

Seattle Families and Education Levy

Evaluation of Teen Health and Middle School Wellness Centers including School Nurse Services

PURPOSE This report summarizes the findings of an evaluation of the Teen Health and Middle School Wellness Centers and School Nurse services located in 8 Seattle Public High Schools and 2 Middle Schools. The evaluation was conducted to evaluate the services provided by the Teen Health and Wellness Centers in order to support and strengthen the delivery of those services. Undertaken in accordance with a Families and Education Levy mandate to evaluate these services, the evaluation was also designed to address specific indicators (see page 4) identified by the Office of Families and Education Levy in collaboration with staff from Seattle School District's Student Health Services and Public Health – Seattle & King County. The overall goals of the evaluation are to assess student satisfaction with school-based services, and the impact of these centers on students' health and behavior.

BACKGROUND

Introduction

Adolescents (ages 10-19) utilize health care services less than any other age group and are least likely to seek medical care at a provider's office. The "Seattle Public Schools 1999 Teen Health Survey" yielded the following data:

- only 64% of middle school students and 66% of high school students reported that they had a health check up in the past year,
- 24% of students said there was no one place they usually go for health care,
- 23% of middle school students and 20% of high school students said they seriously considered suicide in the past year,
- 22% of middle school students and 39% of high school students used alcohol in the month prior to the survey,
- 40% of high school students reported that they have ever had sex,
- 30% of high school students said they had sex in the past three months,
- 7% of female high school students have ever been pregnant, and
- 3% of high school students had ever been diagnosed with an STD.

The majority of behavior patterns that pose lifelong health risks begin in adolescence. Therefore, there is a critical need for adolescents to have access to high quality health services. School-based health centers provide a critical opportunity to meet these needs.

The Families and Education Levy was first passed by the voters of Seattle in 1990 and provides the majority of support for the school-based health centers. The school-based health centers were established on a community partnership model which has been essential to their success. Youth Health Services (YHS) a community program of Public Health – Seattle & King County receives funding from the Levy and has partnered with 7 community health organizations to administer 10 school-based health centers located on the grounds of Seattle Public Schools. All of these agencies contribute resources, expertise, and time, to the clinics they operate. Eight of these, called Teen Health Centers, are located in high schools and two, called Wellness Centers, are sited in middle schools. The first Teen Health Center was established in 1989. The remaining seven sites were opened between 1991 and 1995. Both of the Middle School

Wellness Centers were established in 1999. These services are an important part of achieving the Families and Education Levy mission of keeping kids safe, healthy and ready to learn.

Program Overview

Teen Health and Wellness Centers (TH/WC), which we will also refer to as school-based health centers (SBHC), are comprehensive primary care clinics providing medical and mental health screening and treatment for young people on school grounds. School-based health centers offer services to youth in a familiar and “teen-friendly” setting and are staffed by health professionals trained to work with adolescents. These centers are effective because they are designed to overcome barriers that discourage adolescents from utilizing health services including: lack of confidentiality, inconvenient appointment times, prohibitive costs, and general apprehension about discussing personal health problems.

The mix of services delivered at each site is tailored to the unique needs of each school community. Additional services are provided based on the needs of the health center users and the available resources at the discretion of each sponsoring agency.

The TH/WCs are well-utilized and have consistently been praised by students, parents, and school staff as positive places for students to receive health services, counseling, and health education. The TH/WCs provide both primary care as well as mental health counseling and preventive health services. They also provide numerous other services including:

- groups focusing on a variety of issues such as tobacco cessation, self-esteem, ethnic and cultural identity,
- health education in the class room,
- health fairs to promote healthy attitudes and behaviors,
- nutrition education and cooking demonstrations, and
- coordination between parents, school staff, students, and other health care providers.

Staffing for the health centers consists of an integrated, multidisciplinary team including a nurse practitioner, mental health counselor, services coordinator, and the school nurse.

School nurses are an important component of the system that monitors and provides for the health needs of students in Seattle Public Schools. School nurses are responsible for the health and safety needs of all students and staff in the school building. School nurses carry out state-mandated screenings (such as vision and hearing testing), case manage students with chronic health conditions and/or special health care needs, and often serve as the first point of contact for students with illness or injuries. The roles of the school nurse and the other TH/WC staff are complementary and were designed to work cooperatively. The school-based health center serves as a referral source for the school nurse when students need primary care or follow-up for illness or injuries. Frequently, the school nurse and the other TH/WC staff work together to better serve students with complex health needs. An effective partnership between all of the Teen Health and Wellness Center staff, including the school nurse is essential to the success of these school-based clinics.

DATA SOURCES FOR THE EVALUATION

- Teen Health and Wellness Center User Survey
- 2000/2001 Seattle School Nurse Services Data
- Seattle Public Schools 1999 Teen Health Survey

The primary data source for this evaluation are the findings from a survey of student users of the Teen Health and Wellness Centers. The survey was conducted to assess Teen Health and Wellness Center user satisfaction with health services, perceived access to health care, and changes in knowledge of health-promoting behaviors. The specific indicators addressed by this survey are listed on the following page (page 4).

Seattle School Nurse Services data for school year 2000/2001 were used to evaluate two additional indicators to capture service to Special Education and English as a Second Language (ESL) students.

The Seattle Public Schools 1999 Teen Health Survey provided data to address sexual behavior and risk reduction practices of students in schools with and without Teen Health Centers. We were particularly interested in the frequency of sexual behavior and the use of pregnancy prevention methods among students in schools with a Teen Health Center compared to those from schools without a Teen Health Center.

LEVY GOALS

GOAL TWO: EMPOWER TEEN STUDENTS TO BE HEALTHY AND MAKE HEALTHY CHOICES	
Outcome 2.1: Increased student access to, and appropriate utilization of health and mental health services.	<p>Indicator 2.1a: Number and percent of students, who report they like having a teen health center at their school. (user survey)</p> <p>Indicator 2.1b: Number of student users who would not have received or delayed care if not for the Teen Health/Wellness Center. (user survey)</p> <p>Indicator 2.1c: Number and percent of student users who report increased knowledge and ability to access health and mental health services as a result of the Teen Health/Wellness Center. (user survey)</p> <p>Indicator 2.1d: Number and percent of Special Education students served by school nurse. (school nurse services data)</p> <p>Indicator 2.1e: Number and percent of ESL/bilingual students (ethnicity of users) served by school nurse. (school nurse services data)</p> <p>Indicator 2.1f: Percent of students using school nurse services that receive referrals to other TH/WC providers or to outside services. (user survey)</p>
Outcome 2.2: Improved health status of students.	<p>Indicator 2.2a: Number and percent of student users reporting an improvement in their health as a result of using the Teen Health or Wellness Center. (user survey)</p>
Outcome 2.3: Increase in students who reduce health risk behaviors and increase health- promoting behavior.	<p>Indicator 2.3a: Number and percent of student users reporting an increase in knowledge of health risks and ways to maintain good health (user survey)</p> <p>Indicator 2.3b: [High schools only] Number and percent of sexually active student users reporting a regular form of birth control. Comparison of sexually active users vs. non-users in use of pregnancy prevention methods. (1999 Teen Health Survey)</p> <p>Indicator 2.3c: Number and percent of student users who report the THC staff are adults in school with whom they can discuss their problems. (user survey)</p>

TEEN HEALTH AND WELLNESS CENTER USER SURVEY

METHODS

From April 16, 2001 through June 16, 2001 all eligible users of services at the Teen Health or Wellness Centers at the 8 high schools and 2 middle schools received a 1 page (double-sided) anonymous survey to complete. While the content of the survey instrument was the same for students seeking school nurse services and students seeking nurse practitioner and counseling services there were two distinctly managed arms of the study. The distribution of the survey instrument in each arm was administered and tracked separately. The two arms of this study were, **1) the school nurse services arm** and **2) the nurse practitioner, physician assistant, mental health counselor/case manager arm.**

Eligibility: Any student user of the Teen Health or Wellness Center (TH/WC) making a visit to the school nurse or other Teen Health or Wellness Center staff was eligible to participate in the survey providing their visit met the inclusion criteria listed below:

Inclusion Criteria:

[Arm 1 - School Nurse] Any visit to the school nurse for a student encounter that needed to be documented according to health services protocol (such as for medication, treatment, assessment of symptoms, follow-up on a previous encounter, group, scheduled appointment or for an excused dismissal) was considered an eligible visit.

[Arm 2 - Other TH/WC Staff] Any visit to a Teen Health or Wellness Center provider other than the school nurse, for which the medical chart would be pulled was a visit that fit the criteria for inclusion in the survey.

Exclusion Criteria:

[Arm 1 - School Nurse] Contact to simply schedule an appointment, pick up an item such as a bandaid or a tampon, or to hang out in the waiting room was not considered an eligible visit.

[Arm 2 - Other TH/WC Staff] Contact for which a medical chart would not normally be pulled would exclude the student from being surveyed at that time. For example, if a student came in simply to schedule an appointment they would not be asked to fill out the survey at that time.

Within each arm of the study it was critically important that each student coming in for services from that particular arm received one and only one survey from that arm during the course of the study. The procedures for ensuring this are indicated below:

[Arm 1 - School Nurse] Each school nurse used an alphabetical listing of all students in the school to keep track of which students had received a survey. As the student received the survey a mark was made by their name so that an additional survey would not be given to them at a future visit. At the end of each week the school nurse counted the number of surveys given out that week and recorded it on a weekly tally sheet.

[Arm 2 - Other TH/WC Staff] A survey was placed in each registrant's medical chart prior to the start of the study. When a student came in for a visit with one of the providers the chart was pulled. If a survey was in the chart it was given to the student to complete. If there was no survey in the chart it was assumed that the student had

already been given a survey by another TH/WC provider at an earlier visit. Each of the TH/WC providers used a tracking sheet to record how many surveys were given out each day and at the end of the week the tracking sheets were collected from all Arm 2 providers, were tallied and a weekly total was calculated.

Teen Health and Wellness Center staff used a script to introduce the survey to students and they were invited to complete the survey after they finished their visit at the Health Center and to deposit it in a box placed in the waiting room of the Teen Health or Wellness Center.

Each week, the surveys, tracking sheets and weekly total sheets from Arm 1 and Arm 2 were collected from each site. The weekly total sheets were used to calculate the study's response rates.

RESULTS

During the period from April 16th 2001 through June 15th 2001, 2,550 surveys were distributed to the students through the Health and Wellness Centers and 2,248 were completed, with an overall response rate of 88%. Students seeing the school nurse (Arm 1) completed 1,075 surveys and 1,173 surveys were completed by students seeing other health center staff (Arm 2). Table 1 indicates the schools that participated in the survey, the total number of students enrolled in each school in brackets, and the number of completed surveys by school and arm of the study. The total number of completed surveys varied considerably by school from 122 at Cleveland High School to 384 at Washington Middle School.

Table 1. Number of Students Surveyed by School and Study Arm

<u>Schools Surveyed</u> [student enrollment]:	<u>Number of Students Surveyed</u>		
	<u>ARM 1</u>	<u>ARM 2</u>	<u>TOTAL</u>
Cleveland High School [713]	32	90	122
Franklin High School [1582]	131	224	355
Garfield High School [1724]	103	146	249
Nathan Hale/Summit [1047]	62	110	172
Rainier Beach High School [684]	69	82	151
Roosevelt High School [1686]	131	88	219
Sealth High School [932]	35	91	126
West Seattle High School [874]	112	140	252
Denny Middle School [858]	129	89	218
Washington Middle School [1029]	271	113	384
Total [11,129]	1075	1173	2248

Demographics Of Student Users

Gender

Overall, 67% percent of students completing the survey were female and 33 % were male. Students surveyed when seeking school nurse services were more similar with respect to gender (58.5% female vs. 41.5% male) than those seeking services from other TH/WC staff (76% vs 24% respectively). Generally, a larger percentage of girls seek services from school-based Teen Health And Wellness Centers. The 1999-2000 Annual Report on the Teen Health And Wellness Centers indicated that 79% of student visits were made by females and 21% by males. These results are consistent with those findings and therefore, are not thought to reflect gender bias in survey participation.

