Michigan Evaluation of School-based Health

Baseline Interview Report:

School-based Health Center Services & the Environment of Service Provision

Miles McNall
Community Evaluation and Research Center
Nicole Greenway
Community Evaluation and Research Center
Lauren Lichty
Department of Psychology
Jason Forney
Department of Psychology
Brian Mavis
Office of Medical Education Research & Development, College of Human Medicine
Laura Bates
Community Evaluation and Research Center

July 2008

MICHIGAN STATE
UNIVERSITY

Michigan State University
East Lansing, Michigan

Copies of this report are available from:

Community Evaluation and Research Center
University Outreach & Engagement
Michigan State University
Kellogg Center, Garden Level
East Lansing, Michigan 48824
Phone: (517) 353-8977
Fax: (517) 432-9541
E-mail: outreach@msu.edu
Web: http://outreach.msu.edu/cerc/

or

Michigan Department of Community Health
Web: www.michigan.gov/cahc

Funding
This report was developed with state funds allocated by the Michigan Department of Community Health, Michigan Department of Education, and the Families and Communities Together (FACT) Coalition.

Table of Contents

Contents 3
Executive Summary 4
  Methods 4
  Results 4
    Services and Service Utilization 4
    Student Health Needs 6
    SBHC Effectiveness 8
    Barriers to SBHC Services 9
    Impact of SBHCs on Schools and Students 11
    Context of Service Implementation and Delivery 11
  Recommendations 13
Report 16
  Introduction 16
  Methods 16
    Sample 16
    Interview Protocol 18
    Data Analysis 19
  Results 19
    Services and Service Utilization 19
    Benefits of SBHCs 23
    Challenges in Operating SBHCs 28
    Student Health Needs 29
    SBHC Effectiveness 35
    Barriers to SBHC Services 39
    Impacts of New SBHCs 43
    Context of Service Implementation and Delivery 44
  Summary and Recommendations 50
    Services and Service Utilization 50
    Student Health Needs 50
    SBHC Effectiveness 51
    Barriers to SBHC Services 51
    Impact of SBHCs 52
    Context of Service Implementation and Delivery 52
    Recommendations 55
    Study limitations 56
References 58
Appendix A 59

Executive Summary

The primary purpose of the Michigan Evaluation of School-based Health (MESH) Project is to evaluate the impact of state-funded clinical school-based health centers (SBHCs), known in Michigan as Child and Adolescent Health Centers, on the health outcomes, school attendance, and healthcare costs of children attending the schools in which they are located. This evaluation is based on a sample of children and their parents from 16 middle and high schools both with and without SBHCs throughout the state of Michigan. The overall aim of the evaluation is to determine if students attending schools with health centers experience better health outcomes and lower healthcare costs in the area of emergent care. The evaluation and the baseline health status of children are described in greater detail in another report (McNall, Lichty, Forney, Mavis, & Bates, 2007).

This report summarizes the findings from interviews with school/SBHC staff members at 6 of the 16 schools participating in the study. These interviews were conducted for the purpose of learning about perceptions among school/SBHC staff regarding (a) the services SBHCs provide and how they are being used by students, (b) the primary health care needs of students and how effective SBHCs are in meeting those needs and (c) support for and opposition to SBHCs both within their host schools and surrounding communities.

Methods

In the spring and summer of 2007, members of the MSU Evaluation Team conducted semi-structured, face-to-face and telephone interviews with a selected sample of 28 school and school-based health center staff from 6 schools. Informants were selected to represent the range of individuals within schools with health-related functions. Schools were selected to represent middle- and high-schools, rural and urban locations, and sites with new and established SBHCs. Interviews were recorded and transcribed. Major themes in the interviewers were identified and the relationships between them were analyzed using the qualitative data analysis software QSR N6.

Results

Services and Service Utilization

To understand how SBHC services are being utilized, we asked school staff members about their knowledge of the services provided by their school's SBHC, the referral procedures at their school, and under what circumstances they would refer a student to their school's SBHC. In addition, we asked school and SBHC staff about the general advantages and disadvantages of having a health center located at their school. Because the MESH study relies to a great extent on SBHC billing data to understand the scope and volume of services provided, we also asked SBHC staff about the types of services they provide that would not ordinarily be represented in billing data. The responses to these questions are summarized below.

SBHC Services

Most school staff members are unaware of the breadth of services offered by SBHCs. The one set of services of which a majority of school staff members were cognizant was acute and urgent care services, including care for common ailments such as colds, sore throats, ear aches; and injuries sustained in physical education classes. All other SBHC services were mentioned by fewer than half of school personnel. These services included:

- Mental health services
- Immunizations
- Physical examinations
- Chronic disease management
- Reproductive health services

SBHC Referrals

The health conditions for which students are likely to be referred to their SBHC include illness, injury, mental health needs, immunizations, asthma, and reproductive health needs. Because schools often have referral procedures that require students to obtain permission from teachers or staff to use their school's SBHC during the school day, teachers and staff serve as the gatekeepers to SBHC services. These conditions closely match the SBHC services of which school staff members are aware.

Benefits of SBHCs

Informants viewed increased access to and use of healthcare services, reduced student absences, and quick attention to and resolution of health problems as the primary benefits of SBHCs. Informants at schools with new SBHCs placed greater emphasis on teen-friendly environments, holistic care, and ready sources of medical information as key advantages of SBHCs than informants at sites with established SBHCs.

Implementation Challenges

The two major implementation challenges that emerged at schools with new SBHCs were (a) small numbers of students using their SBHCs as a way to get out of class and (b) confusion around information sharing between SBHCs and their host schools. Because inappropriate use of SBHCs was mentioned almost exclusively by informants at sites with new SBHCs, it appears that this problem reflects the growing pains of new SBHCs, when the procedures for student referrals have not been fully worked out between SBHCs and their host schools. With regard to school-SBHC information sharing, the problem appears to be initial confusion around the sharing of students' personal information between schools and the SBHCs. Some teachers have been surprised that, once they refer a student to the health center, they will not be privy to the contents or outcome of that visit. However, with some education on the part of SBHC staff, school staff members have come to understand and respect this boundary.

SBHC services not billed

Two major categories of SBHC services are frequently provided but rarely billed to health plans: health education and patient-care-related communication. Health education services that are not typically recorded on the patient encounter form include health education offered in group settings and individually as part of medical visits. Health education in group settings has covered such mental health issues as stress and anger management, substance use, depression,

eating disorders, and interpersonal violence and such physical health issues as asthma, nutrition, exercise, obesity, immunizations, sexuality and sexually transmitted infections (STIs). The kinds of communication that occur routinely, but are often not documented, include meetings, phone calls or correspondence with parents, communication with school staff members, and communication with outside professionals.

SBHC services not provided

The kinds of services that school/SBHC staff said they would like their SBHCs to provide or expand include mental health services, health education, contraceptives and dental services. Mental health services that school and health center staff members would like their SBHCs to provide or expand support groups, group therapy and psychiatric services. Most of all, they would like to see an expansion of current mental health services to meet the demand. Health education services that staff members would like to see their SBHC provide or expand include education on such topics as exercise, nutrition, reproductive health, and teen parenting. Given the number of sexually active students, particularly in high schools, several school and SBHC staff members expressed regret that their school's SBHC could not dispense contraceptives, as contraceptives would help reduce unwanted pregnancies and STIs. Finally, some school and SBHC staff would like their health center to offer dental services. It should be noted that services can and do vary to some extent across SBHCs. Many SBHCs provide the desired services; however challenges in need or capacity (e.g., funding or staffing) may prohibit a comprehensive array of services from being provided at any given center.

Student Health Needs

To understand more about the perceived health care needs of students and the perceptions of school and SBHC staff regarding the effectiveness of their SBHC in meeting these needs, we asked school and SBHC staff to identify the major health needs of students and assess how effectively their school's SBHC was meeting them. Below, we summarize the major physical and mental health needs of students identified by informants.

Physical health needs

The perceived physical health needs of students are varied, ranging from the treatment of minor diseases to chronic disease management. Below, we discuss the physical health needs mentioned by informants, beginning with those spoken of most frequently.

Reproductive health. Attention to reproductive health needs was the most frequently mentioned physical health need, cited by over two-thirds of informants.

Nutrition education and obesity. Nutrition education/obesity was the second most frequently mentioned physical health need, cited by half of informants. Several informants attributed students' weight issues to a lack of physical exercise; others attributed it to poor eating habits.

Treatment of minor injuries and diseases. The third most frequently mentioned student health need was the treatment of minor ailments and injuries. This included the treatment of fevers, earaches, abrasions, injuries from gym class, and other injuries or illnesses requiring attention during school hours.

Health promotion and health education. Health promotion/health education was the fourth most frequently mentioned student health need. SBHCs provide students with information about how to maintain their health, how to manage stress, how to avoid substance use, and how to handle relationship/dating issues.

Chronic disease management. Students with chronic diseases use the services of their schools' SBHCs to help them manage their asthma, diabetes, hypertension and elevated cholesterol.

Substance use. Substance use was identified as a significant physical health problem by several informants.

Immunizations. A few informants revealed that hundreds of their students are behind on their immunization schedules, putting themselves and others at risk for communicable diseases.

Neglect. A few informants reported that some students come to school in dirty clothing and appear not to be physically cared for, suggesting to these informants physical (and perhaps emotional) neglect. However, we have no way of independently assessing whether neglect is, in fact, an issue for these students.

Other physical health needs. The remaining physical health needs mentioned by informants included: (a) physical examinations; (b) hygiene, especially for middle school students, and (c) dental care.

Mental Health Needs

Like students' physical health needs, students' mental health needs are varied and complex. The most frequently mentioned mental health need of students is care for the psychological consequences of family crises brought on by their parents' struggles, which include job loss, disability, alcohol and/or drug abuse, divorce, or incarceration. Several informants said that depression was *the* most prominent mental health issue their staff encountered when working with students. Student conduct issues were another frequently mentioned student mental health problem. According to one informant, some students have difficulty "maintaining themselves in class" or have difficulty with peer relationships, and as a result act out in school. Other, less frequently mentioned mental health needs of students included:

- Eating disorders
- Conflict with peers and friends
- Low-self esteem
- Suicidal ideation
- Stress
- Bipolar disorders
- Bullying
- Self-injurious behavior
- Grief and loss
- ADHD/ADD

SBHC Effectiveness

In addition to understanding what school/SBHC staff members viewed as the most important physical and mental health needs of students, it was important for us to comprehend how well they felt their SBHCs were meeting these needs. In addition to rating the effectiveness of their own SBHC, we asked informants to describe the attributes and potential effects of an effective SBHC.

Attributes of an effective SBHC

General features. The two general features of a truly effective SBHC mentioned most frequently were the accessibility of the services to students and others in the surrounding community and the SBHC's possession of the equipment and resources necessary to provide a comprehensive array of services.

Services. An effective SBHC provides a wide array of high quality health care services (including mental health services), is deeply involved in health education and health promotion both within the school and in the larger community, and its staff members are knowledgeable about local healthcare resources and have established links to them that facilitate referrals.

How services are provided. An effective SBHC is responsive to the particular health care needs of students and offers confidential services in a teen-friendly environment. The staff members of an effective SBHC are well-trained, knowledgeable about the developmental and health care needs of adolescents, respectful of students, and have good rapport with them.

Impacts of an effective SBHC

In general, informants expected that an effective SBHC would have a profound impact on the health and well-being of the students in its host school. The potential impacts of an effective SBHC on students and the school environment reported by informants are summarized below.

Impacts on physical health. An effective SBHC improves students' overall and reproductive health, helps students manage chronic diseases such as asthma and diabetes more effectively, prevents diseases, and controls obesity.

Impacts on mental health. An effective SBHC helps students be more "emotionally stable," have higher self-esteem and self-confidence, have an improved ability to cope with stress, and have superior interpersonal skills.

Impacts on behavior. An effective SBHC improves students' eating habits, reduces their substance use, encourages them to make healthier choices, increases their amount of physical activity, encourages them to either abstain from sex or use contraceptives, and promotes better self-care.

Impacts on attitudes. An effective SBHC transforms students' health-related attitudes so that they understand the importance of maintaining good health and feel empowered to take control of their health and health care.

Impacts on school environment. An effective SBHC transforms the environment of its host school to better promote the health of its students. Such transformations would include the elimination of "junk food" from vending machines and the cafeteria, the improved academic performance of a healthier student body, and the creation of a more caring, supportive environment for students.

Impacts on health knowledge. An effective SBHC instills greater knowledge and awareness of health issues among students and teachers. It also helps students and teachers understand how to maintain good health and how to manage and seek care for common illnesses and health conditions.

How SBHCs evaluate their effectiveness

According to informants, SBHCs evaluate their effectiveness principally through annual client and parent satisfaction surveys. A few informants (4) mentioned using service utilization reviews and chart audits to evaluate the effectiveness of their services. Other methods of evaluation were mentioned by three or fewer informants. Although customer satisfaction surveys are useful tools for assessing whether services are provided in a manner that consumers find agreeable, they provide little information about the impact of those services on consumer health. As such, the overreliance on consumer surveys suggests that SBHCs could stand to broaden their evaluation methods to include more widespread use of chart audits or quality improvement techniques (e.g., plan-do-study-act cycles).[1]

Barriers to SBHC Services

School and SBHC staff members cited a number of factors that act as barriers to the provision of SBHC services to students.

Confidentiality concerns

Students' concerns about confidentiality revolve around their personal information being shared with the school or with their parents. Some parents are concerned about not being able to find out about what transpires during the provision of confidential services. A few informants thought that certain parents might actively discourage their children from seeking care at their SBHC for fear of having sensitive family issues revealed to outsiders.

Lack of parent consent

One of the most significant barriers to serving students cited by informants was an absence of parental consent for services that require parental consent. Informants felt that parents might have a number of reasons for failing to provide consent for their children to receive services at their SBHC. Chief among these reasons is that some parents prefer that their child only receive primary care services from their family physician. Although Michigan law (MCLA 380.1507) prohibits the distribution of family planning devices in public schools, some SBHC staff members believe that certain parents might not provide consent for their child to receive SBHC services because they fear that the SBHC will give their child contraceptives or discuss

---

[1] State-funded SBHCs are, in fact, required to use continuous quality improvement methods. Therefore, the failure of most informants to mention the use of quality improvement methods may be more a matter of their not viewing them as an evaluation method than not using them.

family planning options (e.g., abortion) with her/him. It should be noted, however, that not all services delivered by SBHCs require parental consent. Services that do not require parental consent include prenatal care, sexually transmitted disease testing and treatment, and mental health counseling for youth aged 14 and older.

Barriers to providing specific services

Reproductive health services. SBHC staff members reported the greatest challenges around providing reproductive health services. Many SBHC staff members would like to be able to provide students with contraceptives to prevent pregnancies and STIs, but are prevented from doing so by state law. Although SBHC staff members refer students to other community health centers or public health clinics for contraceptives, they felt that many students do not follow through on these referrals and, as a consequence, continue to engage in unprotected sex, increasing their risk of pregnancy or STIs.

Mental health services. SBHC staff members reported challenges in providing mental health services to students. The primary challenge, as discussed before, is the limited availability of mental health staffing resources relative to the demand for mental health services.

Barriers to serving specific groups of students

SBHC staff members reported the greatest barriers in serving non-native English speaking students and their families; males; and gay, lesbian or transgender students. SBHC staff members frequently encountered problems in serving Spanish-speaking students and their families due to a language barrier. Barriers to serving male students were related to informants' impressions that males are less likely than females to seek the services of their school's SBHC and are more likely to forget their appointments. Among the schools with informants that reported challenges serving gay, lesbian, or transgender students, none had services or groups that specifically targeted such students.

SBHC staff members identified three groups of students who are less likely to receive consent from their parents to use their school's SBHC: students of conservative parents who might object to their children being provided with alternative views on human sexuality and contraception; students whose parents want to be "in charge" of their children's affairs and be aware of "everything that is going on with [them]," and students from higher income families who already have a primary care physician from whom they receive routine care.

SBHC staff members reported that it was the quiet, well-behaved, secretive, or withdrawn students who were less likely to be referred by a teacher, administrator, or coach to their school's SBHC. As one informant noted, this pattern might be a problem for depressed and withdrawn students, whose needs might go unnoticed until their emotional problems led to more overt signs of psychological distress.

