Interpretive Guide

Making the Most of Your Survey Data:

A Guide for Exploring and Interpreting the

Results of the Washington State

Healthy Youth Survey (2002)

Eric L. Einspruch
Gwen Hyatt

RMC Research Corporation
522 SW Fifth Avenue, Suite 1407
Portland, OR 97204
503/223-8248

February 2003

Contents

Introduction 3
Overview of the Healthy Youth Survey (2002) 6
Survey Content 6
Sampling and Administration 7
Validity of Self-Report Surveys 7
Reviewing the Local Report 9
Implement a Review Team 9
Look at the Survey as a Whole 10
Become Familiar With the Survey Questions 11
Find Questions of Interest 11
Identify a Context for Results 11
Read the Report of Local Results 12
Create Visual Displays and Communicate the Information Verbally 12
Topical Guide 13
Item Results 13
Introduction and Overview 14
Graphical Summary of Selected Results 14
Selected Results Disaggregated by Gender 14
Background Information 15
Exhibit 1 Demographic Questions 15
Alcohol, Tobacco, and Other Drug Use 15
Exhibit 2 Alcohol, Tobacco, and Other Drug Use 16
Other Health Concerns 16
Exhibit 3 Health Concerns 16
School Climate 16
Exhibit 4 School Climate 16
Quality of Life 17
Risk and Protective Factors 17
Frequently Asked Questions 18
References 21

Introduction

The impact of adolescent health risk behaviors remains a primary concern of citizens throughout our country. Many health problems experienced by adolescents are caused by a few preventable behaviors. Patterns of alcohol, tobacco, and other drug (ATOD) use and related risk behaviors are often formed during adolescence. These patterns play an important role in health practices throughout adulthood.

At the national level, the need to address student alcohol, tobacco, and other drug use and its consequences has led to a variety of policy initiatives, including the Drug-Free Schools and Communities Act of 1986, National Education Goals, the Healthy People 2010: National Health Promotion and Disease Prevention Objectives, and the Department of Education's Safe and Drug-Free Schools Program Principles of Effectiveness. The state of Washington has also implemented policy initiatives to address concerns regarding alcohol, tobacco, and other drug use, including the Omnibus Alcohol and Controlled Substances Act (1989), the Washington Education Reform Act (1993), the Violence Reduction Programs Act (1994), and the Department of Health's Priority Health Goals.

Washington State conducted student surveys in 1988, 1990, 1992, 1995, 1998, 1999, 2000, and 2002 to better understand the nature and extent of adolescent health behaviors in Washington. The current survey, known as the Healthy Youth Survey (2002), was sponsored by the Office of Superintendent of Public Instruction (OSPI), the Department of Health (DOH), the Department of Social and Health Services' Division of Alcohol and Substance Abuse (DASA), and the Office of Community Development (OCD). The survey was administered under

contract with RMC Research Corporation. The results of the Healthy Youth Survey (2002) meet a wide variety of state and local needs for:

- Empirical needs assessment data necessary for planning prevention and early intervention programs.
- Information on trends of student substance use and abuse and associated risk and protective factors.
- Information on the progress of drug education programs funded under the federal Safe and Drug-Free Schools and Communities Act and the state Omnibus Alcohol and Controlled Substances Act.
- Information on the progress of the state's attainment of the national public health objectives contained in Healthy People 2010 and on the progress of state-funded programs.
- Data on risk and protective factors that can be used by state agency staff and local school and community members as they plan or refine school- and community-based prevention and intervention programs.

Each school that participated in the Healthy Youth Survey (2002) and had 15 or more valid survey responses had the option to receive survey results for that school. These results, which are highly specific to the local area, can be of enormous value in planning, implementing, and evaluating programs to address adolescent behavior. Each year the survey has been administered, an Interpretive Guide has been distributed with the local data (the first one was prepared by Anderson and Deck in 1987; the most recent one was prepared by Einspruch, Deck, Gabriel, and Nickel, 2001). This guide, which is based in part on previous guides, provides information that will help those involved in local prevention planning make the most of their survey results. Readers are encouraged to keep their survey results close at hand as they read this guide and to refer often to these results. As you review them, be thinking about how

the results can help inform decisions regarding local program planning, implementation, and evaluation.

