



Appendices

NOTICE: This report was published in December 2009. The internet links and other resources were current as of that date. This archived Web version of the report is provided for reference only; the internet links are not updated.

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Appendix A

Needs Assessment Process

Needs Assessment Process

The Washington State Adolescent Needs Assessment is an updated summary of the issues affecting Washington's adolescents. The original Needs Assessment report published in 2006 was developed to provide baseline information for the Washington State Partnership for Youth (WSPY) as part of their efforts to develop a state plan to improve the health of Washington's youth. It was intended to be a companion data document for the final WSPY state plan.

As part of the original process, a WSPY Needs Assessment Committee identified, gathered, and analyzed data on adolescent health needs in the state of Washington. The objectives of the Needs Assessment were to:

- Create a profile of the adolescents living in Washington.
- Describe the current status of adolescent health.
- Identify gaps and barriers to health.

Input into the 2009 data update was provided by state and local partners working with adolescents.

The data included in this report are not intended to be comprehensive but rather to provide a picture of adolescents in Washington State. The report represents an important piece of information for the development of a statewide plan to improve the health and well-being of Washington State adolescents.

Methods:

The initial Needs Assessment process used multiple approaches for gathering information on the needs of adolescents including literature review, nominal group process, review of existing data sources, key informant interviews, focus groups and surveys.

There are three components of the Washington Adolescent Needs Assessment.

- **Data Summary:** A common data presentation format was identified and the data were updated and compiled into one document. The data for this section includes highlights of major health and behavior issues for adolescents in Washington State. A common format is used when possible to allow for easier comparison across issues. **The 21 Critical Health Objectives for Adolescents** are highlighted in this section. The data for this section are organized into 9 main domains, based upon the recommendation from the Needs Assessment Steering Committee.

Domains
Demographics and Access
School achievement and climate
Nutrition and Physical Activity
Drugs, Alcohol and Tobacco
Injury and Violence
Oral Health
Sexual Health
Mental Health
Environmental Health

- **Services Section:** The second section, Publicly Funded Social and Health Services, describes several social, medical and preventive health services pertinent to adolescents in Washington. This section is part of a larger report being published by the Washington State Department of Health's Office of Maternal and Child Health. It is intended to monitor the state's capacity to address the health needs of the MCH population in Washington. Each chapter addresses what the service is, how or where it is provided, who is eligible for the service, who is receiving the service, and what issues or concerns exist regarding the service. This section will be continue to be updated over time based on input from stakeholders.

- **Findings from Washington Adolescent Focus Groups:** This section includes qualitative information gathered from three sets of focus groups with adolescents and parents, conducted in 2004 and 2005. The first two sections were conducted by contractors for the Washington State Department of Health – one focused on defining a healthy adolescent and the second identifies strategies for impacting abstinence education through a media campaign. The third set of focus groups was implemented by WSPY and targeted a diverse group of youth and adult participants with a focus on promoting adolescent health.

Needs Assessment Guidance:

The Needs Assessment was initially planned by the WSPY Needs Assessment Committee which consisted of members from multiple organizations, agencies or associations that were geographically dispersed across the state. Most self-initiated membership through recruitment from WSPY. Some members were specifically recruited because they represented an organization or state location that was underrepresented. The committee met bi-monthly from January 2004 through August 2004 and presented initial findings in mid- 2004. The WSPY Steering Committee provided oversight and guidance to the Needs Assessment Committee throughout the duration of its existence.

Nominal group process:

The initial Needs Assessment Committee meetings served as brainstorming sessions and review of materials from the Washington Adolescent Health Summit (Fall, 2003), Healthy People 2010 National Initiative to Improve Adolescent Health, six state adolescent health plans (Colorado, California, Alaska, Wisconsin, Hawaii, and Minnesota), and expert opinions of the Needs Assessment Committee. From this, a list of subject areas to be explored was developed. They included:

- Physical and emotional growth and development
- Sexual health, teen pregnancy, sexual orientation
- Drugs, alcohol, and tobacco
- Eating, nutrition, obesity and physical education
- Mental health, depression and suicide
- Violence and unintentional injury
- Oral health
- Environmental health
- School achievement
- Demographics- determine who youth are and where they are located, trends
- Access to health care- insurance coverage, resources, utilization
- Disparities: minorities and special needs and disabilities

These priority areas are consistent with the **Leading Health Indicators for Healthy People 2010**. The Leading Health Indicators highlight major health priorities for the Nation and include the individual behaviors, physical and social environmental factors, and health system issues that affect the health of individuals and communities.

