Minnesota Department of Health Fact Sheet October 2010

High Blood Pressure in Minnesota

What is High blood pressure?

- **High blood pressure**, or **hypertension**, is a condition in which the pressure of the blood against blood vessel walls is too strong.
- High blood pressure can cause damage to the vessels and lead to other problems, including heart disease, stroke, and kidney disease.
- Your blood pressure reading includes two numbers. The **systolic blood pressure** measures the pressure as the heart pumps blood into the arteries, and the **diastolic blood pressure** measures the pressure as the heart rests between beats. These numbers are read as systolic over diastolic (for example, 120 over 80).

What does your blood pressure reading mean?

- **Normal blood pressure: systolic** less than **120** and **diastolic** less than **80**
- **Prehypertension: systolic** of **120 to 139** or **diastolic** of **80 to 89**
- **High blood pressure (hypertension): systolic** of **140 or higher** or **diastolic** of **90 or higher**
- Your blood pressure can fluctuate with activity, posture, movement, and other factors. This is why it is important to take your blood pressure after rest in a sitting position.
- A single high reading does not mean that you have high blood pressure, but if your values stay high over time, your health care provider may recommend a treatment program.
- Unusually low blood pressure should also be evaluated by your health care provider.

What are the risk factors for high blood pressure that cannot be changed?

Age: Blood vessels become less flexible as we age, increasing blood pressure throughout the circulatory system.

Sex: Up until age 45, men are more likely to experience high blood pressure than women, but above age 65, women are more likely to have high blood pressure than men.

Race/ethnicity: African Americans are more likely to experience high blood pressure than other racial groups.

Family history: Several studies have shown the risk of high blood pressure is increased for individuals with family members who have high blood pressure. This includes not only shared genes, but also the sharing of cultural, environmental, and lifestyle factors within families that increase risk of high blood pressure.

What are the risk factors for high blood pressure that can be changed?[1]

High sodium consumption/poor diet: Diets high in sodium (salt) are directly associated with increased blood pressure. The average daily consumption of sodium by Americans is more than twice the recommended level for the majority of adults, and has increased significantly since the 1970s. Diets high in sodium are also often high in calories, fat and sugars. These diets lower in nutritional value contribute directly to poor health in addition to obesity. [2]

Physical inactivity: Several studies have shown that physical inactivity increases the risk of hypertension. Fewer than half of all Minnesota adults get the recommended amount of exercise or physical activity. As of 2009, 16% of adults in Minnesota are not physically active at all. [1]

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Overweight and obesity: A growing body of evidence shows that blood pressure increases with weight. In Minnesota, 62% of adults are overweight, including 25% who are obese (2009 data).[1]

Drinking too much alcohol: Heavy and regular use of alcohol can increase blood pressure. In 2009, 5% of Minnesota adults reported being heavy drinkers (more than 2 drinks per day for men or more than 1 drink per day for women).[1]

How can blood pressure be controlled?

Know your numbers: If you have high blood pressure, you should have it checked at each visit with your healthcare provider. You should discuss strategies for reaching your blood pressure goal with your provider. Lifestyle changes, such as eating a healthier diet, increasing physical activity, reducing your weight and reducing your intake of alcohol are all strategies that may help to reduce blood pressure.

Medication: Your health care provider may also recommend antihypertensive medications to control high blood pressure. These medications include diuretics, beta blockers, vasodilators, ACE inhibitors, and calcium channel blockers. It can take some fine tuning to find the right dose and combination of medications to effectively lower blood pressure.

How common is high blood pressure?

- In 2009, approximately 21.6% of Minnesota adults reported having high blood pressure – more than 850,000 people, lower than all other states.[1]
- In 2006, the death rate for Minnesotans with hypertension as the underlying or contributing cause of death was 92.5 per 100,000, 11% lower than the national rate (103.7 per 100,000).[3]

Are there disparities in high blood pressure rates in Minnesota?

- Most notably in Minnesota, 27% of African Americans report high blood pressure, compared to 21.7% of whites, similar to the US pattern.[1]

What are the economic costs of high blood pressure?

- In the United States, Americans incur over $76.6 billion in medical costs related to hypertension annually.[4]

How well is high blood pressure being controlled?

- Of Minnesota adults with high blood pressure, approximately 86.5% (more than 740,000 people) reported that they were taking medications prescribed to reduce their blood pressure.[1]
- All but 2% of Minnesota adults with high blood pressure reported that they were taking some action to reduce their blood pressure, either taking medication, changing their eating habits, reducing or eliminating their use of salt, reducing or eliminating their use of alcohol, or increasing their exercise.[1]
- In 2008, 69% of Minnesotans aged 18-85 who received a diagnosis of hypertension had their blood pressure adequately controlled to 140/90 mm Hg or lower after the diagnosis.[5]

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[1] Minnesota Behavioral Risk Factor Surveillance System Survey.

[2] CDC DHDSP. Sodium Fact Sheet April 2010. Online at: http://www.cdc.gov/salt/pdfs/Sodium_Fact_Sheet.pdf.

[3] Centers for Disease Control and Prevention , National Center for Health Statistics. Multiple Cause of Death File 2005-2006. CDC WONDER On-line Database, compiled from Multiple Cause of Death File 2005-2006 Series 20 No. 2L, 2009. Accessed at http://wonder.cdc.gov/mcd-icd10.html

[4] Lloyd-Jones D, et al. Heart Disease and Stroke Statistics – 2010 Update. A report from the American Heart Association Statistics Committee and Stroke Statistics Subcommittee. Circulation. 2010; 121:e46-e215.

[5] Minnesota Community Measurement 2009 Health Care Quality Report. Online at: http://mncm.org/site/upload/files/Final_2009_Health_Care_Quality_Report_12.9.09.pdf