

# Healthy Aging and Chronic Disease

## Chronic Disease in Minnesota

Over the last century, Americans experienced dramatic gains in life expectancy due largely to improved sanitation, better medical care and increased use of preventive health services. With this has come a major shift in the leading causes of death from infectious diseases and acute illnesses to chronic diseases and degenerative illnesses.

- Two thirds of all Minnesotans, who die each year, die from a chronic disease.
- Chronic diseases represent the leading causes of death in adults ages 50 to 64 as well as those over 65.
- About 80 percent of older Americans are living with at least one chronic condition and 50 percent have at least two chronic conditions.<sup>i</sup>

In addition, more than one third of adults age 65 years and older fall each year. Of those who fall, 20 to 30 percent suffer moderate to severe injuries that reduce mobility and independence, and increase the risk of premature death.<sup>ii</sup> Of Minnesotans, 25.4 percent of 45- to 54-year-olds, 29.4 percent of 55- to 64-year-olds, and 32.5 percent of those 65 and older reported being limited in activities because of physical, mental or emotional problems.<sup>iii</sup>

## Risk Factors for Chronic Disease

Although the risk of disease and disability increases with advancing age, poor health and declining quality of life are not inevitable consequences of aging. Family history is an important factor in all chronic diseases, but three key modifiable risk behaviors contribute significantly to the major causes of premature death and disability:

- Tobacco use
- Physical inactivity
- Poor diet.

Preventive efforts directed at the three key risk behaviors can be highly effective among the elderly in decreasing or delaying disease and disease complications, reducing pain and disability, and maintaining mobility and independence.

Modifiable Behaviors	All Minnesota Adults	Prevalence 65+ years
Tobacco Use <sup>iv</sup> -- Adults who are current smokers	21.1% (2003)	8.1 % (2003)
Physical Activity <sup>v</sup> -- No physical activity in the past month	15.8% (2004)	23.0 % (2004)
-- 30+ minutes of moderate physical activity five or more days <i>or</i> 20+ minutes of vigorous physical activity three or more days	49.0 % (2003)	42.1 % (2003)
Fruit & Vegetable -- Intake equals 5+ per day <sup>vi</sup>	24.5% (2003)	33.5 % (2003)

Heart disease, cancer, stroke, diabetes, osteoporosis, arthritis, hypertension, obesity and possibly Alzheimer's disease may be prevented, delayed or diminished in impact by addressing these behaviors at all ages.

Chronic diseases and conditions and poverty are interconnected. It is the poorest people who are most at risk of developing chronic diseases and conditions, developing complications and dying prematurely. Chronic diseases and conditions may also contribute to poverty as they affect the family's ability to maintain employment, insurance and income.<sup>vii</sup>

While overall rates for Minnesota adults for many chronic diseases and conditions are lower than the national average, significant disparities in death rate and rates of complications exist between racial and ethnic groups in the state. This is particularly true for diabetes, heart disease, stroke and cancer.<sup>viii</sup>

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### Strategies for Intervention

As with younger populations, effective intervention requires addressing not only individual behavior, but also addressing the community support systems and environmental conditions that will support healthy choices for adults. There is an important role for public health, health care providers, agencies on aging and community partners in creating and supporting environmental conditions and services that allow people to maximize their potential for healthy aging.<sup>ix</sup>

Some evidence-based strategies that can be implemented by communities include:

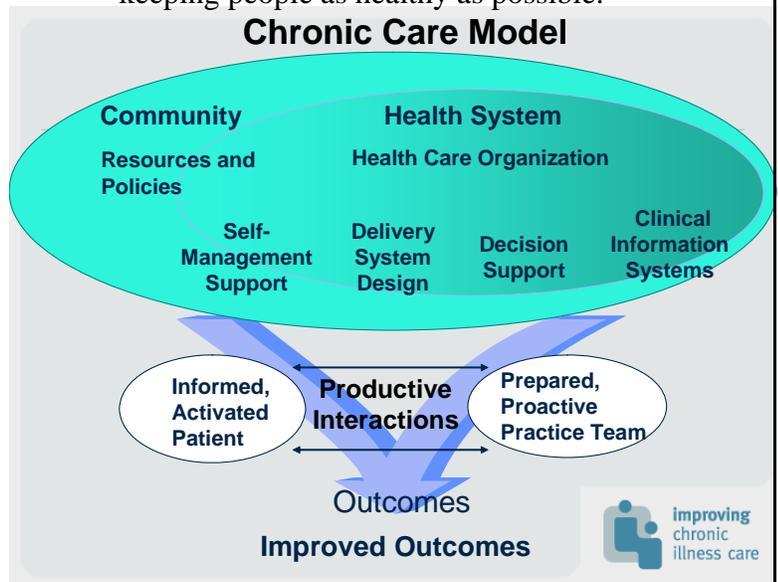
- Increasing the availability and accessibility of pedestrian-friendly environments and recreational facilities and activities for seniors
- Increasing the availability and accessibility of healthy foods, especially fruits and vegetables
- Creating smoke-free environments
- Improving systems to provide attention to medication management
- Increasing the availability of effective community-based chronic disease self-management education and smoking cessation programs
- Providing home safety assessment and assistance
- Improving systems to provide appropriate screening for chronic disease, falls and their risk factors.

*It is a mistake to regard age as a downhill grade toward dissolution. The reverse is true. As one grows older, one climbs with surprising strides.*

~George Sand

### Chronic Care Model

The Chronic Care Model can be used to identify essential components of a system that encourages high-quality chronic disease management working across the continuum of sectors in health, public health and the community. Using this model we can move from a system that is reactive to one that is proactive and focused on keeping people as healthy as possible.



The Chronic Care Model was developed by Ed Wagner, MD, MPH, Director of the W.A. MacColl Institute for Healthcare Innovation at the Center for Health Studies, Group Health Cooperative of Puget Sound, with support from The Robert Wood Johnson Foundation: [www.ihl.org/IHI/Topics/ChronicConditions/AllConditions/Changes/](http://www.ihl.org/IHI/Topics/ChronicConditions/AllConditions/Changes/)

<sup>i</sup> Centers for Disease Control and Prevention. Public health and aging: trends in aging—United States and worldwide. MMWR 2003;52(06):101-106.

<sup>ii</sup> Falls Free: Promoting a National Falls Prevention Action Plan, The National Council on the Aging, Home Safety Council, Archstone Foundation, 2005

<sup>iii</sup> Behavioral Risk Factor Surveillance System, Prevalence data, Minnesota 2003, [www.cdc.gov](http://www.cdc.gov),

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<sup>vi</sup> Behavioral Risk Factor Surveillance System, Prevalence data, Minnesota 2003, [www.cdc.gov](http://www.cdc.gov)

<sup>vii</sup> Preventing Chronic Diseases: A Vital Investment, WHO Global Report, WHO, 2005

<sup>viii</sup> Minority and Multicultural Health, Minnesota Department of Health, [www.health.state.mn.us](http://www.health.state.mn.us)

<sup>ix</sup> Public health and aging: Trends in aging—United States and worldwide. MMWR, February 14, 2003/52(06); 101-106