Foot Health And Footwear For Persons Experiencing Homelessness: A Resource

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Abstract: For individuals experiencing homelessness (IEH) good foot health is of special importance as their feet generally experience harsher conditions. Building trust and providing equitable access are foundational to the success of any foot health service. In this paper we discuss the links between IEH in Canada and their foot health. Given the multiple and complex barriers faced by IEH when attempting to access health care, it is imperative that health-care providers engage in creative, collaborative and intersectoral care planning to prioritize and improve the foot health of this population.

Key words: *homelessness, foot health, footwear, equitable access, barriers to foot care.*

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Good foot health plays an important role in the health and well-being of individuals in the general population. Yet, for individuals experiencing homelessness (IEH) foot health is of greater importance as their feet experience harsher conditions. Building trust, respect, solidarity and equitable access are foundational to the success of any foot health service. Therefore, to understand foot health and skin care issues for IEH, we first present links between social determinants of health and the state of homelessness in Canada.

Homelessness In Canada

Homelessness is on the rise in Canada. Statistics Canada (2023) recently stated that more than one in ten (11.2%) Canadians (1,690,000 people) report to have experienced some form of homelessness in their lifetime.[1] The reported numbers of IEH in Canada varies from 150,000 to 300,000 and the actual numbers may be higher.[2]

Homelessness includes the intersection of an individual's physical needs, mental health and well-being, housing, social marginalization and access to health-care services.[3] Today, IEH are diverse and over-represented by women (27.3%), youth (18.7%) and Indigenous people (28% to 34%). Moreover, statistics show that older adults (50-64 years), seniors (65 years) and veterans (2.5%) make up 24.4% of persons accessing services at shelters.[4]

Situations leading to homelessness are complex, both at a systemic and individual level, and vary over time. Factors contributing to homelessness include: trauma and violence, poverty, unemployment and changes in employment (full/part-time to casual), lack of accessible and affordable housing, mental health and substance use disorders, violence by intimate partners, acute and chronic illnesses, divorce, involvement of the justice system, development of disability and death of a family or support person.[5]

Homelessness is described as:

> "The situation of an individual, family or community without stable, safe, permanent, appropriate housing or the immediate prospect, means and ability of acquiring it. It is the result of systemic or societal barriers, a lack of affordable and appropriate housing, the individual/household's financial, mental,

cognitive, behavioural or physical challenges and/or racism and discrimination. Most people do not choose to be homeless, and the experience is generally negative, unpleasant, unhealthy, unsafe, stressful and distressing."[6]

For First Nation, Métis and Inuit individuals, families or communities, Thistle (2017) defines homelessness as:

> "Lacking stable, permanent, appropriate housing or the immediate prospect, means or ability to acquire such housing. Unlike the common colonialist definition of homelessness, Indigenous homelessness is not defined as lacking a structure of habitation; rather, it is more fully described and understood through a composite lens of Indigenous worldviews. These include: individuals, families and communities isolated from their relationships to land, water, place, family, kin, each other, animals, cultures, languages and identities. Importantly, Indigenous people experiencing these kinds of homelessness cannot culturally, spiritually, emotionally or physically reconnect with their Indigeneity or lost relationships." *Aboriginal Standing Committee on Housing and Homelessness, 2012.*[7]

For IEH, there are four physical living situations described by the Canadian Homelessness Research Network (2012). These include the following:

- **Living unsheltered**, in places or spaces not intended for humans (e.g., streets, under bridges, alongside train tracks, sheds, barns, tents);
- Living in an **emergency shelter** overnight that may be related to family violence (e.g., families and children);
- **Provisionally accommodated** or existing in a temporary place that is not permanent; and finally,
- Being **at risk of homelessness** when a person is not homeless, but at risk due to social and economic issues related to income; and/or housing is precarious and does not meet safety and health standards (e.g., leaking roofs, poor water and plumbing, taxes owing, structural damage).[4]

Researchers also state the coronavirus (COVID-19) pandemic created additional challenges for IEH. According to Maretszki et al., during the pandemic access to supportive health care (testing, vaccinations, foot care, showers/bathing), social resources and services were reduced. Furthermore, as a result of the pandemic, changes in the health and social service sectors led to many IEH experiencing (multiple) displacements, fragmentation in their existing health care and formal/informal social care networks.[8]

Therefore, in this paper we discuss the links between IEH and their foot health. We also explore difficult conversations such as, who in society, or if the health-care system, is responsible for the provision of funded foot care and footwear? We ask this as we know that IEH have or develop worsening foot conditions. We also ask, why is provision of funded foot care not part of standardized health care in Canada?

