Chronic Obstructive Pulmonary Disease (COPD) is a group of lung diseases that makes it difficult to breathe. Other names for COPD include emphysema and chronic bronchitis. COPD is the fifth leading cause of death in Minnesota. An estimated 164,000 Minnesotans are living with COPD.

Smoking is the leading cause of COPD. Other risk factors for COPD are long-term workplace exposure to certain environmental lung irritants and genetic predisposition. There is no cure, but measures can be taken to prevent COPD, slow the progression of the disease and prevent COPD exacerbations, including:

- Quit smoking
- Avoid exposures to environmental tobacco smoke, air pollution and certain gases, fumes and dusts in the workplace
- Take precautions against influenza and respiratory infections
- Take medications as prescribed by your health care provider

Partnership

The American Lung Association is the leading organization working to save lives by improving lung health and preventing lung disease through education, advocacy and research. The mission of the Minnesota COPD Coalition is to improve the health outcomes of patients with COPD by working with patients, caregivers and the health care community to increase awareness, increase early diagnosis and improve treatment and management.

The Minnesota Department of Health’s Environmental Public Health Tracking (MN EPHT) Program gathers and analyzes data about the environment, people’s exposure to environmental hazards, and health effects such as COPD that might be related to the environment. MN EPHT makes these data available on Minnesota Public Health Data Access (MNPH Data Access) (https://apps.health.state.mn.us/mndata/), an online query and information system.

Key Findings

- COPD was once more common among men, but women are closing the gap. COPD prevalence, hospitalization rates and emergency department visit rates are similar for both genders. Men still die at higher rates of COPD, but their rates are declining.

- Native Americans die from COPD at higher rates than other racial groups in Minnesota. COPD prevalence is higher among people with lower education and income.

- Beginning October 1, 2014, the Centers for Medicare & Medicaid Services may reduce reimbursements to hospitals for COPD patients readmitted for any cause within 30 days of initial discharge. The current trend of increasing emergency department visits and decreasing hospitalizations due to COPD may accelerate as a result of the rule change. The higher frequency of co-morbid conditions among those with COPD may greatly affect readmission rates.

- There is opportunity for improved management of COPD. Over 44% of Minnesotans with COPD do not take any daily medication for their COPD and about 35% still smoke.
4.1% of Minnesotans Have COPD
In 2011, 4.1% of Minnesotans reported ever being told they had COPD. That translates to an estimated 164,652 people living with COPD in Minnesota. The prevalence of COPD in the U.S. is 6.1%.

COPD Prevalence Rises with Age
The prevalence of COPD rises with age for both men and women. COPD prevalence was highest among men and women ages 75-84. COPD was once more common in men, but the disease now affects men and women almost equally. This is due in part to increased tobacco use among women after WWII. Among all ages, 3.9% of men and 4.3% of women have COPD.

COPD Prevalence by Age Group and Gender, Minnesota, 2011

Source: MN BRFSS, 2011

COPD is Negatively Correlated to Income and Education
COPD prevalence decreases with increasing household income and increasing level of educational attainment. COPD prevalence is slightly higher in Greater Minnesota than in the 7-county metro area of Minneapolis/St. Paul.

COPD Prevalence by Selected Characteristics, Minnesota, 2011

<table>
<thead>
<tr>
<th>Household Income</th>
<th>Ever told you have COPD?</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;$15,000</td>
<td>Yes: 8.6%</td>
</tr>
<tr>
<td>$15,000-24,999</td>
<td>Yes: 7.6%</td>
</tr>
<tr>
<td>$25,000-34,999</td>
<td>Yes: 5.0%</td>
</tr>
<tr>
<td>$35,000-49,999</td>
<td>Yes: 3.4%</td>
</tr>
<tr>
<td>$50,000+</td>
<td>Yes: 1.9%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Educational Attainment</th>
<th>Ever told you have COPD?</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;High School</td>
<td>Yes: 7.5%</td>
</tr>
<tr>
<td>High School Graduate</td>
<td>Yes: 5.7%</td>
</tr>
<tr>
<td>Some College</td>
<td>Yes: 3.5%</td>
</tr>
<tr>
<td>College Graduate</td>
<td>Yes: 2.1%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Area of Residency</th>
<th>Ever told you have COPD?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Twin Cities Metro</td>
<td>Yes: 3.7%</td>
</tr>
<tr>
<td>Greater Minnesota</td>
<td>Yes: 4.3%</td>
</tr>
</tbody>
</table>

Source: MN BRFSS, 2011

COPD is an Employment Issue
About one-fifth of Minnesota adults unable to work in 2011 reported having COPD. According to the American Lung Association in Minnesota’s 2006 Lung Health Questionnaire findings, two out of three adults with COPD in Minnesota report being diagnosed before the age of 65, making COPD an employment issue.

