Abstract

The passage of the Affordable Care Act in 2010 established new funding streams to support the expansion of school-based health centers (SBHCs) throughout the country. This brief summarizes recent research examining the role of SBHCs in improving access to reproductive health care for adolescents and identifies areas where more research is needed.

Introduction

High rates of unintended pregnancy and sexually transmitted infection (STI) among American teens represent a significant threat to adolescent health. Data from the Centers for Disease Control and Prevention (CDC) in 2009 indicate that 46% of high school students nationwide report ever having sexual intercourse. Yet, there is a lack of safe, confidential, and accessible places where they can receive reproductive health care, including family planning services. Addressing the reproductive healthcare needs of adolescents is a critical component in helping youth fulfill their life goals.

School-based health centers (SBHCs) provide a unique solution to adolescent reproductive health care needs. SBHCs tailor health visits for youth, eliminating barriers to care for both adolescents and their parents. Intentionally located in low-income neighborhoods, SBHCs have the potential to reach the students who are most at risk for unintended pregnancies and STIs, including HIV.

Health care reform supports the mission of SBHCs. The Patient Protection and Affordable Care Act (ACA) of 2010 allocates more than $200 million between 2010 and 2013 to renovate and expand existing SBHCs as well as build additional clinics, particularly those serving students who are eligible for Medicaid. In July 2011, $95 million was awarded to 278 SBHCs, increasing their capacity by 50%. In December 2011, another $14 million was awarded to 45 SBHCs and in December 2012 more than $80 million went to 197 SBHCs across the country. However, despite this support, SBHCs still draw controversy. For example, in May 2011, the House of Representatives voted to pass HR 1214, which had threatened to withdraw future ACA funding grants for SBHCs.

Given the federal focus on expanding SBHCs, it is timely to assess their impact. It is particularly important to examine the role that SBHCs may play in providing reproductive health care, especially since SBHCs often limit reproductive care as a result of political considerations. This brief provides an analysis of recent research on reproductive health service provision in SBHCs and identifies research gaps.

About SBHCs

SBHCs were developed in the 1970s to provide basic health services for youth who experienced barriers to health insurance coverage and medical care. This focus is highly relevant today as young people under the age of 17 in poor or near-poor families are more likely to lack health insurance and have unmet medical needs than those from more affluent families. Results from multiple studies suggest that SBHCs are successfully serving adolescents from low-income and minority families who do not traditionally access care from other safety net providers such as Federally Qualified Health Centers (FQHCs) or free clinics.

In the last 40 years, SBHCs have expanded services to provide physical, mental, and oral health care. SBHCs are most frequently run by organizations such as community health centers (CHCs), hospitals, or local health departments, rather than the school districts themselves. Health care professionals often provide vision and hearing screenings, asthma...
monitoring, and treatment of acute illness. Most clinics are able to administer medications. Primary care providers such as nurse practitioners, physicians, and physician assistants generally provide physical health care in the clinics. Oral health care in SBHCs often includes dental screenings and oral health education. Some go as far as providing dental examinations, cleanings, and sealant treatment. Mental health agencies and universities may partner with SBHCs as well. Mental health services often include crisis intervention as well as mental health assessment and therapy.

SBHCs can positively influence both students’ physical and social wellbeing. One recent study found that students who sought health care from SBHCs were more likely to have yearly check-ups and updated vaccinations than those using community clinics. 11 SBHCs are also associated with decreases in school dropout rates, lower school absenteeism, and improved cigarette and marijuana cessation rates among students. 12-14

As SBHCs increase in popularity throughout the United States, the number of clinics is growing rapidly. According to data from the National Assembly on School-Based Health Care (NASBHC), there are more than 1,900 clinics, nearly half of which opened in the last decade. 15 Forty-eight states in addition to the Virgin Islands and Puerto Rico have SBHCs. The majority of these SBHCs are located in urban areas and serve middle school and high school students.

