

Infographic

Use of an Infographic to Understand Barriers to Diabetes Care for People with Lived Experience of Homelessness in Shelters and Increase Diabetes Awareness Among Shelter Staff and Interprofessional Health Teams

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Abstract

Introduction/Objective: Diabetes mellitus is a chronic medical condition that is considered to be a global health emergency (International Diabetes Federation, 2021). Managing diabetes is challenging and requires a multi-disciplinary approach while also demanding a significant degree of patient engagement and self-management. People with lived experience of homelessness (PWLEH) universally face barriers to accessing diabetes care, engaging in self-management and are consequently more likely to have chronic hyperglycemia (Hwang et al., 2000) and adverse outcomes (Sharan et al., 2023). A study discovered that PWLEH and diabetes experience myriad unique barriers to diabetes self-management in shelters (Grewal et al., 2021). A community- based prioritization exercise identified that this group's main priority was to increase the diabetes-related knowledge and awareness of those living and working in emergency shelters. We sought to co-create an infographic with PWLEH to address some of this knowledge and understanding gaps for those in the sector. **Methods:** The infographic was created through a focus group discussion with PWLEH and diabetes, with consultation from clinical experts. The infographic addresses identified knowledge

gaps by presenting accessible and user-friendly information about diabetes, including its definition and general management principles such as blood glucose monitoring and insulin administration. We also outline key symptoms and management principles of hypoglycemia and hyperglycemia and highlight that both conditions can mimic intoxication. **Conclusion:** The infographic will be disseminated in shelters with a goal of increasing knowledge regarding diabetes and its management among shelter staff with the hopes of improving the experiences of those living with the condition in shelters. This will foster education among and between interprofessional healthcare providers working in shelters and community health centres, and frontline shelter staff who are involved in the care of people with diabetes. We also aim to evaluate its efficacy in achieving this outcome.

Keywords: diabetes, homelessness, community-based, health education

What is Diabetes?

Diabetes is a medical condition that impacts the body's ability to regulate blood sugar levels.

Type 1 diabetes

The pancreas does not produce insulin and always requires treatment with insulin.



Type 2 diabetes

Resistance to the body's insulin and usually treated with medications +/- insulin.



Insulin is the hormone that helps lower blood sugar.

Some people **poke** their finger to **check their blood** sugar. Others wear a **monitor** on their skin.



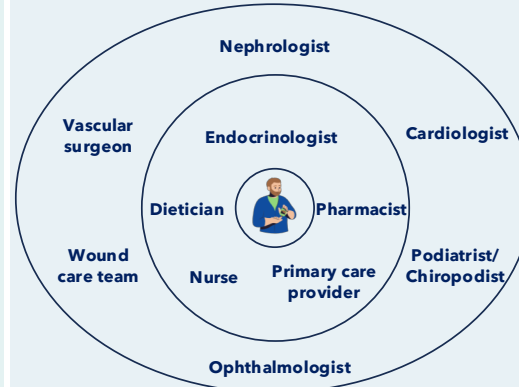
Insulin usually comes in pre-filled pens.
There are two different types.

1) Short-acting insulin is taken just before a meal.



2) Long-acting insulin is taken once a day, in the morning or at bedtime.

Multidisciplinary Diabetes Care Team



People with diabetes can have both low and high blood sugar, depending on their treatments and food intake.

Both low and high blood sugar can make people seem like they are intoxicated when they are not.

Symptoms of Low Blood Sugar:

- Shaking, sweating, chills, feeling dizzy or hungry
- Confusion, fatigue
- Seizure, coma



Symptoms of High Blood Sugar:

- Feeling very thirsty, blurry vision
- Fruity or sweet-smelling breath
- Weakness, fatigue
- Nausea, vomiting, stomach pain



If you see someone with these symptoms, **ask if they need help** - they may have a Medical Alert bracelet or tattoo indicating that they have diabetes.

How to help if someone is low (<4 on a glucose meter):

- If awake and talking, find them something sweet to eat (juice, candy, honey, etc.)
- Ask if they have glucagon (an injection which raises blood sugar).

How to help if someone is high (>15 on a glucose meter):

- Encourage them to drink lots of water.
- Ask them if they have insulin with them, and if they need to take an extra dose.

If they are drowsy or unconscious, call 911.

References

- Grewal, E. K., Campbell, R. B., Booth, G. L., McBrien, K. A., Hwang, S. W., O'Campo, P., & Campbell, D. J. T. (2021). Using concept mapping to prioritize barriers to diabetes care and self-management for those who experience homelessness. *International journal for equity in health, 20*(1)
- Hwang, S. W., & Bugeja, A. L. (2000). Barriers to appropriate diabetes management among homeless people in Toronto. *CMAJ : Canadian Medical Association journal = journal de l'Association medicale canadienne, 163*(2), 161–165.
- International Diabetes Federation. IDF Diabetes Atlas, 10th edn. Brussels, Belgium: 2021. Available at: <https://www.diabetesatlas.org>51
- Sharan, R., Wiens, K., Ronksley, P. E., Hwang, S. W., Booth, G. L., Austin, P. C., Spackman, E., Bai, L., & Campbell, D. J. T. (2023). The Association of Homelessness With Rates of Diabetes Complications: A Population-Based Cohort Study. *Diabetes care, 46*(8), 1469–1476. <https://doi.org/10.2337/dc23-0211>