Other barriers

Hours of operation. SBHCs are frequently closed over the lunch hour and during SBHC staff meetings. In addition, SBHCs are typically only open during normal working hours, precluding access to their services in the evenings and on weekends.

Teachers deny access. Although this perception was for the most part limited to schools with newly established SBHCs, some informants believed that teachers were reluctant to give students permission to use their school's SBHC.

Lack of awareness of SBHC. At schools with newly established health centers, informants reported that one barrier to access was simply a lack of awareness among students and their parents of the presence of the SBHC, what it is there for, what services it provides, and how and when those services can be accessed.

Impact of SBHCs on Schools and Students

In this study, we were interested in the impact of SBHCs on the overall school environment, student attitudes, and student behaviors. Because we wanted informants to be able to compare school environments, student attitudes, and student behaviors before and after the founding of SBHCs, we only asked informants who were present at the founding of their school's SBHC about these things. However, because newly established SBHCs had been in operation for less than a year at the time of the interviews, there was limited time to observe the effects of SBHCs. Consequently, despite the long list of impacts informants thought a truly effective SBHC might have on students and the school environment, the impacts they reported for their school's SBHC were quite modest.

Impact on school environment

Some SBHC staff members have noticed a growing awareness of health issues among students and teachers and increased openness to and trust in the SBHC on the part of school staff.

Impact on student attitudes

According to some informants, students are learning to take a more proactive stance toward their health by seeking health care before their health problems become acute. This has led to a greater sense of control and ownership among students regarding their health.

Impact on student behavior

Informants indicated that the most significant impact of SBHCs on student behavior has been improved school attendance.

Context of Service Implementation and Delivery

To better understand the context of service implementation, we asked informants about sources of support for and opposition to the SBHC both within the school and in the surrounding community. As parents and youth were frequently involved in the planning and implementation of SBHCs, we also asked informants about the involvement of parents and students in the founding and operation of their school's SBHC. Finally, we asked informants about school-SBHC collaboration, the absence of which would severely hamper the implementation and provision of SBHC services.

Support for SBHCs

From the perspective of informants, SBHCs enjoy overwhelming support for their mission from students, their parents, school staff members, and surrounding communities.

Students. Informants indicate that students seem to have largely positive attitudes toward their SBHC and have few, if any, negative things to say about it. Students experience SBHC staff members as friendly, approachable, and unintimidating. They perceive the SBHC environment as inviting and teen-friendly. A few SBHC staff reported that, upon seeing their school's SBHC for the first time, some students were impressed by the fact that it looks like a "real" doctor's office.

Parents. Although school/SBHC staff members experienced overwhelming support from parents for their school's SBHC, most could not cite specific reasons for this support.

School administrators. School administrators, particularly building principals and superintendents, have provided support that has been instrumental in establishing SBHCs. Administrators have supported SBHCs because of (a) their awareness of student health needs, (b) the fact that the presence of an SBHC in a school makes the school more attractive to the parents of prospective students and might therefore increase school enrollment, and (c) their belief that healthy students perform better academically.

Teachers. Teachers have been strong supporters of SBHCs because (a) they genuinely care about their students' well-being, (b) students' health needs can be addressed while minimizing the amount of class time missed, (b) SBHCs can help manage students' emotional and behavioral problems thereby mitigating behavior that disrupts the classroom, (c) teachers, like administrators, recognize that it is easier to educate happy, healthy, and emotionally stable students, and (d) teachers appreciate having medical personnel on hand who can handle student and staff medical emergencies.

School staff members. School staff members, especially secretaries, are supportive of SBHCs because they relieve them of the burden of managing student medications and reduce the number of sick students sitting in the office waiting for their parents to pick them up. School nurses have become strong supporters of SBHCs because of their ability to help them handle a frequently overwhelming volume of student health needs and address medical issues that are above their level of health care practice.

Surrounding communities. SBHCs have enjoyed broad based support from various groups in their surrounding communities, including the health care industry, school districts and school boards, policy makers, community-based organizations, and health advisory boards.

Opposition to SBHCs

Vocal opposition to SBHCs has been short-lived and limited to a few members of the following groups: (a) local physicians who were concerned that SBHCs would "steal their business," (b) teachers who worried that students who used SBHCs would miss too much class, and (c) school nurses who feared that SBHCs would supplant them. As they became familiar with how SBHCs actually operate, the concerns of these opponents largely subsided.

Student involvement

Students have been involved in their SBHCs in a number of ways that go beyond their roles as service recipients. Their three primary forms of participation have been to (a) serve on their

SBHC's advisory board, (b) provide input and feedback on the SBHC and their health care needs, and (c) publicize their SBHCs services within their school and larger community. Informants believe that the primary advantage of student involvement in their SBHCs has been the creation of a sense of ownership. As one health teacher remarked, student involvement in their SBHC "gives them ownership and pride in something."

Parent involvement

Parental involvement in SBHCs has been largely limited to their participation on advisory boards. However, this participation allowed parents to provide important input on the design and implementation of SBHCs during the planning phase. In addition to voicing their opinions in advisory board meetings, parents have provided their input through focus groups and needs assessment surveys.

School-SBHC collaboration

How schools and SBHCs are collaborating. One sign of school-SBHC collaboration is that health center staff members have come to be viewed as part of the staff in schools with both new and established SBHCs. SBHC staff are usually included in school or district-wide meetings with a health focus. Another major way that schools and SBHCs collaborate is through partnerships in health education and health promotion. Schools and SBHCs work together to sponsor group exercise events and presentations and demonstrations by SBHC staff in health education classes and school-wide events. Additional ways in which schools and SBHCs collaborate to promote student health are:

- *Publicity:* working together to get out the word about the SBHC and its services
- *Access:* working together to remove barriers and create a referral process that facilitates student access to SBHC services
- *Communication:* working together to improve school-SBHC communication
- *Enrollment:* working together to boost student enrollment in the SBHC, primarily through including SBHC consent forms in back-to-school mailings to parents.
- *Nutrition:* working together to ensure that school cafeterias and vending machines offer students healthier choices
- *Common goals:* working together toward a common goal of healthy, successful students

How schools and SBHCs could improve their collaboration. The chief area in which informants felt schools and SBHCs could improve their collaboration was communication. Although most informants felt that school-SBHC communication was already good, many still saw room for improvement. Other areas for improved school-SBHC collaboration at sites with new SBHCs were (a) clarifying school and health center roles (e.g., the roles of school nurses vs. SBHCs and the roles of school social workers vs. SBHC social workers); (b) having the school and SBHC staff become better acquainted; and (c) greater collaboration around school-wide health education.

Recommendations

Findings from the school/SBHC staff member interviews suggest areas in which SBHCs might take action to improve their accessibility and effectiveness. Below, we offer our recommendations for action.

Increase familiarity of school staff with SBHC services. Our interviews with school staff members revealed that most are unfamiliar with the full range of services offered by their school's SBHCs. A majority viewed SBHCs as places for students to receive care for minor illnesses (e.g., influenza, sore throat, etc.) and injuries. Few were aware that SBHCs offer health education and prevention services, or assistance in the long-term management of chronic diseases. As such, we recommend that SBHCs redouble their efforts to publicize the range of services they provide to the staff members of their host schools.

Help new SBHCs anticipate implementation challenges. Our interviews revealed four major implementation challenges facing new SBHCs: (a) inappropriate use by students; (b) confusion about information sharing between schools and SBHCs; (c) initial opposition from small numbers of local physicians, teachers, and school nurses; (d) early ambiguity around school nurse/SBHC roles. Consequently, we offer the following recommendations: (a) help schools and SBHCs to anticipate the abuse of SBHC services by students and quickly develop referral procedures that curtail it; (b) educate school staff members early on about health information privacy regulations; and (c) engage representatives of groups that might be initially opposed to SBHCs to (i) clarify the role of SBHCs *vis a vis* local providers; (ii) reassure teachers that the referral process will grant them some degree of control over when students may leave their classes; and (iii) assure school nurses that SBHCs will not replace them, but play roles that are complementary to theirs.

Do more to address certain health needs. Although interviews with school staff are not the best way to assess student health needs, they do point to certain areas of need that are consistent with the findings from the baseline student health survey:

- Poor nutrition and lack of physical activity. Baseline survey data point to poor nutrition and a lack of physical activity as a key area of health risk. Consistent with these findings, school staff members called for SBHCs to provide students with more nutrition and weight management education.
- Sexual activity. Another major area of concern indicated by the survey data was sexual activity. Recognizing that many students are sexually active and may not be taking appropriate precautions, several school staff members advocated for the SBHC playing a greater role in reproductive health education.
- Mental health. Several informants noted that student mental health needs are high relative to available SBHC mental health services.

We therefore recommend that SBHCs (a) partner with schools around nutrition education and promoting greater physical activity among students, (b) collaborate with health teachers on delivering classroom-based presentations on reproductive health, and (c) seek to expand the availability of mental health services.

Expand evaluation methodologies. Our interviews suggest that the predominant evaluation method currently in use in SBHCs is annual consumer satisfaction surveys. Although customer satisfaction surveys are undoubtedly useful tools for assessing whether services are provided in a manner that consumers find agreeable, they provide little information about the impact of those services on consumer health. As such, we recommend that SBHCs make routine use of additional evaluation/quality improvement methodologies, include regular chart audits, immunization tracking, and such quality improvement techniques as plan-do-study-act cycles.

Work to reduce barriers to service. Many of the barriers informants identified were related to perceptions of SBHCs. Informants told us that students and parents are uncertain about the confidentiality of services. In addition, parent and other community members have expressed concerns that SBHCs would distribute contraceptives or counsel students to seek abortion services. A greater effort to publicize SBHC policies regarding confidentiality and reproductive health services might help allay some of these concerns and reduce opposition to SBHCs from their adjoining communities. Informants also reported that some parents were either unaware of the presence of an SBHC in their child's school or were uncertain of the procedures for accessing SBHC services. Greater outreach into communities might help increase awareness of SBHCs, the services they offer, and the procedures for accessing them. Other barriers identified by informants were related to difficulties in serving particular groups of students, in particular: non-English-speaking minorities; males; and gay, lesbian, bisexual, transgender, or questioning (GLBTQ) students. Despite reported difficulties in serving Spanish-speaking students and their families, few SBHCs have bilingual staff members. Our recommendations, therefore, are that:

- SBHCs conduct community outreach to publicize: their presence, the range of services they offer, the procedures for accessing these services, and their policies regarding confidentiality and provision of reproductive health services.
- SBHCs hire bilingual staff in schools with significant numbers of non-English speaking students.
- SBHCs attract more male clients by offering male-oriented groups and services.
- SBHCs make it clear to students that their services are GLBT friendly, recruit GLBT students to serve on SBHC advisory boards, and offer GLBT-specific support groups.

Report

Introduction

The primary purpose of the Michigan Evaluation of School-based Health (MESH) Project is to evaluate the impact of state-funded clinical school-based health centers (SBHCs), known in Michigan as Child and Adolescent Health Centers, on the health outcomes, school attendance, and healthcare costs of children attending the schools in which they are located. This evaluation is based on a sample of children and their parents from 16 middle and high schools both with and without SBHCs throughout the state of Michigan. The overall aim of the evaluation is to determine if students attending schools with health centers experience better health outcomes and lower healthcare costs in the area of emergent care. The evaluation and the baseline health status of children are described in greater detail in another report (McNall, Lichty, Forney, Mavis, & Bates, 2007).

This report summarizes the findings from interviews with school and SBHC staff members at 6 of the 16 schools participating in the study. These interviews were conducted for the purpose of learning about perceptions among school and SBHC staff regarding (a) the services SBHCs provide and how they are being used by students, (b) the primary health care needs of students and how effective SBHCs are in meeting those needs and (c) support for and opposition to SBHCs both within their host schools and in surrounding communities.

Methods

In the spring and summer of 2007, members of the MSU Evaluation Team conducted semi-structured, face-to-face and telephone interviews with a selected sample of school and school-based health center staff.

Sample

Sites

A variety of school and SBHC staff from 6 schools participated in the interviews. Informants were selected to represent the spectrum of schools participating in the study. Table 1 displays the numbers and types of schools participating in the interviews. Note that no rural schools with established SBHCs participated. This is because SBHCs have historically been located in urban, low-income areas, and state-funded SBHCs did not begin to offer services to rural communities until the spring of 2008. Because we were particularly interested in learning about the service implementation challenges of new SBHCs, we over-sampled schools with newly established SBHCs at a ratio of 2:1. More than twice as many informants represented schools with new SBHCs (Table 2).

Table 1. Types of schools participating in the study

	New SBHC		Established SBHC		
	Middle School	High School	Middle School	High School	Total
Urban	1	1	1	1	4
Rural	1	1	0	0	2
	2	2	1	1	6

Table 2 displays the number of informants interviewed at each type of school.

Table 2. Number of informants by type of school

	New SBHC		Established SBHC		
	Middle School	High School	Middle School	High School	Total
Urban	4	5	4	4	17
Rural	4	5	0	0	9
	8	10	4	4	26

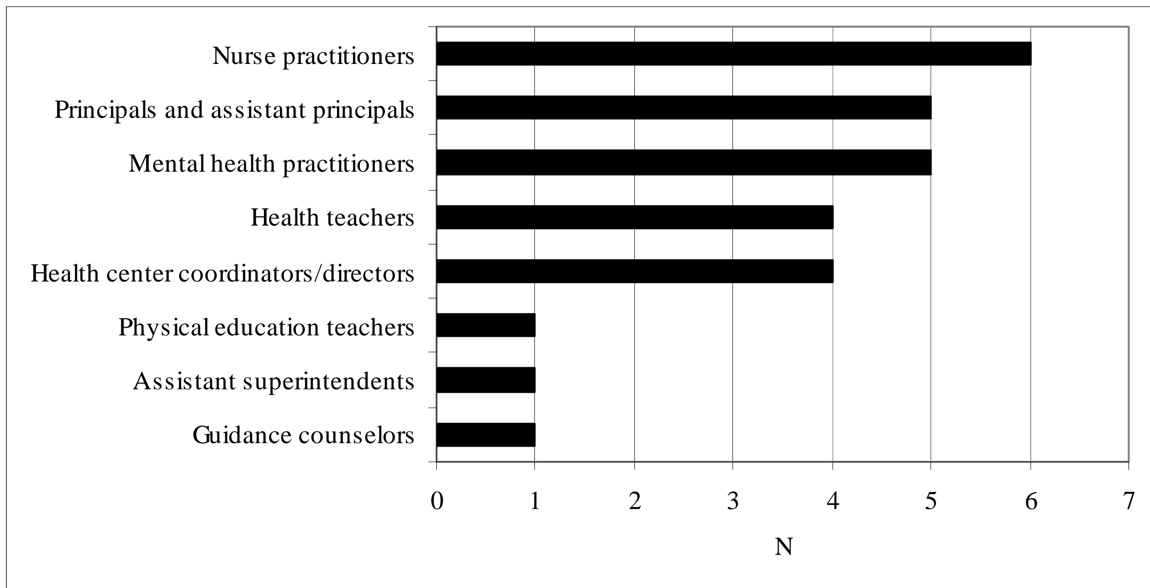
Participants

In addition to selecting from the spectrum of schools with SBHCs, at each school we selected informants from among the range of school/SBHC personnel with health-related functions. At each school, we sought to interview the following individuals:

- Health center coordinator/director
- Nurse practitioner
- Mental health practitioner
- School administrator
- Health teacher

Figure 1 displays the numbers and types of staff persons interviewed. We interviewed six nurse practitioners, five principals, five mental health practitioners, four health teachers, four health center coordinators/directors, and one each of physical education teachers, assistant superintendents, and guidance counselors.

Figure 1. Number and types of informants



Interview Protocol

The overall purpose of the interviews was to learn about perceptions among school/SBHC staff regarding (a) the services SBHCs provide and how they are being used by students, (b) the primary health care needs of students and how effective SBHCs are in meeting those needs and (c) support for and opposition to SBHCs. The interview protocol is located in Appendix A.

