Delaware stakeholder perceptions of the provision of reproductive health services by school-based health centers

Judith W. Herrman, PhD, RN, ANEF
Associate Professor
School of Nursing University of Delaware
jherrman@udel.edu
302-831-8380

Table of Contents

Abstract

The provision of reproductive health services (RHS) by school-based health centers (SBHC) in Delaware has been the subject of much controversy. Ideological differences about the role of schools in health care, the sexuality and sexual activity of youth, and the accessibility of selected interventions within the school and community frame this debate. The purpose of this study was to provide a glimpse into the perspectives of key stakeholders related to access to RHS in SBHCs. A comprehensive review of the literature yielded information about teens' perceptions of pregnancy, parenting, and prevention; the impacts of SBHCs and the provision of RHS in the United States, and teen perceptions of RHS and the effectiveness of SBHCs. This review provided the foundation for the development of a qualitative study designed to determine adult perceptions about how such services are viewed in Delaware and how these insights may impact policy and practice. Fifty key informants participated in semi-structured interviews. The sample represented individuals throughout the state of Delaware and included school board members, SBHC staff, members of school administrations, parents, teachers, reproductive experts, and interested advocates. Data yielded ten overarching themes and revealed overwhelming support for the provision of RHS, along with comprehensive educational services, in SBHCs. Variables such as conservative perspectives of teen sexuality, adolescent development, consensus building, and future steps are explored.

Executive Summary

Currently reproductive health services (RHS) are provided by 14 of the 28 schools in Delaware. Delaware teens sustain some of the highest rates of teen pregnancy, teen births, STIs, and HIV in the nation. Despite scientific evidence supporting youth access to RHS as a means to prevent pregnancy, STIs and HIV, opposition exists relative to the expansion of reproductive and preventative services, and controversy persists in schools related to such practices. This study was designed to clarify Delaware adult stakeholder views on adolescent sexual activity, teen pregnancy prevention, and the role of the school-based health centers (SBHCs) in providing RHS. Adult participants were also asked to consider teens' perspectives on these issues.

A comprehensive review of the literature revealed myriad benefits associated with the provision of RHS in SBHCs and provided a strong foundation upon which to build supportive efforts. This review also provided the framework for the development of a qualitative study designed to explore adult perceptions of the provision of RHS in SBHCs. Fifty interviews were conducted with key informants throughout the state of Delaware. Effort was made to represent each of the three counties and the snowball technique of sampling, wherein each participant was asked to suggest subsequent candidates, allowed for a broad representation of perspectives. The final sample included SBHC personnel, school board members, school administrators, parents, reproductive health experts, and youth advocates. Interviews spanned 25-70 minutes and were conducted by the Principal Investigator from September 7 to November 5, 2012. Data were analyzed using classical qualitative techniques and yielded ten themes:

1. **Teens *in Delaware are highly sexually active, secondary to myriad influences, and access to RHS does not increase the rate of sexual activity.***

2. ***Education of all stakeholders, most importantly teens and parents, is a critical element of effective contraception and prevention of teen pregnancy.***
3. ***Parents have a critical role in healthy sexual behavior and educating their children; other resources are vital for families when parents' capacities are limited.***
4. ***Teens see sexuality and RHS as a routine part of their healthcare.***
5. ***Access to RHS is limited for teens, with transportation serving as the greatest obstacle to teens' accessing RHS.***
6. ***Access is not the only reason sexually active teens do not use contraception, but it is an important reason.***
7. ***SBHCs, in addition to other settings, are logical, accessible, and appropriate sites to provide RHS that teens perceive as confidential and teen-friendly.***
8. ***Key decision makers, including school board members and others, about RHS in SBHC may or may not represent the perspectives of other stakeholders, including parents, school administrators, healthcare providers, advocates, and teens.***
9. ***RHS provided by SBHC at this time are perceived as effective at reducing rates of teen pregnancy, STI's, HIV, and economic costs and these services have encountered very few issues in implementation.***
10. ***The addition of RHS to SBHCs is one of the many changes impacting perceptions about SBHC at this time.***

