

Prevention and Screening for Type 2 Diabetes in Newfoundland and Labrador

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The Issue

- Health policy makers in Newfoundland and Labrador are seeking the best available research-based evidence on the clinical and cost-effectiveness of approaches that aim to reduce the incidence of T2D in NL to help inform diabetes resource allocation.

The Question

What interventions are likely to be effective in reducing the incidence of Type 2 Diabetes and its medical complications in the adult population of Newfoundland and Labrador?

The Results

- There is an insufficient amount of high-quality evidence on the long-term clinical benefits and potential harms of screening for T2D at this time. More robust evidence is also needed to confidently evaluate the cost-effectiveness of screening interventions for T2D.
- The effectiveness of drug interventions depends on the risk profile of individuals. In specific at-risk populations, some oral anti-diabetic drug classes and some other drug classes effectively prevent the onset of T2D; other drug classes have no significant preventive effect and some drug classes are more effective for promoting regression to normoglycemic than for reducing T2D incidence.
- Good quality evidence shows that many interventions that promote modest weight loss through improved diet and/or increased physical activity can decrease the incidence of T2D. A key factor in the success of these interventions is adherence to lifestyle changes
- A number of mixed interventions involving, alone or in combination, diet, exercise, drug interventions and/or other interventions, can prevent T2D. The effectiveness of these interventions appears to depend on age, weight loss, and an individual's risk profile, among other factors.
- Most preventive interventions (non-screening interventions) are considered cost-effective, with ICER of less than \$20,000 USD per QALY.

The Local Context

- Clinical and cost-effectiveness evidence converged most strongly around the effectiveness of lifestyle interventions for the prevention of T2D in adults, adherence playing a key role.
- No specific provincial programs in NL target the prevention of T2D and despite provincial health and wellness promotion and the province's Chronic Disease Framework, T2D rates are still on the rise.
- The level of T2D risk in the NL adult population is affected by a combination of non-modifiable and modifiable risk factors. The province has an opportunity to develop prevention programs and initiatives that will target modifiable risk factors to help curb risk and progression to pre-diabetes or T2D.
- Reliable and comprehensive data collection on diabetes and diabetes risk-factor indicators will be required to guide the development of appropriate programs/ prevention efforts in different areas of the province and for different population groups.
- A concerted effort should be made to ensure that all T2D prevention information is available in formats that are accessible to all people in the province, regardless of their literacy levels.
- Investment in physical and economic access to infrastructure, programming, professional expertise, and healthy foods will be important in helping adults in the province make and maintain required lifestyle changes to lower T2D risk.

Read the full report here: www.nlcahr.mun.ca/chrsp