Services and service utilization

To understand how SBHC services are being utilized, we asked school staff members about their knowledge of the services provided by their school's SBHC, the referral procedures at their school, and under what circumstances they would refer a student to their school's SBHC. In addition, we asked school and SBHC staff about the general advantages and disadvantages of having a health center located at their school. Because the MESH study relies to a great extent on SBHC billing data to understand the scope and volume of services provided, we also asked SBHC staff about the types of services they provide that would not ordinarily be represented in billing data.

Health needs and SBHC effectiveness

To understand more about the perceived health care needs of students and the perceptions of school and SBHC staff regarding the effectiveness of their SBHC in meeting these needs, we asked school and SBHC staff to identify the major health needs of students and assess how effective their school's SBHC was meeting them. To encourage informants to articulate their criteria of effectiveness for an SBHC, we asked them to imagine the ideal case of a truly effective health center and the kinds of impacts such a health center might have on student health, student health-related behaviors, student health-related attitudes, and the overall school environment as it relates to student health. We then asked them about the kinds of impacts their SBHC was actually having in each of these areas. To better understand why SBHCs were not having the impact they might have on student health, we asked informants to identify the major barriers to students accessing the services of their school's SBHC.

Support for and opposition to SBHCs
Finally, we asked informants about sources of support for and opposition to the SBHC both within the school and in the surrounding community. As parents and youth were frequently involved in the planning and implementation of SBHCs, we also asked informants about the involvement of parents and students in the founding and operation of their school's SBHC.

Data Analysis

Interviews were recorded and transcribed. Major themes in the interview were identified and the relationships between them were analyzed using the qualitative data analysis software QSR N6. Transcripts were coded by site characteristics (new vs. established center and rural vs. urban location) to aid in the identification of variations in themes by site type. However, due to the previously mentioned confound between new versus established and rural versus urban sites, analyses of differences in themes by site were restricted to new versus established sites.

Results

The following is a discussion of the major themes we identified within the school and SBHC staff interview transcripts and how these themes differed for new vs. established sites. As a general rule, we only reported themes that were mentioned by two or more participants. In some cases, we have chosen to present results in terms of the number or percentage of informants mentioning a particular theme. The reader is cautioned against generalizing these figures beyond the small, highly selective sample of individuals that served as the informants for this study. Instead, the figures should serve as a rough guide to the relative importance of particular themes that emerged from our analyses of the data.

Services and Service Utilization

To understand perceptions of SBHC services and how they are being utilized, we asked school staff about their knowledge of the services provided by their school's SBHC, the referral procedures at their school, and the circumstances under which they would refer a student to their school's SBHC.

School Staff Perceptions of Services Provided
Because we were interested in understanding perceptions of the services provided by SBHCs within schools as a whole and because SBHC staff members have a clear sense of the kinds of services their SBHC provides, we only asked school staff about SBHC services. Figure 2 presents the number of informants who mentioned various SBHC services.

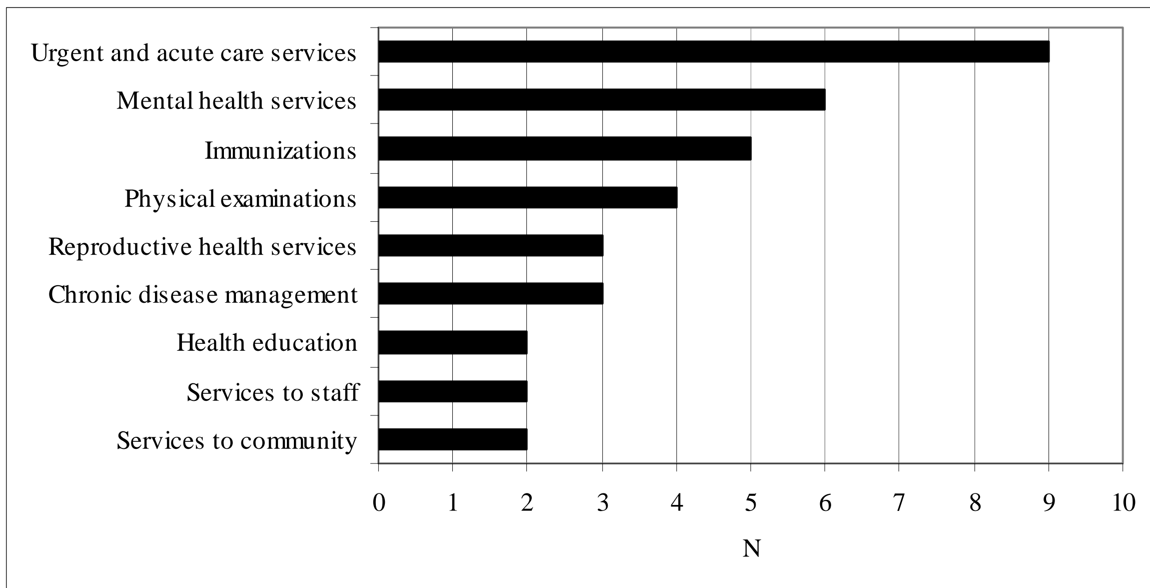
The first thing to note about Figure 2 is that it suggests that most school staff members are unaware of the breadth of services offered by SBHCs. The one set of services that a majority (64%) of school staff mentioned was acute and urgent care services, including care for common ailments such as colds, sore throats, ear aches, as well as injuries sustained in physical education classes. All other services were mentioned by less than half of non-SBHC school personnel.

The next most frequently mentioned SBHC service was mental health services, but only one informant identified the kinds of issues with which mental health services might help students cope: family or peer relationship issues. We will discuss in greater detail the kinds of mental

health issues with which students are coping later in the report when we review the perceptions of school and SBHC staff regarding students' health care needs.

Immunizations and physical examinations were the next most frequently mentioned SBHC services. Although sports physicals are used to assess students' capacity to participate in strenuous physical activity, at times they have unexpected benefits. During a study recruitment event, one of the members of the study team met a mother whose son was diagnosed with a heart murmur as a result of a sports physical at his school's SBHC. This diagnosis had been missed at her son's previous visits to his family physician.

Figure 2. Number of informants mentioning SBHC services



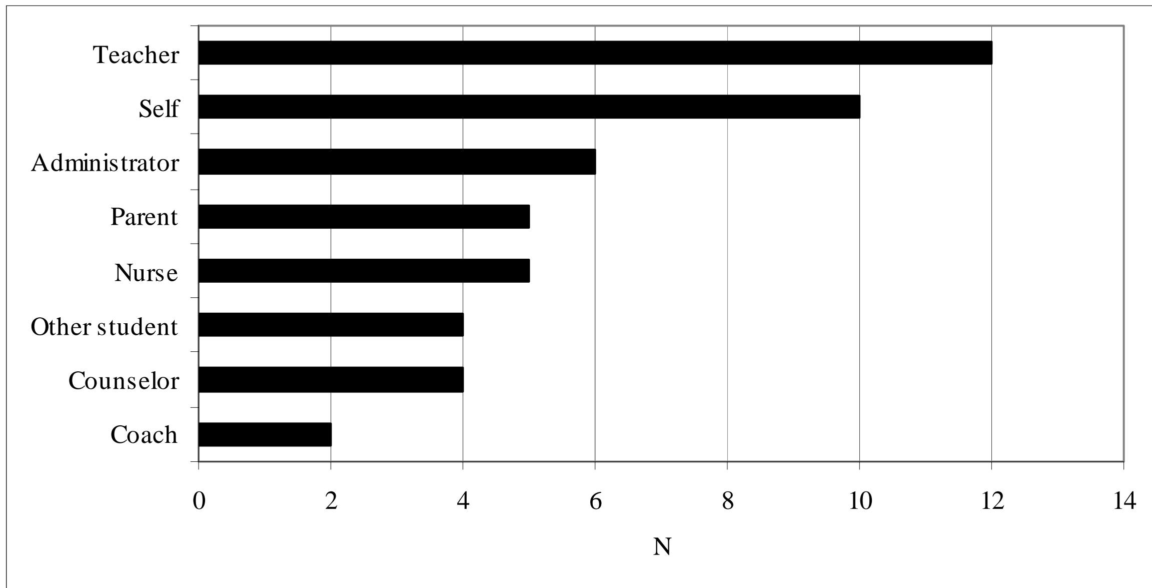
SBHC services mentioned by three or fewer informants included (a) chronic disease management (e.g., asthma and diabetes), (b) reproductive health services (e.g., pregnancy and sexually transmitted infection (STI) testing), (c) health education, (d) services to school staff, and (e) services to the larger community. Regarding services to school staff, informants at two schools said that their SBHCs will see staff if they become ill, and one assists staff in managing chronic conditions, such as diabetes. One site has also provided its staff with blood pressure and blood glucose screenings. A few school staff members also mentioned that their SBHCs are instrumental in providing health education to both teachers and students during medical visits and in-class presentations. It is worth noting that it was the health teacher at one of the schools with an SBHC that has been in operation less than a year who viewed the SBHC in his school as playing a key role in health education in the school, a remarkable accomplishment for a center so young.

Referrals

Since school staff members often act as gatekeepers to SBHCs, we were interested in knowing how often they referred students to their school's SBHC and under what conditions. All categories of school personnel we interviewed—principals and assistant principals, guidance counselors and social workers, health and physical education teachers—referred students to their

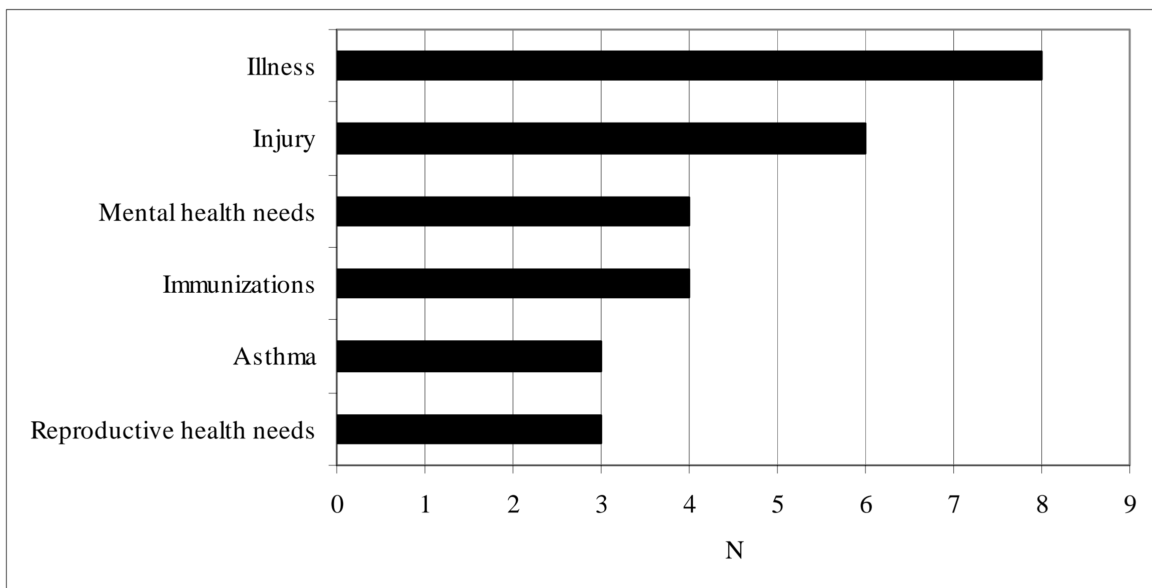
school's SBHC. Figure 3 displays the number of informants who mentioned a particular referral source. Note that the referrals sources informants mentioned included individuals that are not part of the formal referral process (e.g., other students). By far, the greatest number of referrals comes from teachers and students.

Figure 3. Number of informants mentioning sources of referrals to SBHC



As Figure 4 shows, staff mainly refer students for conditions that can be treated by the services they know the SBHC provides. Note that, with the exception of physical examinations, the six services most frequently reported in Figure 2 --urgent and acute health care services, mental health services, immunizations, physical examinations, reproductive health services, and chronic disease management--are those that would address the six conditions reported in Figure 4.

Figure 4. Number of informants mentioning conditions for which students are referred to SBHC



SBHC services not billed
Because the MESH process evaluation relies to a great extent on SBHC billing data to understand the scope and volume of services provided, we asked SBHC staff to identify the types of services they routinely provide, but are not recorded on the patient encounter form. The most frequently mentioned services of this type fall into two general categories: health education and communication.

Health education. Health education services that were not typically recorded on the patient encounter form included health education offered in group settings (classrooms, after-school groups, cafeterias, and school-wide assemblies) and individually as part of medical visits. Health education in group settings covered such mental health issues as stress and anger management, substance use, depression, eating disorders, and interpersonal violence. Health education in group settings also covered such physical health issues as asthma, nutrition, exercise, obesity, immunizations, sexuality and STIs. Health center staff also said that they routinely provide informal social support to students that is not documented. One health center coordinator describes this kind of support:

> *…other times they come in because they are just kind of overwhelmed with life and they may say it is a medical appointment and, indeed, you know, stress exasperates the asthma. But, you know, they just kind of need to almost remove themselves and the couple kids I'm thinking about almost removed themselves from the hectic school environment and kind of just chill for a few minutes, you know. And then, kind of regroup and get boost, you know, be able to go back out and kind of face the world again, you know.*

Communication. The kinds of communication about patient health that occur routinely, but are often not documented, include meetings, phone calls or correspondence with parents, communication with school staff members, and communication with outside professionals, although the latter are often documented on patient encounter forms as referrals.

SBHC services not provided
When asked what kinds of services they would like their SBHC to provide that it is not currently providing, school and health center staff most frequently mentioned mental health services and health education, followed by contraceptives and dental services.

Mental health services. The kinds of mental health services that school and health center staff would like their SBHC to provide include support groups, group therapy and psychiatric services. Most of all, they would like to see an expansion of current mental health services to meet the demand for them. In most cases, SBHCs offer mental health services on a part-time basis only, and cannot afford to pay for even a single full-time mental health staff person. In some schools, a gap between the demand for mental health services and the amount of services available has led to waiting lists.

