

THE SCOPE OF COPD

IN MINNESOTA

2013 Update



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 (MNPB Data Access) (<https://apps.health.state.mn.us/mndata/>), an online query and information system.

Key Findings

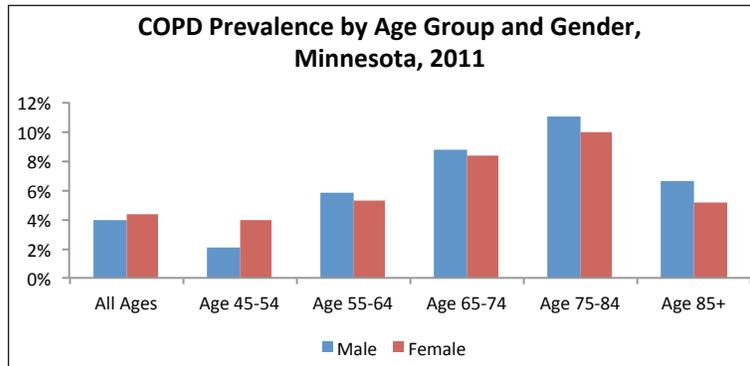
- COPD was once more common among men, but women are closing the gap. COPD prevalence, hospitalization rates and emergency department visit rates are similar for both genders. Men still die at higher rates of COPD, but their rates are declining.
- Native Americans die from COPD at higher rates than other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



Source: MN BRFSS, 2011 ⁱ

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 ⁱ

Characteristic	Ever told you have COPD?	
	Yes	No
Household Income		
<\$15,000	8.6%	91.4%
\$15,000-24,999	7.6%	92.4%
\$25,000-34,999	5.0%	95.0%
\$35,000-49,999	3.4%	96.6%
\$50,000+	1.9%	98.1%
Educational Attainment		
<High School	7.5%	92.5%
High School Graduate	5.7%	94.3%
Some College	3.5%	96.5%
College Graduate	2.1%	97.9%
Area of Residency		
Twin Cities Metro	3.7%	96.3%
Greater Minnesota	4.3%	95.7%

Source: MN BRFSS, 2011 ⁱ

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.

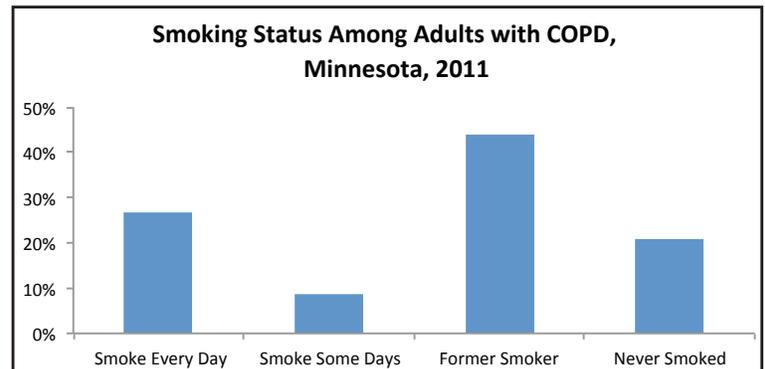
COPD Prevalence by Employment Status Minnesota, 2011 ⁱ

Employment Status	Ever told you have COPD?	
	Yes	No
Wages	2.0%	98.0%
Self-employed	2.0%	98.0%
Unemployed	5.2%	94.7%
Homemaker	3.3%	94.8%
Student	1.1%	98.9%
Retired	9.2%	90.8%
Unable to Work	21.7%	78.3%

Source: MN BRFSS, 2011 ⁱ

One-third of Those with COPD Still Smoke

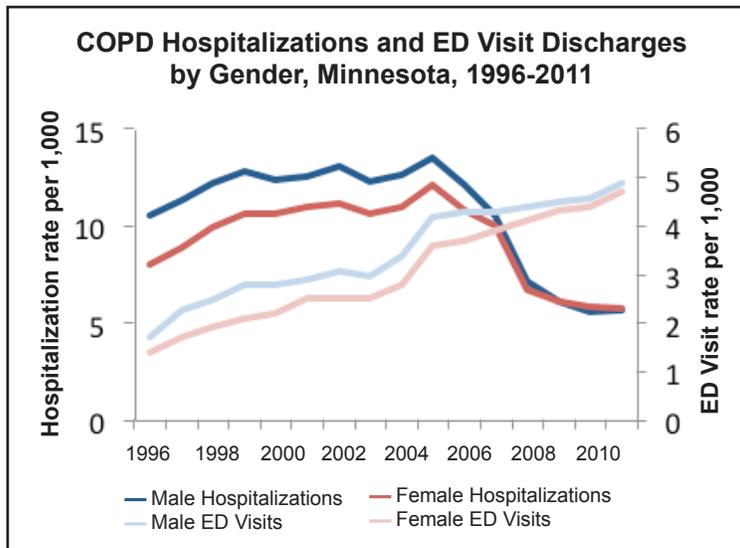
Smoking is the leading cause of COPD. In 2011, 79.3% of people who have COPD in Minnesota smoke or used to smoke. Smoking cessation is important in preventing and managing COPD. Over 43% of Minnesotans with COPD have quit smoking.



Source: MN BRFSS, 2011 ⁱ

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.