Table 2. Gender Of Students Surveyed By Study Arm

SEX	STUDY ARM		TOTAL
	School Nurse	Other TH/WC Staff	
Male	Number	409	670
	(%)	(41.5%)	(32.6%)
Female	Number	577	1387
	(%)	(58.5%)	(67.4%)
Total*	Number	986*	2057*

*191 students were missing gender, 89 in the School Nurse arm and 102 in the Other TH/WC staff arm.

Race/Ethnicity

The survey asked students to indicate their race and ethnicity. In keeping with new Federal standards, they were allowed to select more than one race and ethnicity if that applied to them. Figure 1 indicates the surveyed students reported race(s). Because students were allowed to select more than one race, the total adds up to more than 100%. Using the multiple reporting scheme, 7 % identified as American Indian/Alaska Native, 17% identified as Asian, 6% as Pacific Islander, 38% as African American, 10% identified as Latino/Hispanic, 26% as White, and 3% as "Other" race.

In Figure 2 the race/ethnicity categories are mutually exclusive. In other words, students are represented in only one category. For those students selecting more than one race/ethnicity a "multiple race" category was created to capture those students. Using that scheme, 1% identified as American Indian/Alaska Native, 14% as Asian, 28% as African American, 10% as Latino/Hispanic, 26% Caucasian, 3% Pacific Islander, 15% identified multiple races, and 3% identified as "other". The 1999-2000 Annual Report of Youth Health Services indicated that 4% of visits to the TH/WC were made by American Indian/Alaska Natives, 16% by Asians, 29% by African Americans, 5% by Latinos, 7% with multiple races, 27% Caucasian, and 12% other or unknown race.

Table 3 compares the race/ethnicity of the students surveyed with the race/ethnicity of the entire student body of the ten participating schools. The race/ethnicity for the entire school population comes from the Seattle School District data which allow only one race to be selected. In addition, the District data didn't differentiate Pacific Islander from Asian. The race/ethnicity distribution of the surveyed students is fairly similar to that of the schools as a whole with the exception that a smaller percentage of White and Asian students were surveyed.

Figure 1. Reported race of student users - multiple responses possible

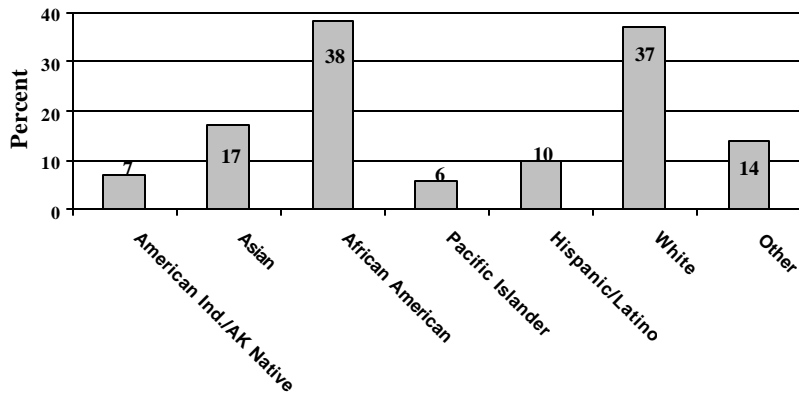


Figure 2. Reported race of student users - mutually exclusive categories

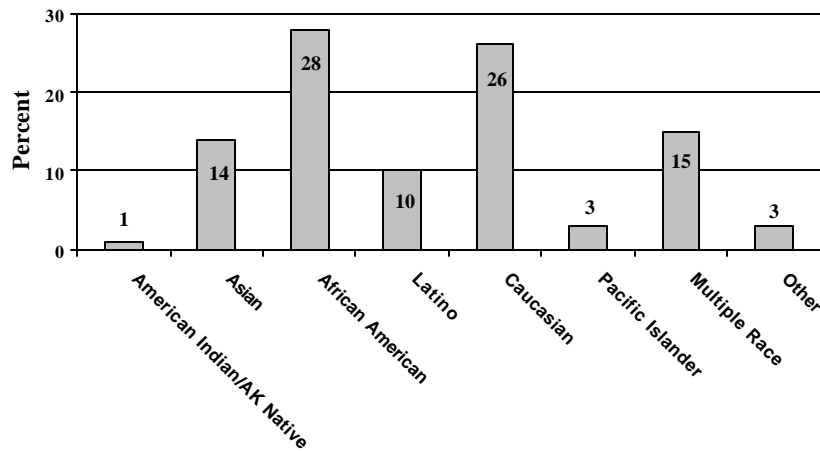


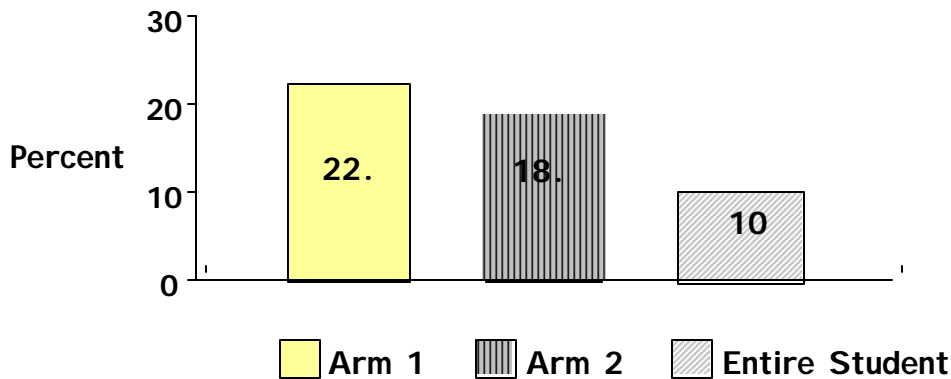
Table 3. Race/ethnicity of students surveyed and of the 10 schools where the survey was administered.

	Surveyed student users	Entire Student Body of 10 Schools
American Indian/Alaska Native	1%	2%
Asian	14%	26%
African American	28%	28%
Latino/Hispanic	10%	9%
White	26%	39%
Pacific Islander	3%	
Multiple races	15%	
Other	3%	

Primary Language

Twenty-two percent of surveyed students who visited the school nurses and 19% of surveyed students who visited other Teen Health or Wellness Center staff reported that English was not their native language. The percentage of ESL/bilingual students in the schools as a whole is only 10%. It is not clear whether the students reporting that English is not their native language would also be classified as "ESL/bilingual" by the Seattle School District. Nevertheless, it would seem that overall, the Teen Health and Wellness Centers are serving at least a representative proportion of these students (Figure 3).

Figure 3. Percent of users reporting that English isn't their native language



Students Like Having A Health Center At Their School

[Indicator 2.1a]

The vast majority of both high school and middle school student users of Teen Health and Wellness Center services reported that they "like" having a health center at their school and that they would recommend the health center to their friends. When asked to rank the quality of the services that they received and the staff's attention to their concerns and questions, over 90% ranked them as good or excellent. Ninety percent felt that having a health center at their school allowed them to pay better attention when they were in class. A sizeable percentage of students from both arms of the study said that the Teen Health or Wellness Center was their usual place to get health care and is the place that they prefer to go for care. These are strong endorsements of the Teen Health and Wellness Centers. These findings are presented in more detail below.

The percent of Arm 1 and Arm 2 student users, who report that they like having a Teen Health or Wellness Center at their school is shown in Figure 4. Ninety-eight percent of Teen Health and Wellness Center users surveyed indicated that they liked having a Health Center at their school. Ninety-six percent of student users surveyed reported that they would recommend the Health Center to their friends at school (Figure 5).

Figure 4. "I like having a Health Center at my school."

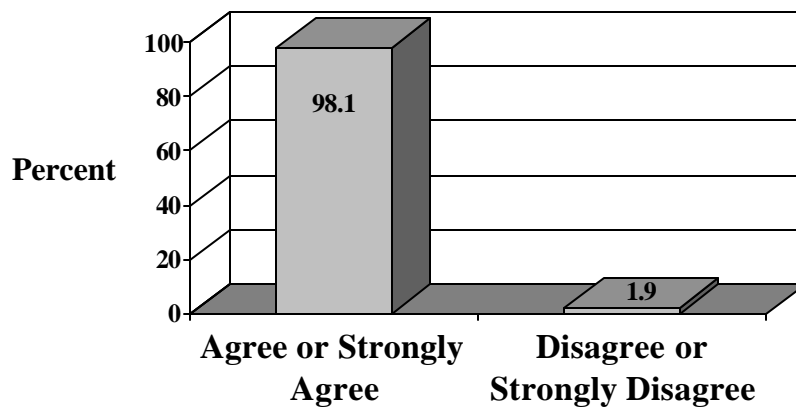
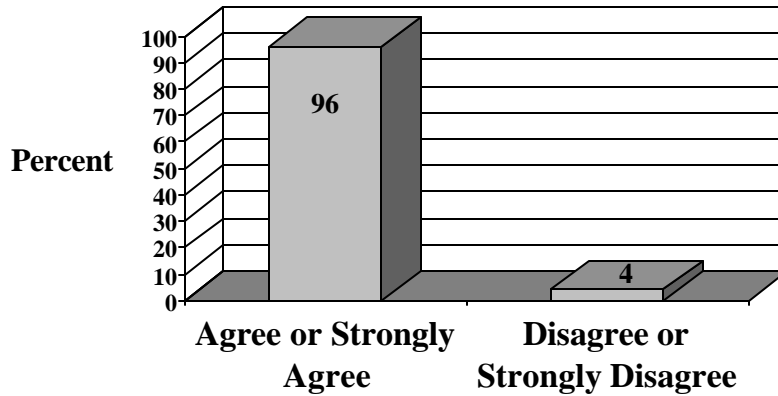


Figure 5. "I would recommend the Health Center to my friends."

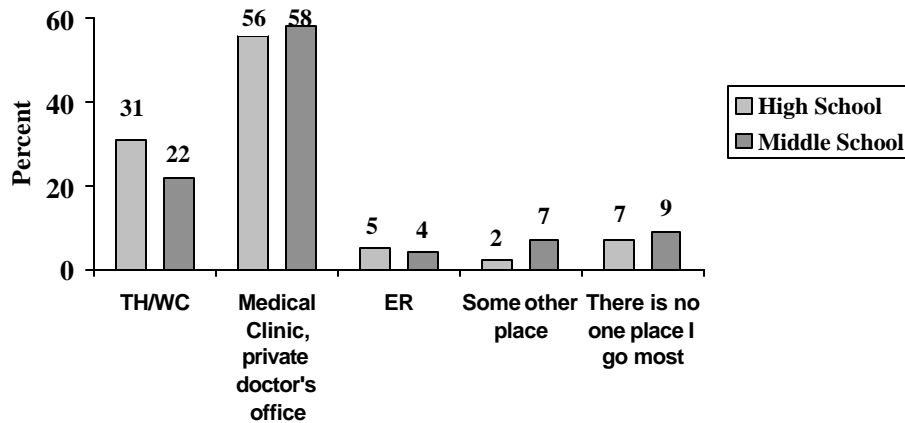


Where Students Usually Go For Professional Health Care

Teen Health and Wellness Center users most often reported that they usually get their care at either the Teen Health or Wellness Center or at a doctor's office or clinic. This varied somewhat depending on the study arm and whether or not the students were in high school or middle school. Therefore, the results are presented separately for each of these.

