

## **Pilot test to validate a diet assessment tool for pre-diabetes/metabolic syndrome counselling**

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**Introduction:** Lifestyle interventions significantly improve cardiometabolic risk conditions, prediabetes and/or metabolic syndrome in clinical trials, and efforts are underway to spread effective programs in the health care system. Valid and feasible diet assessment tools that can detect diet changes in individuals are needed to evaluate effectiveness. A new food frequency tool (DIETQ) was developed from the 2007 Canada's Food Guide with the PREDIMED Mediterranean Diet Score, based on the results of the first CHANGE program study (<https://www.metabolicsyndromecanada.ca/>).

**Objectives:** This pilot study tested the feasibility of conducting a validation study of the DIETQ in primary care, using the ASA24-C (2016) online diet assessment system.

**Methods:** Dietitians involved in the implementation of the CHANGE program were asked to perform two dietary assessments using the DIETQ, at baseline and three months. Patients completed two rounds of 7 days of 24-hour food recalls/records using the online system. Dietitians' and patients' perceptions of the DIETQ were assessed through individual phone interviews. The number of servings of 25 food groups were assessed by the two dietary assessment methods at baseline and 3 months by Pearson correlation and paired t-test. Interview answers were scored, and content analyzed to assess dietitians' and patients' user experiences of DIETQ.

**Results:** Two RDs and four patients completed the pilot study. Participants' average rating of DIETQ's feasibility and sensitivity was very good to excellent. DIETQ took about 25 minutes to complete. The online system proved challenging to most patients. Higher correlations ( $r > 0.5$ ) between methods at both baseline and three months were observed only for Total Fruit, Total Milk and Alternatives, Nuts Unsalted, Total Nuts, and Solid Fat.

**Conclusion:** This pilot study provided critical insights on developing a proposed national validation study. Validated tools to assess diet change in individuals are needed to demonstrate the counselling effectiveness of dietitians in practice.

Funded by: Faculty general account and in-kind support from Metabolic Syndrome Canada