HOMELESSNESS AND HEALTH

When thinking about homelessness, we often define it as a condition where there is an absence of physical shelter. This is known as “absolute homelessness”. There is also “relative homelessness” in which there is a physical shelter, but it is lacking in basic standard for safety and health [1]. Both can make an impact on an individual’s health, but “absolute homelessness” is often used to define the population in research. Demographics are varied within the homeless population, affecting single individuals and families alike [2]. Homelessness can be due to variety of factors such as poverty, increasing house price, or mental illnesses [3]. Regardless of the cause, these individuals often face detrimental health effect in addition to their struggle to survive.

The mortality rate of homeless males is 8 times those of general population in Toronto (9 times in Montreal) [4], and 31 times higher in females [5]. Although increased age corresponds with lower odds ratio, the odds never converge to one. Deaths are often due to unintentional injuries, collision with motor vehicles, and drug overdose [4]. 60% of the male population also suffers from alcohol disorder (6-7 times higher than the general population), and substance abuse with marijuana and cocaine are common [6]. Mental illness, as mentioned previously, can lead to homelessness, which can exacerbate the mental illness [6-8]. Approximately 20-40% of homeless individuals have mood disorder in their lifetime. Schizophrenia is present in approximately 6% of the individuals [6].

The use of public shelter in major cities has increased in the past few years to reflect the rise of the homeless population. However, there can be an increased risk of infection such as tuberculosis due to crowding issues [9-11]. The risk of tuberculosis (TB) in the homeless population is significantly higher than the risk in average citizens, particularly for primary infection rather than reactivation [12]. Other risk factors contributing to TB include alcohol abuse, malnutrition, and AIDS [11]. Prolonged standing, exposure of feet to moisture or cold can also lead to cellulitis, venous stasis and fungal infection [13, 14]. In general, treatments of conditions are difficult due to loss to follow up, non-compliance, prolonged infectivity and drug resistance [15-17]. Directly observed therapy may play a role in increasing compliance in this population [18]. Risks for HIV are also high due to prostitution, multiple sex partners, unsafe sex practice and unclean injection needles [11, 19, 20]. Safe injection sites and needle exchange programs are present in cities to lower such risks (see resources below). Unsafe sex practice and sexual assault has led to
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an increase in pregnancy in homeless youth, accompanied by an increase in sexually transmitted disease [21].

Other health risks include inability to perform follow up for hypertension or diabetes as contact with homeless individuals are often transient (lack of permanent address or phone number) [22, 23]. Cold weathers in Canada can result in frost bites and hypothermia, death is a possibility as well [24, 25]. Although homeless population stays longer in hospital than non-homeless individuals, there are significant barriers for them to access health care. Although there is universal care in Canada, many homeless individuals do not have a health card [26]. 6.7% have been refused care because they are unable to produce evidence for coverage [27]. Overall, homeless individuals face health problems much earlier and more severe than the general population.

What can be done to help?

There are several avenues that are available, split into four categories: biomedical, educational, environmental, and legislative.

Biomedically, Assertive Community Treatment (ACT) has been shown to be effective at reducing hospital time in mentally ill homeless patients [28]. ACT involves a group of health care professionals (i.e. psychiatrist, nurses, and social workers) that offer intensive care outside the hospital at an individual's residence. However, ACT does not change the quality of life, psychiatric symptoms or substance abuse issue [28, 29]. Contribution can also be made by becoming involved in student-run clinics, or establish one if one is not available locally. Student-run clinics not only provide free care, clean needles, and sexual education to those who needs them, they also offer a chance to interact with the homeless population and see the health issues they face first hand [30]. In addition, most medical initiatives benefit from the presence of housing.

Housing allows a homeless individual to experience a change in their immediate environment. By building a supportive environment for homeless individuals, we can encourage behaviour change. Although public shelters are available, their negative effects on health have been mentioned before. The lack of housing availability and rise of housing price can make it difficult for homeless individuals to obtain their own living space [31]. However, there are government programs aimed to subsidize the cost of housing. For example, Community Homelessness Prevention Initiative (CHPI) offers $251 million in funding for homeless individuals looking for long term housing. For additional program offered by Ministry of Municipal Affairs and Housing (MMAH), Ministry of Community and Social Services (MCSS) and Ministry of Health and Long-Term Care (MOHLTC), please consult the links listed in the resource section below.
Health care professionals need to play an important role in educating the homeless about resources available to them to help them off the street temporarily or in the long term. These resources go beyond simply funding for housing, but also organizations that can educate about tenant rights. In addition, when providing a treatment plan, be sensitive to the situation of the homeless. Because they are required to balance multiple priorities with limited resources, it can be difficult for them to adhere to treatment plans especially when they involve prescription drugs [32], or modification to diet [23].