Leading Health Indicators for Healthy People 2010	
Physical activity	Mental health
Overweight and obesity	Injury and violence
Tobacco use	Environmental quality
Substance abuse	Immunization
Responsible sexual behavior	Access to health care

21 Critical Health Objectives for Adolescents and Young Adults: The Washington Adolescent Needs Assessment is consistent with the 21 National Critical Health Objectives for Adolescents and Young Adults developed by Healthy People 2010.

The nominal process continued throughout the needs assessment.

Key informant interviews/community input:

Key informant interviews were performed by committee members to locate other data sources, gather data, and to discuss interpretations of data. In Fall 2005, WSPY held two statewide Summits in order to gather input from stakeholders on the direction and priorities for WSPY and the adolescent state plan. The draft Needs Assessment was provided to individuals attending the two summits. Roundtable sessions on the data were held at the Summits. The information from the Summits was used to supplement the Needs Assessment.

Focus Groups:

It was also determined that input from parents and youth was needed to assess if the topic areas and data collected addressed their needs. Focus groups with adolescents and parents supplemented the findings of the needs assessment.

Literature review:

In certain areas, there was limited data available and/or a need for national perspective. Literature reviews within topic areas were performed by committee members as needed to supplement data collection and disparity issues.

Surveys:

Concurrent with the Needs Assessment process, the Washington State Department of Health Office of Maternal and Child Health conducted surveys of county public health nurses and MCH staff to seek input on identifying emerging issues and needs for the MCH populations. One survey asked nurse supervisors to prioritize health needs for children and youth in their community.

2010 Update:

For this 2010 update, feedback on the content and format was provided by state and local agency staff working with adolescents, including the Washington State Department of Health Adolescent workgroup.

Appendix B

Data Sources

Technical Notes

Definitions

Selected Data Sources

Behavioral Risk Factor Surveillance System (BRFSS): BRFSS is a national telephone survey of adults 18 and over who live in households with telephones. BRFSS monitors modifiable risk factors for chronic diseases and other leading causes of death, including nutrition, exercise, tobacco use, injury control, and use of preventive services as well as knowledge and attitudes, demographics, general health status and access to health care. Topics vary by year as well as whether they are core CDC topics or state-added modules. Households are randomly selected to be called and then, once reached, one adult from the household is randomly selected to be interviewed. Starting in 2004, data are available at the county level for some measures. The Washington State BRFSS website is http://www.doh.wa.gov/EHSPHL/CHS/CHS-Data/BRFSS/BRFSS_homepage.htm
The CDC BRFSS website is <http://www.cdc.gov/brfss/>

Birth Certificates: Birth certificates are completed for all births that occur in Washington State. Births that occur to Washington residents in other states are added to the data files. Data presented in this report reflect information on Washington residents whether they delivered in WA or elsewhere. Information collected includes maternal and paternal demographics, delivery information, medical risks of the mother and selected morbidity of the newborn. For more information about data collected on the Washington State Birth Certificate, see the website http://www.doh.wa.gov/ehsphil/chs/chs-data/birth/bir_main.htm

Information on all births in the United States is collected and reported by the National Center for Health Statistics. Documentation, statistics and reports are available at www.cdc.gov/nchs/births.htm

Current Population Survey (CPS): CPS is a monthly household survey of the non-institutional civilian population in the United States. Most of the information collected is on unemployment and the labor force (including employment benefits, such as health insurance coverage). Supplemental questions related to health have also been asked including tobacco use, fertility, and food security. The CPS Website is <http://www.census.gov/cps/>

