12. Impact of a 6-Month Healthy Lifestyle Education Program Tailored for Rural Adults with Prediabetes in Stratford and Tavistock, Ontario: Preliminary Nutrition Results
(Adrienne Vermeer)

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Objectives: To assess the impact on client's perception, dietary intake and type 2 diabetes mellitus (T2DM) risk factors of a 6-month healthy lifestyle education program tailored for rural adults with prediabetes.
Methods: Rural adults identified with impaired fasting glucose and/or impaired glucose tolerance were referred to the 6-month education program by their physician. The program provided participants with credible nutrition information and promoted the development of skills regarding healthy eating strategies known to help prevent or delay the development of T2DM. Pre- and post-program 3-day food records, as well as anthropometric, demographic and biochemical data were collected. Participants also completed a program feedback form. Food intake records were reviewed with clients by a registered dietitian and analyzed using the ESHA Food Processor SQL version 10.14.0.
Results: Preliminary data from 21 participants (13 men, 8 women) are presented. They attended 7.1±0.9 (mean ± SD) out of 8 visits. Participants were aged 61.9±6.5 and their average body mass index (BMI) was 32.5±6.6 kg/m^2. Ninety percent of the participants said they felt confident that they could continue to implement many of the healthy eating strategies learned as part of the prediabetes education program. Participants reduced their average energy (2151±675 *versus* 1771±453 kcal, p=0.01) and carbohydrate (250.6±89.0 *versus* 194.7±44.4 g, p=0,006) intake. Also, the average BMI (32.5±6.6 *versus* 31.6±6.4 kg/m^2, p=0.01) and fasting blood glucose (6.07±0.44 *versus* 5.27±0.54, p=0.05) improved significantly from before to after the 6-month education program.

Conclusions: Based on these preliminary results, it appears that this 6-month healthy lifestyle education program may have helped those rural adults improve some of their risk factors for developing T2DM, dietary behaviours, and confidence in making healthy eating choices.
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13. Lactose Intolerance Gene Variants, Dairy Consumption, Plasma 25-hydroxyvitamin D and Biomarkers of Type 2 Diabetes in Young Canadian Adults
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Background: Gene variants located upstream of the LCT gene have been associated with lactose intolerance (LI) in different ethnic groups. However, the prevalence of these gene variants in Canada remains unknown. Individuals with LI often limit or avoid dairy consumption, which may lead to an inadequate intake of vitamin D. Recent evidence suggests an inverse association between dairy intake and risk of type 2 diabetes.