

EVALUATION OF ORAL HEALTH PROGRAM ENHACEMENTS

City of Hamilton
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Executive Summary

In celebration of its 60th anniversary in 2017, GreenShield Canada (GSC) provided \$1,000,000 to the Hamilton Community Foundation (HCF) to advance oral health in Hamilton. A portion of these funds were used to enhance oral health programming offered by Ontario Works and Public Health Services at the City of Hamilton. These programs were evaluated to determine the impact of this investment. The funded programs and evaluation results are summarized below.

Dental Health Bus

- The Dental Health Bus is an existing mobile clinic that provides dental care to eligible individuals throughout Hamilton.
- The GSC/HCF funding was used to increase staffing on the Dental Health Bus to allow for one extra day of operation per week from 2019 to 2022.
- In total, 1,132 clients were served during this additional day of operation.

Enhanced Denture Coverage for Seniors

- The GSC/HCF funding was used to supplement denture coverage for seniors accessing this service through the Ontario Works special supports.
- Between November 2018 and October 2020, there were 117 seniors who received the supplemental denture coverage to fund their dentures.
- Seniors who received dentures reported significant improvements in their physical oral health, pain and discomfort, and psychosocial well-being.
- Seniors reported a reduction in relying on emergency dental care after they received their new dentures.

Smile with Confidence

- The Smile with Confidence was a program piloted through Ontario Works to help clients reduce oral health-related barriers to employment.
- As of July 2023, the Smile with Confidence program has assisted 1,104 people and it is expected another 200 participants will be enrolled by the end of 2023.
- Individuals enrolled in the Smile with Confidence program reported significant improvements in their oral health, including a reduction in oral health-related barriers to interviewing or securing a job. However, there was no indication that this program by itself led to increased employment.

Background

GreenShield Canada (GSC) celebrated its 60th anniversary by investing \$6,000,000 in six communities (Six 4 Six) across Canada, including \$1,000,000 for Hamilton. Locally, this philanthropic funding was dispersed through the Hamilton Community Foundation (HCF). The HCF and the City of Hamilton developed a plan to address one of the priorities of the funder: enhancing oral health in our community. This plan and funding arrangement were approved by Hamilton City Council in the fall of 2018, which included a collaboration between Ontario Works and Public Health Services to provide the following programming in Hamilton:

- **Dental Health Bus:** The Dental Health Bus provides dental services to eligible adults and seniors throughout Hamilton. Funding was used to increase staffing on the Dental Health Bus to allow for one extra day of operation per week.
- **Enhanced Denture Coverage for Seniors:** The Special Supports unit of the Ontario Works Division in the City of Hamilton provides partial coverage for dentures for eligible seniors. Those who use this service must pay the difference out of pocket, which is estimated to be \$450 per denture. This cost is a barrier for many, but this funding will cover the out-of-pocket costs for seniors.
- **Smile with Confidence:** Funding was used to pilot a program that was developed at the Region of Peel. Through Ontario Works, this program identifies working-age adults, whose prospects of employability would benefit from dental care, including preventive and restorative care as well as dentures.

Each of the previously described oral health programs operated by the City of Hamilton were evaluated to determine the impact of these programs on the clients served. This report details the evaluation findings for each of these oral health programs.

Dental Health Bus

Program Overview

The Dental Health Bus provides mobile dental services to eligible adults and seniors throughout Hamilton. Funding from GSC/HCF was used to increase staffing on the Dental Health Bus to allow for one extra day of operation per week by funding an additional 0.2 FTE Dentist and 0.2 FTE Dental Assistant from 2019 to 2022. The Dental Health Bus provides both emergency and restorative dental services.



Evaluation Objective

The objective of this evaluation was to quantify the number of clients served by the Dental Health Bus during the additional day of operation funded by GSC/HCF.

Evaluation Methods

The number of clients served during the extra day of operation was tracked by Hamilton Public Health Services' Dental and Vision Screening program. The data were reported by calendar year for the duration of GSC/HCF investment.

Evaluation Results

Between January 1, 2019, and December 31, 2022, the funding from GSC/HCF was used to provide dental care to 1,132 clients on the Dental Health Bus as summarized in the chart below. It is important to note that the Dental Health Bus was able to continue delivering these services despite the many challenges posed by the COVID-19 pandemic during this time period.