Despite increased political support for this health care model, SBHCs remain focused on acquiring and maintaining funding. Currently, the clinics’ major funding sources are state governments. However, grants from private foundations, sponsor organizations, school/school districts, and federal programs also exist. 15 SBHCs are also increasingly reliant on reimbursements from public insurance and managed care organizations. 16

Although many adolescents go to SBHCs for reproductive health services, 3 SBHCs often limit reproductive health care because of the political controversy surrounding family planning services. Though 61.9% of SBHCs provide on-site care and referrals for gynecological exams, 61.2% of clinics are banned from distributing contraception, most often due to school district policies, 19 which tend to be more limiting than local, state, and national legislation. 17 Among SBHCs that do provide reproductive health care, services vary significantly, ranging from abstinence-only counseling to on-site contraception distribution and STI-related services. In addition, parents are able to restrict their child’s access to services in over half of existing SBHCs. 15 Research shows that the current restrictions on SBHCs ability to provide reproductive health care do not change adolescents’ decisions relating to sexual activity, but rather, contribute to the adolescent rate of STIs and unintended pregnancy due to a variety of factors (e.g. encouraging secrecy, facilitating unprotected sexual activity, etc.). Removing or lessening these restrictions at the school-district, local, state, and national levels will enable clinicians to become a more prominent resource to adolescents in STI and teen pregnancy prevention. 17

Studies conducted on the small number of SBHCs offering family planning services reveal important findings that may influence future policy decisions regarding services in school-based clinics.

What Do We Know about SBHCs & Students Seeking Reproductive Health Care?

SBHCs serve the youth most likely to benefit from school-based reproductive health services. 18 Personal and institutional barriers often result in adolescents forgoing necessary reproductive health care. 19 SBHCs offer health care to adolescents in low-income neighborhoods, which often include a disproportionate number of youth of color. In 2008, 34.7% of African American children and 30.6% of Hispanic children lived in households with incomes below 100% of the poverty threshold in the United States ($22,025 for a family of four in 2008), compared to 10.6% of non-Hispanic white children. 20 Similarly, a disproportionate percentage of black and Hispanic youth are uninsured compared to their white peers. 17

The same student populations are in greatest need of reproductive health services, reflecting widespread reproductive health disparities. Non-Hispanic black and Hispanic adolescents are most likely to be sexually active and have the highest teen birth rates. 20 Poor youth and youth of color face significantly higher rates of unintended pregnancy. 2 In addition, black and Hispanic youth between the ages of 15 and 19 are more likely to be diagnosed with HIV/AIDS than their white peers. 21 Non-white students are also most likely to use SBHCs for reproductive health care. Current research suggests that variables associated with use of SBHCs for reproductive health include living in a partially rural area, not having a driver’s license, younger age, or self-identified as black, Asian, American Indian, or Hispanic. 22 Generally, those adolescents accessing reproductive health services in SBHCs experience barriers at other clinics, including limited ability to pay for services, lack of transportation, no primary care provider, dealing with unsupportive partners, fear concerning clinic confidentiality, and prohibitive costs. 2, 23, 24

Access more likely in urban SBHCs

Despite the intense need for primary care in rural areas, SBHCs are predominately located in urban centers. 15 The most
comprehensive family planning services are generally offered in SBHCs in Western states as well as urban and suburban communities.25,26 According to a survey of SBHCs conducted in 1991, urban centers were most likely to have at least one type of contraceptive method available onsite.25 Of those that made contraception available on-site, condoms were the most commonly offered method. There are few studies of SBHCs’ effectiveness in rural areas. Community support strongly influences what services are offered in local school districts, which might explain differences in SBHC reproductive health programs in rural and urban areas.27

Adolescent girls more likely than boys to use SBHCs for reproductive health care

Overall, research suggests that females are more likely than males to use SBHC services28 and are more likely to access family planning services and counseling offered by SBHCs.22 As children, most girls receive general reproductive health care from private doctors, health maintenance organizations (HMOs), and public clinics; however, research shows that within these settings, young women do not consistently receive reproductive counseling or on-site contraception.2 Thus, SBHCs are well positioned to supplement reproductive health care.

