



Engaging Rural Dental Clinics in Cardiovascular Disease Prevention

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Creating a world without heart and vascular disease



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Session Objectives

- ▶ Understand a novel approach that engages dental providers to improve the health of their patients' hearts, as well as their mouths.
- ▶ Demonstrate the transferability of dental clinic and provider surveys and how they identify opportunities for provider education and policy improvements.
- ▶ Describe the effectiveness and acceptance of counseling education and patient resource guides in a rural dental clinic setting.

Hearts Beat Back®: The Heart of New Ulm Project

To eliminate heart attacks and improve heart disease risk factors within a rural community through collective community efforts.¹



1. Sidebottom AC, Sillah A, Miedema MD, et al. Changes in cardiovascular risk factors after 5 years of implementation of a population-based program to reduce cardiovascular disease: The Heart of New Ulm Project. *Am Heart J.* 2016;175:66-76. doi:10.1016/j.ahj.2016.02.006.

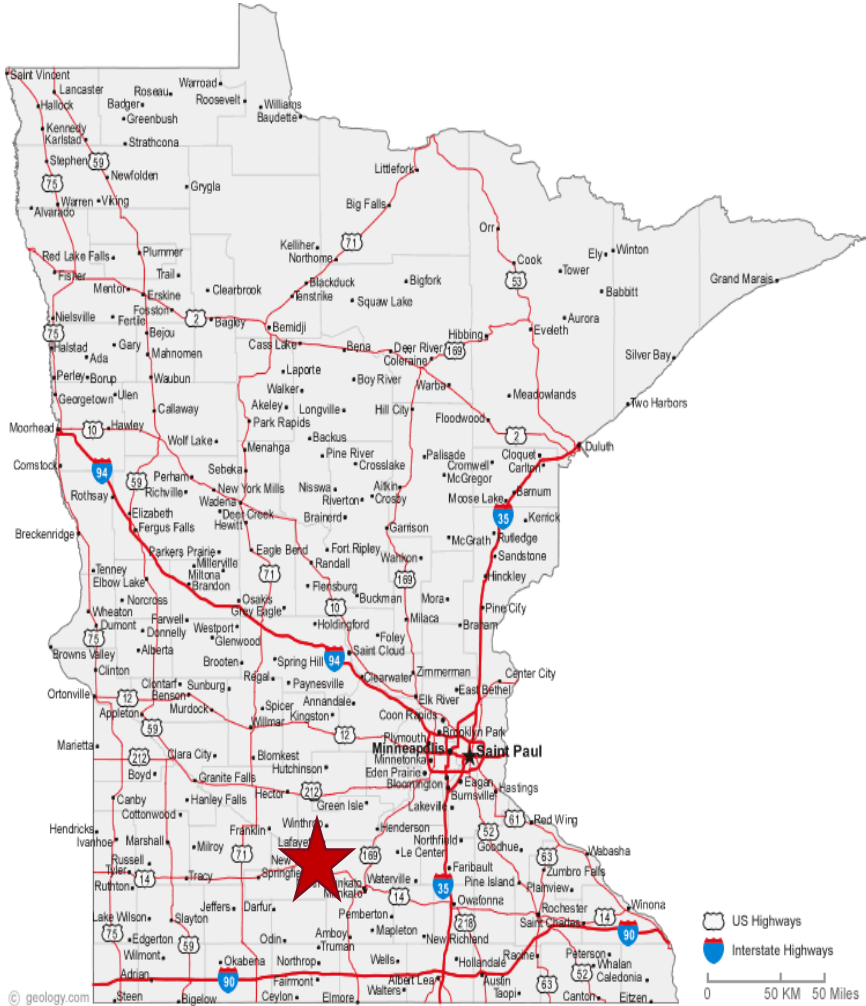
Why rural, and why dental clinics?

- ▶ Compared to urban areas, rural communities have greater prevalence of metabolic syndrome.²
- ▶ Dental clinics are uniquely positioned to address heart health with tobacco cessation and sugar-sweetened beverage (SSB) reduction counseling.

Project Goals

- ▶ Understand the policies and practices of dental clinics in Brown County, Minnesota, related to tobacco use and SSB consumption.
- ▶ Develop a patient referral resource and offer dental providers a counseling training opportunity.

