

# The Tobacco Checkbox: A New Tool for Measuring Tobacco-related Mortality

According to the Centers for Disease Control and Prevention (CDC), tobacco is the leading cause of preventable death; with smokers dying an average of 10 years earlier than nonsmokers.<sup>1</sup> However, until recently, there has not been a standardized method for collecting information regarding tobacco use on death certificates. Beginning in January 2014, North Carolina implemented the revised U.S. standard death certificate that included a new checkbox field to indicate whether tobacco use contributed to a death. The National Center for Health Statistics specifies that the certifying physician, medical examiner or coroner should:

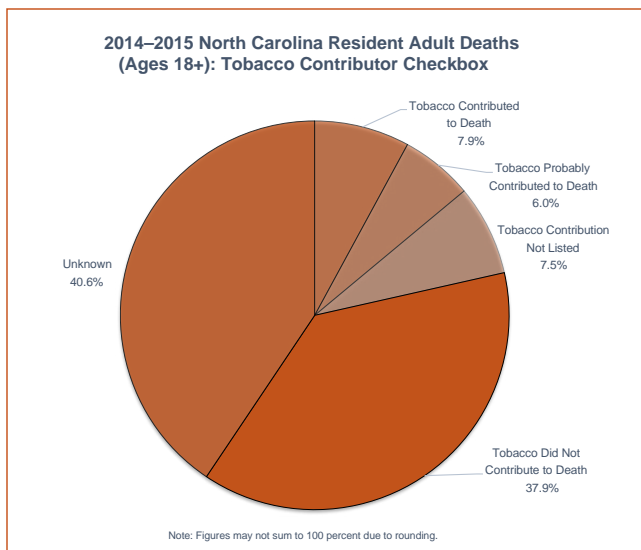
*Check 'yes' if, in your opinion, the use of tobacco contributed to death. Tobacco use may contribute to deaths due to a wide variety of diseases; for example, tobacco use contributes to many deaths due to emphysema or lung cancer and some heart disease and cancers of the head and neck. Check 'no' if, in your clinical judgment, tobacco use did not contribute to this particular death.<sup>2</sup>*

## DID TOBACCO USE CONTRIBUTE TO DEATH?

- Yes    Probably  
 No    Unknown

As presented in the chart, medical certifiers reported that tobacco use contributed or probably contributed to approximately 14 percent of North Carolina resident deaths occurring in 2014–15 (N=23,958). The medical certifier did not know the tobacco use history of the decedent at the time death certificate in 40.6 percent of deaths and the certifier left the tobacco contribution field blank in another 7.5 percent of resident deaths.

Following are some highlights by demographic group among 2014–2015 North Carolina resident tobacco-related deaths:



- Males were more likely than females to have tobacco listed as a probable or contributing cause (17.1% of deaths to males compared with 10.8% of deaths to females).
- Non-Hispanic American Indians had the highest percentage of death records with tobacco recorded (15.8%)
- Among residents ages 55 to 74, tobacco use was recorded on 21.4 percent of all death certificates. Tobacco-related mortality was lowest among younger adults, ages 18 to 34.
- Tobacco was more likely to be listed for decedents with lower levels of education. Among those with masters, doctorate or professional degrees, only 7.6 percent of deaths were listed as tobacco-related compared with 16.4 percent of those with less than a high school education.
- Veterans were more likely to have tobacco listed as contributing to their death (15.8%) compared with non-veterans (10.9%).

Tobacco information now being collected on North Carolina death certificates can serve as a useful tool for assessing the magnitude of tobacco-related deaths in our state, however improvements in reporting are needed. Despite nearly half (48.1%) of records missing tobacco information, medical certifiers reported that tobacco use contributed or probably contributed to 14 percent of 2014–15 resident deaths and among males, 17.1 percent of all deaths were documented as tobacco related. The scope of tobacco-related deaths would likely further increase if full reporting was available. In order to help facilitate this, information on prior tobacco use should be included in patient medical records and made available to medical certifiers filling out death certificates in order to ensure that we have an accurate assessment of the impact of tobacco as a contributing cause of North Carolina resident deaths.

## References:

1. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health. *Fast Facts: Diseases and death*. Retrieved February 3, 2017, from: [www.cdc.gov/tobacco/data\\_statistics/fast\\_sheets/fast\\_facts/index.htm](http://www.cdc.gov/tobacco/data_statistics/fast_sheets/fast_facts/index.htm).
2. U.S. Department of Health and Human Services, National Center for Health Statistics, Division of Vital Statistics. *2003 Revisions of the U.S. Standard Certificates of Live Birth and Death and the Fetal Death Report: Death Edit Specifications for the 2003 Revision of the U.S. Standard Certificate of Death*. Retrieved February 3, 2017, from: [www.cdc.gov/nchs/data/dvs/death\\_edit\\_specifications.pdf](http://www.cdc.gov/nchs/data/dvs/death_edit_specifications.pdf).