	Year				Total
	2019	2020	2021	2022	
Number of clients served on the Dental Health Bus with GSC/HCF funding	239	299	301	293	1,132

Source: Dental and Vision Screening program, City of Hamilton Public Health Services.

Enhanced Denture Coverage for Seniors

Program Overview

The Special Supports unit of the Ontario Works Division in the City of Hamilton provides partial coverage for dentures for eligible seniors. Those who use this service must pay the difference out of pocket, which is estimated to be \$450 per denture. This cost is a barrier for many. The funding from GSC/HCF was used to off-set the out of pocket expenses for dentures. Since the launch of this program, 160 low-income seniors have been approved for supplemental denture coverage (16 from November 12 to December 31, 2018, 111 in 2019, and 33 from January 1 to October 31, 2020). Of those approved, 117 have received the supplemental coverage (11 from November 12 to December 31, 2018, 86 in 2019, and 20 from January 1 to October 31, 2020). After October 2020, there was a transition to providing seniors with dentures through the new Ontario Seniors Dental Care Program.

Evaluation Objective

The objective of this evaluation was to determine if providing dentures to low income seniors improved oral health-related quality of life.

Evaluation Methods

Seniors who participated in this program were asked to complete two paper surveys: one baseline survey before they received their dentures and then a follow up survey 6 months after they received their dentures. Each survey was a self-assessment of the participant’s oral health using a validated questionnaire (Geriatric Oral Health Assessment Index). In total, there were 125 baseline surveys and 101 follow-up surveys completed. The survey data were analyzed to determine if self-assessed oral health measures changed between timepoints using statistical testing. In addition, clients were also asked about the frequency of accessing emergency health services in the past 6 months at each survey timepoint.

Evaluation Results

Physical Function

There were significant improvements in 3 of 4 areas of physical function after clients received their dentures. Clients reported significant improvement in their ability to eat food and speak after they received their dentures. There was no significant change in the ability to swallow after clients received their dentures.

Physical function metric	Baseline Results (before dentures)	Follow-up Results (6-months after dentures)
% of clients who often or always limit food due to dental problems	65.6%	30.7%*
% of clients who often or always have trouble biting or chewing food	87.2%	50.5%*
% of clients who often or always have trouble swallowing	44.0%	51.5%
% of clients who often or always have trouble speaking	52.0%	29.7%*

*Statistically significant change from baseline.

Pain and Discomfort

There were significant improvements in 2 of 3 areas of pain and discomfort after clients received their dentures. Clients reported taking significantly less medication to relieve oral pain and clients reported significant reductions in teeth and gum sensitivity. There was no significant change in discomfort while eating.

Pain and discomfort metric	Baseline Results (before dentures)	Follow-up Results (6-months after dentures)
% of clients who often or always have discomfort while eating	35.2%	47.5%
% of clients who often or always use medication to relive oral pain	38.4%	14.9%*
% of clients who often or always have sensitive teeth or gums	53.6%	24.8%*

*Statistically significant change from baseline.

Psychosocial Impact

There were significant improvements in all areas of psychosocial wellbeing after clients received their dentures. Overall, there was a significance increase in clients who were happy with their appearance after receiving their dentures. Similarly, after receiving dentures, clients also reported improvements in social contact, worriedness, self-consciousness, and eating in front of others.

Psychosocial metric	Baseline Results (before dentures)	Follow-up Results (6-months after dentures)
% of clients who often or always limit social contact due to teeth or dentures	42.4%	14.9%*
% of clients who are often or always happy with the appearance of their teeth, gums or dentures	24.8%	52.5%*
% of clients who are often or always worried about problems with their teeth, gums, or dentures	78.4%	44.6%*
% of clients who often or always felt self-conscious about their teeth, gums or dentures	70.4%	36.6%*
% of clients who often or always felt uncomfortable eating in front of others	74.4%	38.6%*

*Statistically significant change from baseline.

Health Service Utilization

Individuals who are unable to afford routine dental care may seek dental care from hospital emergency departments. In Hamilton, the rate of seniors seeking dental care through emergency departments doubled between 2004 and 2017.