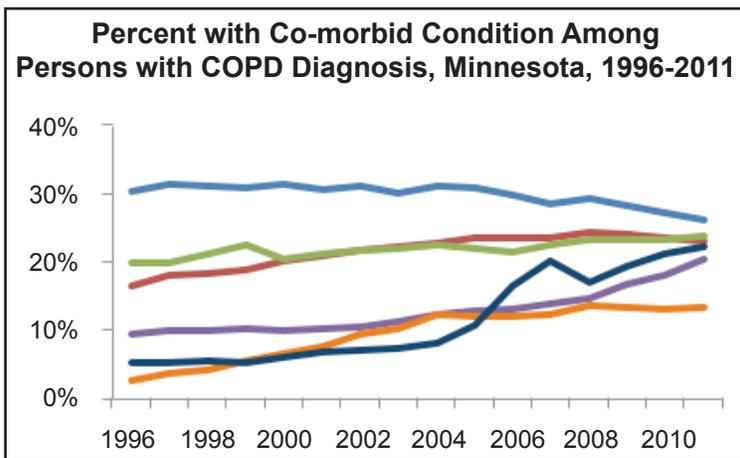


Source: Minnesota Hospital Association

Notes: COPD as primary or first secondary diagnosis, ICD-9 491-492, 496.XX. Rates are not age-adjusted.

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.



Source: Minnesota Hospital Association

Notes: COPD as any diagnosis, ICD-9 491-492, 496.XX Co-morbid conditions as any diagnosis. Co-morbid conditions included if over 10% in 2011.

Daily COPD Medication Underutilized

Among Minnesota adults with COPD, over a quarter have never received a spirometry test, the standard for COPD diagnosis. Over 44% do not take any daily medication for their COPD. Taking medications as prescribed by a doctor can help prevent COPD exacerbations.

Among Minnesota adults with COPD, 40.4% reported having gone to a physician and 17.5% reported visiting an emergency room or were admitted to the hospital in the past year due to COPD.

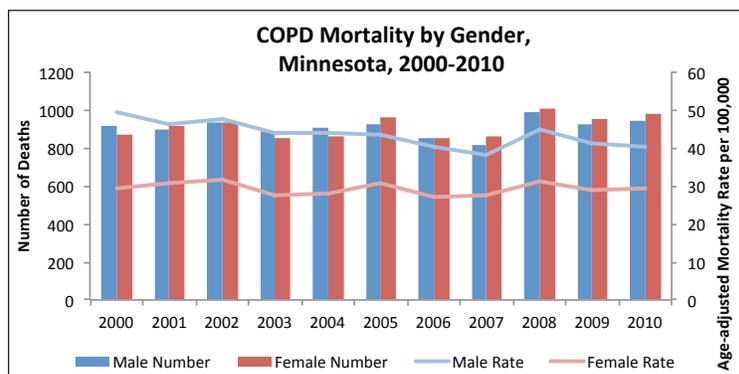
Percent of Minnesotans in 2011 with COPD Who:

	Yes	No
Have ever been given a breathing test to diagnose their COPD	72.6%	27.4%
Take at least one medication daily for COPD	57.5%	42.5%
Had to see a doctor in the past 12 months for symptoms related to shortness of breath, bronchitis, or other COPD, or emphysema flare	40.4%	59.6%
Had to visit an emergency room or be admitted to the hospital in the past 12 months because of COPD	17.5%	82.5%

Source: MN BRFSS, 2011¹

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.

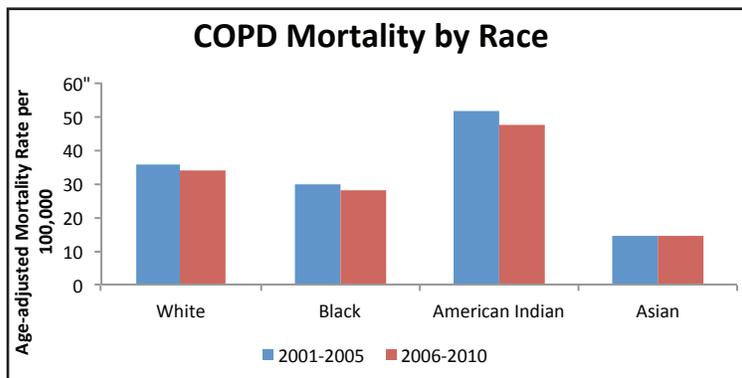


Source: Minnesota Department of Health, Center for Health Statistics and Minnesota Environmental Public Health Tracking, 2000-2010

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

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. ^{iv} All racial groups' rates decreased from 2001-2005 to 2006-2010.



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.

SOURCES

ⁱ 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.

ⁱⁱ Centers for Disease Control and Prevention (CDC). Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2011.

ⁱⁱⁱ CMS Proposals for the Physician Value-based Payment Modifier Under the Medicare Physician Fee Schedule; CMS National Provider Call: Physician Feedback and Value-based Modifier Program: Centers for Medicare and Medicaid Services. 1 Aug 2012. Microsoft Word PowerPoint.

^{iv} "Native Americans and Tobacco Use" TobaccoFreeKids.org. n.p. 15 Sep 2011. Web. 3 Jan 2013. PDF file.

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

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



Minnesota
Environmental
Public Health
Tracking

651-201-5900
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FOR ADDITIONAL INFORMATION ON COPD AND RELATED ISSUES, VISIT LUNG HELPLINE: 1-800-LUNG-USA www.LungMN.org



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