Overview of the Healthy Youth Survey (2002)

Survey Content

The Healthy Youth Survey (2002) was the product of the collaborative effort of OSPI, DOH, DASA, and OCD. Representatives from each of these groups worked on the development of the survey. Many of the items came from the Monitoring the Future survey sponsored by National Institute on Drug Abuse (NIDA, 2001), the University of Washington Social Development Research Group's (SDRG) Risk and Protective Factor Assessment instrument (Arthur, Hawkins, Catalano, & Pollard, 1998), the Centers for Disease Control and Prevention's Youth Risk Behavior Survey (1999) and the Centers for Disease Control and Prevention's Youth Tobacco Survey (2000). Many questions have appeared on previous versions of the statewide survey, although some were modified for the current administration. The 2002 survey covered the following topics:

- Background information (Questions 1–11).
- Alcohol, tobacco, and other drug use (Questions 12–73).
- Other health concerns (Questions 74–90).
- School climate (Questions 136–144).
- Quality of life (Questions 145–156).
- Risk and protective factors:
  - Community (Questions 157–178).
  - School (Questions 179–196).
  - Peer-individual (Questions 197–239).
  - Family (optional; Questions 240–262).

The survey was administered to students in Grades 6, 8, 10, and 12. There were 3 different forms of the survey: 1 for Grade 6 students and 2 interleaved forms for

students in Grades 8, 10, and 12 (so that roughly half of the students completed one form and half of the students completed the other.). All 3 forms had a tear-off page with optional questions.

Sampling and Administration

DOH developed a sampling plan to ensure that the survey results would be representative of students statewide. A detailed description of the sampling plan and other sampling issues, survey development, and administration appears in the Analytic Report. Once a school agreed to participate in the sample, all students in the selected grade(s) were to be surveyed. The survey has to be administered to all students in the selected grade(s) in the sampled schools. Student participation was voluntary and anonymous, and participating schools provided alternative activities for students who chose not to participate.

Validity of Self-Report Surveys

The validity of self-report student surveys often comes under question, especially when reported rates of behavior seem higher than might be expected. However, there is a convincing amount of evidence that when students are provided with a safe and confidential environment in which to respond, they take the questions on the survey seriously and answer them honestly. Several steps were taken in the administration of the Healthy Youth Survey (2002) to ensure the validity of student answers. The survey was administered during a single class period of the school day to eliminate the effects of discussion among students. No attempt was made to have absent students complete the survey at a later time. Students were informed of the importance of the survey and the person administering the survey was instructed not to wander around the room as students were marking their answers. There was no place on the survey for students to put their name or any other identifying information and when they completed the survey students placed their own answer booklet in

an envelope that was then sealed. During data processing and analysis further steps were taken to ensure the validity of the data. Student responses were carefully screened for evidence of faking a high level of use, answering dishonestly, or answering inconsistently.

Reviewing the Local Report

Implement a Review Team

A team approach can make greatest use of your local survey data. Ideally, the team will include representatives of many segments of the community such as district staff, school staff, community service agencies, law enforcement, parents, and students themselves. There are many advantages to using a team approach, one of which is that each member of the team can contribute his or her own unique perspective on problems and their solutions. In addition, a broad-based team conveys the message that the entire community is responsible for solving adolescent risk behavior problems, rather than it being the sole responsibility of a single institution (e.g., schools, districts). Some common steps in the team process include these:

- **Create a core leadership group.** This group is made up of key persons who are knowledgeable about or interested in student health risk behaviors and will respond to the challenge of addressing identified health risk behaviors.
- **Assess needs and resources.** The core leadership group will need to determine which student behaviors are of concern, due to the severity and frequency of those behaviors. In addition, the group will want to identify those services that are available to help youth live free of alcohol, tobacco, and other drugs.
- **Develop a prevention and intervention plan.** After determining needs and resources, the group will want to develop a plan that addresses behaviors of concern. This plan addresses stated goals and measurable objectives related to the behaviors identified as highest priority.