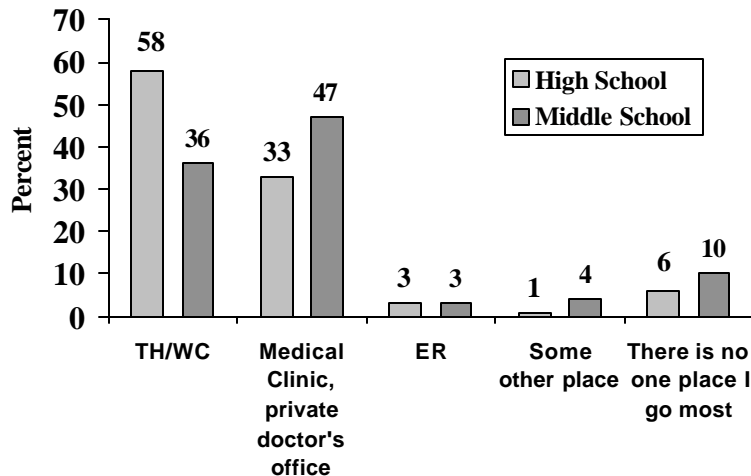
Fifty-six percent of surveyed high school students using school nurse services reported that they usually got care at a doctor's office or clinic and 31 percent usually got care at their school's Teen Health Center, their second most frequent place for care. Four and a half percent of these users reported that they got most of their care in the emergency room and approximately 7 percent reported that they had no one place that they usually went for health care. This would suggest about eleven and a half percent of these students do not have a regular source of health care (Figure 6). Figure 6 also indicates these results for middle school students who were surveyed when they visited their school nurse. Fifty-eight percent reported that they usually got care at a doctor's office or clinic and 22 percent usually got care at their school's Wellness Center. Four percent reported that they got most of their care in the emergency room and 9 percent had no one place that they usually went for health care.

Figure 6. School Nurse - Arm 1: "What is the one place that you go most for professional health care?"



The largest percentage of high school Arm 2 (other TH/WC staff) users reported that they most often got care at the Teen Health Center (58%), followed by care at a doctor's office or clinic (33%). Two and a half percent of high school Arm 2 student users surveyed reported that they got their health care most often in the emergency room and 6% reported that they had no usual place of health care totaling about 8% having no regular source of health care (Figure 7). Middle school Arm 2 users most often got care at a doctor's office or clinic (47%) and 36.1% got care most often at the Wellness Center. Three percent of these students got care most often in the emergency room and 10% reported that they had no usual place of health care (Figure 7).

Figure 7. Other TH/WC Staff - Arm 2: "What is the one place that you go most for professional health care?"

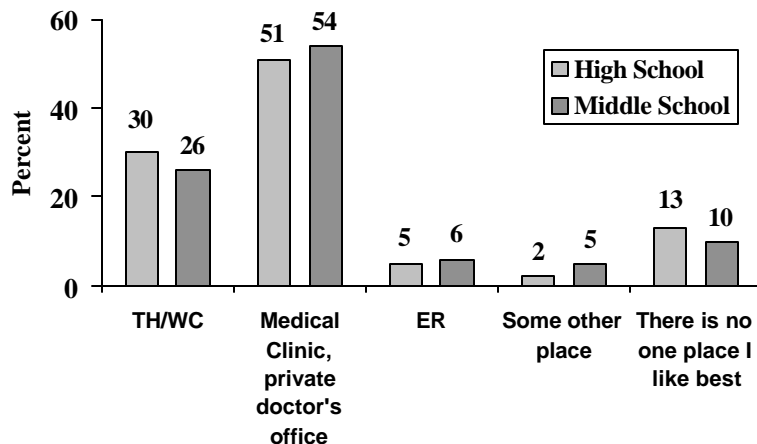


Where Students Prefer To Go For Professional Health Care

In general, the majority of student users of the Teen Health and Wellness Centers reported that they prefer to get their health care either at their school's health center or at a medical clinic or doctor's office. Again, this varied by study arm and whether the students were in high school or middle school. The results are therefore again presented separately for each of these.

Approximately half of high school student users of school nurse services (Arm1) who were surveyed (51%) reported that they preferred to get their health care from a medical clinic or doctor's office. Thirty percent of these students reported that they preferred getting their health care at their school-based health center (Figure 8). Nearly 5% said they preferred to get their care in the ER and 13% said there was no one place where they preferred to get care. Middle school student users of school nurse services showed a similar pattern of preference with 54% reporting that they preferred to get their health care from a medical clinic or doctor's office and 26% reporting that they preferred getting their health care at their school-based health center (Figure 8). Nearly 6% said they preferred to get their care in the ER and 10% said there was no one place where they preferred to get care.

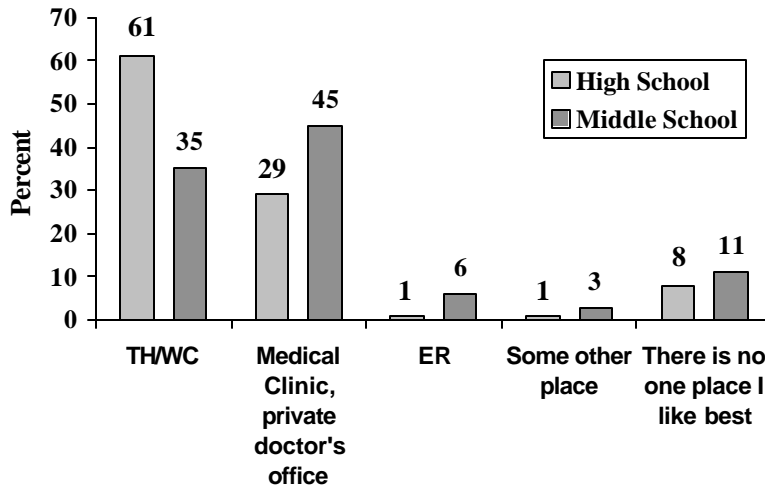
Figure 8. School Nurse - Arm 1: "Where do you like best to go for professional health care?"



Sixty-one percent of high school student users of the other health center services (Arm 2) reported that they prefer to get their health care at the Teen Health Center at their school. Twenty-eight and one half percent of these students preferred to get their health care at a medical clinic or doctor's office (Figure 9). Approximately 1% said they preferred to get care in the ER and 8% said there was no one place where they

preferred to get care. Middle school student users of the other Wellness Center services (Arm 2) preferred to get care at a medical clinic or doctor's office (45%) and 35% preferred to get care at their school's Wellness Center. Approximately, 6% preferred to get care in the ER and 11% said their was no one place where they preferred to get care (Figure 9).

Figure 9. Other TH/WC Staff - Arm 2: "Where do you like best to go for professional health care?"



Student Rating Of The Quality Of Their Visit

Students were asked to rate various aspects of their visit that day to the Teen Health and Wellness Center as "excellent", "good", "fair", or "bad". In general, the Teen Health and Wellness Centers received "good" or "excellent" ratings from a majority of students surveyed. Eighty-eight percent of students surveyed rated the waiting time for today's visit as "good" or "excellent" (Figure 10). Ninety-six percent reported that the staff's attention to their concerns and questions was "good" or "excellent" (Figure 11) and 97% rated the quality of care they received as "good" or "excellent" (Figure 12). These findings were similar for both Arms of the study indicating that students are generally quite satisfied with the services that they received.

Figure 10. Student rating of waiting time for today's visit

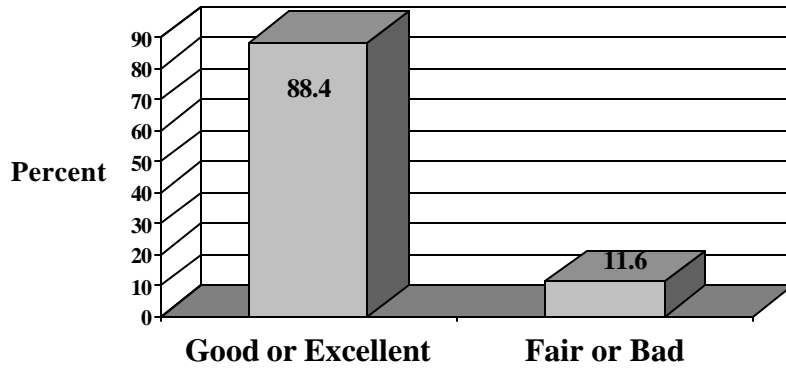


Figure 11. Student rating of staff's attention to their concerns and questions

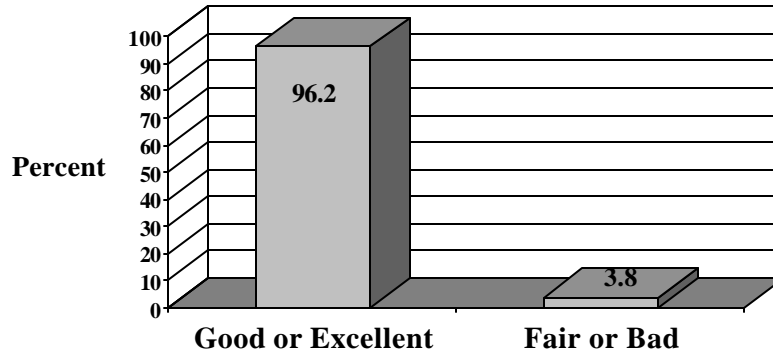
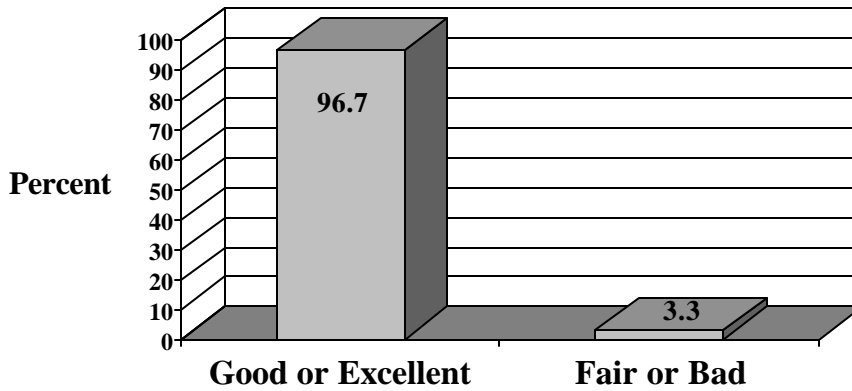


Figure 12. Student rating of quality of care received



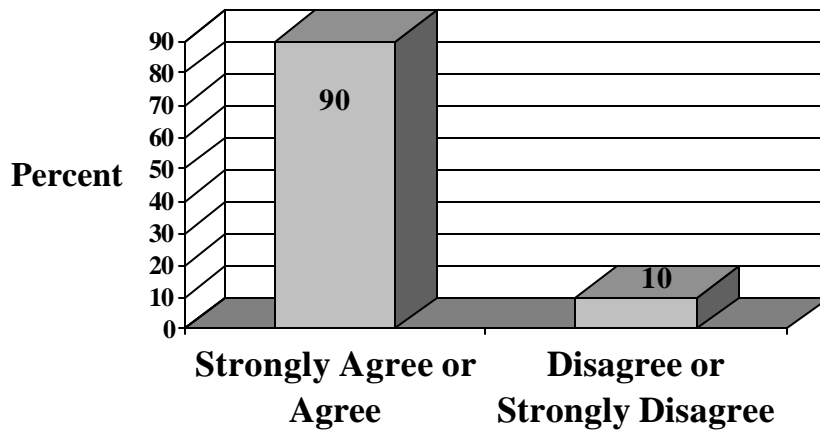
Support for Education

A majority (90%) of student users reported that being able to get health care at school helped them to be more attentive when they were in class (Figure 13). In addition school-based health centers have been reported to work because they are located in school, where the students are, and thus students are able to minimize the amount of school time they must sacrifice to take care of health needs.

