

Health Care Costs of Physical Inactivity in Minnesota

How active are Minnesotans?

- The consensus recommendation from the Centers for Disease Control and Prevention and the American College of Sports Medicine states “Every US adult should accumulate 30 minutes or more of moderate-intensity physical activity on most, preferably all, days of the week.” Brisk walking is an example of a moderate-intensity activity.
- In 2001, only a third of Minnesota adults knew the physical activity recommendation for general health.
- In 2000, only 27 percent of Minnesota adults achieved the recommended level of physical activity per week; 48 percent engaged in some form of physical activity, but not enough to meet the recommendation; and 25 percent engaged in no physical activity at all.
- In 1998, more than half of all 6th and 12th graders were ‘insufficiently active’.
- Disparities exist in the proportions of adults and children achieving the recommended levels of physical activity between subpopulations. The subpopulations that are less likely to achieve the recommended amounts of activity include females, older adults, less educated, lower income, obese, ethnic and racial minorities, and people with disabilities.

Health Consequences of Physical Inactivity

- Physical inactivity and diet combined are the second leading cause of preventable death and disease in the United States and a huge economic burden on the state.
- Nearly 60 percent of Minnesota adults are overweight and nearly 17 percent are obese.

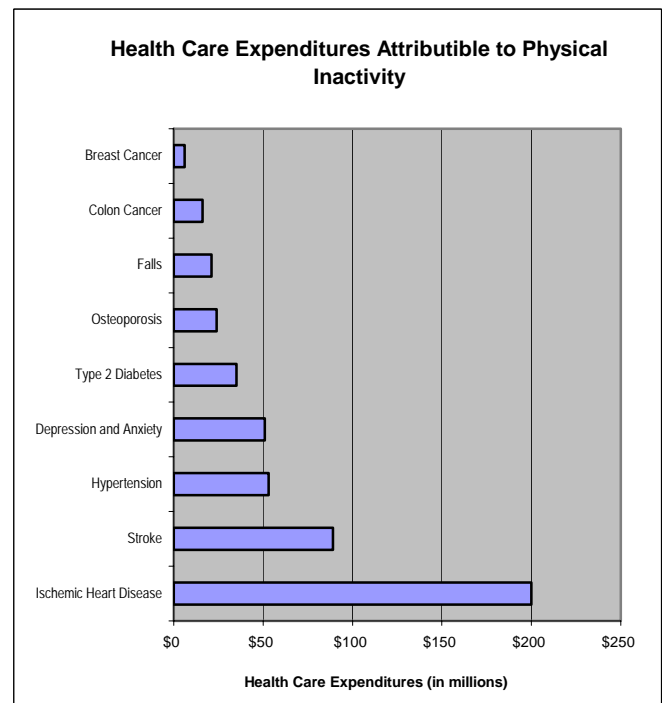
- The proportion of overweight or obese children in the United States has doubled in the last 20 years, to 13 percent.
- Mortality, morbidity, and cancer rates are higher among sedentary populations.
- Research has shown that many cases of heart disease, hypertension, type 2 diabetes, colon cancer, stroke, osteoporosis, depression and anxiety, breast cancer, and falls among the elderly are attributable to inactive lifestyles.

Direct Costs of Physical Inactivity

- **An estimated \$495 million were spent during 2000 treating diseases and conditions that would be avoided if all Minnesotans were physically active.**
 - \$383 million for hospital, outpatient, and professional expenses
 - \$112 million for outpatient prescription drugs.
 - This amount represents over 100 dollars annually for every man, woman, and child living in Minnesota.



Family Health Division
 Golden Rule Bldg. Suite 300
 85 E. Seventh Place
 St. Paul, MN 55164-0882
 (651) 281-9868
www.health.state.mn.us



Health Care Costs of Physical Inactivity in Minnesota - page 2

Other Costs of Physical Inactivity

- The total estimated amount spent treating conditions preventable with moderate physical activity, \$495 million, is likely an underestimate of the true costs attributable to physical inactivity for several reasons:
 - The analysis was limited to diseases with a strong link to physical inactivity established in the literature.
 - These costs represent only a portion of the total direct costs related to these diseases. Examples of other direct expenditures that are not included in this analysis include those incurred for long-term care treatment and those for which the condition was not listed as the primary diagnosis.
 - The indirect costs of productivity losses from illness and early death from these diseases are expected to add several hundred million dollars to this total.
 - Research linking physical inactivity to disease is relatively new. The number of diseases attributable to physical inactivity will likely increase as new studies are completed and published.