- **Implement the plan.** The first step in implementation is to gain key leader and community support for the plan. The plan can be implemented once support has been obtained.
- **Evaluate the program.** The team should conduct ongoing evaluation of the prevention and intervention program. Key elements of the evaluation include (a) identifying those with an interest in the program (i.e., the stakeholders) and involve them in the evaluation, (b) posing evaluation questions related to the program's goals and objectives, (c) deciding what data to collect and how to collect those data, (d) analyzing the data that have been collected, and (e) preparing and disseminate reports.

Look at the Survey as a Whole

Because the survey covers numerous topics it is a good idea to get a general overview of the local report of results before getting involved with the detail of each question. First, look at the cover and the top of the first page of the report to determine if you are looking at a county, district, or school report. Next, page through the entire report to find the major groupings of questions.

Readers should note that differences in results may be considered from either a statistical or a practical point of view. S*tatistical significance* is influenced by several factors including the number of students who participated in the survey. *Practical significance* is a judgement of whether differences are programmatically meaningful. Readers are encouraged to consider the practical significance of their results rather than focus on small differences that may be statistically, but not practically, significant.

Become Familiar With the Survey Questions

Once you have identified the major survey topics, it is time to become better acquainted with the individual survey questions. At this point you should go directly to the topic area that is of greatest interest to you and read each of the questions in that area. Notice that the questions are grouped within the topic areas. This organization helps make the large number of questions more manageable.

Find Questions of Interest

You may make decisions about which questions are of greatest interest once you are familiar with the content of the survey and have a sense about where in the report each content area is covered. Any local prevention or intervention program will be able to address only a limited number of concerns. In addition, when speaking before a group or preparing a written report, it is important to limit the presentation to those few results of the most immediate interest. Items may be selected for further presentation and discussion because of program-related interest, special concern or interest, or noticeable difference by comparison to other data.

Identify a Context for Results

Interpreting the local results is best accomplished if there is some context for that interpretation. Ideally, the statewide survey has been locally administered on previous occasions, so trends over time in the results can be observed. Additional comparisons can be made to program or policy-related objectives and standards, other indicators of adolescent health risk behaviors, and stakeholder perceptions obtained through focus groups.

Read the Report of Local Results

Each question in the report is reprinted as it appeared in the survey booklet that students completed. Following each question are the possible answers that students could select. On the right hand side of the page are 4 columns of percentages. The first column displays the percentage of students locally who selected each answer to a particular question. The second column displays the confidence intervals for these percentages. The confidence interval defines the *margin of error* for the percentage—the percentage of students who gave an answer that is, this may be considered an estimate, and we can be 95% certain that the true percentage falls within the range defined by the confidence interval. The third column contains comparative statewide results, based only on those students from participating schools drawn for the statewide sample, and the fourth column displays the confidence intervals for the statewide results.

Create Visual Displays and Communicate the Information Verbally

It can be extremely helpful to create figures illustrating the results for items of interest. Figures can help communicate the survey results clearly and concisely. For example, assuming that a school administered the survey to students in Grades 6, 8, 10, and 12, then 4 local reports would have been sent to the school (one for each grade). Data from these reports could be assembled into a table comparing the results across the 4 grades and a graph could be drawn to illustrate the table. Graphs should be simple and uncluttered, clearly and concisely labeled (including the axes and data bars), and include a percentage axis drawn to 100% to facilitate comparison. If the school administered the survey previously, it would also be possible to graph changes over time. Regardless of whether local survey results are presented in a table or graph, state the results in simple language.

