Era of Mass Incarceration," *Political Geography* 62: 160–169. doi:10.1016/j.polgeo.2017.11.005.

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U.S. Department of Housing and Urban Development
Office of Policy Development and Research
Washington, DC 20410-6000

A6301

June 2019

A2017

Court File No. CV-21-00077817-0000

ONTARIO
SUPERIOR COURT OF JUSTICE

BETWEEN:

KRISTEN HEEGSMA, DARRIN MARCHAND, GORD SMYTH, MARIO MUSCATO, SHAWN ARNOLD, ET AL.

Applicants

-and-

CITY OF HAMILTON

Respondent

AFFIDAVIT OF STEPHEN HWANG

SWORN FEBRUARY 27, 2023

I, Dr. Stephen W. Hwang, physician, Toronto, Ontario, MAKE OATH AND SAY AS FOLLOWS:

1. I have personal knowledge with respect to the facts set out below, except where stated otherwise. Where the information is not based on my personal knowledge, it is based upon information provided by others which I believe to be credible and true.

2. I am a specialist in general internal medicine with training in public health and epidemiology. My primary research interests are homelessness and health, access to health care for homeless persons, and housing as a determinant of population health. I currently hold the following positions:

   Professor, Department of Medicine, Faculty of Medicine, University of Toronto

   Professor (cross-appointed), School of Public Health Sciences, University of Toronto

Professor (cross-appointed), Department of Health Policy, Management, and Evaluation, University of Toronto

Senior Adjunct Scientist, Populations and Public Health Program, Institute for Clinical Evaluative Sciences, Toronto

Director, MAP Centre for Urban Health Solutions, Unity Health Toronto, Toronto

Staff Physician, Division of General Internal Medicine, St. Michael's Hospital

3. A copy of my Curriculum Vitae is attached to this my Affidavit as Exhibit "A".

4. I have been asked by the Hamilton Community Legal Clinic to provide an expert opinion in this matter regarding the health implications of being homeless and living on the streets with no shelter. Specifically, I was asked to opine on the increased health risks faced by homeless people, the health implications of lack of sleep for homeless people, and the health implications on homeless people who sleep outside and are prohibited from erecting even the most rudimentary forms of shelter from the elements (e.g. tent, tarpaulin, cardboard barriers) and evicted from that shelter. My opinion is thus focused on addressing these specific issues.

5. In my opinion, homelessness has major health implications. I have attached two academic articles that I have written which summarize these issues "Homelessness and Health," *Canadian Medical Association Journal*, 2001(Exhibit "B") and "Homeless People," from the *Handbook of Urban Health, 2*005, (Exhibit "C") and adopt these articles as part of my opinion in this case. People who become homeless often have physical and mental health problems which worsen over the period that they are homeless. This deterioration

in health is related to numerous factors, including a lack of stable housing, an adverse social environment, the near impossibility of maintaining health-promoting behaviours in the face of homelessness, and barriers to accessing appropriate health care. The state of being homeless also has direct adverse effects on health through an increased exposure to infectious and communicable diseases (e.g., tuberculosis and insect infestations such as bed bugs and scabies) and an increased risk of violence and victimization while living in shelters and on the street. For those living outside, exposure to the elements can lead to a number of serious and potentially life-threatening conditions. Homeless people are at risk for severe sunburn and heatstroke during the summer months. During cold weather, frostbite and hypothermia are major problems.

6. Homeless people often suffer from sleep deprivation due to an inadequate number of hours of sleep, as well as disturbed or fragmented sleep. For homeless people sleeping outside, sleep fragmentation is often related to external stimuli, such as bright lights, loud noises, and intentional efforts by other people to awaken or disturb them. A large body of research evidence has shown that inadequate sleep has numerous adverse health effects, including an increased risk of diabetes, cardiovascular disease, obesity, depression, and injuries, as well as the more commonly recognized problems of impaired alertness, attention, and concentration.

7. If homeless people who sleep outside are prohibited from erecting even the most rudimentary forms of shelter from the elements (e.g. tent, tarpaulin, or cardboard

barriers), this would have clear and direct adverse impacts on their health. First, a lack of protection from wind and rain would increase the wind chill effect, which would greatly increase the risk of hypothermia. As has been documented in the research literature, homeless people are at particularly high risk of death from hypothermia, and half of all such deaths occur when the air temperature is above freezing ("Accidental hypothermia and death from cold in urban areas," *International Journal of Biometeorology,* 1991). The wind chill effect plays a key role in such deaths. Second, prolonged exposure to cold and dampness increases the risk of skin breakdown and skin infections, particularly in the feet. In homeless people, exposure of the feet to wet and cold conditions can lead to immersion foot or trench foot, a serious condition that was first described among soldiers serving in the trenches during World War I. Third, recent research has shown that exposure to the cold increases the risk of developing respiratory tract infections, which are a major health problem among people experiencing homelessness. Fourth, a lack of shelter from the sun would greatly increase homeless people's risk of severe sunburn and heatstroke during the summer months. Fifth, the lack of a tent or other structure to provide even a minimal degree of protection from the elements, light, and noise would result in even more disturbed and fragmented sleep, with the adverse health effects detailed above.

8. In summary, if homeless people who sleep outside are prohibited from erecting any form of shelter such as a tent, tarpaulin, or cardboard box, it is absolutely clear that this would

have a substantial and potentially severe adverse effect on their health, and would likely increase their risk of death.

Sworn remotely by Stephen Hwang at the City of Toronto in the Province of Ontario, before me on February 27, 2023 in accordance with O. Reg. 431/20, Administering Oath or Declaration Remotely.

Commissioner for Taking Affidavits

Stephen Hwang

THIS IS EXHIBIT "A" TO THE
AFFIDAVIT OF STEPHEN HWANG
AFFIRMED REMOTELY BEFORE ME AT
THE CITY OF TORONTO DURING A "ZOOM" VIDEOCONFERENCE
IN ACCORDANCE WITH O.REG. 431/20,
ADMINISTERING OATH OR DECLARATION REMOTELY
THIS 27TH DAY OF FEBRUARY, 2023

SHARON CROWE

Commissioner for Taking Affidavits, etc.

Curriculum Vitae

A6308

Stephen W. Hwang
MD, MPH, FRCPC

A. Date Curriculum Vitae is Prepared: 2022 April 22

B. Biographical Information

Primary Office	St. Michael's Hospital MAP Centre for Urban Health Solutions 30 Bond Street Toronto, Ontario, Canada M5B 1W8
Telephone	416-864-5991
Fax	416-864-5558
Email	stephen.hwang@unityhealth.to

1. EDUCATION

Degrees

1994 - 1996	Master of Public Health, Clinical Effectiveness, Harvard School of Public Health, Boston, Massachusetts, United States
1984 - 1988	MD, Medicine, Johns Hopkins University School of Medicine, Baltimore, Maryland, United States
1980 - 1984	BA, Biochemistry (magna cum laude), Harvard University, Cambridge, Massachusetts, United States

Postgraduate, Research and Specialty Training

1991 - 1992	Chief Medical Resident, Toronto Western Hospital/Toronto General Hospital, Department of Medicine, University of Toronto, Toronto, Ontario, Canada
1988 - 1991	Internal Medicine Residency, Department of Medicine, University of Toronto, Toronto, Ontario, Canada

Qualifications, Certifications and Licenses

2003 - present	Fellow, American College of Physicians, Philadephia, Pennsylvania, License / Membership #: 46674
1992 - present	General Licence, College of Physicians and Surgeons of Ontario, Toronto, Ontario, License / Membership #: 60001
1992 - present	Fellow, Royal College of Physicians of Canada, Ottawa, Ontario, License / Membership #: 432499

2. EMPLOYMENT

Current Appointments

2017 Jan - present	Full Member, School of Graduate Studies, University of Toronto, Toronto, Ontario, Canada
2015 Jul - present	Director, MAP Centre for Urban Health Solutions, St. Michael's Hospital, Toronto, Ontario, Canada
2014 Jul - present	Professor, Department of Medicine, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada
2014 Jul - present	Professor (cross appointment), Health Policy, Management and Evaluation, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada
2014 Jul - present	Professor (cross appointment), Dalla Lana School of Public Health, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada
2008 Sep - present	Research Scientist, Li Ka Shing Knowledge Institute, St. Michael's Hospital, Toronto, Ontario, Canada
2008 Mar - present	Adjunct Senior Scientist, Primary Care and Population Health Program, Institute for Clinical Evaluative Sciences, Toronto, Ontario, Canada
1996 Sep - present	Staff Physician, Division of General Internal Medicine, Department of Medicine, St. Michael's Hospital, Toronto, Ontario, Canada

Previous Appointments

HOSPITAL

2001 - 2005	Acting Director, Clinical Epidemiology Unit, St. Michael's Hospital, Toronto, Ontario, Canada
1996 Sep - 2008 Sep	Population Health Epidemiologist, Inner City Health Program, St. Michael's Hospital, Toronto, Ontario, Canada
1992 - 1996	Staff Physician, Division of General Internal Medicine, Boston City Hospital, Boston, Massachusetts, United States

UNIVERSITY

2005 Nov - 2016 Jun	Director, Division of General Internal Medicine, Department of Medicine, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada
2005 Jul - 2016 Dec	Associate Member, School of Graduate Studies, University of Toronto, Toronto, Ontario, Canada

UNIVERSITY - CROSS APPOINTMENT

2005 - 2014 May	Associate Professor (cross-appointment), Health Policy, Management and Evaluation, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada
2005 - 2014 May	Associate Professor (cross-appointment), Dalla Lana School of Public Health, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada
2001 - 2005	Assistant Professor (cross-appointment), Health Policy, Management and Evaluation, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada
1998 - 2005	Assistant Professor (cross-appointment), Public Health Sciences, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada

UNIVERSITY - RANK

2008 - 2014	Associate Professor, Medicine, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada
1998 - 2005	Assistant Professor, Medicine, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada
1996 - 1998	Lecturer, Medicine, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada

1995 - 1996	Clinical Assistant Professor, Medicine, School of Medicine, Boston University, Boston, Massachusetts, United States
1992 - 1995	Clinical Instructor, Medicine, School of Medicine, Boston University, Boston, Massachusetts, United States

OTHER

2020 May - 2020 Jul	Medical Co-Director, COVID Recovery Sites, Inner City Health Associates, Toronto, Ontario, Canada *Medical co-director of hotel sites for people experiencing homelessness who are recovering from COVID-19*

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

INTERNATIONAL

Received

2016 Jul	**2016 Robert Carr Award**, Research team member, International Council of AIDS Service Organizations (ICASO). (Research Award) *This award recognizes a research project conducted by a community-academic partnership that has led to evidence-based programs and/or influenced policies in the field of HIV to guide a human rights-based response. The award was presented to the Positive Spaces Healthy Places Study at the 21st International AIDS Conference in Durban, South Africa, July 2016.*

NATIONAL

Received

2014 - present	**Fellow**, Canadian Academy of Health Sciences, Canada. (Distinction) *Fellows of the Academy are elected on the basis of their demonstrated leadership, creativity, distinctive competencies and commitment to advance academic health sciences. Membership is considered one of the highest honours for members of the Canadian health sciences community and carries with it a covenant to serve the Academy and Canadian society.*
2015	**CSIM Dr. David Sackett Senior Investigator Award**, Canadian Society of Internal Medicine, Canada. (Research Award) *This award recognizes excellence in research by a senior Canadian general internist. The award is intended to increase awareness of high quality research by general internists in Canada and to foster such research. Total Amount: 2,500*
2014	**Chinese Canadian Legend Award**, Asian Business Network Association, Canada. (Distinction) *The Chinese Canadian Legend Award recognizes Chinese Canadians who have accomplished outstanding achievements in their lives and made valuable contributions to the world community.*
2002	**CSIM Young Investigator Award**, Canadian Society of Internal Medicine, Canada. (Research Award) *This award is presented annually to an outstanding Canadian investigator in the field of general internal medicine who is within the first five years of his or her research career. Total Amount: 2,500*

LOCAL

Received

2020 Nov	**2020 Complete Physician Award**, St. Michael's Hospital, Toronto, Ontario, Canada. (Distinction) *This annual award recognizes one physician at St. Michael's Hospital that best exemplifies an ongoing commitment to and role modeling of the CanMEDS Roles.*
2020 - 2024	**2020 President's Impact Award**, University of Toronto, Toronto, Ontario, Canada. (Distinction) *This award recognizes and celebrates University of Toronto faculty members whose research has led to significant impact beyond academia. Total Amount: 50,000 CAD*
2016 Dec	**Spirit of Philanthropy Award**, St. Michael's Hospital Foundation. (Distinction) *This award recognizes an individual who has been an outstanding hospital fundraising partner over the past year.*
2013	**Dr. Vincent J. Hughes Physician Humanitarian Award**, St. Michael's Hospital Medical Staff Association. (Distinction) *This award is presented annually to a physician member of St. Michael's Hospital who has demonstrated outstanding compassion, respect for human dignity and caring of patients of all ages, races and economic status.*
2008	**Community-Based Research Award of Merit.**, Centre for Urban Health Initiatives and the Wellesley Institute, Toronto, Ontario, Canada. (Research Award) *The award recognizes principal investigators who have demonstrated exemplary participation in the field of Community Based Research.*

Teaching and Education Awards

LOCAL

Received

2021	**Department of Medicine Outstanding Postgraduate Teacher Award**, Dept of Medicine, Faculty of Medicine, St. Michael's Hospital, University of Toronto. (Postgraduate MD) *This award recognizes faculty for their dedication, enthusiasm and teaching excellence.*
2018	**Robert Sheppard Award for Health Equity and Social Justice**, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada *This award recognizes outstanding contributions of faculty members involved in the development and/or implementation of activities, programs or research related to social justice and health equity in faculty development or postgraduate medical education.*
2014	**FitzGerald Academy Master Teacher Award**, Dept of Medicine, Faculty of Medicine, University of Toronto *This award is presented annually by the FitzGerald Academy, Faculty of Medicine, in recognition of passion, enthusiasm, and sustained excellence in the teaching and support of undergraduate medical students.*
2001	**Outstanding Teacher Award in Postgraduate Medical Education**, Dept of Medicine, Faculty of Medicine, St. Michael's Hospital, Toronto, Ontario. (Postgraduate MD)
1998	**Outstanding Teacher Award in Postgraduate Medical Education**, Dept of Medicine, Faculty of Medicine, St. Michael's Hospital, Toronto, Ontario. (Postgraduate MD)
1997	**Outstanding Teacher Award in Postgraduate Medical Education**, Dept of Medicine, Faculty of Medicine, St. Michael's Hospital, Toronto, Ontario. (Postgraduate MD)

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

2010 Oct - present	**Member of Council and Executive Committee**, Canadian Society of Internal Medicine
2003 - present	**Member**, International Society for Urban Health
2002 - present	**Member**, Canadian Society of Internal Medicine
2001 - present	**Member**, Christian Medical and Dental Society of Canada
1998 - present	**Member**, National Health Care for the Homeless Council
1992 - present	**Member**, Society of General Internal Medicine
2015 Oct - 2017 Oct	**President**, Canadian Society of Internal Medicine
2014 Oct - 2015 Oct	**President-Elect**, Canadian Society of Internal Medicine
2010 Oct - 2014 Oct	**Secretary-Treasurer**, Canadian Society of Internal Medicine
2006 - 2016	**Member**, Association of Chiefs and Leaders of General Internal Medicine (ACLGIM)
2004 - 2006	**Member, Executive Committee**, International Society for Urban Health
2003 - 2009	**Chair, Communications Committee**, International Society for Urban Health

Administrative Activities

INTERNATIONAL

International Society for Urban Health

2006 Jan - 2006 Oct	**Member**, Scientific Committee, 5th International Conference on Urban Health, Amsterdam, Netherlands.
2005 Jan - 2005 Oct	**Member**, Community Engagement Subcommittee, 4th International Conference on Urban Health, Toronto, Ontario, Canada.
2005 Jan - 2005 Oct	**Member**, Conference Steering Committee, 4th International Conference on Urban Health, Toronto, Ontario, Canada.
2004 Jan - 2004 Oct	**Member**, Scientific Committee, 3rd International Conference on Urban Health, Boston, Massachusetts, United States.
2003 Jan - 2003 Oct	**Member**, Scientific Committee, 2nd International Conference on Urban Health, New York City, New York, United States.
2001 Dec - 2002 Oct	**Co-Chair**, Scientific Committee, 1st International Conference on Inner City Health, Toronto, Ontario, Canada.

National Academies of Sciences, Engineering, and Medicine

2016 Aug - 2018 Jul	**Member**, Housing, Health, and Homelessness Committee, Washington, District of Columbia, United States.

National Health Care for the Homeless Council (NHCHC)

2009 Sep - present	**Member**, Research Committee, United States.

North American Housing and HIV/AIDS Research Summit.

2010 Mar - 2010 Jun	**Member**, Planning Committee for Pre-Summit Learning Institute on “Examining Structural HIV Interventions: Methodological Challenges”, Toronto, Ontario, Canada.

Society of General Internal Medicine

2014 Sep - 2015 Feb	**Member**, 2015 Eisenberg Award Selection Committee, United States.

2013 Jun - 2018 May	**Member**, SGIM Research Committee, United States.
2006 Jul - 2007 Mar	**Chair**, 2007 Annual Meeting Workshop Review Committee, Health Disparities/Unique Populations, Toronto, Ontario, Canada.
2006 Jan - 2006 Mar	**Member**, 2006 Annual Meeting Workshop Review Committee, Health Disparities/Unique Populations, United States.
2005 Jan - 2005 Mar	**Member**, 2005 Annual Meeting Workshop Review Committee, Health Disparities/Unique Populations, United States.
2004 Jan - 2004 Mar	**Member**, 2004 Annual Meeting Workshop Review Committee, Health Disparities/Unique Populations, United States.
2003 Jan - 2003 Mar	**Member**, 2003 Annual Meeting Workshop Review Committee, Health Disparities/Unique Populations, United States.

University of Pennsylvania

2012 Jul - 2013 Jun	**Member**, Conference Organizing Committee, International Homelessness Research Conference, June 2013, Philadelphia, Pennsylvania, United States.

NATIONAL

Canadian Conference on Homelessness

2004 Jul - 2005 May	**Member**, Steering Committee, Toronto, Ontario, Canada.

Canadian Housing and Renewal Association

2003 Jan - 2003 Oct	**Member**, Organizing Committee, National Symposium on Health and Housing, Calgary, Alberta, Canada.

Canadian Observatory on Homelessness (successor to the Canadian Homelessness Research Network)

2009 Jul - 2019	**Member**, National Advisory Board, Toronto, Ontario, Canada.

Canadian Society of Hospital Medicine

2008 Jan - 2009 Sep	**Member**, Organizing Committee, 7th Annual Canadian Society of Hospital Medicine Conference, Toronto, Ontario, Canada.

Canadian Society of Internal Medicine

2013 Oct - 2014 Oct	**Member**, 2014 Annual Meeting Committee, Calgary, Alberta, Canada.
2012 Oct - 2013 Oct	**Chair**, 2013 Annual Meeting Committee, Toronto, Ontario, Canada.
2011 Oct - 2012 Oct	**Member**, 2012 Annual Meeting Committee, Quebec City, Quebec, Canada.

Government of Canada

2005 Sep - 2006 Jun	**Member**, Minister's Advisory Board, Canadian Housing Framework, Ottawa, Ontario, Canada.

The Salvation Army

2013 Jul - 2014 Dec	**Member**, National Advisory Board, Task Team on Homelessness, Canada.

PROVINCIAL / REGIONAL

Ministry of Municipal Affairs and Housing

2015 Jan - 2015 Oct	**Member**, Expert Panel on Homelessness, Ontario, Canada.

University of Calgary

2017 Oct	**External Reviewer**, External Review of the Division of General Internal Medicine, University of Calgary, Ottawa, Ontario, Canada.

University of Ottawa

2010 Nov - 2010 Dec	**External Reviewer**, External Review of the Division of General Internal Medicine, University of Ottawa, Ottawa, Ontario, Canada.

LOCAL

Department of Health Policy, Management and Evaluation, University of Toronto

2001 Jul - 2006 Jun	**Member**, Executive Committee, Clinical Epidemiology and Health Care Research Program

Department of Medicine, University of Toronto

2006 Apr - 2016 Jun	**Co-Chair**, On-Site Review Committee for the Core Internal Medicine Training Program, Faculty of Medicine, Dept of Medicine
2005 Nov - 2016 Jun	**Member**, Core Internal Medicine Program Committee, Faculty of Medicine, Dept of Medicine
2005 Nov - 2016 Jun	**Member**, Executive Committee, Department Division Directors
2004 Sep - 2005 Oct	**Member**, Selection Committee, Director of the Division of General Internal Medicine
1998 Jul - 2005 Jun	**Member**, Internal Medicine PGY1 Selection Committee, Faculty of Medicine, Dept of Medicine

Division of General Internal Medicine, University of Toronto

2006 Jul - 2016 Jun	**Member**, General Internal Medicine PGY4-5 Selection Committee, Faculty of Medicine, Dept of Medicine, General Internal Medicine
2006 Jan - 2016 Jun	**Chair**, University of Toronto Division of General Internal Medicine Executive Committee, Toronto, Ontario, Canada.

Good Shepherd Ministries

2020 Oct - present	**Vice Chair**, Board of Directors, Toronto, Ontario, Canada.
2019 Oct - present	**Member**, Board of Directors, Toronto, Ontario, Canada.
	Member, Board of Directors, Toronto, Ontario, Canada.

Inner City Family Health Team (ICFHT)

2015 Jan - 2019 Oct	**President**, Board of Directors, Toronto, Ontario, Canada.
2013 Oct - 2015 Jan	**Member**, Board of Directors, Toronto, Ontario, Canada.
2011 Jul - 2013 Oct	**Chair**, Board of Directors, Toronto, Ontario, Canada.

Inner City Health Associates (ICHA)

2011 Jul - 2014 Sep	**Chair**, Board of Directors, Toronto, Ontario, Canada.

St. Michael's Hospital

2011 Jan - 2013	**Member**, St. Michael's Hospital Research Advisory Committee, Toronto, Ontario, Canada.
2011 Jan - 2011 Dec	**Chair**, Li Ka Shing Knowledge Institute, Internal Scan Working Group on Knowledge Translation/Policy Research/Disadvantaged Populations, Toronto, Ontario, Canada.
2010 Nov - 2017 Dec	**Member**, Li Ka Shing Knowledge Institute Reappointments Committee

2009 Apr - 2009 Jun	**Member**, Search Committee for Physician-in-Chief, St. Michael's Hospital
2009 Feb - 2009 Apr	**Member**, Five-Year Review Committee for Dr. Patricia O'Campo, Ricard Chair of Inner City Health and Director, Centre for Research on Inner City Health, St. Michael's Hospital
2000 Jul - 2003 Jun	**Member**, Postgraduate Medical Education Committee, St. Michael's Hospital, Faculty of Medicine, Dept of Medicine
2000 Jul - 2003 Jun	**Coordinator**, Postgraduate Education, Division of General Internal Medicine, St. Michael's Hospital
1997 - 2001	**Member**, Research Operations Committee, St. Michael's Hospital
1996 Jan - 2009 Jun	**Member**, Homeless and Underhoused Community Advisory Panel, St. Michael's Hospital

Street Health Community Nursing Foundation

2006 Jan - 2009 Jun	**Member**, Street Health Survey - Community Advisory Committee, Toronto, Ontario, Canada.

The Hospital for Sick Children

2009 May - 2009 Jun	**Member**, External Review Committee, Division of Paediatric Medicine

Unity Health Toronto

2019 Jan - present	Research Ethics Board, Toronto, Ontario, Canada.

University of Toronto

2013 Dec - 2014 Jun	**Member**, Review and Search Committee, Chair, Division of General Surgery, Toronto, Ontario, Canada.

Peer Review Activities

EDITORIAL BOARDS

Editorial Board Member

2009 May - 2012 Apr	Society of General Internal Medicine, Journal of General Internal Medicine

GRANT REVIEWS

External Grant Reviewer

2009	Ontario HIV Treatment Network (OHTN), Community Based Research Capacity Building Fund, Number of Reviews: 1
2009	Winnipeg Health Sciences Centre Foundation, Number of Reviews: 1
2008	Michael Smith Health Research Foundation, British Columbia, Number of Reviews: 1
2005	Ontario HIV Treatment Network (OHTN), Number of Reviews: 1
2004	Canadian Foundation for AIDS Research (CANFAR), Number of Reviews: 1
2004	Ontario Ministry of Health and Long Term Care, Health Research Personnel Development Program, Number of Reviews: 1
2002 - 2004	The Physicians' Services Incorporated Foundation, Ontario, Number of Reviews: 2
2001 - 2007	Michael Smith Health Research Foundation, British Columbia, Number of Reviews: 4

Reviewer

2014	Guy's and St. Thomas' Charity, United Kingdom, Number of Reviews: 1
2013	United States Department of Veterans Affairs, Cooperative Studies Program (CSP) Letter of Intent (LOI), Number of Reviews: 1
2010	United States Department of Veterans Affairs, Health Services Research and Development

	Service, Special Research Proposal Review Panel on Ending Homelessness Among Veterans. Number of Reviews: 1
2004 - 2007	Canadian Institutes of Health Research, Health Research Salary A Peer Review Committee (New Investigator Awards), Number of Reviews: 120
2003 - 2004	Canadian Institutes of Health Research, Health Disparities Initiative Peer Review Committee, Number of Reviews: 40

MANUSCRIPT REVIEWS

Reviewer	
2021	American Journal of Public Health, Number of Reviews: 1
2021	Annals of Internal Medicine, Number of Reviews: 1
2021	Journal of General Internal Medicine, Number of Reviews: 1
2020	American Heart Association (AHA) Statements, Number of Reviews: 1
2020	Annals of Internal Medicine, Number of Reviews: 1
2020	British Journal of Psychiatry, Number of Reviews: 1
2020	Health Services Research, Number of Reviews: 1
2020	New England Journal of Medicine, Number of Reviews: 1
2019	AIDS Care, Number of Reviews: 1
2019	Annals of Internal Medicine, Number of Reviews: 1
2019	Canadian Journal of Public Health, Number of Reviews: 1
2019	Health & Social Care in the Community, Number of Reviews: 1
2019	Health Services Research, Number of Reviews: 1
2019	Social Psychiatry and Psychiatric Epidemiology, Number of Reviews: 1
2018	Health & Social Care in the Community, Number of Reviews: 1
2016	Health Services Research, Number of Reviews: 1
2015	Journal of General Internal Medicine, Number of Reviews: 1
2015	Journal of Urban Health, Number of Reviews: 1
2014	American Journal of Public Health, Number of Reviews: 1
2014	BMC Health Services Research, Number of Reviews: 1
2014	Journal of Neurotrauma, Number of Reviews: 1
2013	Canadian Medical Association Journal, Number of Reviews: 2
2013	Trials, Number of Reviews: 1
2012	Journal of Urban Health, Number of Reviews: 2
2011	Annals of Internal Medicine, Number of Reviews: 1
2011	BMC Research Notes, Number of Reviews: 1
2011	Journal of General Internal Medicine, Number of Reviews: 1
2010	Canadian Journal of Urban Research, Number of Reviews: 1
2010	Journal of General Internal Medicine, Number of Reviews: 1
2009	JAMA, Number of Reviews: 1
2008	International Journal of Epidemiology, Number of Reviews: 1
2008	JAMA, Number of Reviews: 1
2008	Journal of Urban Health, Number of Reviews: 1
2008	Medical & Veterinary Entomology, Number of Reviews: 1
2008	Milbank Quarterly, Number of Reviews: 1
2007	JAMA, Number of Reviews: 2
2007	Journal of Hospital Medicine, Number of Reviews: 1

2007	Open Medicine, Number of Reviews: 1
2007	Seminars in Medical Practice, Number of Reviews: 1
2006	BMC Health Services Research, Number of Reviews: 1
2006	Emerging Infectious Diseases, Number of Reviews: 1
2005 - 2007	American Journal of Public Health, Number of Reviews: 2
2005 - 2007	Canadian Journal of Public Health, Number of Reviews: 2
2003 - 2006	JAMA, Number of Reviews: 4
2003 - 2006	Journal of General Internal Medicine, Number of Reviews: 3
2003	The Lancet, Number of Reviews: 1
2002 - 2006	Canadian Medical Association Journal, Number of Reviews: 6
2002	International Journal for Quality in Health Care, Number of Reviews: 1
2001 - 2007	Journal of Urban Health, Number of Reviews: 4
2001	Lancet Infectious Disease, Number of Reviews: 1
2000 - 2001	Acta Psychiatrica Scandinavica, Number of Reviews: 4
1999 - 2006	Annals of Internal Medicine, Number of Reviews: 8
1999	Journal of Health Care for the Poor and Underserved, Number of Reviews: 1

External Scientific Report Reviewer

2007	Canadian Institute for Health Information, Canadian Population Health Initiative, Number of Reviews: 1

SCIENTIFIC ABSTRACT REVIEWS

Member

2012 Oct - 2013 Jan	Society of General Internal Medicine 2013 Annual Meeting, Health Disparities & Vulnerable Populations Abstract Review Committee

Chair

2013 Oct - 2014 Jan	Society of General Internal Medicine 2014 Annual Meeting, Health Disparities & Vulnerable Populations Abstract Review Committee

Conference Abstract Reviewer

2008	7th International Conference on Urban Health, Vancouver 2008, Number of Reviews: 38

C. Academic Profile

1. RESEARCH STATEMENTS

Description of Research Program.
My research program focuses on the connections between homelessness, housing, and health. Our objectives are to develop, evaluate, and scale up interventions to improve the health and well-being of people who are homeless or unstably housed, and interventions to end homelessness itself.

D. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDED

2022 Feb - 2024 Jan

Co-Investigator. Health equity during the pandemic recovery period: Updated knowledge syntheses, policy tracking and health outcome monitoring. Canadian Institutes of Health Research (CIHR). Operating Grant:Addressing the Wider Health Impacts of COVID. PI: Persaud, Navindra. Collaborator(s): Co-Principal Applicants: Adams O, Lofters A. Co-Applicants: **Hwang S**, Pinto A, Sayani A. 184,134 CAD. [Grants]

2022 - 2027

Co-Investigator. The Canadian Observatory on Homelessness - Mobilizing Partnerships to Prevent and End Homelessness. Social Sciences and Humanities Research Council of Canada (SSHRC). Partnership Grant. PI: Gaetz, Stephen. [Grants]

2022 - 2023

Co-Investigator. Social isolation, loneliness and causes of early death among adults with histories of homelessness who transitioned into urban supportive housing in Toronto. Social Sciences and Humanities Research Council of Canada (SSHRC). Insight Grant. PI: Lachaud, James. Collaborator(s): **Hwang SW**, Jenkinson J, Mejia-Lancheros C, O'Campo P, Woodhall-Melnik J, Perri M, Stergiopoulos V. [Grants]

2021 Dec - 2022 Nov

Co-Investigator. MARCO:POLO Marginalization & COVID-19: Promoting Opportunities for Learning & Outreach. Canadian Institutes of Health Research (CIHR). Operating Grant:Emerging COVID-19 Research Gaps & Priorities. PI: Bayoumi, Ahmed. Collaborator(s): Co-Principal Applicants: Firestone M, Boucher L, Dodd Z, Durbin A, Hayman K, Isaacs BJ, Kolla G, Matheson FI, Steer LA, Yakubovich AR, Young SV. Co-Applicants: Beder M, Brothers T, Dobrow M, Du Mont J, Holness L, Huijbregts M, **Hwang S**, Hynie M, Kendall C, Kenny K, Long C, Maguire J, Nisenbaum R, Shankardass K, Strike C, Walker D. Collaborators: Arcenal M, Delgado R, Heineck K, Lunsky Y, Marcolin A, Pepper V. 313,804 CAD. [Grants]

2021 Dec - 2022 Nov

Co-Investigator. The Surgical EQUITY initiative: Establishing equitable access to surgery following the pandemic. Canadian Institutes of Health Research (CIHR). Operating Grant:Emerging COVID-19 Research Gaps & Priorities. PI: Gomez Jaramillo, David. Collaborator(s): Co-PIs: Chan T, Sankar A. Co-Investigators: Baxter N, **Hwang S**, Irish J, Sarhangian V, Simpson A, Stukel T, Urbach D, Wijeysundera D, de Mestral C. 220,596 CAD. [Grants]

2021 Jul - 2023 Jun

Co-Investigator. Service Bans among People Experiencing Homelessness: A Timeline Mapping Study of Antecedents and Consequences. Social Sciences and Humanities Research Council of Canada (SSHRC). Insight Development Grant. PI: Kidd, Sean. Collaborator(s): **Hwang S**, Kozloff N, Marshall CA, Noble A, Stergiopoulos V, Kerman N, Polillo A. 74,885 CAD. [Grants]

2021 Jun - 2022 May

Principal Applicant. A Qualitative Exploration of Vaccine Uptake and Hesitancy Among People Experiencing Homelessness in Toronto. Canadian Institutes of Health Research (CIHR). Operating Grant:Emerging COVID-19 Research Gaps & Priorities. PI: **Hwang, Stephen**. Collaborator(s): Jenkinson J, Kiran T, Orkin A, Thulien N. 100,258 CAD. [Grants]

2021 Feb - 2022 Mar

Co-Investigator. Co-building Equity-Mobilizing Partnerships in Community (EMPaCT) to

increase impact through equitable patient-oriented partnerships in research, policy and practice. Ontario Strategy for Patient Oriented Research (SPOR) SUPPORT Unit. EMPOWER Award. PI: Sayani, Ambreen and Maybee, Alies. Collaborator(s): Lofters A, Shaw J, **Hwang S**, Bloch G, Parsons J, Gordon D, Chandra S, Corrado AM, Manthorne J, Nicholson E. 25,000 CAD. [Grants]

2020 Sep - 2021 Aug

Principal Applicant. The COVENANT Study: COVID-19 Cohort Study of People Experiencing Homelessness in Toronto. Canadian Institutes of Health Research (CIHR). Operating Grant: COVID-19 Rapid Research Funding Opportunity. VR5-173211. PI: **Hwang, Stephen**. Collaborator(s): Nisenbaum N, McGeer A, Mishra S, Ostrowski M, deVilla E, Dhalla I, Gingras A, Gommerman J, Jamal A, Kiran T, Lachaud J, Lee R, Mejia Lancheros C, Mubareka S, Baral S, Chris A, Agarwal A. 1,901,698 CAD. [Grants]

2020 Jul - 2024 Jun

Co-Investigator. Canadian Housing Evidence Collaborative (CHEC). Canada Mortgage and Housing Corporation (CMHC) / Social Sciences and Humanities Research Council (SSHRC). CMHC-SSHRC Housing Partnership Development Grant. PI: Dunn, James R. Collaborator(s): 41 Co-investigators. 1,135,000. [Grants]

2020 Jul - 2022 Jun

Co-Investigator. Differential Cognitive Contributions to Functional Ability and Quality of Life in Homeless Adults. Social Sciences and Humanities Research Council of Canada (SSHRC). Insight Development Grant. PI: Gicas, Kristina. Collaborator(s): Stergiopoulos V, **Hwang S**. 65,188 CAD. [Grants]

2020 Jun - 2021 May

Co-Investigator. The COVID-19 Hospital Analytics Laboratory: Improving the Clinical, Organizational, and System Response to COVID-19. Canadian Institutes of Health Research (CIHR). Operating Grant: COVID-19 Rapid Research Funding Opportunity. PI: Verma A (Nominated PI). Collaborator(s): Greenberg A, Chan T, Cheung A, Ghassemi M, Herridge M, Mamdani M, Razak F, Rosella L (Co-PI); Ahmed A. Appleton A, Azzam K, Bell C, Chignell M, Clifford P, Cram P, Daneman N, Desveaux L, Dhalla I, Diamant A, Edelstein B, Fralick M,Gill S, Grimshaw J, Hadfield G, Hawker G, Hussein H, **Hwang SW**, Ivers N, Jensen L, Kandel C, Kapral M, Kwan J, Lapointe-Shaw L, Leis J, Liu J, Lubbers S, MacFadden D, MacMillan T, Manuel D, Marville-Williams C, Mishra S, Muller M, Ng V, et.al. (Co-I). 2,010,000 CAD. [Grants]

2020 May - 2023 May

Co-Investigator. Improving access to lung cancer screening in the underserved, and building capacity for future cancer patient oriented research in Canada. Canadian Institutes of Health Research (CIHR). Patient-Oriented Research Grant. PI: Sayani, Ambreen. Collaborator(s): Lofters A, **Hwang S**, Bloch G, Parsons J, Manthorne J, Nicholson E. 22,500 CAD. [Grants]

2020 May - 2021 Apr

Co-Investigator. The Effects of the COVID-19 Pandemic Response for People who are Marginalized. University of Toronto, Toronto COVID-19 Action Imitative. PI: Bayoumi, Ahmed M. Collaborator(s): Caudarella A, Du Mont J, Durbin A, Firestone M, Holness L, **Hwang S**, Maguire J, Mason R, Matheson F, Nisenbaum R, O'Campo P, Persaud N, Strike C, Werb D, Kolla G, Long C, Young S, Beder M, Dell E, Vozzolo B, Brillinger C, Davis S, Klaiman M, Schlosser L, Younie K, Raybourne R, Sheth P, Steer L, Hewitt T, Heineck K, Lunsky Y, Ibrahim S, John J, Thompson C, Kenny K, Brothers T, Dodd Z, Kendall C, Mawani F, Yakubovich A. 250,000 CAD. [Grants]

2020 May - 2020 Nov

Co-Investigator. Pandemic-Proof: Synthesizing Real-World Knowledge of Promising Mental Health and Substance Use Practices for Young People Who Are Experiencing or Have Experienced Homelessness. Canadian Institutes of Health Research (CIHR). Operating Grant: Knowledge Synthesis: COVID-19-Mental Health. PI: Thulien N, Noble A. Collaborator(s): **Hwang S**, Kidd S. 49,548 CAD. [Grants]

2019 Sep - 2021 Sep **Co-Investigator**. Phenobarbital for the management of severe acute alcohol withdrawal syndrome: The PHENOMANAL Trial. St. Michael's Hospital. Department of Medicine Priorities Fund. PI: Burns, Karen E.A. Collaborator(s): Filewod N, **Hwang S**, Ailon J, Caudarella A, Lamba W, Gray S, Klaiman M. 50,000. [Grants]

2019 Apr - 2027 Mar **Principal Investigator**. Interventions Research in Homelessness, Housing, and Health. Canadian Institutes of Health Research (CIHR). Foundation Grant. Collaborator(s): Aubry T, Dunn J, Fabreau G, Gaetz S, Heineck K, Isaranuwatchai W, Nisenbaum R, Palepu A, Raine L, Richter T, Stergiopoulos V, Thulien N, Watson K. 3,972,033 CAD. [Grants]

2019 Apr - 2020 Mar **Co-Investigator**. Housing for All Canadians. Social Sciences and Humanities Research Council of Canada (SSHRC). Partnership Development Grant. PI: Dunn, James. Collaborator(s): Harris R, Gabel C, Dion M, Baker-Collins S, Fudge Schormans A, Van Der Linden C, Woodhall J, **Hwang S**, Riva M, Evans J, Collins D, Moos M, Amborski D, Baker E, Leishman C, Suttor G, Gurstein P, Smith M, Pomeroy S, Smetanin P, Barata P, Dewling G, Johnson P, Nord P, Rolfe S. 80,000 CAD. [Grants]

2018 Oct - 2019 Sep **Co-Investigator**. Women, Victimization, and Homelessness: Towards a conceptual model to advance trauma- and violence-informed research, policy and practice. Canadian Institutes for Health Research (CIHR). Project Grant. PI: Frankish, James and Abbott, Janet. Collaborator(s): Eiboff F, **Hwang S**, Krausz R, Martin R, Nicholls T, O'Campo P, Strehlau V, Torchalla I. 68,850. [Grants]

2017 Oct - 2020 Sep **Principal Investigator**. Improving Support Systems and Health Outcomes for People Experiencing Homelessness. Ontario Ministry of Health and Long-Term Care. Health System Research Fund. Collaborator(s): Vicky Stergiopoulos. 2,087,998 CAD. [Grants]

