

Appendices

Technical notes and data sources

Technical notes

- **Confidence interval**

These are used to measure the variability of the data. It is a range of values that describe the uncertainty around a quantitative point, such as a frequency or mortality rate. The wider the confidence interval, the greater the uncertainty that the point is due to chance alone. By convention, 95 percent is used as the chosen percentage, and it means that there is a 95 percent chance that the confidence interval covers the true value. This report provides confidence intervals for all survey data, including data from the Pregnancy Risk Assessment Monitoring System (PRAMS), the Healthy Youth Survey, the Behavior Risk Factor Surveillance System, the National Survey of Children's Health, the National Survey of Children with Special Needs, the National Immunization Survey, the Washington State Smile Survey and the Washington State Population Survey.

Some of this information was taken from the *Washington State Department of Health - Assessment Guidelines* (or <http://www.doh.wa.gov/data/guidelines/ConfIntguide.htm>) website.

- **Race and ethnicity**

Rates in this report are presented by race and ethnicity because we observe disparities across these groups in Washington. Race and ethnic disparities are believed to reflect a mix of social, cultural, and economic factors; not biology. One of the Healthy People 2010 goals is to reduce racial and ethnic disparities, and to monitor progress toward this goal. We must collect and present data by race and ethnicity. Current federal guidelines separate Hispanic ethnicity from race, and they report on race and ethnicity separately. Federal guidelines also currently specify using five racial groups: White, Black or African American, Asian, Native Hawaiian or Pacific Islander, and American Indian or Alaska Native. We attempted to use a standard race and ethnicity coding system that followed the federal guidelines, but the data sources used in this report use five different grouping systems.

Data from the birth certificate use the federal guidelines and include the five race groups: White, Black, Asian, Native Hawaiian or Pacific Islander, and American Indian/Alaska Natives as well as a breakdown for Hispanics and Non-Hispanics. Data presented this way includes low birth weight, prenatal care, preterm delivery, and smoking during pregnancy.

Washington State population files group Asians with Native Hawaiian or Pacific Islanders. Thus, the adolescent pregnancy, intentional injury, child mortality, and unintentional injury chapters use four race groups and the Hispanic ethnicity breakdown.

The Healthy Youth Survey determines race and ethnicity from one question, so it is not possible to analyze data based on this survey with race separate from ethnicity. Data from the Healthy Youth Survey have seven groups: White, Black, Asian, Pacific Islander, Native American, Hispanic and Other. These data include: asthma, child weight and physical activity, food insecurity and hunger, and mental health.

The Pregnancy Risk Assessment Monitoring System (PRAMS) samples respondents based on their race and ethnicity. Thus, data from PRAMS reports on the five sampled groups: Hispanics, Non-Hispanic Whites, Non-Hispanic Blacks, Non-Hispanic Asian/Pacific Islanders, and Non-Hispanic American Indian/Alaska Natives. These data include alcohol use during pregnancy, perinatal behaviors, and births from unintended pregnancies.

The 2005 Smile Survey reports data on Non-Hispanic Whites, Non-Hispanic African Americans, Non-Hispanic Asians, Non-Hispanic Native Americans, and Hispanics.

Lastly, the National Survey of Children's Health and the National Survey of Children with Special Health Care Needs report data on Whites, Blacks, Multiple Race and Other.

This information is taken directly from the 2006 Washington State MCH Data and Services Report. Additional information can be obtained from the DOH website: <http://www.doh.wa.gov/Data/Guidelines/Raceguide1.htm>

- **Rates**

A crude rate is the number of health events in a specified place and time period divided by the number of people at risk for the health event in the same place and time. An age-adjusted rate is a rate that uses a standard population to allow for comparisons between different populations. Age-adjusted rates should be used only for only comparison and do not reflect the true frequency of the population. These rates are often used when viewing a health condition across various populations, as with cancer, and in the case of this report oropharyngeal cancer. In this report, 2000 census data were used as the standard population. Rates are usually multiplied by a constant, such as 1,000 or 100,000 for ease of understanding, and they are then reported as rate per 1,000 or rate per 100,000. For additional information on calculating and interpreting rates, please see the DOH data guidelines at <http://www.doh.wa.gov/Data/guidelines/Rateguide.htm>.

- **Relative standard error**

The relative standard error (RSE) is a measure of an estimate's reliability. The RSE of an estimate is obtained by dividing the standard error of the estimate (SE(r)) by the estimate itself (r). This quantity is expressed as a percent of the estimate and is calculated as follows: $RSE=100 \times (SE(r)/r)$. Estimates with large RSEs are considered unreliable. Additional information is available at <http://www.cdc.gov/nchs/dataawh/nchsdefs/relativestandarderror.htm>

- **Small numbers**

Small numbers should be viewed with caution, because they provide much less stability and power. When there are fewer than five events, data should not be presented. In this document, when there are fewer than 20 events, data has not been presented. When numbers are small, a note of caution is noted by the corresponding graph or table. Additional information is available at <http://www.doh.wa.gov/Data/guidelines/Rateguide.htm>.

Data Sources

- **Behavioral Risk Factor Surveillance System (BRFSS)**

BRFSS is a national telephone survey of adults 18 years and older. This survey monitors modifiable risk factors such as nutrition, tobacco use, injury control, and preventive services as well as behaviors, demographics, access to health care, and overall health status. Topics vary annually as well as being core CDC topics or modules added by states. Households are randomly selected to participate by

phone, and when reached, only one adult is randomly chosen to answer the survey. Those individuals who are deaf, hard of hearing, or those with speech impediments may not participate, and therefore may not be representative of the populations in the survey results. Data are available by state or national level data. The Washington State BRFSS site is http://www.doh.wa.gov/EHSPHL/CHS/CHS-Data/BRFSS/BRFSS_homepage.htm

The CDC website is <http://www.cdc.gov/brfss>.