Foot Health Issues For Persons Experiencing Homelessness

Persons living homeless require comprehensive health assessments, including acute and chronic illness. Assessment should include foot health (e.g., gait, foot exam and sensation, footwear, socks).[9] This can be challenging if persons are not able to sit, stand or fully engage in the health assessment or if persons need to focus on meeting their daily needs. Therefore, the health assessment may need to be completed over several interactions/visits.

Assessing the health of IEH is complex, with multi-factorial health and social factors and co-occurring issues such as diabetes mellitus, hypertension, mental health issues, substance use and infections (local, systemic).[10] Specifically, in relation to lower limb and feet, the person may have pre-existing foot conditions related to employment, surgery or childhood foot deformity. They also may have experienced physical violence and accidental traumatic injuries, which can have implications for pre-existing limb and foot conditions and thereby increase their risk for foot-related complications.[11,12]

To address this issue, The Queen's Nursing Institute in the United Kingdom (2020) explored

social and health issues that contribute to foot health problems. They discuss a broad range of issues related to social determinants of health and how they lead to cause or exacerbate foot health for IEH (See Table 1).

Prevalence Of Foot Conditions In Persons Experiencing Homelessness

The importance of assessing and caring for people's feet and the effect this can have on one's overall health and well-being cannot be underestimated.[14] Yet the care of feet for IEH is often disregarded and not fully funded by social or health-care systems. Foot care services are often offered and managed by health-care professionals volunteering time and services (e.g., physicians, foot care nurses, podiatrists, chiropodists, health professional students).[15,16,17] As well, it often takes the media to draw attention to the crisis of poor foot health, lack of foot care, and access to appropriate footwear and socks for IEH.[18,19,20]

Adding to the burden is the reality of pre-planning foot care clinics when organized by volunteers. As a result, clinics may not always be available, times and weather may vary. Therefore, foot care services may be viewed by patients as intermittent and less consistent, with many patients seeking care when it becomes most urgent or wanting immediate or same day appointments. Wainwright and colleagues explored the importance of 'place of service' and adherence by patients to self-care. The team reported that team members at shelters were to offer routine diabetes care (blood pressure, monitoring hemaglobin A1C, foot checks) and related foot exams. Yet, when foot health services and clinics were stable there was increased patient participation in diabetes care.[21]

This is of concern as IEH are at greater risk of trauma to their lower limbs and feet/hands. In a

Table 1: Social and Health Issues Contributing to Foot Health Problems[13]

Mental health issues	• Mental health issues can contribute to decreased ability to complete personal care and may lead to difficulty engaging with health-care providers and other support workers. • People who are experiencing homelessness may have experienced traumatic events in their lives (e.g., Adverse Childhood Events – ACEs). This in turn can lead to poor mental well-being, decreased self-care and/or diagnosed or undiagnosed mental health conditions.
Asylum seekers, refugees and vulnerable migrants	• Asylum seekers, refugees and vulnerable migrants can present with foot conditions rarely seen. For instance, a history of polio, TB, leprosy, rickets, polydactyly (extra toes), untreated talipes (club foot) and industrial/agricultural accidents can all cause foot issues, as can torture (specifically, 'fallaca' where the soles of the feet are beaten).
Increased risk of diabetes and diabetic foot complications	• The incidence of diabetes is higher in socially disadvantaged groups, which causes a higher risk of foot pathology. • Foot deformity (Charcot Foot), diabetes-related foot ulcers with loss of protective sensation, peripheral vascular disease and pressure.
Walking long distances	• Walking long distances (on pavement, gravel, uneven surfaces), often carrying heavy bags can lead to foot blisters, biomechanical problems such as forefoot, heel pain (including plantar fasciitis – inflammation of the fascia), ankle and arch pain.
Sleeping on buses/trains/ benches	• Sleeping in an upright, sitting position may cause peripheral dependent oedema. Sleeping on sidewalk grates can cause burns.
Exposure to the elements	• Exposure to cold, wet and/or heat increases the risk of fungal infections (onychomycosis), frostbite, chilblains (itchy, painful, swollen patches on skin, hands and feet), severe maceration (too much moisture in the stratum corneum), immersion (trench) foot and development of blisters (blood or fluid filled).

