## **Chronic Obstructive Pulmonary Disease**

#### DESCRIPTION

Chronic Obstructive Pulmonary Disease (COPD) is an umbrella term used to describe progressive lung diseases such as emphysema and chronic bronchitis. This disease is characterized by chronic cough, wheezing, fatigue, respiratory infections, excess mucus and increasing breathlessness. The prevalence of COPD rises with age and affects an estimated 30 million individuals in the U.S. Roughly half the people who have COPD have not been diagnosed. Early screening can identify COPD before major loss of lung function occurs.<sup>1</sup>

#### HOW ARE WE DOING

Among Minnesota males, death rates from COPD are 40 per 100,000 people compared to the lower rate among females of 30.9. However, larger numbers of women die of COPD because there are more women in older age groups. There is a lower prevalence of COPD in Minnesota than there is in the U.S. In 2014, about 4.4 percent of Minnesotans reported having COPD, compared with 6.4 percent nationally. During 2012- 2014, the rate for COPD related hospitalizations in Ramsey County, was 13.3 per 10,000 residents over age 25. This was the third highest rate in the seven-county metro area, behind Anoka and Scott County.<sup>2</sup> A recent Minnesota Department of Health report found that Minnesota spent \$1.9 billion or \$31,100 per person on COPD care in 2012. This accounted for 7.1 percent of all health care spending that year. The costs and suffering associated with this disease are largely preventable.<sup>3</sup>

#### BENCHMARK INDICATOR

Healthy People 2020: Reduce deaths from chronic obstructive pulmonary disease in adults aged 45 and over.

U.S. Target: 102.6 deaths per 100,000 population.

Healthy People 2020: Reduce the number of hospitalizations for COPD.

U.S. Target: 50.1 per 10,000 population.4

#### **DISPARITIES**

The prevalence of COPD is higher in males and low-income populations. COPD is a progressive disease so the prevalence of COPD increases with age, with hospitalization rates highest among adults over 65. Death rates from COPD are highest among American Indians, followed by white, African-American, Asian and Hispanic populations.

#### **RISK FACTORS**

Common Risk Factors for developing COPD:¹Smoking is the leading cause of COPD. About 80 percent of people who have COPD are former or current smokers. COPD can also develop in those who have long-term contact with harmful pollutants, either in the workplace, or home. This includes second-hand smoke, some organic cooking fuels, chemicals, dust or fumes. Genetics can play a factor in development of COPD; Alpha-1 Antitrypsin Deficiency (AATD) is the most commonly known genetic risk factor for emphysema.

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## <sup>1</sup> What is COPD? COPD Foundation Web site. https://www.copdfoundation.org/What-is-COPD/Understanding-COPD/What-is-COPD.aspx .Accessed September 12, 2017

# Information to note

- In 2014, 4.4% of Minnesotans reported having COPD, compared to 6.4 percent nationally.
- During 2012 2014, the rate for COPD related hospitalizations among Ramsey County residents was 13.3 per 10,000 over age 25.

<sup>&</sup>lt;sup>2</sup> CHRONIC CONDITIONS IN MINNESOTA: New Estimates of Prevalence, Cost and Geographic Variation for Insured Minnesotans, 2012. Minnesota Department of Health Web site. http://www.health.state.mn.us/divs/hpsc/hep/publications/costs/20160127\_chronicconditions.pdf. Accessed October 30, 2017.

<sup>&</sup>lt;sup>3</sup> Minnesota's yearly COPD costs top \$1.9 billion. Minnesota Department of Health Web site. http://www.health.state.mn.us/news/pressre/2016/copd111516.html. Accessed November 5, 2017.

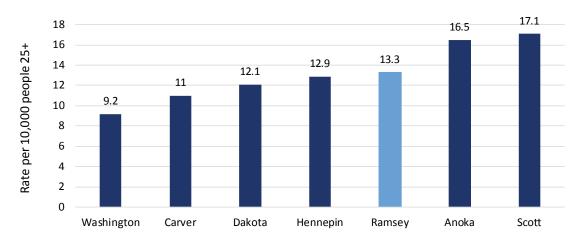
<sup>&</sup>lt;sup>4</sup> Centers for Disease Control and Prevention. Healthy People 2020. Accessed January 2018 from https://www.healthypeople.gov/2020/topics-objectives

### **Chronic Obstructive Pulmonary Disease**

#### WHAT RAMSEY COUNTY GOVERNMENT IS DOING

Saint Paul - Ramsey County Public Health provides data monitoring and reporting for this topic in order to better understand the overall health and current conditions in the community. The information may help inform community partners, policy makers or county program leadership.

COPD Hospitalizations, Adults Age 25+ Years, 2012- 2014



Source: MN Public Health Data Access - COPD Hospitalizations.<sup>5</sup>

<sup>&</sup>lt;sup>5</sup> MN Public Health Data Access- COPD Hospitalizations. Minnesota Department of Health Web site. https://apps.health.state.mn.us/mndata/webmap/copd.html#. Accessed September 12, 2017.