This evaluation survey found that once seniors were provided with the dentures they need, they reported the following changes to their healthcare seeking behavior:

- 75% reduction in emergency department visits for dental care.
- 63% reduction in visits to Hamilton’s Dental Health Bus.

These evaluation results indicate that providing seniors with dentures through this program reduced their reliance on emergency health services.

Smile with Confidence

Program Overview

The Smile with Confidence program was developed by the Region of Peel. This program identifies working-age adults through Ontario Works whose prospects of employability would benefit from dental care, including preventive and restorative care as well as dentures. Eligible individuals are then provided with the dental care they need. This program shifts the focus from emergency service to an early intervention and prevention model. It is expected that this program will improve oral health-related quality of life and improve job-seeking confidence including the attainment of employment.

As of July 2023, the Smile with Confidence program has assisted 1,104 participants. By the end of 2023, it is expected that another 200 participants will be enrolled and receiving services bringing the final total to 1,304 participants.

Evaluation Objective

The objective of this evaluation was to determine if the Smile with Confidence program increased the ability of participants to secure employment.

Evaluation Methods

Individuals who participate in this program were asked to complete three paper surveys: one baseline survey before receiving dental care, one survey 6 months after enrolling in the program, and one survey 12 months after enrolling in the program. Each survey was a self-assessment of the individual’s job seeking efficacy and oral health. In total, there were 572 completed surveys returned: 371 baseline surveys, 70 surveys from the 6 month follow-up, and 131 surveys from the 12 month follow-up.

This evaluation also conducted a short survey with frontline staff and managers who were involved in the Smile with Confidence program. There were 7 participants who rated their satisfaction with the program and provided open feedback.

Evaluation Results

Self-Assessed Oral Health

During the 12 months in the Smile with Confidence program, there were significant improvements in most areas of the clients’ self-assessed oral health. Overall, self-perception of oral health improved, clients were less worried about oral health problems, clients felt more comfortable eating in front of others, and clients perceived their oral health was less of a barrier to interviewing or securing a job.

Self-Assessed Oral Health Measure	Baseline Results (before care)	Follow-up Results (6-months)	Follow-up Results (12-months)
% of clients who perceive their oral health as very good or excellent	6.9%	15.7%	18.1%*
% of clients who perceive their oral health as poor	51.9%	32.9%*	21.3%*
% of clients who were often or always worried about problems with their teeth, gums, or dentures	76.9%	75.7%	62.0%*
% of clients who were often or always nervous or self-conscious because of their teeth, gums, or dentures	70.0%	65.2%	59.8%
% of clients who were often or always pleased or happy with the appearance of their teeth, gums, or dentures	14.9%	17.4%	21.7%
% of clients who were often or always uncomfortable eating in front of others due to their teeth, gums, or dentures	46.4%	50.7%	32.0%*
% of clients who believe the appearance of their smile or teeth makes it difficult to secure a job	67.4%	67.1%	52.7%*
% of clients who believe the appearance of their smile or teeth makes it difficult to interview for a job	70.2%	75.7%	51.8%*

*Statistically significant change from baseline.

Job Seeking Confidence and Efficacy

Clients’ job seeking confidence and efficacy remained relatively consistent during their 12-month enrollment in the Smile with Confidence program. Overall, there were no significant changes in confidence with job application, meeting new people, engaging in discussion, or job interviewing. Similarly, there was no significant change in employment or confidence in employment while clients were enrolled in the Smile with Confidence program. It is important to note that some this surveying occurred during the Coronavirus Disease 2019 (COVID-19) pandemic which was a very dynamic period in terms of employment, work prospects, and self-confidence. It is probable that self-assessed job seeking confidence may have been impacted by the COVID-19 pandemic.

Program Satisfaction

The survey of frontline staff and management indicated unanimous support for the Smile with Confidence program. Staff and management agreed that the program provided timely care, reduced barriers to employment, and improved oral health of the program’s clients. There were some minor challenges noted regarding working with dental care providers such as on-boarding and the fee schedule, but overall, the program was able to mitigate these challenges and operate with success.

“Clients shared with us in their surveys how helpful the program was for them, and how happy they were with their oral health.”

“This program was widely embraced by all involved - clients, service providers and Ontario Works staff.”