Table 1: Social and Health Issues Contributing to Foot Health Problems[13]

Poor nutrition and smoking	• Poor nutrition and/or smoking can cause problems with wound healing, skin integrity and reduced immunity. • Smoking increases the risk of peripheral artery disease. • Lack of access to nutritional food and fluids or a registered dietitian for consultation. • Food provided in shelters and drop-in programs is often nutrient-poor and inappropriate for those requiring special diet considerations (e.g., diabetes, Crohns' disease, lactose intolerance).
Difficulty in maintaining good hygiene	• Good hygiene may be difficult to maintain due to lack of accessibility of shower facilities or increased risk of physical or sexual violence in shower facilities. • Scabies (human skin mite infestation), infections (fungal, bacterial, and viral) can result. Sharing showers increases the risk of contracting verrucae (plantar wart, *tinea pedis*).
Not removing shoes (footwear) and socks at night	• This may happen due to fear of theft or the need to move quickly and being constantly 'on the go'. This results in immersion (trench) foot, fungal infections (onychomycosis) and blisters (blood or fluid filled).
Poor footwear (shoes, running shoes, slippers, sandals, boots, rubber boots)	• Lack of funds for well-fitting, good quality shoes, clean socks and appropriate nail clippers, files and/or scissors causes foot problems. • Poor quality shoes made of synthetic materials can cause fungal infections (onychomycosis) as moisture is absorbed and saturated into materials. Sometimes, moisture and tight shoes can contribute to blisters, corns (heloma, soft, hard or seed corns) and ingrown toenails (leading to pain, infection).
Self-treating	• Due to lack of podiatry and foot care nurses the person may resort to trimming nails with knives, other improvised blades and acid-based corn plasters, or picking and pulling off finger and toenails; this results in trauma, ulceration, infection and scarring. • Sharing of nail clippers/files is a common contributor to poor nail health.
Difficulty accessing health care and podiatry/foot care nurses	• Access issues can include: perceived or actual insensitive treatment by health-care staff, embarrassment, language barriers, literacy, vision and hearing challenges, no internet access, missing appointments due to lack of calendar or phone or need to attend to other needs of daily living and thus not being able to wait long periods of time to be seen by a health-care professional, being restricted from services and/or the need to be chaperoned if assessed as being high risk for lone working. • Missed texts and calls are often a result of lost or stolen phones, lack of funds to pay for a phone, inability to charge a phone, poor internet access. • Not having a permanent address for appointment letters to be sent.
Substance use	• Alcohol use can result in alcohol-related peripheral neuropathy, an increased risk of diabetes mellitus and osteoporosis, poor immunity and foot injuries due to accidents and potential decrease in self-care.

Adapted with permission from: The Queen's Nursing Institute. The Foot Health of People Experiencing Homelessness. 2020. https://www.qni.org.uk/wp-content/uploads/2016/09/The-Foot-Health-of-People-Experiencing-Homelessness-2020-1.pdf

recent review (29 studies), researchers explored the rates of musculoskeletal injuries and conditions and issues among IEH. They reported that persons are at risk of significant injury related to musculoskeletal and soft-tissue injuries (SSTIs), fractures and traumatic injuries, chronic pain and pain related to the foot and ankle region.[22]

Persons experiencing homelessness have limited access to appropriate foot care and appropriate well-fitted footwear. To et al., in a review (17 studies, n-6,371 participants, majority were male),

reported the prevalence of foot conditions in IEH ranged from 9% to 65%. They stated two-thirds of IEH reported a foot issue such as, "corns and calluses, nail pathologies and infections. Foot pathologies related to chronic diseases such as diabetes were identified."[23] As well, they identified conditions related to diabetes mellitus and foot problems such as, "tinea pedis, foot pain, functional limitations with walking and improperly-fitting shoes."[23] They further stated that up to one-fifth of IEH needed to have health-care follow-up for foot conditions/issues.