COPD Prevalence by Employment Status, Minnesota, 2011

<table>
<thead>
<tr>
<th>Employment Status</th>
<th>Ever told you have COPD?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wages</td>
<td>Yes: 2.0%</td>
</tr>
<tr>
<td>Self-employed</td>
<td>Yes: 2.0%</td>
</tr>
<tr>
<td>Unemployed</td>
<td>Yes: 5.2%</td>
</tr>
<tr>
<td>Homemaker</td>
<td>Yes: 3.3%</td>
</tr>
<tr>
<td>Student</td>
<td>Yes: 1.1%</td>
</tr>
<tr>
<td>Retired</td>
<td>Yes: 9.2%</td>
</tr>
<tr>
<td>Unable to Work</td>
<td>Yes: 21.7%</td>
</tr>
</tbody>
</table>

Source: MN BRFSS, 2011

One-third of Those with COPD Still Smoke
Smoking is the leading cause of COPD. In 2011, 79.3% of people who have COPD in Minnesota smoke or used to smoke. Smoking cessation is important in preventing and managing COPD. Over 43% of Minnesotans with COPD have quit smoking.

Smoking Status Among Adults with COPD, Minnesota, 2011

Source: MN BRFSS, 2011
Hospitalizations Decrease as ED Visits Rise
Beginning October 1, 2014, Center for Medicare Services (CMS) may reduce reimbursements to hospitals for COPD patients discharged who then readmit within 30 days. One possible result of these reductions is a continuing shift from admissions to emergency department visits. The cost per hospitalization continues to increase despite the decline in admissions. In 2011, the average cost per hospitalization (excluding professional fees) was $20,151, up from $17,542 in 2008.

Co-morbid Conditions Often Accompany COPD
Co-morbid conditions are very common in people with COPD. Other chronic medical conditions can increase overall morbidity for COPD patients. The most common co-morbid conditions are Ischemic Heart Disease (IHD), lower respiratory infection, diabetes and renal disease. Beginning October 1, 2014, CMS may reduce reimbursements to hospitals for COPD patients readmitted for any cause within 30 days of initial discharge.

More Women Have Died From COPD Than Men Since 2005
In 2010, 1,921 Minnesotans died from COPD. Death rates for COPD have declined for men between 2000 and 2010 but are unchanged for women. Although COPD death rates are higher among men than women, more women have died from COPD since 2005.
Disparities in COPD Mortality

American Indian Minnesotans had the highest death rates due to COPD in 2001-2005 and 2006-2010. Whites had the next highest mortality rate, followed by Blacks and Asians. Nationally, American Indians/Alaskan Natives have the highest smoking rates, at 31.4% for adults and 56.5% for high school students. All racial groups’ rates decreased from 2001-2005 to 2006-2010.

**COPD Mortality by Race**

Source: Minnesota Department of Health, Center for Health Statistics and Minnesota Environmental Public Health Tracking, 2001-2010

Notes: COPD mortality defined as underlying cause of death ICD-10 J40-J44. Age-adjusted mortality rates are standardized to the year 2000 population.

**FOR ADDITIONAL INFORMATION ON COPD, THE ENVIRONMENT AND RISK FACTORS, VISIT MINNESOTA PUBLIC HEALTH DATA ACCESS:**

https://apps.health.state.mn.us/mndata/

**FOR ADDITIONAL INFORMATION ON COPD AND RELATED ISSUES, VISIT LUNG HELPLINE:**

1-800-LUNG-USA

www.LungMN.org

**AMERICAN LUNG ASSOCIATION IN MINNESOTA**

490 Concordia Ave
St. Paul, MN 55103
651-227-8014
www.LungMN.org

For more information about the Scope of COPD in Minnesota or the Minnesota COPD Coalition, please contact:

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651-223-9578
jill.Heins@LungMN.org

**SOURCES**

1 Minnesota Department of Health, MN BRFSS 2011 and Minnesota Environmental Public Health Tracking. The Behavioral Risk Factor Surveillance System (BRFSS) is a joint Centers for Disease Control and Prevention (CDC)/state telephone survey which asks randomly-selected non-institutionalized adults age 18 years and older about risk factors and health practices. The Minnesota BRFSS operates through the Minnesota Department of Health, Center for Health Statistics.