Since health advocacy is one of the CanMeds competencies, it is also important to advocate on a legislative level. Only policies can influence the health concerns of the homeless systematically, on an institutional level. Like the Vancouver agreement, policies can induce changes in urban development to address the economic, social, and health concerns. They provide the disadvantaged individuals with new clinics, new programs, and new opportunities. This is something that is difficult to accomplish with only one-on-one interaction between the health care worker and the patient. Therefore, even outside of the medical practice, the role of a physician continues.
REFERENCES


RESOURCES

**Prevention of Homelessness and Legal Support**  
*Landlord and Tenant Board for tenant's legal rights*  

*Community Legal Services at Western University for eviction protection*  
[https://www.law.uwo.ca/clinics_and_centres/community_legal_services/index.htm](https://www.law.uwo.ca/clinics_and_centres/community_legal_services/index.htm)

*Community Legal Clinic*  
London:  
[http://www.legalaid.on.ca/en/contact/about.asp?place=607050&addr=london](http://www.legalaid.on.ca/en/contact/about.asp?place=607050&addr=london)  
Windsor:  
[http://legalassistanceofwindsor.wordpress.com/](http://legalassistanceofwindsor.wordpress.com/)

**Housing**  
*Documentation of Best Practices Addressing Homelessness*  

*Statistics on Shelter Availability*  
[http://www4.hrsdc.gc.ca/.3ndic.1t.4r@-eng.jsp?iid=44](http://www4.hrsdc.gc.ca/.3ndic.1t.4r@-eng.jsp?iid=44)

*Housing and Homelessness Program in Ontario*  

*Community Homelessness Prevention Initiative*  
[http://www.mah.gov.on.ca/Page9183.aspx](http://www.mah.gov.on.ca/Page9183.aspx)

*List of Shelters and Lodgings Available*  
London:  
[http://lifespin-org.doodlekit.com/home/housing_shelter](http://lifespin-org.doodlekit.com/home/housing_shelter)  
Windsor:  

**Homeless Coalitions**  
London:  
[http://londonhomeless.ca/](http://londonhomeless.ca/)  
Windsor:  

**Medical Related**  
*Strategies for Keeping Contact with Homeless Population*  

*Needle Exchange*  
London:  
[http://www.hivaidscollection.ca/needle-syringe-program](http://www.hivaidscollection.ca/needle-syringe-program)  
[https://www.healthunit.com/needle-exchange](https://www.healthunit.com/needle-exchange)
NEEDLE EXCHANGE PROGRAM

The use of unsterile needles is a risk factor for the transmission of HIV, hepatitis B and hepatitis C. To reduce this risk, there are two principles applied in policies and programs: harm reduction, and use reduction [1]. Needle exchange programs (NEP) focus on the principle of harm reduction. They involve reducing drug related harm for individuals who continue to use injection drugs. This is advantageous over use reduction because it preserves an individual's dignity and is non-judgmental. There are approximately 41000 injection drug users (IDU) in Ontario [2], so it is important to have program established to reduce their risk of infection.

NEPs are not only responsible in increasing the use of sterile needle and reducing number of used needle in circulation, but they also provide condom distribution, education, referrals and counseling [3]. In general, increase in NEPs are correlated with decrease in needle sharing and decrease in HIV transmission [4]. Early NEP implementation is also associated with low HIV prevalence (<5%) in cities like Toronto [5]. Effects of NEP on HBV and HCV transmission, however, have been conflicting [2, 6-8]. Currently, NEP contribute only a small proportions of sterile needle used (5% of required in Montreal) [9].

Although NEP reduces the number of needle sharing, a small number of needle sharing can still lead to a high risk of transmission, especially for individuals with a high viral load. Opponents to NEP also argued that the presence of NEP can encourage injection drug usage. Harm reduction does not fix the underlying problem of drug abuse, and can lead to a reliance on needle exchange program by...
drug users [10]. NEPs will not lead to a complete elimination of health issues brought about by drug abuse, so there must be other programs or policies in place.

Despite their limitations, NEPs play an important role in saving health care resources. Preventing even a few cases of HIV infections (24 cases) in 5 years would result in millions of dollars saved [11]. This benefit can only be gained if NEPs are implemented as soon as possible, easily accessible, and sustainable. NEPs are recommended to provide as many sterile needles as needed without asking for needles in return, although individuals are encouraged to return used needles.

In comparison to Canada, NEP programs in the USA faces considerable pressure due to the prescription laws on sterile needles [12]. In most states, it is not possible to purchase sterile needles without a prescription, and some NEP can only operate illegally because of this. Therefore, it is fortunate that all NEPs in Canada are legalized and have the potential to continue to expand.
REFERENCES