Health education. The health education services that staff would like to see their SBHC provide would include education to students and school staff on such topics as exercise, nutrition, reproductive health, and teen parenting. One Nurse Practitioner expressed the view that

the teenage years are a critical period for establishing healthy attitudes and promoting healthy choices:

> *This is the time when we can get to the students and we can start to influence their decisions…in a positive direction and help them make good choices for their future.*

A few health center staff felt that health education might be more effectively delivered by peers than adults. As one put it:

> *I think young people have a feeling, "Oh this could never happen to me." But then what they hear from a peer or another young person, sometimes the message affects them differently than if they hear it from an adult.*

Given the number of sexually active students, particularly in high schools, several school and SBHC staff members expressed regret that their school's SBHC could not dispense contraceptives, as contraceptives would help reduce unwanted pregnancies and STIs. However, these informants were also aware that Michigan state law prohibits the distribution of contraceptives in public schools. One SBHCs staff member expressed her frustration over the bind this places her in with regard to treatment:

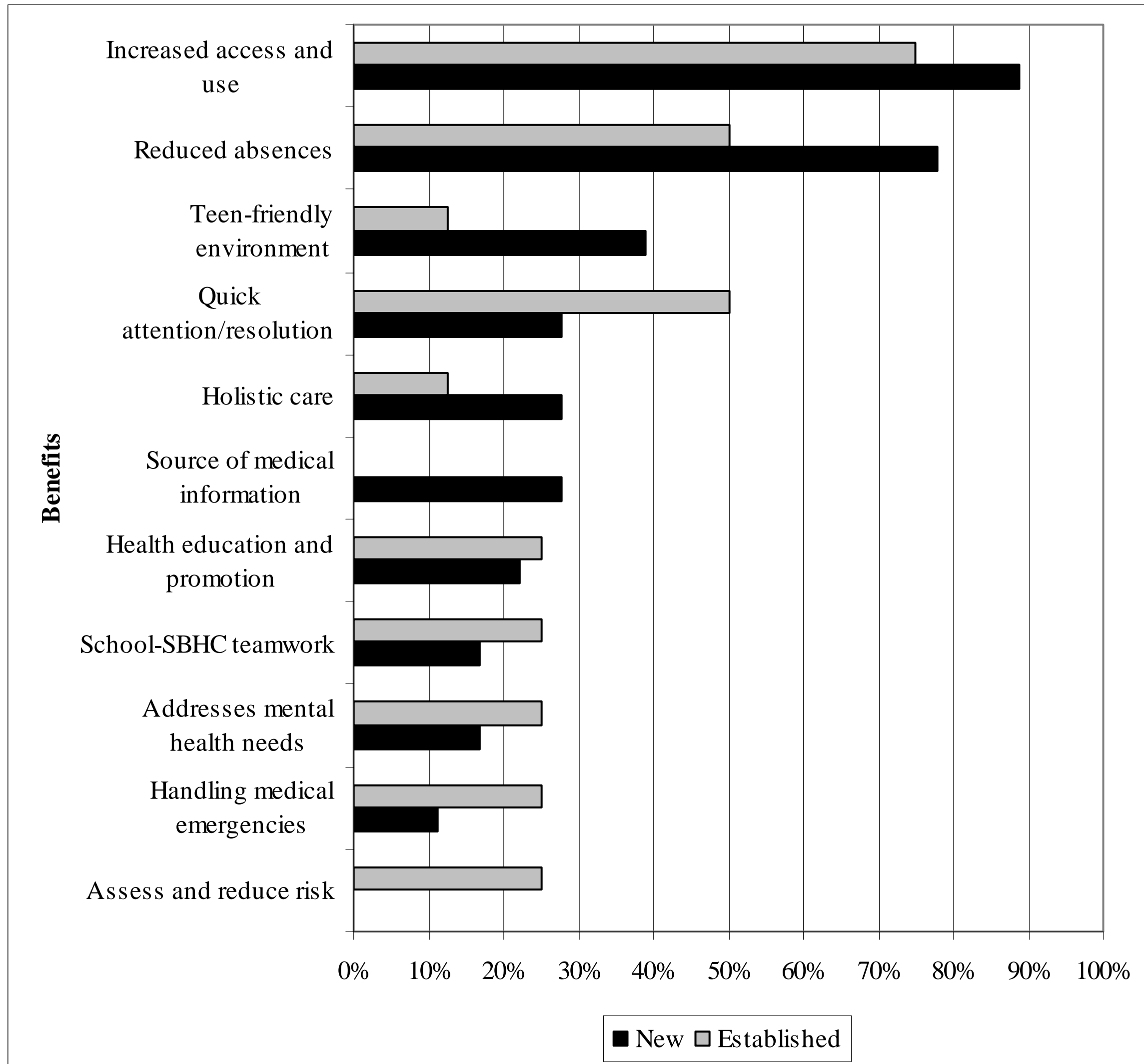
> *When kids are down here, and indicate that they have a risk associated with sexual activity and you say 'I can't give you condoms or anything to prevent diseases or keeping you from getting pregnant except for to tell you to abstain…So, to me, I'm telling them to stand out in the street and hope a car doesn't hit you… I can talk to them about risk, and tell them how to avoid it, but I can't actually give them treatment.*

Finally, some school and SBHC staff would like their health center to offer dental services. Interviewees talked about routinely encountering students who had never been to a dentist before. Many low-income students have difficulty receiving dental services due to the number of dentists who do not accept Medicaid.

Benefits of SBHCs

We asked school and SBHC staff what they thought were the main advantages of having an SBHC in their school. The perceived advantages and the percentage of interviewees who identified them at schools with new and established SBHCs are displayed in Figure 5. Although there was broad agreement on the primary advantage of having an SBHC in a school—increased access to and use of health care services—there were distinct differences between schools with new versus established SBHCs in the relative importance of the remaining advantages. Staff members at both kinds of schools felt that reducing absences, and quick attention to and resolution of health problems were important advantages of SBHCs, but the staff at schools with newly established SBHCs placed much more emphasis on the advantages of a teen-friendly environment and holistic care (both elements of a philosophy of care) and the SBHC as a ready source of medical information.

Figure 5. Percentage of informants reporting benefits of SBHCs



New: N = 18; Established: N = 8

Increased access to and use of health services. An overwhelming majority of school and SBHC staff members felt that the location of an SBHC in their school increased student access to and use of health care services. The presence of the SBHC made it possible for students, particularly low-income students, to receive health care services that they would not have received otherwise:

> *I honestly doubt [students] would get health care if it weren't for the health center... Some of our parents truly have financial challenges...so I really feel that if we did not have this free service, a lot of our kids would not go to a clinic until...whatever they have has progressed to a point where they have to go to the emergency [room].*

Interviewees felt that one of the main reasons that students would not have received medical care without their school's SBHC was that they lacked health insurance. Consequently, an important function of SBHCs was to assist low-income families in enrolling in Medicaid. One SBHC staff

person reported that they had helped roughly 60 families enroll in Medicaid during the preceding year.

SBHCs have the potential to increase access to health care by offering services in a convenient location. After all, what location could be more convenient to children than the location they spend most of their waking hours for nine months of the year? Taking children to medical appointments is frequently a challenge for working parents because it requires them to take time away from work. It is a special challenge for parents who do not own a car. By offering services within the school, SBHCs might help to remove such barriers. As one informant noted:

> *Because a lot of the families either don't have transportation to get to the doctor, or the parents can't take off work to take their kids to the doctor. So, if it's something that they figure is nothing major, then they're more likely to say, "Oh yes, it will be fine, don't worry about it," whereas if they have the health clinic, they can say, "Well, while you're in school, why don't you just go over to the clinic?"*

The SBHCs that were established in rural communities in 2006 have, in the opinion of staff members at two rural sites, increased the availability of health care and health promotion services in rural communities:

> *And "Centerville," where we're located, is sort of another area of the county, but it's really underserved. There is no public health site here. And just from a perspective of people being able to access things like well- child check-ups and immunizations and those kinds of things. I just think that's part of the whole goal of public health in my thinking. And I'm not a public health employee, so, but just in my mind, that that's their service, I mean that's what they're providing to the community, is access to things that promote good health, and things like immunizations, things like preventative care, things like education, you know, in terms of some of the things we talked about, you know, disease prevention and those kinds of things. So I just think that that's a good presence to have in the community.*

SBHCs are also a place for young people to begin to learn how to use health services to maintain good health:

> *Well, we know that young people just under-consume health services, that they oftentimes have more health needs that go unmet than other segments of the population. Why that is, I don't know. I'm not a researcher, so it's not my question to answer, but I think just philosophically that this is a good place to start. That kids start to become consumers of health services, not just medical services, but mental health services, too. You hope along their life that that just doesn't help them here in school, that they're better able to function when they move on through their life.*

Reduced absences. A reduction in absences was the second most frequently mentioned benefit of SBHCs. School and SBHC staff members at both rural and urban sites agreed that the presence of an SBHC in their school meant that students spent more time in class learning and parents spent more time at work earning:

Like I said, the kids miss less school because they're not being taken out for the full half day, or whatever. I know it's good for the families as far as them [not] having to take off work for school physicals or sports physicals.

Although there was general agreement on the top two advantages of SBHCs—increased access to and use of health services and reduced absences—there were differences between sites on the remaining advantages of SBHCs. Below, we discuss additional advantages of SBHCs, beginning with the advantages most frequently reported at sites with new SBHCs.

Benefits reported at sites with new SBHCs

Teen-friendly environment. At sites with new SBHCs, the third most frequently mentioned advantage of SBHCs was that they provide a teen-friendly environment that makes the health care experience more comfortable for students and encourages their continued use of SBHC services. As some informants remarked:

[A]s far as outreach, I don't think that doctors' offices have the ability to outreach to teens as well, or be as teen friendly. Teens like to come in and not have to wait, and they like to be the center of attention, and it's all about them.

The kids don't feel threatened or nervous to go there, so if they do happen to have a need, they are comfortable in going in there. Whereas, if they had to talk to the parents as much, and make an appointment and go down to see the doctor, then maybe they'd not be as open to that.

And I think it's a kid-friendly place. They hired the right person and the right staff, and it's just a welcoming place. It doesn't seem, like when you're sitting in a medical office—that can be a little intimidating.

As we will see later in the discussion about student involvement in SBHCs, students were instrumental in helping create teen-friendly environments in SBHCs and in establishing a sense of student ownership of SBHCs.

The next most frequently mentioned advantages of SBHCs at sites with newly established SBHCs were quick attention to and resolution of medical problems, a holistic approach to health care, and a ready source of medical information and expertise.

Quick attention and resolution. School and SBHC staff members at sites with established SBHCs reported that an important advantage of SBHCs was quicker attention to and resolution of student health problems. Because it is so convenient for students to receive physical examinations or to be seen for acute or urgent condition at their schools, conditions that might have been missed or not detected until later can be more quickly diagnosed and treated, and the more quickly conditions are treated, the sooner students can return to class:

It's just, it's timely. You can address the situation immediately, and not miss school. You know, a child for pink eye has to make an appointment, get in to their own physician.

Then they're out for until they start their antibiotic, where this can happen much more rapidly, without missing too much time.

Holistic care. The school and SBHC staff of sites with newly established SBHCs also stressed the importance of an approach to care that serves all of the child's needs in a comprehensive manner, the "whole child" in the words of several staff members:

The scope of treatment is all encompassing: it's their academics, it's their health, mental and then [the medical assistant] sort of fills in the gaps as far as insurance processing, cards…

But I also think that when you have counseling as a piece, too, that makes it a more holistic kind of approach. So, you're not just treating the medical concerns and the medical issues. You're also treating the emotional or behavioral issues, too.

Ready source of medical information. For the staff members at sites with newly established SBHCs, they were seen as a valuable source of ready medical information and expertise that has proved helpful in managing problems ranging from head lice to heart attacks.

Benefits reported at sites with established SBHCS

For the school and SBHC staff members of sites with *established* SBHCs, the next most frequently mentioned advantages were: health education and promotion, ability to address mental health needs of students, teamwork between the school and the SBHC to address student health needs, ability to handle medical emergencies, and the assessment and reduction in student health risks.

Health education and promotion. As might be expected, much of the health education provided by SBHCs takes place in the context of patient-provider contacts:

…on an individual basis there is a lot of patient education done by the nurse practitioner on a variety of topics, depending on what they present with. Whether it is that twisted knee or sprained ankle, you know, or sexual behavior or diet, you know, not enough exercise, relationships, I mean she does a tremendous amount of patient education, really in almost any topic you can think of.

In addition to the health education that takes place in the context of one-on-one patient-provider contacts, SBHCs provide health education in a number of group settings. SBHC staff members have offered classroom-based presentations on HIV and other STIs, domestic violence, nutrition, and substance use. SBHC staff members have also held student education sessions in school cafeterias about asthma and immunizations, and school-wide assemblies about violence and healthy choices for sexuality. SBHC staff members have also provided health education in after-school groups that cover such topics as eating disorders, healthy snacks, exercise, substance use, suicide, dating violence, immunizations, STIs, and peer relationship building. One site offers tobacco and alcohol education as an alternative to suspension for students who get caught smoking or drinking. As we will discuss later, the majority of such educational services cannot be billed, so SBHCs are providing these important services *pro bono*.

Addressing mental health needs of students. As discussed earlier, the perceived mental health needs of students are high. As one Nurse Practitioner noted, providing mental health services within the school setting means that students' mental health needs are much more likely to be addressed in a prompt manner:

> *R: One of our big advantages, we have mental health counseling available three days a week. And we can take referrals from teachers, counselors, parents, or from myself [Nurse Practitioner], and so that kids get mental health needs addressed that they might not have got addressed otherwise. I mean, the odds are good, that if they had to go out in the community and find a counselor and get their parents linked up to arrange payment for a counselor, things like that, it might not happen as easily as it happens here. Our counseling appointments were full this year, since the third week of school, and we have counselors here three days a week. (I: And what does that suggest to you?) R: That there's a good need for mental health services for teens, that I think is not easily met in the community.*

School-SBHC teamwork. Schools and SBHCs collaborate in a number of ways to promote student health, from working together to establish SBHCs, to health teachers working with SBHC staff to develop in-class health education presentations, to school and district wide health promotion programs, to working out the logistics of how students are referred to the SBHC. In fact, most of the benefits that accrue to students as a result of having SBHCs in their schools are dependent on school-SBHC teamwork.

Handling medical emergencies. Both school and SBHC staff members told us that the presence of an SBHC with highly trained medical professionals in their school was a great help in dealing with such crises as outbreaks of infectious diseases (e.g., tuberculosis), asthma attacks, or heart attacks.

Risk assessment and reduction. A few staff members at sites with established health centers felt that one of the major advantages of SBHCs was the ability to identify student risk factors early before they develop into full-fledged problems.

Challenges in Operating SBHCs

We asked the school and SBHC staff members what the disadvantages were, if any, of having a health center located in their school. Seven of 26 informants could not think of any disadvantages. The rest spoke not of disadvantages as such, but rather challenges to operating an SBHC in a school. Comparing the responses of staff members at sites with new versus established SBHCs reveals large differences in perceived challenges (see Figure 6).

Challenges Faced by New SBHCs

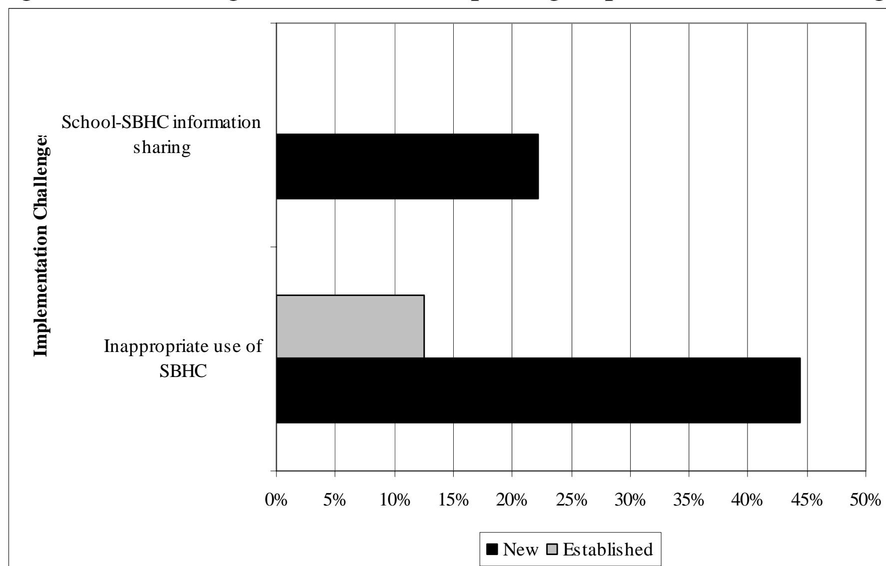
Inappropriate use of SBHC. While eight staff members at sites with new SBHC identified inappropriate use as a challenge, only one staff person at a site with an established SBHC named this as a problem. What was at issue here is the small number of students who use SBHCs not for medical care, but as a way to get out of class:

We've had the handful of students who have tried to use the health center as an escape from either class or a test or something they didn't want to be in. And we anticipated we would have some of that.

Given that this problem was a great deal more salient for sites with newly established SBHCs, it is fair to say that it represents the growing pains of a new SBHC, when procedures for student referral have not been fully worked out between the school and the SBHC. In fact, at all of the sites where inappropriate use was identified as a problem, the school and the SBHC had worked together to mitigate it.

School-SBHC information sharing. Another challenge representing the growing pains of a new SBHC was clarification of school-SBHC boundaries with regard to student information. School staff are accustomed to sharing personal information about students with other school staff and health center staff are used to sharing personal information about patients with other health center staff. But when these two systems come together, there is confusion initially about whether information can be shared across the systems, with some teachers being surprised that once they refer a student to the health center they will not be privy to the outcome of that visit. However, with some education on the part of SBHC staff, school staff members come to understand and respect this boundary. Informants believe that students are also confused about this boundary and worry that their private information might be shared with teachers. When they learn that this is not so, they are relieved and feel more open to discuss personal matters with SBHC staff members.