Though foot conditions may be identified, persons may struggle to access basic foot care and footwear, or to obtain orthotics or specialized footwear. Muirhead and colleagues screened 65 males and 30 females with a history of diabetes mellitus, high blood pressure and or peripheral vascular disease. Persons were described as being too shy or embarrassed to show the health-care provider their feet and nails. Some described not having a sense that a trust-filled relationship existed in order to share their foot concerns.[24] Bourque and colleagues studied the health conditions of Canadian veterans experiencing homelessness in Canada. In the 99 persons involved, common conditions reported included dental problems, head injuries, musculoskeletal injuries and foot problems.[25]

Major deterrents to engaging in foot care include the present state or poor condition of one's feet, nails, socks and shoes, along with foot odour. Moes explored the role of properly fitted shoes to reduce knee, back, ankle/feet pain, increase activity and improve patient's foot health. In their study, when participants wore proper fitting shoes over six weeks, they experienced less pain and enjoyed increased walking speed.[26] Wallace et al. facilitated a free foot clinic at a homeless shelter in Colorado. They remind health-care professionals and students that basic foot care, trimming and filing nails, managing callous, applying athlete's foot powder and assessing for footwear and socks is only part of the goal. The broader goal includes listening to the persons' stories, talking about their health, feet, shoes and, in the end, providing empathetic foot care services.[15]

In British Columbia, Canada, D'souza et al. explored the experiences of 65 IEH.[27] Using *Inlow's 60-second Foot Screen* to screen for risk, they reported that individuals require foot care assessments as part of overall health assessments. They further state that IEH will experience increased foot complications when their feet are not assessed as part of holistic assessment (e.g., hospitalizations, foot and limb amputation and disability).[28] They advocate for foot care to be a priority and that foot care services should be fully funded by the health-care system. Foot health services need to be framed in principles of trust and equity of access. Mullins et al. explored the role of publicly funded community-based podiatry services. In their study they identified that persons (n=295) often presented with one or more co-occurring foot issues such as, "skin and nail pathologies (68.1%), inadequate footwear (51.9%) and biomechanical issues (44.1%)".[29] As well, for persons sleeping unsheltered, they were more likely to present with, "foot biomechanical issues (50.8%), acute wound care needs (17.4%) or with a traumatic injury (10.6%)".[29] They also recommend provision of publicly funded foot health services focused on prevention and identification of foot and ankle conditions in order to support development of trust and to build sustainable client-team connections to prevent foot complications.[29]

Promoting Foot Health: What Can We Do?

As health-care providers we can advocate for change in foot health services for IEH. There are several advocacy theories and frameworks on which teams can base their energies.[30] Tips for becoming an effective advocate for foot health can be found at: https://www.woundscanada.ca/docman/public/wound-care-canada-magazine/wcc-2022-v20-n2/2659-wcc-fall-2022-v20n2-final-pg-20-27-how-to-become-a-skin-wound-care-advocate/file

Leaders And Decision Makers

- Advocate for policy and decision makers to include funded foot health services for persons living homeless.[28,30]

- Support leaders to plan funded foot care clinics, mobile outreach foot health and establish foot health provider roles.
- Build collaborative partnerships with foot health and footwear providers to support development of a responsive, relevant foot care clinic.[23]
- Adopt a 'Foot Care Model' that supports prevention, promotion and assessment and treatment of foot health.[28]
- Co-create solutions for unfunded foot care services including travel, transportation and accessibility (e.g., taxi chits).

Researchers

- Partner with social and health-care organizations providing foot health services for persons living homeless.[31]
- Co-create research projects focused on fully understanding the needs of the population, health-care foot providers and the larger organization.
- Support teams to develop evidence-based foot health resources with client input.[32]
- Utilize community-based research approaches with client involvement with lived experience to promote self-determination and autonomy.[33,34]
- Offer cash versus gift cards for participation in research studies; this eases some of the daily burden of meeting one's needs.[35]

Foot Health Providers

- Plan foot health appointments to ensure feet and footwear are being routinely assessed as part of an overall health assessment.[9,13]
- Be knowledgeable on referral services in your area (podiatry, chiropody, foot care nurses, etc.).
- Partner with leaders and researchers to collect relevant foot health data to fully understand the population and foot health issues identified.
- Screen for risk of amputation using validated assessment tools in the holistic assessment. For example: *Inlow's 60-second Diabetic Foot Screen* (2022). Available from: https://www.woundscanada.ca/news/618-inlow-s-60-second-diabetic-foot-screen-update-2022
- Support persons with foot issues to attend planned consult appointments. For example, this may include having a friend or community worker attend the appointment with the person. Plan transportation and funds to support transportation.[13]
- Advocate for client access to basic nail clippers and files to self-manage.[13]
- Partner with diabetes and foot health teams providing care in your community; include opportunities for knowledge exchange, where IEH and workers working with IEH have the opportunity to increase cultural-responsiveness for workers who don't have experience working with IEH. This provides providers working with IEH the opportunity to learn from diabetes and foot health teams about foot health and its complications.
- Support knowledge exchange to promote health equity by centring and valuing the lived experience of IEH while providing collaborative opportunities for IEH to learn about foot health and share their learnings with others.[33]

