

## Technical notes for County Tobacco Fact Sheets 2014

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The following are technical notes for calculations in the 2014 county tobacco fact sheets organized by sections of the fact sheets.

### Population estimates

**Data source:** Portland State University Population Research Center 2013 Annual Population Report

**Methods:** The report includes state and county-level population estimates for “Ages 0-17” which we term “Youths”, and “Ages 18-64” and “Ages 65 and older” which we term “Adults”.

**Link:** The 2013 Annual Population Report is located [here](#).

### Tobacco’s toll in one year

#### Number of adult cigarette smokers

**Data sources:** Portland State University Population Research Center 2013 Annual Population Report; Oregon Behavioral Risk Factor Surveillance System 2010-2013 county combined

**Methods:** The number of adult cigarette smokers was calculated by multiplying the adult population by the cigarette smoking prevalence (not age-adjusted). Adults were considered current cigarette smokers if they responded “yes” to having smoked 100 cigarettes in their lifetime and “yes” to now smoking cigarettes some days or every day.

**Links:** For more information on the Oregon Behavioral Risk Factor Surveillance System see the online *Data Sources* page located [here](#). For more information on age adjusting see the *Statistical Notes* document located [here](#).

#### Number of tobacco-related deaths

**Data source:** Oregon Death Certificate Statistical File 2009-2012

**Methods:** Tobacco-linked deaths are indicated on Oregon death certificates. Multiple years of death certificate data were combined to provide a sufficient number of deaths to reliably report at the county level. The number of tobacco-related deaths was calculated as a four-year average to produce reliable results at the county level.

**Links:** The Oregon Vital Statistics Mortality Annual Reports are located [here](#). For more information on the Oregon Death Certificate Statistical File see the online *Data Sources* page located [here](#).

#### Number of people with a serious illness caused by tobacco

**Data sources:** Oregon Death Certificate Statistical File 2009-2012; Centers for Disease Control and Prevention (CDC). Cigarette smoking-attributable morbidity—United States, 2000. *MMWR Morb Mortal Wkly Rep.* 2003;52(35):842-4.

**Methods:** The number of people with a serious illness caused by tobacco was calculated by multiplying the four-year average of tobacco-related deaths by a factor of 19.545. The

multiplying factor of 19.545 is the ratio of tobacco-related deaths to serious illness caused by tobacco as reported in the CDC Morbidity and Mortality Weekly Report entitled *Cigarette smoking-attributable morbidity—United States, 2000*.

**Links:** The Oregon Vital Statistics Mortality Annual Reports are located [here](#). For more information on the Oregon Death Certificate Statistical File see the online *Data Sources* page located [here](#). The Morbidity and Mortality Weekly Report is located [here](#).

### **Tobacco-related economic costs**

**Data source:** CDC Smoking-Attributable Morbidity and Mortality Cost calculator (online).

**Methods:** The dollars spent on tobacco-related medical care and productivity losses due to premature tobacco-related deaths are calculated using the CDC's online Smoking-Attributable Morbidity and Mortality Cost (SAMMEC) calculator. Users of the online calculator can choose from several measures of smoking-related costs, and access state-specific data for varying time periods. The Oregon-specific productivity losses were computed using the 2010-2011 state cigarette smoking prevalence, 2009-2012 overall mortality rates for tobacco-related cancers, and 2004 population data. The smoking-attributable expenditures are expressed in 2013 dollars. County-level estimates are calculated by multiplying statewide costs by the county's proportion of tobacco-related deaths from 2009-2012.

**Links:** The link for the SAMMEC home page is currently unavailable.

### **Tobacco retail assessment results**

**Data sources:** County-level assessments of tobacco retailers.

**Methods:** Tobacco Prevention and Education Programs in each of the 34 Local Public Health Authorities in Oregon conducted assessments of tobacco retailers in their communities. Data were collected on tobacco product availability, product price, advertising and product placement, and product price discounts and promotions. Retail assessments in the state of Oregon were driven by availability of local resources (e.g., staff, time) for this work and as such the process for assessments was not completely uniform from county to county. There were variations in data collection instruments, retailer sampling designs, assessors (e.g., local TPEP coordinators vs. engaged youth groups vs. alcohol and lottery partners), assessor training, and timing of assessments.