2017 Jul - 2018 Nov **Principal Investigator**. Evaluation Services for the Ontario Basic Income Pilot. Ministry of Community and Social Services. Collaborator(s): **Hwang S**, Dunn J (Co-Lead) O'Campo P, Gabel C, Downey B, Pinto A, Tarride J, Lewchuk W (Co-Principal Investigators) Jüni P, Glazier R, Persaud N, Tarasuk V, Kurdyak P, Coulombe S, Oreopoulos P, Kroft K, Forget E, Sweetman A, Myers K, Aratangy T, Shankardass K, Upshur R, Smith B, Rosella L, Bayoumi AM, Isanaranuwatchi W, Zuberi D, Fudge-Schormans A, Boyle M, Siddiqi A, King M (Co-Investigators). 2,460,000 CAD. [Grants]

2017 Mar - 2021 Mar **Co-Investigator**. CLEAN Meds RCT: Carefully seLected and Easily Accessible at No charge Medications. Canadian Institutes of Health Research (CIHR). SPOR Innovative Clinical Trial Multi-Year Grant. PI: Persaud, Nav. Collaborator(s): Mitchell C, Laupacis A, Nicholas A, Boozary A, Glazier R, Gomes T, **Hwang S**, Jüni P, Law M, Mamdani M, Manns B, Martin D, Morgan S, Oh P, Pinto A, Shah B, Sullivan F, Thorpe K, Tu K. 1,065,001 CAD. [Grants]

2017 Mar - 2021 Mar **Co-Investigator**. Betting on housing: Women, problem gambling and homelessness. Social Sciences and Humanities Research Council of Canada (SSHRC). Insight Grants. 435-2017-0716. PI: Matheson, Flora. Collaborator(s): Woodhall-Melnik J, Guilcher SJT, **Hwang SW**, Hahmann TE. 252,387 CAD. [Grants]

2016 Apr - 2019 Mar **Co-Investigator**. Optimizing Support and Service Delivery for Problem Gambling Among People Living with Complex Needs. Ontario Ministry of Health and Long-Term Care. Health System Research Fund. PI: Matheson, Flora & Guilcher, Sara. Collaborator(s): **Stephen Hwang**, Nigel Turner, Chris McKillop, Stuart Watt, Wayne Skinner. 749,185. [Grants]

2016 Jan - 2019 Dec **Co-Investigator**. CLEAN Meds RCT: The impact of providing carefully selected essential medications at no charge to primary care patients. Ontario Strategy for Patient-Oriented Research (SPOR) Support Unit. Targeted IMPACT Award. PI: Persaud, Nav & Shah, B. Collaborator(s): J Abelson, M Bedard, S Booker, A Boozary, M Evans, R Glazier, T Gomes,

S Hwang, S Ikura, A Laupacis, M Law, M Mamdani, B Manns, D Martin, S Morgan, D Morisette, P Oh, A Pinto, F Sullivan, K Thorpe, K Tu. 1,000,000. [Grants]

2015 Oct - 2017 Sep

Co-Investigator. Elucidating the health care utilization of people who experience detention or incarceration in provincial facilities in Ontario: a population-based study. Physicians Services Inc. Health Research Grant. PI: Kouyoumdjian, Fiona. 77,000. [Grants]

2015 Jul - 2022 Jun

Co-Investigator. Improving Mental Health Care for High Risk and Disadvantaged Populations: Evidence to Inform Policy and Practice. Canadian Institutes for Health Research (CIHR). Foundation Scheme. PI: Stergiopoulos V. Collaborator(s): **Hwang S**, Goering P, Bowlby A, Chodos H. 1,427,647. [Grants]

2015 May - 2016 Apr

Co-Principal Investigator. Understanding the health impact of extreme temperatures on homeless populations with a view to enhancing Toronto's extreme weather plans and responses: Developing a research proposal. University of Toronto Dalla Lana School of Public Health, The Wellesley Institute, and Toronto Public Health. Healthier Cities and Communities Hub Seed Grant. PI: Bassil, Kate. Collaborator(s): **SW Hwang**, S Gower, A Wainberg, M Kim. 9,861. [Grants]

2015 Apr - 2017 Mar

Co-Investigator. Effects of the Regent Park Housing Redevelopment on Mental Health: Medium-Term Effects of a Population Health Intervention. Canadian Institutes of Health Research (CIHR). Population Health Intervention Research. PI: Dunn, James. Collaborator(s): Co-Investigators: **S. Hwang**, M. Janus, F. Matheson, R Moineddin, C. Muntaner, P. O'Campo. 198,878. [Grants]

2015 Jan - 2015 Dec

Co-Investigator. Understanding the Landscape of Youth Mental Health: Engaging Youth in an Interactive World Café. Canadian Institutes of Health Research (CIHR). Planning and Dissemination Grant. PI: Woodhall-Melnik, Julia. Collaborator(s): Co-Principal Investigator: F.I. Matheson. Co-Investigators: S. Guilcer, P. Ferentzey, W. Skinner, **S. Hwang**, N. Turner. 12,500. [Grants]

2015 Jan - 2015 Dec

Co-Investigator. Defining Gender-Specific Health Research Priorities for Youth Facing Homelessness. Canadian Institutes of Health Research (CIHR). Planning and Dissemination Grant. PI: Matheson, Flora. Collaborator(s): Co-Principal Investigator: J. Woodhall-Melnik. Co-Investigators: S. Guilcer, P. Ferentzey, W. Skinner, **S.W. Hwang**, N. Turner. 10,000. [Grants]

2014 Oct - 2019 Sep

Co-Investigator. Examining the interplay between victimization, justice involvement and housing among homeless mentally ill men and women: A longitudinal study. Canadian Institutes of Health Research (CIHR). Open Operating Grant. PI: Nicholls, Tonia. Collaborator(s): A.G. Crocker, **S.W. Hwang**, R.M. Krausz, E.A. Latimer, L. Roy, J. Somers. 774,958. [Grants]

2014 Jul - 2018 Jun

Co-Investigator. Does subsidized housing improve mental health? GTA West Housing and Health Study Renewal. Canadian Institutes of Health Research (CIHR). Open Operating Grant. PI: Dunn, James. Collaborator(s): P. O'Campo, C. Muntaner, R. Moineddin, **S. Hwang**, F. Matheson, M. Janus. 995,877. [Grants]

2014 Jul - 2015 Jun

Co-Investigator. Defining priorities and creating a network for prisoner health research in Canada. Canadian Institutes of Health Research (CIHR). Planning Grant. PI: Kouyoumdjian, Fiona. Collaborator(s): G. Brown, **S. Hwang**, L. Kiefer, F. Matheson, D. Silva. 24,890. [Grants]

2013 Oct - 2018 Sep

Co-Principal Investigator. A Randomized Controlled Trial of Housing First for Homeless People with Mental Illness: Long-term Outcomes. Canadian Institutes of Health Research

(CIHR). Operating Grant. MOP-130405. PI: **Hwang, Stephen**,O'Campo P, Stergiopoulos V. Collaborator(s): A. Bayoumi, P. Goering, R. Nisenbaum, S. Tsemberis. 1,984,383. [Grants]

2013 Oct - 2017 Sep

Co-Investigator. Our Health Counts Toronto: Developing a Population Based Urban Aboriginal Cohort to Assess and Enhance Individual, Family, and Community Health and Wellbeing. Canadian Institutes for Health Research (CIHR). Operating Grant. PI: Smylie, Janet. Collaborator(s): SE Booth, C Bourgeois, SH Wolfe, B Allan, M Firestone, P Fleiszer, D Gesink, RH Glazier, HA Howard, **SW Hwang**, R Nisenbaum, PJ O'Campo, M Snyder. 992,183. [Grants]

2013 May - 2014 Jul

Co-Investigator. Problem Gambling and Housing Instability. Ontario Problem Gambling Research Centre. Standard Research Awards. PI: Matheson, Flora. Collaborator(s): **S.W. Hwang**, P. Ferentzy, W.J. Skinner. 101,346. [Grants]

2013 Mar - 2014 Feb

Co-Investigator. Does subsidized housing improve mental health and healthy child development? GTA West Housing and Health Study Renewal. Canadian Institutes of Health Research (CIHR). Operating Grant - Population Health Interventions. PI: Dunn, James. Collaborator(s): **S. Hwang**, M. Janus, F. Matheson, R. Moineddin, C. Muntaner, P. O'Campo. 100,000. [Grants]

2012 Jul - 2019 Jun

Co-Investigator. Canadian Observatory on Homelessness: Creating Policy Impact. Social Sciences and Humanities Research Council of Canada (SSHRC). Partnership Grant. PI: Gaetz, Stephen. Collaborator(s): T Aubry, S Baker Collins, Y Belanger, C Bellot, CJ Charette, J Distasio, MP Eberle, C Forchuk, P Goering, JR Graham, R Hurtubise, **SW Hwang**, JM Karabanow, KA Kovacs Burns, DS McCormack, PM Menzies, J Mosher, WL O'Grady, B Pauly, VA Preston, S Shapson, AI Tanasescu Turner, WE Thurston, JL Waegemakers Schiff. 2,500,000. [Grants]

2012 Apr - 2015 Mar

Co-Investigator. The effectiveness of a brief intervention on improving health outcomes for homeless people with unmet health needs. Canadian Institutes of Health Research (CIHR). Partnerships for Health System Improvement. PI: Stergiopoulos, Vicky. Collaborator(s): D. Wasylenki, J. Durbin, **S. Hwang**, R. Nisenbaum, P. O'Campo, J. Tepper. 343,000. [Grants]

2012 Apr - 2015 Mar

Co-Investigator. Increasing Access to Mental Health Services for Street-Involved Youth: The Effectiveness of a Theory-based Multicomponent Resilience and Motivational Intervention. Canadian Institutes of Health Research (CIHR). Partnerships for Health System Improvement. PI: McCay, Elizabeth. Collaborator(s): C. Howes, B. Ferguson, J. Henderson, W. Horton, J. Hughes, **S. Hwang**, J. Karabanow, S. Kidd, J. Langley, B. MacLaurin, I. Manion, S. Quesnel, E. Saewyc, E. Santa Mina, J. Schwind, A. Aiello, K. Ginsburg, D. Soenen. 217,140. [Grants]

2012 Apr - 2014 Mar

Co-Investigator. Picturing foster care: A photo voice evaluation of three different fostering models and their implications for perinatal care provision. Canadian Institutes of Health Research (CIHR). Operating Grant. PI: Parsons, Janet. Collaborator(s): K. Boydell, **S. Hwang**, P. O'Campo, A. Scott, S. Sridharan. 257,496. [Grants]

2012 Apr - 2014 Mar

Principal Investigator. Advancing the Health and Housing in Transition (HHiT) Study: An extended four-year follow-up of the health of homeless and vulnerably housed adults in three Canadian cities. Canadian Institutes of Health Research (CIHR). Operating Grant. MOP-86765. Collaborator(s): T. Aubry, S. Farrell, A. Palepu, J. Dunn, J. Hoch, A. Hubley, J. Hulchanski, F. Klodawsky, R. Nisenbaum. 1,111,930. [Grants]

2012 Mar - 2014 Feb

Principal Investigator. Population Health Interventions to End Homelessness. Canadian Institutes of Health Research (CIHR). Operating Grant: Population Health Intervention Research. GIR-120511. Collaborator(s): T. Aubry, C. Benoit, J. Dunn, S. Farrell, J. Hoch, A.

Hubley, J. Hulchanski, F. Klodawsky, B. MacLaurin, A. Palepu, M. Shapcott, V. Stergiopoulos, C. Worthington. 200,000. [Grants]

2011 Oct - 2012 Sep

Co-Investigator. Clarifying the link between traumatic brain injury and homelessness: a planning workshop. Canadian Institutes of Health Research (CIHR). Meetings, Planning and Dissemination Grant: Planning Grant. PI: Topolovec-Vranic, Jane. Collaborator(s): Angela Colantonio, Michael Cusimano, **Stephen Hwang**, Pia Kontos, M. Donna Ouchterlony, Vicky Stergiopoulos. 24,837. [Grants]

2011 Jul - 2012 Jun

Co-Investigator. Meeting, Planning, and Dissemination Grant: A Resilience and Strengths-based Intervention to Promote Engagement, Positive Development and Reduce Risk in Street-involved Youth. Canadian Institutes of Health Research (CIHR). PI: McCay, Elizabeth. Collaborator(s): C. Howes, M. McDonald, S. Quesnel, K. Ginsburg, T. Guimond, S. Kidd, J. Hughes, **S. Hwang**, J. Karabanow, J. Langley, B. MacLaurin, E. Saewyc, E. Santa Mina, J. Scwind, A. Aiello. 24,800. [Grants]

2010 Nov - 2011 Mar

Principal Investigator. Development Grant for the preparation of a CIHR Programmatic Grant Proposal “Population Health Interventions to Reduce Homelessness and Improve Health”. Canadian Institutes for Health Research (CIHR). Collaborator(s): Tim Aubry, Susan Farrell, Anita Hubley, Fran Klodawsky, Anita Palepu, Catherine Worthington (Co-Investigators). 15,000. [Grants]

2010 Apr - 2011 Mar

Co-Investigator. Responding to H1N1 in the Context of Homelessness in Canada. Canadian Institutes of Health Research (CIHR). Operating Grant: Health Systems Research on H1N1. PI: Gaetz, Stephen. Collaborator(s): Syed Ali, John Graham, Roch Hurtubise, **Stephen Hwang**, Roger Keil, Janet Mosher, Bernadette Pauly, Jeannette Waegemakers-Schiff, Jianhong Wu. 99,975. [Grants]

2010 Jan - 2014 Dec

Co-Investigator. CIHR Team in Traumatic Brain Injury and Violence. Canadian Institutes of Health Research (CIHR). Team Grant: Strategic Teams in Applied Injury Research. TIR-103946. PI: Cusimano, Michael. Collaborator(s): Jane Topolovec-Vranic, Carolyn Snider, Charles Tator, **Stephen Hwang**, et al. 2,000,000. [Grants]

2010 Jan - 2012 Dec

Co-Investigator. Enhancement of Transitional Housing Programmes for Street-involved Youth through the Application of Dialectical Behaviour Therapy to Strengthen Resilience. Canadian Institutes of Health Research (CIHR) & the Mental Health Commission of Canada (MHCC). Partnerships for Health System Improvement (PHSI). PI: McCay, Elizabeth. Collaborator(s): Carol Howes, Madelyn McDonald, Heather Beanlands, Linda Cooper, Jean Hughes, **Stephen Hwang**, Jeff Karabanow, John Langley, Bruce MacLaurin, Shelley McMain, Susan Quesnel, Souraya Sidani, Catherine Worthington (co-investigators & decision maker partners). 329,792. [Grants]

2009 Aug - 2010 Jun

Co-Investigator. Understanding Pandemic Preparedness in the Context of the Canadian Homelessness Crisis. Canadian Institutes of Health Research (CIHR). CIHR Catalyst Grant: Pandemic Preparedness. PI: Gaetz, Stephen. Collaborator(s): Syed Ali, John Graham, Roch Hurtubise, **Stephen Hwang**, Roger Keil, Janet Mosher, Bernadette Pauly, Jeannette Waegemakers-Schiff, Jianhong Wu. 100,000. [Grants]

2009 Jul - 2012 Jun

Co-Investigator. Positive Spaces, Healthy Places - Phase IV: Monitoring and Evaluation to Understand the Health Effects of Housing Status in HIV/AIDS. Canadian Institutes of Health Research (CIHR). PI: Rourke, Sean. Collaborator(s): Saara Greene, Ruthanne Tucker, Jean Bacon, Steve Byers, **Stephen Hwang**, Jay Koornstra, Frank McGee, LaVerne Monette, Michael Sobota. 300,000. [Grants]

2009 Apr - 2015 Mar

Co-Investigator. The CIHR ACHIEVE Research Partnership: Action for Health Equity

Interventions Training Grant. Canadian Institutes of Health Research (CIHR). Strategic Training Initiative in Health Research. TGF-96566. PI: O' Campo, Patricia. Collaborator(s): Kelly Murphy (co-PI), Ahmed M Bayoumi, James Dunn, Patrick Fafard, Sarah Flicker, Richard Glazier, Jeffrey Hoch, **Stephen Hwang**, Kamran Kahn, James Lvery, Rosane Nisenbaum, Sean B Rourke, Janet K Smylie, Sanjeev Sridharan, Robb Travers, Alan Walks, Blair Whaeaton. 1,790,000. [Grants]

2009 Apr - 2013 Mar

Co-Principal Investigator. The "At Home" Research Demonstration Project in Mental Health and Homelessness --Toronto Site. Mental Health Commission of Canada / Health Canada. PI: **Stephen Hwang**, Vicky Stergiopoulos, Pat O'Campo. Collaborator(s): Sanjeev Sridharan, James Dunn, Ahmed Bayoumi, Kelly Murphy. 22,246,216. [Grants]
This project is a multi-site randomized controlled trial of Housing First and mental health support services for persons experiencing homelessness and mental illness. I am co-PI for the Toronto site, which has recruited a total of 550 study participants (300 to receive intervention and 250 to receive "treatment as usual"). Total funding for the Toronto site is $22.2 million over 4 years ($18.6 million for service delivery and $3.6 million for research and evaluation). This project has already had a major policy impact at the national level: (http://www.vancouversun.com/news/Ottawa+commits+five+more+years+funding+affordable+housing/8133648/story.html).

2009 Jan - 2009 Dec

Co-Investigator. A retrospective longitudinal cohort study comparing health services utilization and health outcomes between patients admitted to an urban tertiary care centre's family practice inpatient ward, either under their own family doctor or a previously unknown family doctor. British Columbia College of Family Physicians. PI: Chuck Wen. Collaborator(s): Garey Mazowita and **Stephen W. Hwang** (co-investigators). 7,600. [Grants]

2009 Jan - 2009 Dec

Co-Investigator. Alleviating disparities in oral health: Responding to the information needs of key decision makers. Canadian Institutes of Health Research (CIHR). DOH-87105. PI: David Locker, Carlos Quinonez. Collaborator(s): Peter Cooney, Raisa Deber, Paul Grootendorst, **Stephen Hwang**, Jeffrey Racine, S. Suri (Co-Investigators). 109,900. [Grants]

2008 Dec - 2012 Jun

Co-Investigator. Effects of the Regent Park Housing Redevelopment on Mental Health and Healthy Child Development. Canadian Institutes of Health Research (CIHR). PI: James Dunn. Collaborator(s): **Stephen Hwang**, Patricia O'Campo (co-investigators). 251,000. [Grants]

2008 Jul - 2015 Jun

Co-Investigator. Strategic Knowledge Clusters Grant: Canadian Homelessness Research Network. Social Sciences and Humanities Research Council (SSHRC). PI: Stephen Gaetz. Collaborator(s): Céline Bellot, C. James Frankish, Janet Mosher, J. David Hulchanski, Jeff Karabanow, Roch Hurtubise, **Stephen Hwang**, Tim Aubry, Uzoamaka Anucha, William O'Grady (Co-applicants); Anita Palepu, Isolde Daiski, Roger Keil, Shirley Roy, Valerie Preston (Collaborators). 2,100,000. [Grants]

2008 Apr - 2013 Mar

Co-Investigator. Effects of Social Housing on Adult and Child Mental Health: A Prospective Study in the GTA West. Canadian Institutes of Health Research (CIHR). PI: James Dunn. Collaborator(s): **Stephen Hwang**, Magdalena Janus, Flora Matheson, Rahim Moineddin, Carles Muntaner, Patricia O'Campo (Co-Investigators). 1,119,795. [Grants]

2008 Apr - 2012 Mar

Principal Investigator. The Health and Housing in Transition (HHiT) Study: A Longitudinal Study of the Health of Homeless and Vulnerably Housed Adults in Vancouver, Toronto, and Ottawa. Canadian Institutes of Health Research (CIHR). CIHR MOP-86765. Collaborator(s): Tim Aubry, Susan Farrell, Anita Palepu (Co-Principal Investigators); James Dunn, Jeff Hoch, Anita Hubley, J. David Hulchanski, Fran Klodawsky, Rosane Nisenbaum (Co-Investigators). 1,602,472. [Grants]

2008 Jan - 2009 Mar	**Co-Principal Investigator**. A Developmental Community-Based Research Study to Investigate Factors Leading to Pregnancy and HIV Risk among Female Street Youth in Toronto. Ontario HIV Treatment Network (The) (OHTN). PI: Allison Scott & **Stephen Hwang**. Collaborator(s): Beth Hayhoe, Janet Parsons, Catherine Worthington (Co-investigators). 23,880. [Grants]
2007 Oct - 2009 Sep	**Co-Investigator**. Collaborative mental health care for the homeless: Effectiveness and cost-effectiveness of two shelter-based models. Canadian Institutes of Health Research (CIHR). CIHR PHE-85210. PI: Vicky Stergiopoulos. Collaborator(s): Carolyn Dewa, Katherine Rouleau, Donald Wasylenki (Co-Principal Investigators); Jeffrey Hoch, **Stephen Hwang**, Rosane Nisenbaum (Co-Investigators). 98,224. [Grants]
2007 Jul - 2008 May	**Principal Investigator**. A Survey of Domiciliary Hostel Program Residents in Ontario. Ontario Mental Health Foundation. 149,250. [Grants]
2006 Dec - 2007 Dec	**Co-Investigator**. Homelessness and Diversity Issues in Canada: Dissemination Grant in support of the preparation of an edited volume entitled “Finding Home: Policy Options for Addressing Homelessness in Canada”. Social Sciences and Humanities Research Council (SSHRC). PI: J. David Hulchanski. Collaborator(s): **Stephen Hwang**, Sylvia Novac (Co-Investigators). 50,000. [Grants]
2006 Jun - 2006 Nov	**Principal Investigator**. Development Grant to assist in the preparation of a full proposal entitled “CIHR Team Grant in Homelessness, Housing, and Health”. Canadian Institutes for Health Research (CIHR). CIHR CTL-80871. Collaborator(s): Tim Aubry, James Dunn, Jeff Hoch, Anita Hubley, David Hulchanski, Bruce MacLaurin, Anita Palepu, Marie Robert, Élise Roy, Jeffrey Turnbull, Catherine Worthington (Co-Investigators). 10,000. [Grants]
2006 Apr - 2011 Mar	**Principal Investigator**. Interdisciplinary Capacity Enhancement Grant in Homelessness, Housing, and Health. Canadian Institutes of Health Research (CIHR). CIHR HOA-80066. Collaborator(s): Tim Aubry, James Dunn, Jeff Hoch, Anita Hubley, David Hulchanski, Bruce MacLaurin, Anita Palepu, Marie Robert, Élise Roy, Jeffrey Turnbull, Catherine Worthington (Co-Investigators). 820,000. [Grants]
2006 Apr - 2009 Mar	**Collaborator**. Hospice and Homelessness in Canada. Social Sciences and Humanities Research Council (SSHRC). PI: Manal Guirguis-Younger. Collaborator(s): Frances Legault, Tim Aubry (Co-Investigators); **Stephen Hwang**, Jeff Turnbull, Vivien Runnels (Collaborators). 85,845. [Grants]
2006 Apr - 2007 Feb	**Principal Investigator**. The Effects of Supportive Housing on the Health Status and Service Utilization of Homeless and Hard-to-House Adults. The Wellesley Institute. Collaborator(s): Tim Aubry, Jim Dunn, Jeff Hoch (Co-Investigators); Joseph Taylor, Marcella Fresolone (Collaborators). 40,000. [Grants]
2005 Jul - 2006 Jun	**Co-Investigator**. Access to Primary Care for the Homeless: A Synthesis of Research Evidence on Effective Practices. Canadian Institutes for Health Research (CIHR). PI: Samuel Shortt. Collaborator(s): **Stephen Hwang**, Heather Stuart (Co-Investigators). 64,900. [Grants]
2005 Jul - 2005 Nov	**Principal Investigator**. Development Grant to assist in the preparation of a full proposal entitled “CIHR Interdisciplinary Capacity Enhancement Grant in Homelessness, Housing, and Health”. Canadian Institutes for Health Research (CIHR). CIHR HDD-77939. Collaborator(s): Tim Aubry, James Dunn, Jeff Hoch, Anita Hubley, David Hulchanski, Bruce MacLaurin, Anita Palepu, Marie Robert, Élise Roy, Jeffrey Turnbull, Catherine Worthington (Co-Investigators). 5,000. [Grants]
2005 Jun - 2007 May	**Co-Principal Investigator**. Attitudes of Medical Trainees Towards Homeless Persons

Presenting for Care in the Emergency Department. The Physicians' Services Incorporated (PSI) Foundation. PI: Julie Spence and **Stephen Hwang**. Collaborator(s): Glen Bandiera (Co-Investigator). 94,000. [Grants]

2005 Jun - 2006 Mar

Principal Investigator. Development Grant to assist in the preparation of a full proposal entitled "CIHR Team Grant in Homelessness, Housing, and Health". Canadian Institutes for Health Research (CIHR). CIHR CTL-77144. Collaborator(s): Tim Aubry, James Dunn, Jeff Hoch, Anita Hubley, David Hulchanski, Bruce MacLaurin, Anita Palepu, Marie Robert, Élise Roy, Jeffrey Turnbull, Catherine Worthington (Co-Investigators). 10,000. [Grants]

2005 Apr - 2008 Mar

Co-Investigator. A prospective study to explore the impact of housing support and homelessness on the health outcomes of people living with HIV/AIDS in Ontario. Canadian Institutes for Health Research (CIHR). CIHR CBR-75568. PI: Ruthann Tucker and Saara Greene. Collaborator(s): Steve Byers, James Dunn, Dale Guenter, **Stephen Hwang**, Jay Koornstra, LaVerne Monette, Lea Narciso, Sean Rourke, Michael Sobota (Co-Investigators). 300,000. [Grants]

2004 Jul - 2005 Jun

Co-Investigator. Nature and Extent of Inappropriate Living Environments for Adults with Moderate to Severe Acquired Brain Injury. Ontario Neurotrauma Foundation. PI: Angela Colantonio. Collaborator(s): Peter Coyte, **Stephen Hwang**, Audrey LaPorte, Bruce Christensen, Bonnie Kirsh, Charissa Levy, Teresa Chiu, Diana Clarke, Carolyn Abramowitz (Co-Investigators). 150,000. [Grants]

2004 Jul - 2005 Jun

Co-Investigator. Development of a quality of life instrument for homeless persons and street youth. Canadian Institutes for Health Research (CIHR). PI: Anita Palepu and Anita Hubley. Collaborator(s): Tim Aubry, Ahmed Bayoumi, **Stephen Hwang**, Elise Roy (Co-Investigators). 60,160. [Grants]

2004 Mar - 2005 Aug

Co-Principal Investigator. The Effect of the Ontario Severe Acute Respiratory Syndrome (SARS) Outbreak on Population Mortality. Canadian Institutes for Health Research (CIHR). CIHR SAR-67802. PI: **Stephen Hwang** and Chaim Bell. Collaborator(s): Angela Cheung, Rahim Moineddin (Co-Investigators). 51,593. [Grants]

2003 Sep - 2006 Sep

Principal Investigator. Health Care Utilization among Homeless People. Agency for Healthcare Research and Quality (AHRQ). 1 RO1 HS014129-01. Collaborator(s): Wendy Levinson, Don Redelmeier, John Paul Szalai, George Tolomiczenko (Co-Investigators). 667,788 USD. [Grants]

2003 Jul - 2009 Jun

Co-Investigator. An Integrated Training Program in Health and Social Science Research to Improve the Health of Marginalized Populations. Canadian Institutes of Health Research (CIHR). CIHR STO-64598. PI: Wendy Levinson, Andreas Laupacis, Joan Eakin. Collaborator(s): Richard Glazier, **Stephen Hwang**, Alex Jadad, Prabhat Jha, Donald Redelmeier, Harvey Skinner, Donald Wasylenki (Co-Investigators). 1,350,000. [Grants]

2003 Jul - 2007 Jun

Co-Investigator. Health services utilization in a concentrated urban setting: A population-based analysis of trends over time. Canadian Institutes for Health Research (CIHR). CIHR MOP-15693. PI: Richard Glazier. Collaborator(s): Mohammad Agha, Elizabeth Badley, **Stephen Hwang**, Flora Matheson, Rahim Moineddin, Leah Steele (Co-Investigators). 630,092. [Grants]

2003 Jul - 2004 Jun

Principal Investigator. REACH3: Research Alliance for Canadian Homelessness, Housing, and Health. Canadian Institutes for Health Research (CIHR). CIHR HDP-63062. Collaborator(s): Tim Aubry, James Dunn, Anita Palepu, Élise Roy, Alan Shiell, Jeffrey Turnbull (Co-Investigators). 100,000. [Grants]

2003 Mar - 2006 Mar **Principal Investigator**. Health Care Utilization among Homeless People. Canadian Institutes for Health Research (CIHR). CIHR MOP-62736. Collaborator(s): Wendy Levinson, Don Redelmeier, John Paul Szalai, George Tolomiczenko (Co-investigators). 261,328. [Grants]

2002 Jul - 2003 Jun **Co-Investigator**. Housing as a Socio-economic Determinant of Health: A needs, gaps, and opportunities assessment for research. Canadian Institutes for Health Research (CIHR), Institute of Population and Public Health. CIHR NGO-54119. PI: James Dunn. Collaborator(s): Michael Hayes, David Hulchanski, **Stephen Hwang**, Louise Potvin (Co-Investigators). 97,900. [Grants]

2001 Feb - 2003 Mar **Principal Investigator**. A Community-Based Program to Promote Cervical Cancer and Breast Cancer Screening in Homeless Women. Ontario Women's Health Council. Collaborator(s): Angela Cheung, Eva Mocarski (Co-Investigators). 622,650. [Grants]

1999 Jul - 2003 Jun **Co-Investigator**. Trends in Health Services Utilization in a Concentrated Urban Setting, 1991-2003. Medical Research Council of Canada. MRC MT-15693. PI: Richard Glazier. Collaborator(s): Robin Badgley, Elizabeth Badley, Marsha Cohen, **Stephen Hwang**, Dianne Patychuk (Co-Investigators). 158,140. [Grants]

1999 Jul - 2000 Jun **Co-Investigator**. Changes in the Demographic Composition and Health Status of Immigrant Populations in Toronto's Inner City: Time Trend Analysis and Innovative Mapping. Joint Centre of Excellence for Research on Immigration and Settlement – Toronto (CERIS). PI: Richard Glazier. Collaborator(s): Carl Amrhein, Marsha Cohen, Elizabeth Badley, Robin Badgley, **Stephen Hwang**, Byron Moldofsky, Rob Wright, David Buckeridge, Nita Chaudhry (Co-Investigators). 40,000. [Grants]

1998 Jul - 2001 Jun **Co-Investigator**. Effects of Restructuring the Health System on Equity and Access for a Vulnerable Inner City Population: A Time Trend Analysis 1991-2001. National Health Research and Development Program. PI: Richard Glazier. Collaborator(s): Robin Badgley, Elizabeth Badley, Marsha Cohen, Vivek Goel, **Stephen Hwang**, Michael Mendelson (Co-Investigators). 149,892. [Grants]

1998 Jul - 2001 Jun **Co-Investigator**. The Health Effects of Reductions in Welfare Payments and Hospital Closures on Immigrant Populations in Southeast Toronto: A Ten Year Time Trend Analysis. Joint Centre of Excellence for Research on Immigration and Settlement - Toronto. PI: Richard Glazier. Collaborator(s): Marsha Cohen, Elizabeth Badley, Robin Badgley, Vivek Goel, **Stephen Hwang**, Michael Mendelson (Co-Investigators). 45,000. [Grants]

1998 Jul - 2000 Jun **Principal Investigator**. Determinants of Health Status in Inner City Rooming House Residents. The Connaught Foundation and the University of Toronto. Collaborator(s): George Tolomiczenko, J. David Hulchanski (Co-Investigators). 45,000. [Grants]

1997 Jul - 1999 Jun **Principal Investigator**. Health Status and Health Care Utilization in Patients Leaving the Hospital Against Medical Advice. The Physicians' Services Incorporated Foundation. Collaborator(s): Jianli Li (Co-Investigator). 16,000. [Grants]

NON-PEER-REVIEWED GRANTS

FUNDED

2012 Jan - 2013 Dec **Principal Investigator**. Probiotics for the Prevention of Clostridium difficile Infection in Hospitalized Patients. University of Toronto, Department of Medicine. Strategic Planning Innovation Fund. Collaborator(s): Valerie Palda, Susy Hota, Irfan Dhalla, David Klein, Dante Morra, Muhammad Mamdani, Kevin Thorpe, Catharine Chambers. 74,784. [Grants]

2003 Jul - 2003 Dec	**Co-Investigator**. Health, mental health, and addiction treatment needs of people who are homeless in Toronto. City of Toronto, Supporting Community Partnership Initiative (SCPI). PI: Paula Goering. Collaborator(s): Jennifer Pyke, **Stephen Hwang**, Sheryl Lindsay, George Tolomiczenko, Donald Wasylenki (Co-Investigators). 90,000. [Grants]
2002 Jul - 2003 Jun	**Co-Principal Investigator**. Models and Practices in Service Integration and Coordination for Women who are Homeless or at Risk of Homelessness. Ontario Women's Health Council. PI: **Stephen Hwang**. Collaborator(s): Deborah Hierlihy (Co-Principal Investigator). 94,969. [Grants]
2002 Jul - 2003 Jun	**Co-Investigator**. The Multidimensional Impacts of Adequate Housing: Factors that Affect Housing Stability, Service Use, and Community Integration. City of Toronto, Supporting Communities Partnership Initiative (SCPI). PI: J. David Hulchanski. Collaborator(s): **Stephen Hwang**, Lynn McDonald, Sylvia Novac, George Tolomiczenko, Valerie Tarasuk (Co-Investigators). 64,953. [Grants]
2002 Jul - 2002 Dec	**Co-Principal Investigator**. First International Conference on Inner City Health. Canadian Institutes for Health Research (CIHR). PI: **Stephen Hwang**. Collaborator(s): Ahmed Bayoumi (Co-Principal Investigator). 50,000. [Grants]
1998 Jul - 1999 Jun	**Co-Principal Investigator**. Housing and Population Health. Canada Mortgage and Housing Corporation. PI: **Stephen Hwang**. Collaborator(s): Esme Fuller-Thompson, J. David Hulchanski (Co-Principal Investigators). 45,800. [Grants]
1997 Jul - 1999 Jun	**Principal Investigator**. Mortality in a Cohort of Homeless Adults in Toronto. University of Toronto Faculty of Medicine, Dean's Fund. 10,000. [Grants]
1995 Jul - 1996 Jun	**Principal Investigator**. Risk Factors for Death in Homeless Adults in Boston. Boston University School of Medicine, Health Services Research Program. 6,500 USD. [Grants]

2. SALARY SUPPORT AND OTHER FUNDING

Personal Salary Support

2013 Jan - present	Chair in Homelessness, Housing and Health. St. Michael's Hospital and the University of Toronto. Toronto, Ontario, Canada.
2003 Mar - 2008 Feb	New Investigator Award. Canadian Institutes of Health Research. 275,000. Ottawa, Ontario, Canada.
1998 Jul - 2003 Jun	Career Scientist Award, Health Research Personnel Development Program. Ontario Ministry of Health and Long Term Care. 298,750. Toronto, Ontario, Canada.
1996 Sep - 2013 Jan	Population Health Epidemiologist. St. Michael's Hospital. Toronto, Ontario, Canada.
1994 Jul - 1996 Jun	Health Services Research Fellowship. Agency for Health Care Policy Research (AHCPR) and the Harvard School of Public Health. 90,000. Boston, Massachusetts, United States.

Trainee Salary Support

2021 Jun - 2023 Jun	CIHR Fellowship - Research & Knowledge Translation on Urban Housing and Health. Trainee Name: Jesse Jenkinson. Canadian Institutes of Health Research. 90,000. Toronto, Ontario, Canada.
2020 Apr - 2022 Mar	CIHR Fellowship - Research & Knowledge Translation on Urban Housing and Health. Trainee Name: James Lachaud. Canadian Institutes of Health Research. 90,000. Toronto, Ontario, Canada.
2013 Jul - 2016 Jun	CIHR Fellowship. Trainee Name: Fiona Kouyoumdjian, MD, PhD. Canadian Institutes of Health Research. 165,000. Ottawa, Ontario, Canada.
2012 Aug - 2017 Jul	National Institute on Drug Abuse (NIDA) Mentored Patient-Oriented Research Career Development Award (K23). Trainee Name: Travis Baggett, MD, MPH. National Institutes of Health. 840,000 USD. Bethesda, Maryland, United States.
2008 Sep - 2010 Aug	Graduate Studentship Award. Trainee Name: Allison Scott, MSc. Ontario HIV Treatment Network (OHTN). 44,000. Toronto, Ontario, Canada.
2006 Jul - 2008 Jun	CIHR Strategic Training Initiative in Health Research (STIHR) Fellowship. Trainee Name: Allison Scott, MSc. Canadian Institutes of Health Research. 50,000. Toronto, Ontario, Canada.

E. Publications

1. MOST SIGNIFICANT PUBLICATIONS

1. Stergiopoulos V, **Hwang SW**, Gozdzik A, Nisenbaum R, Latimer E, Rabouin D, Adair CE, Bourque J, Connelly J, Frankish J, Katz LY, Mason K, Misir V, O'Brien K, Sareen J, Schütz CG, Singer A, Streiner DL, Vasiliadis H-M, Goering PN, for the At Home/Chez Soi Investigators. Effect of Scattered-Site Housing Using Rent Supplements and Intensive Case Management on Housing Stability among Homeless Adults with Mental Illness: A Randomized Trial. JAMA. 2015 Mar;313(9):905-915. Impact Factor 30. **Co-Principal Author**.

   This paper reports the main outcomes of the At Home/Chez Soi Study, a randomized trial of the Housing First model for people with mental illness who are experiencing homelessness. This study is helping to change how society addresses the problem of homelessness. The study has had a substantial impact on federal and provincial programs and policies to end chronic homelessness (http://www.esdc.gc.ca/eng/communities/homelessness/housing_first/index.shtml), and it is the impetus for a MaRS proposal for a Housing First Social Impact Bond (http://www.marsdd.com/mars-library/housing-first-social-impact-bond-feasibility-study/).

2. **Hwang SW**, Burns T. Health Interventions for People who are Homeless. The Lancet. 2014 Oct;384(9953):1541-1547. Impact Factor 39.1. **Principal Author**.

   This review article was published by The Lancet as one of two featured papers on the theme of homelessness.

3. Olah ME, Gaisano G, **Hwang SW**. The Effect of Socioeconomic Status on Access to Primary Care: An Audit Study. Canadian Medical Association Journal. 2013 Apr;185(6):E256-E262. Impact Factor 9 (Trainee publication, Michelle Olah & Greg Gaisano - medical students). **Senior Responsible Author**.

   This study demonstrated that discrimination against patients of low socioeconomic status occurs within Canada's universal health insurance system. Standardized callers presenting with high socioeconomic status received preferential access to primary care over those presenting with low socioeconomic status. This study informed and stimulated the ongoing debate about physicians engaging in "cherry-picking" of patients, a contentious issue that has been a topic of concern for provincial medical regulatory authorities across Canada. This study received widespread media attention because it has important implications for the general public, policy makers, and health care providers.

   Examples of major media coverage:
   Toronto Star:
   http://www.thestar.com/life/health_wellness/2013/02/25/are_ontario_family_doctors_more_likely_to_take_on_wealthier_patients.html
   Canada AM: http://www.ctvnews.ca/health/are-family-doctors-more-likely-to-take-on-wealthy-patients-1.1170958
   The Globe and Mail: http://www.theglobeandmail.com/life/health-and-fitness/health-navigator/some-doctors-offices-play-favourites-study-finds/article9023268/
   Los Angeles Times: http://www.latimes.com/health/boostershots/la-sci-sn-rich-favored-over-poor-in-canada-healthcare-20130225,0,7927898.story
   Reuters: http://www.reuters.com/article/2013/03/07/us-canada-wealth-treatment-idUSBRE92613A20130307

   Editorials on this study:
   Toronto Star:
   http://www.thestar.com/opinion/editorials/2013/02/26/a_toronto_bias_study_shows_doctors_prefer_bankers_to_welfare_recipients_editorial.html
   Ottawa Citizen: http://www.ottawacitizen.com/opinion/editorials/Canada+tier+health+care/8025398/story.html
   Vancouver Sun:
   http://www.vancouversun.com/opinion/editorials/Editorial+rich+better+health+care/8031955/story.html

   Other media coverage included: As It Happens (CBC Radio), News 1130 radio, Huffington Post Canada, Ottawa Citizen, Edmonton Journal, Vancouver Province, Vancouver Sun, Calgary Herald, Saskatoon Star-Phoenix, PostMedia News, Regina Leader-Post, MSN.ca, CP24, CITY-TV, citynews.ca, CTVnews.ca, CBC.ca, Yahoo.ca, Yahoo.com, 680 News, The Medical Post.com, Medical Xpress, medicalnewstoday.com. medilexicon.com, Estevan (Sask.) Mercury, The (PEI) Guardian, Global Saskatoon, Global Edmonton, News Talk CKOM (Saskatoon), The Loop (Sympatico), therapeuticsdaily.com, Sun-Sentinel (Florida), Canada.com, Science Codex, Oye! Times, TopNews United States, News-Medical.net.