Educators

- Co-create with client-centred foot health resources relevant to the population served.[13]
  - Include times to access and location of foot care clinics.
  - Outline times to access footwear, socks and other items for foot care first aid.[13]
  - Include location of bathing and cleansing wipes, dry towels, foot powders and moisturizing lotions.
- Develop foot health resources with a range of foot health information including mild complications (broken finger and toe nails) to critical issues such as frostbite, gangrene, critical limb ischemia and risk of sepsis.[13] Sample resources include:
  - Wounds Canada, Care at Home Series, Caring for Your Wounds at Home. Available at: https://www.woundscanada.ca/patient-or-caregiver/resources/care-at-home-series
  - CATIE (Canadian AIDS Treatment Information Exchange), How do I know it's serious? When to seek medical care for wounds? Available at: http://librarypdf.catie.ca/ATI-80000s/80007.pdf

- Promote client self-care and engagement in daily foot and footwear checks.[13]
  - This may include a friend daily checking another's feet or footwear.
  - Resources include: Wounds Canada. Steps for Healthy Feet Checklist. Available at: https://www.woundscanada.ca/docman/public/diabetes-healthy-feet-and-you/2181-checklist-formjan2017-update-2021/file
- Increase community awareness and provide opportunities for foot health providers, workers and IEH to network and engage in knowledge exchange around experiences of foot health issues.[13]
- Build trust-filled relationships through 'warm-referrals', where workers working with IEH refer IEH to known and trusted specialized foot care providers.
- Share foot health education materials with shelters in your community to heighten awareness within your region.[13] This builds communities of practice, collaboration and co-creation of services to meet the local needs.

Engaging Persons[30]

- Advocate for and encourage persons to attend foot health clinics.
- Focus on trust, respect and kindness - remember people may be shy, reserved and not want to show their feet and nails to a foot health provider.[13]
- Build relationships and partnerships to provide transportation. Consider a cash (financial) incentive to attend the foot health appointment and to help offset some of the unaddressed costs of coming to appointment (less time to work, or make money for daily needs or finding nightly sleeping quarters, shelter).[13,34]
- Be creative in scheduling appointments as time-specific appointments can create barriers to accessibility and persons do not always have regular access to clocks, or a smartphone for appointment reminders.
- Plan drop-in foot health clinics with appointment times that can accommodate individuals and provide flexibility.
- If resources allow, support health-care workers to provide reminders and a person to co-attend appointments; this can help facilitate accessibility and increase comfort levels for individuals especially if they are visiting the clinic for the first time and potentially meeting a new foot health provider.

Common Foot And Skin Conditions

Table 2 identifies some of the common foot and surrounding skin conditions identified in foot care clinics for IEH. Ideal prevention strategies may not always be possible given circumstances, health-care provider and support available, access to and funding of podiatry, foot care nurses, new footwear and/or orthotics, travel costs and the transient nature of IEH. For each condition, seeking the underlying cause is important.

Focus on prevention including daily skin care, wound care for nails and feet, access to bathing and showering facilities, daily foot checks, access to footwear and dry socks. Treatments will depend

Figure 1: Community members at the Moss Park Consumption and Treatment Service in Toronto, Ontario engaging in foot care related art in response to the site's first visit by a chiropodist. With permission from Erin Telegdi

on the IEH engagement, ability to do care and comfort with the care plan (e.g., access to treatment powders and topical or oral medications).

Treatments and referrals considered may depend on the foot care services offered in each geographic area and may include antibiotics (topical, oral or intravenous), laboratory, x-ray and scans, wound care, lab work and pain management. Referrals to physicians, nurse practitioners, infection control, pharmacy, podiatry/chiropody, foot care nurses, dermatologists, support workers trained in care of IEH and the IEH's informal support teams all contribute to treatment success.

Resources For Foot Conditions For Persons Living Homeless

For health-care providers providing services for IEH it is important to acknowledge the assessment and care of persons' feet. Providers need to be knowledgeable about foot conditions and care options. Providers need the tools to educate IEH and support care of their feet. The list below is not all inclusive. Please reach out to and refer to your foot health provider.

