

Indicator #21: Asthma Among Adults Caused or Made Worse By Work

Background and Public Health Significance

Asthma is a chronic inflammatory disease of the airways that affects millions of adults in the US. Work-related asthma refers to asthma that is caused by or worsened by exposures in the workplace. It has been estimated that 36% to 58% of adult asthma is caused or made worse by workplace exposures, which translates to approximately 9.7 million adults in the US (Knoeller, Mazurek, & Moorman, 2011). Even with this shocking statistic, work-related asthma continues to be underdiagnosed.

Data source: BRFSS Asthma Call Back Survey

The Asthma Call Back Survey contain multiple questions related to the work-relatedness of a respondent's asthma and these questions are administered to adults 18 or older. Four of the questions ask about asthma caused or made worse by the respondents current or previous jobs. Two other questions ask about whether the respondent was told by or ever told their health care provider that their asthma was work related.

NOTE: Virginia only participated in the BRFSS Asthma Call Back Survey for the years 2008 and 2009. Therefore, data is only available for these years.

Rationale:

Work-related asthma is preventable but often goes undiagnosed by physicians. Research has shown that work-related asthma can have adverse effects on the worker, including increased morbidity, adverse socioeconomic impacts and difficulty getting and sustaining work. Estimating the burden of asthma caused or made worse by work can help target prevention programs and activities.

In 2009, the weight estimated number of ever-employed adults in Virginia with current asthma who report that their asthma was caused or made worse by exposures at work was **18,670**.

In 2009, an estimated **45%** of ever-employed adults with current asthma reported that their asthma was caused or made worse by exposures at work.

Limitations

The data represents a population-based estimate of asthma caused or made worse by work and are subject to measurement, nonresponse and sampling errors. The indicator does not distinguish between new-onset asthma and work-aggravated asthma.

The Asthma Call Back Survey is an in-depth asthma survey conducted among Behavioral Risk Factor Surveillance System (BRFSS) respondents who report an asthma diagnosis and agree to participate. BRFSS is a cross-sectional telephone health survey of non-institutionalized adults being collected on a monthly bases in all 50 states, the District of Columbia, Puerto Rico, the U.S. Virgin Islands, and Guam. Not all states participate in the ACBS. In 2010, 39 states participated in the ACBS, 40 in 2011 and 42 in 2012 (Virginia did not participate in any of these years). Because it is a telephone health survey, individuals must have a telephone to participate. It is also only conducted in select languages which can vary by State; therefore it does not include individuals who speak all languages. The data is subject to the bias of self-reported data. Additional limitations in estimation methods are described in the "BRFSS Operation and User's Guide." http://www2.cdc.gov/nccdphp/brfss2/training_gu/