Death Certificates: Death certificates are completed for all deaths that occur in Washington State. In addition, deaths to Washington residents that occur out of state are added to the data files. Data presented in this report reflect Washington residents whether they died in Washington or not. Death certificate information includes demographics, characteristics of the death and causes of death. The causes of deaths reported are classified based on the International Classification of Diseases, Tenth Revision (ICD-10) published by the World Health Organization. Information on this classification as well as continuity with the previous revision is available in the Vital Statistics Technical Note at www.doh.wa.gov/ehsphil/chs/chs-data/TechNote/Tech_not.pdf Additional information about data collected on the Washington State Death Certificate is available at: <http://www.doh.wa.gov/EHSPHL/CHS/CHS-Data/death/deatmain.htm>

Information on all deaths in the United States is collected and reported by the National Center for Health Statistics. Documentation, statistics and reports are available at <http://www.cdc.gov/nchs/deaths.htm>

Healthy People 2010 Objectives: Healthy People 2010 provides national health objectives for a number of health outcomes to be achieved by 2010. Documentation, baseline data and objectives can be found at <http://www.healthypeople.gov/document/>

Healthy Youth Survey: The Healthy Youth Survey (HYS) is a collaborative effort of the Office of the Superintendent of Public Instruction, the Department of Health, the Department of Social and Health Service's Division of Behavioral and Health Recovery, the Liquor Control Board and the Department of Commerce. Data on youth substance use and other health behaviors are needed to support planning and evaluation of science-based prevention and health promotion programs. Historically, numerous surveys were administered by different groups (See description of Survey of Adolescent Health Behaviors and the Youth Risk Behavior Survey). The HYS was developed to better coordinate survey efforts and minimize the burden on schools. HYS was first administered in October 2002, and is administered every two years in the fall. It provides information about adolescents in grades 6, 8, 10 and 12 in public schools in Washington. Schools are randomly sampled and all students in the surveyed grades are asked to respond to the questionnaire. Topics include safety and violence, physical activity and diet, alcohol, tobacco and other drug use, and related risk and protective factors. Documentation and state level data are available at: <https://fortress.wa.gov/doh/hys/>

National Survey of Children's Health: The National Survey of Children's Health was a telephone survey of a random sample of households with children less than 18 conducted in 2007. One child from the household was randomly selected to be the subject of the survey. The adult most knowledgeable about the child's health is asked to respond to the survey. The survey asked about the physical, social and emotional health of children. The survey was conducted by the National Center for Health Statistics at the Centers for Disease Control and Prevention. The survey used the state and local area integrated telephone survey (SLAITS) methodology. State level data are available. Information is available at: <http://www.nschdata.org/Content/Default.aspx>

National Survey of Children with Special Health Care Needs: The National Survey of Children with Special Health Care Needs was a telephone survey conducted from in 2005 and 2006. A random sample of households was selected and screened to identify children with special needs. The adult most knowledgeable about the selected child's health was asked to respond to the survey which collected information on health insurance, access to services, satisfaction with care and care coordination. The survey was conducted by the National Center for Health Statistics at the Centers for Disease Control and Prevention. The survey used the state and local area integrated telephone survey (SLAITS) methodology. State level data are available. Information is available at <http://mchb.hrsa.gov/cshcn05/>

United States Census: Current Washington State census data are available from the Washington State Office of Financial Management at <http://www.ofm.wa.gov/census2000/default.asp>. Current United States census data are available from the US Census Bureau at <http://www.census.gov>

VISTA: VistaPHw is a menu-driven software application developed and maintained by the Department of Health and Seattle King County Public Health that allows the user to analyze population-based health data for Washington. Data available in VistaPHw include vital statistics, hospital discharge data, sexually-transmitted disease data, tuberculosis data and census data. VistaPHw allows analysis of rates by age group, race, gender, time period and geographic location. VistaPHw has been used for some analyses in this report because of the ease of use. In these cases, VistaPHw has been cited as the data source. Some minor differences between analyses using VistaPHw and Vital Statistics data files may occur due to differences in data definitions. Documentation is available at <http://www.doh.wa.gov/EHSPHL/CHS/Vista/default.htm>

Washington State Population Survey: The Washington State Population Survey is a telephone survey of a random sample of Washington households which has been conducted every two years since 1998. The survey is coordinated by the Washington State Office of Financial Management. The survey focuses on employment, family poverty, in-migration, health and health insurance coverage. Additional information is available at <http://www.ofm.wa.gov/sps/default.asp>