State-level analysis of tobacco retail assessment data was limited to retailers within counties that used the Standardized Assessment for Retail Settings (STARS) survey, which was developed by a workgroup of national content matter experts and represents a national effort to standardize and streamline data collection in the retail environment. The STARS survey is also supplemented with a PowerPoint presentation to use for training assessors and a field guide that includes color photos of each item captured on the survey. Limiting analysis to counties that used the STARS survey instrument and training materials aimed to make the analysis as simple and reliable as possible.

Among the 34 Local Public Health Authorities in Oregon, 20 (59%) used the STARS survey to conduct retailer assessments. Based on a tobacco retailer mapping project running concurrently to county assessments, there are an estimated 2,878 tobacco retailers in Oregon.

STARS counties attempted assessments for 1,410 (49%) retailers, were able to complete assessments for 1,263 (44%) retailers, and 1,212 (42%) of these retailers sold tobacco products and were included in the aggregate analysis (Table 1 and Table 2). Of note, 5 retailers were missing information for the question on availability of tobacco products. However, assessments for these retailers were complete for all other questions and as such were included in the analysis. Including 1,212 tobacco retailers in the aggregate analysis is associated with a margin of error of ~2%.

Survey weights for the aggregate analysis were created using a two-step process to ensure proportional representation of data collected among counties that used the STARS survey and were included in the analysis. The survey weights adjust the contribution of county assessment data based on the proportion of total retailers in the county to the total number of retailers in the state of Oregon. Counties that were underrepresented in the analysis were given a weight larger than 1, and counties that were overrepresented in the analysis were given a weight smaller than 1. First, a weight was created for each STARS county by dividing the number of total retailers in the county by the number of retailers in the county with a completed assessment. The county weights ranged from 0.96 to 3.4. Next, a state weight was created for each STARS county by multiplying the county weight by the ratio of the total number of retailers in the state to the total number of retailers assessed in the state. The state weights ranged from 2.44 to 8.63.

**Link:** The statewide tobacco retail assessment report will be available online soon.

### **Adult cigarette smoking**

**Data source:** Oregon Behavioral Risk Factor Surveillance System 2010-2013 county combined

**Methods:** The adult cigarette smoking prevalence was calculated using aggregated data from the 2010 through 2013 Oregon Behavioral Risk Factor Surveillance System. Four years of combined data are required to produce reliable estimates at the county level. Adult cigarette smoking estimates were calculated for a specific county and compared to the cigarette smoking prevalence for the rest of the state excluding that county. Adults were considered current cigarette smokers if they responded “yes” to having smoked 100 cigarettes in their lifetime and “yes” to now smoking cigarettes some days or every day.

**Link:** For more information on the Oregon Behavioral Risk Factor Surveillance System see the online *Data Sources* page located [here](#).

### **Cigarette smoking during pregnancy**

**Data source:** Oregon Birth Certificate Statistical File

**Methods:** The prevalence of cigarette smoking among birth mothers in Oregon was calculated using aggregated data from Oregon birth certificates over the time periods 1996-1999, 2000-2003, 2004-2007, and 2008-2012. The prevalence of cigarette smoking among birth mothers in the United States was calculated over the same four time periods using data from the CDC National Center for Health Statistics (NCHS) reported in the National Vital Statistics Report.

**Link:** For more information on Oregon birth certificate statistical file see the online *Data Sources* page located [here](#)

### **Youth cigarette and non-cigarette tobacco use**

**Data source:** Oregon Healthy Teens Survey 2013

**Methods:** Eighth and 11<sup>th</sup> graders were considered a current cigarette smokers if they responded “yes” to smoking a cigarette (non-menthol or menthol) in the past 30 days. Eighth and 11<sup>th</sup> graders were considered a current users of non-cigarette tobacco products if they responded “yes” to past 30 day use of any of the following: cigars, pipe tobacco, hookah tobacco, chewing tobacco, dissolvable tobacco, or electronic nicotine delivery products.

**Link:** For more information on the Oregon Healthy Teens Survey see the online *Data Sources* page located [here](#).