Sedentary Behavior is a Natural Response to our Environment

- Our culture increasingly values cars, television, computers, and convenience, making physical activity less a natural part of our lives.
- Newer communities are often designed without sidewalks or streetlights, decreasing walkability.
- Communities are designed with housing far from schools, shopping, or other activities, making walking or biking for transportation infeasible.
- Increasing traffic congestion and aggressive driving hampers the walkability of neighborhoods.

- More and more employees have sedentary jobs decreasing the amount of activity incurred during daily routines.
- Children are taking fewer physical education classes in school.

Activity can be Easy

- Achieving the recommended amount of physical activity is as simple as taking three ten-minute walks per day.
- Health benefits occur even with very modest increases in activity, even if the recommendation is not met.
- The largest benefits occur to those who were previously completely sedentary.
- Any incremental physical activity is beneficial to health.
- Vigorous exercise is very beneficial to health, but a brisk walk is beneficial as well.
- Little changes, such as parking farther away from the store or opting for the stairs instead of the elevator, go a long way toward promoting health and preventing disease.

Physical Activity Improves Lives

- Physical activity can help people live longer, healthier lives.
- A physically active Minnesota population would expect to see:
 - 30 percent fewer cases of heart disease, stroke, colon cancer, and osteoporosis
 - 18 percent fewer cases of type 2 diabetes and hypertension
 - 16 percent fewer injuries from falls in the elderly
 - 12 percent fewer cases of depression and anxiety
 - 5 percent fewer cases of breast cancer
- Physical activity can help the elderly maintain their independence longer.
- Physical activity improves mental health and well-being.

Health Care Costs of Physical Inactivity in Minnesota - page 3

- Physical activity is beneficial in managing many chronic conditions.
- Physical activity results in more productive employees by decreasing illness and absenteeism.
- Physical activity can help to reverse the trend of childhood obesity and type 2 diabetes.

Combating the Physical Inactivity Epidemic

- Environmental changes may result in more permanent lifestyle change than behavior modification.
- Active Community Environments, places where people of all ages and abilities can easily enjoy walking, bicycling, and other forms of recreation, should be promoted.
- Communities, schools, workplaces, and health care settings should be used to promote more active lifestyles.

The Reality of Physical Inactivity's Impact on Minnesota

Unless significant measures are taken, the deaths, diseases, and health care expenditures attributable to physically inactive lifestyles will only increase.

Acknowledgements

The report summarizes a study which was collaboratively conducted by researchers at the Minnesota Department of Health, BlueCross BlueShield BluePlus of Minnesota, and the University of Minnesota School of Public Health. Hospital discharge data was obtained from the Minnesota Hospital and Healthcare Partnership and claims data was provided by BlueCross and HealthPartners.

A full report of this study will be completed by August 1, 2002 and can be obtained at www.health.state.mn.us

Calculating the Direct Costs of Physical Inactivity

- The prevalence of physical inactivity among Minnesota adults and the relative risk for diseases with compelling relationships to physical inactivity are used to estimate the population attributable risk (PAR) for each disease.
- Hospital discharge data, medical claims data, and pharmaceutical data for all patients with a primary diagnoses of heart disease, hypertension, type 2 diabetes, colon cancer, stroke, osteoporosis, depression or anxiety, breast cancer, or a source of injury code of falls (if the patient was over age 64) were obtained, aggregated to the disease category level, extrapolated to the state population, and discounted to reflect amounts actually paid within each disease category.
- Using the PAR, the expenditure amount associated with physical inactivity is calculated from the total medical expenditure amount for each disease category.