School-based health center (SBHC) development has been characterized by expansion and definition of this model of health care delivery since the initial Society for Adolescent Medicine (SAM) policy statement in 1988 [1]. The growth of SBHCs from 100 in 1988 to nearly 1400 today reflects sustained effort to expand from demonstration projects to well-established options for health care for many adolescents. In fact, 50% of these SBHCs serve adolescents [2].

A country-wide survey conducted by the National Assembly on School-Based Health Care (NASBHC) in 1998–1999 indicated that 56% of SBHC sites surveyed are located in urban settings and 30% in rural. Thirty-eight percent are in communities with populations of more than 400,000 while 21% are located in communities with populations of 2500 to 24,999. In the 1998–1999 academic year, an estimated 1.1 million students (approximately 2% of the nation’s enrollment) attended schools with a SBHC [2]. Hospitals or medical centers are the most common sponsors of all SBHCs (31%), followed by local health departments (23%) [2].

Although there is great diversity in the range of services among the SBHCs, the comprehensive model, which includes primary preventive health care, acute care, reproductive health, mental health and health education, more appropriately meets students needs. Almost all centers offer treatment for minor acute illnesses (94%) and comprehensive health assessments (95%). Psychosocial assessments are offered in 73% while 69% conduct comprehensive evaluations and treatment for mental health problems. Nearly 69% of secondary school centers provide gynecologic examinations and 73% provide diagnosis and treatment of sexually transmitted infections (STI) [2]. Reproductive health, the most controversial aspect of care, is offered by a number of sites in a variety of ways: 26% have on-site availability of birth control pills, 72% provide birth control counseling, and 73% provide on-site treatment of STIs [2]. Accessibility, breadth of clinical service, and support of educational goals make the comprehensive SBHC model a significant component of health service delivery for adolescents.

A Decade of Lessons

Literature about SBHCs describes strong parent and student support and use [3,4]. Parental support of reproductive health services has been demonstrated in a community sampling study by Santelli et al. [3]. In fact, 63% of parents endorsed a full range of clinic services; if a teen was already sexually active, approximately 75% of these parents supported providing birth control pills or condoms. Strong student support has been demonstrated in a retrospective study of student-visit data collected over 4 years [5]. In this study, teens attending SBHCs had higher rates of visits for health and medical care than those using traditional sources of medical care. Furthermore, the mean numbers of visits to mental health counselors compared favorably with adolescent visit rates for mental health in other settings, underscoring the importance of access to these services in the SBHC setting [5]. Many SBHCs are limited by inadequate funding for appropriate mental health services.

Studies describing and comparing SBHC users to non-users report that students at high-risk for medical or psychosocial problems use the centers, or are willing to use them, for both routine and sensitive issues [6–11]. Users are more likely than non-users to have been medically underserved and to receive services at the SBHC that are appropriate to address their problems [7,8,12–14]. Research also suggests that SBHCs significantly contribute to improved access to medical specialty services for those teens that...
need them [15]. SBHCs provide access to primary care [16], thereby enhancing efforts to provide primary and secondary services for the prevention of adolescent morbidities. This is especially important in light of the report by Blum et al. of inadequate teen health risk assessments in non-teen-focused sites [17]. A special feature of SBHCs is their high rate of enrollment and high rate of use by both males and females [18,19]. Adolescent females use SBHC services much more frequently than males. However, males use SBHC adolescent services much more often than other settings [20].

Individual program evaluations of SBHCs focusing on a specific high-risk behavior have reported improved contraceptive use [21–23], improved use of prenatal care services [24–26], and improved mental health [27,28]. One study of SBHC use and effect on school performance reported a positive association between clinic use and school performance as measured by advancing a grade, staying in school, and graduating [29].

Recent studies comparing students enrolled in a managed care organization with students enrolled in both a SBHC and a managed care organization underscore the value of providing teenagers an additional access point to health services [30]. It was found that while they had more health visits per year, overall the SBHC-enrolled cohort had more health supervision visits, particularly at the SBHC site, and made fewer after-hours visits than students in managed care only. Nearly all of the mental health and substance abuse treatment visits were made by adolescents with access to the SBHC.

The ability to provide after-hours care at SBHCs has been limited by issues of security and building safety. Many centers have accommodated this requirement by collaborating with other practices and providers. The 1998–1999 survey by NASBHC indicated that nearly 70% of respondents had prearranged sources of after-hours care and 22% were serving as the sole medical home for the students who use the center [2].

After a decade of development, the SBHC movement has a clearer understanding of its limitations, including the difficulty shared with other service models in measuring health outcomes. SBHC research has the added challenge of documenting and measuring educational outcomes. Additional challenges include further definition and evaluation of the SBHC role in health promotion and disease prevention, provision of after-hours care, increased access to dental services, continued integration into the nation’s health care system, and long-term financial sustainability [2]. SBHCs can help insurers and managed care organizations meet the health needs of adolescents in a way that is comprehensive, coordinated, and age-appropriate; funding mechanisms must be developed to bear their operational cost.

The SBHC model has matured in the last decade to the point where many SBHCs are able and willing to be accountable for meeting standards and providing exemplary health care. Recommendations have been delineated for the essential components of care [31], and SBHCs seek to partner cooperatively with the medical home [2]. The comprehensive SBHC meets criteria specified by SAM’s position paper on health care of adolescents in managed care in that it includes comprehensive, continuous, age-appropriate, adolescent-focused services and uses adolescent-specific quality indicators [32]. Additionally, this SBHC model supports interdisciplinary training that is community-focused and involves multiple disciplines [33]. A majority of those centers surveyed by NASBHC reported acting as a multidisciplinary training site for health professionals [2].

SBHCs serve as an excellent site for research on adolescent health issues. In addition to a continued emphasis on measuring outcomes, SBHCs offer unique opportunities to study adolescents specific interventions such as smoking cessation, HIV-testing programs and others [34]. Furthermore, SBHCs provide unique opportunities to evaluate mental health interventions for adolescents.

At this time SAM voices its unequivocal support of the comprehensive SBHC model with the following positions:

1. School-based health centers are a valuable asset in health promotion and prevention programming for teens.
2. School-based health centers provide essential access to mental health and substance use services for teens.
3. School-based health centers are valuable sites for learning about interventions that best support adolescents’ healthy behaviors.
4. School-based health centers are well-situated to minimize financial and nonfinancial barriers of access to care for adolescents.
5. School-based health centers are well-situated to play a central role addressing the treatment of sexually transmitted infections in teens. School-based health centers recognize the need to negotiate some of the specific issues of reproductive health care on an individual school and community basis.
6. School-based health centers are a valuable training site for health professionals and can model interdisciplinary and multisystem collaboration.

7. School-based health centers provide a unique opportunity for research on adolescent health issues including the evaluation of outcomes related to health promotion and disease prevention as well as specific programmatic interventions.

References


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