"Thanks for letting me get what i need otherwise i would be missing a lot of days of school 1 week each month is not good" - **7th grade male**

"I love the teen health center. It's convenient because i don't have to take a lot of time off of school to get an appointment." - **11th grade female**

Figure 13. "Getting care at school helps me pay better attention in class."



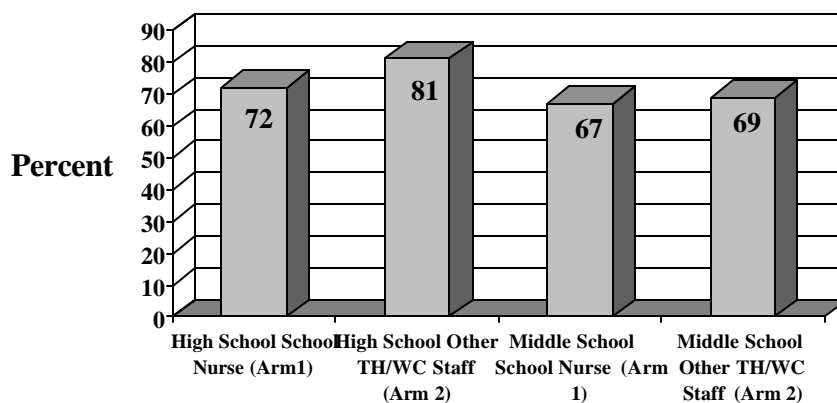
Having A Health Center At School Improves Students Access To Health Services [Indicator 2.1b]

"I really appreciate the thc. It makes things easier for me and it's quick. I get a lot of help that i wouldn't usually get. I'm really glad we have a thc." **11th grade female**

Figures 14 and 15 show the percent of student users who would not have received or would have delayed care if not for the Teen Health or Wellness Center. A majority of student users agreed or strongly agreed with the statement, "I get care that I wouldn't otherwise get." An even larger majority agreed or strongly agreed with the statement "I get care sooner than I would otherwise get it."

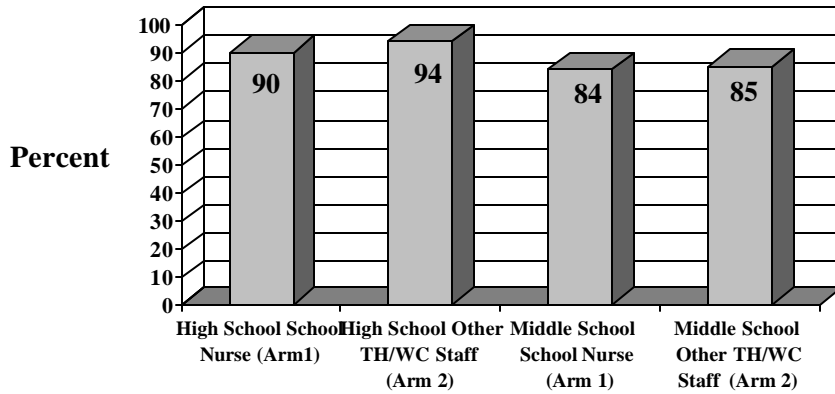
Seventy-two percent of high school students who saw the school nurse (Arm 1) and 81% of high school students who saw other health center staff (Arm 2) felt they got care that they wouldn't otherwise get. Sixty-seven percent of middle school students in Arm 1 and 69% of middle school students in Arm 2 felt they got care that they wouldn't otherwise get (Figure 14).

Figure 14. "I get care that I wouldn't otherwise get." – Percent agree or strongly agree by school and study arm



Over 90% of high school students in either Arm 1 or Arm 2 reported that because of the Teen Health Center they got care sooner than they otherwise would have gotten it. Approximately 84% of middle school students in either Arm 1 or Arm 2 reported that because of the Wellness Center at their school they got care sooner than they would otherwise have gotten it (Figure 15).

Figure 15. "I get care sooner than I would otherwise get it." – Percent agree or strongly agree by school and study arm

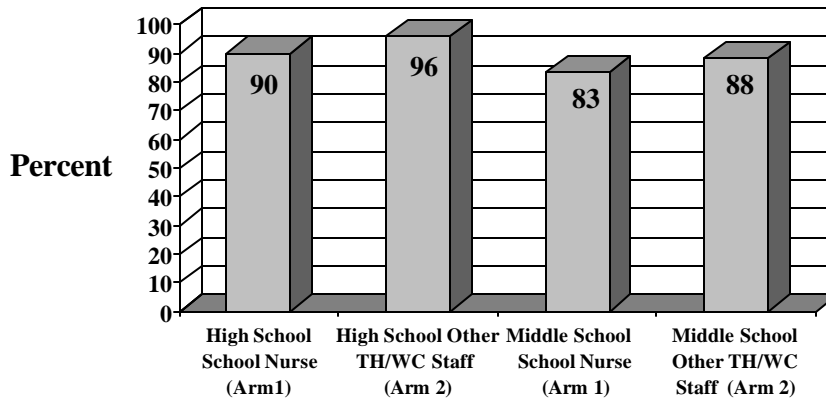


Students Report Increased Knowledge And Ability To Access Health And Mental Health Services As A Result Of The Teen Health And Wellness Centers.

[Indicator 2.1c]

More than 80% of students seeking services reported that they were more knowledgeable and better able to access health and mental health services as a result of the Teen Health or Wellness Center (Figure 16).

Figure 16. "I am more able to get health and mental health services as a result of having a Health Center at my school."



Percent Of Students Using School Nurse Services That Receive Referrals To Other Teen Health Or Wellness Center Providers Or To Outside Services
 [Indicator 2.1f]

Two percent of both high school and middle school students surveyed after visiting the school nurse reported that they received a referral from the school nurse for other services within the health center and 1% reported a referral to services outside of the health center (Figures 17a and 17c).

One and one half percent of high school students surveyed after visiting teen health center staff other than the school nurse reported that they received a referral from their provider for other services within the health center and 1% reported a referral to services outside of the health center (Figure 17b). Three and one half percent of middle school students surveyed after visiting teen health center staff other than the school nurse reported that they received a referral from their provider for other services within the health center and 1% reported a referral to services outside of the health center (Figure 17d).

Figure 17a. High School, Arm 1: Types of service received at today's visit

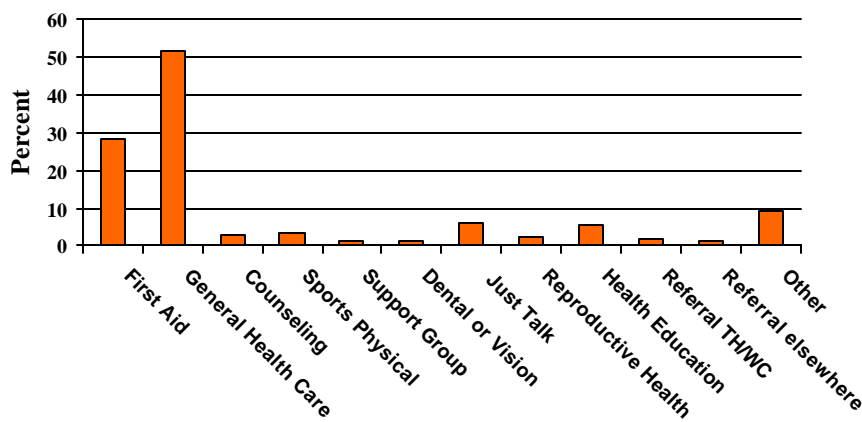


Figure 17b. High School, Arm 2: Type of service received at today's visit

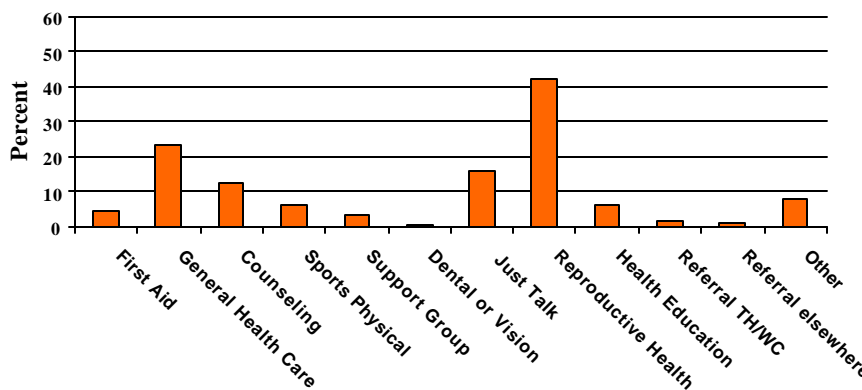


Figure 17c. Middle School, Arm 1: Type of service received at today's visit

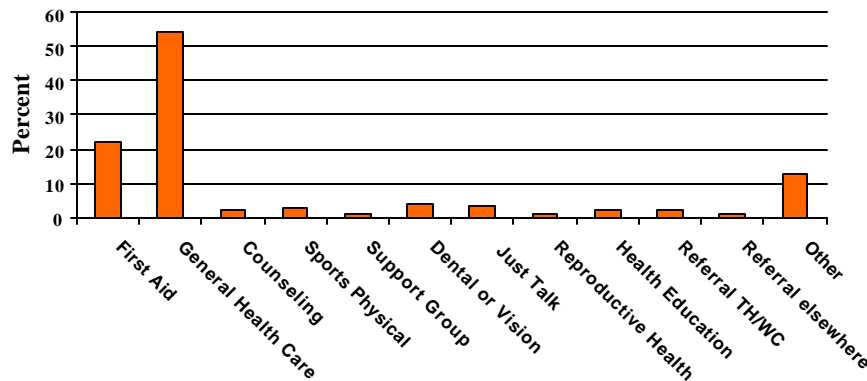
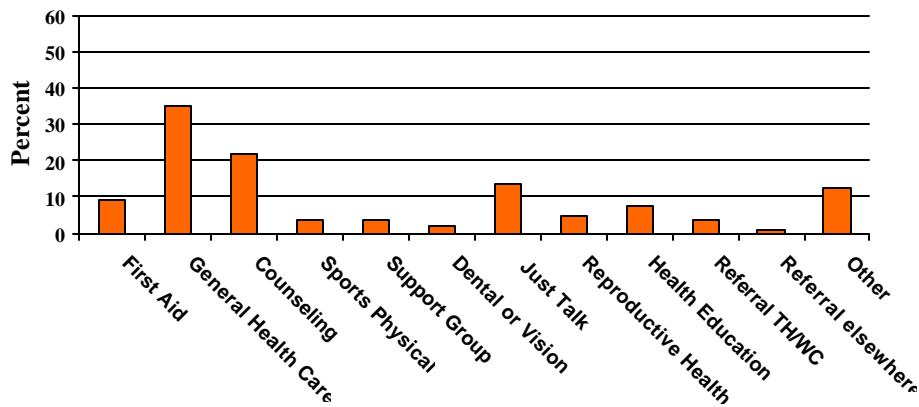


Figure 17d. Middle School, Arm 2: Type of service received at today's visit

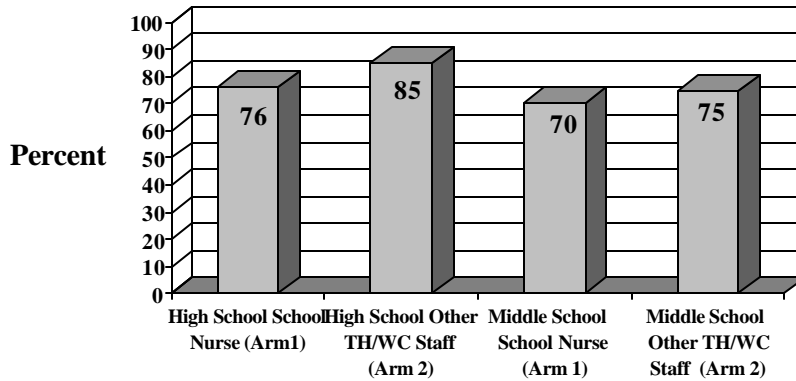


Students Report An Improvement In Their Health As A Result Of The Using The Teen Health Or Wellness Center. [Indicator 2.2a]

The majority of student users reported that they agreed or strongly agreed with the statement, "My health has improved as a result of having a Health Center at my school." This varied slightly by whether they were in high school or middle school and by whether they were surveyed after seeing the school nurse or after seeing other health center staff. Seventy-five percent of high school students surveyed after seeing the school nurse reported that they agreed with this statement. Eighty-five percent of high school students seeing other health center staff said they agreed with the statement.