School Health Profiles Survey: The School Health Profiles is a CDC sponsored random sampled survey of school principals and health educators of schools that serve students in grades 6 through 12. The Profiles helps state and district education and health agencies monitor the current status of school health education; school health policies related to HIV infection/AIDS, tobacco use prevention, unintentional injuries and violence, physical activity, and food service; physical education; asthma management activities; and family and community involvement in school health programs. State and local education and health agencies conduct the survey biennially at the middle/junior high school and senior high school levels in their states or districts, respectively. Information presented here are from the Spring 2004 administration. More information on this survey is available at: <http://www.cdc.gov/HealthyYouth/profiles/index.htm>

Survey of Adolescent Health Behaviors: The Survey of Adolescent Health Behaviors in 2000 was a precursor to the current Healthy Youth Survey and some of the data are presented in this report. The survey was conducted jointly by the Department of Social and Health Services, the Office of the Superintendent of Public Instruction, the Department of Community Trade and Economic Development, and the Department of Health Tobacco Program. The survey was administered during class time to public school students in grades 6, 8, 10 and 12. The sample was stratified by geographic region and school size, and within these cells, where possible, a school was selected from each of three community types: urban, suburban, and rural. All students in selected schools were invited to participate. The survey asked a variety of questions about alcohol, tobacco, and drug use and risk and protective factors.

Youth Risk Behavior Survey: The 2007 National Youth Risk Behavioral Survey (YRBS) was used to provide national comparisons. The 1999 Washington State YRBS was a precursor to the current Healthy Youth Survey and was based on the Centers for Disease Control and Prevention (CDC) YRBS instrument. The YRBS is intended to monitor adolescent health-risk behaviors that contribute to morbidity, mortality, and social problems among youth and adults in the United States. The Washington YRBS used a two-stage sampling design: schools were chosen using a probability-proportionate-to-size sampling of all public schools serving children grades 9-12 (which ensured that smaller schools had some chance of selection). Once schools were chosen, a random sample of classrooms was selected within participating schools. A sample of 4,022 adolescents in Washington State public schools participated in the YRBS 1999 survey. Alternative schools serving high-risk youth in the public school system were included. The CDC YRBS webpage is: <http://www.cdc.gov/HealthyYouth/yrbs/index.htm>

SERVICES SECTION

- Information for the services section is provided by the programs or agencies providing the services and the sections were reviewed for accuracy by those agencies and will be updated on a rotating schedule. Agencies, with various programs and staff within each, included: Washington State Department of Health, Washington State Department of Social and Health Services, Washington State Department of Health and Human Services, Office of Superintendent of Public Instruction, United States Department of Human and Health Services, Juvenile Rehabilitation Administration, Washington State Office of Financial Management, Washington Association of Community and Migrant Health Centers, Division of Alcohol and Substance Abuse, Maternal and Child Health Bureau, Kitsap County Health District, and Public Health: Seattle-King County.

FOCUS GROUP SECTION

- This section includes qualitative information gathered from three sets of focus groups with adolescents and parents, conducted in 2004 and 2005. The first focused on defining a healthy adolescent and the second identified strategies for impacting abstinence education through a media campaign. The third set of focus groups targeted a diverse group of participants and focused on promoting adolescent health.

Technical Notes

Margin of errors

Margin of errors are a measure of the variability in the data and are based on half of the confidence intervals ($CI = \pm 1.96X$ standard error). Confidence intervals provide a measure of how much a rate, percent, or other point estimate might vary due to random factors or chance. They do not account for several other sources of uncertainty, including missing or incomplete data, bias resulting from non-response to a survey, or inaccurate data collection. Two estimates are statistically significantly different if the confidence intervals do not overlap. When the confidence intervals overlap and the interval for one estimate includes the other estimate, the two estimates are not statistically significantly different. If the confidence intervals overlap, but neither interval includes the other estimate, a formal test of statistical significance is needed to determine whether the two estimates are statistically significantly different.

Confidence intervals are used with survey data to account for the difference between a sample from a population and the population itself. 95% confidence intervals are used here. A 95% confidence interval captures the true value of the point estimate in 95 out of 100 cases. More information is available at: *Washington State Department of Health - Assessment Guidelines* (or <http://www.doh.wa.gov/data/guidelines/ConfIntguide.htm>) website.