- **Birth certificates**

Birth certificates are completed for all births occurring in Washington State, as well as incorporating births by Washington residents who are in other states. Therefore, data reflect Washington resident births, regardless of birth location. More information on the Washington State Birth Certificate can be found at http://www.doh.wa.gov/ehsphl/chs/chs-data/birth/bir_main.htm.

- **Healthy People 2010 Objectives (HP 2010)**

Healthy People 2010 provides national health objectives for a variety of health outcomes to be achieved by 2010. Specific oral health-related objectives have been used in this document as a comparison group to Washington State's oral health outcomes. Additional information can be found at <http://www.healthypeople.gov/document/>.

- **Healthy Youth Survey (HYS)**

The Healthy Youth Survey was first administered in October 2002, and it has since been re-administered every two years in the fall. The survey takes place in public schools located around Washington State, among 6th, 8th, 10th and 12th grades. It is a collaboration between DOH, the Department of Social and Health Services' Division of Alcohol and Substance Abuse, the Department of Community, Trade and Economic Development, and the Office of Superintendent of Public Instruction. Schools are randomly sampled, and all students at that school are asked to participate. Previously, several surveys were used by different groups, but the HYS was developed to coordinate the efforts more effectively. Topics include physical activity and nutrition, alcohol, tobacco, and substance use, other risk and protective factors, and violence and safety. Additional information can be found at <http://www3.doh.wa.gov/HYS/>.

- **HIV/AIDS Knowledge, Attitudes, Beliefs, and Behaviors (KABB) Survey**

The 2006 KABB study consisted of a statewide telephone survey administered to 2,050 individuals ages 18 and over. The survey collected demographic information and asked questions about 1) HIV risk behaviors, 2) knowledge, beliefs and attitudes regarding HIV/AIDS, 3) personal experience with HIV testing, and 4) opinions regarding public policy.

- **National Survey of Children's Health (NSCH)**

The National Survey of Children's Health was administered from January 2003 - July 2004 by telephoning randomly sampled households with children younger than 18 years old. Only one child was randomly selected to be the subject of the survey, by the adult in the household who knew the child best. Survey topics included physical, emotional, and social health of children. Conducted by the CDC National Center for Health Statistics, the survey used the state and local areas integrated telephone survey (SLAITS) methodology, and provided national and state level data. The next survey will be conducted in 2007. Additional information can be found at <http://www.cdc.gov/nchs/about/major/slaits/nsch.htm>

- **National Survey of Children with Special Health Care Needs (CSHCN)**

The National Survey of Children with Special Health Care Needs was administered from October 2000-April 2002. This telephone survey screened a random sample of households for children with special needs. Only one child was selected to be the subject of the survey, by the adult in the household who knew the child best. Survey topics included physical, emotional, and social health; access to services, health insurance, and care coordination. Conducted by the CDC National Center for Health Statistics, the survey used the state and local areas integrated telephone survey (SLAITS) methodology, and provides national and state level data. The next survey will be conducted and data gathered by 2006. Additional information can be found at <http://www.cdc.gov/nchs/about/major/slaits/cshcn.htm>

- **Pregnancy Risk Assessment Monitoring System (PRAMS)**

The Pregnancy Risk Assessment Monitoring System is an ongoing, population-based surveillance system conducted through mail and telephone surveys. It is sponsored by the CDC and the Washington State Office of Maternal and Child Health. Some topics include prenatal care, preventive visits, pregnancy intention, tobacco and alcohol use, physical abuse, breastfeeding, and infant health. The information gathered can be used for health and social services planning and policy development. Additional information can be found at http://www.cdc.gov/reproductivehealth/srv_prams.htm.

- **Smile Survey**

Every five years, DOH conducts the Smile Survey. During the most recent survey, 67 public elementary schools and 39 Head Start or ECEAP sites were randomly selected across the state during the 2004-05 school year. All preschool children enrolled and present on the day of the screening were included in the sample unless the parent returned a consent form specifically opting out of the sample. Elementary schools could choose to use either an active or passive consent process. Each child participating in the survey received an oral screening exam to determine the child's caries experience, treatment need and urgency, and dental sealants needs. Many counties chose to supplement this survey with an over-sample or census of schools or Head Start and ECEAP sites in their own county. Additional information can be found at http://devwww/cfh/Oral_Health/index.htm.

Caution should be taken when comparing trends over time between the three Smile Surveys. The same diagnostic criteria were used among all three surveys, but the sampling methods and type of consent varied. Greater detail can be found in the *2005 Smile Survey Report*.

- **State and Local Area Integrated Telephone Survey (SLAITS)**

This is a survey methodology for collecting state-level health care data for policy-making activities and program development. Several national surveys from the National Center for Health Statistics have used this methodology, including the National Survey of Child Health, National Immunization Survey, and the National Survey of Children with Special Needs. Information about this methodology is available at <http://www.cdc.gov/nchs/slaits.htm#Description>

- **Washington State Population Survey**

The Washington Office of Financial Management coordinates this survey, which questions a random sample of Washington households by telephone. Conducted every two years since 1998, it focuses on areas such as family poverty, health, health insurance coverage, and employment. Additional information is available at: <http://www.ofm.wa.gov/sps/index/htm>.