Athlete's Foot (Tinea Pedis)

- Athletes foot, "is an infection of the skin and feet that can be caused by a variety of different fungi. Although *tinea pedis* can affect any portion of the foot, the infection most often affects the space between the toes. Athlete's Foot is typically characterized by skin fissures or scales that can be red and itchy. *Tinea pedis* is spread through contact with infected skin scales or contact with fungi in damp areas (for example, showers, locker rooms, swimming pools). *Tinea pedis* can be a chronic infection that recurs frequently. Treatment may include topical creams (applied to the surface of the skin) or oral medications." (Hygiene-related diseases. Centers for Disease Prevention and Control. 2017; para. 1.) Available from: https://www.cdc.gov/healthywater/hygiene/disease/athletes_foot.html
- "Athlete's foot is caused by the same type of fungi (dermatophytes) that cause ringworm and jock itch." (Mayo Clinic, 2024.) Available from: https://www.mayoclinic.org/diseases-conditions/athletes-foot/symptoms-causes/syc-20353841
- Onychomycosis develops when the fungi moves to the nails - also called nail fungus.

Cutaneous Porphyria

Porphyria cutanea tarda (PCT) is a subtype of a complex group of diseases. Porphyria cutanea tarda results from a deficiency of the enzyme urophorphyrinogen decarboxylase. Clients who drink alcohol on a daily basis and spend a large amount of time outdoors may present with an increase in the blistering of hands and face due to his condition. Provide the clients with education around skin health and encourage reduction of sun exposure all year round. (Kuhnke, et al., 2015.) Available from: https://www.woundscanada.ca/docman/public/wound-care-canada-magazine/2015-vol-13-no-2/547-wcc-fall-2015-v13n2-calgary-drop-in/file

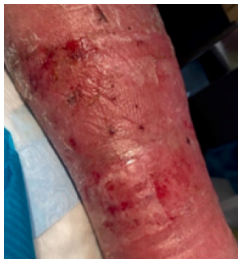
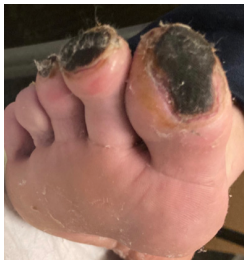
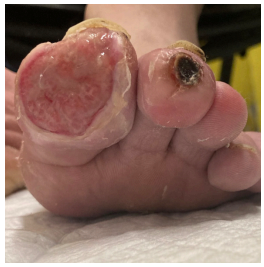
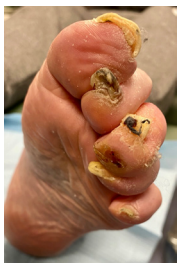
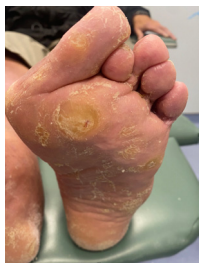
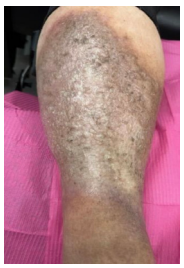
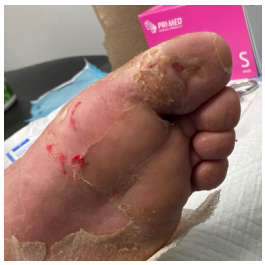
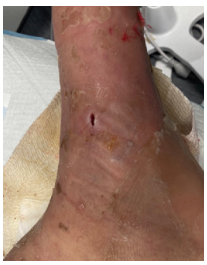
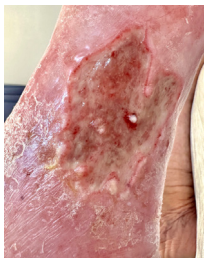
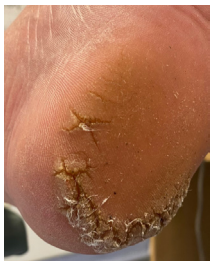
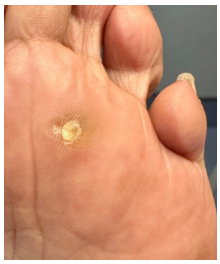
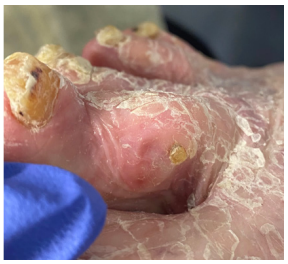
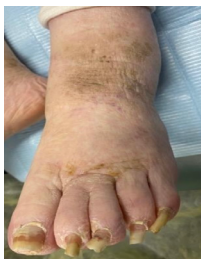
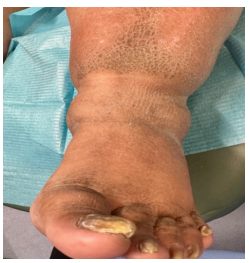
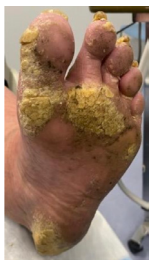
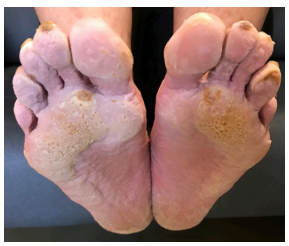
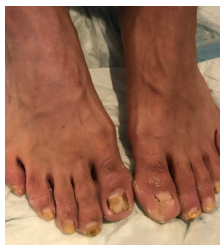
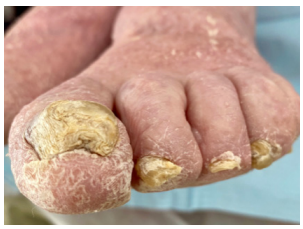
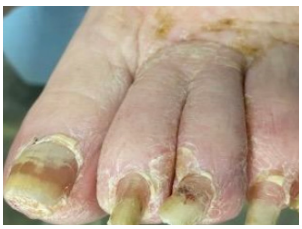
Chillblains