   Total media coverage: 207 items (138 Canadian, 53 United States, and 16 International).

4. **Hwang SW**, Weaver J, Aubry T, Hoch JS. Hospital Costs and Length of Stay among Homeless Patients Admitted to Medical, Surgical, and Psychiatric Services. Medical Care. 2011 Apr;49(4):350-354. Impact Factor 4.3 (Trainee publication, James Weaver). **Principal Author**.

   This paper was the first to study hospital costs among homeless people in Canada. Our research demonstrated that after adjustment for age, gender, and resource intensity weight, homeless patient admissions cost $2,559 more than housed patient admissions. For patients on medical and surgical services, much of this difference was explained by more alternate level of care days spent in the hospital, during which patients did not require the level of services provided in an acute care facility. Media coverage included: The Globe and Mail, CBC Metro Morning, Toronto Sun, CTV News.

5. **Hwang SW**, Ueng JJM, Chiu S, Kiss A, Tolomiczenko G, Cowan L, Levinson W, Redelmeier DA. Universal health insurance and health care access for homeless people. American Journal of Public Health. 2010 Aug;100:1454-1461. Impact Factor 4.2 (Trainee publication, Joanna Ueng - medical student). **Principal Author**.

   This study was the first to examine unmet need for care among homeless people within a system of universal health insurance. Our findings are of particular relevance in light of recent health care reforms that will result in the expansion of health insurance coverage to include homeless people in the United States. Media coverage included: Toronto Sun, PostMedia News (Montreal Gazette, Vancouver Sun, Windsor Star, Edmonton Journal), Science Daily.com, CBC Radio Toronto (Here and Now), and Newstalk 1010 Toronto with John Tory.

6. **Hwang SW**, Wilkins R, Tjepkema M, O'Campo PJ, Dunn JR. Mortality among residents of shelters, rooming houses, and hotels in Canada: An 11-year follow-up study. BMJ. 2009 Oct;339:b4036. Impact Factor 12.8. **Co-Principal Author**.

   This large national cohort study, the first of its kind, demonstrated that homeless and marginally- housed persons living in shelters, rooming houses, and hotels have much higher mortality and shorter life expectancy than expected on the basis of low income alone. This study highlighted the fact that people who are vulnerably housed suffer from many of the same threats to health as people who are homeless. This research provided important support for the concept of housing as a determinant of health.

7. **Hwang SW**, Colantonio A, Chiu S, Tolomiczenko G, Kiss A, Cowan L, Redelmeier DA, Levinson W. The Effect of Traumatic Brain Injury on the Health of Homeless People. Canadian Medical Association Journal. 2008 Oct;179(8):779-784. Impact Factor 7.1. **Principal Author**.

   This study was the first to demonstrate the high prevalence of traumatic brain injury among homeless individuals and the strong association between history of traumatic brain injury and poor health in this population. This paper has sparked research efforts on this topic in Canada, the United States, and Europe.

2. PEER-REVIEWED PUBLICATIONS

Journal Articles

1. Jenkinson J, **Hwang SW**, Strike C, Di Ruggiero E. "We don't have a good system for people who don't have a home and don't need a hospital": Contextualizing the Hospital Discharge Process for People Experiencing Homelessness in Toronto, Canada. Social Science and Medicine - Qualitative Research in Health. 2022 Dec;2:100056 (Trainee publication, Jesse Jenkinson (PhD student)). **Coauthor or Collaborator**.

2. Kiran T, Hodwitz K, Parsons J, Juando-Prats C, Rosenthal E, Craig-Neil A, **Hwang SW**, Lockwood J, Das P. Challenges faced by people experiencing homelessness and their providers during COVID-19: a qualitative study. CMAJ Open. 2022 Apr. In Press. **Coauthor or Collaborator**.

3. Wiens K, Rosella LC, Kurdyak P, Chen S, Aubry T, Stergiopoulos V, **Hwang SW**. Using healthcare encounter data to identify high-cost users among adults with a history of homelessness: a validation study. Journal of Social Distress and Homelessness. 2022 Apr. In Press (Trainee publication, Kathryn Wiens (PhD student)). **Senior Responsible Author**.

4. Sayani A, Manthorne J, Nicholson E, Bloch G, Parsons JA, **Hwang SW**, Amenu B, Freedman H, Rathbone M, Jeji T, Wathen N, Browne AJ, Varcoe C, Lofters A. Toward Equity-Oriented Cancer Care: A Strategy for Patient-Oriented Research (SPOR) protocol to promote equitable access to lung cancer screening. Research Involvement and Engagement. 2022 Apr;8(1):11. **Coauthor or Collaborator**.

5. Liu M, Richard L, Campitelli MA, Nisenbaum R, Dhalla IA, Wadhera RK, Shariff SZ, **Hwang SW**. Hospitalizations During the COVID-19 Pandemic Among Recently Homeless Individuals: A Retrospective Population-Based Matched Cohort Study. Journal of General Internal Medicine (JGIM). 2022 Apr. [Epub ahead of print]. Impact Factor 5.1. **Senior Responsible Author**.

6. Liu M, Koh KA, **Hwang SW**, Wadhera RK. Mental Health and Substance Use Among Homeless Adolescents in the United States. JAMA. 2022 Mar. In Press. Impact Factor 56.3. **Coauthor or Collaborator**.

7. Ecker J, Brown M, Aubry T, Francombe Pridham K, **Hwang SW**. Coordinated access and coordinated entry system processes in the housing and homelessness sector: A critical commentary on current practices. Housing Policy Debate. 2022 Mar. In Press. Impact Factor 2.3. **Senior Responsible Author**.

8. Shariff SZ, Richard L, **Hwang SW**, Kwong JC, Forchuk C, Dosani N, Booth R. COVID-19 vaccine coverage and factors associated with vaccine uptake among 23 247 adults with a recent history of homelessness in Ontario, Canada: a population-based cohort study. The Lancet Public Health. 2022 Mar. Impact Factor 21.6. **Coauthor or Collaborator**.

9. Czechowski K, Sylvestre J, Gogosis E, Agha A, Kerman N, Polillo A, Palepu A, **Hwang SW**. Cycles of Instability: Proximal and Distal Influences on Residential Instability Among People with Histories of Homelessness in Three Canadian Cities. Journal of Community Psychology. 2022 Mar. [Epub ahead of print]. Impact Factor 2.2. **Coauthor or Collaborator**.

10. Liu M, Richard L, Campitelli MA, Nisenbaum R, Dosani N, Dhalla IA, Wadhera RK, Shariff SZ, **Hwang SW**. Drug Overdoses During the COVID-19 Pandemic Among Recently Homeless Individuals. Addiction. 2022 Feb. [Epub ahead of print]. Impact Factor 6.5 (Trainee publication, Michael Liu (graduate student)). **Senior Responsible Author**.

11. Luong L, Beder M, Nisenbaum R, Orkin A, Wong J, Damba C, Emond R, Lena S, Loutfy M, Wright V, Bruce-Barrett C, Cheung W, Cheung K, Williams V, Vanmeurs M, Boozary A, Manning H, Hester J, **Hwang SW**. Prevalence of SARS-CoV-2 infection among people experiencing homelessness in Toronto during the first wave of the COVID-19 pandemic. Canadian Journal of Public Health. 2022 Feb;113(1):117-125. Impact Factor 2.4. **Senior Responsible Author**.

12. Kiran T, Craig-Neil A, Das P, Lockwood J, Wang R, Nathanielsz N, **Hwang SW**. Association of Homelessness with COVID-19 Positivity among Individuals Visiting a Testing Centre. Healthcare Policy. 2022 Feb;17(3):34-41. **Coauthor or Collaborator**.

13. Jenkinson J, Strike C, **Hwang SW**, Di Ruggiero E. Legal, geographic and organizational contexts that shape knowledge sharing in the hospital discharge process for people experiencing homelessness in Canada. Health and Social Care in the Community. 2022 Feb;30(2):e377–e387. Impact Factor 2.8 (Trainee publication, Jesse Jenkinson (PhD student)). **Coauthor or Collaborator**.

14. Mejia-Lancheros C, Lachaud J, Aubry T, Wiens K, O'Campo P, Stergiopoulos V, **Hwang SW**. Multi-trajectory group profiles of well-being and associated predictors among adults experiencing homelessness and mental illness: Findings from the At Home/Chez Soi study, Toronto site. Social Psychiatry and Psychiatric Epidemiology. 2022 Jan;57(1):67-81. Impact Factor 3.3 (Trainee publication, Cilia Mejia-Lancheros (postdoctoral fellow)). **Senior Responsible Author**.

15. Reid N, Mason J, Kurdyak P, Nisenbaum R, de Oliveira C, **Hwang S**, Stergiopoulos V. Evaluating the Impact of a Critical Time Intervention Adaptation on Health Care Utilization among Homeless Adults with Mental Health Needs in a Large Urban Center. Canadian Journal of Psychiatry. 2022 Jan;67(1):57-66. Impact Factor 3.3. **Coauthor or Collaborator**.

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3. NON-PEER-REVIEWED PUBLICATIONS

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Commentaries

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Letters to Editor

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Clinical Care Guidelines

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4. SUBMITTED PUBLICATIONS

Journal Articles

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2. Richard L, Nisenbaum R, Liu M, McGeer A, Mishra S, Gingras A, Gommerman JL, Sniderman R, Pedersen C, Spandier O, Jenkinson J, Baral S, Mejia Lancheros C, Agarwal A, Jamal AJ, Ostrowski M, Dhalla I, Stewart S, Gabriel M, Brown M, Hester J, **Hwang SW**. COVENANT, the COVID-19 Cohort Study of People Experiencing Homelessness in Toronto, Canada: A study protocol. BMJ Open. 2022 Apr. **Senior Responsible Author**.

3. Thulien NS, Akdikmen A, Amiri A, **Hwang SW**, Kozloff N, Roglich J, Wang A, Nisenbaum R. Effect of Portable Rent Subsidies and Mentorship on Socioeconomic Inclusion for Young People Exiting Homelessness: A Community-Based Pilot Randomized Clinical Trial. JAMA Open. 2022 Apr. **Coauthor or Collaborator**.

4. Kerman N, Wang R, Aubry T, Distasio J, Gaetz S, **Hwang SW**, Latimer E, O'Grady B, Schwan K, Somers JM, Stergiopoulos V, Kidd SA. Shelter Bans among People Experiencing Homelessness: An Exploratory Study of Predictors in Two Large Canadian Datasets. Journal of Urban Health. 2022 Mar. **Coauthor or Collaborator**.

5. Campbell D, Yaphe H, Campbell R, Mancini N, Grewal E, Tibebu T, Saunders- Smith T, **Hwang SW**. The development of a conceptual framework for providing tailored diabetes care for individuals experiencing homelessness: A qualitative study. Diabetes Research and Clinical Practice. 2022 Mar. **Coauthor or Collaborator**.

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7. Firestone F, Zewge-Abubaker N, Salmon C, McKnight C, **Hwang SW**. Using Concept Mapping to Define Indigenous Housing First in Hamilton, Ontario. Health Promotion Practice. 2022 Feb. **Coauthor or Collaborator**.

8. Liauw S, Mejia-Lancheros C, Lachaud J, O'Campo P, Stergiopoulos V, **Hwang SW**. Effect of a housing intervention on major cardiovascular events among homeless adults with mental illness. Journal of Social Distress and Homelessness. 2022 Jan (Trainee publication, Samantha Liauw (cardiology resident)). **Senior Responsible Author**.

9. Mejia-Lancheros C, Alfayumi-Zeadna S, Lachaud J, O'Campo P, Gogosis E, Da Silva G, Stergiopoulos V, **Hwang SW**, Thulien N. Differential impacts of COVID-19 and associated responses on the health, social well-being and food security of users of supportive social and health programs during the COVID-19 pandemic: A qualitative study. Health & Social Care in the Community. 2022 Jan. **Coauthor or Collaborator**.

10. Mejia-Lancheros C, Lachaud J, Gogosis E, Thulien N, Stergioupoulos V, Da Silva G, Nisenbaum R, O'Campo P, **Hwang SW**. Providing Housing First services for an undeserved population during the COVID-19 pandemic: A qualitative study. PLOS ONE. 2021 Aug (Trainee publication, Cilia Mejia-Lancheros (postdoctoral fellow)). **Senior Responsible Author**.

F. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations

2022 Apr 5 **Invited Speaker**. A Pilot Intervention Program: From Shelter Hotels to Stable Housing. Harvard T.H. Chan School of Public Health, Initiative on Health and Homelessness, Research & Practice Seminar Series. Boston, Massachusetts, United States. Presenter(s): **Hwang SW**.

2020 Feb 19 **Distinguished Speaker**. Creating Urban Health Solutions: Promises and Perils. University of Colorado, Department of Family Medicine, Levitt Distinguished Speaker Series. Denver, Colorado, United States. Presenter(s): **Hwang SW**.

2015 Apr 23 **Invited Speaker**. Pragmatic and Patient-Centered: Clinical Trials Done Differently. Society of General Internal Medicine (SGIM) 38th Annual Meeting / Patient-Centered Outcomes Research Institute (PCORI). Toronto, Ontario, Canada. Presenter(s): Chuang CH, **Hwang SW**, Jacobs E, Gapka S, Bild D, Kraschnewski JL.

2015 Apr 22 **Invited Speaker**. Defining the Role and Value of GIM -- The Canadian Experience. Association of Chiefs and Leaders of General Internal Medicine (ACLGIM) Management and Leadership Institute. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2014 Dec 5 **Invited Speaker**. High-Cost Medicaid Users Supportive Housing Think Tank. Supportive Housing Network of New York (SHNNY). New York City, New York, United States. Presenter(s): **Hwang SW**.

2014 Mar 5 **Keynote Speaker**. 2nd International Symposium on Homelessness, Social Exclusion, and Health Inequalities. Faculty for Homeless and Inclusion Health. London, United Kingdom. Presenter(s): **Hwang SW**. Epidemiology of Homelessness and Exclusion.

2012 Oct 24 **Invited Speaker**. Caring for Homeless Patients: Why Research Does (and Doesn't) Help. Boston University School of Medicine/Boston Medical Center - Section of General Internal Medicine Grand Rounds. Boston, Massachusetts, United States. Presenter(s): **Hwang SW**.

2012 Oct 24 **Invited Speaker**. The At Home Study: An RCT of Housing First for Homeless People with Mental Illness. Massachusetts General Hospital - General Internal Medicine Rounds. Boston, Massachusetts, United States. Presenter(s): **Hwang SW**.

2012 Oct 23 **Invited Speaker**. Research on Homelessness, Housing, and Health in Toronto, Canada. Boston Health Care for the Homeless Program (BHCHP) Grand Rounds. Boston, Massachusetts, United States. Presenter(s): **Hwang SW**.

2010 Jun 2 **Invited Speaker**. Examining Structural HIV Interventions: Methodological Challenges. North American Housing and HIV/AIDS Research Summit V. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2008 Feb 4 **Invited Speaker**. Traumatic Brain Injury and Homelessness. The 2nd Annual Camillus House Institute of

Homeless Studies Symposium: Applying Research to End Homelessness. Miami, Florida, United States. Presenter(s): **Hwang SW**.

2007 Oct 18 **Invited Speaker**. Traumatic Brain Injury and Homelessness. Columbia University Mailman School of Public Health, Center for Homelessness Prevention Studies, Grand Rounds. New York City, New York, United States. Presenter(s): **Hwang SW**.

2007 Oct 11 **Invited Speaker**. Quality of Life in Non-mainstream Populations. 2007 Annual Meeting of the International Society for Quality of Life Research (ISOQOL). Toronto, Ontario, Canada. Presenter(s): **Hwang SW**, Hubley A, Smylie J.

2007 Jun 14 **Invited Speaker**. Pandemic readiness planning and homelessness. 2007 National Health Care for the Homeless Conference. Washington, District of Columbia, United States. Presenter(s): **Hwang SW**.

2006 Oct 21 **Co-author**. Impact of Housing Status and Perceived Quality of Housing Environment on Health Related Quality of Life in HIV/AIDS. National Housing and HIV/AIDS Research Summit II. Baltimore, Maryland, United States. Presenter(s): Tucker R, Greene S, Rourke SB, Guenter D, Monette L, Narciso L, Koornstra J, Byers S, Sobota M, Dunn J, **Hwang SW**. Oral presentation by M. Sobota and J. Koornsta.

2006 Mar 9 **Invited Speaker**. National and International Perspectives on Homelessness and Health. Canadian Institutes of Health Research (CIHR), Reducing Health Disparities Research and Policy Symposium. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2005 Oct 26 **Invited Speaker**. How to Understand and Conduct Research on Homelessness: A Practical Guide. 4th International Conference on Urban Health. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**, Svoboda T. Pre-Conference Workshop.

2005 Jun 29 **Invited Speaker**. Homeless and Mentally Ill: Quality of Life. Seminar on “Psychiatric Epidemiology: Searching for Causes”. 2005 Joint Meeting of the Society for Epidemiologic Research and the Canadian Society for Epidemiology and Biostatistics (SER/CSEB). Toronto, Ontario, Canada. Presenter(s): **Hwang SW**. Seminar Presentation.

2003 Sep 21 **Invited Speaker**. Homelessness and Health. Canadian Institutes of Health Research (CIHR), International Think Tank on Reducing Health Disparities and Promoting Equity for Vulnerable Populations. Ottawa, Ontario, Canada. Presenter(s): **Hwang SW**.

2002 Oct 6 **Chair**. Closing Remarks. 1st International Conference on Inner City Health. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**, Bayoumi A.

1996 Apr **Speaker**. Mortality Rates Among Homeless Adults in Boston. Harvard School of Public Health, Clinical Epidemiology Research Rounds. Boston, Massachusetts, United States. Presenter(s): **Hwang SW**.

Presented Abstracts

2021 Dec **Co-author**. What can be done to improve diabetes care for the homeless? A comprehensive international scoping review of interventions. International Diabetes Federation Congress [Virtual Meeting]. Presenter(s): Campbell D, Grewal E, Tibebu T, Gonzalez P, Campbell R, **Hwang S**, McBrien K, Booth G.

2021 Nov **Co-author**. Placeless and Powerless: Experiences of patients who are homelessness and healthcare workers caring for them during COVID-19. 2021 North American Primary Care Research Group (NAPCRG) Annual Meeting. United States. Presenter(s): Hodwitz K, Juando-Prats C, Parsons J, Rosenthal E, Das P, Lockwood J, Snider C, **Hwang S**, Kiran T.

2021 Oct **Presenter**. Beyond Housing: Enhancing coordination and supports to complement case management in Housing First. Fourth International Housing First Conference. Canada. Presenter(s): **Hwang S**, Francombe Pridham K, Ecker J.

2021 Feb **Co-author**. Cognitive and functional trajectories in homeless adults: 6-year outcomes from the At Home/Chez Soi study. 49th Annual Meeting of the International Neuropsychological Society. United States. Presenter(s): Gicas KM., Mejia-Lancheros C, Wang R., **Hwang S**, Stergiopoulos V. Poster

presentation [virtual conference].

2019 Nov **Co-author**. How does context shape the process of discharging people experiencing homelessness from acute care hospitals? American Public Health Association (APHA) 2019 Annual Meeting and Expo. Philadelphia, Pennsylvania, United States. Presenter(s): Jenkinson J, **Hwang SW**, Strike C, Di Ruggiero E. Oral presentation. (Trainee Presentation).

2019 Sep **Co-author**. Beyond a Home: Facilitating Socioeconomic Inclusion for Young People Transitioning Out of Homelessness. 14th European Research Conference on Homelessness. Helsingborg, Skåne län [SE-12], Sweden. Presenter(s): Naomi Thulien, **Stephen Hwang**, Andrea Wang. (Trainee Presentation).

2019 Jun **Co-author**. Mental illness, homelessness, and victimization: Results from the National At Home/Chez Soi Study and perspectives of people with lived experience (Symposium). International Association of Forensic Mental Health Services. Montreal, Quebec, Canada. Presenter(s): Nicholls TL, Eiboff F, Wang R, O'Campo P, **Hwang SW**, Frankish CJ. (Trainee Presentation).

2019 Jun **Co-author**. The effect of housing status on health care utilization and costs among homeless and vulnerably housed persons in Ontario. Symposium on Findings from a Longitudinal Study of the Health of Adults Who Are Homeless or Vulnerably Housed in Three Canadian Cities. Society for Community Research and Action - 2019 Biennial Conference. Chicago, Illinois, United States. Presenter(s): **Stephen Hwang**, Kathryn Wiens, Rosane Nisenbaum, Ewa Sucha, Tim Aubry, Arnaud Duhoux, Susan Farrell, Anne Gadermann, Anita Palepu. (Trainee Presentation).

2018 Aug **Co-author**. Perceptions of Housing Transitions Among People with Histories of Unstable Housing in Ottawa, Canada. American Psychological Association (APA) 2018 Convention. San Francisco, California, United States. Presenter(s): Konrad Czechowski, John Sylvestre, Fran Klodawsky, **Stephen Hwang**.

2018 Jun **Co-author**. Criminal justice-involvement, recovery and victimization among homeless mentally ill individuals: Findings from the Canadian At Home/Chez Soi study. International Association of Forensic Mental Health Services. Antwerp, Antwerpen, Belgium. Presenter(s): Eiboff F, Nicholls TL, Wang R, Frankish CJ, **Hwang SW**. (Trainee Presentation).

2018 Mar **Co-author**. High prevalence and severity of intimate partner violence among women who are homeless with mental illness. American Psychology-Law Society (AP-LS) 2018 Annual Conference. Memphis, Tennessee, United States. Presenter(s): Eiboff F, Nicholls TL, Wang R, Krausz M, Frankish CJ, **Hwang SW**. (Trainee Presentation).

2017 Nov 6 **Co-author**. Understanding the health impacts of weather on people experiencing homelessness: Using research to inform healthy public policy. American Public Health Association (APHA) 2017 Annual Meeting and Expo. Atlanta, Georgia, United States. Presenter(s): Bassil K, Wainberg A, Coleman PC, Gower S, Keirstead H, Kim M, **Hwang S**, Gogosis E. Oral presentation.

2017 Sep 1 **Co-author**. A comparison of intimate partner victimization among homeless women and men with mental illness. Symposium: Criminal justice involvement and victimization among homeless individuals with mental illnesses. The Royal Australian & New Zealand College of Psychiatrists (RANZCP) Faculty of Forensic Psychiatry 2017 Conference. Vancouver, British Columbia, Canada. Presenter(s): Eiboff F, Nicholls TL, Wang R, Moniruzzaman A, **Hwang SW**, Frankish CJ, Krausz M.

2015 Nov 2 **Senior author.**. Emergency Department Visits for Cold-related Injuries among Homeless Adults: A 5-Year Cohort Study in Toronto, Canada. 143rd Annual Meeting of the American Public Health Association (APHA). Chicago, Illinois, United States. Presenter(s): Zhang P, Gower S, Bassil K, Kiss A, Katic M, **Hwang S**. Poster presentation.

2015 Nov 1 **Co-author**. High prevalence of overweight and obesity among homeless individuals with mental illness in Toronto, Canada. 143rd Annual Meeting of the American Public Health Association (APHA). Chicago, Illinois, United States. Presenter(s): Kaufman-Shriqui V, Gozdzik A, Misir V, Molnar A, **Hwang SW**. Oral presentation.

2015 Sep 25 **Co-author**. Homeless youth transitions to independent housing in Canada: Preliminary findings. European Research Conference on Families, Housing and Homelessness. Dublin, Ireland. Presenter(s):

Thulien N, Gastaldo D, **Hwang S**, McCay E. (Trainee Presentation).

2015 Jun 25 **Co-author**. Health and housing in transition: A qualitative study. 2015 Biennial Conference of the Society for Community Research and Action. Lowell, Massachusetts, United States. Presenter(s): Polillo A, Sylvestre J, Aubry T, Klodawsky F, **Hwang SW**. Poster presentation. (Trainee Presentation).

2015 Apr 25 **Presenter**. Canadian Healthcare 101: Answers to all of the questions you are embarrassed to ask. 38th Annual Meeting of the Society of General Internal Medicine (SGIM). Toronto, Ontario, Canada. Presenter(s): Cram P, Bell C, Cavalcanti R, Dhalla I, **Hwang S**. Workshop. (Trainee Presentation).

2013 Nov 4 **Presenter**. Housing First with Intensive Case Management: 12 Month Outcomes of the At Home/Chez Soi Randomized Trial. 141st Annual Meeting of the American Public Health Association (APHA). Boston, Massachusetts, United States. Presenter(s): **Hwang SW**. Oral presentation.

2013 Oct 9 **Co-author**. Critical Illness in Homeless Persons: A Systematic Review of the Literature. 26th Annual Congress of the European Society of Intensive Care Medicine (ESICM). Paris, Paris, France. Presenter(s): Chant C, Smith O, Wang A, **Hwang S**, Friedrich JO, Burns KEA, Dos Santos CC. Poster presentation.

2013 Jun 3 **Co-author**. Development and Initial Validation of the Observer-rated Housing Quality Scale (OHQS) in a multi-site trial of Housing First. 2013 International Homelessness Research Conference, University of Pennsylvania & VA National Center on Homelessness Among Veterans. Philadelphia, Pennsylvania, United States. Presenter(s): Adair CE, Kopp B, Lavoie J, Distasio J, **Hwang S**, Watson A, Veldhuizen S, Chislett K, Voronka J, Ahmad M, Ahmed N, Goering P. Poster presentation.

2013 Jun 3 **Presenter**. At Home: A Randomized Controlled Trial of Housing First and Intensive Case Management for Homeless People with Mental Illness. 2013 International Homelessness Research Conference, University of Pennsylvania & VA National Center on Homelessness Among Veterans. Philadelphia, Pennsylvania, United States. Presenter(s): **Hwang SW**. Oral presentation.

2013 May 21 **Co-author**. Homelessness and Critical Care: A Systematic Review of the Literature. 2013 American Thoracic Society International Conference. Philadelphia, Pennsylvania, United States. Presenter(s): Chant C, Smith O, Wang A, **Hwang S**, Friedrich JO, Burns KEA, Dos Santos CC. Poster presentation.

2013 Mar 14 **Presenter**. At Home: A Randomized Controlled Trial of Housing First for Homeless People with Mental Illness. 2013 National Health Care for the Homeless Conference. Washington, District of Columbia, United States. Presenter(s): **Hwang SW**, Stergiopoulos V. Oral presentation (Workshop).

2012 Oct **Co-author**. Examining response shift and true change in self-reported physical and mental health status in homeless and vulnerably housed individuals. International Society for Quality of Life Research Conference. Budapest, Budapest, Hungary. Presenter(s): Gadermann AM, Sawatzky R, Palepu A, Hubley AM, Zumbo BD, Aubry T, **Hwang SW**. Oral presentation.

2011 Nov 3 **Co-author**. Implementing and Evaluating Dialectical Behaviour Therapy in Urban Street Youth: Addressing the Need for Mental Health Intervention. 10th International Conference on Urban Health. Belo Horizonte, Brazil. Presenter(s): McCay B, **Hwang SW**, et al. Poster presentation.

2011 May 10 **Senior Author**. Drowning risk of immigrants versus non-immigrants in the province of Ontario: A cross-sectional retrospective study. World Conference on Drowning Prevention 2011. Danang, Viet Nam. Presenter(s): Gallinger Z, Fralick M, Nisenbaum R, **Hwang SW**. Oral Presentation. (Trainee Presentation).

2010 Oct 28 **Co-author**. Housing Satisfaction is Associated with Better Physical and Mental Health-related Quality of Life among Persons Living with HIV. 9th International Conference on Urban Health. New York City, New York, United States. Presenter(s): Rourke SB, Bekele T, Tucker R, Sobota M, Monette L, Koornstra J, Byers S, **Hwang SW**, Dunn J, Guenter D, Watson J, Ahluwalia A, Bacon J, the Positive Spaces, Healthy Places Team. Oral presentation.

2010 Oct 28 **Presenter**. Health Care Utilization among Homeless Adults in Toronto, Canada. 9th International Conference on Urban Health. New York City, New York, United States. Presenter(s): **Hwang SW**, Chiu S,

Chambers C, Tolomiczenko G, Kiss A, Cowan L, Redelmeier D, Levinson W. Oral presentation.

2010 Oct 28 **Principal Author**. Homeless People in the Hospital: Why Do They Cost More? 9th International Conference on Urban Health. New York City, New York, United States. Presenter(s): **Hwang SW**, Weaver J, Aubry T, Hoch J. Oral presentation. (Trainee Presentation).

2010 Oct 27 **Co-author**. Defining a Typology of Homelessness for Single Adults Based on Shelter Utilization Patterns in Three Canadian Cities. 9th International Conference on Urban Health. New York City, New York, United States. Presenter(s): Aubry TD, **Hwang SW**, Farrell S, Calhoun M. Oral presentation. (Trainee Presentation).

2010 Jul 19 **Co-author**. Upstream determinants of health and housing are major contributors to health-related quality of life in HIV infection. XVIII International AIDS Conference. Vienna, Austria. Presenter(s): Rourke S, Bekele T, Tucker R, Greene S, Monette L, Koornstra J, Sobota M, Byers S, Watson J, Bacon J, Ahluwalia A, Hambly K, **Hwang S**, Guenter D, Dunn J, Hamilton M, Truax J, Hintzen DB, White P, Kayitesi M, Desbiens M, De Blois S, Cubillos M, The Positive Spaces, Healthy Places Team. Poster presentation.

2009 Feb 26 **Co-author**. Epidemiology of tuberculosis among the homeless: Toronto 1998-2007. 13th International Union Against Tuberculosis and Lung Disease (IUATLD) North America Region Conference. Vancouver, British Columbia, Canada. Presenter(s): Khan K, Rea E, McDermaid C, Stuart R, Gardam M, Yang J, **Hwang S**. Poster presentation.

2008 Oct 31 **Presenter**. Changes in health status, quality of life, and alcohol and drug use among homeless and vulnerably housed adults applying to a supportive housing program. 7th International Conference on Urban Health. Vancouver, British Columbia, Canada. Presenter(s): **Hwang SW**. Oral presentation.

2008 Oct 30 **Presenter**. Access to primary care among homeless people within a system of universal health insurance. 7th International Conference on Urban Health. Vancouver, British Columbia, Canada. Presenter(s): **Hwang SW**. Poster presentation.

2008 Oct 29 **Presenter**. Homelessness and immigration in Toronto: A comparison of the health of homeless recent immigrants, non-recent immigrants, and Canadian-born individuals. 7th International Conference on Urban Health. Vancouver, British Columbia, Canada. Presenter(s): **Hwang SW**. Oral presentation.

2008 Oct 29 **Presenter**. The research alliance for Canadian homelessness, housing, and health (REACH3). 7th International Conference on Urban Health. Vancouver, British Columbia, Canada. Presenter(s): **Hwang SW**, Cowan L. Oral presentation.

2008 Oct 28 **Presenter**. Homelessness and immigration in Toronto: A comparison of the health of homeless recent immigrants, non-recent immigrants, and Canadian-born individuals. 136th Annual Meeting of the American Public Health Association (APHA). San Diego, California, United States. Presenter(s): Chiu S, **Hwang SW**. Oral presentation.

2008 Aug 6 **Co-author**. Housing status/stability and key determinants of health affect health outcomes in people living with HIV/AIDS: Moving Research into Action. XVII International AIDS Conference. Mexico City, Mexico. Presenter(s): Tucker R, Greene S, Sobota M, Koornstra J, Monette L, Guenter D, Byers S, Dunn J, **Hwang S**, Bernstine N, Shubert G, Bacon J, Rourke SB. Poster presentation.

2007 Nov 7 **Presenter**. Traumatic brain injury among homeless persons. 135th Annual Meeting of the American Public Health Association. Washington, District of Columbia, United States. Presenter(s): **Hwang SW**, Colantonio A, Chiu S, Tolomiczenko G, Kiss A, Cowan L, Redelmeier D, Levinson W. Poster presentation.

2007 Nov 2 **Presenter**. Traumatic brain injury among homeless persons. 6th International Conference on Urban Health. Baltimore, Maryland, United States. Presenter(s): **Hwang SW**, Colantonio A, Chiu S, Tolomiczenko G, Kiss A, Cowan L, Redelmeier D, Levinson W. Poster presentation.

2007 Jul 25 **Co-author**. Significant Housing, Economic and Social Challenges for People with HIV Who are Living with and Caring for Their Children: Results from the Canadian Positive Spaces, Healthy Places Study. NIMH Annual International Research Conference on the Role of Families in Preventing and Adapting to HIV/AIDS. San Francisco, California, United States. Presenter(s): Greene S, Tucker R, Rourke SB,

Guenter D, Monette L, Narciso L, Koornstra J, Byers S, Sobota M, Dunn J, **Hwang SW**.

2006 Aug 13 **Co-author**. Building Community-Based Research Capacity through Exploring the Impact of Housing Status on People Living with HIV/AIDS in Ontario. XVI International AIDS Conference. Toronto, Ontario, Canada. Presenter(s): Tucker R, Greene S, Rourke SB, Guenter D, Monette L, Narciso L, Koornstra J, Byers S, Sobota M, Dunn J, **Hwang SW**. Oral presentation.

2006 Jun 8 **Presenter**. Access to Health Care for Homeless People with Serious Health Conditions in Toronto, Canada. 2006 National Health Care for the Homeless Conference. Portland, Oregon, United States. Presenter(s): **Hwang SW**, Chiu S, Khandor E, Mason K, Cowan L, Tolomiczenko G, Kiss A, Katic M, Redelmeier D, Levinson W. Poster presentation.

2005 Oct 26 **Presenter**. Access to Health Care for Homeless People with Serious Health Conditions in Toronto, Canada. 4th International Conference on Urban Health. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**, Chiu S, Khandor E, Mason K, Cowan L, Tolomiczenko G, Kiss A, Katic M, Redelmeier D, Levinson W. Oral presentation.

2004 Oct **Presenter**. Bedbugs redux: Cimex lectularius infestations in homeless shelters and other locations in Toronto. 3rd International Conference on Urban Health. Boston, Massachusetts, United States. Presenter(s): **Hwang SW**, Svoboda TJ, De Jong IJ, Kabasele KJ, Moukas E. Poster presentation.

2004 Oct **Presenter**. Use of meal programs and shelters by homeless people in Toronto. 3rd International Conference on Urban Health. Boston, Massachusetts, United States. Presenter(s): **Hwang SW**, Chiu S, Kiss A, Katic M, Tolomiczenko G, Levinson W, Redelmeier D, Szalai JP, Cowan L. Poster presentation.

2004 Oct **Co-author**. Predictors of satisfaction with primary care and improving homeless men's access to primary care: A randomized controlled trial (preliminary results). 3rd International Conference on Urban Health. Boston, Massachusetts, United States. Presenter(s): Svoboda T, Bloch G, Knowles H, **Hwang S**, Glazier R, Kelly M, Chow K, Jones K, Tynan AM. Poster presentation.

2004 May 13 **Presenter**. General Internists: Shaping the Future of Homeless Health Care. 27th Annual Meeting of the Society of General Internal Medicine. Chicago, Illinois, United States. Presenter(s): Kertesz SG, Gordon A, Bharel M, Buchanan D, **Hwang S**, Jain S, Kehoe L, Kushel M, McCary J, O'Connell JJ, O'Toole TP. Pre-Course Presentation.

2003 Oct 15 **Presenter**. Risk factors for cardiovascular disease among homeless people in Toronto. 2nd International Conference on Urban Health. New York City, New York, United States. Presenter(s): Lee TC, Hanlon J, Ben-David J, Booth G, Cantor W, **Hwang SW**. Poster presentation.

2003 Sep 20 **Co-author**. Do graphic illustrations improve patients' comprehension of medication labels? Society of Teachers of Family Medicine Conference, Research Forum. Atlanta, Georgia, United States. Presenter(s): Tram C, Knarr N, **Hwang SW**. Oral presentation.

2002 Oct 3 **Co-author**. The Annex Harm Reduction Program: Rates of adherence and hepatotoxicity among homeless alcohol dependent men receiving directly observed prophylactic therapy (DOPT) during a tuberculosis outbreak. 1st International Conference on Inner City Health. Toronto, Ontario, Canada. Presenter(s): Svoboda T, **Hwang SW**, Chien K, Ross J. Poster preseentation.

2002 Oct 3 **Co-author**. Do shelters for the homeless in Toronto provide appropriate menus for those with diabetes? 1st International Conference on Inner City Health. Toronto, Ontario, Canada. Presenter(s): Ross N, Chislett D, **Hwang S**, Whitham D, Hanning R, Miller K, Darling P. Poster preseentation.

2002 Sep **Co-author**. Dietary folate deficiency suppresses mammary tumorigenesis in a chemical carcinogen rat model of breast cancer. Era of Hope 2002 Department of Defense Breast Cancer Research Program Meeting. Orlando, Florida, United States. Presenter(s): Kotsopoulos J, Sohn K-J, Martin R, Renlund R, **Hwang S**, Medline A, Kim YI. Oral presentation.

2002 Jun **Co-author**. Perceptions of emergency services among homeless people. 2nd International Conference of the International Society for Equity in Health. Toronto, Ontario, Canada. Presenter(s): Zakrison TL, Hamel PA, **Hwang SW**. Poster presentation.

2002 Apr **Co-author**. Effects of dietary folate on the initiation and promotion phases of MNU-induced mammary tumorigenesis in rats. 2002 Annual Meeting of the American Association for Cancer Research. San Francisco, California, United States. Presenter(s): Kotsopoulos J, Sohn K-J, Martin R, Renlund R, **Hwang S**, Medline A, Kim YI. Oral presentation.

2001 May **Co-author**. Effects of dietary folate on colorectal carcinogenesis in a genetically-predisposed murine model of ulcerative colitis-associated colon cancer. 2001 Digestive Disease Week. Atlanta, Georgia, United States. Presenter(s): Carrier J, Medline A, Sohn KJ, **Hwang SW**, Kim YI. Poster presentation. Award for poster of distinction.

1999 Apr **Presenter**. Mortality Among Homeless Men in Toronto. 22nd Annual Meeting of the Society of General Internal Medicine. San Francisco, California, United States. Presenter(s): **Hwang SW**. Poster presentation.

1997 May **Presenter**. Risk Factors for Death in Homeless Adults in Boston. 20th Annual Meeting of the Society of General Internal Medicine. Washington, District of Columbia, United States. Presenter(s): **Hwang SW**, Lebow JM, Bierer MF, O'Connell JJ, Orav EJ, Brennan TA. Poster presentation.

Presented and Published Abstracts

2015 Oct 22 **Co-author**. Minimal impact of response shift for SF-12 mental and physical health status in the homeless and vulnerably housed: An item-level multi-group analysis. International Society for Quality of Life Research (ISOQOL) 22nd Annual Conference. Vancouver, British Columbia, Canada. Presenter(s): Gadermann AM, Sawatzky R, Palepu A, Hubley AM, Zumbo BD, Aubry T, **Hwang SW**. Oral presentation.

Publication Details:
Minimal impact of response shift for SF-12 mental and physical health status in the homeless and vulnerably housed: An item-level multi-group analysis. **Coauthor or Collaborator**.

2015 Apr 22 **Senior author**. The effect of advance directive completion on hospital care among homeless persons: A prospective cohort study. 38th Annual Meeting of the Society of General Internal Medicine (SGIM). Toronto, Ontario, Canada. Presenter(s): Leung AK, To M, Luong L, Syavash-Vahabi Z, Song J, **Hwang SW**. Poster presentation. (Trainee Presentation)

Publication Details:
The effect of advance directive completion on hospital care among homeless persons: A prospective cohort study. Journal of General Internal Medicine. April 2015:30,(2) S268.