Figure 6. Percentage of informants reporting implementation challenges



New: $N = 18$; Established: $N = 8$

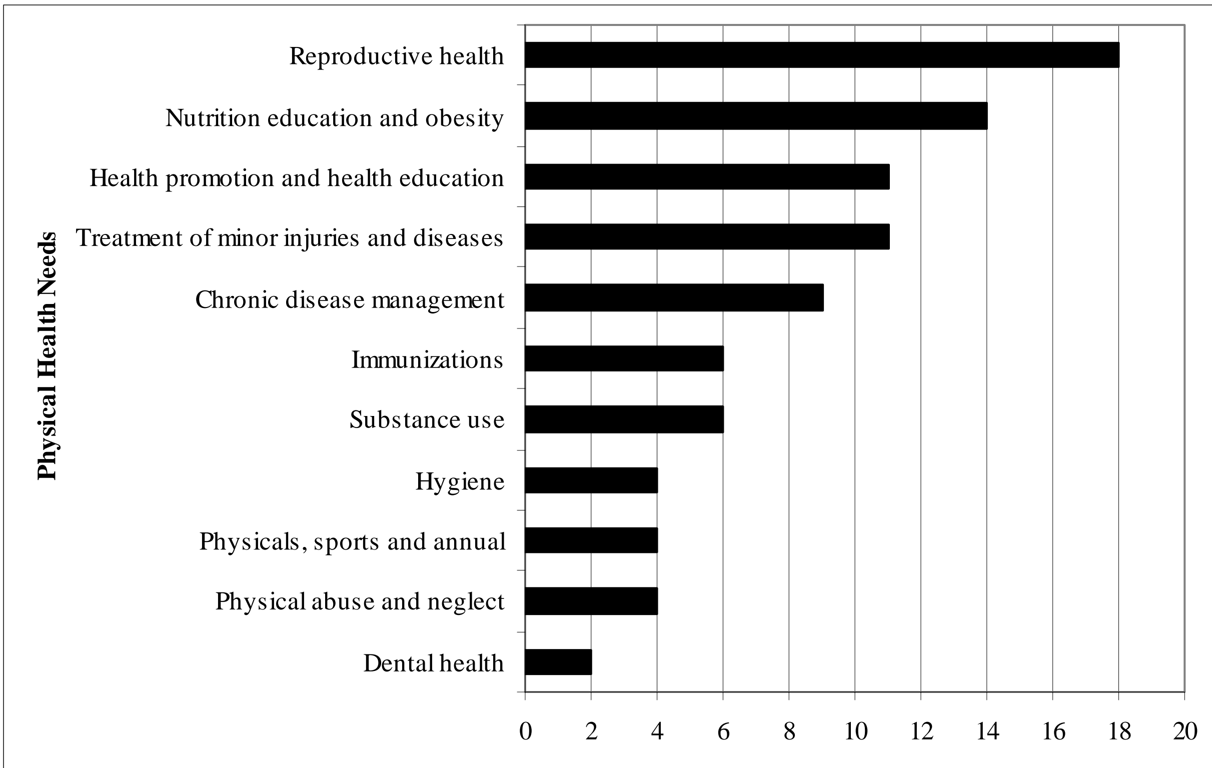
Student Health Needs

To understand more about the perceived health care needs of students and the perceptions of school and SBHC staff regarding the effectiveness of their SBHC in meeting these needs, we first asked school and SBHC staff to identify the major physical and mental health needs of students. In this section we discuss the major physical and mental health needs of students as

reported by informants. In the next section, we discuss informants' perceptions of the effectiveness of SBHCs in meeting these needs.

Physical health needs
Informants' descriptions of perceived student physical health needs were varied, ranging from the treatment of minor diseases to chronic disease management. Figure 7 presents the physical health needs of students and the number of informants who mentioned each physical health need.

Figure 7. Number of informants mentioning physical health needs of students (N=26)



Reproductive health. Attention to reproductive health needs was the most frequently mentioned physical health need, cited by over two-thirds (69%) of informants. Informants told us that students visited their school's SBHCs to receive testing and treatment for sexually transmitted infections, pregnancy tests, and referrals for birth control. Referring to the Nurse Practitioner in her school's SBHC, one informant said that:

> *She also does a fair number of pregnancy tests, obviously working with the ten to twenty-one student population. Unfortunately, there are a fair number of kids that do come in because they suspect they may be pregnant, or they suspect that they may have an STD.*

As noted before, school-based health clinics are prohibited by law from prescribing or dispensing birth control to students. Clinics can refer students to other agencies, such as public health clinics, to receive contraceptives; however, it is unknown whether students follow up on these referrals.

Nutrition education and obesity. Nutrition education/obesity was the second most frequently mentioned physical health need, cited by half of informants. Several informants attributed students' weight issues to a lack of physical exercise; others attributed it to poor eating habits. As one informant noted, schools contribute to poor nutrition by making unhealthy foods available in vending machines and cafeterias. Conversations with the staff of SBHCs indicated that nutrition education and weight management are priorities for their clinics. One clinic recently received a grant to identify students with weight issues and place them in a program to promote healthy eating habits.

Treatment of minor injuries and diseases. The third most frequently mentioned student health need was the treatment of minor ailments and injuries. This included the treatment of fevers, earaches, abrasions, injuries from gym class, and other injuries or illnesses requiring attention during school hours:

> *Well, we have a lot of just general medical visits. So, you know, the sore throats, the earaches, the twisted ankles, just some very general kinds of medical things are pretty frequent.*

Health promotion/health education. Health promotion and health education was the fourth most frequently mentioned student health need. SBHCs provide students with information about how to maintain healthy bodies, how to manage stress, how to avoid alcohol, tobacco, and drug use; and how to handle relationship and dating issues, including dating violence.

Chronic disease management. Students with chronic diseases use the services of their school's SBHC to help them manage their asthma, diabetes, hypertension and elevated cholesterol. As one SBHC coordinator noted:

> *We know with asthma, if we can get them into training, a management plan, recognizing triggers, when to use their inhalers, then we will be able to improve their health outcomes. They need education on management of chronic disease…*

Substance use. Although it might be more correctly considered a psychosocial than a physical health problem, substance use was identified as a significant physical health problem by several informants. Certainly, it has important physical consequences. Although tobacco was reported as the substance students use the most, a few informants also reported that students are using illegal drugs. To help combat tobacco use one school is using an innovative approach by providing smoking cessation classes to students caught with tobacco rather than suspending them.

Immunizations. A few informants revealed that hundreds of their students are behind on their immunization schedules, putting themselves and others at risk for communicable diseases:

> *We have 441 students who were behind on their immunizations. Getting parent involvement, getting parents to follow through on making sure students get the services they need – to get immunizations up to date.*

Neglect. As with substance abuse, physical abuse and neglect are more properly considered psychosocial than physical health problems, but they too can have serious consequences for the physical health of youth. Informants did not provide much detail regarding the nature of the physical abuse or neglect, but a few mentioned that some students come to school in dirty clothing and appear not to be physically cared for, suggesting to these informants physical (and perhaps emotional) neglect. However, we have no way of independently assessing whether neglect is, in fact, an issue for these students.

Other physical health needs. The remaining physical health needs mentioned by informants included:

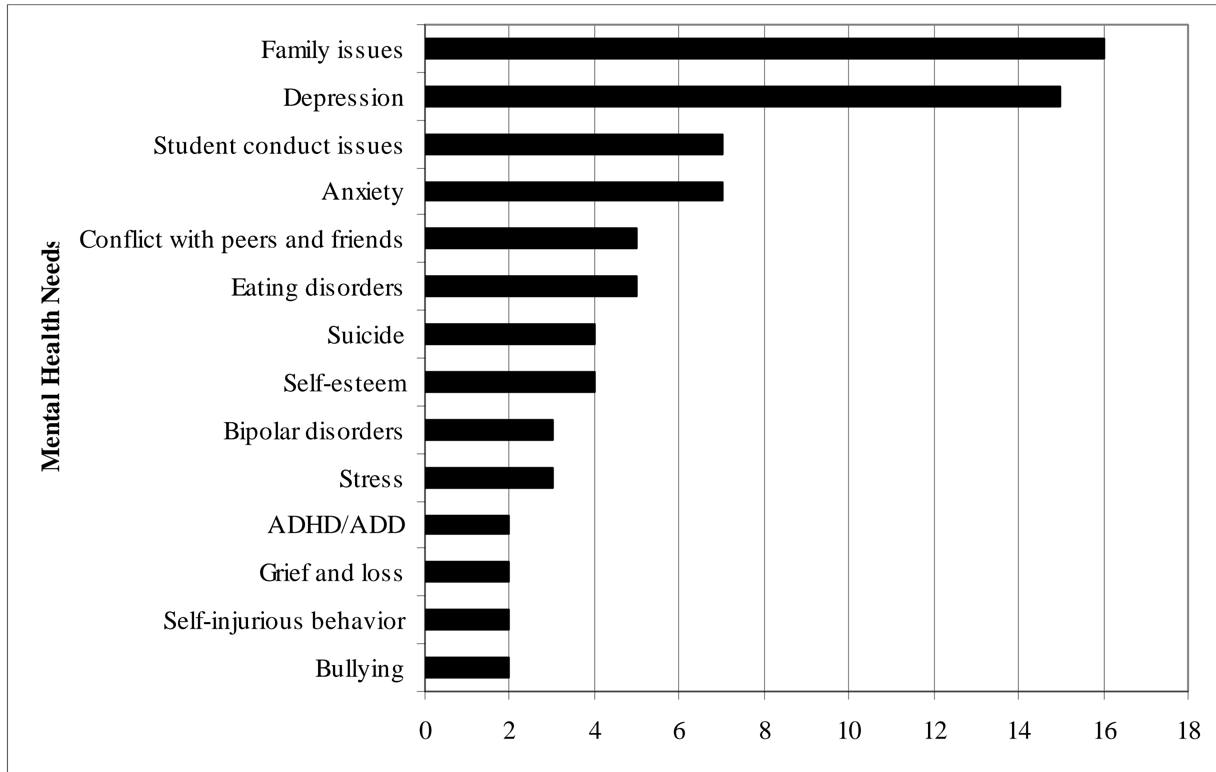
- Physicals, both sports and general
- Hygiene, especially for middle school students
- Dental care

A comparison of the perceived physical health needs of middle-school and high-school students revealed few differences. With the exception of hygiene, which was mentioned more frequently as a significant health need for middle school students than high school students, there were no differences in the perceived health needs of middle-school and high-school students.

Mental Health Needs

Like students' physical health needs, students' mental health needs are varied and complex. Figure 8 displays the mental health needs school and SBHC staff members told us were most pressing and the number of informants who mentioned each need.

Figure 8. Number of informants mentioning mental health needs of students (N=26)



Family issues. It is noteworthy that the most frequently mentioned mental health need of students was care for the psychological consequences of family crises brought on by their parents' problems, which include job loss, disability, alcohol and/or drug abuse, divorce, or incarceration. Many students have sought counseling at their school's SBHC to deal with these crises. One administrator discussed how their counselors spend some of their day teaching students how to function in a "dysfunctional" family:

> *Coping skills in a dysfunctional family: that's another something that kids need to know how to work out and work on…We have a lot of kids that are just on their own. They live at home, but the parents are so dysfunctional, and so the kids are just kind of out there, trying to come to school and somehow survive.*

Depression. Depression was another frequently mentioned student mental health need. Several informants said that depression was *the* most prominent mental health issue their staff encountered when working with students. Many informants viewed depression and anxiety as inextricably linked. Given this connection, it is not surprising that anxiety was the next most frequently mentioned mental health issue.

Student conduct issues. Student conduct issues, including anger management, were the fourth most frequently mentioned student mental health problems. According to one informant, some students have difficulty "maintaining themselves in class" or have difficulty with peer relationships, and as a result act out in school. This same informant

felt that having an SBHC in the school helped both the students and the school deal effectively and immediately with such behaviors:

> *So, you know, a student's having a bad day, and they're having a hard time maintaining the classroom, you know, you may get a call down, 'can you see this student? Can you meet with them?' If it's a student we have consent with or somebody that we're already seeing on an ongoing basis, we're able to do that.*

Eating disorders. Eating disorders were viewed as a significant student mental health problem by several informants. One school administrator expressed surprise at the number of students who were receiving help with this problem from their SBHC.

Conflict with peers and friends. Conflict with friends and peers was also viewed as a significant problem by several informants. In their view, many of these problems revolve around adolescents gaining a new sense of self, and as a result needing to make difficult choices about their peer relationships. As one SBHC social worker noted:

> *For students of this age group, so many things have changed and some students have trouble making the needed changes and it is the role of the health center to help with that. As they develop an identity and become associated with a particular peer group, they have concerns about whether the peer group will accept them as they are or if they will have to become someone else.*

Other mental health needs. Other, less frequently mentioned mental health needs of students included:

- Low-self esteem
- Suicidal ideation
- Stress
- Bipolar disorders
- Bullying
- Self-injurious behavior
- Grief and loss
- ADHD/ADD

Regarding stress, a few informants expressed the view that, although adolescence is often a stressful time, some students were carrying the extra burden of being the adult in the household due to the kinds of family crises noted above. According to one informant, this stress has consequences for students' physical health, with their stress manifesting itself in physical symptoms like headaches, stomach aches, and chest pains. One informant spoke of the connection between student stress and its physical, emotional, and behavioral manifestations:

> *It's sort of the emotional challenge of dealing with the pressures of school, and of life, and of home that a number of students turn into more behavioral issues, and complaining of not feeling well, and that type of thing…*

As with physical health needs, we compared the perceived mental health needs of middle-school and high-school students. In doing so, we found that, in general, middle-school students were viewed has having few mental health needs and, in particular, that high school students had greater perceived health needs in the areas of depression, family issues, substance use, and eating disorders.

SBHC Effectiveness

In addition to coming to an understanding of what school/SBHC staff members viewed as the most important physical and mental health needs of students, it was important for us to comprehend how well they felt their SBHCs were meeting these needs. We began this part of the conversation by asking school/SBHC staff members to rate the effectiveness of their SBHC in meeting the health needs of students.

Rating effectiveness

We asked school and health center staff to rate the effectiveness of their health center in meeting the health needs of students on a scale of 1 to 10. As Table 3 shows, the school and staff members of schools with newly established SBHCs were more likely to assign their SBHCs ratings in the 8.0 – 8.5 range and less likely to assign their SBHCs ratings in the 9.0 – 10.0 range than the staff at schools with established SBHCs.

Table 3. SBHC Effectiveness Ratings

Rating	New SBHC		Established SBHC	
	N	%	N	%
6.0-7.5	3	18.75	1	12.50
8.0-8.5	10	62.50	3	37.50
9.0-10.0	3	18.75	4	50.00
	16	100.00	8	100.00

When asked to explain these ratings, staff at schools with newly established SBHCs who assigned their SBHC a rating of less than 10 said that they had not given their SBHC the highest rating because their SBHC was not serving as many students as it might and, given how new the SBHC was, there was still room for improvement in services. One health center counselor expressed this latter view:

> *I think there are a lot of things we're doing right. I can see a lot of benefits that have happened with the students over the school year and even kids from the outside as well. But I think, as in everything, there's always room for improvement. There's always more things that we can put in place.*

Staff at both newly and well-established SBHCs also assigned their SBHCs less-than-perfect ratings because they felt that their SBHCs were not providing all of the services they should. Services they thought their SBHCs should provide to earn a 10 included more counseling services, lab services, x-rays, dental services, support groups, distribution of contraceptives, and health education.

Attributes of an effective SBHC

When school and health center staff members were asked about the attributes of a truly effective SBHC, their responses fell into two general categories: characteristics of the SBHC (e.g., what services it offers and how they are delivered) and the kinds of impacts it would have on student health, health behaviors, and the school environment. The general characteristics of truly effective SBHCs can be further subdivided into the following categories:

- The general features of an SBHC, such as its accessibility and its possession of the necessary equipment and resources
- The services an SBHC provides
- How SBHC services are provided
- Characteristics of the SBHC staff
- Relationships between the SBHC and the school in which it is housed, the community in which it is situated, and the medical providers within that community.

General features. Of the general features of a truly effective SBHC, two were mentioned most frequently: the accessibility of the services to students and others in the surrounding community and the SBHC's possession of all the equipment and resources necessary to provide a comprehensive array of services. With regard to the accessibility of services, informants mentioned: an absence of financial barriers to receiving services, a location convenient to students (but also private), and an exterior entrance to the clinic for patients from outside the school.