This report provides important insights into each of the themes by including exemplar quotes and analysis. The interview findings clearly demonstrated support of RHS provision, as part of health promotion efforts, by SBHCs. Many participants discussed their desire for broader services, potentially including emergency contraception, Depot, HIV testing and referral, and

other contraceptive agents. Those agencies currently providing RHS reported few problems associated with the initiation of this policy and also noted that actual dispensing has been for a small, but steady, number of teens. The teens receiving such services, according to the adults interviewed, reported satisfaction with the services and often considered it part of their routine care, rather than a subject of controversy. Stakeholders perceived that these teens represented a critical population to receive services and voiced the need for teens who seek such services to be able to access RHS at readily available settings without significant barriers. From a developmental perspective, the provision of RHS by SBHCs demonstrates an evidence-based practice rooted in understanding of adolescent sexual decision-making and the developmental traits of teens. From that perspective, interventions designed to support responsible sexual decision-making need to include assessments of individual teens' abilities for mature decision-making and social and emotional maturity; gradual exposure to opportunities to test decision-making skills; guidance from responsible and respected adults; and ongoing support in decision-making opportunities. This sample voiced that SBHCs were optimal sites to provide these supports and services.

Opposition to RHS in SBHCs appeared to be related to three perspectives, including those related to: 1) religious or personal opposition to adolescent sexual activity and, therefore, accessible contraception; 2) the ideology that schools are for education, not healthcare, and that bringing RHS to the SBHCs would raise concerns about SBHCs in general, causing public scrutiny associated with religious, conservative beliefs or question public/private funding of such services; and 3) parental rights and the perceived threats to these rights offered by the SBHC consent process, the Delaware state law offering healthcare to children 12 and over without parental consent, and the perceptions that SBHCs confound family communication and parental

responsibilities. In seeking progress in this issue, it is important to appreciate the perspectives of those who oppose the provision of RHS by SBHCs while also attending to medically accurate, evidence-based, and sought after services that adhere to the needs, preferences, and values of the students, parents, healthcare providers, and other advocates.

One framework that may inform next steps in the expansion of RHS in additional SBHCs is the advocacy action process. The steps of this process include:

1. Education of stakeholders about the issues, consequences, and potential revisions,
2. Recruitment of committed, well placed champions,
3. Obtain diverse and bipartisan support,
4. Avoiding and managing controversy,
5. Providing timely information on successes, and
6. Openness to compromise while staying focused on the objective.

A discussion of the findings and a model for viewing ideological issues, recommendations, limitations, and conclusions are provided to inform the expansion of RHS at SBHCs and better the health of teens in Delaware. This study offered a glimpse into the perceptions of key adult stakeholders. It will be critical to use these findings to shape future policy and to explore the perspectives of teens to ensure their voice is heard while adults as parents, policy-makers, school board members, healthcare providers, school administrators, and advocates argue for their case in the discussion concerning the provision of RHS by SBHCs in Delaware.

Background

Adolescent sexual activity, sexually transmitted infections, pregnancies, and births are important concerns in Delaware. These issues must be examined within economic, social, cultural, and personal perspectives in order to both appreciate their causes and impacts and also to develop effective and feasible prevention strategies. This report will examine teen sexual activity and associated consequences as it explores the impact of reproductive health services (RHS) as provided at selected school-based health centers (SBHCs) in Delaware.

The report will begin with a discussion of the Delaware Adolescent Sexual State Plan (Division of Public Health (DPH) Department of Health and Social Services (DHSS), 2011) as it responded to Delaware data reflecting youth sexual activity. The rates of teen sexual activity, as reported by the Youth Risk Behavior Survey, teen pregnancies, teen births, and sexually transmitted infections will validate the need for intervention. One such intervention will be the SBHC and their provision of RHS. A brief history of SBHCs will delineate the path to current provision of RHS at 14 of the SBHCs in Delaware.