In a study that examined students’ desire to use SBHCs for reproductive health care when such services were not available, young women were significantly more likely than young men to express a need for clinical services that address STIs, pregnancy testing, and birth control.18 Eighty percent of female adolescents surveyed reported that they would use SBHCs for reproductive health services, compared to only 47% of male students. The majority of adolescents who desired these services were from low-income families. Young women who were not currently using birth control were also more likely to express a desire to use SBHCs for reproductive health care. Male students, on the other hand, were more interested in testing and treatment for STIs.22

In addition, data from a nationally representative survey showed that fewer than 20% of male adolescents have received counseling or advice about birth control or STIs, suggesting a need for additional services.29 However, studies have found that SBHCs struggle to reach adolescent males. Other safety-net providers, such as CHCs and public hospitals, face the same problem. Data from a nationally representative sample indicate that female adolescents are two times more likely than males to have received any kind of family planning services in the last year, regardless of whether they had access to an SBHC.22 A study of receipt of health services showed that sexually active male students were no more likely to receive reproductive health care, pregnancy prevention or STI services, or use contraception the last time they had sex if their school had an SBHC.4

What Do We Know about SBHCs & Family Planning Services?

Research on student use of reproductive health services in SBHCs offers some insight regarding potential adolescent health outcomes, but also raises many questions for further study. A central question is whether offering family planning services in a SBHC results in increased contraceptive use. As previously mentioned, most SBHCs are restricted from distributing contraception. In those SBHCs that do offer this service, studies have shown mixed results in terms of measured outcomes. However, comprehensive reproductive health programs with community support show promising results in improving adolescent sexual health. In particular, the studies discussed below have shown that hiring culturally matched social workers and providing supplemental peer counseling appear to increase certain SBHC programs’ likelihood of success. Methods of contraception distribution, types of contraception, and the degree of complementary educational services all seem to affect study findings.

The following sections analyze study findings regarding the provision of certain methods either onsite or through prescriptions, the significance of onsite availability itself, the impact of reproductive counseling services and follow up care, and the effects of reproductive health care provision on fertility, STI diagnoses, and abstinence rates.

Condom availability alone does not increase use

Condoms remain the most frequently used form of contraception among adolescents.4 A number of studies evaluating the effects of condom availability in SBHCs found no significant changes or conflicting findings in overall use among students.4,30,31 In general, additional sexuality education and outreach within schools and broader community messages proved beneficial in the success of condom availability projects. One study found that schools with HIV/AIDS or pregnancy prevention programs increased contraception use.8

At the same time, studies on school-based condom availability campaigns unattached to health centers have shown more positive results. There is evidence that high school students take and use condoms in schools where these programs exist.32,33 Nearly half of students in one study obtained their condoms from school and more than half of those students used these condoms when sexually active.32 Evidence also shows that these programs can reduce the number of students having unprotected intercourse.33
The reasons for disparate study findings when condoms are available in SBHCs versus more broadly available in school are unclear. However, three of the studies that assessed SBHC availability did not specify condom distribution methods. While some programs placed baskets of condoms in bathrooms, due to parental consent restrictions, others distributed condoms through health care providers during students’ visits. Method of condom distribution in schools has been thought to be crucial to program effectiveness. More research is needed to determine why SBHC programs have not effectively increased student condom use. Simply offering condoms in school-based clinics may not be enough to change student behaviors.

SBHCs linked with modest increases in use of hormonal contraception

In the last two decades, few studies have measured the effects of SBHCs on students’ use of hormonal contraception. In a recent study, students with access to SBHCs had higher rates of hormonal contraceptive use. Still, less than 20% of females reported using hormonal contraception the last time they had sex. Offering oral contraceptive pills (OCPs) in SBHCs has been associated with increased use among female students; however, one program suffered from a high attrition rate. Program success was limited by a high rate of contraception switching and withdrawal from SBHC programs for school-related reasons (e.g. withdrawal from school, graduation, or transfer to a school without a health center).

On-site contraceptive provision: mixed effects on acquisition, use and outcomes

Whether contraception should be directly distributed to students in SBHCs continues to be controversial. Some schools provide a voucher system or written prescription for students to take to an outside pharmacy. Those who support on-site contraception availability point out that students who receive these vouchers often do not fill them and that requiring a second step to obtain contraception poses an additional barrier to access. Opponents argue that providing any kind of family planning services will increase the number of sexually active teens, encourage abortion, and challenge parental authority over these issues.