Services. In the eyes of informants, a truly effective SBHC would provide a wide array of high quality health care services (including mental health services); be deeply involved in health education and health promotion both within the school and in the larger community; and be knowledgeable about local healthcare resources and have established links to them that facilitate the referral of students to appropriate services.

How services are provided. Informants felt that the way services were delivered was as important as the types of services an effective SBHC would provide. Chief among the important ways of delivering services was that SBHCs be responsive to the particular health care needs of students:

> *I think being able to respond to their needs, whether it is a sore throat or the counseling or they need to know where they can get a handful of condoms or, you know, whatever, that we have that information.*

School and health center staff at schools with newly established SBHCs felt that it was important that services be offered in a teen-friendly environment:

> *Have it be an accessible, friendly, supportive place, so that kids feel comfortable coming in for their needs.*

They also emphasized the importance of providing services confidentially:

…teenagers are very independent. They're into some things that they don't want to have their parents know about, so they want to feel that their problems will be dealt with, but will be confidential.

Finally staff at schools with newly established health centers felt that SBHCs have an advantage over physicians' offices in that SBHC staff could typically spend more time with each patient than physicians:

They'd also spend more time with the kids than you would normally, like if you go see the doctor, if you get fifteen minutes with the actual doctor, you've had a really good appointment.

Staff. How services are delivered depends a great deal on the kinds of people who are delivering them. According to informants, the staff at an effective SBHC would be well-trained, knowledgeable about the developmental and health care needs of adolescents, respectful of students and have good rapport with them. Regarding rapport with students, one SBHC staff member noted how critical this was to establishing trusting relationships with students:

I think another important part…is who the staff members are, and how they interact with kids is important. They have to like kids. They have to like the people they're working with, and they have to send a message to those students that they have the students' best interests at heart, and in mind. And that, I think, is critical to the success of a health center, because without that that students aren't going to go. And when you have that relationship built, then the kids are going to be more honest about some of their behaviors and habits that are not as healthy, and they're going to be more open to listening to the advice, and the direction of the medical staff. So, just having people there who really feel that it's their passion and their calling to work with young people in this environment is very important.

Impacts of an effective SBHC

Informants described a number of impacts that a truly effective SBHC might have on student health and well-being. These impacts included improved mental and physical health, health-related attitudes and behaviors, and health knowledge. In addition, an effective SBHC would transform the environment of its host school to be more supportive of student health overall.

Impacts on physical health. In terms of physical health, informants thought that an effective SBHC would improve students' overall health and reproductive health (e.g., treat yeast infections and prevent pregnancies), help students manage chronic diseases such as asthma and diabetes more effectively, prevent diseases and control obesity.

Impacts on mental health. As for mental health, informants thought that an effective SBHC might help students be more "emotionally stable," have higher self-esteem and self-confidence, an improved ability to cope with stress, and superior interpersonal skills.

Impacts on behavior. Informants discussed several potential behavioral impacts of an effective SBHC, including improved nutrition, reduced substance use, healthier choices, increased physical activity, abstaining from sex or using contraceptives, and better self-care.

Impacts on attitudes. Informants also felt that an effective SBHC could transform students' health-related attitudes. The transformation they mentioned most often was coming to see the importance of maintaining good health. As one informant explained:

> *I guess that health is important to their whole life, because right now, they're at an age where they just blow it off, that it's not a big deal, they've got their whole life ahead of them, why worry about this now, they can worry about it later kind of attitude. If we can instill in the students when they're young enough, as well as in the families, that this is important, then it will maintain that importance throughout their lifetime.*

The second most frequently mentioned attitudinal change was for students to feel empowered to take control of their health and health care. A Nurse Practitioner described this change in attitude:

> *The main thing that if I could impact students, would be to give them a feeling of control over their own destiny and their health, that it's within their control, and give them the tools to do the things they want to do, say athletics, go to college, you know, to maintain their health so they can do all those things.*

Impacts on school environment. Informants felt than an effective SBHC might transform the environment of its host school to better promote the health of its students. This impact might be felt in such areas as the elimination of "junk food" from vending machines and the cafeteria, the improved academic performance of a healthier student body (more on this below), and a more caring, supportive environment for students. In addition, an effective SBHC would establish a strong partnership with its host school to promote student health. A teacher at a school with a newly established SBHC talks about how this partnership might develop:

> *Yes, it could have an impact on the school environment, but it will take time. The health center is a comfortable environment but it needs to make its presence known. Now let's go further in terms of being part of the whole school curriculum: In staff meetings, talking to the kids about health issues. Have seminars for girls about teen pregnancy – make them mandatory. Have teen parents come in to tell how tough it is if you make this choice. Take the lead – take the time to reach out into the school and community.*

As mentioned above, a number of school and SBHC staff drew a connection between healthier students and improved academic performance, especially attendance. A school administrator describes this connection:

> *It's helping our kids be healthier, which helps keep them in school, which helps them do better in school. And that's one of our primary goals, is to have our kids succeed. And if this helps them do that by being healthier and being there and being able to concentrate and do better, it's all positive.*

Several informants described healthy students as more alert and focused, and therefore better able to learn. Other informants saw a strong connection between student emotional health and academic performance:

> *I think ideally, there would be students that would be better able to function in school because they have their basic emotional needs met in terms of the support, nurturing, those kinds of things.*

Still other informants thought that better health—both physical and emotional—would reduce interpersonal conflict between students, creating a better learning environment:

> *I guess I would think that if they're learning how to take care of their bodies better, then they're going to feel better emotionally and psychologically, which is then going to decrease some of our conflicts, and violence, meaning fights and stuff like that in the hall. Just generally getting along with each other better.*

Impacts on health knowledge. Finally, several informants mentioned that an effective SBHC would instill greater knowledge and awareness of health issues among students and teachers. An SBHC within the school walls would help students and teachers understand how to maintain good health and how to manage and seek care for common illnesses and health conditions.

Evaluating SBHC effectiveness

When asked how they evaluate the effectiveness of their SBHCs, staff members at both newly established and long established health centers most frequently mentioned annual consumer satisfaction surveys. Although customer satisfaction surveys are undoubtedly useful tools for assessing whether services are provided in a manner that consumers find agreeable, they provide little information about the impact of those services on consumer health. The second most frequently mentioned methods of assessing health center effectiveness—service utilization reviews and chart audits—are somewhat more useful from an evaluation perspective insofar as they can help SBHC staff determine the types and quantities of services being provided and, more importantly, whether these services meet defined standards of care. Chart audits are a useful way of assessing whether, given a particular health complaint or condition, patients are receiving recommended care and whether appropriate preventive services are being provided at key developmental milestones (e.g., immunizations). Indeed, tracking of immunization rates was the next most frequently mentioned means of assessing health center effectiveness. Other, less frequently mentioned means of assessing health center effectiveness included achievement of quality improvement project objectives, pretest-posttest health education surveys, face-to-face patient reports, quarterly reports to MDCH, student absenteeism, formal student health needs assessments, and repeat business (i.e., the extent to which students return for additional services).

Barriers to SBHC Services

To better understand the barriers to service that might limit the effectiveness of SBHCs, we asked SBHC staff members about circumstances that might prevent students from accessing the health services of their SBHC. To elicit perceived obstacles to service, we asked SBHC staff

members about barriers related to confidentiality concerns, lack of parent consent, challenges in providing specific kinds of health services to students, challenges in serving particular groups of students, whether some students were less likely to have parental consent to receive services at their school's SBHC, how students were typically referred for services, whether some students were referred less frequently, and whether some students were harder to reach. In addition, we asked a more general question about the kinds of barriers students might encounter in attempting to access the services of their SBHC. Altogether, informants identified 20 different barriers to access. We limit our discussion below to the top 10 of these.

Confidentiality concerns
Many SBHC staff members thought that confidentiality concerns constituted a barrier to providing services to students. Among those who believed that confidentiality concerns were a barrier, several said that their SBHC had tried to address them by educating students and parents about the center's privacy policy. Staff members believed that students' concerns about confidentiality revolved around their personal information being shared with the school or with their parents. Some parents were concerned about not being able to find out about what transpires during the provision of confidential services. A few SBHC staff members thought that students might be reluctant to seek services at the SBHC because there might be some sort of stigma associated with it. As one explained:

> *If somebody sees Johnny going into the health center, they're going to think there's something wrong with him and people will talk.*

Other informants thought that some parents might actively discourage their children from seeking care at their SBHC for fear of having family issues revealed to outsiders. According to one informant:

> *Parents will often say, "let's keep it within this family system."*

Still other informants felt that a lack of trust in SBHC staff was one reason students might not seek care at the SBHC, thereby revealing personal information. In the view of one informant, this lack of trust was because:

> *By their age, someone along the line has broken their trust. So, they wonder how the health center will be any different. Some students think if they go there about a private issue, everyone will find out about it.*

However, multiple informants felt that over time, by demonstrating genuine care and concern for students, a trusting relationship between health care providers and students could be established.

Lack of parent consent
One of the most significant barriers to serving students cited by informants was an absence of parental consent for services that require parental consent. According to Michigan law, among the services that do not require parental consent are prenatal care, sexually transmitted disease testing and treatment, and mental health counseling for youth aged 14 or older. Informants felt that parents might have a number of reasons for failing to provide consent for their children to

receive services at their SBHC. Chief among these reasons was that some parents preferred that their child only receive primary care services from their family physician. *If this is, in fact, a significant cause for lack of parental consent, then perhaps SBHCs should make more of an effort to inform parents that their child's use of his or her SBHC would not supplant the use of the family physician; rather, it would complement it.*

In spite of the fact that Michigan law (MCLA 380.1507) prohibits the dispensing or distribution of family planning devices in a public school, some SBHC staff members believe that one reason parents might not provide consent for their child to receive SBHC services is their fear that the SBHC will provide their child with contraceptives, or that SBHC personnel will discuss family planning options (e.g., abortion) with her/him.

Other reasons SBHC staff members provided for parents not granting consent for their children to use SBHC services included simply forgetting to fill out and return consent forms, fear of being billed for SBHC services if they are not covered by their health insurance plan, lack of understanding of what the SBHC does, and a desire to maintain control of their child's health care.

Barriers to providing specific services

Reproductive health services. SBHC staff members reported the greatest challenges around providing reproductive health services. It was clear from the interviews that many health center staff would like to be able to provide students with contraceptives to prevent pregnancies and STIs, but are prohibited from doing so by state law. Although SBHC staff members can and do refer students to other community health centers or public health clinics for contraceptives, they felt that many students would not follow through on these referrals and, as a consequence, continue to engage in unprotected sex, increasing their risk of pregnancy or STIs.

Mental health services. SBHC staff members also reported challenges in providing mental health services to students. The primary challenge, as discussed before, was the limited availability of mental health services relative to demand. Although some SBHCs have waiting lists for mental health services, SBHCs tend to only offer services on a part-time basis. Other challenges in providing mental health services at SBHCs were related to the difficulty of coordinating mental health services between SBHCs and outside mental health providers and the inability of SBHC providers to prescribe psychotropic medications.

Parental limits. A final barrier to providing a full complement of health care services to students mentioned by SBHC staff members was limits parents wanted to place on the kinds of services their children may receive at their school's SBHCs. Staff members reported that some parents had written "Band-Aids only" on their child's consent forms and other parents had wanted to forbid the SBHC from providing their child mental health services. However, Michigan law allows minors aged 14 and older to consent to their own mental health counseling for a duration of 12 sessions or four months per request before requiring parental consent (MCLA 330.1707).

Barriers to serving specific groups of students
The three groups SBHC staff members were most likely to experience barriers serving were non-native English speaking students and their families; males; and gay, lesbian or transgender students.

Non-English speaking families. SBHC staff members frequently encountered problems in serving Spanish-speaking students and their families due to a language barrier. Some informants from the Detroit metropolitan area also mentioned difficulty serving Hmong and Middle Eastern students and their families. Among the sites serving Spanish-speaking families, none had bilingual staff, requiring the use of professional translators or phone translation services to communicate with Spanish-speaking students and their families.

Male students. Barriers to serving male students were related to informants' impressions that males were less likely than females to seek the services of their school's SBHC and were more likely to forget their appointments. When asked why male students would be less likely to seek health care services, one informant said that it was due to a "be tough" attitude among male students.

Gay, Lesbian, Transgender Students. Among the schools with informants that reported challenges serving gay, lesbian, or transgender students, none had services or groups that specifically targeted such students, and one informant reported that the high levels of homophobia in her community would prevent such services or groups from ever being established.

Children with less overt problems. Consistent with the principle that it is the squeaky wheel that gets the grease, SBHC staff members told us that it was the quiet, well-behaved, secretive, or withdrawn students who were less likely to be referred by a teacher, administrator, or coach to their school's SBHC. Conversely, it was the students with obvious physical or behavioral problems were most likely to be referred to the SBHC. As one informant noted, this pattern might be a problem for depressed and withdrawn students, whose needs might go unnoticed until their emotional problems led to more overt signs of psychological distress.

Other barriers
Informants mentioned additional general barriers to service; these are summarized below.

Hours of operation. SBHCs are frequently closed over the lunch hour and during SBHC staff meetings. In addition, SBHCs are typically only open during normal working hours, precluding access to their services in the evenings and on weekends. Although SBHCs are open during the summer, the students are not in school, so they are less likely to use SBHC services.

Teachers deny access. Although this perception was for the most part limited to schools with newly established SBHCs, some informants believed that teachers were reluctant to give students permission to use their school's SBHC. It was not clear from the interviews whether this was due to schools and SBHCs not having fully worked out their referral procedures, a lack of familiarity with or understanding of the SBHC among teachers, or simply their reluctance to relinquish instructional time.

Lack of awareness of SBHC. At schools with newly established health centers, informants reported that one barrier to access was simply a lack of awareness among students and their parents of the presence of the SBHC, what it is there for, what services it provides, and how and when those services can be accessed.

Less frequently mentioned barriers to students receiving SBHC services included:

- *Academics:* Students may not access the services of their SBHC at a particular time because of examinations, standardized testing, field trips, or simply not wanting to miss a class.
- *Location:* For SBHCs that serve more than one school, transportation is a barrier for the students who attend schools other than the one in which the SBHC is located.
- *Stigma:* Among staff at schools with new SBHCs, there was a perception that students who regularly attended the SBHC might be stigmatized by other students. As one informant explained it:

  > *Sometimes other students' perceptions of why a student comes to the health center is a barrier. No one wants to be known as the person who is always going to the health center. Other students talk about what that student's problem is. The perception may be that they have something wrong with them, such as being pregnant or having a sexually transmitted disease. Because children talk.*

- *Trust:* According to some informants, a lack of trust in the SBHC staff served as a barrier to students. However, as one informant explained, trust in the SBHC staff could be gained over time:

  > *I think students have to come here a few times before they feel comfortable enough to tell us what they're really coming for. So I think sometimes it takes time to establish a relationship and a feeling of trust. I think a student might come here and tell us they have a headache or something to kind of scope us out, and then they might come back and tell us they really want a pregnancy test or something. But I think sometimes it takes time to gain trust with people.*

Impacts of New SBHCs

The literature on SBHCs has substantiated a number of benefits of SBHCS, including improved access to health care services (Gance-Cleveland & Yousey, 2005), improved school attendance (Geierstanger, Amaral, Mansour & Walters, 2004), and reductions in emergency room visits and hospitalizations (Key, Washington & Hulsey, 2002). In this study, we were also interested in the impact of SBHCs on the overall school environment as it related to the promotion of student health. For this reason, we asked SBHC and school staff about the impacts of SBHCs on the school environment, student attitudes, and student behaviors. Because we wanted informants to be able to compare school environments before and after the founding of SBHCs, we only asked these questions of informants who were present at the founding of their SBHC. Since only the staff members of newly founded SBHCs were present at the establishment of their SBHCs, the following information on the impacts of SBHCs is based on their responses alone. However, because newly established SBHCs had been in operation for less than a year at the time of the interviews, there was limited time to observe the effects of SBHCs on their school environment.

Impact on school environment
During the first year of operation of newly established SBHCs, some SBHC staff members had noticed a growing awareness of health issues among students and teachers and increased openness to and trust in the SBHC on the part of school staff.

Impact on student attitudes
The major change in student attitudes reported by SBHC staff was greater openness and comfort with seeking health care. According to some informants, students were learning to take a more proactive stance toward their health by seeking health care before their health problems become acute. This has led, in the words of one school administrator, to a greater sense of control and ownership among students regarding their health.

