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New Study Shows New Ulm Residents Have Better Control of Blood Pressure and Cholesterol than Comparison Community

Findings suggest The Heart of New Ulm Project's initiatives have helped lower heart disease risk

Minneapolis, MN – March 21, 2017 – Findings from a study comparing several heart disease risk factors for New Ulm residents over a recent six-year period with those for residents from another Minnesota community show New Ulm residents are doing better in controlling their blood pressure, LDL cholesterol, total cholesterol and triglycerides. The study's outcomes were presented during a poster session at the American Heart Association EPI/Lifestyle 2017 Scientific Sessions held in early March in Portland, Ore.

The study assessed whether trends from 2008-09 through 2015 for heart disease risk factors, heart attack/stroke events, or health care utilization differed for a cohort of 4,077 adults age 40-79 in the New Ulm community compared to matched controls in a comparison Minnesota community. The time period was chosen because since 2009, New Ulm has been the site for Hearts Beat Back: The Heart of New Ulm Project (HONU), a prevention program from the Minneapolis Heart Institute Foundation and Allina Health/New Ulm Medical Center that is designed to help community members reduce their risk factors for heart disease. HONU has delivered a wide variety of programs and services through health care, community and workplace settings, including heart-health screenings, one-on-one phone coaching, social marketing campaigns, food environment improvements, worksite wellness programs, and large-scale community health challenges. The comparison community did not have any sort of project similar to HONU during the study timeframe.

Rebecca Lindberg, MPH, director of population health for the Minneapolis Heart Institute Foundation and director for HONU, said, "The results of the study are very promising, as one of our goals with the Heart of New Ulm has been to create a model for improving health that can be replicated in other rural communities, including a model for evaluating community-level outcomes with the secondary use of available electronic health record data."

Since the vast majority of New Ulm residents get their care from New Ulm Medical Center, the study was able to monitor the various health measures through electronic health record data collected at baseline (2008-09) and in three follow-up time periods (2010-11, 2012-13 and 2014-15). Specifically, the results of the study showed:

- **Blood pressure:** Controlled blood pressure increased by 6.2 percentage points in the New Ulm cohort, compared to 2 points in the comparison community cohort. Researchers concluded that the considerably larger differential improvement in blood pressure control in New Ulm may have been driven by lifestyle-oriented HONU programming, as the use of blood pressure medications was similar in both communities.
- **Cholesterol:** The proportion of people with cholesterol at goal (< 200 mg/dL) decreased by 1 percentage point in New Ulm over the six years and declined 8 percentage points in the comparison community. Similarly, the 10-year ASCVD (atherosclerotic cardiovascular disease) risk scores, which are used to predict risk of a heart attack or other cardiovascular event, showed less decline for New Ulm residents than controls (16 vs. 18.4).

Lindberg explained that although the proportion of people with cholesterol at goal and the ASCVD scores did decline, researchers would typically expect these measures to show more dramatic decline as a result of the population aging. “The declines were significantly less in New Ulm than in the comparison community, indicating better control of certain risk factors over time in the New Ulm community,” she said.

Other study results included:

- Heart attack and stroke events increased by 0.2 in New Ulm and by 0.8 in the comparison community over six years. Researchers note the difference (0.6) was not statistically significant, but may require longer follow-up time.
- New Ulm and the comparison community did not differ with regard to the number of inpatient days, heart disease events, smoking status or glucose levels.
- Body Mass Index (BMI) increased slightly in New Ulm, but did not change in the comparison community, indicating that managing excess weight is a risk factor where New Ulm residents can still improve.

Toby Freier, president of New Ulm Medical Center, said, “Health care leaders across the country often ask me about the financial investment we have made in HONU, and whether we have the outcome data to prove its worth. We do have the data showing positive outcomes. This study provide strong evidence in support of a comprehensive package of interventions, such as we’ve done through HONU, for lowering heart disease risk, particularly for blood pressure, cholesterol and triglycerides.”

The poster with a summary of the findings, titled “Assessing the Impact of The Heart of New Ulm Project: A Population-Based Program to Reduce Cardiovascular Disease,” is available at <http://tinyurl.com/j95chd4>.

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