Topical Guide

This section details the items that were included in each topic area of the survey. For additional information about each of the topic areas, readers are encouraged to read the Analytic Report of the statewide survey results or to contact the sponsoring agencies. Readers may also wish to visit the web sites of relevant federal and state agencies. Readers should note several features of how the item results are displayed, as illustrated below.

Item Results

Your building, district, county, or ESD

*The state sample (**not** all survey participants)*

Number of students who responded to this item

42. How old were you the first time you smoked a whole cigarette?	Local (n = 20)		State (n =4,687)	
a. Never have	60.0%	(± 21.5%)	74.7%	(± 1.2%)
b. 10 or younger	10.0	(± 13.1)	6.4	(± 0.7)
c. 11	15.0	(±15.6)	6.5	(± 0.7)
d. 12	5.0	(± 9.6)	6.8	(± 0.7)
e. 13	10.0	(± 13.1)	4.8	(± 0.6)
f. 14	[illegible]	(± 0.0)	0.8	(± 0.3)
g. 15	[illegible]	(± 0.0)	0.0	(± 0.0)
h. 16	0.0	(± 0.0)	0.0	(± 0.0)
[illegible]	0.0	(± 0.0)	0.1	(± 0.1)

Percent of respondents who gave this response

Margin or error for this response

Items that appear only on the Grade 6 version are included only on Grade 6 reports (and vice versa).

[Item 43 appears only on the elementary version of the survey.]

45. Do you think young people risk harming themselves if they smoke from 1–5 cigarettes per day?[B] (one to five	Local (n = 8)		State (n =4,877)	
[illegible]	12.5%	(± 22.9%)	4.9%	(± 0.6%)
b. Probably no	12.5	(± 22.9)	11.5	(± 0.9)
c. Probably yes	0.0	(± 0.0)	38.7	(± 1.4)
d. Definitely yes	75.0	(± 30.0)	44.9	(± 1.4)

n is smaller because this item appeared on only one version of the survey

See "Key to the Notes"

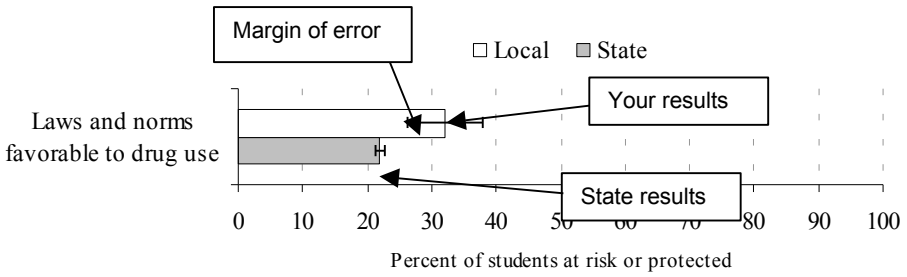
Introduction and Overview

The first page of the local reports contains information about the number of students surveyed, a key to the notes to some items in the report, and highlights of the local reports. These features are outlined below.

Number of students surveyed:	The number of students who submitted survey forms
Number of valid responses:	The number of forms that were considered usable.
Key to the notes:	Explains the notes used throughout the report.
Highlights of the Local Results:	Summary highlights provided for quick reference. This information is detailed alter in the report.

Graphical Summary of Selected Results

The local report contains graphs of selected results. Features of the graphs are illustrated below.



Selected Results Disaggregated by Gender

Results for 6 questions are provided for both males and females. Features of these results are illustrated below.

25. During the past 30 days, on how many days did you smo

Percent of females who gave this response

	Local (*n* = 59)	State (*n* = 4,960)

	Female	Male	Female	Male
None	70.4%	93.8%	89.9%	84.9%
1 or more	29.6	6.2	10.1	15.1

Note. Results are suppressed if any cell represents fewer than 15 students; $p = .021$ from a chi-square test.

To protect anonymity when data are broken down into identifiable groups.

Background Information

The first questions on the survey cover background information about the students (see Exhibit 1). These questions provide information about the students who completed the survey. The results of these questions can be of use to determine how representative the demographic characteristics of the survey respondents are to those of the local population as a whole.