Impact on student behavior
The most significant perceived impact of SBHCs on student behavior has been improved school attendance. One principal describes the impact of his school's SBHC on the attendance of students who, in the past, had frequently missed school:

> *I would say that the contribution has been in improved attendance for a few of our chronic cases, where they were always leaving school, going home saying they were sick, when in fact they weren't. Having the health center there to do a diagnosis and say, "No, they're really not to a point where they need to go home," well then, we get them back in class.*

Context of Service Implementation and Delivery

To better understand the context of service implementation, we asked informants about sources of support for and opposition to the SBHC both within the school and in the surrounding community. As parents and youth were frequently involved in the planning and implementation of SBHCs, we also asked informants about the involvement of parents and students in the founding and operation of their school's SBHC. Finally, we asked informants about school-SBHC collaboration which is essential to effective implementation and provision of SBHC services.

Support for SBHCs
We asked informants about support for their school's SBHC from parents, students, school staff members, and community members; why people in each of these categories supported the SBHC; and how they showed their support.

Support from parents. Although school/SBHC staff members experienced overwhelming support from parents for their school's SBHC, most could not cite specific reasons for this support. The following response is typical in its ambiguity about the basis of parental support:

> *I have only heard positive things. I haven't heard a lot of, like talk about it. It's just another part of our everyday life here. I really haven't heard that much. But those who access it are really glad it's here.*

Nevertheless a few (2-4) informants cited specific reasons for parents' support, including: handling their child's medication regimen, being able to stay at work rather than having to leave work to take their child to medical appointment, and being impressed with the quality of the SBHC staff. Informants were unable to name any concrete ways in which parents demonstrated support for the SBHC beyond the occasional positive testimonial.

Support from students. According to school and SBHC staff members, students have largely positive attitudes toward their SBHC and have few, if any, negative things to say about it. Among the reasons informants gave for students' positive attitudes toward their SBHC the most common was that the SBHC staff was experienced by students as friendly, approachable, and unintimidating:

> *I think it's the people, is the main thing, and that's what we had heard before is, if you have the right people there that can relate with the kids, that it will make all the difference. And I think that's what it does. They care about the kids. The kids know it. And they do a great job and the kids know they care. I guess that's my interpretation of why it's so open with the kids to go in.*

Several informants also said that students experienced the SBHC environment as inviting and teen-friendly. Others said that students were impressed with the attractiveness of their SBHC and the fact that it looked like a "real" doctor's office. The only negative student attitudes toward SBHCs informants could recall stemmed from students frustration at not being able to access its services when they wanted either because a teacher would not release them from class, their parents would not provide consent, or the SBHC could not provide the particular service requested. As we discuss below, students demonstrated their support for their SBHC largely through their participation in the student advisory board.

Support from school staff members. SBHCs enjoy support from a wide array of individuals within their host schools. In terms of active supporters who worked to make the SBHC a reality, school administrators, particularly building principals and superintendents, have provided support that has been instrumental in establishing SBHCs. Informants believed that administrators have supported SBHCs because of (a) their awareness of student health needs, (b) the fact that the presence of an SBHC in a school makes the school more attractive to the parents of prospective students and might therefore increase school enrollment, and (c) their belief that healthy students perform better academically.

Informants stated that teachers were strong supporters of SBHCs because (a) they genuinely cared about their students well-being, (b) students' health needs were addressed while minimizing the amount of class time missed, (c) SBHCs helped manage students' emotional and behavioral problems thereby mitigating behavior that disrupts the classroom, (d) teachers, like administrators, recognized that it is easier to educate happy, healthy, and emotionally stable students, and (e) teachers appreciated having medical personnel on hand who can handle student and staff medical emergencies.

Informants perceived school staff members, especially secretaries, to be supportive of SBHCs because SBHCs relieved them of the burden of managing student medications and reduced the

number of sick students sitting in the office waiting for their parents to pick them up. Coaches and physical education teachers were supporters of SBHCs because they attended to student injuries suffered during sports or physical education classes. School nurses, although in some cases initially threatened by SBHCs because of fears they would supplant them, have in many cases became strong supporters of SBHCs because of their ability to help them handle a frequently overwhelming volume of student health needs and address medical issues beyond their level of health care practice. School social workers were supportive of SBHCs because, given the social workers' nearly exclusive focus on special education students, SBHCs played a complementary role by serving the mental health needs of general education students. Other supporters of SBHCs within schools that were mentioned without any specific reasons for their support were school board members, school counselors, and health teachers.

Support from community. SBHCs have enjoyed the support of a variety of individuals and organizations from their surrounding communities. The most frequently cited sources of support for SBHCs have been the various members of the health care industry. According to informants, the establishment and operation of SBHCs has been supported by insurance companies (e.g., Blue Cross/Blue Shield), Medicaid health plans, local hospitals, county health departments, Federally Qualified Health Centers, and healthcare systems. The last three of these have been the primary operators of SBHCs in Michigan. School districts and school boards have also played key roles in establishing SBHCs through their involvement in the planning processes for founding SBHCs and by providing space, utilities, and custodial support to SBHCs. Policymakers at various levels have played important parts in supporting the establishment of SBHCs, from state senators and representatives, to mayors, city managers, and city council members. State senators and representatives in particular have backed SBHCs by working to ensure continued state funding for them. Another set of key supporters of SBHCs has been community-based organizations such as local affiliates of the Salvation Army and United Way, domestic violence agencies, and community mental health organizations. Local health advisory boards, composed of parents, representatives of local agencies, school administrators, clergy, and various other community members, have been another important source of support in establishing SBHCs, particularly in the areas of needs assessments and planning. Less frequently mentioned sources of backing for SBHCs in their surrounding communities included local chapters of fraternal organizations, area colleges (one of which assisted with the initial needs assessment), and local media.

Opposition to SBHCs

In comparison to the widespread support SBHCs enjoyed from a variety of sources, opposition to SBHCs was limited to a few individuals with well-defined concerns. In many cases this resistance was short-lived—vanishing when those opposed to SBHCs learned more about them. The most frequently mentioned source of opposition to SBHCs was local physicians who were concerned that the SBHCs would "steal their business." However, this worry was only voiced at sites with newly established SBHCs and, by the time of the interviews, informants were no longer hearing this concern expressed. Initially, a few teachers were worried that students who used the SBHC would be missing too much class, but these concerns largely vanished as referral procedures were fine tuned. At schools with newly established SBHCs, there were fears among teachers and school nurses that SBHCs would supplant the nurses. However, when it was explained that the roles of nurses and SBHCs would be different and complementary, these fears

faded. Finally, there was concern among a few parents and local physicians that SBHCs would provide students with contraceptives. Educating parents and physicians that SBHCs were forbidden by state law from dispensing contraceptives helped to allay such fears.

Involvement in SBHCs

An important source of support for SBHCs was the active involvement of stakeholders in the planning, implementation, and operation of health centers. In the following sections we summarize what informants told us about involvement of students and parents in SBHCs.

Student involvement

Students have been involved in their SBHCs in a number of ways that go beyond their roles as service recipients. Their three primary forms of participation have been to (a) serve on their SBHC's advisory board, (b) provide input and feedback on the SBHC and their health care needs, and (c) publicize their SBHCs services within their school and larger community.

Student advisory board. As members of the health center advisory board, they have advised the health center on such matters as how to present the SBHC to students in a manner that teenagers will find appealing, including the name of the center (e.g., some students suggest not using "clinic," which might carry negative connotations), the center logo, the center color scheme, and what goes on the center bulletin board. As members of the advisory boards, students have also advised SBHC staff on what kinds of health services they would like and the types of health education topics they would like covered.

Student input and feedback. Beyond the health center advisory board, centers also gather student input through ongoing customer surveys, comments boxes, evaluation forms for group interventions, needs assessment surveys, and focus groups. In addition to these formal means of gathering student input, SBHCs also rely on informal feedback delivered in the context of medical visits.

Publicity. Students have also been deeply involved in helping publicize their SBHCs both within their schools and in their larger communities. This publicity has included school bulletin boards, a writing and visuals arts contest on how students view their health center, giving feedback on promotional materials such as brochures and posters, providing tours of their health center to new students on open house nights, school public address system announcements, a letter-writing campaign, and a youth legislative day when students spoke to legislators.

Advantages of student involvement. Informants stated that the primary advantage of student involvement in their SBHCs has been the creation of a sense of ownership. As one health teacher remarked, student involvement in their SBHC "gives them ownership and pride in something." Another informant remarked that, for students who are not involved in other organized activities at the school, their involvement with their SBHC "makes them feel like they are contributing something and are part of something, and they like that." As discussed above, student involvement also means that students have input into the physical design and layout of their SBHC as well as they types of services offered. This input, in turn, helps the SBHC be more effective:

> *When students are involved, you get a whole different perspective than if just adults were designing it. So then it becomes more effective. If you're trying to get the word out, or get student feedback, and so forth, in talking to the students, they're going to give you their honest opinion and insight into what would work best.*

In the minds of the vast majority of informants, the advantages of student involvement in their SBHCs far outweighed any disadvantages.

<u>Parent involvement</u>

Parental involvement in SBHCs has been largely limited to their participation on advisory boards. However, this participation allowed parents to provide important input on the design and implementation of SBHCs during the planning phase. In addition to voicing their opinions in advisory board meetings, parents have provided their input through focus groups and needs assessment surveys. Other, less common forms of parental involvement have included making donations, advocating for SBHCs to state legislators, and decorating/painting SBHCs.

School-SBHC collaboration

Schools and their SBHCs are working together in a number of ways to promote student health. Below we discuss the ways in which schools and SBHCs are collaborating to improve student health and ways they could improve their collaboration.

How schools and SBHCs are collaborating. One sign of school-SBHC collaboration is that health center staff members have come to be viewed as part of the staff in schools with both new and established SBHCs. SBHC staff are frequently included in school or district-wide meetings with a health focus. For example, at one school, there are monthly meetings in the principal's office of school/SBHC staff members with health-related functions, including the school psychologist, the school social worker, the chair of the school counseling department, the SBHC site administrator, and the SBHC counselor.

Another major way that schools and SBHCs collaborate is through partnerships in health education and health promotion. Schools and SBHCs work together to sponsor group exercise events and presentations and demonstrations by SBHC staff in health education classes and school-wide events. The latter are discussed in greater detail in the *Benefits of SBHCs: Health education and promotion* section above (page 27).

Additional ways in which schools and SBHCs collaborate to promote student health are:

- *Publicity:* working together to get out the word about the SBHC and its services
- *Access:* working together to remove barriers and create a referral process that facilitates student access to SBHC services
- *Communication:* working together to improve school-SBHC communication
- *Enrollment:* working together to boost student enrollment in the SBHC, primarily through including SBHC consent forms in back-to-school mailings to parents
- *Nutrition:* working together to ensure that school cafeterias and vending machines offer students healthier choices
- *Common goals:* working together toward a common goal of healthy, successful students

How schools and SBHCs could improve their collaboration. The chief area in which informants felt schools and SBHCs could improve their collaboration was communication. Although most informants felt that school-SBHC communication was already good, many still saw room for improvement. As one principal noted, good communication is essential for problem solving:

> *The important thing is—and I think we've done this—is that we keep talking with each other…as long as we keep communicating, we'll be fine. Both sides have demonstrated flexibility and resiliency and an ability to problem solve and work through any things that we have run into.*

Other areas for improved school-SBHC collaboration were mentioned exclusively by informants at schools with new SBHCs. These areas include: (a) clarifying school and health center roles (e.g., the roles of school nurses vs. SBHCs and the roles of school social workers vs. SBHC social workers); (b) having the school and SBHC staff become better acquainted; and (c) greater collaboration around school-wide health education.

Summary and Recommendations

Services and Service Utilization

SBHC Services
Most school staff members are unaware of the breadth of services offered by SBHCs. The one set of services of which a majority of school staff members were cognizant was acute and urgent care services, including care for common ailments such as colds, sore throats, ear aches; and injuries sustained in physical education classes. All other SBHC services were mentioned by fewer than half of school personnel. The conditions for which students are likely to be referred to their SBHC include illness, injury, mental health needs, immunizations, asthma, and reproductive health needs. These conditions closely match the SBHC services of which school staff members are aware.

Benefits of SBHCs
Increased access to and use of healthcare services, reduced student absences, and quick attention to and resolution of health problems were viewed as the primary benefits of SBHCs. Informants at schools with new SBHCs placed greater emphasis on teen-friendly environments, holistic care, and ready sources of medical information as key advantages of SBHCs than informants at sites with established SBHCs.

Implementation Challenges
The two major implementation challenges that emerged at schools with new SBHCs were (a) small numbers of students using their SBHCs as a way to get out of class and (b) confusion around information sharing between SBHCs and their host schools.

SBHC services not billed
There are two major categories of SBHC services that are frequently provided but for which health plans are not billed: health education and patient-care-related communication.

SBHC services not provided
The kinds of services that school/SBHC staff said they would like their SBHCs to provide or expand include mental health services, health education, contraceptives and dental services.

Student Health Needs

Physical health needs
The physical health needs of students are varied, ranging from the treatment of minor diseases to chronic disease management. The major physical health needs identified by informants included:

- Reproductive health
- Nutrition education and obesity
- Treatment of minor injuries and diseases
- Health promotion and health education
- Chronic disease management

- Substance use
- Immunizations
- Physical abuse and neglect

Mental Health Needs
The major mental health issues with which students needed help were:
- Family issues
- Depression
- Student conduct issues
- Eating disorders
- Conflict with peers and friends
- Low-self esteem
- Suicidal ideation
- Stress
- Bipolar disorders
- Bullying
- Self-injurious behavior
- Grief and loss
- ADHD/ADD

SBHC Effectiveness

Attributes of an effective SBHC
The two general features of a truly effective SBHC mentioned most frequently were the accessibility of the services to students and others in the surrounding community, and the SBHC's possession of the equipment and resources necessary to provide a comprehensive array of services. An effective SBHC is also responsive to the particular health care needs of students and offers confidential services in a teen-friendly environment. The staff members of an effective SBHC are well-trained, knowledgeable about the developmental and health care needs of adolescents, respectful of students, and have good rapport with them.

Impacts of an effective SBHC
Informants expected that an effective SBHC would have a profound impact on the physical health, mental health, knowledge, attitudes, and behavior of students and transform the environment of its host school to better support the health of students.

Evaluating SBHC effectiveness
SBHCs evaluate their effectiveness principally through annual consumer satisfaction surveys. A few informants mentioned using service utilization reviews and chart audits to evaluate the effectiveness of their services. Other methods of evaluation were mentioned by three or fewer informants.

Barriers to SBHC Services

General barriers to providing SBHC services to students include concerns about the confidentiality of personal information and reluctance on the part of some parents to provide

consent for their students to use SBHC services. Three groups of students are less likely to receive consent from their parents to use their school's SBHC: students of conservative parents who might object to their children being provided with alternative views on human sexuality and contraception; students whose parents want to be "in charge" of their children's affairs and be aware of "everything that is going on with [them]," and students from higher income families who already have a primary care physician from whom they receive routine care.

With regard to barriers to the provision of particular services, informants mentioned legal barriers to providing the entire range of reproductive health services and mental health services that were in limited supply relative to demand. Concerning barriers to serving particular groups of students, informants reported challenges in serving non-native English speaking students and their families; males; and gay, lesbian or transgender students. SBHC staff members also reported that it was the quiet, well-behaved, secretive, or withdrawn students that were less likely to be referred by a teacher, administrator, or coach to their school's SBHC.

Additional barriers to students receiving SBHC services included:

- *Hours of operation.* SBHCs are frequently closed over the lunch hour and during SBHC staff meetings. In addition, SBHCs are typically only open during normal working hours, precluding access to their services in the evenings and on weekends.
- *Teachers deny access.* Although this perception was for the most part limited to schools with newly established SBHCs, some informants believed that teachers were reluctant to give students permission to use their school's SBHC.
- *Lack of awareness of SBHC.* At schools with newly established health centers, informants reported that one barrier to access was simply a lack of awareness among students and their parents of the presence of the SBHC, what it is there for, what services it provides, and how and when those services can be accessed.

