

Prevalence of Chronic Obstructive Pulmonary Disease Results from the 2013 Indiana BRFSS

Chronic Obstructive Pulmonary Disease (COPD) refers to a group of diseases that cause airflow blockage and breathing-related problems. It includes emphysema, chronic bronchitis, and in some cases, asthma. More than 50% of adults with low pulmonary function were not aware that they had COPD. Smoking is a major factor in the development and progression of COPD, though exposure to air pollutants in the home and workplace, genetic factors, and respiratory infections are also involved (Centers for Disease Control and Prevention, CDC). The condition is preventable, but not curable (Global Initiative for Chronic Obstructive Lung Disease). COPD makes up the majority of chronic lower respiratory diseases (CLRD). In 2013, there were 4,257 resident deaths due to CLRD, making it the third leading cause of death overall as well as for males and females in Indiana.

Background

COPD is not a reportable condition; thus the prevalence must be obtained from another source. The Behavioral Risk Factor Surveillance System (BRFSS) survey uses a complex sample design to randomly select respondents with either listed or unlisted landline and cell telephones. The CDC established the BRFSS in 1984 to gather information on the health of adults ages 18 years and older regarding their health-related risk behaviors, chronic health conditions, and use of preventive services. Through a cooperative agreement with the CDC, state health departments conduct the BRFSS surveys continuously through the year using a standardized set of core questions and optional modules. The BRFSS is the primary source of state-level health risk factors, behaviors, and prevalence of certain chronic conditions. The BRFSS relies on self-reported data. This type of survey has certain limitations that should be understood when interpreting the data. Respondents have the tendency to underreport behaviors that may be considered socially unacceptable, such as smoking. Conversely, respondents may overreport behaviors that are desirable, such as physical activity. The differences reported in this article are statistically significant ($p < 0.05$) unless otherwise noted.

According to the CDC, the following groups were more likely to report COPD: women; adults ages 65-74 years; non-Hispanic whites; individuals who were unemployed, retired or unable to work; those with less than a high school education; those with lower incomes; individuals who were divorced, widowed, or separated; current or former smokers; and those with a history of asthma.

The information on COPD prevalence for this article was obtained from the 2013 BRFSS survey. Respondents were asked if a doctor, nurse, or other health professional had ever told them that they had chronic obstructive pulmonary disease, emphysema, or chronic bronchitis. The national median was 6.5%.

Results

Overall, 8.0% of Indiana adults (approximately 400,000) reported they had ever been told by a doctor, nurse or other health professional that they had COPD (Table 1). Females were more likely than males to report COPD. The prevalence of COPD increased with increasing age and decreased with increasing education (results for income were similar to those for education). There were no differences among race, and Hispanic adults were less likely to report COPD than white, black and other/multiracial, non-Hispanic adults.

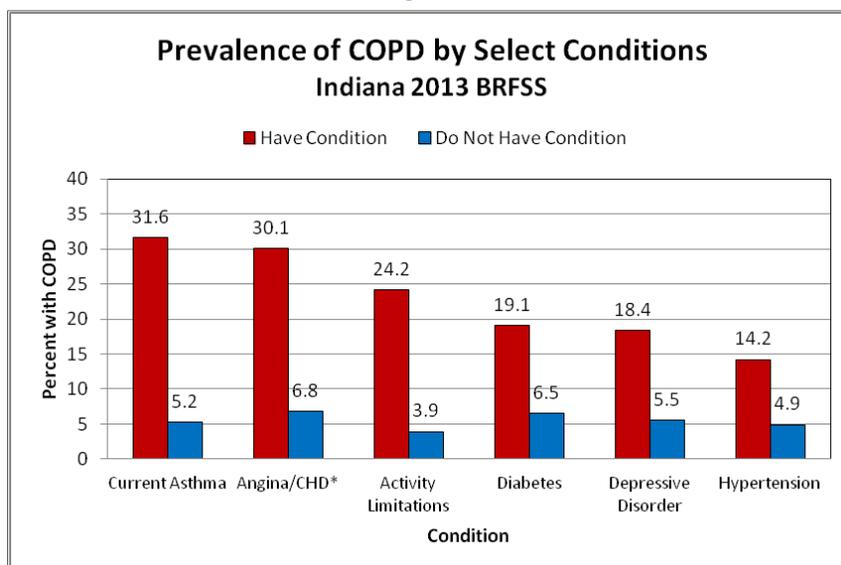
Respondents were asked about their general health status, with responses ranging from excellent to poor. Adults with COPD were more likely than those without to report fair or poor health (47.3% vs. 14.6%, respectively). BRFSS respondents were also asked about days in the past month when their physical and mental health was not good, and for those reporting one or more days, how many days that poor physical or mental health keep them from doing their usual activities, such as work, self-care or recreation. Respondents with COPD were more likely than those without COPD to report 14 or more days of poor physical health (43.4% vs. 9.7%, respectively), 14 or more days of poor mental health (27.9% vs. 11.0%, respectively), and 14 or more days without being able to do their usual activities (36.4% vs. 12.0%, respectively).