Seventy percent of middle school students surveyed after seeing the school nurse reported that they agreed with this statement. Seventy-five percent of middle school students surveyed after seeing other health center staff reported that they agreed with this statement (Figure 18).

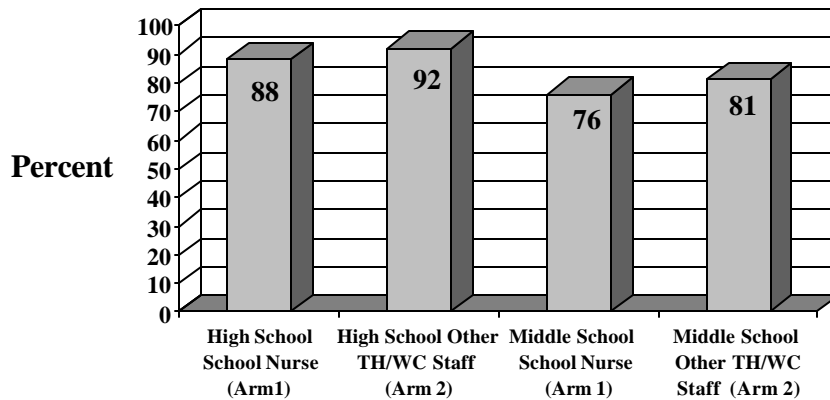
Figure 18. "My health has improved as a result of having a Health Center at my school." - Percent agree or strongly agree



Students Report An Increase In Their Knowledge Of Health Risks And Ways To Maintain Good Health. [Indicator 2.3a]

More than three quarters of student users of Teen Health or Wellness Center services agreed or strongly agreed with the statement, "I know how to take better care of my health as a result of contact I've had with the staff of the Health Center." Eighty-eight percent of high school students who were surveyed after visiting the school nurse agreed with this statement. Ninety-two percent of high school students who were surveyed after visiting the other health center staff agreed with the statement. Seventy-six percent of middle school students who were surveyed after visiting the school nurse agreed with this statement and 81% of middle school students who were surveyed after visiting the other health center staff agreed with the statement (Figure 19).

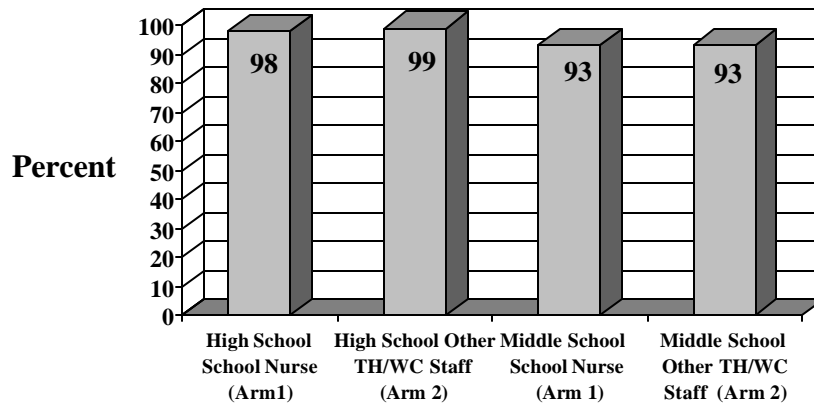
Figure 19. "I know how to take better care of my health as a result of contact I've had with the staff of the Health Center."- Percent agree or strongly agree



Students Feel That The Teen Health And Wellness Center Staff Are Adults In School With Whom They Can Discuss Their Problems. [Indicator 2.3c]

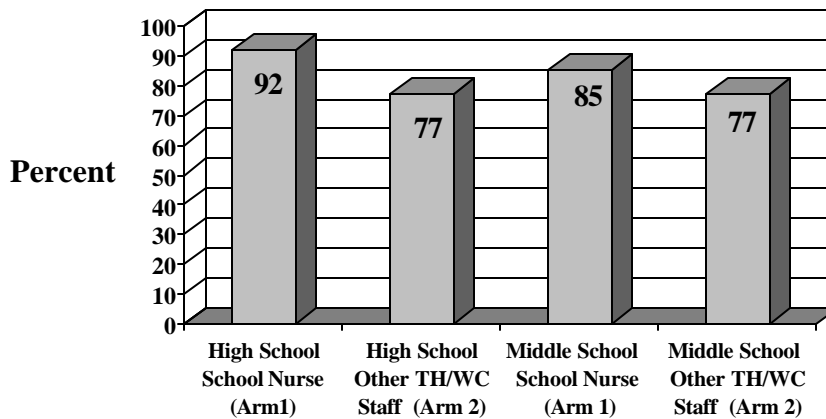
Figures 20-23 indicate the percent of student users who report that the Teen Health and Wellness Center staff are adults in school with whom they can discuss their problems. More than 90% of students surveyed reported that the staff of the health center usually provide the information needed to answer their questions. This was slightly higher for high school students compared to middle school students. Ninety-eight percent of high school students surveyed after visiting the school nurse agreed or strongly agreed with the statement, "When I have health questions, the staff of the Health Center usually provide the information I need to answer my questions." (Figure 20). Ninety-nine percent of high school students who were surveyed after visiting the other health center staff agreed with this statement (Figure 20). Ninety-three percent of middle school students who were surveyed after visiting the school nurse agreed with this statement and 93% of those surveyed after visiting the other health center staff agreed with the statement (Figure 20).

Figure 20. "When I have health questions, the staff of the Health Center usually provide the information I need to answer my questions." - Percent agree or strongly agree



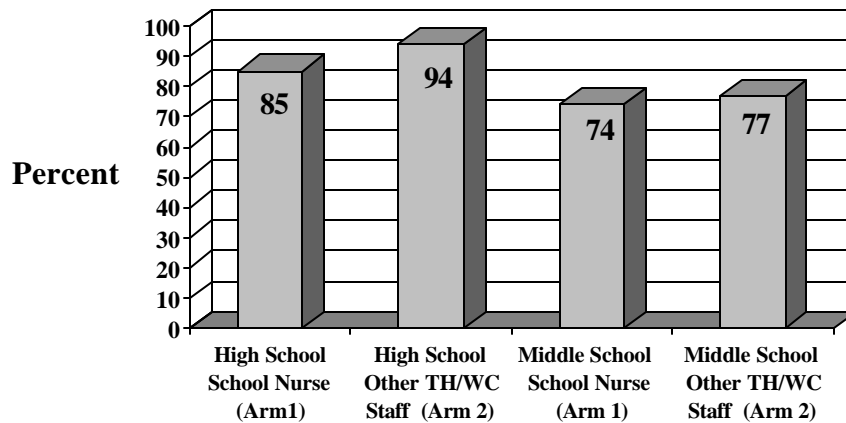
More than 90% of high school students surveyed after visiting the school nurse agreed with the statement "I feel comfortable talking about my health issues and problems with the School Nurse" (Figure 21). Seventy-seven percent of high school students surveyed after visiting other health center staff agreed with the statement (Figure 21). Eighty-five percent of middle school students surveyed after visiting the school nurse agreed with the statement as did 76.5% of middle school students surveyed after seeing other Wellness Center staff. (Figure 21).

Figure 21. "I feel comfortable talking about my health issues and problems with the School Nurse." – Percent agree or strongly agree



Eighty-five percent of high school students surveyed after visiting the school nurse agreed with the statement "I feel comfortable talking about my health issues and problems with the Nurse Practitioner, Physician Assistant or Physician" (Figure 22). Ninety-four percent of high school students surveyed after visiting other health center staff agreed with the statement (Figure 22). Seventy-four percent of middle school students surveyed after visiting the school nurse agreed with the statement as did 77% of middle school students surveyed after seeing other Wellness Center staff. (Figure 22).

Figure 22. "I feel comfortable talking about my health issues and problems with the Nurse Practitioner, Physician Assistant, or Physician." – Percent agree or strongly agree

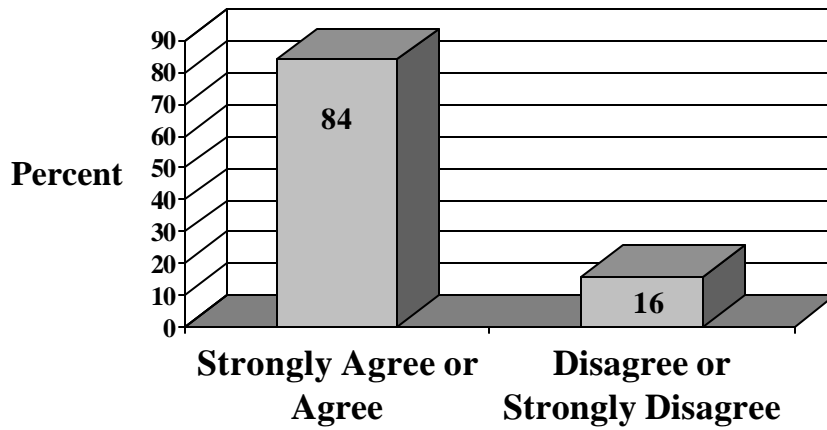


Approximately 59% of high school student users and 45% of middle school student users reported that they had seen the Health Center's counselor or case manager one or more times over the past school year (since September, 2000). Eighty-four percent of these high school and middle school students agreed or strongly agreed with the statement, "I feel comfortable talking about my health issues and problems with the Counselor or Case Manager," (Figure 23).

It is interesting to note that those students who had seen the counselor more often compared to those who had only seen the counselor once were much more likely to report feeling comfortable talking about these issues with the counselor or case manager. More than 90% of students who had seen the counselor 8 or more times reported that they feel comfortable talking with the counselor or case manager about their health issues and problems. Of students who had seen the counselor only once, 77% reported agreed with the statement, 82% of students who had seen the counselor 2-4 times, and 89% of students who had seen the counselor 5-7 times. There appears to be a gradient of increasing comfort with increasing contact. This could be interpreted in several ways. Students who continue to see the counselor clearly are

more likely to report feeling comfortable. Presumably if they didn't feel comfortable they wouldn't have continued to see the counselor. This finding also speaks to the possibility of a growing rapport with the counselor that develops over time and contributes to students level of comfort in working with a mental health provider on their issues.