Impact of SBHCs

Despite the long list of impacts informants thought a truly effective SBHC might have on students and the school environment, the impacts they reported for their school's SBHC were quite modest. To be fair, many of the informants were from schools with SBHCs that had been in operation for under a year, allowing little time for a significant influence on student behavior and student attitudes or the school environment.

Context of Service Implementation and Delivery

Support for SBHCs

From the perspective of informants, SBHCs enjoy overwhelming support for their mission from students, their parents, school staff members, and surrounding communities.

> *Students.* Students have largely positive attitudes toward their SBHC and have few, if any, negative things to say about it. Students experience SBHC staff members as friendly, approachable, and unintimidating. They perceive the SBHC environment as inviting and teen-friendly. Some students have been impressed by the fact that their SBHC looks like a "real" doctor's office.

Parents. Although school/SBHC staff members experienced overwhelming support from parents for their school's SBHC, most could not cite specific reasons for this support.

School administrators. School administrators, particularly building principals and superintendents, have provided support that has been instrumental in establishing SBHCs.

Teachers. Teachers have been strong supporters of SBHCs because, in part, they recognize that it is easier to educate happy, healthy, and emotionally stable students.

School staff members. School staff members, especially secretaries, are supportive of SBHCs because they relieve them of the burden of managing student medications and reduce the number of sick students sitting in the office waiting for their parents to pick them up. School nurses have become strong supporters of SBHCs because of their ability to help them handle a frequently overwhelming volume of student health needs and address medical issues that are above their level of health care practice.

Support from community. SBHCs have enjoyed broad-based support from various groups in their surrounding communities, including:

- *Health care industry*. The establishment and operation of SBHCs has been supported by insurance companies (e.g., Blue Cross/Blue Shield), Medicaid health plans, local hospitals, county health departments, Federally Qualified Health Centers, and healthcare systems.
- *School districts and school boards*. School districts and school boards have played key roles in establishing SBHCs through their involvement in the planning processes for founding SBHCs and by providing space, utilities, and custodial support to SBHCs.
- *Policy makers*. Policymakers from state senators and representatives, to mayors, city managers, and city council members have played important parts in supporting the establishment of SBHCs. State senators and representatives have backed SBHCs by working to ensure continued state funding for them.
- *Community-based organizations*. SBHC have enjoyed the support of community-based organizations such as local affiliates of the Salvation Army and United Way, domestic violence agencies, and community mental health organizations.
- *Advisory boards*. Advisory boards, composed of parents, representatives of local agencies, school administrators, clergy, and various other community members, have been another important source of support in establishing SBHCs, particularly in the areas of needs assessments and planning.

Opposition to SBHCs

Vocal opposition to SBHCs has been short-lived and limited to a few members of the following groups: (a) local physicians who were concerned that SBHCs would "steal their business," (b) teachers who worried that students who used SBHCs would miss too much class, and (c) school nurses who feared that SBHCs would supplant them. As they became familiar with how SBHCs actually operate, the concerns of these opponents largely subsided.

Student involvement
Students have been involved in their SBHCs in a number of ways that go beyond their roles as service recipients. Their three primary forms of participation have been to (a) serve on their SBHC's advisory board, (b) provide input and feedback on the SBHC and their health care needs, and (c) publicize their SBHCs services within their school and larger community.
The primary advantage of student involvement in their SBHCs has been the creation of a sense of ownership. As one health teacher remarked, student involvement in their SBHC "gives them ownership and pride in something."

Parent involvement
Parental involvement in SBHCs has been largely limited to their participation on advisory boards. However, this participation allowed parents to provide important input on the design and implementation of SBHCs during the planning phase. In addition to voicing their opinions in advisory board meetings, parents have provided their input through focus groups and needs assessment surveys.

School-SBHC collaboration
How schools and SBHCs are collaborating. Schools and SBHCs are working together in a variety of ways, including:

- *Health education and health promotion*. Schools and SBHCs work together to sponsor group exercise events and presentations and demonstrations by SBHC staff in health education classes and school-wide events
- *Publicity.* Schools and SBHCs work to get out the word about the SBHC and its services
- *Access.* Schools and SBHCs work to remove barriers and create a referral process that facilitates student access to SBHC services
- *Communication.* Schools and SBHCs work to improve school-SBHC communication
- *Enrollment.* Schools and SBHCs work to boost student enrollment in the SBHC, primarily through including SBHC consent forms in back-to-school mailings to parents
- *Nutrition.* Schools and SBHCs work to ensure that school cafeterias and vending machines offer students healthier choices
- *Common goals.* Schools and SBHCs work toward a common goal of healthy, successful students

How schools and SBHCs could improve their collaboration

- *Communication.* Although most informants felt that school-SBHC communication was already good, many still saw room for improvement
- *Roles.* Clarifying school and health center roles (e.g., the roles of school nurses vs. SBHCs and the roles of school social workers vs. SBHC social workers)
- *Getting to know you…*Having the school and SBHC staff become better acquainted
- *Health education.* Greater collaboration around school-wide health education

Recommendations

Findings from the school/SBHC staff member interviews suggest areas in which SBHCs might take action to improve their accessibility and effectiveness. Below, we offer our recommendations for action.

Increase familiarity of school staff with SBHC services. Our interviews with school staff members revealed that most are unfamiliar with the full range of services offered by their school's SBHCs. A majority viewed SBHCs as places for students to receive care for minor illnesses (e.g., influenza, sore throat, etc.) and injuries. Few were aware that SBHCs offer health education and prevention services, or assistance in the long-term management of chronic diseases. As such, we recommend that SBHCs redouble their efforts to publicize the range of services they provide to the staff members of their host schools.

Help new SBHCs anticipate implementation challenges. Our interviews revealed four major implementation challenges facing new SBHCs: (a) inappropriate use by students; (b) confusion about information sharing between schools and SBHCs; (c) initial opposition from small numbers of local physicians, teachers, and school nurses; (d) early ambiguity around school nurse/SBHC roles. Consequently, we offer the following recommendations: (a) help schools and SBHCs to anticipate the abuse of SBHC services by students and quickly develop referral procedures that curtail it; (b) educate school staff members early on about health information privacy regulations; and (c) engage representatives of groups that might be initially opposed to SBHCs to (i) clarify the role of SBHCs *vis a vis* local providers; (ii) reassure teachers that the referral process will grant them some degree of control over when students may leave their classes; and (iii) assure school nurses that SBHCs will not replace them, but play roles that are complementary to theirs.

Do more to address certain health needs. Although interviews with school staff are not the best way to assess student health needs, they do point to certain areas of need that are consistent with the findings from the baseline student health survey:

- Poor nutrition and lack of physical activity. Baseline survey data point to poor nutrition and a lack of physical activity as a key area of health risk. Consistent with these findings, school staff members called for SBHCs to provide students with more nutrition and weight management education.
- Sexual activity. Another major area of concern indicated by the survey data was sexual activity. Recognizing that many students are sexually active and may not be taking appropriate precautions, several school staff members advocated for the SBHC playing a greater role in reproductive health education.
- Mental health. Several informants noted that student mental health needs are high relative to available SBHC mental health services.

We therefore recommend that SBHCs (a) partner with schools around nutrition education and promoting greater physical activity among students, (b) collaborate with health teachers on delivering classroom-based presentations on reproductive health, and (c) seek to expand the availability of mental health services.

Expand evaluation methodologies. Our interviews suggest that the predominant evaluation method currently in use in SBHCs is annual consumer satisfaction surveys. Although

customer satisfaction surveys are undoubtedly useful tools for assessing whether services are provided in a manner that consumers find agreeable, they provide little information about the impact of those services on consumer health. As such, we recommend that SBHCs make routine use of additional evaluation/quality improvement methodologies, include regular chart audits, immunization tracking, and such quality improvement techniques as plan-do-study-act cycles.

Work to reduce barriers to service. Many of the barriers informants identified were related to perceptions of SBHCs. Informants told us that students and parents are uncertain about the confidentiality of services. In addition, parent and other community members have expressed concerns that SBHCs would distribute contraceptives or counsel students to seek abortion services. A greater effort to publicize SBHC policies regarding confidentiality and reproductive health services might help allay some of these concerns and reduce opposition to SBHCs from their adjoining communities. Informants also reported that some parents were either unaware of the presence of an SBHC in their child's school or were uncertain of the procedures for accessing SBHC services. Greater outreach into communities might help increase awareness of SBHCs, the services they offer, and the procedures for accessing them. Other barriers identified by informants were related to difficulties in serving particular groups of students, in particular: non-English-speaking minorities; males; and gay, lesbian, bisexual, or transgender (GLBT) students. Despite reported difficulties in serving Spanish-speaking students and their families, few SBHCs have bilingual staff members. Our recommendations, therefore, are that:

- SBHCs conduct community outreach to publicize: their presence, the range of services they offer, the procedures for accessing these services, and their policies regarding confidentiality and provision of reproductive health services.
- SBHCs hire bilingual staff in schools with significant numbers of non-English speaking students.
- SBHCs attract more male clients by offering male-oriented groups and services.
- SBHCs make it clear to students that their services are GLBT friendly, recruit GLBT students to serve on SBHC advisory boards, and offer GLBT-specific support groups.

Study limitations

Because the findings of this study were derived from the analysis of data collected from a small nonrandom sample of SBHCs, caution should be exercised in generalizing from these results to SBHCs in general. We selected sites and informants purposively to represent the spectrum of communities (urban vs. rural), schools (middle schools versus high schools), and SBHCs (new versus established) in the state of Michigan. However, when these categories are cross-tabulated, in many cases there is only one site per type (e.g., one urban middle school with a new SBHC). As such, general statements about the experiences of a certain type of SBHC in a particular kind of site are not possible. Nevertheless, the findings do indicate common themes across multiple sites, lending credence to the idea that they represent general issues for SBHCs.

In some places, we chose to present results in terms of the number or percentage of informants mentioning a particular theme. We caution readers against generalizing these figures beyond the small, highly selective sample of individuals that served as the informants for this study. Instead, readers should view these figures as a rough guide to the relative importance of particular themes that emerged from our analyses of the data.

Finally, because this was our first experience with interviewing school/SBHC staff members about their SBHCs, we used an interview protocol that emphasized breadth over depth. A quick review of the interview questions in Appendix A should serve to convince the reader of this. Typically, 31 questions with multiple probes would be considered at the high end of a reasonable number of questions to ask in a semi-structured qualitative interview. Because of this, findings in particular areas may be lacking in depth. However, the breadth of the interview did alert us to certain areas we may choose to delve more deeply into in subsequent interviews.

References

Gance-Cleveland, B., & Yousey, Y. (2005). Benefits of a school-based health center in a preschool. *Clinical Nursing Research, 14*(4), 327-342.

Geierstanger, S.P., Amaral, G., Mansour, M., & Walters, S.R. (2004). School-based health centers and academic performance: Research, challenges, and recommendations. *Journal of School Health, 74*(9), 347-352.

Key, J.D., Washington, E.C., & Hulsey, T.C. (2002). Reduced emergency department utilization associated with school-based clinic enrollment. *Journal of Adolescent Health 30*, 273-278.

McNall, M., Lichty, L., Forney, J. Mavis, B., & Bates, L. (2007). *Michigan Evaluation of School-based Health Baseline Child Health Status Report: Descriptive data for the entire sample*. Michigan Department of Community Health. http://outreach.msu.edu/cerc/documents/MESH_Baseline_Report_final.pdf

Appendix A

Health Center Staff Interview

<u>Participant Background</u>

1. What is your position in this school?
2. What year did you start working at this school?

<u>Health Center Services and Service Utilization</u>

3. What are some of the advantages of having a health center in your school?
4. What are some of the disadvantages to having a health center in your school?
5. What are the major physical and mental health needs of students in this school?
6. Is the health center in this school meeting those needs?
   a. Why/why not?
7. Are there services the health center routinely provides that are not captured on the patient encounter form?

   <u>Follow-up Questions:</u>
   a. Patient education?
   b. Classroom or after-school education?
   c. Groups (other than group therapy)
   d. Meetings, phone calls, or correspondence with parents/guardians?
   e. Patient-related meetings w/ school staff ?
   f. Patient-related consults w/ outside med professionals?
8. Are there any services that you would like the health center to provide that it is not currently providing?
   a. *If yes,* why do you feel that service is important?
   b. *If yes,* why is this service not currently provided?

<u>Effectiveness of the Health Center</u>

9. On a scale of 1 to 10, how effective is the health center in meeting the health needs of students?
   a. Can you tell me more about your rating?
10. When you think of an effective health center, what comes to mind?

    (Alternative phrasing of initial question) What are some things an effective health center would do?

    <u>Follow-up questions</u>
    a. What impact would an effective health center have on student health?
    b. What impact would an effective health center have on the student health behaviors?
    c. What impact would an effective health center have on the student health attitudes?
    d. What impact would an effective health center have on the school environment?
11. How do you evaluate the effectiveness of your services?

<u>Barriers to Providing Services</u>

12. What are some barriers to students accessing the services of the health center?
    a. Are student concerns about confidentiality a barrier to students accessing the services of the health center?
       i. *If yes,* why might some students have concerns about confidentiality?
       ii. *If yes,* how have you addressed these concerns?

    b. Is lack of parental consent one of the barriers to students accessing the services of the health center?
        i. *If yes,* why might some parents not consent to allow their child to receive services?
        ii. *If yes,* how have you addressed the lack of parental consent?
13. Are there challenges around providing *specific* health services to students in this school (*for example, reproductive health, mental health, health promotion and disease prevention, suicide prevention*)?
    a. *If yes,* what are they?
    b. *If yes,* what is the impact of these challenges on your ability to provide services?
    c. *If yes,* what is the impact of these challenges on students' health?
    d. *If yes,* how have you addressed these challenges?
14. Are there challenges to providing services to any particular groups of students? *(If not mentioned, ask about grade, gender, sexual orientation, race, culture, economic status)*
    a. *If yes*, what are they?
    b. *If yes,* why do you think that is?
15. Are some students more likely to not have parental consent to use the services?
    a. *If yes,* which students are more likely to not have parental consent?
    b. *If yes,* why do you think that is?
16. How are students referred to the health center?
    a. Are some students less likely to be referred?
        i. *If yes,* which students are less likely to be referred?
        ii. *If yes,* why do you think that is?
17. Are some students more difficult to reach?
    a. *If yes,* which students are more difficult to reach?
    b. *If yes,* why do you think that is?
    c. *If yes,* are the challenges to reach students for health clinic services different in any way from challenges to get students to participate in other school services or activities?
18. How have you addressed the challenges to providing services to particular groups of students?

<u>Impact of the Health Center</u>

19. Were you here during the founding of the health center? *(If no, skip to the next section)*
20. Have you noticed any changes in the school environment since the health center opened?
    a. *If yes,* what are those changes?
    b. *If yes,* how has the health center contributed to those changes?
21. Have you seen any changes in student attitudes since the health center opened?
    a. *If yes,* what are those changes?
    b. *If yes,* how has the health center contributed to those changes?
22. Have you seen any changes in student behavior since the health center opened?
    a. *If yes,* what are those changes?
    b. *If yes,* how has the health center contributed to those changes?

<u>Support for the Health Center</u>

23. What have you heard from parents about the SBHC?
24. What have you heard from students about the SBHC?

25. Who have been key supporters of the health center within the school?
    a. Why have they supported the health center?
    b. How have they supported the health center?
26. Who have been key supporters of the health center in the community?
    a. Why have they supported the health center?
    b. How have they supported the health center?
27. Who has been opposed to the SBHC?
    a. Why have they been opposed?
    b. How have they expressed their opposition to the health center (i.e., how do you know they're opposed?)?
    c. How have you been able to gain the support of these individuals or groups?
28. How have parents been involved in the founding and/or operation of the health center?
    a. What are the advantages of parental involvement in the health center?
    b. What are the disadvantages of parental involvement in the health center?
29. How have students been involved in the founding and/or operation of the health center?
    a. What are the advantages of student involvement in the health center?
    b. What are the disadvantages of student involvement in the health center?
30. How do the school and health center work together to promote student health?
    a. In what ways do they work well together?
    b. In what ways could they improve how they work together?
31. Do you have anything else you wish to say about your school's health center?