ASSESSING THE HEALTH BENEFITS OF BICYCLE COMMUTING

The amount of bike commuting among Twin Cities adults and the estimated number of deaths prevented from that amount of biking were evaluated in this component of the study. Links were found between bicycling and common chronic diseases. This can be combined with average treatment costs to estimate the medical savings from bicycling. This is the first attempt to link bicycling with risk of death and illness in the Twin Cities Metro Area.

Goals of the study were to estimate the:
- economic impact of bicycling industry
- volume of bicycling infrastructure/facilities use
- economic impact of bicycling events
- health benefits of bicycle commuting

Why is this study needed?
Chronic diseases need ongoing medical care. Bicycling is one of the strategies to reduce chronic diseases and death rate among adult population. However, no previous research assessed the health benefits of bicycle commuting in Minnesota for a larger group of people.

Methodology
Data from the Coronary Artery Risk Development in Young Adults Study was studied. The study includes working adults in the Twin Cities area. That data informed the design of the Twin Cities Cyclist Survey, which was used to estimate reduced disease and illness due to bicycle commuting. The World Health Organization’s Health Economic Assessment Tool was used to estimate the economic value of reduced deaths because of bicycle commuting in the Twin Cities.
Findings

Bicycle commuting prevents 12 to 61 deaths per year

Bicycle commuting three times per week is linked to:
- 46% lower odds of metabolic syndrome
- 31% lower odds of obesity
- 28% lower odds of hypertension

How can this information be used?
While the research was conducted in the Twin Cities Metro Area, residents in other parts of Minnesota can also reap health benefits from bicycling. The findings provided state health and transportation officials and health care providers with multiple policy implications:

- Promote active transportation via bicycling as a type of physical activity that can be integrated into daily lives through policies and intervention programs, e.g., employers to incentivize bicycle commuting
- Develop consistent safety education and encouragement messages statewide to increase bicycle commuting
- Through policies and intervention programs, such as the Nice Ride program, health and transportation sectors can promote active commuting via bicycling as a type of physical activity that can be integrated into daily lives

Contacts
Sara Dunlap
Planner, Office of Transit
Minnesota Department of Transportation
Sara.Dunlap@state.mn.us

Mark Pereira, Ph.D.
Professor, Division of Epidemiology and Community Health
School of Public Health
University of Minnesota
Perei004@umn.edu

mndot.gov/bike/research/economic-health-impact.html