2014 Jun 8 **Co-author**. Concurrent validity of the EQ-5D-3L in homeless adults with mental illness. 15th Biennial European Meeting of the Society for Medical Decision Making (SMDM). Antwerp, Antwerpen, Belgium. Presenter(s): Bayoumi AM, Pinto AD, O'Campo P, Stergiopoulos V, **Hwang S**. Oral presentation.

Publication Details:
Concurrent validity of the EQ-5D-3L in homeless adults with mental illness. Medical Decision Making. October 2014, 34(7) p.E7.

2014 Apr 24 An Advance Directive Intervention for Chronically Homeless People: Acceptability, Factors Associated with Completion, and Treatment Preferences. 37th Annual Meeting of the Society of General Internal Medicine (SGIM). San Diego, California, United States. Presenter(s): Leung AK, Nayyar D, Sachdeva M, Song J, **Hwang SW**. Poster presentation. (Trainee Presentation)

Publication Details:
An Advance Directive Intervention for Chronically Homeless People: Acceptability, Factors Associated with Completion, and Treatment Preferences. Journal of General Internal Medicine. April 2014:29,(1)S17.

2014 Apr **Senior author**. Advance directive intervention for chronically homeless people: Acceptability, factors associated with completion, and treatment preferences.

Publication Details:
Leung A, Nayyar D, Sachdeva M, Song J, **Hwang S**. Advance directive intervention for chronically homeless people: Acceptability, factors associated with completion, and treatment preferences. Journal of General Internal Medicine. 2014 Apr. April 2014;29(S1):S17-18. **Senior Responsible Author**.

2013 Jun Health status, health care utilization, and legal incidents following traumatic brain injury in homeless and vulnerably housed adults in three Canadian cities.

Publication Details:
To M, O'Brien K, Palepu A, Hubley AM, Farrell S, Aubry T, Gogosis E, Muckle W, **Hwang S**. Health status, health care utilization, and legal incidents following traumatic brain injury in homeless and vulnerably housed adults in three Canadian cities. Journal of General Internal Medicine. 2013 Jun. June 2013;28(S1):S85. **Senior Responsible Author**.

2013 Jun Unmet health needs among homeless and vulnerably housed adults in three Canadian cities.

Publication Details:
Argintaru N, Chambers C, Gogosis E, Farrell S, Palepu A, Klodawsky F, **Hwang S**. Unmet health needs among homeless and vulnerably housed adults in three Canadian cities. Journal of General Internal Medicine. 2013 Jun. June 2013;28(S1):S231-232. **Senior Responsible Author**.

2013 May Homelessness And Critical Care: A Systematic Review Of The Literature.

Publication Details:
Chant C, Smith O, Wang A, **Hwang S**, Friedrich JO, Burns KEA, Dos Santos CC. Homelessness And Critical Care: A Systematic Review Of The Literature. American Journal of Respiratory and Critical Care Medicine. 2013 May. 187;2013:A4419. **Coauthor or Collaborator**.

2011 May Mortality and Causes of Death Among Homeless Adults in Boston.

Publication Details:
Baggett TP, Rigotti NA, Stringfellow E, **Hwang S**, Orav EJ, O'Connell JJ. Mortality and Causes of Death Among Homeless Adults in Boston. Journal of General Internal Medicine. May 2011;26(S1):S234. **Coauthor or Collaborator**.

2011 May Is "appearing chronically ill" a sign of poor health?

Publication Details:
Hwang SW, Rawal S, Atia M, Nisenbaum R, Pare DE, Joordens S. Is "appearing chronically ill" a sign of poor health? Journal of General Internal Medicine. May 2011;26(S1):S94. **Principal Author**.

2009 May Differences in social and health determinants between First Nations and Non-First Nations Aboriginal people living with HIV/AIDS in Ontario: The Positive Spaces, Healthy Places Study.

Publication Details:
Monette L, Rourke SB, Tucker R, Greene S, Sobota M, Koornstra J, Byers S, Guenter D, **Hwang SW**, Dunn J, Ahluwalia A, Bekele T, Johnston C, Bacon J. Differences in social and health determinants between First Nations and Non-First Nations Aboriginal people living with HIV/AIDS in Ontario: The Positive Spaces, Healthy Places Study. Journal of Urban Health. May 2009:86(3):324. **Coauthor or Collaborator**.

2009 May Direct and indirect effect of social support on health-related quality of life among people living with HIV/AIDS in Ontario: The Positive Spaces, Healthy Places Study.

Publication Details:
Bekele T, Rourke SB, Tucker R, Greene S, Sobota M, Koornstra J, Monette L, Byers S, Ahluwalia A, **Hwang SW**, Dunn J, J Bacon. Direct and indirect effect of social support on health-related quality of life among people living with HIV/AIDS in Ontario: The Positive Spaces, Healthy Places Study. Journal of Urban Health. May 2009:86(3):326. **Coauthor or Collaborator**.

2009 May Disparities in health outcomes and social determinants of health between Aboriginal and Caucasian people living with HIV/AIDS in Ontario.

Publication Details:
Monette L, Rourke SB, Tucker R, Greene S, Sobota M, Koornstra J, Byers S, Guenter D, **Hwang SW**, Dunn J, Ahluwalia A, Bekele T, Johnston C, J Bacon. Disparities in health outcomes and social determinants of health between Aboriginal and Caucasian people living with HIV/AIDS in Ontario. Journal of Urban Health. May 2009:86(3):327. **Coauthor or Collaborator**.

2009 May Mental health and addiction issues and health service needs of people living with HIV/AIDS in Ontario: The Positive Spaces, Healthy Places Study.

Publication Details:
Rourke SB, Tucker R, Greene S, Sobota M, Koornstra J, Monette L, Byers S, Guenter D, **Hwang SW**, Dunn J, Ahluwalia A, Bacon J. Mental health and addiction issues and health service needs of people living with HIV/AIDS in Ontario: The Positive Spaces, Healthy Places Study. Journal of Urban Health. May 2009:86(3):446. **Coauthor or Collaborator**.

2009 May Homelessness and immigration in Toronto: A comparison of the health of homeless recent immigrants, non-recent immigrants, and Canadian born individuals.

Publication Details:
Hwang SW, Chiu A, Tolomiczenko C, Kiss A, Cowan L, Redelmeier D, Levinson W. Homelessness and immigration in Toronto: A comparison of the health of homeless recent immigrants, non-recent immigrants, and Canadian born individuals. Journal of Urban Health. May 2009:86(3):350. **Principal Author**.

2009 May Changes in health status, quality of life, and alcohol and drug use among homeless and vulnerably housed adults applying to a supportive housing program.

Publication Details:
Hwang SW, Gogosis E, Aubry T, Dunn J, Hoch J, Taylor J, Fresolone M, Kiss A. Changes in health status, quality of life, and alcohol and drug use among homeless and vulnerably housed adults applying to a supportive housing program. Journal of Urban Health. May 2009:86(3):365. **Principal Author**.

2009 May Access to primary care among homeless people within a system of universal health insurance.

Publication Details:
Hwang SW, Chiu S, Ueng J, Tolomiczenko C, Kiss A, Cowan L, Levinson W, Redelmeier D. Access to primary care among homeless people within a system of universal health insurance. Journal of Urban Health. May 2009:86(3):435. **Principal Author**.

2008 Apr 9 **Co-author**. Value of a longitudinal clinic experience: A survey of resident perceptions at a large Canadian internal medicine program. 31st Annual Meeting of the Society of General Internal Medicine. Pittsburgh, Pennsylvania, United States. Presenter(s): Locke KA, Tzanetos K, Imrie K, **Hwang SW**.

Publication Details:
Value of a longitudinal clinic experience: A survey of resident perceptions at a large Canadian internal medicine program. Journal of General Internal Medicine. March 2008; 23, (S2) p. 437.

2008 Apr 9 **Co-author**. Priced out of the safety net? Declining access to health care among Birmingham's homeless, 1995-2005. 31st Annual Meeting of the Society of General Internal Medicine. Pittsburgh, Pennsylvania, United States. Presenter(s): Kertesz SG, **Hwang SW**, Ritchey FJ, LaGory M.

Publication Details:
Priced out of the safety net? Declining access to health care among Birmingham's homeless, 1995-2005. Journal of General Internal Medicine. March 2008; 23, (S2) p. 379.

2008 Mar Value of a longitudinal clinic experience: A survey of resident perceptions at a large Canadian internal

medicine program.

Publication Details:
Locke KA, Tzanetos K, Imrie K, **Hwang SW**. Value of a longitudinal clinic experience: A survey of resident perceptions at a large Canadian internal medicine program. Journal of General Internal Medicine. March 2008;23(S2):437. **Coauthor or Collaborator**.

2008 Mar Priced out of the safety net? Declining access to health care among Birmingham's homeless, 1995-2005.

Publication Details:
Kertesz SG, **Hwang SW**, Ritchey FJ, LaGory M. Priced out of the safety net? Declining access to health care among Birmingham's homeless, 1995-2005. Journal of General Internal Medicine. March 2008;23(S2):379-380. **Coauthor or Collaborator**.

2006 Apr 27 **Presenter**. Population Mortality during the SARS Outbreak in Toronto. 29th Annual Meeting of the Society of General Internal Medicine. Los Angeles, California, United States. Presenter(s): **Hwang SW**, Cheung AM, Bell CM, Moineddin R. Poster presentation.

Publication Details:
Population Mortality during the SARS Outbreak in Toronto. Journal of General Internal Medicine. April 2006; 21, (S4) p. 104.

2006 Apr Population Mortality during the SARS Outbreak in Toronto.

Publication Details:
Hwang SW, Cheung AM, Moineddin R, Bell CM. Population Mortality during the SARS Outbreak in Toronto. Journal of General Internal Medicine. April 2006;21(Supplement 4):104. **Principal Author**.

2005 Dec Access to Health Care for Homeless People with Serious Health Conditions in Toronto, Canada.

Publication Details:
Hwang SW, Chiu S, Khandor E, Mason K, Cowan L, Tolomiczenko G, Kiss A, Katic M, Redelmeier D, Levinson W. Access to Health Care for Homeless People with Serious Health Conditions in Toronto, Canada. Journal of Urban Health. December 2005;82(Supplement 5):v28. **Principal Author**.

2005 Jun Use of meal programs and shelters by homeless people in Toronto.

Publication Details:
Hwang SW, Chiu S, Kiss A, Katic M, Tolomiczenko G, Levinson W, Redelmeier D, Szalai JP, Cowan L. Use of meal programs and shelters by homeless people in Toronto. Journal of Urban Health. June 2005;82(Supplement 2):ii46. **Principal Author**.

2005 Jun Bedbugs redux: Cimex lectularius infestations in homeless shelters and other locations in Toronto.

Publication Details:
Hwang SW, Svoboda TJ, De Jong IJ, Kabasele KJ, Moukas E. Bedbugs redux: Cimex lectularius infestations in homeless shelters and other locations in Toronto. Journal of Urban Health. June 2005;82(Supplement 2):ii46. **Principal Author**.

2005 Jun Predictors of satisfaction with primary care and improving homeless men's access to primary care: A randomized controlled trial (preliminary results).

Publication Details:
Svoboda T, Bloch G, Knowles H, **Hwang S**, Glazier R, Kelly M, Chow K, Jones K, Tynan AM. Predictors of satisfaction with primary care and improving homeless men's access to primary care: A randomized controlled trial (preliminary results). Journal of Urban Health. June 2005;82(Supplement 2):ii47-ii48. **Coauthor or Collaborator**.

2003 Oct Risk factors for cardiovascular disease among homeless people in Toronto.

Publication Details:
Lee TC, Hanlon J, Ben-David J, Booth G, Cantor W, **Hwang SW**. Risk factors for cardiovascular disease among homeless people in Toronto. Journal of Urban Health. October 2003;80(Supplement 2):ii69. **Senior Responsible Author**.

2003 Apr Mortality among homeless women.

Publication Details:
Cheung AM, **Hwang SW**. Mortality among homeless women. Journal of General Internal Medicine. April 2003;18(Supplement 1):170. **Senior Responsible Author**.

2003 Apr Homeless people's interactions with and trust in paramedics and police in Toronto.

Publication Details:
Hwang SW, Zakrison TL, Hamel PA. Homeless people's interactions with and trust in paramedics and police in Toronto. Journal of General Internal Medicine. April 2003;18(Supplement 1):176. **Principal Author**.

2002 Dec The Annex Harm Reduction Program: Rates of adherence and hepatotoxicity among homeless alcohol dependent men receiving directly observed prophylactic therapy (DOPT) during a tuberculosis outbreak.

Publication Details:
Svoboda T, **Hwang S**, Chien K, Ross J. The Annex Harm Reduction Program: Rates of adherence and hepatotoxicity among homeless alcohol dependent men receiving directly observed prophylactic therapy (DOPT) during a tuberculosis outbreak. Journal of Urban Health. December 2002 (Supplement 1);79:S150-S151. **Coauthor or Collaborator**.

2002 Dec Do shelters for the homeless in Toronto provide appropriate menus for those with diabetes?

Publication Details:
Ross N, Chislett D, **Hwang S**, Whitham D, Hanning R, Miller K, Darling P. Do shelters for the homeless in Toronto provide appropriate menus for those with diabetes? Journal of Urban Health. December 2002 (Supplement 1);79:S147-S148. **Coauthor or Collaborator**.

2002 Effects of dietary folate on the initiation and promotion phases of MNU-induced mammary tumorigenesis in rats.

Publication Details:
Kotsopoulos J, Sohn K-J, Martin R, Renlund R, **Hwang S**, Medline A, Kim Y-I. Effects of dietary folate on the initiation and promotion phases of MNU-induced mammary tumorigenesis in rats. Proceedings of the American Association for Cancer Research 2002;. 43: Abstract #2539. **Coauthor or Collaborator**.

2001 Jun 1 The Impact of Leaving Hospital Against Medical Advice.

Publication Details:
Hwang SW, Li J. The Impact of Leaving Hospital Against Medical Advice. American Journal of Epidemiology. June 1, 2001;153(11):S221. **Principal Author**.

2001 Jun 1 The Relationship Between Income Level and Alcohol-Related Hospitalization Rates in an Urban Area.

Publication Details:
Hwang SW, Glazier RH. The Relationship Between Income Level and Alcohol-Related Hospitalization Rates in an Urban Area. American Journal of Epidemiology. June 1, 2001;153(11):S242. **Principal Author**.

2001 Jun **Presenter**. The Relationship Between Income Level and Alcohol-Related Hospitalization Rates in an Urban Area. 2001 Congress of Epidemiology. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**, Glazier RH. Joint Meeting of the American College of Epidemiology, the American Public Health

Association Epidemiology Section, the Canadian Society for Epidemiology and Biostatistics, and the Society for Epidemiologic Research. Poster presentation.

Publication Details:
The Relationship Between Income Level and Alcohol-Related Hospitalization Rates in an Urban Area. American Journal of Epidemiology. 153,(11), p. S242.

2001 May Effects of dietary folate on colorectal carcinogenesis in a genetically-predisposed murine model of ulcerative colitis-associated colon cancer.

Publication Details:
Carrier J, Medline A, Sohn KJ, **Hwang SW**, Kim YI. Effects of dietary folate on colorectal carcinogenesis in a genetically-predisposed murine model of ulcerative colitis-associated colon cancer. Gastroenterology. May 2001;120(supp 1):A2279. **Coauthor or Collaborator**.

2001 Apr What happens to patients who leave against medical advice?

Publication Details:
Hwang SW, Li J. What happens to patients who leave against medical advice? Journal of General Internal Medicine. April 2001;16(S1):140. **Principal Author**.

2001 Reductions in welfare payments and avoidable hospital admissions in a Canadian inner city.

Publication Details:
Glazier RH, Badley EM, Agha MM, Creatore MI; Inner City Toronto Time Trends Working Group. Reductions in welfare payments and avoidable hospital admissions in a Canadian inner city. American Journal of Epidemiology. 2001; 153(11):S1017. **Member of Research Group**.

2000 Apr Income levels and alcohol-related hospital admission rates.

Publication Details:
Hwang SW, Glazier RH. Income levels and alcohol-related hospital admission rates. Journal of General Internal Medicine. April 2000;15(S1):73. **Principal Author**.

2000 Apr Risk of death during periods of homeless shelter use.

Publication Details:
Hwang SW. Risk of death during periods of homeless shelter use. Journal of General Internal Medicine. April 2000;15(S1):73. **Principal Author**.

1999 Aug Barriers to appropriate diabetes management among homeless persons in Toronto.

Publication Details:
Bugeja AL, **Hwang SW**. Barriers to appropriate diabetes management among homeless persons in Toronto. Clinical and Investigative Medicine. August 1999; 22(S4):S10. **Senior Responsible Author**.

1999 Apr Mortality among homeless men in Toronto.

Publication Details:
Hwang SW. Mortality among homeless men in Toronto. Journal of General Internal Medicine. April 1999;14(S2):42. **Principal Author**.

1998 Aug Patients with serious injury from stairway falls.

Publication Details:
Ragg M, Steinhart B, **Hwang SW**. Patients with serious injury from stairway falls. Clinical and Investigative Medicine. August 1998;21(S4):S32. **Senior Responsible Author**.

1997 Apr Risk factors for death in homeless adults in Boston.

Publication Details:
Hwang SW, Lebow JM, Bierer MF, O'Connell JJ, Orav EJ, Brennan TA. Risk factors for death in homeless adults in Boston. Journal of General Internal Medicine. April 1997;12(S1):121. **Principal Author**.

1996 Apr Causes of mortality in a cohort of homeless adults in Boston.

Publication Details:
Hwang SW, Lebow JM, O'Connell JJ, Orav EJ, Brennan TA. Causes of mortality in a cohort of homeless adults in Boston. Journal of General Internal Medicine. April 1996;11(S1):144. **Principal Author**.

1996 Apr Medicaid expenditures in a homeless population admitted to a recuperative care facility.

Publication Details:
Lebow J, **Hwang S**, O'Connell JJ, Krause D, DeCourcey M. Medicaid expenditures in a homeless population admitted to a recuperative care facility. Journal of General Internal Medicine. April 1996;11(S1):145. **Coauthor or Collaborator**.

Media Appearances

2020 Feb 6 **Quoted Source**. Traumatic Brain Injury in Homeless People Is Underrecognized. Interviewer: Susan Fitzgerald. Neurology Today, American Academy of Neurology. United States. https://journals.lww.com/neurotodayonline/Fulltext/2020/02060/Traumatic_Brain_Injury_in_Homeless_People_Is.4.aspx.

2015 May 15 **Quoted Source**. Panhandling. Interviewer: Trey Kay. Us & Them Podcast, West Virginia Public Broadcasting. West Virginia, United States. http://usandthempodcast.com/podcast/to-give-or-not-to-give/.

2013 Sep 25 **Quoted Source**. The Portland Mercury. Portland, Oregon, United States. Presenter(s): Joe Streckert. The Millionaire Panhandler. http://www.portlandmercury.com/portland/the-millionaire-panhandler/Content?oid=10627133.

2010 Dec 20 **Quoted Source**. A Plan to Make Homelessness History. The New York Times. New York City, New York, United States. Presenter(s): David Bornstein. The New York Times. http://opinionator.blogs.nytimes.com/2010/12/20/a-plan-to-make-homelessness-history/.

2009 May **Personal Profile**. At Home with the Homeless. Stephen Hwang '88 has dedicated his career to serving society's most desperate and difficult. Johns Hopkins University School of Medicine. Baltimore, Maryland, United States. Presenter(s): Kurt Kleiner. Hopkins Medicine. Spring/Summer 2009.

2005 Nov 16 **Personal Profile**. Interventions to Improve the Health of the Homeless. A Backwards Glance: Interviews with public health and healthcare leaders coping with infectious disease challenges to the marginalized. Medical Advocates (medadvocates.org). United States.

2. NATIONAL

Invited Lectures and Presentations

2022 Jan 25 **Presenter**. The COVENANT Study: COVID-19 Cohort Study of People Experiencing Homelessness in Toronto. CanCOVID Speaker Series. Canada. Presenter(s): **Stephen Hwang**.

2019 May 28 **Keynote Speaker**. Challenges in homelessness research: What data will make a difference? Data That Makes a Difference: 4th Annual Canadian Homelessness Data Sharing Initiative Conference, Calgary Homeless Foundation and University of Calgary School of Public Policy. Calgary, Alberta, Canada. Presenter(s): **Stephen Hwang**.

2017 May 6 **Invited Speaker**. Healthcare among the Marginalized. Christian Medical and Dental Society 2017 National Conference. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**, Etzkorn W, Rajah J, Zung P.

2016 Sep 24 **Invited Speaker**. “Homeless but not Hopeless:” A Panel Discussion on Homelessness. Young Presidents’ Organization (YPO) 2016 Canadian Conference. Toronto, Ontario, Canada. Presenter(s): Barata P, **Hwang SW**, Stergiopoulos V, Gadon S.

2015 Oct 15 **Keynote Speaker**. The Beauty and Boundaries of Research. Canadian Society of Internal Medicine 2015 Annual Conference, Dr. David Sackett Senior Investigator Award Presentation. Charlottetown, Prince Edward Island, Canada. Presenter(s): **Hwang SW**.

2015 Oct 15 **Invited Speaker**. Five Top Papers in General Internal Medicine. Canadian Society of Internal Medicine 2015 Annual Conference. Charlottetown, Prince Edward Island, Canada. Presenter(s): **Hwang SW**.

2014 Oct 3 **Invited Speaker**. Seeing the Big Picture: Acting on the Social Determinants of Health. Canadian Society of Internal Medicine 2014 Annual Conference, ACP/AM Edwards Lecture. Calgary, Alberta, Canada. Presenter(s): **Hwang SW**.

2014 Jun 6 **Invited Speaker**. Science Panel: Livable Cities. Canadian Science Writers Association 2014 Annual Conference. Toronto, Ontario, Canada. Presenter(s): Murphy J, **Hwang SW**, Roorda M, Cowen D.

2014 May 15 **Invited Speaker**. Caring for Vulnerable and Marginalized Populations in Toronto. The Commonwealth Fund and the Canadian Foundation for Healthcare Improvement (CFHI). Harkness Fellowships in Health Care Policy and Practice. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2014 May 15 **Invited Speaker**. The Bridging of Research and Policy by At Home/Chez Soi (AH/CS): A multi-site trial of Housing First for persons with a mental illness who are homeless. Canadian Association of Health Services and Policy Research (CAHSPR) 2014 Conference. Toronto, Ontario, Canada. Presenter(s): **Hwang S**, Goering P, More F.

2013 Oct 17 **Invited Speaker**. Poverty, Homelessness, and Health: Why Housing Matters. Canadian Mental Health Association (CMHA) National Conference 2013. Addressing the Social Determinants of Mental Health and Addictions. Ottawa, Ontario, Canada. Presenter(s): **Hwang SW**.

2011 Oct 6 **Invited Speaker**. Health care utilization among people who are homeless. Canadian Homelessness Research Network. Without a Home: Research symposium on contemporary issues in Canadian homelessness. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2010 Nov 15 **Invited Speaker**. The Health and Housing in Transition Study: Understanding the trajectories of homeless and vulnerably housed adults. National Housing Research Committee (NHRC) Homelessness Working Group. Ottawa, Ontario, Canada. Presenter(s): **Hwang SW**.

2010 Jun 14 **Invited Speaker**. Beyond Barriers: Photographs from the Frontlines of Health (Exhibit at the Centenary Conference of the Canadian Public Health Association). AstraZeneca Canada/Frontline Health. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2009 Dec 1 **Invited Speaker**. Life expectancy of the homeless. Canadian Housing and Renewal Association. Ontario, Canada. Presenter(s): **SW Hwang**.

2009 Nov 29 **Invited Speaker**. What Causes Homelessness? Myths and Realities. Mental Health Commission of Canada. Into the Light: Transforming Mental Health in Canada. Vancouver, British Columbia, Canada. Presenter(s): **SW Hwang**.

2009 May 27 **Invited Speaker**. One Size Doesn’t Fit All: Primary Care Access for Vulnerable Populations. Canadian Institutes of Health Research - Institute of Gender and Health and Institute of Health Services and Policy Research. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**, Grace SL, Travers A.

2009 Apr 24 **Invited Speaker**. Aging among People Experiencing Homelessness. 2009 Annual Meeting of the Canadian Geriatric Society. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**. (Continuing Education).

2009 Feb 18 **Invited Speaker**. Unmet needs for health care among homeless people within a universal health

insurance system. Finding Home: The 2nd National Conference on Housing and Homelessness. Calgary, Alberta, Canada. Presenter(s): **Hwang SW**.

2009 Feb 18 **Invited Speaker**. REACH3: The Research Alliance for Canadian Homelessness, Housing, and Health. Finding Home: The 2nd National Conference on Housing and Homelessness. Calgary, Alberta, Canada. Presenter(s): **Hwang SW**. Khandor E. Klodawky F. Worthington C. MacLaurin B. Aubry T.

2008 Jun 2 **Invited Speaker**. Drug Use among Homeless People: Data from a Representative Sample in Toronto. Health Canada, Drug Strategy and Controlled Substances Programme, Office of Research and Surveillance. Ottawa, Ontario, Canada. Presenter(s): **Hwang SW**.

2008 May 27 **Invited Speaker**. Mental Health and Homelessness Workshop. Canadian Population Health Initiative, Canadian Institute for Health Information (CIHI). Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2008 May 13 **Invited Speaker**. Research on Homelessness, Housing, and Health. Health Council of Canada. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2006 Nov 2 **Invited Speaker**. Health Care Delivery in the Shelter Setting. Human Resources and Social Development Canada (HRSDC), Housing and Homelessness Branch, Meeting of Large Multi-Service Shelters. Montreal, Quebec, Canada. Presenter(s): **Hwang SW**.

2006 Mar 30 **Invited Speaker**. Homelessness and Health. Street Level Conference 2006: Truthtellers and Peacemakers. Sponsored by the Evangelical Fellowship of Canada. Ottawa, Ontario, Canada. Presenter(s): **Hwang SW**.

2005 May 20 **Invited Speaker**. Risk Factors and Behaviors Among Homeless Persons: Mortality Among Homeless Women. Canadian Conference on Homelessness. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**. Plenary address.

2005 May 19 **Invited Speaker**. Translating Research on Homelessness into Policy and Action. Canadian Conference on Homelessness. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**. Plenary address.

2005 May 19 **Presenter**. Bedbugs infestations in homeless shelters and other locations in Toronto. Canadian Conference on Homelessness. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**, Svoboda TJ, De Jong IJ, Kabasele KJ, Gogosis E. Poster presentation.

2005 May 19 **Presenter**. Use of meal programs and shelters by homeless people in Toronto. Canadian Conference on Homelessness. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**, Chiu S, Kiss A, Katic M, Tolomiczenko G, Levinson W, Redelmeier D, Szalai JP, Cowan L. Poster presentation.

2004 May 5 **Invited Speaker**. Canadian Policy Briefing. Commonwealth Fund International Program in Health Care Policy (Harkness Fellowships) and the Canadian Health Services Research Foundation. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2004 Mar 22 **Invited Speaker**. Policy Forum on Health Disparities. Health Canada, Canadian Institutes for Health Research (CIHR), and the Health Disparities Task Group of the Federal/Provincial/Territorial Advisory Committee on Population Health and Health Security. Ottawa, Ontario, Canada. Presenter(s): **Hwang SW**.

2003 Nov 18 **Invited Speaker**. Homelessness and Health: What is the Role of Housing? Canada Mortgage and Housing Corporation (CMHC), National Housing Research Committee (NHRC) Working Group on Homelessness. Ottawa, Ontario, Canada. Presenter(s): **Hwang SW**.

2003 Oct 3 **Invited Speaker**. Homelessness: Implications for Housing and Health. Canadian Housing and Renewal Association (CHRA), National Symposium on Health and Housing. Calgary, Alberta, Canada. Presenter(s): **Hwang SW**.

2003 Jun 18 **Invited Speaker**. Consultation Workshop on the National Research Agenda of the National Homelessness Initiative. National Secretariat on Homelessness (Human Resources Development Canada). Ottawa, Ontario, Canada. Presenter(s): **Hwang SW**.

2002 Nov 4 **Invited Speaker**. Overview of Research on Homelessness and Health. Canadian Institutes of Health Research (CIHR) and the National Secretariat on Homelessness (NSH), Community-Research Think Tank on Health and Homelessness. Ottawa, Ontario, Canada. Presenter(s): **Hwang SW**.

2002 Oct 18 **Invited Speaker**. Inner City Health and the Heart of General Internal Medicine. 2002 National Conference of the Canadian Society of Internal Medicine. Halifax, Nova Scotia, Canada. Presenter(s): **Hwang SW**. Keynote Address.

2002 Mar **Invited Speaker**. National Roundtable on Homelessness. National Secretariat on Homelessness (Human Resources Development Canada). Ottawa, Ontario, Canada. Presenter(s): **Hwang SW**.

2000 Aug **Invited Speaker**. Expert Panel on Gaps in Research on Homelessness. National Secretariat on Homelessness (Human Resources Development Canada). Ottawa, Ontario, Canada. Presenter(s): **Hwang SW**.

1997 Mar **Invited Speaker**. The Role of the Chief Medical Resident: Leadership. 6th Annual Canadian Chief Medical Resident's Conference. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**. (Continuing Education).

Presented Abstracts

2021 Jun 24 **Co-author**. : The Attitudes of Canadian Ophthalmology Residents and Pre-Clerkship Medical Students at an Ontario Medical School Towards Homeless Individuals. Canadian Ophthalmological Society (COS) 2021 Annual Conference. Canada. Presenter(s): Sayal AP, Popovic MM, Mustafa M, **Hwang SW**, Lichter M.

2021 May 19 **Co-author**. Diabetes self-management and homelessness: Using concept mapping to understand and prioritize challenges. 2021 Annual CAHSPR Conference. Canada. Presenter(s): Grewal E, Campbell R, Booth G, McBrien K, **Hwang S**, O'Campo, P, Campbell D.

2020 Oct 28 **Co-author**. Identifying Challenges and Solutions to Providing Diabetes Care for the Homeless. Diabetes Canada/CSEM Professional Conference, Virtual Conference. Oct 28-30, 2020. Canada. Presenter(s): Mancini N, Campbell R, Yaphe H, Tibebu T, Grewal E, Saunders-Smith T, **Hwang S**, McBrien K, Booth G, Campbell D.

2020 Oct 28 **Co-author**. Approaches to Enabling Care for People with Diabetes Experiencing Homelessness. Diabetes Canada/CSEM Professional Conference, Virtual Conference. Oct 28-30, 2020. Canada. Presenter(s): Yaphe H, Campbell R, Mancini N, Grewal E, Tibebu T, Saunders-Smith T, Booth G, McBrien K, **Hwang S**, Campbell D.

2020 Oct 28 **Co-author**. Patient-level Barriers to Diabetes Management Among those with Housing Instability. Diabetes Canada/CSEM Professional Conference, Virtual Conference. Oct 28-30, 2020. Canada. Presenter(s): Campbell R, Saunders-Smith T, Tibebu T, Grewal E, Yaphe H, Mancini N, **Hwang S**, McBrien K, Booth G, Campbell D.

2020 Oct 28 **Co-author**. Diabetes Management and Homelessness: Understanding Barriers Using Concept Mapping. Diabetes Canada/CSEM Professional Conference, Virtual Conference. Oct 28-30, 2020. Canada. Presenter(s): Campbell R, Saunders-Smith T, Tibebu T, Grewal E, Yaphe H, Mancini N, **Hwang S**, McBrien K, Booth G, Campbell D.

2020 Oct 21 **Co-author**. Baseline characteristics and clinical outcomes of homeless adults presenting to an inner city STEMI network hospital. Canadian Cardiovascular Congress (CCC). Canada. Presenter(s): Liauw S et al. (Trainee Presentation).

2020 May **Co-author**. Giving a voice to the voiceless: Use of an arts-based approach to understand the challenges of managing diabetes while homeless . 2020 Canadian Association for Health Services and Policy Research (CAHSPR) Conference. Saskatoon, Saskatchewan, Canada. Presenter(s): David Campbell et al. Oral presentation. (Trainee Presentation).

2020 May **Co-author**. Diabetes self-management and homelessness: Using concept mapping to understand and prioritize challenges. 2020 Canadian Association for Health Services and Policy Research (CAHSPR) Conference. Saskatoon, Saskatchewan, Canada. Presenter(s): David Campbell et al. Oral presentation. (Trainee Presentation).

2020 May **Co-author**. Community-based Participatory Research and Knowledge Translation: Lessons from a Toronto-based client group. 2020 Canadian Association for Health Services and Policy Research (CAHSPR) Conference. Saskatoon, Saskatchewan, Canada. Presenter(s): David Campbell et al. Oral presentation. (Trainee Presentation).

2020 Mar **Co-author**. Outcomes of ST-Segment Elevation Myocardial Infarction in a Canadian Homeless Population. ACC Rockies Conference. Banff, Alberta, Canada. Presenter(s): Liauw S, Luong L, Atcha M, Liu S, Fam N, Cheema A, **Hwang S**. Poster presentation. (Trainee Presentation).

2019 Nov 4 **Presenter**. Beyond the Advisory: Lessons Learned from a Research Community Expert Group. Canadian Alliance to End Homelessness - 2019 National Conference on Ending Homelessness. Edmonton, Alberta, Canada. Presenter(s): Zewge-Abubaker N, **Hwang S**.

2019 May **Co-author**. Characterizing program models for diabetes management among those experiencing homelessness. 2019 Canadian Association for Health Services and Policy Research (CAHSPR) Conference. Halifax, Nova Scotia, Canada. Presenter(s): David Campbell, Kerry McBrien, **Stephen Hwang**, Gillian Booth. Oral presentation. (Trainee Presentation).

2019 May **Co-author**. Findings from a scoping review on self-management of problem gambling. 2019 Canadian Association for Health Services and Policy Research (CAHSPR) Conference. Halifax, Nova Scotia, Canada. Presenter(s): Flora Matheson, Sarah Hamilton-Wright, David Kryszajtys, Jessica Wiese, Lauren Cadel, Carolyn Ziegler, **Stephen Hwang**, Sara Guilcher. Poster presentation. (Trainee Presentation).

2019 May **Co-author**. Validity of Health Administrative Data in Identifying Individuals Experiencing Homelessness. 4th Annual Canadian Homelessness Data Sharing Initiative - Data That Makes a Difference, Calgary Homeless Foundation and University of Calgary School of Public Policy. Calgary, Alberta, Canada. Presenter(s): Salimah Shariff, Lucie Richard, **Stephen Hwang**, Cheryl Forchuk, Rosane Nisenbaum, Kristin Clemens, Kathryn Wiens, Richard Booth, Mahmoud Azimaee.

2018 Nov 6 **Co-author**. Impact of Housing First Interventions on Housing and Well-being Outcomes Among Homeless Individuals with Mental Health Issues in Toronto. Canadian Alliance to End Homelessness - 2018 National Conference on Ending Homelessness. Hamilton, Ontario, Canada. Presenter(s): Mejia-Lancheros C, Lachaud J.

2018 Nov 6 **Co-author**. Beyond a Demonstration Project: Evaluating and Supporting Housing First in a Real-World Context. Canadian Alliance to End Homelessness - 2018 National Conference on Ending Homelessness. Hamilton, Ontario, Canada. Presenter(s): Granat S, Dunn J.

2018 Nov 6 **Co-author**. The Tools of Housing First: Evaluating a Client Needs Assessment. Canadian Alliance to End Homelessness - 2018 National Conference on Ending Homelessness. Hamilton, Ontario, Canada. Presenter(s): Raine L, **Hwang SW**.

2018 Nov 6 **Co-author**. Capturing an Indigenous Approach to Housing First. Canadian Alliance to End Homelessness - 2018 National Conference on Ending Homelessness. Hamilton, Ontario, Canada. Presenter(s): Francombe-Pridham K, Passmore D.

2018 Oct 12 **Co-author**. Ted Giles Clinical Vignettes: “An Unusual Cause of Involuntary Movements”. Canadian Society of Internal Medicine 2018 Annual Meeting. Banff, Alberta, Canada. Presenter(s): Prakash V, **Hwang SW**. (Trainee Presentation).

2016 Nov 3 **Co-author**. The Effect of the At Home/Chez Soi Housing First program on Database-Documented Health Care Utilization among Homeless Adults with Mental Illness. Canadian Alliance to End Homelessness - 2016 National Conference on Ending Homelessness. London, Ontario, Canada. Presenter(s): Gozdzik A, **Hwang SW**.

2016 Jun 15 **Co-author**. Extreme Cold Weather Alerts in Toronto: An Emerging Public Health Issue. Poster presentation. Public Health 2016 - Annual Conference of the Canadian Public Health Association. Toronto, Ontario, Canada. Presenter(s): Coleman P, Bassil K, Ansara D, Gower S, Kim M, Wainberg A, Zhang P, **Hwang S**, Benny R, Campbell M, Shapiro H.

2015 Oct 1 **Co-author**. Assessing the Effectiveness of a Brief Case Management Program for Frequent Users of Hospital Emergency Departments. Workshop. 65th Annual Conference of the Canadian Psychiatric Association. Vancouver, British Columbia, Canada. Presenter(s): Stergiopoulos V, Wasylenki D, Leszcz M, O'Campo P, Kurdyak P, Voore P, **Hwang SW**, Guimond T, Alsharafi Z, Gozdzik A.

2015 Sep 30 **Co-author**. Does Housing First Decrease Suicidal Behavior Among Homeless Adults with Mental Health Disorders? Oral Presentation. Canadian Academy of Psychiatric Epidemiology 2015 Annual Scientific Symposium. Vancouver, British Columbia, Canada. Presenter(s): Roos L, Distasio J, Katz L, Bourque J, Bolton JM, Bolton SL, Wong J, Chateau D, Somers J, **Hwang S**, Frankish JC, Sareen J, for the At Home Chez Soi Team.

2015 Jun 5 **Co-author**. Understanding the lived experiences of housing transitions for homeless and vulnerably housed individuals: A qualitative study. 76th Annual Convention of the Canadian Psychological Association. Ottawa, Ontario, Canada. Presenter(s): Polillo A, Sylvestre J, Aubry T, Klodawsky F, **Hwang SW**. Poster presentation. (Trainee Presentation).

2015 May 29 **Senior Author**. End-of-life & Palliative Care Interventions for Homeless People: A Systematic Review (poster presentation; winner of Best Poster Presentation Award). Canadian Society of Palliative Care Physicians, 11th Advanced Learning of Palliative Medicine Conference. Calgary, Alberta, Canada. Presenter(s): Sumalinog R, Harrington K, Dosani N, **Hwang SW**. (Trainee Presentation).

2014 Nov 4 **Senior Author**. Measuring progress towards ending homelessness. Canadian Alliance to End Homelessness - National Conference on Ending Homelessness. Vancouver, British Columbia, Canada. Presenter(s): Adamo A. Panel presentation.

2014 Sep 11 **Presenter**. Being a psychiatrist practicing evidence-based Housing First approaches with homeless people with severe mental illness. Canadian Psychiatric Association 64th Annual Conference. Toronto, Ontario, Canada. Presenter(s): Lesage A, Farmer O, Musgrave I, Stergiopoulos V, **Hwang S**.

2014 May **Co-author**. Hospital Readmissions among Homeless Patients in Toronto. 2014 Canadian Association for Health Services and Policy Research (CAHSPR) Conference. Toronto, Ontario, Canada. Presenter(s): Saab D, Katic M, Dhalla I, Nisenbaum R, **Hwang SW**. Poster presentation. (Trainee Presentation).

2014 Apr 30 **Co-author**. Hospital Readmissions among Homeless Patients in Toronto. Canadian Housing Renewal Association (CHRA) 46th National Congress on Housing and Homelessness. Edmonton, Alberta, Canada. Presenter(s): Saab D, Katic M, Dhalla I, Nisenbaum R, **Hwang SW**. Emerging Professional Research Colloquium. (Trainee Presentation).

2013 Oct 30 **Senior Author**. Conducting a medical chart review in a homeless mentally ill population: Lessons from the Toronto site of the At Home Study. Canadian Alliance to End Homelessness - National Conference on Ending Homelessness. Ottawa, Ontario, Canada. Presenter(s): Dosani N, Young S, Whisler A, **Hwang S**. Oral presentation. (Trainee Presentation).

2013 Oct 29 **Co-author**. Identifying the Patterns of Shelter Stays of Families in Three Canadian Cities of Different Sizes. Canadian Alliance to End Homelessness - National Conference on Ending Homelessness. Ottawa, Ontario, Canada. Presenter(s): Aubry T, Farrell S, **Hwang SW**, Calhoun M. Oral presentation. (Trainee Presentation).