Exhibit 1
Demographic Questions

Item Number	Subject
1–2	Age
3	Gender
4	Ethnic group (multiple response)
5–6	Language spoken at home
7	Highest degree father earned
8	Highest degree mother earned
9	How far think will get in school
10	How many hours per week worked
11	Honesty in filling out survey

Alcohol, Tobacco, and Other Drug Use

Exhibit 2 details the alcohol-, tobacco-, and other drug-related questions contained in the Healthy Youth Survey (2002). Many of these items have been asked since 1988, and trends over time may be observed.

Exhibit 2
Alcohol, Tobacco, and Other Drug Use

Item Number	Subject
12–23	Lifetime substance use
24–38	Substances use in the past 30 days
71–73	Other alcohol- and drug-related questions

Other Health Concerns

The Healthy Youth Survey (2002) contained several questions related to other health concerns. These questions are detailed in Exhibit 3.

Exhibit 3
Health Concerns

Item Number	Subject
74–90	Nutrition and fitness
91–98	Health conditions and health care
99–110	Safety
111–125	Behaviors related to intentional injury
126–135	Depression

School Climate

Students need a safe, nurturing, healthy, and civil learning environment if they are to be successful in school. The school climate questions are detailed in Exhibit 4.

Exhibit 4
School Climate

Item Number	Subject
136	Perceived bullying
137	Perceived safety

138–140	Offensive comments
141	School provides counselor or other resource person
142	HIV/AIDS education
143–144	Other school climate questions

Quality of Life

The Healthy Youth Survey (2002) contained several items related to quality of life. These are reported as questions 145–156.

Risk and Protective Factors

The risk and protective factor model of prevention, pioneered by Drs. Hawkins and Catalano (Hawkins, Catalano, & Miller, 1992), has been applied to the prevention of alcohol, tobacco, and other drug use and other problem behaviors. Several risk and protective factors have been identified and grouped into 4 domains: community, family, school, and peer-individual. The Healthy Youth Survey (2002) contained many questions relating to risk and protective factors that are used to form composite risk and protective factor scales. The University of Washington's Social Development Research Group developed these questions. The Healthy Youth Survey (2002) did not cover all risk and protective factors, although some that were not covered might be important to local prevention efforts.

For each risk and protective factor, the local report indicates the percentage of students who may be considered at risk or resilient on that factor, a determination based on whether their scaled score is above the cut point for that factor. The distribution of the number of risk and protective factors experienced by students is presented. Results from the individual questions are also provided to help readers understand the results of the scales. ***Readers are advised that the risk and protective factor scales and cut points may change***

over time and results from one administration may not be comparable to those reported in previous administrations.

Frequently Asked Questions

Q: What is the difference between "Number of students surveyed" and "Number of valid responses"?

A: "Number of students surveyed" refers to the total number of survey forms that were submitted and scanned. After scanning, the data were run through a variety of quality control checks to cull forms whose responses were repeatedly inconsistent (e.g., reported drinking twice in the last 30 days but never drinking in their lifetime), clearly dishonest (e.g., heavy usage of a nonexistent drug), or irregular (e.g., most items were left blank). The "Number of valid surveys" reflects the number of surveys that made it through the quality control process. Only the results of these valid surveys are presented in your report.

Q: Why is the number of students who took the survey so different on different items?

A: Not every student who completed the survey answered every question for several reasons:

- Students were permitted to skip any items they did not wish to answer.
- Two versions of the survey were administered in every school for Grades 8, 10, and 12. Some items appeared on both versions and some on only one version; consequently, items on both surveys had the potential to be completed by twice as many students as items on only one survey.
- The survey was lengthy, and many students may not have reached the end; consequently, items near the end of the survey were generally completed by fewer students. Because the survey was given in 3 versions (and thus 3 orders), questions near the end of the local report may or may not have been near the end of the survey completed by the students. For instance, the last item on Form A of the survey was numbered 258 on the local report, while the last item on Form B was numbered 70 and the last item on Form C was numbered 124.