P value

The **p value** obtained by a statistical test gives the probability that the observed difference could have been obtained by chance alone. Chi-square tests were used to test for significant differences between two groups (such as male-female, disability-no disability, rural-urban, and low socioeconomic status-high socioeconomic status). If the **p value** was <0.05 , then the differences between the two groups was statistically significant, i.e. not likely due to chance. When comparing multiple groups (as in comparing races), logistic regression was used for the Healthy Youth Survey data and Z-score testing was used for the vital statistics data. Results were considered significant if the p value was <0.05 . Significance testing was not done to assess differences by grade (for the Healthy Youth Survey) or age groups (for the vital statistics data).

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. For example, the Washington child mortality rate in 2007 is the number of Washington children ages 1-19 who died in 2007 divided by the total number of Washington children ages 1-19 in 2007. Rates are usually multiplied by a constant such as 1,000 or 100,000 for ease of understanding, and are then reported as rate per 1,000 or rate per 100,000. Thus, child mortality is usually reported as deaths per 100,000 children 1-19 years. For additional information on calculating and interpreting rates, please see the Washington State Department of Health data guidelines at <http://www.doh.wa.gov/Data/guidelines/Rateguide.htm>

Small numbers: To protect confidentiality in this report, rates are not presented if the number of health events was five or less. Small numbers can also lead to a lack of precise estimated as evidenced by wide 95% confidence intervals. To prevent the need to suppress rates and improve precision, where possible we have combined multiple years of data for the sub-group analyses.

Definitions

Adolescents: Adolescents were defined as youth ages 12-19. When possible, data are presented for ages 12-19, but many data are not readily available by this specific age group.

Disability: To assess disability among youth, the Seattle Quality of Life Group (formerly known as the Youth Quality of Life (YQOL) Group), developed a 4-item screener based partly on the 1994 National Health Interview Survey on Disability (NHIS-D) (National Center for Health Statistics, 1994), and partly on the Questionnaire for Identifying Children with Chronic Conditions (QuICCC) (Stein, Westbrook, & Bauman, 1997), both of which are parent-reported. The Youth Disability Screener (YDS) uses a 'non-categorical' approach to disability identification. The YDS definition extends the HP 2010 definition by including a question regarding whether others would consider them to have a disability. This was taken from the NHIS-D and has its origins in the social model of disability which indicates that disability resides in the environment, rather than the individual. (For more information, Seattle Quality of Life Group website: <http://depts.washington.edu/yqol/instruments/YDS.htm>)

Race and Ethnicity: Rates in this report are presented by race and ethnicity because we observe disparities across these groups in Washington. Race/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 race/ethnic disparities and to monitor progress toward this goal, we must collect and present data by race/ethnicity. Different data sources collect race data in different ways. Whenever possible, we presented the race/ ethnicity data as: White, Non-Hispanic, Black, Non-Hispanic, American Indian, Non-Hispanic, Asian, Non-Hispanic, Pacific Islander, Non-Hispanic and Hispanic.

Socioeconomic status: This measure was used to make comparisons of the healthy Youth Survey data. Socioeconomic status – a measure of an individual or family’s relative economic and social ranking - is an important social determinant of health; however, often youth are not accurately able to report on family income. Maternal education (the level of education that has been completed by the student’s mother) is a proxy measure for family SES that has been described in the literature. In analyzing the Healthy Youth Survey data, we stratified it as “lower SES” if a mother has no post-high school education and “higher SES” if a mother has had any post-high school education.

Rural-Urban Residence: Research has shown that there are differences in health status between residents of rural and urban Washington. Disparity data by urban or rural residence presented in this Needs Assessment uses the **Rural Urban Commuting Area Codes (RUCA)** system which is a classification system based on census tract geography developed by the US Department of Agriculture. Both population size and commuting relationships are used to classify census tracts. The RUCA codes used here are based on the 2000 census data. Healthy Youth Survey data are presented in a two-tier classification: rural which includes small town rural and isolated rural areas, and urban which includes the urban core and the suburban fringe areas. Information on the RUCA system is available at: <http://www.doh.wa.gov/hsqa/ocrh/har/hcresrch.htm>