2013 Apr 12 **Co-author**. Impact of comprehensive harm reduction services on access to and engagement with care at a residential palliative and supportive care program for people living with HIV/AIDS: A qualitative study. 22nd Annual Canadian Conference on HIV/AIDS Research (CAHR 2013). Vancouver, British Columbia, Canada. Presenter(s): Dilley L, McNeil R, Guirguis-Younger M, **Hwang SW**, Small W. Oral presentation.

2013 Apr 12 **Co-author**. Impact of Food Insecurity and Housing on Health Outcomes among People Living with HIV from 2006-2009: Longitudinal Findings from Positive Spaces, Healthy Places Cohort Study. 22nd Annual

Canadian Conference on HIV/AIDS Research (CAHR 2013). Vancouver, British Columbia, Canada. Presenter(s): Choi S, Globerman JM, Fielden S, Bekele T, Koornstra JJ, Hambly K, Greene S, Sobota M, Watson J, Walker G, O'Brien Teengs D, Tucker R, **Hwang SW**, Rourke SB, and the Positive Spaces, Healthy Places Team. Poster presentation.

2012 Nov 26 **Co-author**. Rates and characteristics of traumatic brain injury among homeless civilian men. 3rd Annual Military and Veteran Health Research Forum, Canadian Institute for Military and Veteran Health Research. Kingston, Ontario, Canada. Presenter(s): Topolovec-Vranic J, Ennis N, Johnson P, Michalak A, Masanic C, Ouchterlony D, Distin K, Stergiopolous V, **Hwang S**, Kontos P, Colantonio A, Cusmano M. Poster presentation.

2012 Oct 18 **Co-author**. Aging with HIV: Basic Needs and Health Status. 41st Annual Meeting, Canadian Association on Gerontology. Vancouver, British Columbia, Canada. Presenter(s): Sok P, Rourke SB, Tucker R, Greene S, Sobota M, Koornstra J, Byers S, **Hwang S**, Watson J, Bekele T, for the Positive Spaces, Healthy Places Team. Poster presentation. Winner of the Canadian Association on Gerontology Divisional Poster Award for Social Sciences. (Trainee Presentation).

2012 Jun 12 **Senior Author**. Discrimination on the Basis of Socioeconomic Status in Access to Primary Care. 4th Canadian National Medical Student Research Symposium, University of Manitoba. Winnipeg, Manitoba, Canada. Presenter(s): Olah M, Gaisano G, **Hwang SW**. (Trainee Presentation).

2011 Oct 15 **Presenter**. Discrimination in Access to Primary Care on the Basis of Socioeconomic Status: A Randomized Controlled Audit Study. 2011 Annual Meeting of the Canadian Society of Internal Medicine. Halifax, Nova Scotia, Canada. Presenter(s): **Hwang SW**, Gaisano G, Olah M. Oral presentation.

2011 Apr 14 **Co-author**. Housing affordability and sense of community belonging predict health-related quality of life among people with HIV in Ontario: Results from the Positive Spaces, Healthy Places study. 20th Annual Canadian Conference on HIV/AIDS Research (CAHR 2011). Toronto, Ontario, Canada. Presenter(s): Rourke ST, Bekele T, Tucker R, Greene S, Monette L, Koornstra J, Sobota M, Byers S, Watson J, Bacon J, Hambly K, **Hwang S**, Guenter D, Dunn J, Hamilton M, Truax J, Hintzen DB, White P, Kayitesi M, Desbiens M, De Blois S, Cubillos M, and The Positive Spaces, Healthy Places Team. Poster presentation.

2009 Apr 24 **Co-author**. Housing Instability Over Time is Associated with Worse Health Outcomes in People Living with HIV in Ontario: The Positive Spaces, Healthy Places Study. 18th Annual Canadian Conference on HIV/AIDS Research. Vancouver, British Columbia, Canada. Presenter(s): Koornstra J, Tucker R, Greene S, Sobota M, Monette L, Guenter D, Byers S, Dunn J, **Hwang SW**, Rourke SB. Poster presentation.

2009 Apr 24 **Co-author**. Examining Food Insecurity and its Associated Factors in People Living with HIV in Ontario: The Positive Spaces, Healthy Places Study. 18th Annual Canadian Conference on HIV/AIDS Research. Vancouver, British Columbia, Canada. Presenter(s): Koornstra J, Tucker R, Greene S, Sobota M, Monette L, Guenter D, Byers S, Dunn J, **Hwang SW**, Rourke SB. Oral presentation.

2009 Apr 24 **Co-author**. Determinants of health amongst people living with HIV/AIDS in Ontario with and without HCV co-infection: The Positive Spaces, Healthy Places Study. 18th Annual Canadian Conference on HIV/AIDS Research. Vancouver, British Columbia, Canada. Presenter(s): Koornstra J, Tucker R, Greene S, Sobota M, Monette L, Guenter D, Byers S, Dunn J, **Hwang SW**, Rourke SB. Poster presentation.

2009 Apr 24 **Co-author**. Social support has direct and indirect effects on health-related quality of life among people living with HIV/AIDS in Ontario: The Positive Spaces, Healthy Places Study. 18th Annual Canadian Conference on HIV/AIDS Research. Vancouver, British Columbia, Canada. Presenter(s): Tsegaye, Koornstra J, Tucker R, Greene S, Sobota M, Monette L, Guenter D, Byers S, Dunn J, **Hwang SW**, Rourke SB. Poster presentation.

2009 Feb 18 **Principal Author**. Chronic pain among homeless people. Finding Home: The 2nd National Conference on Housing and Homelessness. Calgary, Alberta, Canada. Presenter(s): Wilkins E. **Hwang SW**. (Trainee Presentation).

2008 Jun 7 **Co-Author**. Impact of a Homeless Curriculum on the Attitudes of Medical Trainees Towards Homeless Persons who Present for Care in the Emergency Department. 2008 Annual Meeting of the Canadian Association of Emergency Physicians (CAEP). Ottawa, Ontario, Canada. Presenter(s): Spence JM,

Bandiera G, Taback N, Balu-Kakkar P, **Hwang S**.

2008 Apr 26 **Co-author**. Positive Spaces, Healthy Places: Health Outcomes at 6 Months. 17th Annual Canadian Conference on HIV/AIDS Research. Montreal, Quebec, Canada. Presenter(s): Tucker R, Greene S, Sobota M, Koornstra J, Monette L, Guenter D, Byers S, Dunn J, **Hwang SW**, Rourke SB. Oral presentation.

2008 Apr 26 **Co-author**. Positive Spaces, Healthy Places: Regional Analyses to Put Research into Action. 17th Annual Canadian Conference on HIV/AIDS Research. Montreal, Quebec, Canada. Presenter(s): Koornstra J, Tucker R, Greene S, Sobota M, Monette L, Guenter D, Byers S, Dunn J, **Hwang SW**, Rourke SB. Oral presentation.

2007 Apr 26 **Co-author**. Increasing Participation of Community Members at Research Conferences: Evidence from the International Conference on Urban Health, 2005 and the OHTN Research Conference, 2006. 16th Annual Canadian Conference on HIV/AIDS Research. Toronto, Ontario, Canada. Presenter(s): McKay C, Travers R, Meagher A, Wilson MG, O'Campo P, **Hwang SW**, Cowan L, Parris UJ, Globerman J, Rourke SB. Poster presentation.

2006 May 25 **Co-author**. Whose Capacity Are We Building Through HIV/AIDS Community-Based Research? 15th Annual Canadian Conference on HIV/AIDS Research. Québec City, Quebec, Canada. Presenter(s): Tucker R, Greene S, Rourke SB, Guenter D, Monette L, Narciso L, Koornstra J, Byers S, Sobota M, Dunn J, **Hwang SW**. Poster presentation.

2005 May 19 **Presenter**. REACH3: Research Alliance for Canadian Homelessness, Housing, and Health. Canadian Conference on Homelessness. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**, Aubry T, Dunn J, Palepu A, Roy E, Shiell A, Turnbull J. Poster presentation.

2005 May 19 **Presenter**. Group A Streptococcal Carriage Among Residents of an Urban Homeless Shelter. Canadian Conference on Homelessness. Toronto, Ontario, Canada. Presenter(s): Bargh GJM, Hoch J, Speechley M, Willey B, McGeer A, **Hwang SW**. Poster presentation.

2005 May 19 **Presenter**. Dyspepsia in Homeless Adults. Canadian Conference on Homelessness. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**, Wong SY, Bargh GJ. Poster presentation.

2000 Sep **Co-author**. Prevalence of Helicobacter pylori infection among homeless people in Toronto. 69th Annual meeting of the Royal College of Physicians and Surgeons of Canada, Canadian Association of Teachers of Community Health / National Specialty Society in Community Medicine. Edmonton, Alberta, Canada. Presenter(s): Wong S, **Hwang SW**. Oral presentation.

1999 Sep **Co-author**. Barriers to appropriate diabetes management among homeless persons in Toronto. 68th Annual meeting of the Royal College of Physicians and Surgeons of Canada, Canadian Association of Teachers of Community Health / National Specialty Society in Community Medicine. Montreal, Quebec, Canada. Presenter(s): Bugeja A, **Hwang SW**. Oral presentation.

1998 Sep **Co-author**. Access to Prescription Medications among Homeless Men in Toronto. 67th Annual meeting of the Royal College of Physicians and Surgeons of Canada, Canadian Association of Teachers of Community Health / National Specialty Society in Community Medicine. Toronto, Ontario, Canada. Presenter(s): Gottlieb J, **Hwang SW**. Oral presentation.

Presented and Published Abstracts

2017 Nov 8 **Co-author**. Access to primary care for persons recently released from prison: An audit study. Family Medicine Forum 2017 Family Medicine Innovations in Research and Education Day. Montreal, Quebec, Canada. Presenter(s): Fahmy N.

Publication Details:
N Fahmy, FG Kouyoumdjian, J Berkowitz, S Fahmy, CM Neves, **SW Hwang**, RE Martin. Access to primary care for persons recently released from prison: An audit study. Canadian Family Physician. **Coauthor or Collaborator**.

2007 Apr 26 **Co-author**. The Effects of Housing Status on Health-Related Outcomes in People living with HIV: A Systematic Review of the Literature. 16th Annual Canadian Conference on HIV/AIDS Research. Toronto, Ontario, Canada. Presenter(s): Leaver CA, Bargh G, Dunn JR, **Hwang SW**. Poster presentation.

Publication Details:
The Effects of Housing Status on Health-Related Outcomes in People living with HIV: A Systematic Review of the Literature. AIDS & Behavior. 11(S2): 85-100.

2001 Socioeconomic barriers to ambulatory mental health services despite universal health care in a Canadian inner-city setting.

Publication Details:
Steele LS, Glazier RH, Agha M, Lin E, Cohen MM; Inner City Toronto Time Trends Working Group. Socioeconomic barriers to ambulatory mental health services despite universal health care in a Canadian inner-city setting. American Journal of Epidemiology. 2001;153(11):S856. **Member of Research Group**.

2000 Aug Prevalence of Helicobacter pylori infection among homeless people in Toronto.

Publication Details:
Wong S, **Hwang SW**. Prevalence of Helicobacter pylori infection among homeless people in Toronto. Clinical and Investigative Medicine. August 2000; 23(S4):S7. **Senior Responsible Author**.

1998 Aug Access to prescription medications among homeless men in Toronto.

Publication Details:
Gottlieb J, **Hwang SW**. Access to prescription medications among homeless men in Toronto. Clinical and Investigative Medicine. August 1998;21(S4):S23. **Senior Responsible Author**.

Media Appearances

2020 Dec 10 **News Article**. Toronto researchers to study COVID-19 among people experiencing homelessness. Interviewer: Muriel Draaisma. CBC. Canada. Available from: https://www.cbc.ca/news/canada/toronto/researchers-covid-19-homelessness-people-problem-toronto-federal-task-force-1.5835321.

2019 Jan 2 **Quoted Source**. Oshawa addiction clinic takes a stab at opioid crisis with acupuncture treatment. Interviewer: Marcus Gee. The Globe and Mail. Canada. Available from: https://www.theglobeandmail.com/canada/article-acupuncture-treatments-used-to-aid-drug-users-on-road-to-recovery/.

2018 Jun 1 **Quoted Source**. 'Be An Angel' project offers a little taste of humanity for most vulnerable patients. Interviewer: Michael Swan. Catholic Register. Ontario, Canada. Available from: https://www.catholicregister.org/item/27459-be-an-angel-project-offers-a-little-taste-of-humanity-for-most-vulnerable-patients?platform=hootsuite.

2017 Feb 28 **Quoted Source**. Bringing homeless deaths to light. Interviewer: Webster P. CMAJ News. Ontario, Canada. Available from: http://cmajnews.com/2017/02/28/bringing-homeless-deaths-to-light-109-5399/.

2015 Jul 5 **Opinion / Commentary**. Doctor pushes the boundaries of health-care: Goar. The Toronto Star. Toronto, Ontario, Canada. Available from: http://www.thestar.com/opinion/commentary/2015/07/02/doctor-pushes-the-boundaries-of-health-care-goar.html.

2014 Apr 25 **Quoted Source**. Solution to homelessness at hand, but it won't be cheap. Interviewer: Swan M. The Catholic Register. Toronto, Ontario, Canada. Available from: http://www.catholicregister.org/home/canada/item/18022-solution-to-homelessness-at-hand-but-it-won-t-be-cheap.

2013 Oct 2 **Quoted Source**. Leaving hospital against doctor's advice is high risk, Canadian study says. Interviewer: Helen Branswell. The Globe and Mail / Calgary Herald, Canadian Press. Canada. Presenter(s): Helen

Branswell.

2013 Oct 1 **Quoted Source**. 25,000 a year left hospital despite doctor's order. CBC News. Canada.

2013 Feb 4 **Personal Profile**. Homelessness And Health: Toronto Hospital Gets Position Dedicated To Helping Those On Street. Available at: http://www.huffingtonpost.ca/2013/02/04/homelessness-and-health_n_2599740.html. Huffington Post. Canada.

2013 Jan 24 **Author of Commentary**. Fixing Homelessness Means Putting Housing First. Available at: http://www.huffingtonpost.ca/stephen-hwang/at-home-homeless-study_b_2536434.html. Huffington Post, Hill Times Online, Hamilton Spectator. Canada. Presenter(s): **Stephen Hwang** & Paula Goering.

2013 Jan 21 **Quoted Source**. Homeless Health Care: Helping People On Street Challenging, But Worthwhile For Doctors. Available at: http://www.huffingtonpost.ca/2013/01/21/homeless-health-care_n_2521460.html. Huffington Post, Canadian Press, Victoria Times Colonist, Vancouver Sun, Calgary Herald, Montreal Gazette, Ottawa Citizen, Yahoo! News Canada. Canada. Presenter(s): Sheryl Ubelacker.

2012 Dec 13 **Quoted Source**. Want to Help the Homeless Thrive? Give Them Homes. Available at: http://www.huffingtonpost.ca/lindsay-jolivet/at-home-homelessness-program-_b_2286441.html. Huffington Post. Canada. Presenter(s): Lindsay Jolivet.

2012 Dec 2 **Quoted Source**. City's outreach workers face myriad challenges. Available at: http://www.montrealgazette.com/news/Unique+hurdles+reaching+risk+youth+city+outreach+workers+face+myriad+challenges/7636486/story.html. Montreal Gazette. Montreal, Quebec, Canada. Presenter(s): Adam Kovac.

2011 May 12 **Quoted Source**. 'Super' bedbugs found in Vancouver's Downtown Eastside. Available at: http://bc.ctvnews.ca/super-bedbugs-found-in-vancouver-s-downtown-eastside-1.642474. Canadian Press, CTV News. Canada. Presenter(s): Sheryl Ubelacker.

2010 Jan 19 **Personal Profile**. Personal Profile. Doctor Dismisses Profitable Career For The Homeless. 100 Huntley Street. Toronto. Ontario, Canada. Presenter(s): Bridget Antwi. Available at: http://100huntley.com/video.php?id=gjrRc-GT8Ww OR http://www.youtube.com/watch?v=gjrRc-GT8Ww. (Presentation to Patients/Public).

2008 Oct 18 **Personal Profile**. Toronto's Street Saviour. Profile of Dr. Stephen Hwang. The Globe and Mail. Toronto, Ontario, Canada. Presenter(s): Hayley Mick. The Globe and Mail. Page M1.

2008 Oct 9 **Quoted Source**. Canadian researchers call for end to 'politicization' of science. CBC News. Toronto, Ontario, Canada. Presenter(s): Paul Jay. http://www.cbc.ca/technology/story/2008/10/09/scientists-letter.html.

2008 Oct 9 **Quoted Source**. Canadian scientists blast 'suppression of research' by Tories. Canwest News Service. Ontario, Canada. Presenter(s): Margaret Munro.

2008 Oct 8 **Quoted Source**. For many, brain injury at root of homelessness. More than half of city's homeless population have experienced severe trauma, researchers find. The Globe and Mail. Toronto, Ontario, Canada. Presenter(s): Caroline Alphonso. The Globe and Mail. Page A11.

2008 Oct 6 **Quoted Source**. Traumatic brain injury common among homeless, study finds. CBC News. Toronto, Ontario, Canada. Presenter(s): Maureen Brosnahan. http://www.cbc.ca/health/story/2008/10/06/homeless-head-injury.html.

2008 May 17 **Quoted Source**. Toronto's white underbelly. Curious anomaly: Multiculturalism stops at the street. The Globe and Mail. Toronto, Ontario, Canada. Presenter(s): Kate Hammer.

2007 Sep 19 **Interview**. Health study of Toronto homeless demands action, says group. CBC News. Toronto, Ontario, Canada.

2007 Sep 15 **Quoted Source**. "Doctors, get tough on drugs": Tony Clement. Minister's mind made up on safe injection site, warn experts. National Review of Medicine. Canada. Presenter(s): Solomon S. Pages 22 and 25.

2007 Aug 30 **Quoted Source**. Complicity with evil or social-justice response? Scientists, Catholic ethicists wrestle with funding of safe-injection sites. The Catholic Register. Toronto, Ontario, Canada. Presenter(s): Swan M.

2007 Aug 27 **Quoted Source**. Renew Insite's license. The Globe and Mail. Canada. Presenter(s): Editorial. Page A14.

2007 Aug 21 **Quoted Source**. 130 Scientists urge Ottawa to base Insite decision on science, not ideology. Canadian Press. Canada. Presenter(s): Branswell H. Article ran in the Globe and Mail, CBC News, CTV News, and Yahoo Canada News.

2007 Aug 14 **Quoted Source**. Panhandler panic: over the top? The Globe and Mail. Toronto, Ontario, Canada. Presenter(s): Mick H. Section L1.

2007 Feb 21 **Speaker**. Physical and Mental Health on the Street. Homelessness Radio Marathon, CKUT Radio. Montreal, Quebec, Canada. Presenter(s): **Hwang SW**.

2006 Dec **Speaker**. Physicians and Discrimination. Omni Television, Omni News Mandarin Weekend Edition. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2005 Jul 12 **Speaker**. Interview on the Impact of Heat Waves on Inner City Populations. CBC News: Morning. Canada. Presenter(s): **Hwang SW**.

2002 Nov 5 **Personal Profile**. Homelessness, health link studied. The Medical Post. Canada. Presenter(s): Moulton D.

3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations

2021 Dec 7 **Invited Speaker**. Improving the Health and Wellbeing of People Experiencing Homelessness. McGill University Health Centre - Medical Grand Rounds. Montreal, Quebec, Canada. Presenter(s): **Hwang SW**.

2020 Oct 7 **Invited Speaker**. Missed and Late Diagnosis of Concussions in Non-Sport Populations. ECHO Concussion. Ontario, Canada. Presenter(s): **Hwang SW**. Online webinar - Medical education programming for primary care providers in Ontario.

2020 Sep 30 **Invited Speaker**. Health, Homelessness, and COVID-19. Ontario Housing First Regional Network Community of Interest. Ontario, Canada. Presenter(s): **Hwang SW**. Online webinar.

2019 May 23 **Invited Speaker**. Housing, Health and Policy Conference 2019. McGill University Institute for Health and Social Policy. Montreal, Quebec, Canada. Presenter(s): **Hwang SW**.

2019 Mar 8 **Invited Speaker**. Screening and Assessment Tools for Housing First. Housing Forum on Evidence-Based Practices, Ontario Housing First Regional Network. Toronto, Ontario, Canada. Presenter(s): Ecker J, **Hwang SW**.

2016 Apr 11 **Keynote Speaker**. Ending Homelessness: Dream or Illusion? Grandes Conférences Paul-Bernard sur les Inégalités Sociales de Santé. Léa Roback Centre de Recherche. Montreal, Quebec, Canada. Presenter(s): **Hwang SW**.

2015 Apr 2 **Invited Speaker**. Solving the Problem of Homelessness. University of Lethbridge - Discovery Lecture. Lethbridge, Alberta, Canada. Presenter(s): **Hwang SW**.

2015 Jan 29 **Invited Speaker**. Assessing Multi-morbidity in Marginalized Populations: A View from the Frontlines. Disability Adjudication Unit, Ontario Ministry of Community and Social Services. Toronto, Ontario, Canada.

2014 Nov 22 **Invited Speaker**. "Think Before You Jump in the River". McMaster LIGHT Humanitarian Health Conference. Hamilton, Ontario, Canada. Presenter(s): **Hwang SW**.

2014 Nov 20 **Invited Speaker**. Research on Homelessness: Housing First. 2nd Annual Shelter Health Network Retreat. Hamilton, Ontario, Canada. Presenter(s): **Hwang SW**.

2014 Jan 31 **Invited Speaker**. Research with Marginalized Populations. Public Health Ontario - Ethics Review Board Retreat. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2013 Nov 28 **Invited Speaker**. The At Home/Chez Soi Project. Ontario Ministry of Municipal Affairs and Housing (MMAH) Homelessness Learning Day. Toronto, Ontario, Canada. Presenter(s): More F and **Hwang SW**.

2011 Nov 9 **Invited Speaker**. Canadian Crisis: The Hidden Cost of Homelessness. Portland Hotel Community Service Society - Knowledge Exchange on Homelessness and Health in Canada. Vancouver, British Columbia, Canada. Presenter(s): **Hwang SW**.

2011 Nov 9 **Invited Speaker**. Challenges in Understanding the Connections between Housing and Health: The Health and Housing in Transition (HHiT) Study. Centre for Health Evaluation and Outcome Sciences, St. Paul's Hospital, University of British Columbia. Vancouver, British Columbia, Canada. Presenter(s): **Hwang SW**.

2011 Oct 29 **Invited Speaker**. Meaningful Measurement of Housing Success. Ontario Non-Profit Housing Association 2011 Annual Conference. Niagara Falls, Ontario, Canada. Presenter(s): Davis B, Witkowski B, Huehn V, **Hwang S**.

2010 Nov 19 **Invited Speaker**. Housing Vulnerability and Health: Canada's Hidden Emergency. Ottawa Alliance to End Homelessness 2010 Community Forum on Homelessness. Ottawa, Ontario, Canada. Presenter(s): **Hwang SW**.

2010 Sep 21 **Invited Speaker**. Patterns of Shelter Utilization in Toronto, Ottawa, and Guelph: Implications for Service Delivery. Ontario Municipal Social Services Association (OMSSA) & the Ontario Association of Hostels (OAH) 2010 Housing and Homelessness Conference. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2010 May 28 **Invited Speaker**. Defining a Typology of Homelessness Based on Shelter Utilization Patterns in Three Ontario Cities. Ottawa Homelessness Roundtable. Ottawa, Ontario, Canada. Presenter(s): **Hwang SW**.

2010 Feb 16 **Invited Speaker**. Homelessness, Housing, and Health. McGill University. Montreal, Quebec, Canada. Presenter(s): **Hwang SW**. McGill University Health Centre, Medical Grand Rounds.

2010 Feb 15 **Invited Speaker**. Is Beauty Only Skin Deep? Apparent Age and Health. McGill University. Montreal, Quebec, Canada. Presenter(s): **Hwang SW**. Inter-Division Rounds, Division of General Internal Medicine.

2009 Sep 22 **Invited Speaker**. Traumatic Brain Injury and Homelessness. Ontario Municipal Social Services Association. 2009 Forum on Social Housing and Homelessness. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2009 Feb 24 **Invited Speaker**. A survey of domiciliary hostel program tenants in Ontario. Ontario Ministry of Community and Social Services & Ontario Ministry of Health and Long-term Care. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**. Chiu S.

2008 Jun 10 **Invited Speaker**. Research Challenges in Homelessness and Health: Feasibility and Relevance. Ontario Training Centre in Health Services and Policy Research. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2007 Nov 22 **Invited Speaker**. Housing Solutions: The Role of Research. Alliance to End Homelessness in Ottawa. Ottawa, Ontario, Canada. Presenter(s): **Hwang SW**. 2007 Community Forum on Homelessness.

2007 Sep 25 **Invited Speaker**. CIHR Cafe Scientifique: Home is Where Your Health Is. Canadian Institutes of Health Research, in partnership with Human Resources and Social Development Canada. Edmonton, Alberta, Canada. Presenter(s): **Hwang S**.

2007 Jan 26 **Invited Speaker**. Housing, Homelessness, and Health. Ontario Ministry of Community and Social Services. Healthy Communities: A Policy Research Knowledge Exchange. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2007 Jan 19 **Invited Speaker**. Current Investigations: An example of a sister hospital, a model for investigation. INTEGRATION (Interdisciplinary Teams Generating Research on Complex Patients) Workshop. Sponsored by St. Paul's Hospital, University of British Columbia, and Simon Fraser University. Vancouver, British Columbia, Canada. Presenter(s): **Hwang SW**.

2006 Nov 17 **Invited Speaker**. Homelessness: Root Causes and Solutions. Keynote Address. 3rd Annual Conference on Diversity and Wellbeing: Taking Action on Homelessness and Health. Sponsored by the Calgary Health Region, United Way of Calgary, and the Calgary Homeless Foundation. Calgary, Alberta, Canada. Presenter(s): **Hwang SW**.

2006 Nov 16 **Invited Speaker**. Solving the Problem of Homelessness: Health Care and Beyond. Calgary Health Region. Calgary, Alberta, Canada. Presenter(s): **Hwang SW**.

2006 Feb 28 **Invited Speaker**. Homelessness and Health. Ontario Ministry of Health and Longterm Care, Human Resources Branch, Lunch 'N' Learn Program. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2005 Nov 30 **Invited Speaker**. Translating Research on Homelessness and Health into Action and Policy. Queen's University, Department of Community Health and Epidemiology and the School of Urban and Regional Planning. Kingston, Ontario, Canada. Presenter(s): **Hwang SW**.

2005 May 3 **Invited Speaker**. Homelessness and Health. The Salvation Army - Ontario Homeless Conference. Jackson's Point, Ontario, Canada. Presenter(s): **Hwang SW**.

2005 Mar 7 **Invited Speaker**. Policy Forum on Improving Access to Health Care and Social Services for People Experiencing Homelessness. McMaster University Centre for Health Economics and Policy Analysis (CHEPA) and the Centre for Research on Inner City Health. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**, Ploeg J, Thomas H, Semogas D.

2004 Nov 22 **Invited Speaker**. Translating Research on Homelessness into Policy and Action. Community Forum on Homelessness: Linking Ottawa Research with Action and Policy. Alliance to End Homelessness in Ottawa. Ottawa, Ontario, Canada. Presenter(s): **Hwang SW**.

2004 Oct 19 **Invited Speaker**. Mortality among Homeless Women. Ontario Association of Hostels and the Ontario Municipal Social Services Association, 2004 Learning Forum on Homelessness. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2004 Apr 13 **Expert Witness**. Homelessness, Housing, and Health. Office of the Chief Coroner for Ontario, Inquest into the Death of Joseph Teigesser (a homeless man who died of tuberculosis). Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2003 Nov 21 **Invited Speaker**. Inner City Health Research. Ontario Ministry of Health and Long-term Care. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2003 Feb 20 **Invited Speaker**. Homelessness, Health, and Public Policy. Queen's University, Faculty of Medicine, Seminar Series on Medicine and Activism. Kingston, Ontario, Canada. Presenter(s): **Hwang SW**.

2003 Jan 10 **Invited Speaker**. A Community-based Program in Increase Cervical and Breast Cancer Screening Among Homeless Women. Cancer Care Ontario, Ontario Cervical Screening Collaborative Group. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2002 Dec 12 **Invited Speaker**. Research on Homelessness and Health. Ontario Ministry of Health and Long-term Care. Toronto, ON, Ontario, Canada. Presenter(s): **Hwang SW**.

2002 Jan **Invited Speaker**. Research on Homelessness and Health. University of British Columbia, Centre for Health Evaluation & Outcome Sciences (CHEOS), Health in the City Conference. Vancouver, British Columbia, Canada. Presenter(s): **Hwang SW**.

2001 May **Invited Speaker**. Health Research Involving Homeless Persons: Pitfalls and Paradigms. University of Western Ontario School of Medicine and the London InterCommunity Health Centre, Bringing Medicine Into the Community Workshop. London, Ontario, Canada. Presenter(s): **Hwang SW**.

2000 Nov **Invited Speaker**. Homelessness: In the Shelters and On the Street. Ontario Ministry of Community and Social Services, Brown Bag Policy Network. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2000 Sep **Invited Speaker**. Ethical and Clinical Issues Affecting the Homeless. Centre for Clinical Ethics, Conference on Affirming an Ethic of Care: Understanding the Needs of Vulnerable Persons. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

1995 Dec **Invited Speaker**. Homelessness and Health. St. Paul's Hospital, Department of Medicine Rounds. Vancouver, British Columbia, Canada. Presenter(s): **Hwang SW**.

Presented Abstracts

2010 Nov 15 **Co-author**. Upstream determinants of health and housing are major contributors to health-related quality of life in HIV infection: Findings from the Positive Spaces, Healthy Places study. Ontario HIV Treatment Network (OHTN) 2010 Research Conference. Toronto, Ontario, Canada. Presenter(s): Rourke ST, Bekele T, Tucker R, Greene S, Monette L, Koornstra J, Sobota M, Byers S, Watson J, Bacon J, Hambly K, **Hwang S**, Guenter D, Dunn J, Hamilton M, Truax J, Hintzen DB, White P, Kayitesi M, Desbiens M, De Blois S, Cubillos M, and The Positive Spaces, Healthy Places Team. (Trainee Presentation).

2009 Nov 16 **Co-author**. Peer Investigator experiences in a community based research study: expression through creative projects. Ontario HIV Treatment Network (OHTN) 2009 Research Conference. Toronto, Ontario, Canada. Presenter(s): Scott AN, Hayhoe B, Walker D, Ewert R, Parsons J, Worthington C, **Hwang SW**, and Peer Investigators. (Trainee Presentation).

2009 Oct 8 **Co-author**. Housing is Health: The Positive Spaces Healthy Places Study. Ministry of Health and Long Term Care 2009 Health Research Showcase. Toronto, Ontario, Canada. Presenter(s): Tucker R, Greene S, Guenter D, Sobota M, Koonstra J, Byers B, Monette L, **Hwang W**, Dunn J, Rourke SB. Poster presentation.

2008 Nov 14 **Co-author**. The Positive Spaces, Health Places Study. Ontario HIV Treatment Network 2008 Research Conference. Toronto, Ontario, Canada. Presenter(s): Tucker R, Greene S, Sobota M, Koornstra J, Monette L, Guenter D, Byers S, Dunn J, **Hwang S**, Rourke SB. Oral session (6 abstracts).

2008 Nov 13 **Co-author**. Conception of a CBR Project on Pregnancy in Street-Involved Young Women: Development of a Strong Service Provider-Researcher Partnership. Ontario HIV Treatment Network (OHTN) 2008 Research Conference. Toronto, Ontario, Canada. Presenter(s): Scott AN, Hayhoe B, Walker D, Ewert R, Parsons J, Worthington C, **Hwang SW**. (Trainee Presentation).

2007 Nov 19 **Co-author**. Positive Spaces, Healthy Places: Health Outcomes at 6 Months. Ontario HIV Treatment Network (OHTN) Research Conference. Toronto, Ontario, Canada. Presenter(s): Tucker R, Greene S, Sobota M, Koornstra J, Monette L, Guenter D, Byers S, Dunn J, **Hwang SW**, Rourke SB.

Media Appearances

2021 Aug 19 **Interview**. The quick fix, Part 4: How to tackle homelessness in Ontario. Interviewer: Matt Gurney. TVO. Ontario, Canada. Available from: https://www.tvo.org/article/the-quick-fix-part-4-how-to-tackle-homelessness-in-ontario.

2016 Oct 11 **Interview**. Rob Snow speaks with Dr. Stephen Hwang, Director for the Centre for Urban Health Solutions at St. Michael's Hospital, about the homeless and housing. Interviewer: Rob Snow. 580 CFRA News Talk Radio. Ottawa, Ontario, Canada. Available from: http://devel.autopod.ca/chum/181/podcasts/6/.

2009 Jan 28 **Quoted Source**. On health and the homeless. The Edmonton Journal. Edmonton, Alberta, Canada. Presenter(s): Richard Warnica. The Edmonton Journal.

2008 Sep 25 **Interview**. Health care for homeless people. CBC Radio: Up to Speed with Margot Watt. Winnipeg, Manitoba, Canada. Presenter(s): **Hwang SW**.

2007 Nov 26 **Interview**. Traumatic Brain Injury among Homeless People. CBC Radio: Ontario Morning. Ontario,

Canada. Presenter(s): **Hwang SW**.

2007 Sep 24 **Interview**. Crack use 'staggering' among homeless. The Globe and Mail. Toronto, Ontario, Canada. Presenter(s): Reinhart A.

2007 Sep 1 **Quoted Source**. Conservatives confuse science and moralizing. The Vancouver Sun. Vancouver, British Columbia, Canada. Presenter(s): McKnight P.

2004 Apr 20 **Speaker**. Women and Homelessness. Television Ontario (TVO), "More to Life" Program. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

4. LOCAL

Invited Lectures and Presentations

2021 Mar 22 **Invited Speaker**. Just the Facts: Affordable Housing, Homelessness, and Healthcare. Toronto Science Policy Network (TSPN), University of Toronto. Toronto, Ontario, Canada. Presenter(s): **Stephen Hwang**, Mikaela Gabriel and Andrew Boozary (panelists); Victoria Gibson (moderator).

2019 Nov 1 **Keynote Speaker**. Caring for People Experiencing Disadvantage and Marginalization. St. Joseph's Health Centre 64th Annual Clinical Day. Toronto, Ontario, Canada.

2019 Oct 16 **Keynote Speaker**. Aging in Place Report Launch. Mainstay Housing. Toronto, Ontario, Canada.

2019 Apr 5 **Invited Speaker**. From the Streets to Solutions: Tackling Homelessness. CRAM University of Toronto. Toronto, Ontario, Canada. Available from: https://cramtoronto.com.

2018 Oct 30 **Invited Lecturer**. Transition to Professional Practice - The Causes of Illness & What We Should Do About It. Global Health Education Initiative, University of Toronto Postgraduate Medical Education. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2018 Oct 2 **Panel Member**. Tackling Toronto's Homelessness Crisis. St. Michael's Hospital Foundation. Toronto, Ontario, Canada. Presenter(s): Katz M (keynote speaker); Aston M, Bedard M, **Hwang SW** (discussion panel); Mediwake AM (moderator).

2018 Jun 27 **Invited Speaker**. Improving health systems and public policy for disadvantaged populations. Grand Rounds, St. Joseph's Health Centre. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2018 Apr 25 **Invited Speaker**. The Quest for Urban Health Solutions. University of Toronto IHPME Graduate Student Union. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2018 Mar 9 **Invited Speaker**. Homelessness and Urban Health Solutions. Metropolitan United Church, A Great Light: Discussion Series. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2017 Nov 6 **Invited Speaker**. Research metrics and health equity research. St. Michael's Hospital, Research Matters Month & Centre Talks. Toronto, Ontario, Canada. Presenter(s): **Hwang SW** and Nelson LA.

2017 Oct 27 **Invited Speaker**. Traumatic Brain Injury in People Experiencing Homelessness. University of Toronto, Department of Surgery - 2017 Interdisciplinary Trauma Conference - Violence Close to Home: Intentional injuries in vulnerable populations. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2017 Sep 8 **Invited Lecturer**. Panel on Basic Income. Introduction to Public Health Sciences (CHL 5004H). Dalla Lana School of Public Health, University of Toronto. Toronto, Ontario, Canada. Presenter(s): **Hwang SW** and Stapleton J.

2017 Jun 15 **Keynote Speaker**. Five Things That I Wish Someone Had Told Me When I Was Your Age. University of Toronto, Division of General Internal Medicine - 2017 GIM Research Day. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2017 Mar 22 **Invited Speaker**. Housing: A Critical Determinant of Urban Health. Massey Grand Rounds 11th Annual Symposium. Health & Environment: Air, Food and Drugs. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2016 Dec 2 **Invited Speaker**. Cold-related Injuries and Deaths among People Experiencing Homelessness. The Paula Goering Memorial Workshop on Coordinating Care for People who are Homeless, Centre for Addiction and Mental Health. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2016 Oct 22 **Invited Speaker**. Homelessness: Symptom or Disease? 9th Annual Dalla Lana School of Public Health Student-Led Conference. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2016 Sep 27 **Invited Speaker**. Inner City Health: Physicians & Marginalized Patients. University of Toronto PGY2 Academic Half Day. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2016 Sep 27 **Keynote Speaker**. Homelessness and Housing Solutions. Homes First Foundation. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2016 Apr 23 **Invited Speaker**. A Biblical View of Social Justice. Thinking Conference: Has God Spoken? Mississauga, Ontario, Canada. Presenter(s): **Hwang SW**.

2016 Feb 9 **Invited Speaker**. Creating Urban Health Solutions. University of Toronto Senior Alumni Association - Canadian Perspectives Lecture Series. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2016 Jan 27 **Invited Speaker**. Faith, Science, and Effective Advocacy. Multifaith Alliance to End Homelessness. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2015 Sep 29 **Invited Speaker**. Inner City Health: Physicians & Marginalized Patients. University of Toronto PGY2 Academic Half Day. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2015 Apr 9 **Invited Speaker**. The Best Kept Secret: What Really Determines Your Health. Li Ka Shing Knowledge Institute of St. Michael's Hospital, Popular Science Lecture. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2015 Mar 16 **Moderator**. Debate: Has Science Made God Irrelevant? Power to Change, RZIM Canada, University of Toronto Secular Alliance, and The Veritas Forum. Toronto, Ontario, Canada. Presenter(s): Prof. John Lennox and Christopher DiCarlo.

2014 Nov 27 **Invited Lecturer**. Understanding the Social Determinants of Health. Interprofessional Health, Arts & Humanities Certificate Program - Humanities Lunch and Learn Session. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2014 Nov 3 **Invited Lecturer**. Homelessness: What's the Real Story? Ryerson University, School of Journalism, JN8104 - Urban Politics and Society for Journalists. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2014 Oct 7 **Invited Speaker**. Homelessness in Downtown Toronto. Street Health, Board of Directors Meeting. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2014 Oct 6 **Speaker**. Academic Promotions at the University of Toronto. North York General Hospital, Department of Medicine Business Meeting. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2014 Sep 21 **Invited Speaker**. Science and Faith: Are they really in conflict? Center for Science and Culture. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2014 Jul 30 **Speaker**. Itchy and Scratchy: A General Internist's Guide to Infestations. St. Michael's Hospital, Medical Grand Rounds. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2014 Jun 18 **Invited Speaker**. Housing First: A Common Sense Approach. Affordable Housing Halton. Oakville, Ontario, Canada. Presenter(s): **Hwang SW**.