There are mixed findings about whether on-site contraceptive services significantly affect how adolescents request, receive, and use contraception. One study noted an increase in the number of students who receive their requested birth control method. Another study found that the rate of attending the follow-up appointment for hormonal contraception refills (the pill or a progestin injection) among students was significantly higher at the school clinic with onsite contraceptive services (100%, n=79/79) compared to a school clinic with a referral policy for contraception (50%, n=20/40). Providing contraception in SBHCs has also been associated with consistent selection of hormonal contraception during family planning visits as well as increased likelihood of receiving condom and HIV instruction when available.

However, few studies have evaluated whether distribution of contraceptives on-site results in actual increased contraceptive use. Of the limited studies, many found no significant association between on-site contraceptive availability alone and student use during sex. Brindis and colleagues pointed out that on-site contraceptive services may be essential, but need to be paired with other interventions in order to significantly affect use rates.

Several additional studies have examined outcomes relating to SBHC contraceptive services. One study found that students were less likely to report recent intercourse. Another study found no impact of SBHCs on the initiation of sexual activity. However, the way that contraception is distributed and the presence of complementary family planning programs seem to affect the overall effectiveness of on-site services. A study conducted in Baltimore showed high rates of STI diagnoses and student pregnancies in an SBHC program despite encouraging condom use, providing condoms, and making OCPs available. Without a comparison group, it is unclear whether these outcomes were associated with the intervention or merely indicate that the SBHC serves high-risk students. The authors emphasized the importance of outreach for SBHC success rates.

Reproductive counseling services and follow-up improve program outcomes

Frequent appointment follow-up attempts, counseling, and community involvement improve outcomes by reducing STI and pregnancy rates. Comprehensive pregnancy prevention and HIV/AIDS education, along with community support, have been found to increase students’ condom use. In addition, intensive case management with culturally-matched social workers and peer education have been positively associated with prevention of adolescent repeat pregnancies.

A major battle for SBHCs has been encouraging patients to attend follow-up appointments for general health care. Students often do not show up for subsequent visits and do not respond to follow-up efforts. This phenomenon seems to be true for reproductive health care services as well. High rates of partner switching and poor follow-up make it particularly challenging for clinics, including SBHCs, to monitor adolescents’ use of contraception. However, counseling and persistent tracking seem to make a difference in care. Consistent family planning appointments are crucial, as there is
a positive association between student contraceptive use and the number of family planning visits.\textsuperscript{36}

One study found that scheduling a follow-up appointment within one month of their initial appointment was correlated with a greater risk for contraception nonuse than scheduling an appointment one month afterwards. For unclear reasons, when students requested follow-up appointments within one month of their initial appointment they were less likely to use contraception.\textsuperscript{36} Researchers suggest that the adolescents who make appointments within one month of their initial appointment may be at greater risk of contraceptive failure and differ from adolescents who make appointments farther from the initial appointment. Clearly, adolescents at greater risk of contraceptive failure need comprehensive interventions to encourage continued contraceptive use.

Sexual behavior, STI diagnoses, and pregnancy

Studies show that offering reproductive health care in SBHCs does not encourage rates of sexual activity or onset of sexual activity.\textsuperscript{8} In fact, provision of reproductive health care in SBHCs is associated with increased reports of abstinence and lowered or maintained rates of unprotected sex.\textsuperscript{30,31}

Nevertheless, offering STI services does not seem to have a large impact on screening rates. While in one study the number of sexually active females receiving STI screenings increased, the overall rates of screening were still low.\textsuperscript{4} One study cited several possible explanations for these findings: increased awareness of STIs, concerns about STI-related social stigma, or a sense of invulnerability to STIs resulting in delayed services.\textsuperscript{44}

Also, SBHCs may frequently miss opportunities to test students. In one study, 81.5% of students testing positive for chlamydia or gonorrhea had not been tested for these STIs when at the SBHC for an initial visit in the preceding 90 days.\textsuperscript{45} In another study conducted in 15 high schools, 3 community colleges and 1 university, authors achieved a 89.1% chlamydia screening rate when a screening program was implemented which incorporated targeted outreach and clinical strategies for women aged 25 and under seeking reproductive health services at their educational institution’s health center.\textsuperscript{46}