Adults with COPD were more likely than those without COPD to report conditions such as current asthma, angina/coronary heart disease, diabetes, and activity limitations (Figure 1).

Table 1. Ever Told Have COPD, Indiana Adults, 2013

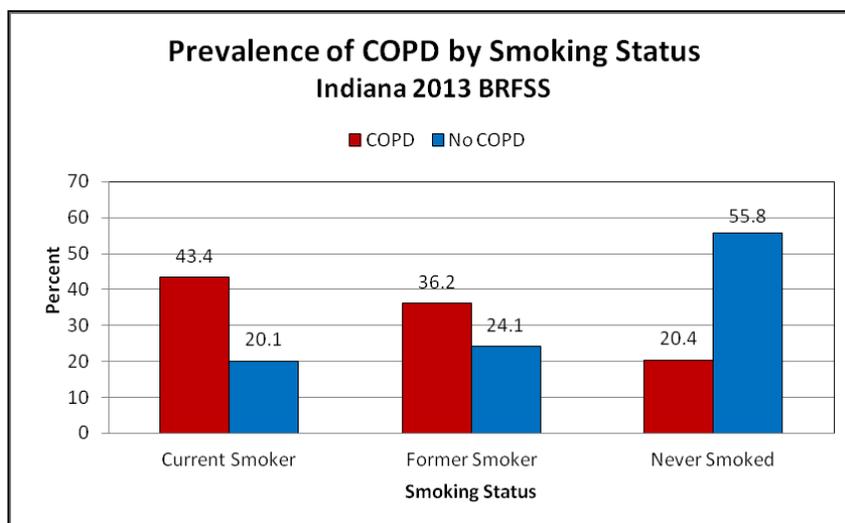
	%	95% Confidence Interval
Total	8.0	(7.4-8.6)
Sex		
Male	6.8	(5.8-7.8)
Female	9.2	(8.4-10.0)
Race/Ethnicity		
White, non-Hispanic	8.3	(7.7-8.9)
Black, non-Hispanic	7.2	(4.8-9.6)
Other/Multiracial, non-Hispanic	12.7	(8.2-17.1)
Hispanic	1.8	(0.0-3.6)
Age		
18-24	1.5	(0.3-2.7)
25-34	1.9	(0.9-2.9)
35-44	5.6	(4.0-7.2)
45-54	10.3	(8.5-12.1)
55-64	12.1	(10.3-13.9)
65+	14.4	(13.0-15.8)
Education		
Less than HS	15.5	(13.0-18.0)
HS or GED	8.7	(7.7-9.7)
Some College or Tech. School	7.3	(6.3-8.3)
College Graduate	2.7	(2.1-3.3)

Figure 1



Respondents who were current or former smokers were more likely than those who never smoked to report having COPD (Figure 2).

Figure 2



The survey asked if respondents have one person they think of as their personal doctor or health care provider. While there were no differences between adults with and without COPD for having only one person (approximately 73%), those with COPD were more likely than those without to report having more than one person they thought of as their personal doctor (12.7% vs. 7.3%, respectively). Adults with COPD were less likely than those without to report not having a personal doctor (12.5% vs. 20.2%, respectively).

Adults with COPD were more likely than those without COPD to report that there was a time in the past 12 months when they needed to see a doctor but could not because of cost (27.0% vs. 14.4% respectively.)

Treatment

Treatment of COPD requires a thorough evaluation by a physician, and treatment can alleviate symptoms, decrease the frequency and severity of exacerbations, and increase exercise tolerance. Treatment options include medication, pulmonary rehabilitation, physical activity training, and oxygen treatment. For those with COPD who smoke, cessation is a very important part of treatment, along with avoiding tobacco smoke and removing all other air pollutants from their home and workplace. An annual flu vaccination is recommended (CDC); however, in 2013 only 46% of adults with COPD reported having had a flu shot/spray in the past 12 months.

For additional information on COPD, please visit <http://www.cdc.gov/copd/index.html>.
<http://www.IN.gov/quitline/>

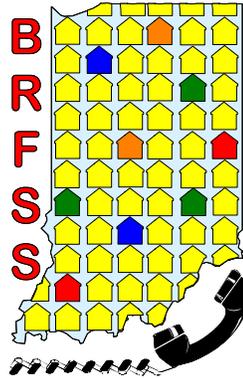




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