2014 Jun 10 **Invited Speaker**. Homelessness and Housing First. Homes First Society, Annual General Meeting. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2014 May 14 **Keynote Speaker**. Research and Responsibility: The Science of Homelessness. Sunnybrook Health Sciences Centre Department of Medicine Resident Research Day Grand Rounds. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2014 Apr 2 **Keynote Speaker**. Homelessness, Housing, and Hope. 2014 Royacker Lecture, Regis College, University of Toronto. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2014 Apr 1 **Invited Speaker**. Homelessness, Science, and Morality. The Art of Medicine Lecture Series, Ho Ping Kong Centre for Excellence in Education and Practice (CEEP), Toronto Western Hospital. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2014 Feb 18 **Invited Speaker**. Inner City Health: Physicians & Marginalized Patients. University of Toronto PGY2 Academic Half Day. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2014 Feb 7 **Invited Speaker**. Housing First and Intensive Case Management for Homeless Adults with Mental Illness: Results from the At Home Randomized Controlled Trial. St. Michael's Hospital Mental Health Grand Rounds. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2014 Jan 13 **Invited Speaker**. Solving the Problem of Homelessness. St. Lawrence Supper Club. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2014 Jan 4 **Keynote Speaker**. A Radical Vision for Medical Mission. Richmond Hill Christian Community Church, Ontario Chinese Christian Medical Fellowship, and Education Medical Aid and Service (EMAS). Richmond Hill, Ontario, Canada. Presenter(s): **Hwang SW**.

2013 Nov 21 **Invited Speaker**. The Aging Homeless: Best Practices for End of Life Care. The Good Neighbours' Club. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2013 Oct 31 **Invited Speaker**. Housing First and Intensive Case Management for Homeless Adults with Mental Illness: Results from the At Home Randomized Controlled Trial. St. Michael's Hospital Clinical and Population Research Round. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2013 Jul 31 **Speaker**. Improving Health and Healthcare for People who are Homeless: What Really Works? St. Michael's Hospital - Medical Grand Rounds. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2013 Jul 24 **Invited Speaker**. Solving the Problem of Homelessness. St. Michael's Foundation - A Legacy of Caring. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2013 May 29 **Invited Speaker**. Bridging the Gap: A Closer Look at Addictions, _Mental Health, Brain Injury and the Justice System. Toronto Acquired Brain Injury Network. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**. Available from: http://www.abinetwork.ca/news?news_id=52.

2013 Apr 11 **Invited Speaker**. Caring for the Whole Person: Insights from the Inner City. The Good Neighbours' Club - Annual General Meeting. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2012 Oct 11 **Invited Speaker**. Putting a Roof over Inadequate Housing: "Home Safe" Documentary Screening and Panel Discussion. Canadian Institutes of Health Research - Institute of Population and Public Health. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**, Tarasuk V, Richards C, Adams R, Shapcott M.

2012 May 17 **Invited Speaker**. 24th Annual Higgins Day - Resident Research Day. St. Michael's Hospital - Department of Medicine. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**. Keynote address.

2012 Apr 28 **Invited Speaker**. CIHR Cafe Scientifique: No Room for Health? University of Toronto Public Health Social Justice Collective. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2012 Mar 9 **Invited Lecturer**. Homelessness and the Determinants of Health. University of Toronto - University College, Health Studies Program. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2012 Mar 7 **Speaker**. Prevention of Clostridium difficile Infection in Hospitalized Patients. St. Michael's Hospital - Medical Grand Rounds. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2012 Feb 23 **Invited Speaker**. Traumatic Brain Injury and Homelessness. Sherbourne Health Centre. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2012 Feb 21 **Invited Speaker**. Seeking Solutions Symposium: Access to Health Care for the Uninsured in Canada. Hospital for Sick Children, Women's College Hospital, and Ryerson University. Toronto, Ontario, Canada. Presenter(s): Mason K, **Hwang SW**.

2012 Feb 2 **Invited Speaker**. Discrimination in Health Care. St. Michael's Hospital - Clinical and Population Research Rounds. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2012 Feb 1 **Invited Speaker**. Pain Management in Homeless and Hard-to-House Patients. Casey House: Physicians and Advanced Practice Clinicians HIV/AIDS Health Care Seminar Series. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2012 Jan 17 **Invited Speaker**. Chronic Pain Management in Homeless and Underhoused Patients. Sherbourne Health Centre. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2011 Dec 5 **Invited Speaker**. Keynote Speaker, "Forty is Too Young to Die: A Call to Action" Report Launch. Mainstay Housing, Early-Onset Illnesses and Mortality Working Group. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2011 May 31 **Invited Speaker**. FitzTalks, in Honor of Graduating Medical Students in the Fitzgerald Academy. "The Patient Appeared Older Than His Stated Age - A Reflection on Curiosity, Empathy, and Privilege.". Faculty of Medicine, University of Toronto. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2010 Nov 22 **Invited Speaker**. Advocacy Rounds. St. Michael's Hospital - Department of Medicine. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2010 Nov 3 **Invited Speaker**. Homelessness and Public Health. Public Health Interest Group at University of Toronto. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2010 Oct 5 **Invited Speaker**. Health care utilization among homeless people. Clinical Epidemiology Unit / Institute for Clinical Evaluative Sciences - Conjoint Evaluative Sciences Rounds. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2010 Oct 4 **Invited Speaker**. Homelessness and Health. IMAGINE Community Awareness Lecture Series, University of Toronto Faculty of Medicine. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2010 Sep 23 **Invited Speaker**. Homelessness and Palliative Care. Toronto Central Palliative Care Network. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2010 Jul 22 **Invited Speaker**. Homelessness and Immigration: Toronto's Changing Face. City of Toronto - Immigrant and Refugee Housing Committee. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2010 Jul 14 **Invited Speaker**. Defining a Typology of Homelessness Based on Shelter Utilization Patterns in Three Ontario Cities. Housing & Homeless Service Network, Toronto Shelter, Support & Housing Administration. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2010 May 26 **Invited Speaker**. Defining a Typology of Homelessness Based on Shelter Utilization Patterns in Three Ontario Cities. Street Outreach Steering Committee, Toronto Shelter, Support & Housing Administration. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2010 Mar 1 **Invited Speaker**. Homelessness and Immigration: Toronto's Changing Face. Social Planning Toronto - Research and Policy Forum. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2010 Feb 10 **Invited Lecturer**. Homelessness and Health. Ryerson University, School of Occupational and Public Health (ENH 809). Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2009 Dec 18 **Invited Speaker**. Traumatic Brain Injury and Homelessness. St. Michael's Hospital Mental Health Grand Rounds. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**. (Continuing Education).

2009 Nov 16 **Invited Speaker**. Research on homelessness: Moving from problems to solutions. Innovation Night at St. Michael's Hospital. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2009 Jun 2 **Invited Speaker**. Traumatic brain injury and the health of homeless people. Toronto Acquired Brain Injury Network. Brain Injury and Homelessness Workshop. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**. (Continuing Education).

2009 Apr 10 **Invited Speaker**. Good Friday Breakfast Speaker: Homelessness. St. Andrew's Presbyterian Church Humber Heights. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2009 Mar 29 **Invited Speaker**. Lenten Speaker Series: Homelessness. Anglican Church of St. Clement. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2009 Mar 6 **Invited Speaker**. Harm Reduction: A Balanced Approach. Casey House - HIV/AIDS and Mental Health: A Symposium for Health Care Providers. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**. (Continuing Education).

2009 Mar 5 **Invited Speaker**. Unmet needs for health care among homeless people within a universal health insurance system. St. Michael's Hospital - Clinical and Population Research Rounds. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2009 Mar 3 **Invited Lecturer**. Homelessness and Health. Ryerson University, School of Occupational and Public Health. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2009 Feb 24 **Invited Speaker**. Homelessness & Immigration: Toronto's Changing Face. Let's Get Talking: Community Discussions on Neighbourhoods & Health - Regent Park Community Health Centre. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2008 Oct 20 **Invited Speaker**. Unmet needs for health care among homeless people within a universal health insurance system. Toronto General Hospital - Clinical Epidemiology Rounds. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2008 Oct 3 **Invited Speaker**. Poverty and Health: Partnerships in Action 2008 Conference. Workshop on Homelessness and Health. Public Health Sciences Students Association, University of Toronto. Toronto, Ontario, Canada. Presenter(s): Khandor E, Mason K, **Hwang SW**.

2008 Sep 12 **Invited Speaker**. Addressing Health Disparities in Toronto: Spotlight on Diabetes and Mental Illness. Toronto Central Local Health Integration Network (LHIN). Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2008 Jun 5 **Invited Speaker**. Health Connections 2008. Health Equity: From Challenges to Solutions. Toronto Central Local Health Integration Network (LHIN). Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2008 May 26 **Invited Speaker**. Supportive Housing: How much does Toronto need; how are we going to get it? Wellesley Institute. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2008 May 26 **Invited Speaker**. Homelessness & Brain Injuries: Cause or Effect? Let's Get Talking: Community Discussions on Neighbourhoods & Health - St. Christopher House. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2008 May 24 **Invited Speaker**. Why care about homelessness in Toronto? Ontario Public Service Employees Union (OPSEU) Educational Forum on Poverty in Toronto. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2008 May 10 **Invited Speaker**. Harm Reduction: A Balanced Approach. Casey House Board of Directors Retreat. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2008 Feb 19 **Invited Speaker**. Homelessness and Health. 11th Annual Toronto Catholic District School Board High School Gifted Program Conference, "Perspectives: Challenges, Ideas and Responses 2008". Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2007 Oct 9 **Invited Speaker**. Research on homelessness and health. Innovation Night at St. Michael's Hospital.

Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2007 Mar 13 **Invited Lecturer**. Homelessness and Health. York University, Faculty of Arts, A Critical Study of Health and Society (AS/SOSC 2110). Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2007 Mar 8 **Invited Speaker**. Lenten Speaker Series: Homelessness. Saint Luke's United Church. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2007 Feb 28 **Invited Lecturer**. Homelessness and Health. Ryerson University, School of Occupational and Public Health. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2007 Feb 20 **Invited Speaker**. Homelessness and Health. 10th Annual Toronto Catholic District School Board High School Gifted Program Conference, "Perspectives: Challenges, Ideas and Responses 2007". Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2006 Aug 30 **Speaker**. The Discriminating Physician: Does Prejudice Affect the Provision of Health Care? St. Michael's Hospital, Medical Grand Rounds. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2006 Apr 13 **Speaker**. Challenges and Rewards of Research with Homeless Persons. St. Michael's Hospital, Clinical Research Rounds. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**, Chiu S.

2006 Apr 5 **Invited Speaker**. Forget Chaoulli: Existing financial barriers in our health care system. Student Medical Reform Group and Diversity in Medicine Speaker Series, Faculty of Medicine, University of Toronto. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**, Glazier RH.

2006 Mar 31 **Invited Lecturer**. Homelessness and Health. Ryerson University, School of Occupational and Public Health. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2006 Mar 7 **Invited Lecturer**. Homelessness and Health. York University, Faculty of Arts, A Critical Study of Health and Society (AS/SOSC 2110). Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2006 Feb 21 **Invited Speaker**. Homelessness and Health. 9th Annual Toronto Catholic District School Board High School Gifted Program Conference, "Perspectives: Challenges, Ideas and Responses". Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2005 Sep 14 **Invited Lecturer**. Marginalized Populations: Homelessness. University of Toronto, Dept. of Public Health Sciences, Introduction to Public Health Sciences (CHL 5004). Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2005 Jun 14 **Invited Speaker**. Bed Bugs and Beyond: Infectious Diseases in Homeless Persons. Sunnybrook and Women's College Health Sciences Centre, Infectious Diseases/Microbiology Rounds. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2005 Jun 13 **Invited Speaker**. Homeless People's Trust and Interactions with Paramedics and Police in Toronto. Toronto Police Services Board. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**, Zakrison T.

2005 May 11 **Invited Speaker**. Bedbug Infestations in Homeless Shelters and Other Locations in Toronto. City of Toronto, Community and Neighbourhood Services, Alternative Housing and Services Committee. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2005 May 9 **Invited Speaker**. Bedbug Infestations in Homeless Shelters and Other Locations in Toronto. Toronto Board of Health. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2005 Mar 1 **Invited Lecturer**. Homelessness and Health. York University, Faculty of Arts, A Critical Study of Health and Society. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2005 Feb 23 **Speaker**. Homeless People's Use of Health Care: Too Much, Too Little, or Just Right? St. Michael's Hospital, Medical Grand Rounds. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2005 Feb 7 **Invited Lecturer**. Homelessness and Health. University of Toronto, Department of Sociology, Introduction to Health and Social Policy. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2004 Nov 29 **Invited Speaker**. The Reemergence of Bedbugs in the Urban Environment. City of Toronto, Advisory Committee on Homeless and Socially Isolated Persons. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2004 Oct 6 **Invited Lecturer**. Access to Health Care in Disadvantaged Populations. Michener Institute for Applied Health Sciences and University of Torornto Faculty of Medicine, Medical Radiation Sciences Program. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2004 Jun 21 **Invited Speaker**. The Role of Research in Improving Community Health. St. Michael's Hospital Community Advisory Panels and the Wellesley Central Corporation. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2004 Jun 1 **Invited Speaker**. Alarming Death Rates among Homeless Women in Toronto: What's the Story Behind the Story? Wellesley Central Health Corporation, Wellesley Urban Health Seminar Series. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2004 May 19 **Invited Speaker**. Cardiovascular Risk Factors in Homeless Adults. Institute for Clinical Evaluation Sciences and Sunnybrook and Women's Health Sciences Centre, Clinical Epidemiology Rounds. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2004 Apr 19 **Invited Speaker**. Cardiovascular Risk Factors in Homeless Adults. Toronto General Hospital, Clinical Epidemiology Rounds. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2004 Mar 29 **Invited Lecturer**. Homelessness and Health. Ryerson University, School of Occupational and Public Health. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2004 Mar 9 **Invited Lecturer**. Homelessness and Health. University of Toronto, Population Health Course. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2004 Feb 15 **Invited Lecturer**. Homelessness and Health. Ryerson University, School of Occupational and Public Health. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2004 Jan 14 **Invited Speaker**. Health Care Utilization among Homeless Persons in Toronto. City of Toronto, Community and Neighbourhood Services, Alternative Housing and Services Committee. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2003 Nov 6 **Speaker**. Cardiovascular Risk Factors in Homeless Adults. St. Michael's Hospital, Clinical Epidemiology Rounds. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2003 Sep 15 **Invited Speaker**. Keynote Address, 2003 Annual General Meeting. Daily Bread Food Bank Foundation. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2003 Jul 9 **Invited Speaker**. The Health of Rooming House Residents in Toronto. City of Toronto, Community and Neighbourhood Services, Alternative Housing and Services Committee. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2002 Oct **Invited Lecturer**. Community-Based Action Research. Ryerson University, Homelessness in Canadian Society. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2002 Oct **Invited Lecturer**. Access to Health Care: Issues of Class, Ethnicity, and Culture. Michener Institute for Applied Health Sciences and University of Toronto Faculty of Medicine, Medical Radiation Sciences Program. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2001 Dec **Invited Speaker**. Access to Health Care Among the Homeless and Hungry in the Inner City. University Health Network, Clinical Epidemiology Rounds. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2001 Nov **Speaker**. Access to Health Care Among the Homeless and Hungry in the Inner City. St. Michael's Hospital, Clinical Epidemiology Rounds. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2001 Nov **Invited Speaker**. Leadership. 2nd Annual University of Toronto PGY2 Teaching Residents to Teach Retreat (Millcroft Inn, Alton). Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2001 Oct **Invited Lecturer**. Barriers to Health Care Access for Homeless Persons. Michener Institute for Applied Health Sciences and the University of Toronto, Individual and Social Issues in Health Care Course. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2001 Jul **Invited Speaker**. Health Status of Rooming House Residents in Toronto. Toronto Dept. of Community & Neighbourhood Services, Rooming House Working Group. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2001 Jul **Invited Speaker**. Homelessness and Health. University of Toronto, Summer Mentorship Program. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2001 May **Invited Speaker**. Homelessness and Health. University of Toronto, Community Medicine Residents' Rounds. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2001 May **Invited Speaker**. Screening for Cervical and Breast Cancer in Homeless Women. Toronto Homeless Health Reference Group and Ottawa Inner City Health. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2001 Apr **Speaker**. Screening for Cervical and Breast Cancer in Homeless Women: A Community-Academic Partnership. St. Michael's Hospital, Clinical Epidemiology Rounds. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2001 Apr **Invited Speaker**. Health Care at Homeless Shelters. Utilization Information Sharing Day, Greater Toronto Area Hospitals. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2001 Mar **Invited Speaker**. Anemia in High-Risk Adult Populations. Anemia Institute for Research and Education, Anemia and Nutrition Forum. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**. (Continuing Education).

2000 Nov **Speaker**. Homelessness: Challenges for Clinical Care and Research. St. Michael's Hospital, Medical Grand Rounds. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2000 Nov **Invited Speaker**. Homelessness: Challenges for Clinical Care and Research. University Health Network, Toronto Western Hospital, Medical Grand Rounds. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2000 Oct **Invited Speaker**. Deaths among the Homeless. Toronto Disaster Relief Committee, Homelessness Toronto 2000. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2000 Oct **Invited Speaker**. Research in Homelessness and Health. St. Michael's Hospital Foundation, Care & Cure Lecture. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2000 Oct **Invited Lecturer**. Barriers to Health Care Access for Homeless Persons. Michener Institute for Applied Health Sciences and the University of Toronto, Individual and Social Issues in Health Care Course. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2000 Sep **Invited Lecturer**. What is Population Health? University of Toronto, Faculty of Medicine, Determinants of Health Course. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2000 Mar **Speaker**. The Rational Clinical Exam. St. Michael's Hospital, Division of General Internal Medicine, Residents' Educational Retreat Day. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2000 Feb **Invited Speaker**. Patterns of Shelter Use and Mortality Among Homeless Men. University of Toronto, Department of Public Health Sciences, Community Health Research Day. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2000 Feb **Speaker**. Research on Homelessness and Health: Lessons from the McKinney Demonstration Projects. Inner City Health Journal Club, University of Toronto. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2000 Feb **Speaker**. Homelessness and Health in Toronto. St. Michael's Hospital Foundation. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

1999 Dec **Invited Speaker**. The Canadian Health Care System: How Does It Compare to Others? The Course on Gastroenterology and Digestive Endoscopy, The Wellesley Hospital. Toronto, Ontario, Canada. Presenter(s): **Hwang, SW**. (Continuing Education).

1999 Oct **Invited Lecturer**. Barriers to Health Care for Homeless Persons. Michener Institute for Applied Health Sciences and the University of Toronto Dept. of Public Health Sciences, Individual and Social Issues in Health Care Course. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

1999 Oct **Speaker**. Patterns of Shelter Use and Mortality Among Homeless Men. St. Michael's Hospital, Inner City Health Research Rounds. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

1999 Oct **Speaker**. Disease Probability for Differential Diagnosis. St. Michael's Hospital, Division of General Internal Medicine, R4 Seminar Series. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

1999 Sep **Invited Speaker**. The Canadian Health Care System: How Does It Compare to Others? The Course on Gastroenterology and Digestive Endoscopy, The Wellesley Hospital. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**. (Continuing Education).

1999 Aug **Invited Lecturer**. What is Population Health? University of Toronto, Faculty of Medicine, Determinants of Health Course. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

1999 Jun **Invited Speaker**. The Canadian Health Care System: How Does It Compare to Others? The Course on Gastroenterology and Digestive Endoscopy, The Wellesley Hospital. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**. (Continuing Education).

1999 Feb **Speaker**. Homelessness and Health Research. St. Michael's Hospital, Homeless and Underhoused Community Advisory Panel. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

1999 Jan **Speaker**. What Do Homeless Families Really Need? Inner City Health Journal Club, University of Toronto. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

1998 Dec **Invited Speaker**. The Canadian Health Care System: How Does It Compare to Others? The Course on Gastroenterology and Digestive Endoscopy, The Wellesley Hospital. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**. (Continuing Education).

1998 Nov **Invited Speaker**. What Happens to Patients Who Leave the Hospital Against Medical Advice? The Toronto Hospital, Clinical Epidemiology Rounds. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

1998 Jun **Invited Speaker**. The Canadian Health Care System: How Does It Compare to Others? The Course on Gastroenterology and Digestive Endoscopy, The Wellesley Hospital. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**. (Continuing Education).

1997 Oct **Speaker**. Healthy, Wealthy, and Wise: Why Rich People Live Longer. St. Michael's Hospital, Inner City Health Rounds. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

1997 Oct **Invited Speaker**. Statistics for Clinicians. University of Toronto, Department of Family and Community Medicine Core Day. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

1997 Sep **Speaker**. Healthy, Wealthy, and Wise: Why Rich People Live Longer. St. Michael's Hospital, Medical Grand Rounds. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

1997 Jul **Invited Speaker**. Healthy, Wealthy, and Wise: Why Rich People Live Longer. St. Michael's Hospital, Department of Family and Community Medicine, Grand Rounds. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

1997 Jun **Invited Speaker**. Integrated Health Information Systems. Healthy Connections, East Toronto Conference 1997. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

1997 Apr **Invited Speaker**. Finding and Counting the Homeless. University of Toronto, Department of Public Health Sciences, Graduate Student Seminar in Biostatistics. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

1996 Mar **Invited Speaker**. Death on the Street. St. Michael's Hospital, Medical Grand Rounds. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

Presented Abstracts

2014 Jul 29 **Supervisor**. The effect of advance directive completion on end-of-life care in homeless persons. St. Michael's Hospital, Keenan Research Summer Student Program -- 2014 Research Poster Competition. Toronto, Ontario, Canada. Presenter(s): Matthew To, Linh Luong, and Victor Goncalves. (Trainee Presentation).

2013 May 22 **Supervisor**. Measurement of Retention in Primary Care among Vulnerably Housed Populations: The At Home/Chez Soi Project. St. Michael's Hospital, Department of Family and Community Medicine. Toronto, Ontario, Canada. Presenter(s): Dosani N. (Trainee Presentation).

2012 Nov 8 **Co-author**. Exploring the link between traumatic brain injury and homelessness: a feasibility study. Toronto Acquired Brain Injury Network Conference. Toronto, Ontario, Canada. Presenter(s): Topolovec-Vranic J, Ennis N, Johnson P, Michalak A, Masanic C, Ouchterlony D, Distin K, Stergiopoulos V, **Hwang S**, Kontos P, Colantonio A, Cusimano M.

2007 May 1 **Co-author**. Integrating conceptual frameworks to study pregnancy in street youth. 3rd Annual Epidemiology and Biostatistics Student Society Research Day, McGill University. Montreal, Quebec, Canada. Presenter(s): Scott AN, Boivin JF, **Hwang SW**. Poster presentation.

2000 Jan **Co-author**. Barriers to appropriate diabetes management among homeless persons in Toronto. University of Toronto, Medical Student Research Day. Toronto, Ontario, Canada. Presenter(s): Bugeja A, **Hwang SW**. Poster presentation. Winner of Award for Best Health Services Research Project.

Media Appearances

2022 Jan 29 **Quoted Source**. 'People are stranded:' A downtown hospital is seeing a rise in cold-related injuries as shelters struggle to find spots. Interviewer: Megan Ogilvie. The Toronto Star. Toronto, Ontario, Canada. Available from: https://www.thestar.com/news/gta/2022/01/29/people-are-stranded-a-downtown-hospital-is-seeing-a-rise-in-cold-related-injuries-as-shelters-struggle-to-find-spots.html.

2022 Jan 25 **Televised Interview**. Cold weather and people experiencing homelessness. CP24 News. Toronto, Ontario, Canada. Available from: https://www.cp24.com/video?binId=1.5364204.

2021 Jul 31 **Quoted Source**. A private community housing provider noticed a spike in premature deaths in one of their buildings. So they decided to do something about it. Interviewer: Donovan Vincent. The Toronto Star. Toronto, Ontario, Canada. Available from: https://www.thestar.com/news/gta/2021/07/31/a-private-community-housing-provider-noticed-a-spike-in-premature-deaths-in-one-of-their-buildings-so-they-decided-to-do-something-about-it.html.

2019 Oct 23 **Quoted Source**. Who's to blame for youth homelessness in York Region? Interviewer: Sheila Wang. The Richmond Hill Liberal, King Connection, yorkregion.com. Richmond Hill, Ontario, Canada. Available from: https://www.yorkregion.com/news-story/9637639-analysis-who-s-to-blame-for-youth-homelessness-in-york-region-/.

2017 Jun 25 **Quoted Source**. Toronto faces Catch-22 with impending Seaton House closure. Interviewer: Emma McIntosh. The Toronto Star. Toronto, Ontario, Canada. Available from: https://www.thestar.com/news/gta/2017/06/25/toronto-faces-catch-22-with-impending-seaton-house-closure.html.

2016 Oct 10 **Quoted Source**. Cities' homelessness plans doomed to fail without federal cash: Report. Interviewer: Laurie Monsebraaten and Hin Alam. The Toronto Star. Toronto, Ontario, Canada. Available from: https://www.thestar.com/news/gta/2016/10/10/cities-homelessness-plans-doomed-to-fail-without-federal-cash-report.html.

2016 Feb 21 **Quoted Source**. Ontario's uncounted homeless dead. Interviewer: Mary Ormsby and Kenyon Wallace.

The Toronto Star. Toronto, Ontario, Canada. Available from: http://www.thestar.com/news/insight/2016/02/21/ontarios-uncounted-homeless-dead.html.

2015 Jan 26 **Cited**. Toronto experts to advise Ontario on how to end homelessness. Interviewer: Laurie Monsebraaten. The Toronto Star. Toronto, Ontario, Canada. Available from: http://www.thestar.com/news/queenspark/2015/01/26/toronto-experts-to-advise-ontario-on-how-to-end-homelessness.html.

2015 Jan 15 **Quoted Source**. 780 homeless people have died on Toronto streets since 1985...we think. Interviewer: Ben Spurr. NOW Toronto. Toronto, Ontario, Canada. Available from: https://nowtoronto.com/news/740-homeless-people-have-died-on-toronto-streets-since-1985./.

2014 Mar 5 **Quoted Source**. Make TTC free overnight during cold alerts, Councillor Josh Colle urges. Interviewer: Patty Winsa. The Toronto Star. Toronto, Ontario, Canada. Available from: http://www.thestar.com/news/gta/2014/03/05/make_ttc_free_overnight_during_cold_alerts_councillor_josh_colle_urges.html.

2013 Feb 2 **Personal Profile**. St. Michael's Hospital appoints Dr. Stephen Hwang inaugural chair in homelessness, housing and health. The Toronto Star. Toronto, Ontario, Canada. Presenter(s): Laurie Monsebraaten. The Toronto Star. Available at: http://www.thestar.com/news/gta/2013/02/01/st_michaels_hospital_appoints_dr_stephen_hwang_inaugural_chair_in_homelessness_housing_and_health.html.

2008 Oct 9 **Quoted Source**. Canadian group protests the 'politicization of science'. The Toronto Star. Toronto, Ontario, Canada. Presenter(s): Anne-Marie Tobin. The Toronto Star.

2008 May 5 **Quoted Source**. Outrageous but predictable violence (commentary). The Toronto Star. Toronto, Ontario, Canada. Presenter(s): Nick Falvo.

2007 Nov 23 **Interview**. Traumatic Brain Injury among Homeless People. CBC Radio: Metro Morning with Andy Barry. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2007 Jun 28 **Interview**. Infection control measures during the SARS outbreak and death rates in Toronto. Omni 2 Television, Cantonese News. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

2006 Nov 9 **Letter to the Editor**. Homeless Face More Health Risks. The Toronto Star. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**. The Toronto Star, Page A29.

2005 Feb 14 **Speaker**. Mental and Physical Health on the Street. 3rd Annual Homelessness Radio Marathon, CKUT Radio. Montreal, Quebec, Canada. Presenter(s): **Hwang SW**.

2002 Oct **Speaker**. Daily Bread Food Bank Report: "Turning Our Backs on Our Children: Hunger + Decrepit Housing = Unhealthy, Unsafe Children". Daily Bread Food Bank Foundation. Toronto, Ontario, Canada. Presenter(s): **Hwang SW**.

1997 Sep 21 **Personal Profile**. Caring for the street people: Doctor leads St. Michael's Hospital medical program for Metro's homeless. The Toronto Sun. Toronto, Ontario, Canada. Presenter(s): Linton M.

5. OTHER

Presented and Published Abstracts

2009 May The research alliance for Canadian homelessness, housing and health (REACH3).

Publication Details:
Aubry T, Cowan L, Dunn JR, Evans L, Evans S, Farrell S, Flamand S, Gogosis E, Hoch J, Hubley, Hulchanski D, **Hwang SW**, Khandor E, Klodawsky F, MacLaurin B, Muckle W, Palepu A, Roy E, Worthington C, Wyllie K. The research alliance for Canadian homelessness, housing and health

(REACH3). Journal of Urban Health. May 2009:86(3):386. **Principal Author**.

G. Teaching and Design

1. INNOVATIONS AND DEVELOPMENT IN TEACHING AND EDUCATION

2007 Jan - 2016 Jun	University of Toronto Division of General Internal Medicine Faculty Day, Continuing Education, Faculty of Medicine, Dept of Medicine, General Internal Medicine, University of Toronto *Director. The University of Toronto Division of General Internal Medicine Faculty Day was initiated in 2007. It is now an annual divisional event that brings together 60 faculty members for updates on clinical topics and the activities of the division.*
2006 Jul - 2007 Jun	Scenario Rounds. Postgraduate MD, Faculty of Medicine, Dept of Medicine, General Internal Medicine, University of Toronto *Director. Coordinated creation of a university-wide curriculum and evaluation process for these rounds.*

H. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Undergraduate Education

2019 Aug - 2020 Aug	**Primary Supervisor**. BA. Dylan Balter. *Patient factors affecting family physicians' prescribing decisions for patients with chronic diseases*, *Non-thesis Project*. Awards: Johns Hopkins University - Second Decade Society - Meg Walsh Award. Completed 2020.
2017 Jun - 2017 Aug	**Primary Supervisor**. B. Sc. Linh Luong. Supervisee Position: Summer Research Student, Supervisee Institution: York University. *Readmissions among Homeless Patients*.
2016 Jun - 2016 Dec	**Primary Supervisor**. Alexandra Patel. Supervisee Position: Undergraduate Student, Supervisee Institution: University of Toronto. *Factors Affecting 90 Day Readmission to a General Medical Unit in the Homeless Population*.
2014 Jun - 2014 Aug	**Primary Supervisor**. B. Sc. Linh Luong. Supervisee Position: Summer Research Student, Supervisee Institution: York University. *The Effect of Advance Directives on the Care of Homeless Persons*.
2012 Jun - 2013 Aug	**Primary Supervisor**. B. Sc. Matthew To. Supervisee Institution: Western University. *Health status, healthcare utilization, and criminal incidents following traumatic brain injury in homeless and vulnerably housed adults in 3 Canadian cities*.
2012 Mar - 2012 Jul	**Primary Supervisor**. High School. Linh Luong. Supervisee Institution: Richmond Hill High School. *Health and Housing in Transition Study*.
2007 May - 2007 Aug	**Primary Supervisor**. B. Sc. Emma Wilkins. Supervisee Institution: University of Alberta. *Barriers to Chronic Pain Management in Homeless People*. Completed 2010.
2007 May - 2007 Aug	**Primary Supervisor**. B. Sc. Stephen VanderHerberg. Supervisee Institution: St. Michael's Hospital, Toronto. *Barriers to Chronic Pain Management in Homeless People*.
2005 Sep - 2006 Aug	**Primary Supervisor**. B. Sc. Michael Chan. Supervisee Institution: University of Toronto. *Access to Mobile Healthcare Services: A Comparison of Toronto and New York City*.
2005 May - 2006 Jun	**Primary Supervisor**. BA. Gabrielle Ramos. Supervisee Institution: Columbia University, NY. *Access to Mobile Healthcare Services: A Comparison of Toronto and New York City*.
2004 May - 2004 Aug	**Primary Supervisor**. BA. Toby Shaw. Supervisee Institution: Wesleyan University,

	Middletown, CT. *Bone Mineral Density in Women using Meal Programs*.
2002 May - 2002 Aug	**Primary Supervisor**. B. Sc. Jessica Ben-David. Supervisee Institution: University of Western Ontario. *Risk factors for cardiovascular disease among homeless people*.
2001 - 2003	**Co-Supervisor**. B. Sc. Diana Chislett and Naomi Ross. Supervisee Institution: St. Michael's Hospital. *Do shelters for the homeless in Toronto provide appropriate menus for those with diabetes?*. Collaborator(s): Primary supervisor: Pauline Darling. Completed 2003.
2000 - 2003	**Primary Supervisor**. B. Sc. Carolyn Tram. Supervisee Institution: University of Toronto. *Do graphic illustrations improve patients' comprehension of medication labels?*.

Graduate Education

2021 Mar - present	**Co-Supervisor**. MSc. Emma Skolnik, MD, Health Policy, Management and Evaluation. Supervisee Position: Fellow in Minimally Invasive Gynecologic Surgery, Supervisee Institution: St. Michael's Hospital. *Access to Advanced Gynecological Care for Patients Experiencing Disadvantage; A Population Based Study*. Supervisor(s): Andrea Simpson & Stephen Hwang.
2019 Jan - 2019 Mar	**Primary Supervisor**. Master of Public Health. Linh Luong, Public Health Sciences. Supervisee Position: MPH Student, Supervisee Institution: University of Toronto. *The "At Home" Research Demonstration Project in Mental Health and Homelessness --Toronto Site*. Completed 2019.
2017 Nov - 2021 Jan	**Co-Supervisor**. PhD. Jesse Jenkinson, Public Health Sciences. Supervisee Position: Graduate Student, Supervisee Institution: University of Toronto. *How does context shape the implementation process of discharging homeless patients from hospitals in Toronto, Canada?*. Supervisor(s): Erica Di Ruggiero and Stephen Hwang. Collaborator(s): Carol Strike. Completed 2021.
2016 Sep - 2021 Jun	**Primary Supervisor**. PhD. Kathryn Wiens, Public Health Sciences. Supervisee Position: MD Student, Supervisee Institution: University of Toronto. *Healthcare utilization among adults with a history of homelessness: The distribution and determinants of high-cost use of the healthcare system*. Supervisor(s): Laura Rosella, Paul Kurdyak. Completed 2021.
2013 Jul - 2015 Dec	**Primary Supervisor**. PhD. Jeyagobi Jeyaratnam, Health Policy, Management and Evaluation. Supervisee Position: Graduate Student, Supervisee Institution: University of Toronto. Collaborator(s): Farah Ahmad, Elizabeth Lin.
2012 Apr - 2014 Sep	**Primary Supervisor**. MSc. Dima Saab, Health Policy, Management and Evaluation. Supervisee Position: Graduate Student, Supervisee Institution: University of Toronto. *Hospital Readmissions among People who are Homeless in Toronto*. Collaborator(s): Rosane Nisenbaum, Irfan Dhalla. Completed 2014.
2011 Sep - 2014 Sep	**Co-Supervisor**. MSc Dental Public Health. Rafael Figueiredo, Dentistry. Supervisee Position: Provincial Dental Public Health Officer, Alberta Health Services, Supervisee Institution: University of Toronto. *Emergency Department Visits for Dental Problems by Homeless People: A Four-Year Observational Cohort Study using Health Care Databases*. Supervisor(s): Carlos Quinonez. Collaborator(s): Laura Dempster. Completed 2014.
2010 Sep - 2014 Sep	**Primary Supervisor**. MSc. Gayathri Naganathan, Health Policy, Management and Evaluation. Supervisee Position: Graduate Student, Supervisee Institution: University of Toronto. *The core features and perceived value of family support for ethnoracial homeless individuals with mental illness: Findings from the At Home/Chez Soi Project*. Collaborator(s): Vicky Stergiopoulos, Paul Williams. Completed 2014.
2005 Jan - 2012	**Co-Supervisor**. PhD. Allison Scott, Department of Epidemiology and Biostatistics. Supervisee Position: Epidemiologist, Alberta Health Services, Supervisee Institution: McGill University. *Incidence of Pregnancy, Identity, and Constructing Belonging in Street Youth*. Supervisor(s): Jean-François Boivin, Robert Platt, Janet Parsons. Completed 2017.
2002 - 2004	**Co-Supervisor**. MSc. Gordon Bargh, Department of Epidemiology and Biostatistics. Supervisee Position: Physician, Supervisee Institution: Western University. *Group A Streptococcus colonization among residents of a homeless shelter.* Supervisor(s): Jeffrey Hoch. Completed 2004.

Undergraduate MD

2019 Mar - 2021 Jun	**Co-Supervisor**. Year 2. Patsy Lee. Supervisee Position: Medical student, Supervisee Institution: McMaster University. *A Scoping review on community integration and social inclusion in formerly or current homeless people:*. Collaborator(s): Cilia Mejia-Lancheros.
2016 Jul - 2017	**Primary Supervisor**. Year 2. David Anderson. Supervisee Position: Medical student, Supervisee Institution: McMaster University. *PICC line for injection drug users*.
2015 Sep - 2016 Aug	**Primary Supervisor**. Year 2. Mei Wen. Supervisee Position: Medical student, Supervisee Institution: University of Toronto. *Factors Affecting 90 Day Readmission to a General Medical Unit in the Homeless Population*.
2014 Sep - 2017 Jun	**Primary Supervisor**. Year 2. Paige Zhang. Supervisee Position: Medical student, Supervisee Institution: University of Toronto. *Extreme Weather and Cold- and Heat-related Injuries among Homeless Individuals*.
2014 Sep - 2016 Jun	**Co-Supervisor**. Year 2. Rafael Sumalinog. Supervisee Position: Medical student, Supervisee Institution: University of Toronto. *Palliative Care for Homeless Patients*.
2014 Jun - 2014 Aug	**Primary Supervisor**. Year 2. Matthew To. Supervisee Position: Summer Research Student, Supervisee Institution: Dalhousie University. *The Effect of Advance Directives on the Care of Homeless Persons*.
2014 Jun - 2014 Aug	**Primary Supervisor**. Year 3. Victor Lucas Goncalves. Supervisee Position: Summer Research Student, Supervisee Institution: University of Sao Paulo, Brasil. *The Effect of Advance Directives on the Care of Homeless Persons*.
2013 Jul - 2016 Jun	**Primary Supervisor**. Year 2. Dhruv Nayyar. Supervisee Position: Medical Student, Supervisee Institution: University of Toronto. *Risk of Cardiovascular Disease in Homeless Adults: 10-Year Follow-Up*.
2013 Jul - 2014 Jun	**Primary Supervisor**. Year 2. Pavan Gill. Supervisee Position: Medical Student, Supervisee Institution: University of Toronto. *Health Needs Assessment of Taxi Drivers in Toronto*. Collaborator(s): Francesca Gany.
2013 Jun - 2013 Aug	**Primary Supervisor**. Year 2. Manisha Sachdeva and Dhruv Nayyar. Supervisee Position: Medical Students, Supervisee Institution: University of Toronto. *The Effect of Advance Directives on the Care of Homeless Persons*.
2012 Oct - 2016 Jun	**Primary Supervisor**. Year 2. Alexander Leung. Supervisee Position: Medical Student, Supervisee Institution: University of Toronto. *The Effect of Advance Directives on the Care of Homeless Persons*. Collaborator(s): John Song (University of Minneapolis).
2012 Jul - 2012 Sep	**Primary Supervisor**. Year 2. Kenneth Lam. Supervisee Position: Medical Student, Supervisee Institution: Western University. *Pragmatic Cluster Randomized Trials as an Evidence Tool for Patient Safety*.
2012 Jun - 2013 Sep	**Primary Supervisor**. Year 1. Charlotte Hunter. Supervisee Position: Medical Student, Supervisee Institution: Western University. *Barriers to prescription medication adherence among homeless and vulnerably housed adults in three Canadian cities.*
2011 Oct - 2013 Dec	**Primary Supervisor**. Year 2. Samantha Young. Supervisee Position: Medical Student, Supervisee Institution: University of Toronto. *Influenza vaccination rates among homeless people with mental illness*.
2011 Aug - 2012 Dec	**Primary Supervisor**. Year 2. Alison Fine & Tony Zhang. Supervisee Position: Medical Students, Supervisee Institution: Western University. *Attitudes towards Homeless People among Medical Students and Emergency Department Staff*.
2011 Jun - 2013 Jun	**Primary Supervisor**. Year 1. Niran Argintaru. Supervisee Position: Medical Student, Supervisee Institution: Western University. *Unmet health needs among homeless and vulnerably housed adults in three Canadian cities.*
2010 Oct - 2012 Dec	**Primary Supervisor**. Year 2. Greg Gaisano & Michelle Olah. Supervisee Position: Medical Students, Supervisee Institution: University of Toronto. *The Effects of Socioeconomic Status and Chronic Health Conditions on the Ability to Find a Family Physician in Toronto.*
2010 Jun - 2011 May	**Primary Supervisor**. Year 2. Matthew Kennedy. Supervisee Institution: University of Toronto, Faculty of Medicine. *Instruments to Assess Food Security among Homeless*

	Individuals.
2010 Apr - 2012 Dec	**Primary Supervisor**. Year 2. Mike Fralick & Zane Gallinger. Supervisee Institution: University of Toronto, Faculty of Medicine. *Drowning and the Influence of Foreign-born Status*.
2009 Oct - 2011 May	**Primary Supervisor**. Year 2. Anna Holland. Supervisee Institution: St. Michael's Hospital. *Instruments to Assess Food Security among Homeless Individuals*.
2009 Jan - 2009 Dec	**Primary Supervisor**. Year 1. Anna Holland. Supervisee Institution: University of Toronto. *At Home: Research Demonstration Project on Homelessness and Mental Health*. Completed 2012.
2008 Oct - 2009 May	**Primary Supervisor**. Year 2. Mina Atia. Supervisee Institution: University of Toronto, Faculty of Medicine. *The Relationship between Apparent Age and Health Status*. Completed 2011.
2008 Apr - 2008 Aug	**Primary Supervisor**. Year 2. Joanna Ueng. Supervisee Institution: Queen's University, School of Medicine. *Unmet needs for health care among homeless people within a system of universal health insurance.*, Completed 2010.
2007 Oct - 2008 May	**Primary Supervisor**. Year 2. Eileen Estrabillo. Supervisee Institution: University of Toronto, Faculty of Medicine. *Barriers to Chronic Pain Management in Homeless People*. Completed 2009.
2006 Oct - 2007 May	**Primary Supervisor**. Year 2. Shaqil Kassam. Supervisee Institution: University of Toronto, Faculty of Medicine. *Infirmary Care for Homeless Adults*. Collaborator(s): Co-Supervisor: Alice Broughton.
2006 Oct - 2007 May	**Primary Supervisor**. Year 2. Anna MacDonald. Supervisee Institution: University of Toronto, Faculty of Medicine. *Barriers to Chronic Pain Management in Homeless People*.
2006 Apr - 2007 Aug	**Primary Supervisor**. Year 1. Ciara Whelan. Supervisee Institution: Queen's University, School of Medicine. *Access to Mobile Healthcare Services: A Comparison of Toronto and New York City*.
2005 Oct - 2006 May	**Primary Supervisor**. Year 2. Andrew Smith. Supervisee Institution: University of Toronto, Faculty of Medicine. *The Effects of Supportive Housing on the Health Status and Service Utilization of Homeless and Hard-to-House Adults*.
2005 May - 2007 May	**Primary Supervisor**. Year 2. Cheryl Leung. Supervisee Institution: University of Western Ontario, Schulich School of Medicine. *Control of Emerging Infectious Diseases in Homeless Populations*.
2004 Oct - 2007 May	**Primary Supervisor**. Year 2. Chuck Wen. Supervisee Institution: University of Toronto, Faculty of Medicine. *Perceptions of Unwelcomeness among Homeless People*. Collaborator(s): Collaborator: Pam Hudak.
2004 Oct - 2005 May	**Primary Supervisor**. Year 2. Theepa Sundaralingam. Supervisee Institution: University of Toronto, Faculty of Medicine. *Bone Mineral Density in Women using Meal Programs*.
2003 Oct - 2004 May	**Primary Supervisor**. Year 2. Emily Lai. Supervisee Institution: University of Toronto, Faculty of Medicine. *Bone Mineral Density in Women using Meal Programs*.
2003 Jan - 2005 Dec	**Primary Supervisor**. Year 2. Fiona Kouyoumdjian. Supervisee Institution: Dalhousie University Medical School. *Systematic review of interventions to improve the health of the homeless*.
2002 Oct - 2003 May	**Primary Supervisor**. Year 2. Melanie Makhija. Supervisee Institution: University of Toronto, Faculty of Medicine. *Factors affecting women's decisions regarding infertility treatment*.
2002 Oct - 2003 May	**Primary Supervisor**. Year 2. John Hanlon. Supervisee Institution: University of Toronto, Faculty of Medicine. *Risk factors for cardiovascular disease among homeless people*.
2001 May - 2001 Aug	**Primary Supervisor**. Year 1. Susan Scarrow. Supervisee Institution: University of Western Ontario, School of Medicine. *Cervical cancer and breast cancer screening among homeless women*.
2001 - 2003	**Primary Supervisor**. Year 2. Pavi Kundhal. Supervisee Institution: University of Toronto, Faculty of Medicine. *The effect of socioeconomic status on waiting time for MRI scans*.
2001 - 2002	**Primary Supervisor**. Year 2. Tony Lee. Supervisee Institution: University of Toronto, Faculty of Medicine. *Risk factors for cardiovascular disease among homeless people*.