Figure 23. Students who've seen the counselor: "I feel comfortable talking about my health issues and problems with the Counselor or Case Manager."



Types Of Services Received

Students were asked to list the services from the health center that they received during their visit on the day that they were surveyed. As would be expected, a different pattern of services emerged for the two study arms. The school nurses in both the high school and middle school health centers tended to provide predominantly general health care (52% and 54% respectively) which was defined as care for specific acute health issues such as sore/throat, colds/flu, headaches, menstrual cramps, stomach ache, rash, prescription or non-prescription medication (Figures 17a and 17c). First aid or injury treatment was the next most common type of service received from the school nurse (28% high school and 22% middle school). High school students reported that they visited the school nurse "just to talk" (6%) and 5.5% received health education (Figure 17a).

The services received from other staff of the Teen Health and Wellness Centers reflected different and more varied types of services than those provided by the school nurses. The most frequent type of service reported by high school students visiting the other Teen Health Center staff was reproductive health (42%) which included information on reproductive health, reproductive health exams, PAP smears, pregnancy testing, STD testing and birth control (Figure 17b). Twenty-three percent said they had received general health care, and 16% visited the Teen Health Center "just to talk" to health center staff. Twelve and one half percent reported that they received counseling from their school's Teen Health Center that day. Six percent said they had received a sports physical, 6% said they had received health education, and 3% reported that they attended a support group.

Middle school students visiting the Wellness Center staff other than the school nurse most often reported that they had received general health care (35%), with counseling (22%) the next most frequent service received. Thirteen percent reported that they visited the Wellness Center staff "just to talk" and 9% for first aid or injury treatment. Seven and one half percent received health education at their visit to the Wellness Center that day (Figure 17d).

Figures 24 through 29 indicate the frequency of visits to the school nurse, nurse practitioner, physician assistant or physician and counselor or case manager over the past school year by high school vs. middle school and by study arm.

Figure 24. High School: Number of times students report having seen School Nurse over past school year (since 9/2000) by Study Arm

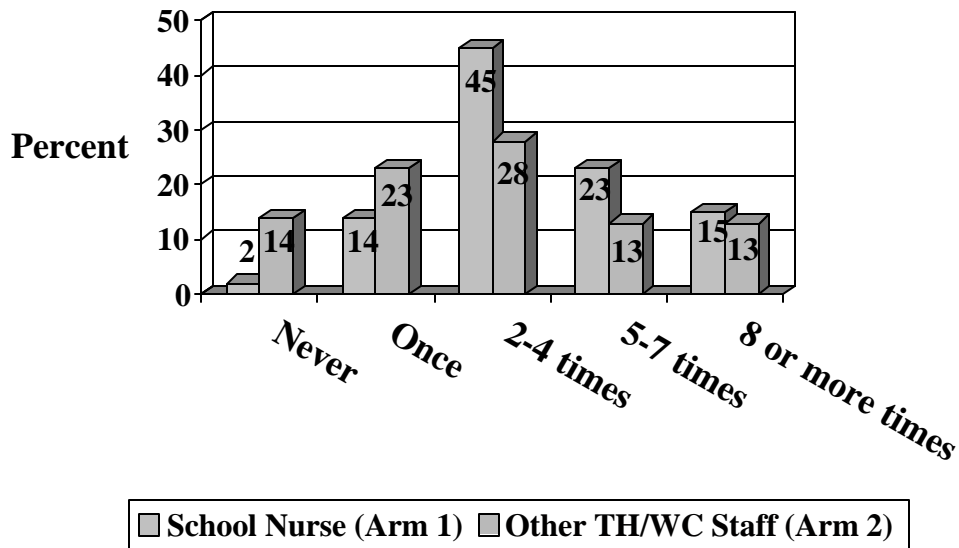


Figure 25. Middle School: Number of visits to School Nurse over the past school year (since 9/2000) by Study Arm

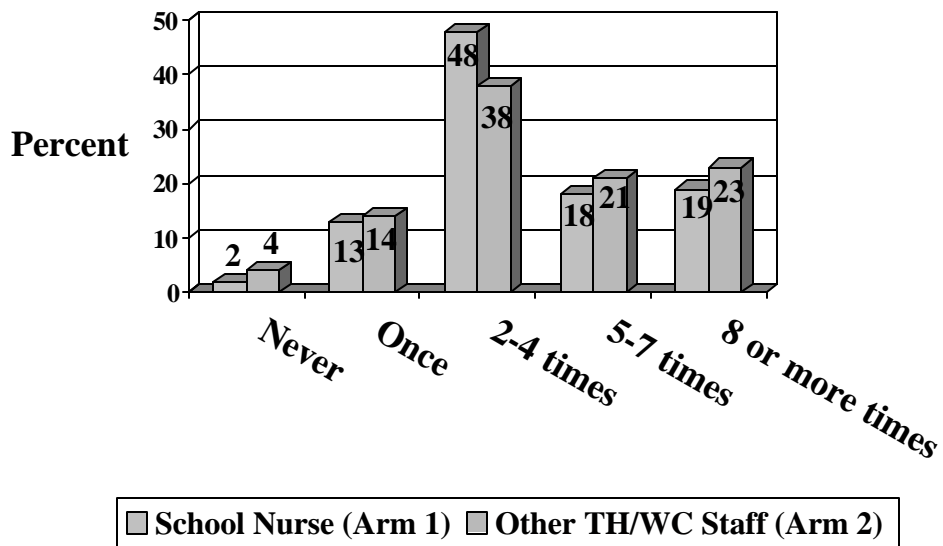


Figure 26. High School: Number of visits to Nurse Practitioner, Physician Assistant, Physician over the past school year (since 9/2000) by Study Arm

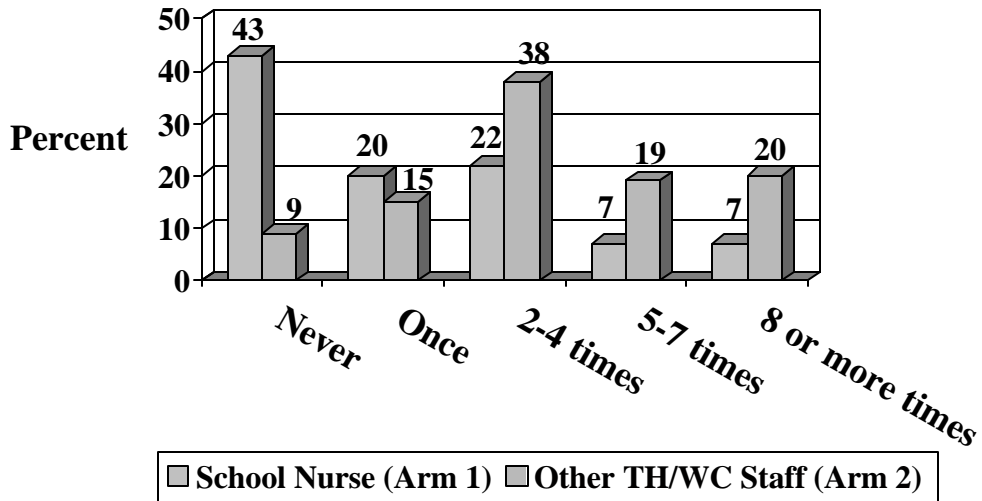


Figure 27. Middle School: Number of visits to Nurse Practitioner, Physician Assistant, Physician over the past school year (since 9/2000) by Study Arm

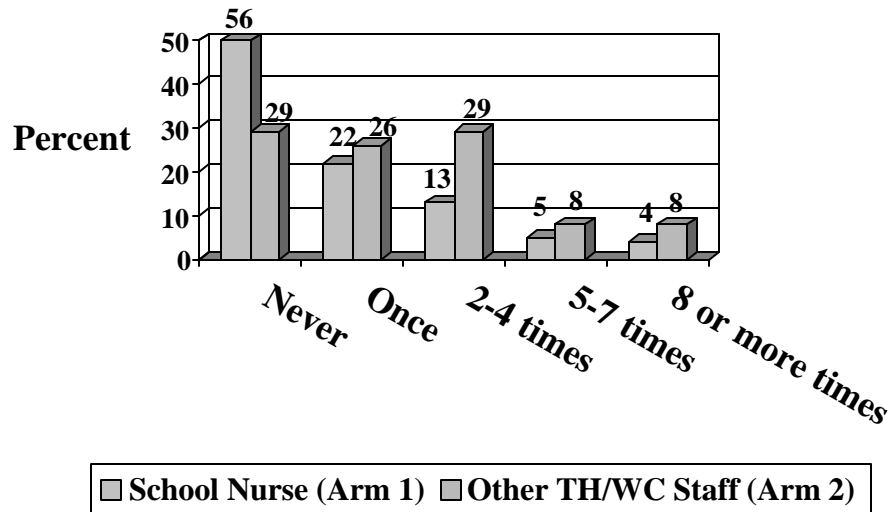


Figure 28. High School: Number of times students report having seen Counselor over past school year (since 9/2000) by Study Arm

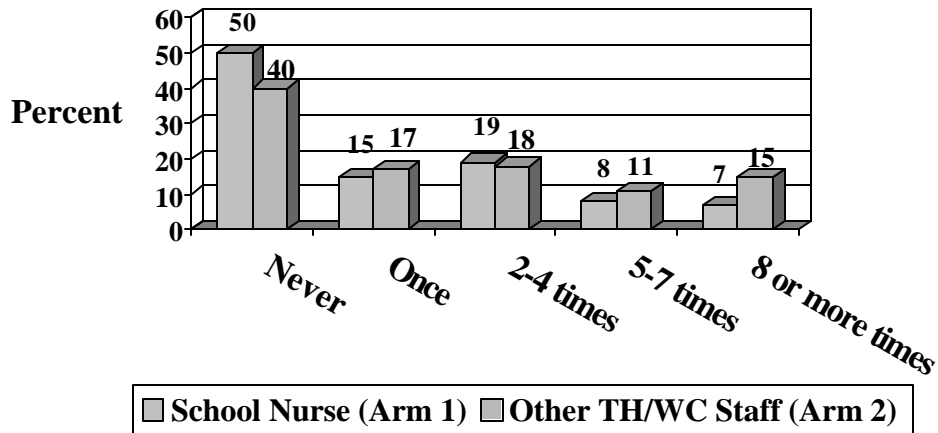
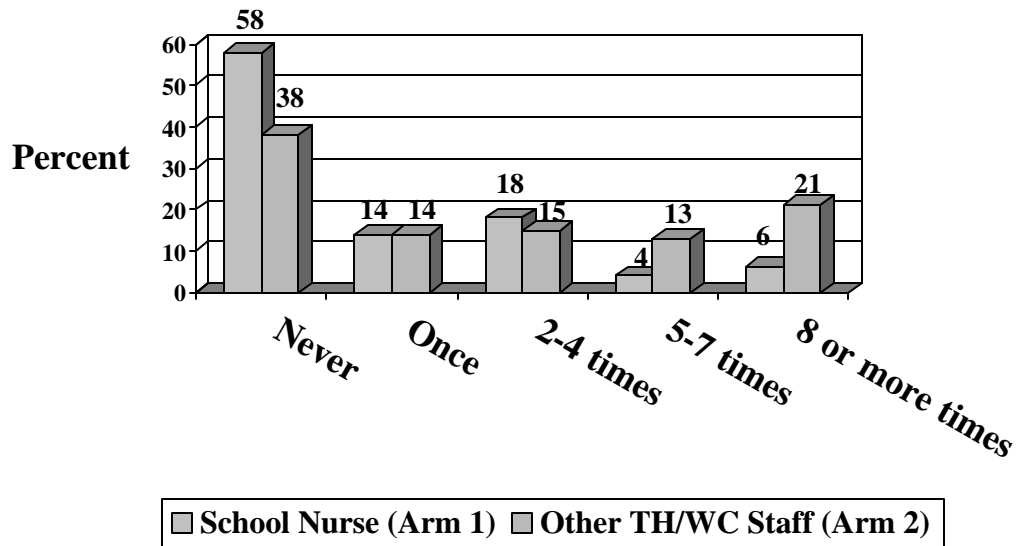