Researchers have also found mixed results regarding the effects of offered SBHC reproductive health services on pregnancies and births among adolescents, with two studies noting no impact on pregnancy rates.\textsuperscript{8,40} However, one study conducted in Denver found a significantly greater decline in birth rates over four years in schools with school-based clinics (77%) compared to schools without them (56%).\textsuperscript{47} The authors cited intensive education, counseling services, and use of established formal referral links to community sources of care as important aspects of these in-school clinic programs. Regarding education, while many SBHCs offer reproductive health education through classrooms or in the health center, typically those that do offer these services are in schools with younger populations and have limited clinic hours.\textsuperscript{19}

Gaps in the Research

There is a need for more research on SBHCs and reproductive health care to help us understand issues such as rural adolescent needs, the reasons why young men are not accessing reproductive health services at SBHCs, and how complementary services to on-site contraception availability may benefit adolescents.

More attention on rural adolescents

Adolescents in rural areas experience unique barriers to reproductive health care. While only about a quarter of SBHCs are located in rural areas, this model has great potential to serve rural students who tend to live in areas with fewer primary care physicians, increased poverty, and greater geographic distances between medical centers.\textsuperscript{48} One study evaluated female students in rural Maryland; 16.3% of these students indicated willingness to use reproductive health services at their SBHC if such services were offered.\textsuperscript{48}

Understanding the full range of services & effects

The kinds of reproductive health services offered in school-based health centers vary significantly, which makes interpreting the research more difficult. In fact, many studies do not provide complete information on the kinds of services clinics and schools offer.\textsuperscript{43,30} Others focus on very specific areas such as HIV/AIDS and teen pregnancy prevention, contraceptive counseling, or simply access to specific services within the clinics.\textsuperscript{9} These studies may not be generalizable and may overlook the web of services and educational outreach offered in the larger school community and their effects. Since the effectiveness of school-based programs on lowering adolescent sexual risk behaviors greatly depends on program design, future studies should account for all relevant services.\textsuperscript{49}

Young men and SBHC services

Disparities between male and female student use of SBHC reproductive health services reflect national statistics in adolescent health care.\textsuperscript{50} Current studies offer some potential explanations as to why this might be the case. Findings suggest that young men perceive themselves as healthy, do not want to miss class, and do not trust that their health results will remain confidential.\textsuperscript{18}

Research suggests that broad definitions of men’s sexual and reproductive health, varied programs that include an emphasis
on adolescent males’ quality of life, as well as structured and gender-specific programs are all needed to address gender disparities in this field. Overall, studies are needed to develop better tools for engaging male adolescents in SBHC reproductive care.

Availability of all contraceptive methods

Studies show that adolescents may benefit from the use of long-acting reversible contraception (LARC) that does not require strict daily adherence. Partner switching is common among sexually active adolescents and many stop using birth control between partners. These gaps in use make young people particularly vulnerable to having unintended pregnancies. However, many studies on adolescent reproductive health only evaluate the impact of SBHCs on OCPs and condoms. Few studies on hormonal contraceptives address use of DMPA (the shot), contraceptive implants or emergency contraception by adolescents in SBHCs. None address the provision of intrauterine devices (IUDs), an effective method for adolescents. SBHCs may not be able to provide IUDs onsite, but there is no information about referrals or counseling related to LARC methods. The most recent report by NASBHC does not provide data on the number of SBHCs nationwide that offer LARC methods. More information about the provision of these services and the effect on students is an area ripe for further study, especially since LARC is now recommended by the American Congress of Obstetricians and Gynecologists as a first line method of contraception for most women, including adolescents.

Continued research in the field

As more money is allocated to further develop and expand the work of SBHCs, it is crucial to support additional research funding. While many studies exist on different adolescent reproductive health interventions, more studies are needed to evaluate the effects of offering reproductive health care in SBHCs. It is critical that future research compare SBHC models in different areas of the country because individual SBHC services vary so significantly. In addition, much of the available research was completed over a decade ago. As models and students’ environments change, there is room for updated studies.

Conclusion

This brief suggests that continued research may support further evidence-based decisions about adolescent reproductive health care in SBHCs. Currently, reform efforts are targeting both health care and educational systems, and SBHCs creates a unique model that incorporates both of these objectives. Much of the current research shows promising results in accessing hard to reach teenagers at a critical time in their lives and sexual development.

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References