2000 - 2003	**Primary Supervisor**. Year 2. Tanya Zakrison. Supervisee Institution: University of Toronto, Faculty of Medicine. *Homeless people's interactions with police officers and paramedics*. Collaborator(s): Collaborator: Paul Hamel.
2000 - 2002	**Primary Supervisor**. Year 2. Rohit Bose. Supervisee Institution: University of Toronto, Faculty of Medicine. *Income and spending among panhandlers*.
1999 - 2001	**Primary Supervisor**. Year 2. Sunny Wong. Supervisee Institution: University of Toronto, Faculty of Medicine. *Dyspepsia among homeless people*.
1999 - 2000	**Primary Supervisor**. Year 2. Nadia Knarr. Supervisee Institution: University of Toronto, Faculty of Medicine. *Do graphic illustrations improve patients' comprehension of medication labels?*.
1998 - 2000	**Primary Supervisor**. Year 2. Ann Bugeja. Supervisee Institution: University of Toronto, Faculty of Medicine. *Barriers to appropriate diabetes management among homeless persons in Toronto*.
1997 - 1999	**Primary Supervisor**. Year 2. Jason Gottlieb. Supervisee Institution: University of Toronto, Faculty of Medicine. *Drug access among homeless men in Toronto*.

Postgraduate MD

2020 Feb - present	**Primary Supervisor**. Core Program. Alison McFadden, MD. Supervisee Institution: University of Toronto. *The effect of a Housing First intervention on COPD management in a population of individuals with mental illness experiencing homelessness in Canada*, *Non-thesis Project*.
2019 Nov - present	**Primary Supervisor**. Core Program. Ashley Jensen, MD. Supervisee Institution: University of Toronto. *The Impact of a Housing First Intervention on Substance Use: Follow-up Analysis of the At Home/Chez Soi Randomized Controlled Trial*, *Non-thesis Project*.
2017 Nov - 2021 Jun	**Primary Supervisor**. Subspecialty. Samantha Liauw, MD. Supervisee Position: Cardiology Resident, Supervisee Institution: University of Toronto. *Outcomes of ST-Segment Elevation Myocardial Infarction in a Canadian Inner City Population*. Collaborator(s): Shuangbo Liu.
2015 Jul - 2017 Jun	**Primary Supervisor**. Core Program. Yayi Huang, MD. Supervisee Institution: University of Toronto. *Factors Affecting 90 Day Readmission to a General Medical Unit in the Homeless Population*, *Non-thesis Project*.
2011 Oct - 2014 Sep	**Primary Supervisor**. Resident in Family Medicine. Naheed Dosani, MD. Supervisee Institution: University of Toronto. *Measurement of Retention in Primary Care among Vulnerably Housed Populations: The At Home/Chez Soi Project*. Awards: First Place, St. Michael's Hospital Resident Research Day (May 2013).
2010 Nov - 2012 Dec	**Primary Supervisor**. Core Program. Shail Rawal, MD. Supervisee Institution: University of Toronto. *Is "Looking Chronically Ill" a Sign of Poor Health?*.
2008 Jul - 2009 Aug	**Primary Supervisor**. Subspecialty. Michelle Grinman, MD. Supervisee Institution: University of Toronto. *The Impact of Drug Problems on Homeless Individuals in Toronto, Ontario*. Completed 2009.
2001 - 2002	**Co-Supervisor**. Resident in Family Medicine. Jennifer Ross, MD and Karen Chien, MD. Supervisee Institution: University of Toronto, Faculty of Medicine. *Adherence and hepatotoxicity among homeless men receiving directly observed prophylactic therapy for tuberculosis*. Collaborator(s): Co-supervisor: Tomislav Svoboda.
2000 - 2001	**Co-Supervisor**. Resident in Psychiatry. Treena Wilkie, MD. Supervisee Institution: University of Toronto, Faculty of Medicine. *Differential treatment of homeless compared to non-homeless patients*. Collaborator(s): Primary Supervisor: Gordon Duval.

Postdoctoral Research Fellow (PhD)

2021 Mar - present	**Primary Supervisor**. Postdoctoral Training. Jesse Jenkinson, PhD. Supervisee Position: Postdoctoral Fellow, Supervisee Institution: St. Michael's Hospital. *Health care transitions among people experiencing homelessness*.
2020 - present	**Co-Supervisor**. Postdoctoral Training. Ambreen Sayani, MD, PhD. Supervisee Position:

Postdoctoral Fellow, Supervisee Institution: Women's College Hospital. *Improving access to lung cancer screening in the underserved & Building capacity for future cancer patient-oriented research in Canada*, *Group Supervision*. Awards: CIHR Patient-Oriented Research Award -- Transition to Leadership stream. Supervisor(s): Aisha Lofters.

2018 May - present — **Primary Supervisor**. Postdoctoral Training. James Lachaud, PhD. Supervisee Position: Postdoctoral Fellow, Supervisee Institution: St. Michael's Hospital. *The At Home Research Demonstration Project in Mental Health and Homelessness*. Awards: CIHR Fellowship - Research & Knowledge Translation on Urban Housing and Health.

2018 Sep - 2019 Jul — **Primary Supervisor**. Postdoctoral Training. David Campbell MD, PhD. Supervisee Position: Postdoctoral Fellow, Supervisee Institution: St. Michael's Hospital. *Understanding and engaging with individuals experiencing homelessness who have diabetes: A participatory research project*. Supervisor(s): Gillian Booth, Stephen Hwang, Pat O'Campo.

2018 Jan - 2022 Feb — **Primary Supervisor**. Postdoctoral Training. Cilia Mejia-Lancheros, PhD. Supervisee Position: Postdoctoral Fellow, Supervisee Institution: St. Michael's Hospital. *The "At Home" Research Demonstration Project in Mental Health and Homelessness --Toronto Site.* Supervisor(s): Stephen Hwang, Pat O'Campo, Vicky Stergiopoulos.

2017 Mar - 2018 Oct — **Primary Supervisor**. Postdoctoral Training. Naomi Thulien, NP, MN, PhD. Supervisee Position: Postdoctoral Fellow, Supervisee Institution: St. Michael's Hospital. *Tackling Social Exclusion: A Peer Support Intervention for Street-Involved and Homeless Youth.*

2014 Jul - 2015 Jun — **Co-Supervisor**. Postdoctoral Training. Daniel Poremski, PhD. Supervisee Position: ACHIEVE Postdoctoral Fellow, Supervisee Institution: St. Michael's Hospital. Supervisor(s): Vicky Stergiopoulos.

2013 Jul - 2016 Jun — **Primary Supervisor**. Postdoctoral Training. Fiona Kouyoumdjian, MD, PhD. Supervisee Position: CIHR Postdoctoral Fellow, Supervisee Institution: St. Michael's Hospital. *Mortality of people incarcerated in provincial facilities in Ontario: A 15 year retrospective cohort study.* Awards: CIHR Postdoctoral Fellowship.

2. OTHER SUPERVISION

Graduate Education

Thesis Committee Member

2021 Mar - present — **PhD**. Volletta Peters, Health Sciences. Supervisee Position: Graduate Student, Supervisee Institution: Ontario Tech University. Supervisor(s): Winnie Sun. Collaborator(s): David Rudoler.

2019 Sep - present — **Master of Medical Science**. Parisa Dastoori, Medical Science. Supervisee Position: Graduate Student, Supervisee Institution: University of Toronto. Supervisor(s): Flora Matheson. Collaborator(s): Paul Kurdyak, Samantha Anthony.

2019 Aug - present — **PhD**. Michael Potvin, Social Work. Supervisee Position: Graduate Student, Supervisee Institution: McMaster University. Supervisor(s): Ann Fudge Schormans. Collaborator(s): Rachel Zhou.

2013 Oct - 2017 Feb — **PhD**. Naomi Thulien, NP, MN, Nursing Science. Supervisee Position: Assistant Professor, McMaster University, Supervisee Institution: University of Toronto. *Tackling Social Exclusion: A Peer Support Intervention for Street-Involved and Homeless Youth*. Supervisor(s): Denise Gastaldo. Collaborator(s): Elizabeth McCay. Completed 2017.

2012 Jun - 2015 Jun — **PhD**. Carrie Marshall, Rehabilitation Therapy. Supervisee Position: Graduate Student, Supervisee Institution: Queen's University, Kingston, Ontario. *Time Use and Health and Wellbeing in the Transition From Homeless to Housed in Chronically Homeless Persons*. Supervisor(s): Rosemary Lysaght. Collaborator(s): Stephen Gaetz, Terry Krupa. Completed 2015.

2012 Apr - 2016 Sep — **SD (Doctor of Science)**. Jill Roncarati, MPH, Public Health. Supervisee Position: Graduate Student, Supervisee Institution: Harvard School of Public Health. *Sleeping Rough: Morbidity,*

mortality, and the effects of housing on the health of Boston's street population. Supervisor(s): Glorian Sorensen. Collaborator(s): Nancy Krieger, Fran Cook. Completed 2016.

2011 Oct - 2013 Aug — **MSc**. Tyler Pettes, Nutritional Sciences. Supervisee Position: Psychiatry Resident, Supervisee Institution: University of Toronto. *Responsiveness of Food Provisioning Programs to the Needs of Homeless Populations in Five Canadian Cities*. Supervisor(s): Valerie Tarasuk. Collaborator(s): Stephen Gaetz, Anthony Hanley. Completed 2013.

2010 Jan - 2012 Dec — **MSc Nursing**. Lisa Beames, RN, Nursing. Supervisee Position: Clinical Leader/Manager, Mental Health Services, Supervisee Institution: University of Victoria. *Homeless Clients' Perspectives on Health Care Experiences.* Supervisor(s): Bernie Pauly. Collaborator(s): Joan MacNeil. Completed 2012.

2009 Oct - 2011 Jun — **MSc**. Rafael Figueiredo, Dentistry. Supervisee Position: Chief Dental Officer, Alberta Health, Supervisee Institution: University of Toronto. *Oral Health of Homeless People in Toronto*. Supervisor(s): Carlos Quinonez. Collaborator(s): David Locker. Completed 2011.

2007 May - 2012 Jun — **PhD**. Aisha Lofters, MD, Health Policy, Management and Evaluation, Clinical Epidemiology. Supervisee Position: Assistant Professor, University of Toronto, Supervisee Institution: University of Toronto. *Cervical cancer screening among women who are recent immigrants: A population-based study in Ontario*. Supervisor(s): Richard Glazier. Collaborator(s): Rahim Moineddin. Completed 2012.

Thesis Examiner

2016 Feb — **MSc**. Michelle Sholzberg, Health Policy, Management and Evaluation. Supervisee Institution: University of Toronto. *The Influence of Socioeconomic Status on Selection of Anticoagulation for Atrial Fibrillation: A Population-Based Study*. Supervisor(s): Andreas Laupacis. Completed 2016.

2015 Jan — **PhD**. Claire Kendall, MD. Supervisee Institution: University of Ottawa. *A Population-Based Evaluation of the Delivery of Care for People Living with HIV in Ontario*. Supervisor(s): William Hogg and Douglas Manuel. Completed 2015.

2009 May — **MSc**. Patricia Lee, MD. Supervisee Institution: University of Toronto. *Injury and Neighborhood Marginalization: Does it matter where you live?*. Supervisor(s): Avery Nathens. Completed 2009.

1998 Sep — **MSc**. Wendy Wobeser, MD. Supervisee Institution: University of Toronto. *Risk Factors for Active TB Among Foreign Born Persons Arriving in Ontario*. Completed 1998.

Chair for Thesis Defense

2005 Sep — **MSc**. Olga Gajic-Veljanoski. Supervisee Institution: University of Toronto. *Predictors of First Clinical Fracture in Patients with Primary Osteoporosis*. Completed 2005.

Collaborator

2003 Sep - 2004 Jun — **PhD**. Agnieszka (Iggy) Kosny. Supervisee Institution: University of Toronto, Dept. of Public Health Sciences. *Are nonprofit organizations healthy workplaces? Examining working conditions and occupational health and safety of volunteers and paid workers*. Collaborator(s): Primary supervisor: Joan Eakin. Completed 2006.

Primary Supervisor for Research Practicum

2009 May - 2010 Apr — **M.H.Sc**. James Weaver. Supervisee Position: Research Coordinator, Division of Mental Health Services and Policy Research, Department of Psychiatry, Columbia University, New York City. *Hospitalization Costs of Homeless People: Do They Cost More?*. Completed 2010.

2006 Jan - 2006 Apr — **M.H.Sc**. Minnie Ho. Supervisee Position: Epidemiologist, Institute for Clinical Evaluative Sciences, Toronto (as of 2012), Supervisee Institution: University of Toronto. *Control of Emerging Infectious Diseases in Homeless Populations*. Completed 2006.

Project Advisor

2012 Sep - 2013 Jun — **Master of Public Health**. Shail Rawal, MD. Supervisee Position: Clinical Associate,

Supervisee Institution: University of Toronto. *Translation Services and Outcomes among Non-English Proficient Hospitalized Patients*.

Supervisor for Research Elective

2009 Nov - 2010 Jun **Master of Public Policy**. Anna-Maria Cappella. Supervisee Position: Project Advisor & Program Coordinator, Service Ontario (as of 2012), Supervisee Institution: University of Toronto. *An Impact Analysis of Housing First Programs in the United States and Canada.*

Undergraduate MD

Secondary Supervisor

2013 Oct - 2014 Aug **Year 2**. Christopher Noel and Henry Fung. Supervisee Position: Medical Students, Supervisee Institution: University of Toronto. *Eye Needs of the Homeless Population*. Collaborator(s): Myrna Lichter.

THIS IS EXHIBIT "B" TO THE
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AFFIRMED REMOTELY BEFORE ME AT
THE CITY OF TORONTO DURING A "ZOOM" VIDEOCONFERENCE
IN ACCORDANCE WITH O.REG. 431/20,
ADMINISTERING OATH OR DECLARATION REMOTELY
THIS 27TH DAY OF FEBRUARY, 2023

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Commissioner for Taking Affidavits, etc.

Homelessness and health

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Stephen W. Hwang

Abstract

HOMELESSNESS AFFECTS TENS OF THOUSANDS OF CANADIANS and has important health implications. Homeless people are at increased risk of dying prematurely and suffer from a wide range of health problems, including seizures, chronic obstructive pulmonary disease, musculoskeletal disorders, tuberculosis, and skin and foot problems. Homeless people also face significant barriers that impair their access to health care. More research is needed to identify better ways to deliver care to this population.

Review

Synthèse

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This article has been peer reviewed.

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Homelessness, which is a focus of increasing concern in Canadian cities, has important health implications. Homeless people have high levels of morbidity and mortality and may experience significant barriers to accessing health care. This article addresses 3 key issues: first, who are the homeless? Second, what health problems are common among homeless people? Third, how does the health care system respond to the needs of the homeless?

Who are the homeless?

According to the United Nations, "absolute homelessness" describes the condition of people without physical shelter who sleep outdoors, in vehicles, abandoned buildings or other places not intended for human habitation. "Relative homelessness" describes the condition of those who have a physical shelter, but one that does not meet basic standards of health and safety; these include protection from the elements, access to safe water and sanitation, security of tenure, personal safety and affordability.[1] In this review, "homeless people" refers to people who are sleeping in shelters for the homeless and those who are "absolutely homeless."[2] This is the definition that is most frequently used in health-related research. Although homelessness is commonplace in many developing countries, this review focuses on homelessness in Canada.[1]

The capacity of shelters for the homeless is a useful starting point for estimating the size of the homeless population (Table 1). These data suggest that each night about 8000 homeless people, that is, about 5 per 10 000 population, are sleeping in shelters in the 9 largest metropolitan areas of Canada. The number of individuals who use these shelters at least once over the course of a year is about 5 times this figure.[4] In Toronto, for example, 28 800 people used such shelters in 1998.[5]

Shelter counts underestimate the number of homeless people because they do not include individuals who are sleeping on the street. Although these individuals are particularly difficult to count, they represent a sizable population in some cities. In Vancouver as many as 600 homeless people, or 3 per 10 000 population, sleep outside every night, thus exceeding the number of people staying in shelters.[6]

These figures indicate that the total number of homeless people in Canada on any given night is probably of the order of tens of thousands. In many cities, the number of people who are homeless has clearly increased in recent years. Toronto, which has the country's largest homeless population, has seen mean nightly shelter occupancy rise from 1902 individuals in 1990 to 3790 in 1998.[5,7] Between 1992 and 1998, Calgary's homeless population more than doubled from 447 to 988.[8] In Ottawa, the total number of overnight stays at men's shelters increased by about 8% between 1996 and 1998.[9]

The demographic characteristics of the homeless population vary significantly from city to city. Contrary to common stereotypes, homelessness affects a wide

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range of people, including families with children. Families occupy 42% of shelter beds in Toronto[5] and about 35% of shelter beds in Ottawa.[9] The average shelter stay for these families lasts 1.5–2 months.[7,9] In contrast, other Canadian cities do not have significant numbers of homeless families. The phenomenon of homeless families in Toronto and Ottawa may reflect the convergence of multiple factors, including poverty, high housing costs and a shortage of subsidized public housing units.[5,9,10]

Single men constitute the largest segment of homeless people in most Canadian cities: about 70% of the homeless population in Vancouver,[11] Edmonton[12] and Calgary,[8] and about 50% in Ottawa.[9] In Toronto, single men occupy 35% of shelter beds.[7] Although most single men stay in the shelter system for only a few nights, single men also account for 75% of chronically homeless individuals (those who stay in shelters for 1 year or more).[7] Homeless men tend to be relatively young, with the majority between 25 and 44 years old.[8,9,13]

Single women account for about one-quarter of homeless people in Vancouver,[11] Edmonton[12] and Toronto,[14] but as few as 10% of homeless people in cities such as Calgary[8] and Ottawa.[9] Studies in the United States suggest that a number of characteristics distinguish homeless single women from homeless women accompanied by children. Single women are more likely to be chronically homeless, older and to have a history of substance abuse or mental illness.[15]

The terms "homeless youth" and "street youth" are used interchangeably to refer to teenagers and young people below the age of 20–25 years. These young people first leave home at a mean age of 15 years, and many of them come from families where they experienced physical or sexual abuse.[16,17] Toronto, Montreal and Vancouver have the largest numbers of street youth in Canada.[17,18] Because most of these young people do not sleep in homeless shelters, shelter-based counts (Table 1) greatly underestimate the size of these populations. In Toronto, for example, about 75% of homeless youth do not use shelters.[19]

Aboriginal people are overrepresented in Canada's homeless population by a factor of about 10. Individuals of Aboriginal origin account for 35% of the homeless population in Edmonton,[12] 18% in Calgary,[8] 11% in Vancouver[11] and 5% in Toronto,[14] but only 3.8%, 1.9%, 1.7% and 0.4% of the general population of these cities respectively.[20] A disproportionate number of homeless people who sleep on the street rather than in shelters are of Aboriginal origin.[5,12]

Table 1: Homeless shelter capacity* in metropolitan areas of Canada with a population greater than 500 000†

Metropolitan area	Population, thousands†	No. of beds			
		Adult shelters	Youth shelters	Family shelters	Total
Toronto	4586	2074	441	1650	4165
Montreal	3424	1118	44	25	1187
Vancouver	1999	339	25	51	415
Ottawa/Hull	1056	325	30	201	556
Edmonton	914	395	29	0	424
Calgary	903	798	80	0	878
Quebec City	687	125	8	15	148
Winnipeg	678	144	24	61	229
Hamilton	658	109	30	65	204
Total	14 905	5427	711	2068	8206

*Homeless shelter capacity excludes overflow, beds at detoxification centres and beds at shelters exclusively for battered women.
†Population of census metropolitan areas in 1998, as determined by Statistics Canada.[3]

Health problems among homeless people

Homeless people have a greatly increased risk of death. Compared with the general youth population of Quebec, mortality rates among street youth in Montreal are 9 times higher for males and 31 times higher for females.[21] Among men using shelters for the homeless in Toronto, mortality rates are 8.3 times higher than the mean for 18–24 year olds, 3.7 times higher than the mean for 25–44 year olds and 2.3 times higher than the mean for 45–64 year olds.[13] However, death rates among homeless men in Toronto are about one-half that of homeless men in US cities.[13] Mortality rates are lower in Canada because of a number of factors, including lower rates of homicide, HIV infection and, possibly, Canada's system of universal health insurance.

Homeless people suffer from a wide range of medical problems.[11,22,23] Disease severity can be remarkably high because of factors such as extreme poverty, delays in seeking care, nonadherence to therapy, cognitive impairment and the adverse health effects of homelessness itself.[22] Homeless people in their forties and fifties often develop health disabilities that are more commonly seen only in people who are decades older.[24] Individuals living on the street tend to have a worse health status than shelter residents.[25]

Medical problems that are particularly prevalent among homeless adults include seizures, chronic obstructive pulmonary disease, arthritis and other musculoskeletal disorders.[23] Conditions such as hypertension, diabetes and anemia are often inadequately controlled and may go undetected for long periods.[25,26] Respiratory tract infections are common. Oral and dental health is often poor.[27,28]

Skin and foot problems are frequently seen among the homeless. People living on the street are particularly prone to develop skin diseases such as cellulitis, impetigo, venous stasis disease, scabies and body lice.[29] Foot disorders such as onychomycosis, tinea pedis, corns and callouses, and immersion foot are usually the result of inadequate footwear, prolonged exposure to moisture, long periods of walking and standing, and repetitive minor trauma.[30,31] Proper foot care requires early detection of problems, education regarding foot hygiene and the provision of adequate shoes and socks.[30]

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Homeless people are at increased risk of contracting tuberculosis (TB), and this diagnosis should be considered in any homeless individual with a fever and a persistent productive cough.[32] Conditions favouring TB outbreaks in shelters include crowding, large transient populations and inadequate ventilation.[33] More than half of all TB cases among homeless people represent clusters of primary tuberculosis rather than reactivation of old disease.[34,35] Published data on TB in Canada's homeless population are limited. The incidence of active TB among homeless people in Toronto is 71 per 100 000 (about 10 times the average Ontario rate).[35]

Treatment of active TB in homeless people can be complicated by nonadherence to therapy, prolonged infectivity and the development of drug resistance.[36] Directly observed therapy results in higher cure rates and fewer relapses.[37,38] Homeless people with positive tuberculin skin tests without active TB may be considered for directly observed prophylaxis.[39]

Common risk factors for HIV infection in homeless youth in Canada include prostitution, multiple sexual partners, inconsistent use of condoms and injection drug use.[17,18,40] Infection rates were 2.2% and 11.3% among homeless youth seeking HIV testing at 2 clinics in Vancouver in 1988.[41] The higher rate was seen at a clinic that served street youth involved in prostitution. In contrast, the prevalence of HIV infection was only 0.6% in a convenience sample of homeless youth surveyed in Toronto in 1990.[42]

The pattern of HIV risk factors in homeless adults is distinct from that of youth. In a 1997 study of a representative sample of adults using shelters for the homeless in Toronto, 25% had a history of using injection drugs and 41% had a history of using crack cocaine.[14] These drug use behaviours, rather than sexual behaviours, were associated with an increased likelihood of HIV infection. The overall HIV infection rate in this study was 1.8%.[14]

Sexual and reproductive health is a major issue for street youth. In Montreal, 25% of homeless youth have engaged in prostitution.[18] Sexually transmitted diseases are widespread, even among street youth who do not work as prostitutes; gonorrhea and *Chlamydia* are the most prevalent infections.[17] Anecdotal reports suggest that pregnancy is common among street youth in Canada; in a recent study in the United States, 10% of homeless females aged 14–17 years were found to be pregnant.[43]

Violence is a constant threat to the health of homeless people. A survey in Toronto found that 40% of homeless individuals had been assaulted and 21% of homeless women had been raped in the previous year.[23] Homeless men are about 9 times more likely to be murdered than their counterparts in the general population.[13]

Unintentional injuries are a leading cause of morbidity and mortality, especially among homeless men.[13] Injuries are often the result of falls or being struck by a motor vehicle.[13] Deaths due to an unintentional overdose of drugs or alcohol, or both, are also common.[13] Exposure to the elements is a major hazard. In cold weather, the risk of frostbite and hypothermia is substantial,[23] and deaths due to freezing are not uncommon.[44] In hot weather, severe sunburn and heatstroke can occur.

The prevalence of mental illness and substance abuse among homeless people is difficult to determine precisely, but consistent patterns have emerged from methodologically rigorous studies conducted in the United States and Canada.[14,45] Contrary to popular misconceptions, only a small proportion of the homeless population has schizophrenia. The lifetime prevalence of schizophrenia is only 6% among Toronto's homeless population,[14] and US studies have found prevalence rates of 10%–13%.[45] Affective disorders are much more common, with lifetime prevalence rates in the range of 20%–40%.[14,45]

Alcohol use disorders are widespread, with lifetime prevalence rates of about 60% among homeless men.[45] Problems with alcohol are 6–7 times more prevalent among homeless people than in the general population.[45] Fewer data are available on the abuse of substances other than alcohol; in US studies, the median prevalence of drug use disorders is 30%.[46] Cocaine (especially crack) and marijuana are the illicit drugs that are most often used by homeless people in Canada.[11,14,47] Dual diagnosis with both mental illness and substance abuse is not uncommon in this population.[14,45,46]

Patterns of substance abuse and mental illness vary across demographic subgroups. Homeless single women are more likely to have mental illness alone, without any substance use disorder.[45] The prevalence of substance use disorders in men is about twice that in single women.[45] Compared with all other subgroups of homeless people, female heads of homeless families have far lower rates of both substance abuse and mental illness.[10]

Homelessness and the health care system

Homeless adults have high levels of health care use[48] and often obtain their care in emergency departments.[23,49] Homeless people are admitted to hospital up to 5 times more often than the general population[50] and stay in hospital longer than other low-income patients.[51] These prolonged stays in hospital result in significant excess health care costs.[51] Unfortunately, homeless patients are sometimes discharged to shelters, even when their ability to cope in such a setting is marginal at best. One solution to this problem is the development of respite facilities to provide homeless people with a protected environment for recuperation after a stay in hospital.[52]

Homeless people face many barriers that impair their access to health care.[53] Lack of health insurance is a problem for most homeless people in the United States.[53] Although Canada has a system of universal health insurance, many homeless people do not possess proof of coverage because their identification has been lost or stolen.[54] In

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Toronto, 7% of homeless individuals report having been refused health care at least once because they lacked a health insurance card.[23] In addition, many homeless people do not fill prescriptions they have received because they do not have insurance benefits and cannot afford the cost of the medication.[55]

Homeless people face other barriers to health care that are unrelated to insurance status. Homelessness entails a daily struggle for the essentials of life. These competing priorities may impede homeless adults from using health care services, particularly those perceived as discretionary.[56] In addition, many health recommendations regarding rest or dietary changes may be unattainable. In Toronto, 72% of homeless people with diabetes report difficulties managing their condition that are usually related to their diet and the logistic challenges of coordinating meals with medications.[26]

The health care system often fails to provide adequate treatment for homeless people with mental illness or substance abuse.[22,57,58] The assertive community treatment (ACT) model is an effort to address this problem. An ACT team of psychiatrists, nurses and social workers follows a small caseload of homeless mentally ill clients, seeking them out in the community to provide high-intensity mental health treatment and case management.[59] Compared with usual care, patients receiving ACT have fewer psychiatric inpatient days, more days in community housing and greater improvements in their symptoms.[59,60]

Conclusion

Homelessness affects a significant number of Canadians of all ages and is associated with a high burden of illness, yet the health care system may not adequately meet the needs of homeless people. More research is needed to identify better ways to deliver care to this population. Health interventions alone, however, are unlikely to overcome the adverse effects of homelessness and related social ills. The search for long-term solutions to the problem of homelessness itself must remain a key priority.

Competing interests: None declared.

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THIS 27TH DAY OF FEBRUARY, 2023

SHARON CROWE

Commissioner for Taking Affidavits, etc.

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Handbook of Urban Health

Populations, Methods, and Practice

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Chapter 2

Homeless People

Stephen W. Hwang and James R. Dunn

1.0. INTRODUCTION

Over the last quarter century, homelessness has become one of the symbols of urban blight. Regardless of the accuracy of this perception, homelessness is indeed a serious issue in many cities. More than 800,000 Americans are homeless in a given week, and 3.5 million are homeless over the course of a year (Burt, 2001). About 2-3% of the U.S. population, or 5-8 million people, have experienced at least one night of homelessness in the past five years (Link, *et al.*, 1994). About 70% of homeless people in the U.S. live in urban areas (Burt, 2001). Within the countries of the European Union, estimates of the number of homeless people in 1997 were 580,000 in Germany, 166,000 in the United Kingdom, 30,000 to 40,000 in the Netherlands, 10,000 in Finland, 8,000 in Sweden, and 6,000 in Norway (Menke, *et al.*, 2003).

Contrary to stereotypes, a broad range of people experience homelessness, including not only single men, but also single women, runaway adolescents, and families with young children. In the U.S., these subgroups represent about 60%, 16%, 9%, and 15% of the homeless population, respectively (Burt, 2001). In the European Union, substantial numbers of homeless families with children are found only in Germany and the United Kingdom (Menke, *et al.*, 2003). Here and throughout this chapter, we define homeless people as individuals who lack a fixed, regular, and adequate night-time residence, including those who are living in emergency or transitional shelters, in motels or hotels due to lack of alternative adequate accommodations, or in private or public places not intended for human habitation (such as cars, parks, public spaces, abandoned buildings, or bus or train stations).

The health of the homeless and the role of cities in their health present an important challenge. The relationship between urban living and the health of the homeless raises two intertwined questions. First, how does the urban environment influence the creation and perpetuation of homelessness, especially among (but not limited to) individuals with pre-existing health problems such as mental illness and substance abuse? Second, how does the urban environment affect the health of people after they have become homeless? At first glance, these two questions appear almost identical in terms of the specific characteristics and attributes of the urban

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environment that warrant scrutiny. For example, both questions will lead to a consideration of the availability of low-cost housing and the ability of the health care system to care for patients with severe mental illness. However, the distinction between these two questions is important as they distinguish factors associated with the likelihood of being homeless due to health reasons versus the likelihood of consequences given homelessness. At another level, it is also important to distinguish if outcomes and their associated factors vary between cities, both in terms of the structural factors that generate homelessness and (given homelessness) health of those who are homeless. These questions frame the issue of the impact of the urban environment on the health of disadvantaged populations.

In the course of such discussions, disagreement often arises as to whether homelessness should be considered primarily the consequence of individual vulnerabilities and failings, or the result of structural inequities in the social, economic, housing, and health care systems. Rather than creating an either/or distinction, we will approach homelessness as the result of a complex interaction between individual vulnerabilities and structural forces in the urban environment. In most cases, the relative importance of these factors in determining the health of homeless people and the prevalence of homelessness remains the subject of ongoing debate.

2.0. KEY HEALTH ISSUES FOR HOMELESS PEOPLE

The burden of illness and disease is extremely high among homeless people (Levy and O'Connell, 2004). However, any consideration of the common health problems of homeless people must first recognize the large degree of heterogeneity among people who are homeless. Among street youth, single men, single women, and mothers with children, the patterns of illness differ notably. Adolescents suffer from high rates of suicide attempts, sexually transmitted diseases, and pregnancy (Greene and Ringwalt, 1996; Greene and Ringwalt, 1998; Greene, *et al.*, 1999; Feldmann and Middleman, 2003). Female heads of homeless families tend to have far fewer health problems than single homeless women, although their health is poorer than their counterparts in the housed general population (Robertson and Winkleby, 1996). Homeless single men have a higher prevalence of alcohol abuse and drug abuse, whereas single women have a higher prevalence of serious mental illness (Fischer and Breakey, 1991).

Health status also tends to be correlated with a person's history of homelessness. Individuals with severe mental illness, substance abuse, and medical conditions are overrepresented among the chronically homeless, whereas those who are homeless for a transient period lasting only a few weeks or months are more likely to be relatively healthy (Kuhn and Culhane, 1998). Although chronically homeless people make up only about 10% of all individuals who experience homelessness in a given year, they account for a disproportionately large share of the demand for shelter beds and health care services for homeless people (Burt, 2001). In addition, the public's perception of homeless people often reflects a stereotyped image of this highly visible subgroup.

Cross-national comparisons of disease patterns among homeless people reveal the strong effect of social factors within each country. Among homeless men in Tokyo, Japan, morbidity due to alcohol dependence (but not drug use) is common, as are musculoskeletal injuries incurred doing construction work (Takano, *et al.*, 1999b). In contrast, 60% of homeless people in Amsterdam, the Netherlands, suffer from drug abuse or dependence (primarily heroin), and most are chronically homeless (Sleegers, 2000c).

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2.1. Mental Illness and Substance Abuse

The prevalence of serious mental illness and substance abuse is high among homeless persons. In a nationwide U.S. survey of homeless people, 39% had mental health problems, 50% had an alcohol and/or drug problem, and 23% had concurrent mental health and substance use problems (Burt, 2001). Common psychiatric diagnoses among homeless people include major depression, bipolar disorder, schizophrenia, and personality disorders. A systematic review of the prevalence of schizophrenia in homeless persons found rates ranging from 4 to 16% and a weighted average of 11% in the ten methodologically strongest studies (Folsom and Jeste, 2002). Characteristics associated with a higher prevalence of schizophrenia were younger age, female sex, and chronic homelessness. Marked cross-national variation is seen in the prevalence of schizophrenia, with prevalence rates of 23-46% reported among homeless people in Sydney, Australia (Teesson, *et al.*, 2004).

The prevalence of substance abuse is extremely high among homeless single adults. In a study from St. Louis, Missouri, large increases were seen in the prevalence of drug use among homeless men and women between 1980 and 2000. In 2000, 84% of men and 58% of women had an alcohol or drug use disorder (North, *et al.*, 2004). In another study, about three-quarters of homeless adults met criteria for substance abuse or dependence (O'Toole, *et al.*, 2004). Homelessness increases the risk of adverse health outcomes among substance abusers: in five Canadian cities, the risk of a non-fatal overdose was twice as high among illicit opiate users who were homeless compared to those who were housed (Fischer, *et al.*, 2004).

Homeless adolescents also have very high rates of mental health problems and substance abuse. In a study from Seattle, 83% of street youths had been physically and/or sexually victimized after leaving home, and 18% met criteria for post-traumatic stress disorder (Stewart, *et al.*, 2004). Across the U.S., 55% of street youth and 34% of shelter youth had used illicit drugs other than marijuana since leaving home, in comparison to 13% of youth who had never been runaway or homeless (Greene, *et al.*, 1997). Street youth use a wide range of drugs, including hallucinogens, amphetamines, sedative/tranquilizers, inhalants, cocaine, and opiates. Unfortunately, the initiation of injection drug use is quite common, with an incidence rate of 8.2 per 100 person-years among street youth in Montreal (Roy, *et al.*, 2003).

2.2. Infectious Diseases

Infectious diseases are a common cause of health problems in homeless people (Raoult, *et al.*, 2001). The most serious of these infections include tuberculosis (TB), human immunodeficiency virus (HIV) infection, viral hepatitis, and other sexually transmitted infections. Outbreaks of TB among homeless people have been reported frequently, especially in individuals co-infected with HIV (Barnes, *et al.*, 1999; McElroy, *et al.*, 2003; Morrow, *et al.*, 2003). The incidence of active TB in a cohort of homeless people in San Francisco between 1992 to 1996 was 270 per 100,000, or 40 times higher than that seen in the U.S. general population in 1998 (Moss, *et al.*, 2000). Homeless people with TB require more hospital-based care than non-homeless people with TB, resulting in average hospital costs that are higher by $2,000 per patient.(Marks, *et al.*, 2000) Contact tracing in the homeless population is difficult, and in one study only 44% of identified contacts completed treatment for latent TB infection (Yun, *et al.*, 2003). Among street youth, latent tuberculosis is more common than in the general population, but probably

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less prevalent than among homeless adults. In a study conducted in Sydney, Australia, 9% of homeless young people aged 12-25 years had latent TB infection (Kang, *et al.*, 2000).