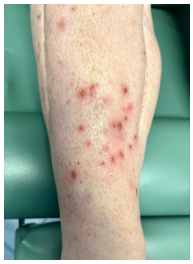
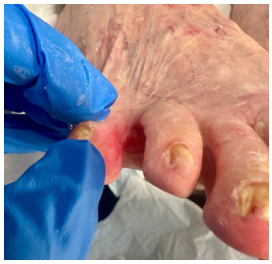
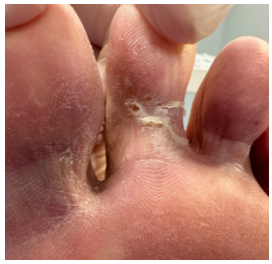
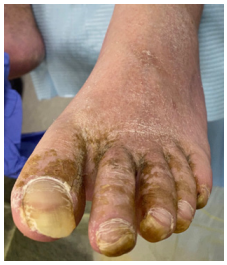
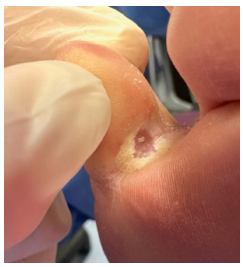
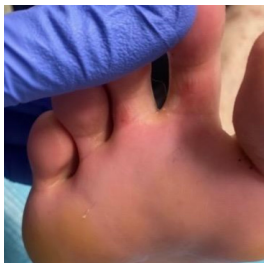
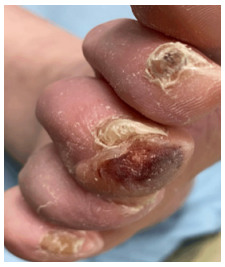
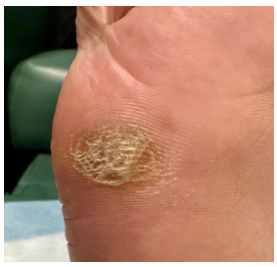
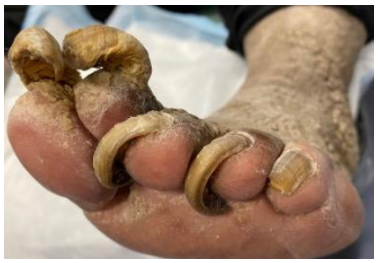
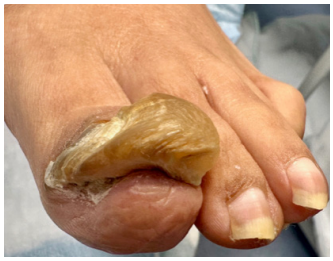
"Chilblains (perniosis, also known as pernio) is a reaction to cold, non-freezing temperatures. It is seen most often in people who are exposed to damp, cold weather. Symptoms develop 12 to 24 hours after exposure to cold. Chilblains usually affect the fingers and toes, but the ears, nose and heels can also be affected. Symptoms include: local redness and swelling, small areas of skin that look purplish, skin bumps, changes in sensation, such as itching or burning, tender blue bumps that develop after rewarming and blisters and ulcers (in severe cases). Treatment includes rewarming the affected areas, caring for any blisters that form and avoiding re-exposure to cold." (HealthLink BC. March 2023; para. 1.) Available from: https://www.healthlinkbc.ca/health-topics/chilblains-perniosis