Q: What are the superscripted notes, such as "A" and "°" in the question text?

A: The survey was administered in 3 versions, and several items on each form were included at the discretion of the school. The following notes were used

to document the differences between the items on different versions and note the optional items:

A = wording on Form A
B = wording on Form B
C = wording on Form C
° = answer choices presented in a different order on one or more versions of the survey
† = optional item

Q: Why is the report so long?

A: The survey was administered in 3 versions, each of which included items unique to that version. The 2 secondary versions included a core of common items, but Form A included additional risk and protective factor items, whereas Form B included items similar to those traditionally included on the Youth Risk Behavior Survey (YRBS). Form C primarily included items drawn from Forms A and B but also included some unique items tailored to Grade 6 students. Although no version of the survey included more than 148 items (Form A had 137, Form B had 148, and Form C had 96), a total of 262 different items were administered and are included in the local reports.

Q: How is the report organized? Why isn't it just in the same order as the survey?

A: The survey was administered in 3 versions, each with a different emphasis and arranged in a different order. The local report combines these 3 versions and is organized by topic area: alcohol, tobacco, and other drug use; other health concerns; school climate, and quality of life. The items used to compute the risk and protective factor scales are presented at the end of the report after the scales themselves.

Q: Why is the Grade 6 report so different from the other reports?

A: The shorter and less detailed version of the survey administered to students in Grade 6 included only 96 of the total 262 items; consequently, the Grade 6 report is much shorter than reports for Grades 8, 10, or 12. The Grade 6 report includes the same topics areas and has the same organization as the other reports but omits items not administered to the Grade 6 students.

Q: Why are the results missing in the section titled Selected Results Disaggregated by Gender?

A: Breaking down the students' responses by gender creates challenges to student anonymity. If, for example, only one girl took the survey in your building at a certain grade, she would be uniquely identified in this section. Consequently, local results were suppressed for these items if any cell (i.e., item in the results table) represented fewer than 15 students.

Q: Why are the results missing on Item 74 (overweight)?

A: Because being overweight is a visibly identifiable trait, this item creates challenges to student anonymity. Consequently, local results were suppressed at the building level. These results are provided at the district, county, and ESD levels.

References

Anderson, P.A. & Deck, D.D. (1987). *Student Alcohol and Drug Survey: Interpreting your school report*. Portland, OR: Northwest Regional Educational Laboratory.

Arthur, M.W., Hawkins, J.D., Catalano, R.F., and Pollard, J.A. (1998). *Student survey of risk and protective factors and prevalence of alcohol, tobacco, and other drug use*. Seattle, WA: Social Development Research Group.

Centers for Disease Control and Prevention. (1999). *1999 Youth risk behavior surveillance—National Alternative High School Youth Risk Behavior Survey, United States, 1998*. http://www.cdc.gov/epo/mmwr/preview/mmwrhtml/ss4807a1.htm

Centers for Disease Control and Prevention. (2000). *Youth tobacco surveillance: United States, 1998–1999*. http://www.cdc.gov/mmwr/preview/mmwrhtml/ss4910al.htm

Einspruch, E.L., Deck, D.D., Gabriel, R.M., & Nickel, P.R. (2001, March). Interpretive guide. Making the most of your survey data: A guide for exploring and interpreting the results of the Washington State Survey of Adolescent Health Behaviors (2000) [update]. Portland, OR: RMC Research Corportation.

Hawkins, J.D., Catalano, R.F., and Miller, J.Y. (1992). Risk and protective factors for alcohol and other drug problems in adolescence and early adulthood: Implications for substance abuse prevention. *Psychological Bulletin, 112*(1), 64–105.

National Institute on Drug Abuse. (2001, May). *Monitoring the Future: A continuing study of American youth.* http://www.monitoringthefuture.org