Homeless people are at increased risk of HIV infection. Data from an older U.S. survey conducted from 1989 to 1992 in 14 cities found median HIV seroprevalence rates of 4.0% in adult men, 1.8% in adult women, and 2.3% in youths (Allen, *et al.*, 1994). In more recent studies, HIV seroprevalence was 10.5% among homeless and marginally housed adults in San Francisco in 1996, a rate five times higher than in San Francisco generally (Robertson, *et al.*, 2004). HIV infection was present in 1.8% of homeless veterans admitted to residential programs from 1995-2000 (Cheung, *et al.*, 2002). Female street youth and young homeless women who are involved in prostitution are at increased risk of HIV infection, due to both injection drug use and risky sexual behaviors (Weber, *et al.*, 2002). In one study of homeless adolescents, the HIV infection rate was alarmingly high at 16% (Beech, *et al.*, 2003). Among substance users, homelessness is associated with higher rates of HIV seroprevalence (Surratt and Inciardi, 2004; Smereck and Hockman, 1998). Among HIV-infected persons, those who are unstably housed (homeless or temporarily staying with friends or family) are less likely to receive adequate health care than those who are stably housed (Smith, *et al.*, 2000).

Homeless people are at increased risk of viral hepatitis, primarily due to high rates of injection drug use. Infection with hepatitis C was found in 22% of homeless men in Los Angeles (Nyamathi, *et al.*, 2002), 32% of individuals using a mobile medical van in New York City (Rosenblum, *et al.*, 2001), and 27% of homeless persons in Oxford, England (Sherriff and Mayon-White, 2003). In a Veterans Affairs population, the prevalence of anti-hepatitis C virus antibody was 41.7% and the prevalence of hepatitis B surface antigen was 1.2% (Cheung, *et al.*, 2002). Among street youth, the prevalence of these markers of infection was also high: 12.6% and 1.6%, respectively, in Montreal (Roy, *et al.*, 1999; 2001) and 5.0% and 3.6%, respectively, in a northwestern U.S. city (Noell, *et al.*, 2001b).

Sexually transmitted diseases (STDs) are a particularly serious problem among street youth. In a longitudinal study of homeless adolescents, the annual incidence of *Chlamydia trachomatis* infection was 12.1% in females and 7.4% in males; the annual incidence of herpes simplex virus type 2 was 25.4% in females and 11.7% in males. (Noell, *et al.*, 2001) A study of street youth and sex workers in Quebec City, Canada found that 13% of women less than 20 years old were infected with *Chlamydia trachomatis* and 1.7% had *Neisseria gonorrhoeae* (Poulin, *et al.*, 2001). Newer urine-based screening tests make it easier to screen homeless youth for STDs in outreach settings (Van Leeuwen, *et al.*, 2002).

2.3. Chronic Diseases

Common chronic diseases, including hypertension, diabetes, chronic obstructive pulmonary disease (COPD), seizures, and musculoskeletal disorders, are often undiagnosed or inadequately treated in homeless adults. Relatively little research has focused on these medical conditions in the homeless population. The prevalence of hypertension was higher among homeless clinic patients than among non-homeless patients at an inner-city primary care clinic (65% vs. 52%) (Szerlip and Szerlip, 2002). The prevalence of diabetes is similar in homeless and non-homeless individuals, but homeless people with diabetes face a number of serious barriers to appropriate disease management, including lack of access to a suitable diet and dif-

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ficulties coordinating medication administration with meal times (Hwang and Bugeja, 2000b). Glycemic control was found to be inadequate in 44% of homeless diabetics in Toronto (Hwang and Bugeja, 2000b).

Smoking rates are extremely high (about 70%) among homeless people (Connor, *et al.*, 2002). As a result, COPD is a common health problem among older adults. In a study of shelter residents in San Francisco, the prevalence of COPD based on spirometry was 15%, or more than twice the prevalence in the general population (Snyder and Eisner, 2004). Smoking also contributes to the high risk of cancer, especially among homeless single men. In a study from Scotland that adjusted for age and socioeconomic deprivation, the incidence of cancer of the oral cavity and pharynx, larynx, esophagus, and lung in homeless men was 139%, 87%, 61%, and 23% higher than expected, respectively (Lamont, *et al.*, 1997). Homeless people are also less likely to receive recommended cancer screening than the general population: among homeless women age 40 and over in Los Angeles County, only 55% had undergone a Pap smear and only 32% had undergone a mammogram within the last year (Chau, *et al.*, 2002). Thus, interventions such as smoking cessation treatment and routine preventive health services may provide significant benefit.

Although it is not surprising that homeless people with mental illness often receive inadequate care for medical comorbidities, the adequacy of care differs according to type of mental illness. Homeless people with schizophrenia receive less detailed physical examinations, fewer primary care visits, and less preventive health services than homeless people with major depression (Folsom, *et al.*, 2002). While it is unknown if these differences are due to patient factors, provider factors, or both, careful attention clearly needs to be paid to the physical health needs of homeless people with psychoses.

2.4. Trauma and Injuries

Trauma and injuries are significant hazards associated with life on the street (Staats, *et al.*, 2002). In a sample of homeless and marginally housed people in San Francisco, 32% of the women and 27% of the men had been sexually or physically assaulted in the last year (Kushel, *et al.*, 2003). Among women, being homeless (compared to being marginally housed) was associated with a more than 3-fold increase in the risk of sexual assault. In Sydney, Australia, 58% of shelter residents reported experiencing a serious physical assault in their lifetime, and half of the women reported having been raped (Buhrich, *et al.*, 2000). Among homeless youth in Los Angeles, reported exposure to violence was found to be equally high among males and females (Kipke, *et al.*, 1997).

2.5. Other Health Conditions

Foot problems are very common among homeless adults due to prolonged standing, long-term exposure to cold and damp, ill-fitting footwear, and inadequate foot hygiene. Problems can range in severity from mild blisters and fungal infections to debilitating chronic venous stasis ulcers, cellulitis, diabetic foot infections, and frostbite. Other common skin problems include sunburn and bites due to infestations by head lice, body lice, scabies, or bedbugs (Stratigos and Katsambas, 2003). The prevalence of serious dermatologic conditions, while probably quite high among street-dwellers, appears to be relatively low among homeless people

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living in shelters that provide adequate clothing, laundry facilities, bathing facilities, and medical care. In a study of men staying at such a shelter in Boston, the majority of individuals had relatively normal findings on skin examinations (Stratigos, *et al.*, 1999).

Dental problems are an extremely prevalent and troubling but often-neglected problem for many homeless people. Common conditions include advanced caries, periodontal disease, and ill-fitting or missing dentures. These problems may be related to poverty, lack of access to dental care, and substance use, rather than homelessness *per se*. In a study comparing homeless and domiciled veterans in Veterans Affairs rehabilitation programs for substance abusers, the two groups had similarly poor oral health (Gibson, *et al.*, 2003).

2.6. Mortality

Given the high prevalence of illness among homeless people and the adverse health effects of homelessness itself, it is not surprising that homeless people have very high mortality rates. Men using homeless shelters are 2 to 8 times more likely to die than age-matched men in the general population (Barrow, *et al.*, 1999; Hwang, 2000a). Homeless women 18-44 years of age have mortality rates that are 5 to 31 times higher than in the general population (Cheung and Hwang, 2004). Common causes of death among homeless people under the age of 45 are unintentional injuries, drug overdoses, AIDS, suicide, and homicide (Hwang, *et al.*, 1997; 2000a). In a longitudinal cohort study of street youth in Montreal, the standardized mortality ratio was 11.4; HIV infection, daily alcohol use in the last month, homelessness in the last 6 months, drug injection in the last 6 months, and male sex were independent predictors of mortality (Roy, *et al.*, 2004).

2.7. Pregnancy

Among homeless women, major barriers to contraception include cost, fear of side effects or potential health risks, and the partner's dislike of contraception (Gelberg, *et al.*, 2002). Pregnancy is particularly common among homeless adolescents. In a U.S. survey of runaway females age 14-17 years, 12% of street-dwelling youths and 10% of those residing in shelters were currently pregnant (Greene and Ringwalt, 1998). In a group of pregnant homeless women, the risk of low birth weight (less than 2,500 gm) was 17%, compared to the national average of 6% (Stein, *et al.*, 2000). Lack of prenatal care and severity of homelessness (homelessness in the first trimester of pregnancy, number of times homeless, and percentage of life spent homeless) were independent risk factors for low birth weight.

2.8. Children in Homeless Families

The health of children in homeless families has been the focus of relatively little research. Some but not all studies of these children have found an increased prevalence of behavioral and mental health problems compared to children in housed low-income families (Bassuk, *et al.*, 1997; Vostanis, *et al.*, 1998). Infectious diseases are a significant concern in these children (Ligon, 2000). Up to 40% of children in homeless families in New York City suffer from asthma, a rate six times higher than the national rate in children (McLean, *et al.*, 2004c).

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3.0. DIMENSIONS OF THE URBAN ENVIRONMENT THAT AFFECT THE PREVALENCE OF HOMELESSNESS AND THE HEALTH OF HOMELESS PEOPLE

The medical literature has usually examined health problems from the perspective of the individual homeless person, and has given relatively little attention to the urban environment within which these health problems arise and must be ameliorated. This section addresses this gap by highlighting dimensions of the urban environment that affect, through interaction with individual vulnerabilities, the prevalence of homelessness and/or the health of homeless people. The following is not intended to be a comprehensive listing, but rather a selection of important determinants about which at least some information is available. These determinants have been grouped into categories encompassing the demographic and physical characteristics of urban centers (population and climate), their socioeconomic and service-delivery structures (income and poverty, social welfare systems, and health care systems), and their spatial and political organization (urban geography and urban governance). Although these dimensions may have differential effects on the health of various subgroups of homeless people (e.g., youths, single adults, and families), these differences are not discussed in depth here.

3.1. Population Size and Migration

Homelessness is a problem in cities across the U.S., as demonstrated by the fact that federally-funded Health Care for the Homeless Programs exist in 161 cities in all 50 states, the District of Columbia, and Puerto Rico (Health Care for the Homeless Information Resource Center). There is limited information on the relationship between population size and prevalence of homelessness in different urban centers. One reason for this paucity of data is the logistical difficulty of conducting an accurate count of homeless persons, particularly those living on the street. Another reason is that point-prevalence counts of the homeless population cannot be used to determine how many individuals are homeless in a city over an entire year, especially given seasonal fluctuations in the homeless population and the fact that homelessness is a transient state.

Counts of shelter users are particularly informative when all shelters contribute to a common administrative database, because this makes it possible to determine the total number of individuals who use shelters in a particular city over the course of a year, rather than simply the number of shelter users at a single point in time (Metraux, *et al.*, 2001). In 1992, an estimated 1.0% of the 1.5 million residents of Philadelphia and 1.2% of the 7.2 million inhabitants of New York City stayed at a homeless shelter at least once (Culhane, *et al.*, 1994). In Toronto, Canada, 1.3% of the city's total population of 2.5 million used a homeless shelter during 2002. These figures are remarkably similar and strikingly high. Thus, homelessness is quite common in large urban centers, although for many individuals the duration of homelessness is quite brief. In a U.S. survey of homeless people, 28% had been homeless for only 3 months or less, 26% had been homeless for 4-12 months, and 46% had been homeless for more than one year (Burt, 2001).

Cross-sectional counts of the number of shelter residents provide an important but somewhat less accurate picture of the homeless population. The maximum size of a city's shelter population is obviously determined by the number of available shelter beds. In a city with few shelters, this can create the illusion of a smaller

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homeless population than is actually the case. In addition, shelter beds may be less widely available in cities that do not experience severe cold weather in the winter. In the nine largest metropolitan areas in Canada, the number of shelter beds per capita ranges more than four-fold, from 21 to 97 per 100,000 population (Hwang, 2001). The number of shelter beds per capita is not significantly correlated with population size. Interestingly, the lowest number of shelter beds per capita in Canada was observed in Vancouver, a city with a very mild climate, and the highest figure was seen in Calgary, a city with extremely cold winters. Overall, this evidence suggests that episodes of homelessness are quite common among residents of major urban centers, but there is significant variation in the prevalence of homelessness across cities that does not necessarily correlate with population size.

A related question is the role of migration in determining the size of the homeless population in urban centers. Whereas some homeless people are migrants who were homeless before or upon their arrival in the city, others are local residents who have become homeless. In a nationwide U.S. survey, 56% of homeless people reported living in the same city where they became homeless (Burt, 2001). Among the 44% of individuals who had moved from one location to another during their current episode of homelessness, the most common pattern was a net flux from urban fringes and medium-sized cities into large central cities. The most commonly cited reasons for these moves were lack of available jobs, lack of affordable housing, and eviction (Burt, 2001).

3.2. Climate

Climate is an interesting example of a characteristic of the urban environment that affects both the prevalence of homelessness and the health of homeless people. Certain cities in warm regions may become a preferred destination for people who are homeless or at high risk for homelessness. As noted above, in cities with warmer climates, a larger proportion of the homeless population is likely to be found on the street rather than in shelters. People living on the street are more likely to be disengaged from the health care and social service systems, and typically these individuals have poorer health than shelter-dwelling homeless people (Cousineau, 1997). In colder climates, exposure to the elements has an obvious adverse impact on the health of homeless people, who face serious risks from trench foot, frostbite, and injury or death from hypothermia (Tanaka and Tokudome, 1991). Conversely, in hot weather, homeless people may experience severe sunburn, heat exhaustion, or heat stroke.

3.3. Income and Housing

The prevalence of severe poverty among the residents of an urban area is certainly an important factor affecting the prevalence of homelessness. Poverty alone, however, does not necessarily lead to homelessness. Data from nine U.S. cities demonstrate wide variation in the proportion of a city's poor residents that stays at a homeless shelter over the course of one year, ranging from a low of 1.3% to a high of 10.2% (Metraux, *et al.*, 2001). Some have argued, based on historical data, that an increase in the number of unmarried men with very low income is a particularly important explanatory factor for adult homelessness (Jencks, 1994). During the latter half of the twentieth century, the earning potential of men with limited education was greatly diminished by the decline of manufacturing jobs in urban centers (Wilson, 1987; 1996). At the same time, the availability of open-market sources of

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low-cost housing such as single-room occupancy hotels and rooming houses shrank steadily due to gentrification and urban renewal (Hasson and Ley, 1994). In this setting, the level of government support for subsidized rental housing plays a key role in determining the availability of units that a low-income individual or family can afford; the 1980's saw a decline in this support in both the U.S. and the United Kingdom (Cohen, 1994).

Some have suggested that income distribution, specifically the ratio of middle-income to low-income households within a given city, is an important determinant of homelessness among both single adults and families (O'Flaherty, 1996). O'Flaherty argues that because the construction of new rental housing for low-income individuals is economically unattractive, the main source of housing for poor people is deteriorating housing stock that has been vacated by middle-income people. O'Flaherty theorized that cities with fewer middle-class people relative to the number of poor people have higher rents at the bottom of the market (because middle-income housing is not being "handed down" to the poor), resulting in higher rates of homelessness.

Members of ethnic and racial minorities are disproportionately represented in the homeless population (e.g., blacks and latinos in the U.S., and Aboriginal people in Canada) (Burt, 2001; Hwang, 2001). The higher prevalence of poverty in these disadvantaged groups may explain this observation. However, other race-related factors in the urban environment may contribute to the excess risk of homelessness among people of color, including discrimination in the housing market and segregation of low-income minorities in neighborhoods with fewer economic opportunities than neighborhoods in which low-income whites reside.

Any discussion of the role that urban poverty plays in causing homelessness also raises questions about nature of the causal relationship between homelessness and poor health. Poverty is consistently and strongly associated with poor health (Marmot, *et al.*, 1997). Thus, the poor health observed among homeless people may be explained in large part by the fact that they experience extreme poverty and deprivation, rather than the fact that they happen to be homeless at the present time. This is particularly likely to be the case for individuals who have only recently become homeless, and less so for the chronically homeless, who have been subjected to the adverse health effects of lack of housing for a lengthy period. To extend this concept further, homelessness is a marker for severe poverty in the urban environment, and it may be this level of poverty, rather than the negative impact of homelessness itself, that has the greatest effect on population health in urban centers. This issue is discussed further in section 4 of this chapter.

3.4 Social Welfare System

Social welfare systems in urban centers have a major impact on both the prevalence of homelessness and the health of homeless people. However, these systems are usually governed at the state or national level, rather than at the municipal level. Wide variation is seen in the scope of social welfare programs, with more generous benefits typically seen in countries or regions that have less tolerance for high levels of income inequality and place a higher value on social cohesion (Sleegers, 2000b).

For example, eligibility criteria for welfare benefits in the U.S. vary significantly from state to state. Some states allow single men to collect welfare, whereas others exclude them. These policies would likely affect the risk of homelessness among low-income single men living in any city within a given state. In addition, A2135

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U.S. federal funds may not be used to provide Temporary Aid to Needy Families (TANF) if an adult in the family has received assistance for more than 60 months, but individual states may elect to continue providing assistance to these families using state funds (State Policy Documentation Project). In coming years, as families that are unable to become self-supporting begin reaching the 60-month federal time limits on benefits, their risk of becoming homeless may be greatly affected by the policies of the state in which they live. In contrast, most European Union countries have extensive social welfare and public housing systems that make family homelessness less common.

One area of controversy is whether the provision of cash entitlements or disability benefits has significant effects on the health of homeless people. On one hand, the health of homeless people should improve if public benefits allow them to obtain food, housing, and other essentials of life. On the other hand, increased income could be detrimental to health if the money is used to purchase alcohol or drugs. One of the few studies on this issue examined 173 homeless mentally ill veterans who applied for Social Security Disability Insurance (SSDI) or Supplemental Security Income (SSI). The 50 individuals who were eventually awarded benefits did not differ in their past history of substance use from the 123 individuals who were eventually denied benefits. Three months after the decision to award or deny benefits, the group that was awarded benefits had significantly higher average total income (by $277 per month) and higher quality of life than the group that was denied benefits. There was no evidence of increased alcohol or drug use or deterioration in psychiatric status among those who received benefits (Rosenheck, *et al.*, 2000).

Most homeless people depend on their city's shelter system for housing, food, and other social services, and these shelters can therefore have a significant impact on the health of homeless people. The availability and quality of homeless shelters vary greatly. As noted previously, homeless people in cities with few shelter beds are more likely to live on the street or other places not intended for human habitation, with potentially adverse health effects. In addition, the staff at homeless shelters can play an important role in connecting homeless people to social services, job training, housing applications, and substance abuse treatment. The quantity and quality of food provided at shelters determines to a large extent the nutritional value of homeless people's diets, with potential downstream health effects (Dachner and Tarasuk, 2002). Finally, the physical environments at shelters range from extremely crowded, poorly ventilated, and unsanitary facilities to modern, clean, and well-run establishments. Adverse shelter conditions have an impact on the transmission of tuberculosis and viral respiratory infections and the prevalence of health conditions such as skin infestations and asthma exacerbations. Shelter conditions could also plausibly have an effect on mental and emotional well-being among residents. To date, however, little research has examined the effects of the physical shelter environment on the health of homeless persons, with the exception of the relationship between crowding and poor ventilation in shelters and the transmission of tuberculosis (Advisory Council for the Elimination of Tuberculosis, 1992b).

3.5. Health Care System

The organization and financing of the urban health care system has an enormous impact on the health of homeless people, and to some extent on the prevalence of homelessness as well. In the U.S., 55% of homeless people lack health insurance,

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creating a significant barrier to obtaining care (Kushel, *et al.*, 2001). These individuals are dependent on state- or city-based systems designed to provide care for the indigent. In many large urban centers in the U.S., a designated public, county, or charity hospital provides the majority of hospital-based health care for homeless people. Some cities have free-care clinics or community health centers that provide ambulatory services for homeless persons as well as other low-income residents. In 161 U.S. cities, federally-funded Health Care for the Homeless Programs have established multidisciplinary teams of physicians, nurses, social workers, and outreach workers that provide care to homeless people on the street and in shelters. This limited set of health care providers is typically the only source of care available to homeless people in urban areas in the U.S., and the local funding and staffing level of these organizations is a critical determinant of access to health care. For homeless veterans, the proximity and availability of Veterans Health Administration services is also an important factor.

In countries such as Canada and the United Kingdom that have systems of universal health insurance, homeless people still face non-financial barriers to care. Many access problems stem from the fact that a health care system designed to meet the needs of the general population may not accommodate the unique requirements of homeless people(Crane and Warnes, 2001; Hwang and Bugeja, 2000a, 2000b). For example, the provision of universal health insurance does not necessarily result in the establishment of outreach programs for homeless people, appropriate treatment programs for homeless persons with mental illness or substance abuse, or an adequate supply of health care providers who are willing, able, and trained to work with this challenging population (Buchanan, *et al.*, 2004). In the United Kingdom, individuals must register with a general practitioner to obtain primary care, and some physicians are reluctant to accept homeless people into their practice because of their complex needs and the extra workload entailed (Wood, *et al.*, 1997). Health insurance does not protect against the fragmentation and discontinuity of care that homeless people often experience, nor does it eliminate the daily struggle to meet basic survival needs that may cause homeless people to place a lower priority on seeking health care (Gelberg, *et al.*, 1997).

Inadequate access to primary health care may result in uncontrolled disease progression and frequent emergency department visits and hospitalizations (Han and Wells, 2003). Emergency department visits by homeless people should be seen as an indicator of high levels of unmet health needs, rather than inappropriate health care utilization (Kushel, *et al.*, 2002). About 50% of homeless children with severe persistent asthma have had at least one emergency department visit in the last year, a finding indicative of inadequate access to health care and undertreatment of their disease (McLean, *et al.*, 2004).

Because individuals with severe mental illness who do not receive appropriate health care are at high risk of becoming homeless, the health care system can have a direct impact on the prevalence of homelessness. The role of deinstitutionalization in contributing to the problem of homelessness has been discussed extensively. Beginning in the 1960's and 1970's, the advent of effective anti-psychotic medications to treat schizophrenia and an understandable desire to move people out of chronic mental hospitals, where conditions were sometimes horrendous, led to the discharge of tens of thousands of long-term psychiatric patients (Dear and Wolch, 1987; Jencks, 1994). The number of beds at psychiatric institutions fell precipitously. In theory, these patients were supposed to receive mental health care and social support in the community. In reality, many of these patients received little if

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any services and ended up swelling the ranks of the homeless population in the 1970's and 1980's.

Today, many decades after these events took place, "deinstitutionalization" is no longer the major cause of homelessness among people with serious mental illness. It is now uncommon for people with psychiatric disorders to have ever been institutionalized for an extended period, and any admissions tend to be quite brief. Not surprisingly, individuals with severe illness, few social supports, and/or inadequate access to appropriate outpatient psychiatric care often become homeless. In a sense, homeless shelters have assumed the role that was played by chronic psychiatric hospitals fifty years ago.

For these homeless people with severe mental illness, the delivery of appropriate health care is challenging but essential to improving their health and housing status. The Assertive Community Treatment (ACT) model attempts to address this problem through a team of psychiatrists, nurses, and social workers who follow a small caseload of homeless mentally ill clients, seeking them out in the community to provide high-intensity mental health treatment and case management. Studies have found that mentally ill homeless people receiving ACT spend fewer days hospitalized as a psychiatric inpatient and have somewhat greater improvement in symptoms than those receiving usual care (Lehman, *et al.*, 1997). However, ACT is labor-intensive and costly, and its availability is often quite limited.

The availability and type of addictive substances in the urban environment have an important effect on the prevalence of homelessness and on the health of homeless people (Munoz, *et al.*, 1998). The advent of crack cocaine has been clearly implicated in the rise of homelessness in the U.S. in the 1980's (Jencks, 1994). In Japan, alcoholism is the predominant addiction contributing to homelessness and morbidity among homeless people, whereas in the Netherlands, homelessness is closely linked to chronic heroin addiction (Takano, *et al.*, 1999a; Sleegers, 2000a).

Access to addiction treatment is therefore a vital issue for a large proportion of homeless people. A number of treatment modalities for adults have been shown to be effective in controlled studies: admission to a post-detoxification stabilization program results in longer periods of abstinence than direct release into the shelter system (Kertesz, *et al.*, 2003), and abstinence-contingent work therapy in a long-term residential setting has been shown to improve outcomes (Milby, *et al.*, 2000). Studies have examined the effectiveness of case management for homeless people with addictions, with mixed results (Morse, 1999).

3.6. Urban Geography

The forces underlying the urban geography of homelessness are aptly described in the seminal work of Dear and Wolch (Dear, *et al.*, 1987). They examined how deinstitutionalization, rollbacks in entitlements to social assistance, and changes in the global economy in the late 1970s and early 1980s combined to create complex problems of poverty, inequality, and homelessness in North American cities that persist to this day. Dear and Wolch (1987) argued that these problems manifested themselves in the specific urban form of the "service-dependent ghetto," which refers to the spatial concentration in the inner city of service-dependent populations (such as people with mental illness, physical handicaps, addictions, or recent incarceration) and the organizations that assist them. While on one hand these can be characterized as areas of "urban blight," Dear and Wolch (1987) argued that they serve as a supportive environment and adaptive coping mechanism that can have a positive

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effect on the health and well-being of residents who have few other options. Service-dependent ghettos are often the object of antagonism from surrounding communities. Paradoxically, however, these more affluent communities often perpetuate the forces that create the service-dependent ghetto and entrench processes of inner-city decay through citizen resistance to housing and services for low-income people and exclusionary land use policies and zoning practices (Dear and Taylor, 1982).

In some cities, the tendency has been to isolate high-poverty urban neighborhoods rather than attempt to destroy them. Davis argues that in Los Angeles and other cities, a conscious effort has been made to create geographic and physical barriers (such as expressways) that circumscribe poor and minority neighborhoods and cut them off from the rest of the city (Davis, 1990). This spatial isolation can further heighten the marginalization of these communities and limit residents' access to goods, services, and economic opportunities that are vital to health.

Since homeless people spend a great deal of their time in public spaces, the nature of these spaces can have a significant impact on their quality of life. Some cities have numerous well-tended public spaces such as parks and squares that are conducive to those who wish to linger or rest, including homeless people. These spaces can serve a socially cohesive function if urban dwellers of diverse backgrounds perceive them to be safe "neutral" spaces in which to gather and socialize. In contrast, other cities have built environments that lack such public spaces and are instead dominated by privatized quasi-public spaces such as shopping malls. Non-purposeful lingering, which would be generally acceptable in a public space such as a park, is perceived as "loitering" in such places. In a relatively trivial but very specific expression of hostility toward homeless people, some cities have installed "bum-proof" benches that are designed to prevent reclining or sleeping on the seat. While these elements of the urban environment seem relatively minor, they may reflect a city's prevailing sentiment towards homeless and poor people that sets the tone of their daily existence (Davis, 1990).

3.7. Urban Governance

Homelessness is often perceived as having a negative effect on the quality of life in urban centers. Some consider the visible presence of homeless people in parks, street corners, and other public spaces to be a manifestation of "urban disorder" and a barrier to the successful promotion of commerce and tourism. In response to these concerns, a number of cities have enacted by-laws against panhandling, loitering or sleeping in public places, public intoxication, or possession of shopping carts. Some cities have instituted aggressive policing strategies to remove homeless people from public spaces (Graser, 2000). Efforts to displace street youth and homeless people rather than offer them any meaningful help might have negative effects on health and in fact increase high-risk behaviors such as survival sex and unsafe injection drug use practices (O'Grady and Greene, 2003; Wood, *et al.*, 2004).

Homeless people frequently interact with both police and paramedics, but they have much lower levels of trust in police than in paramedics (Zakrison, *et al.*, 2004). By inhibiting homeless people from calling for needed emergency assistance, this distrust could result in serious harms to health. In a study of injection drug users in San Francisco, 56% of those who had been present with an unconscious heroin overdose victim did not call for emergency services due to fear of police involvement (Davidson, *et al.*, 2002). Police action can also have direct adverse effects on the health through the excessive use of force (Cooper, *et al.*, 2004). In a study in

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Toronto, 9% of homeless people reported having been assaulted by a police officer in the last 12 months (Zakrison, *et al.*, 2004).

On a larger scale, issues of urban governance such as fiscal disparities affect all urban dwellers, but have the potential to have a particularly severe impact on homeless and poor people. Fiscal disparities typically occur when an older central city with a significant number of high-poverty neighborhoods is surrounded by a ring of higher-income municipalities. The central city's primary revenue stream from property taxes is limited by a weak tax base, but at the same time the city is confronted by a high and rising demand for social services, some of which is driven by the downloading of 'unfunded mandates' by states onto central city municipalities (Drier, *et al.*, 2001). Meanwhile, the nearby ring communities have a strong property tax base and face a lower demand for social services, while at the same time its residents work in the central city and benefit from its economic activities and services (the so-called "free-rider" effect) (Orfield, 1998; Drier, *et al.*, 2001). These fiscal disparities greatly exacerbate the adverse effects of racial and economic segregation on homeless people and others living in extreme poverty in the central city.

In an example of an effort to redress this problem, state legislation in Minnesota, the Fiscal Disparities Act, mandates the sharing of commercial property tax between outlying, high tax base municipalities to central city municipalities to assist in the provision of social services. Enacted in 1971 by the Minnesota legislature, the plan pools 40% of the increase in all communities' commercial/industrial property valuation. All cities and townships keep their pre-1971 tax bases plus 60% of the annual growth. The pool is then taxed at a uniform rate and redistributed among all local government entities. Although this redresses some of the intra-metropolitan disparities, it does little to reduce the payoffs of "externalizing" social problems with tools like exclusionary zoning in typically more affluent communities. Moreover, the Minneapolis-St. Paul example depends on the existence of a strong regional-metropolitan level of governance, the Met Council, which although heavily studied (Orfield, 1998; Rusk, 1999; Katz and Bradley, 1999), is still a concept that is strongly resisted by homeowners' associations, gated communities, and affluent municipalities (McKenzie, 1994; Boudreau and Keil, 2001). An alternative solution is to create cities that encompass lower and higher income areas, rather allowing them to separate into different jurisdictions. In Toronto, Ontario, this was effectively accomplished through the amalgamation of five contiguous cities into a single urban entity, although the amalgamation was motivated by a desire to increase operating efficiency rather than concern regarding fiscal disparities (Boudreau, 2000).

4.0. THE EFFECTS OF HOMELESSNESS ON POPULATION HEALTH

Does homelessness have a sizeable effect on population health? This question raises a number of complex issues. Homeless people, especially those who are chronically homeless, tend to have poor health. However, homelessness is a temporary state, not a permanent trait. As many as 8 millions Americans experience homelessness over a five year period, but most of these episodes of homelessness are quite brief (Link, *et al.*, 1994). Thus, at any single point in time only a very small proportion of a city's population is without a home. Homeless people would therefore be expected to have a minimal impact on indicators of overall population health, such

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as health status or mortality rates. Of course, this assumption may be incorrect in urban centers in the developing world, where extremely large numbers of people often live on the street or in encampments.

Some have suggested that homelessness may have an adverse effect on public health through the spread of infectious diseases, such as tuberculosis. Compared to the general population, homeless people are clearly at increased risk of developing latent tuberculosis, which is not infectious to others, as well as active tuberculosis, which can infect those who come in close contact with the individual. During tuberculosis outbreaks, shelter residents, shelter staff, and health care providers are at increased risk of becoming infected (Advisory Council for the Elimination of Tuberculosis, 1992a). To date, however, outbreaks of tuberculosis among homeless people have not spread widely within the general population. The threat of tuberculosis is therefore an important health problem for homeless people, but one that has demonstrated relatively limited potential to affect overall population health in urban areas.

The outbreak of Severe Acute Respiratory Syndrome (SARS) in 2003 has raised the specter of rapid and uncontrolled spread of acute respiratory infections through the homeless population. The 2003 SARS outbreak in Toronto was almost entirely confined to travelers returning from abroad, health care workers, and their household contacts (Svoboda, *et al.*, 2004). No homeless person became infected with SARS. If this had happened, the large, transient, and difficult-to-locate shelter population would have made it almost impossible for Toronto public health officials to implement their core strategy of identifying and quarantining all "household contacts" of patients with SARS. Such a situation could have had devastating effects on efforts to prevent the outbreak from spreading into the city's general population. Given the threat of a recurrence of SARS or the possible emergence of other new and potentially deadly respiratory infections, infection control measures to deal with a severe acute infectious disease outbreak in the homeless population require serious consideration. Although this scenario is currently hypothetical, the potential implications for population health are considerable.

Homelessness may have major implications for population health, for reasons other than those discussed above. Emphasis on the direct impact of homelessness on population health may be misplaced. Instead, homelessness may be viewed as a sentinel event, a marker for dysfunction in multiple sectors including the housing market, job market, health care system, and social welfare system. Homelessness represents the extreme end of a larger distribution of socioeconomic status and housing status, and it attracts attention precisely because of its dire nature.

This conceptualization has been well-described in work by Rose (1985). As shown in Figure 1, the curve shown with a solid line represents the distribution of housing quality within a hypothetical population. Homelessness represents the extreme low point along the dimension of housing quality. This approach views one's housing situation as a continuum and avoids creating a simple dichotomy between being homeless and being housed. For the sake of this discussion, we assume that housing conditions have an impact on health, an assertion for which there is ample support (Fuller-Thomson, *et al.*, 2000; Krieger and Higgins, 2002). Figure 1 also illustrates two different approaches to improving health through improving housing conditions. The greatest effect in terms of population health may be gained through approach A (shifting the entire population distribution for the factor upwards slightly, to the distribution curve indicated by a dotted line) rather than approach B (focusing on improving conditions for the highest-risk

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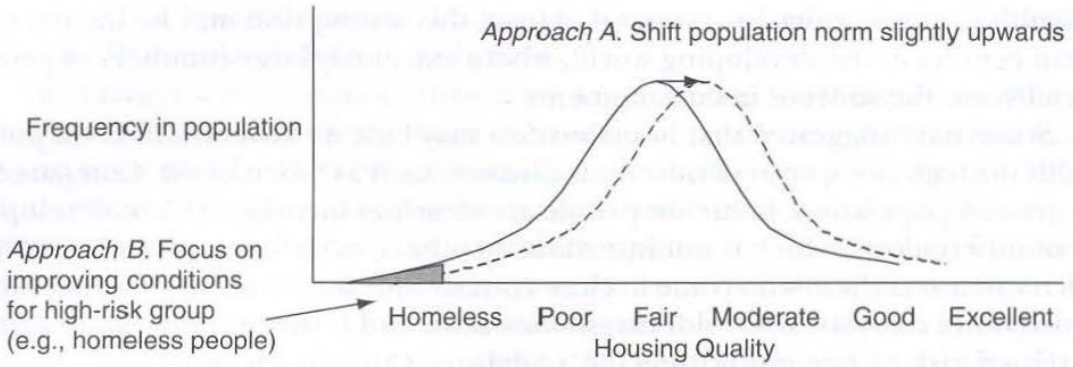

Figure 1. The Distribution of Housing Quality within a Hypothetical Population, and the Effect of Two Different Approaches to Improving Health Through Improving Housing Conditions.

group at the worst extreme of the distribution). A similar argument could be applied to the relationship between poverty and health, where the x-axis on the diagram would represent income rather than housing quality.

The case of asthma is an excellent example of this dilemma. About 40% of children staying at homeless shelters in New York City have asthma (McLean, *et al.*, 2004a). Although this is a disturbingly high rate, the prevalence of asthma is also very high among inner-city children living in substandard housing (Malveaux and Fletcher-Vincent, 1995). Because homeless children represent a relatively small proportion of all children living in poverty in a given city, the population health effect of asthma among homeless children is likely to be far smaller than the population health effect of asthma in the much larger number of children who are housed but living in decrepit buildings. While homeless children are a distressing manifestation of urban poverty, they represent "the tip of the iceberg" of the broader issue of poverty and poor housing. Thus, the problem of asthma among homeless children may be regarded as an extreme example of a much larger population health concern that may be a more appropriate target for intervention.

5.0. POTENTIAL STRATEGIES TO IMPROVE THE HEALTH OF HOMELESS PEOPLE

A consideration of strategies to improve the health of homeless people raises the question of whether our first concern should be to attempt to deal with the problem of homelessness itself, or to intervene to relieve illness among homeless youths, single adults, or families. Of course, this is not an either/or proposition. Nonetheless, an excessive emphasis on the latter approach might result in producing healthier homeless people, yet fail to recognize that homelessness is the result not only of individual vulnerabilities, but also of deeper structural problems within our society. On the other hand, a focus on the former approach may founder on the assumption that providing homeless people with stable housing will necessarily improve their health.

An example of this tension is the emergence of two contrasting service delivery models to meet the needs of chronically homeless adults with concurrent mental illness and substance abuse (Tsemberis, *et al.*, 2004; Hopper and Barrow, 2003). The

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first model, known as the "Continuum of Care," attempts to move homeless people from the street into transitional congregate housing, in conjunction with a requirement that the individual engage in treatment for their mental illness and addictions. Under this model, the person is allowed to make the transition to permanent housing only after they achieve abstinence from alcohol and drugs and their clinical status has been stabilized. In contrast, the "Housing First" model is based on the belief that homeless people should be afforded permanent housing as a basic human right, not as a reward contingent on participating in treatment. In this model, homeless people can obtain housing in individual apartments without any preconditions, and they are then offered an array of harm reduction and treatment services through an ACT team (see section 3.5. above). A recent randomized controlled trial assigned 225 homeless adults with concurrent severe mental illness and substance abuse to one of these two approaches. Individuals treated under the "Housing First" model spent significantly less time homeless over the follow-up period, and at the end of 24 months about 80% were in stable housing as compared to only 30% in the "Continuum of Care" model. However, there were no significant differences between the two groups in terms of alcohol use, drug use, or psychiatric symptoms. This study highlights the need to acknowledge that ending homelessness is a worthwhile goal in and of itself, but that it is not synonymous with improving the health of homeless people.

Other strategies include adapting the health care system to better meet the unique needs of homeless adolescents, single men and women, or families. As discussed in Section 3.5 above, a cornerstone of this effort is the use of multidisciplinary teams providing coordinated care at outreach sites, in combination with more traditional clinic-based health care services. For homeless people with severe mental illness, the availability of ACT services is vital, but the effectiveness of less resource-intensive systems of mental health care for homeless people needs to be assessed. For those with addictions, the availability of detoxification beds, post-detoxification stabilization programs, and longer-term (6 to 12 month) residential addiction treatment programs are important issues. In designing these services, the heterogeneous needs of different subgroups of homeless people (e.g., street youth, single men, single women, and mothers with young children) must be taken into account.

While improving conditions at shelters is by no means the preferred route to better health for homeless people, it is important that shelters not contribute to ill health. Certainly, the availability of adequate capacity to accommodate everyone who seeks a shelter bed is a reasonable first step towards protecting homeless adults from the elements. Adherence to basic standards of cleanliness, nutrition, and food hygiene within shelters and the avoidance of overcrowding and inadequate ventilation are mandatory. Perhaps equally important is the creation of a safe and welcoming environment that encourages clients to engage with service providers.

At a broader level, interventions are needed to decrease the prevalence of homelessness and address the systemic issues that contribute to homelessness. These efforts may at least in some cases have health benefits as well. For homeless families, there is compelling evidence that the provision of subsidized housing is both necessary and sufficient to end their homelessness (Shinn, *et al.*, 1998). The "Housing First" strategy appears to be more effective in moving homeless people with concurrent mental illness and substance abuse into stable housing; further research is needed to examine the effectiveness of this approach with other subgroups of homeless people.

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Serious attention needs to be paid to the impact of the social welfare system on homelessness and health. Restrictions in eligibility for Temporary Aid for Needy Families and state-run welfare programs threaten to contribute to a potential rise in homelessness among families and single adults in coming years. Further research is needed in this area and on the impact of receipt of welfare or disability benefits on the health of homeless people.

Finally, upstream from the distinctive and visible issue of homelessness is the larger problem of urban poverty. The existence of entire communities and groups who are cut off from a decent education, employment opportunities, housing, and access to health care should raise extremely troubling questions for anyone who cares about the health of our urban centers. While the adverse health effects of homelessness are clearly severe, this phenomenon is only a specific and extreme example of the larger problem of the effects of poverty and inadequate housing on population health.

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Heegsma et al *-and-* **CITY of HAMILTON**
Applicants Respondents

Court File No. CV-21-00077187-0000

Ontario
Superior Court of Justice

PROCEEDING COMMENCED AT HAMILTON

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