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# The Regional Municipality of Durham Information Report

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From: Commissioner & Medical Officer of Health  
Report: #2021-INFO-101  
Date: October 1, 2021

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**Subject:**

Update on the Release of the BETTER HEALTH: Durham Study

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**Recommendation:**

Receive for information

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**Report:**

**1. Purpose**

1.1 To provide an update on the research article: [Building on Existing Tools to Improve Chronic Disease Prevention and Screening in Public Health](#) (BETTER HEALTH), published on August 3, 2021 in the Bio Med Central (BMC) Public Health Journal.

**2. Background**

2.1 [BETTER](#) (Building on Existing Tools to Improve Chronic Disease Prevention and Screening in Primary Care) is a chronic disease (CD) prevention and screening program used in primary care settings.

2.2 BETTER's program goals are to screen patients for CDs and prevent cancer, diabetes, cardiovascular disease, and their associated lifestyle factors.

2.3 Durham Region Health Department (DRHD) partnered with researchers from Sunnybrook Health Sciences Centre, St. Michael's Hospital, and the University of Toronto to adapt the BETTER program for application in public health/community settings and study the program's effectiveness. The adapted program was called [Building on Existing Tools to Improve Chronic Disease Prevention and Screening in Public Health](#) (BETTER HEALTH: Durham).

2.4 BETTER HEALTH: Durham was a six-month program offering participants aged 40 to 64 supportive meetings with public health nurses (PHNs). The PHNs helped clients identify and reach goals related to CD prevention activities.

- 2.5 Adults living in low-income neighbourhoods were the target population group since evidence shows that lower socioeconomic status (SES) is negatively associated with participation in actions to prevent cancers and CDs.
- 2.6 The BETTER HEALTH: Durham program was guided and informed by a Community Advisory Committee composed of stakeholders and area residents which met quarterly, and a Primary Care Engagement Group.
- 2.7 The BETTER HEALTH: Durham study was funded by the [Canadian Institutes of Health Research](#) (CIHR) and the [Canadian Cardiovascular Society](#) (CCS) for the period from February 2017 to December 2020.

### 3. Study Highlights

- 3.1 DRHD and its research partners collaborated to study the effectiveness of the BETTER HEALTH program and its ability to improve CD prevention for residents aged 40 to 64 in low-income neighbourhoods. Study participants were recruited from the following Priority Neighbourhoods in Durham Region: Downtown Oshawa; Beatrice North; and Downtown Whitby.
- 3.2 The study design was a cluster randomized trial. This type of study can be used to evaluate how well a program, guideline, or standard of care is able to meet patient outcomes.
- 3.3 The study followed 126 participants; one participant withdrew from the study. Each participant was randomly sorted into one of two streams:
  - a. Fifty-nine participants were placed in the 'immediate' group and received the intervention.
  - b. Sixty-six participants were placed in the 'wait-list' group and did not receive the intervention but were studied for comparison purposes.
- 3.4 Participants from the immediate and wait-list groups were surveyed twice during the study period; first at baseline (i.e., before the intervention was administered) and again at six months. The two surveys asked participants to self-report their health status, health history, and some socio-demographic characteristics.
- 3.5 After baseline surveys were completed, the BETTER HEALTH: Durham intervention was administered to participants in the immediate group. This involved PHNs giving clients a tailored 'prevention prescription' and having meetings to support clients in creating health-related goals. Examples of goals included quitting smoking, improving diet, or increasing physical activity levels.
- 3.6 At the end of the study period (i.e., after six months), participants in both the immediate and wait-list groups completed a second survey. Analysts used survey data to assess how many evidence-based CD prevention activities participants achieved.

- a. Examples of CD prevention activities that were measured included weight control, nutritional referrals, smoking cessation, alcohol control, blood pressure (BP) screening, and physical activity improvements.
- 3.7 Results were combined and analyzed, looking at outcomes achieved by the immediate group compared to the wait-list group.
- 3.8 Results of the study showed that at six months:
- a. Participants in the immediate group achieved significantly more of the CD prevention activities for which they were eligible (64.5 per cent), compared to participants in the wait-list group (42.1 per cent).
  - b. The most notable improvements in the immediate group compared to the wait-list groups were in screening for BMI, measuring waist circumference and breast cancer screening.
  - c. Participants in the immediate group performed better than the wait-list group on nearly all CD prevention actions, except where both groups saw improvements in physical activity, weight control and healthy diet scores. This outcome suggests that the baseline survey and DRHD's educational materials (which were provided to the immediate and waitlist groups) may have been unintended co-interventions that motivated participants to make healthy choices.

#### **4. Relationship to Strategic Plan**

- 4.1 This report aligns with the following strategic goal and priority in the Durham Region Strategic Plan: Community Vitality, 2.3 influence the social determinants of health to improve outcomes for vulnerable populations.

#### **5. Conclusion**

- 5.1 The BETTER HEALTH: Durham study found that the adapted BETTER intervention was effective at improving uptake of CD prevention and screening actions among adults (aged 40 to 64) in low-income neighbourhoods.
- 5.2 Next steps for BETTER HEALTH: Durham are to:
- a. Explore which components of the intervention led to its success from both the participant and PHN perspectives.
  - b. Investigate how to make BETTER HEALTH sustainable.
  - c. Conduct further research on adapting the intervention for younger adults, specifically for people aged 18 to 39 living in low-income neighbourhoods.
- 5.3 The BETTER HEALTH: Durham team has participated in extensive knowledge exchange activities to share information about the research to colleagues, relevant organizations, program staff, and community partners.

- 5.4 The goal of DRHD's Chronic Disease Prevention program is to reduce the burden of CD and improve well-being.
- a. CDs of public health importance include but are not limited to obesity; cardiovascular diseases; respiratory disease; cancer; diabetes; intermediate health states (such as metabolic syndrome and prediabetes); hypertension; dementia; mental illness; and addictions.
- 5.5 Locally, DRHD's [Health Neighbourhoods](#) tool presents neighbourhood-level statistics on CD prevalence and relevant protective/risk factors (e.g., smoking rates, fruit and vegetable consumption, physical activity, cancer screening, asthma in children, and self-rated mental health).
- 5.6 [Durham.ca](#) offers information about the BETTER HEALTH study in Durham Region and links to publicly accessible information and resources to help people make healthy living choices for themselves, their families, and their community.

Respectfully submitted,

Original submitted by

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