Brown County



- ▶ Rural, and predominately Caucasian region in southern Minnesota with a population of approximately 26,000 people
- ▶ 9 dental clinics were deemed eligible: provided routine dentistry services
- ▶ 8 participant clinics (59 dentists, dental hygienists and dental assistants)

Project Activities

- ▶ Clinic and provider surveys that assessed practices, policies and behaviors
- ▶ Educational and referral resource for patients
- ▶ Continuing education event

Clinic Survey

- ▶ Patient intake and assessment form questions
- ▶ Counseling guidelines
- ▶ Training opportunities
- ▶ Referral processes

Clinic Name	
Number of Dental Assistants	
Number of Dental Hygienists	
Number of Dentists	

The following questions are regarding your clinics' standard approach to obtaining patient-related health information. For purposes of this questionnaire, oral health care provider refers to any and all of the following: dentists, dental hygienists and dental assistants.

1. Are patients (new or returning) required to fill out a health intake form (or similar health behavior form)?
- Yes
 - No
 - Don't know
 - Choose not to answer

If answered "Yes" to 1

- a. Does that form contain one or more questions regarding tobacco use?
- Yes
 - No
 - Don't know

If answered "Yes" to 1a

- b. Please indicate which of the following questions are asked (check all that apply):
- Current tobacco use
 - Past tobacco-use
 - Type of tobacco currently or previously used (cigarettes, chew, snuff, e-cigarettes, etc.)
 - Frequency of tobacco use (packs per day/week/month)
 - How long they have been using tobacco products
 - Other: Please explain:

-
2. Does the health intake form contain one or more questions regarding sugar-sweetened beverage intake (soft drinks, fruit drinks, sports drinks, energy and vitamin water drinks, sweetened tea and coffee drinks and juices with added sugar)?
- Yes
 - No
 - Don't know
 - Choose not to answer

Provider Survey

- ▶ Focused on adherence to the 5 A's of intervention³
 - ▶ Ask, Advise, Assess, Assist, and Arrange
- ▶ Barriers to providing tobacco cessation and sugar-sweetened beverage reduction counseling
- ▶ Self-efficacy for counseling

3. Dosh SA, Holtrop JS, Torres T, Arnold AK, Baumann J, White LL. Changing organizational constructs into functional tools: an assessment of the 5 A's in primary care practices. *Ann Fam Med*. 3 Suppl 2:S50-S52. doi:10.1370/afm.357.

Patient Resource Guide



**Brighter Smile,
Healthier Heart:**

Oral and Heart Health Resource Guide

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Dental Clinic Practices and Policies

	Health Intake Form Questions (# of clinics)		Verbal assessment policy (# of clinics)	
	Tobacco use	Sugar- sweetened beverage intake	Tobacco use	Sugar- sweetened beverage intake
Baseline (n=8)	6	1	4	4
Change at follow-up (n=6)*	+2	0	0	0

Dental Provider Adherence to 5 A's and Confidence For Counseling on Tobacco and Sugar-Sweetened Beverages

Tobacco (%)

	Ask	Advise	Assess	Assist	Arrange	Confidence
Baseline (n=51)	26	23	11	11	3	50
Follow-up (n=36)	31	16	0	2	4	48

Sugar-sweetened beverages (%)

	Ask	Advise	Assess	Assist	Arrange	Confidence
Baseline (n=51)	47	43	41	51	8	88
Follow-up (n=36)	44	41	40	46	22	83

Key Findings

- ▶ Compared to national surveys, smaller proportions of Brown County providers reported following each of the 5 A's for tobacco cessation.^{4,5,6}
- ▶ Providers didn't believe training would improve their likelihood of counseling
- ▶ The project benefited from a high response rate among eligible providers (86.4%)

4. Jannat-Khah DP, McNeely J, Pereyra MR, et al. Dentists' self-perceived role in offering tobacco cessation services: results from a nationally representative survey, United States, 2010-2011. *Prev Chronic Dis.* 2014;11:E196. doi:10.5888/pcd11.140186.

5. McNeely J, Wright S, Matthews AG, et al. Substance-use screening and interventions in dental practices: survey of practice-based research network dentists regarding current practices, policies and barriers. *J Am Dent Assoc.* 2013;144(6):627-638. <http://www.ncbi.nlm.nih.gov/pubmed/23729460>.

6. Prakash P, Belek MG, Grimes B, et al. Dentists' attitudes, behaviors, and barriers related to tobacco-use cessation in the dental setting. *J Public Health Dent.* 2013;73(2):94-102. doi:10.1111/j.1752-7325.2012.00347.x.

Conclusion and Next Steps

- ▶ There is a major need to demonstrate the benefits of counseling training among Brown County providers.
- ▶ Clinics should take a more active role in ensuring providers receive adequate training
- ▶ Future efforts should address the barriers specific to rural dental providers.