Diabetes Mellitus

Caring for your feet: Safe foot care if you have diabetes. (Wounds Canada. 2021.) Available from: https://www.woundscanada.ca/docman/public/patient-or-caregiver/1728-home-safe-df-care-1942e/file

Table 2: Common Foot and Surrounding Skin Conditions Identified in Foot Care Clinics for IEH

Condition	Example	Condition	Example
Cellulitis		Frostbite	 
Deformity (bone) bunions; claw/ hammer/ mallet toes; over- lapping digits; dropped metatarsal heads	 	Lipo-dermato-sclerosis	
Skin Abscess	 	Ulcers (leg and foot)	
Fissures		Heloma (corn) (3 types): • Heloma durum (hard); • Heloma molle (soft); • Heloma milliare (seed)	 
Edema, Swelling	 	Hyper-keratosis	
Immersion (trench) foot	 	Oncho-mycosis (fungal infection of the nail unit)	 

Condition	Example	Condition	Example
Lesions, scratches, bites (insect, animal)		*Tinea Pedis* (Athlete's foot) fungal infection of the skin	  
Maceration of skin breakdown between or under toes	 	Tyloma (callus, hyper-keratosis)	 
Oncho-gryphosis (Ram's horn nail)	 		

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Frostbite

"Frostbite is a thermal injury occurring when tissues are exposed to temperatures below their freezing point for a prolonged period. The severity of frostbite injury is directly related to absolute exposure, including external temperature, wind chill, conditions and quality of clothing/tissue protection". (Klammer et al. 2023 ; pp. 427-428.) Available from: https://www.wemjournal.org/article/S1080-6032(23)00107-2/pdf

Immersion Foot (Trench Foot, Street Foot)

Immersion foot, "is a cold injury that occurs gradually over several days of exposure to cold, but not freezing, temperatures. The name comes from World War I troops who developed symptoms after standing in cold, wet trenches. Signs and symptoms of trench foot include: red skin that turns pale and swollen, numbness or burning pain, leg cramps, no actual freezing of the skin, a slow or absent pulse in the foot and development of blisters or ulcers after two to seven days. First aid for trench foot includes rewarming the affected areas, relieving pain and preventing problems such as infection or dead skin (gangrene)". (BC HealthLink BC. November, 2022, para 1.) Available from: https://www.healthlinkbc.ca/trench-foot

Windburn And Hypothermia
Government of Canada. It's Your Health: Extreme Cold. 2013. Available from: https://www.canada.ca/content/dam/hc-sc/migration/hc-sc/hl-vs/alt_formats/pdf/iyh-vsv/environ/cold-extreme-froid-eng.pdf

First Nations Health Authority. (n.d.). Staying Warm and Safe this Winter. Available from: https://www.fnha.ca/Documents/FNHA-Staying-Warm-and-Safe-this-Winter.pdf

Greater Vancouver Housing Society. (n.d.). Hypothermia Checklist for Seniors. Available from: https://hsa-bc.ca/_Library/Resource_Library/Tools-and-Checklist-141125.pdf#page=24

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Summary

Provision of funded foot health for persons experiencing homelessness includes access to skin and nail care (feet and hands), appropriate footwear (based on the season), orthotics and dry socks, as well as readily accessible referrals to foot care specialists as needed. These basic care elements can improve the health and wellbeing of IEH. Given the multiple and complex barriers faced by IEH when attempting to access health care, it is imperative that health-care providers engage in creative, collaborative and intersectoral care planning to prioritize and improve the foot health of IEH.

Central to this work will be collaboration with IEH themselves and their formal and informal support networks. People with lived experience hold tremendous expertise into the challenges they experience as well as the solutions needed to improve their health. Interventions to this end will range from the individual to the systemic level. ■

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Resources for Lymphedema

From the Canadian Lymphedema Framework

Leg Swelling: Is it lymphedema?

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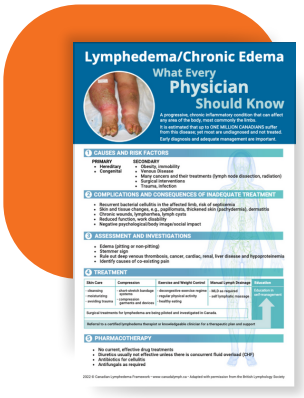

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