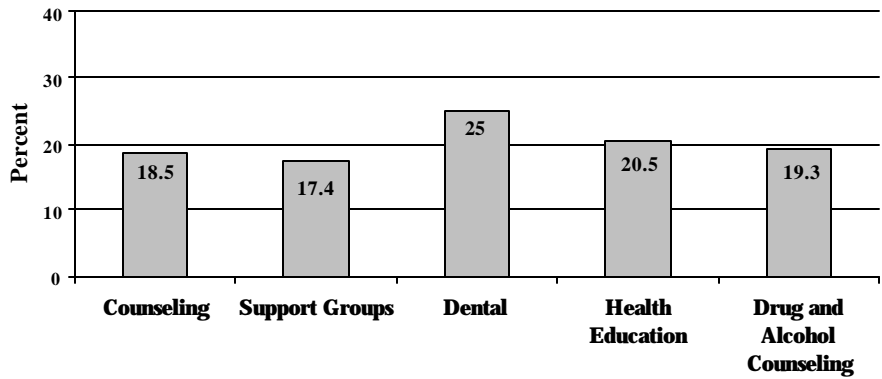
Figure 29. Middle School: Number of times students report having seen Counselor over past school year (since 9/2000) by Study Arm



Types Of Services Students Would Like To See Offered

Students were asked what additional services they would like to see their Teen Health or Wellness Center provide more. Figure 30 indicates that 25% of the students surveyed would like to have dental services offered through their school. About 20% of students selected each of the remaining categories, counseling, support groups, health education and drug and alcohol counseling as services they would like to see more often provided.

Figure 30. "What services would you like your Teen Health or Wellness Center to provide more of?"



SEATTLE SCHOOL DISTRICT NURSE SERVICES DATA

The Seattle School District provided aggregate data on the demographics of students who had received school nurse services during school year 2000-2001. These data were analyzed to address Indicators 2.1d and 2.1e listed below.

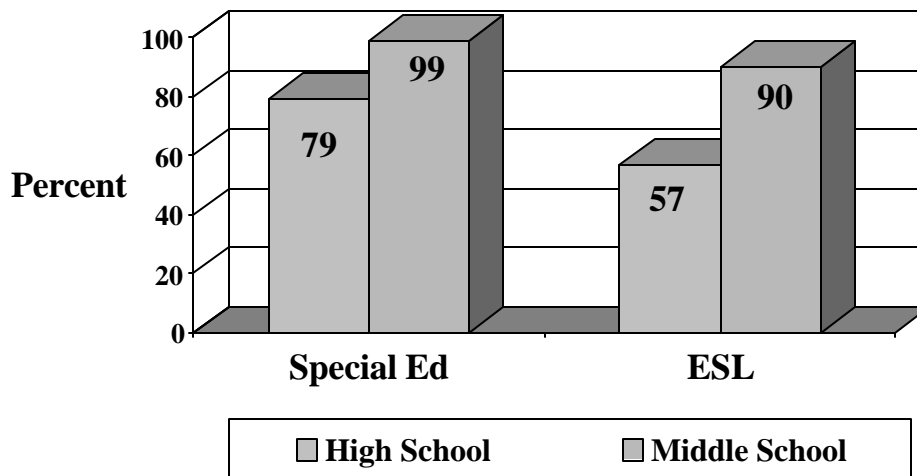
Number And Percent Of Special Education Students Served By School Nurse [Indicator 2.1d]

In both high school and middle school the vast majority of special education students are seen by the school nurse. During the study period, the school nurse in the high schools saw on average, 79% of the special education students in their schools. This ranged from 63% for Cleveland to 91% for Rainier Beach High School (Figure 31). The school nurse in the middle schools saw an average of 99% of special education students with 97% seen at Washington and 100% at Denny (Figure 31).

Number And Percent Of ESL/Bilingual Students Served By School Nurse [Indicator 2.1e]

School nurses also serve a large percentage of bilingual students. Fifty-seven percent of high school English as a Second Language (ESL)/ bilingual students were seen by the school nurse during the study period. This ranged from 35% at Cleveland to 90% at Rainier Beach (Figure 31). School nurses in the middle schools saw an average of 90% of ESL students during the study period with 81% seen at Washington to 96% at Denny (Figure 31).

Figure 31. Percent of Special Ed and ESL students seen by the School Nurse during study period



STUDENT COMMENTS FROM USER SATISFACTION SURVEY

Eighty-two percent of students surveyed made comments, the majority of which were positive. Selected comments are listed below:

"All of the staff at the Wellness Center know what they are doing and I trust them."
6th grade female

"You were so friendly and easy to talk to. Thank you so much!" - 11th grade female

"Without the teen health center in my school (Franklin) I would be pregnant or have an STD." - 10th grade female

"The teen health center is the best thing to have in school. We really need it and please let us have it for a long time." - 11th grade female

"The teen health center is a necessity. I'm graduating but I hope future students will have the teen health center here for them." - 12th grade female

"The teen health center has helped me with a lot of my problems also since I am an athlete the THC has helped me get through minor injuries that I get" - 12th grade male

"The teen health center has been a great place for me to learn responsibility for my sexuality and sexual responsibility. It has been a lifesaver." - 12th grade female

"The nurse practitioner was a very big help and had answers to all my questions. She was polite and easy to talk to. Teen health center is great!!" - 10th grade female

"The wellness center at our school is great for me and all other students" - 7th grade male

"The health center is better and more convenient than my regular doctor. It's like a full service hospital in a school." - 12th grade female

"Teen health center is a great place and it impacts my life at school in a very healthy and positive way. I like the fact these questionnaires are being given because others will agree with its helpfulness." - 10th grade male

"Thanks for letting get what I need otherwise I would be missing a lot of days of school 1 week each month is not good" - 7th grade male

"Just thank you for helping me when I needed it." - 7th grade female

"It's good to be in a age that teenagers can talk about problems openly instead of keeping inside of them." - 10th grade male

"If kids see that more people care about them not doing drugs or drinking they might stop." - 7th grade male

"I think you should help the kids with temper problems." - 7th grade female

"I think this wellness center is wonderful the way it is." - 6th grade female

"I think the school is smart to have a teen health center" - 9th grade male

"I think having a teen health center at my school is very helpful to me and for others. I like it because they provide me with info and health care that i wouldn't feel comfortable asking my doctor or mom for." - 9th grade female

"I think having a health center at school is great. it gives the students that otherwise couldn't get the help they need a chance to receive free help for whatever they want." - 10th grade female

"I think that having a teen health wellness center in my school is a good thing. Because you don't have go anywhere else besides to class." 8th grade female

"I think our school nurse is really good. And they help us with our needs and problems." 8th grade female

"I really like coming here. If it were not for the center i would be in extremely bad shape." 12th grade female

"I really enjoyed my visit today and every other time i came in because everyone always so nice and friendly i like coming here better than going to my mom's health care center" 11th grade female

"I really appreciate the thc. It makes things easier for me and it's quick. I get a lot of help that i wouldn't usually get. I'm really glad we have a thc." 11th grade female

"I really appreciate the teen health center staff. I feel comfortable when i talk with them whenever i stay at teen health center" 11th grade female

"I love the way the people act very professional. I also believe all the services are top notch. Very best care ever." - 8th grade male

"I love the thc so much! It has really helped me physically and emotionally and janet is so sweet!" - 10th grade female

"I love the teen health center. It's convenient because i don't have to take a lot of time off of school to get an appointment." - 11th grade female

"I love the student health center. It always gives me a place to feel comfortable to be open about my problems." - 12th grade female

"I would not have gotten birth control if it wasn't for this health center. I am very thankful for everything you've done." - 11th grade female

"Thanks for saving my life!" - 10th grade male

"I love having a health center at school because it allows me to get away from everyday stress and trouble." - 9th grade male

"I don't know how i would have gotten through high school (sex life) without you guys. I always had all my questions answered and didn't have to worry about being pregnant. Thank you." - 12th grade female

"I can receive services here than i wouldn't otherwise get. Love it" - 12th grade male

"Thank you this really helps our school" 7th grader

"Very caring staff - they know more than my own doctor." 11th grade female

"The reproductive health program is fabulous. The thc is the best idea the school district has ever had."

"Having a teen center at school allows me to be in school as well as keeping up with my health status. It's very useful. Thank you!" 12th grade female

"Having the teen health center makes me responsible for my own health. I feel like I would always have somewhere to turn if I needed health help." 10th grade female

1999 SEATTLE TEEN HEALTH SURVEY

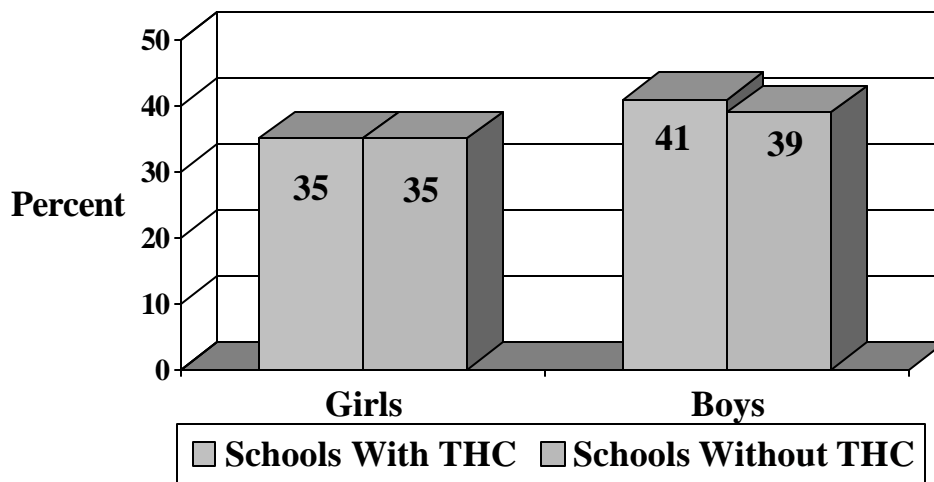
The 1999 Seattle Teen Health Survey was conducted by the Health Education Office of Seattle Public Schools. The survey was conducted at all Seattle School District high schools and middle schools in the spring of 1999. All high school students and a sample of middle school students were invited to participate in the survey which resulted in 8,665 high school students and 1,827 middle school students completing surveys. The study has information on students'

access to health care and support services, social and health indicators, risky behaviors and health and safety-promoting behaviors.

The Teen Health Survey data contain school population-based information that could be compared for teen health centers users and non-users, as well as for students from schools without teen health centers. These data were used for this evaluation to address sexual behavior and risk reduction practices of students in schools with and without Teen Health Centers. We were particularly interested in the frequency of sexual behavior and the use of pregnancy prevention methods among students in schools with a Teen Health Center compared to those from schools without a Teen Health Center.

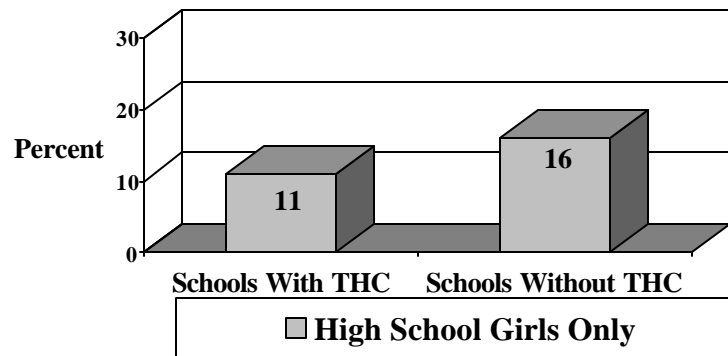
For the purposes of this analysis, data from mainstream high schools in Seattle were analyzed (n=8091) to determine whether students in high schools with teen health centers (THCs) were more or less likely to engage in sexual activity when compared to students in schools without THCs. Female high school students in schools with and without THCs had similar levels of reported sexual activity. Thirty-five percent of girls reported that they had ever had sexual intercourse. Forty-one percent of boys in schools with THCs and 39 % of boys in schools without THCs reported that they had ever had sexual intercourse (Figure 32).

Figure 32. 1999 Seattle Teen Health Survey: Percent of high school students reporting ever having been sexually active by gender in schools with and without a Teen Health Center (n=8091)



Sexually active girls in schools with THCs were more likely to report that they had used some method to prevent pregnancy the last time they were sexually active. Among high school girls who reported that they had been sexually active, girls in schools without teen health centers were more likely to report that had used no method to prevent pregnancy the last time they were sexually active compared to sexually active girls in schools with teen health centers (Figure 33).

Figure 33. 1999 Seattle Teen Health Survey: Percent of sexually active girls using no method of pregnancy prevention by high school with or without a Teen Health Center (n=1383)



High school boys from schools with teen health centers were slightly more likely to report that a pregnancy prevention method was not used the last time they had sexual intercourse compared to boys from schools without teen health centers but this difference was not statistically significant (Figure 34).

Figure 34. 1999 Seattle Teen Health Survey: Percent of sexually active boys using no method of pregnancy prevention by high school with or without a Teen Health Center (n=1536)

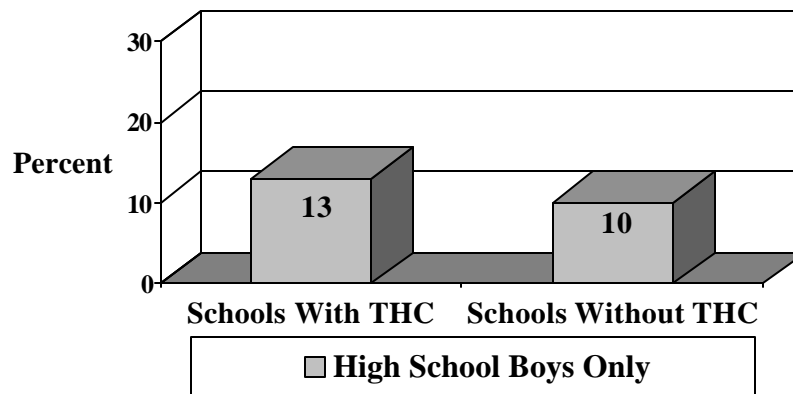
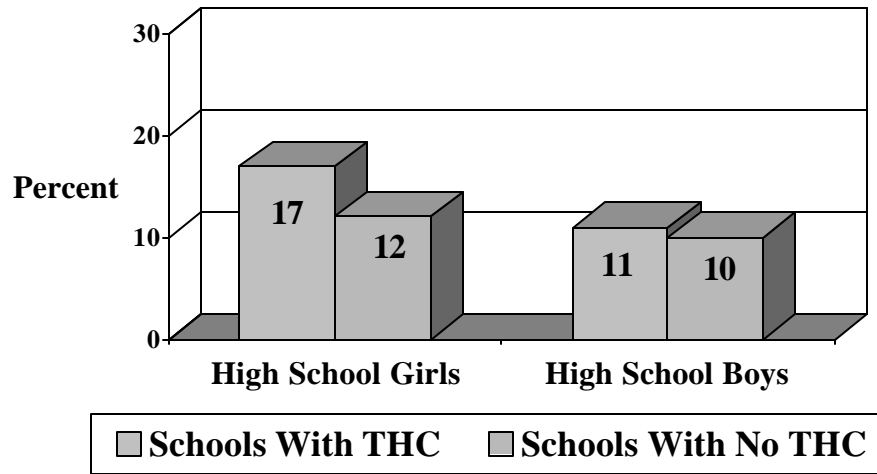


Figure 35. Percent of sexually active high school students planning to abstain from sex until after graduation from high school (n=2919)



"The teen health center has been a great place for me to learn responsibility for my sexuality and sexual responsibility. It has been a lifesaver." - 12th grade female

SUMMARY OF EVALUATION FINDINGS

- **Students Like Having A Health Center At Their School**

The vast majority (98%) of both high school and middle school student users reported that they "like" having a health center at their school and that they would recommend the health center to their friends.

- **Having a Health Center at School Supports Student's Education**

A majority (90%) of student users reported that being able to get health care at school helped them to be more attentive when they were in class.

- **The Teen Health And Wellness Centers Are A Primary Source Of Care For Many Of The Students Who Use The Centers.**

A sizeable percentage of students from both arms of the study ranging from 22% to 58% said that the Teen Health or Wellness Center was their usual place to get health care.

- **Many Student Users Of The Teen Health And Wellness Centers Prefer To Go To The Teen Health and Wellness Center For Their Professional Health Care**

Depending on the arm of the study, 30%-60% of surveyed high school users and approximately 30% of middle school users of the Teen Health and Wellness Center services reported that the TH/WC is the place that they prefer to go for care. This is a strong endorsement of their school's Teen Health and Wellness Center.

- **Students Give High Ratings Of The Quality Of Their Visit To The Teen Health or Wellness Center**

When asked to rank the quality of the services that they received and the staff's attention to their concerns and questions, over 90% ranked them as good or excellent.

- **Having A Health Center At School Improves Students' Access To Health Services**

A majority of student users (67-81%) agreed or strongly agreed with the statement, "I get care that I wouldn't otherwise get." An even larger majority (84-94%) agreed or strongly agreed with the statement, "I get care sooner than I would otherwise get it."

- **Students Report Increased Knowledge And Ability To Access Health And Mental Health Services As A Result Of The Teen Health And Wellness Centers.**

More than 80% of students seeking services at their school's Health or Wellness Center reported that they were more knowledgeable and better able to access health and mental health services as a result of the Teen Health or Wellness Center.

- **The School Nurse And The Other Teen Health And Wellness Center Staff Play Distinct And Complementary Roles**

The school nurse and the other health center staff play distinct and complementary roles in the Teen Health and Wellness Centers. In addition to being responsible for the physical safety and health of all students and staff in the building, the school nurses in both the high school and middle school health centers tended to provide predominantly general health care and first aid or injury treatment. In addition some students reported that they visited the school nurse "just to talk" and to receive health education.

The services received from other staff of the Teen Health and Wellness Centers reflected different and more varied types of services than those provided by the school nurses. The most frequent type of service reported by high school students visiting the other Teen Health Center staff was reproductive health. Other common services received by other health center staff were counseling, support group, sports physicals, general health care, health education, and "just to talk". Middle school students visiting the Wellness Center staff other than the school nurse reported that they had received counseling, general health care, "just to talk", health education and first aid and injury treatment.

- **School Nurses Serve The Vast Majority of Special Education Students**

School nurses served 79% of high school and 99% of middle school special education students at the surveyed schools.

- **School Nurses Serve A Majority of the Bilingual Students**

School nurses served 57% of high school and 90% of middle school bilingual students at the surveyed schools.

- **A Majority Of Students Report That Their Health Has Improved As A Result Of Using The Teen Health Or Wellness Centers**

More than 70% of students report an improvement in their health as a result of using the Teen Health or Wellness Center.

- **A Majority Of Students Report That They Know How To Take Better Care Of Their Health As A Result Of Contact With Staff Of The Teen Health Or Wellness Centers**

76%-92% of student users reported that they know how to take better care of their health as a result of contact they've had with the staff of the Health Center.

- **The Majority Of Students Report That The Teen Health Or Wellness Center Staff Are Adults At School With Whom They Could Discuss Their Problems**

The vast majority of student users, 93%-99%, reported that the staff of the Health Center usually provided the information they needed to answer their questions. Depending on study arm and school, 75%-94% of student users felt comfortable discussing their health issues and problems with the school nurse, nurse practitioner, or counselor at the Teen Health and Wellness Centers.

- **Students In High Schools With A Teen Health Center Were No More Likely To Be Sexually Active Than Students In High Schools Without A Teen Health Center.**

The 1999 Seattle Teen Health Survey data were analyzed to determine whether school-based health centers were associated with a higher level of sexual activity among high school students. There was no evidence to support this. Thirty-five percent of girls in schools with and without teen health centers reported that they had ever had sexual intercourse. Forty-one percent of boys in schools with teen health centers and 39% of boys in schools without teen health centers reported that they had ever had sexual intercourse.

- **Sexually Active Females In High Schools With A Teen Health Center Were More Likely To Use A Pregnancy Prevention Method Than Sexually Active Females In High Schools Without A Teen Health Center.**

As described above, the 1999 Seattle Teen Health Survey showed no evidence that students in schools with teen health centers were more likely to be sexually active. However, among high school girls who were sexually active, a higher percentage from schools with a teen health center used some form of pregnancy prevention method the last time they were sexually active (89% vs. 84%). Sexually active boys from schools with teen health centers were less likely to report that a pregnancy prevention method was used the last time they had sex (87% vs. 90%).

- **Sexually Active Females In High Schools With A Teen Health Center Were More Likely To Plan To Abstain Until Graduation Compared To Sexually Active Females In High Schools Without A Teen Health Center.**

High school girls who were sexually active from schools with a teen health center were more likely to report that they planned to abstain from sexual activity until after graduation from high school (17%) compared to those from schools without teen health centers (12%). Approximately 10% and 11% respectively of sexually active boys from either type of school reported that they planned to abstain from sexual activity until after graduation from high school.

LIMITATIONS

While the level of satisfaction with all aspects of the Teen Health and Wellness Centers is extremely high among users, the data presented here predominantly reflect the

opinions of students who are accessing the services offered. Missing from this evaluation is a general sense of students' perceptions of the Teen Health and Wellness Centers who are not enrolled or are enrolled but not using the Health Center's services. We do know, from the Teen Health Survey conducted in 1999 that students in general, have positive regard for the Teen Health and Wellness Centers. Nevertheless, it is important to gain an understanding of the reasons for students not utilizing the services of the Centers, particularly students who would not otherwise have access to health services.

NEXT STEPS

The Teen Health and Wellness Centers are serving students that demographically, in terms of race and language, reflect the schools in which they are located. In addition, a significant majority of students feel that the Teen Health and Wellness Centers provide services that they either would not have otherwise gotten or would have delayed getting. It would be extremely useful to gain further knowledge as to whether the majority of students in need are being served by the Teen Health and Wellness Centers and if not, the reasons for the patterns of utilization seen. With a better understanding of who is and is not being served of those in need of services, targeted outreach could occur to the highest risk adolescents who are not accessing health services. This will be an area of continued focus for the coming year. We intend to conduct further analysis and exploration to gain a better understanding as to whether students in need are accessing services. Elucidation of barriers to utilization of Teen Health and Wellness Centers services to the extent that they exist for students in need will help to shape outreach efforts to assure that these students are reached.