SBHCs are an important strategy to provide wellness services to adolescents. Twenty-eight SBHCs function in high schools in Delaware providing sports physical examinations, nutrition and mental health counseling, and primary care screening and treatment. The Division of Public Health, contract holder for the SBHCs, through authoring the Delaware Adolescent Sexual Health State Plan, has proposed the provision of RHS through the SBHCs. This health plan was written by the Division of Public Health (DPH) and the Teen Pregnancy Prevention Advisory Board (TPPAB) in response to Delaware youths' self-reported high rates of sexually active teens, early age of initiating sexual activity, multiple sexual partners among teens, and frequent sexual activity among young teens (Center for Drug and Alcohol Studies[CDAS],

2012). Services provided through the SBHCs are at the discretion of the school district board and each school's administration. According to Herrman, Solano, Stotz, and McDuffie et al. (in review) a random sample of Delaware citizens supported teen access to condoms and contraceptives and their receipt of education about these services at developmentally-appropriate ages. Further examination revealed that participants believed that contraception and education should be available to teens at schools, both in nurses' offices and wellness centers. In addition, this sample validated that teen pregnancy is an important issue deserving of public attention and funding (Herrman & Baker, 2008).

Currently 14 SBHCs provide RHS as part of their menu of services. Delaware law dictates that assessment for, education about, and provision of birth control/contraception; education about and provision of condoms; pregnancy testing; sexually transmitted infection diagnosis and treatment; and HIV testing and referral may be provided to youth over 12 years of age without parental consent. Each medical vendor defines the consent processes at their site. This report will provide background about the provision of RHS by SBHCs and will evaluate those services within the available parameters. RHS may include education about and prescription for oral contraceptives, education about and distribution of condoms, testing and treatment of sexually transmitted diseases, and pregnancy testing. Provision of emergency contraceptives and testing and referral for HIV treatment are, at this time, not part of RHS in Delaware.

Introduction to the study

The purpose of this study was to qualitatively evaluate the impact of the provision of RHS by SBHCs. The original proposed timeline for this study is found in Appendix 1. Due to timing issues and public attention related to sensitive legislation, this study was completed in

September-December, 2012. The principal investigator (PI) is Dr. Judith W. Herrman, RN, an Associate Professor in the School of Nursing at the University of Delaware with expertise in adolescent development, sexual decision-making, and teen pregnancy prevention. It is anticipated that these findings will highlight potential areas of improvement and revision of practices, validate current RHS processes, and inform school districts, school administrators, and other advocates of the value of RHS in SBHCs. This study was conducted in two phases.

Phase 1 of the study included an in-depth review of the literature and best practices to determine what evidence existed for the provision of RHS in SBHCs.

Phase 2 included individual, semi-structured interviews with adult key informants and stakeholders, including parents, about the provision of RHS in SBHCs. These participants l included those who work at SBHCs that do and do not provide RHS, state officials involved in the process, school board members and school administrators from schools with SBHCs that do and do not provide RHS, general community members in areas with schools with SBHCs that do and do not provide RHS, and experts in reproductive health. Efforts were made to ensure a slate of interview candidates that represented the entire state of Delaware, a cross-section of urban, rural, and suburban schools, and the diverse make-up of the state. Interview participants were accessed via key documents/web sites, the snowball technique, or identified by the PI. Participation in these interviews was voluntary. The original proposal included focus groups with parents. Due to timing issues and difficult accessing and convening parents for focus groups, parents were included in the stakeholder interviews and the target number of interviews increased to fifty individuals. The interview guide is found in Appendix 2. As part of the analysis of interview data, stakeholder perceptions of the utilization of reproductive health services (RHS) at the SBHCs is presented.

This study received approval from the Institutional Review Board at the University of Delaware and the state of Delaware Human Subjects Review Board. The research documents include the key informant letter, interview consent, and the project abstract. These documents are found in Appendix 3.

The final data was analyzed within the constructs of sexually active teens' awareness of, access to, ease of access to, use of, ease of use of, and perceptions of effectiveness of contraceptive methods via RHS in SBHCs. Analyzed data is framed within the social, economic, and personal consequences associated with unprotected sexual activity and recommendations are made concerning the provision of RHS by SBHCs.

The *Delaware Adolescent Sexual Health State Plan*

Although the national teen pregnancy rate is declining, the United States continues to have the highest teen pregnancy rate in the industrialized world. The 2011 Youth Risk Behavior Survey (YRBS) data indicated that Delaware teens were more likely to have sex at early ages, have more frequent sexual activity, have more sexual partners, and were less likely to use protection than adolescents in most other states (CDAS, 2012).

In terms of ethnic and racial disparities, Delaware has the fourth highest pregnancy rate among Hispanic adolescents aged 15-19 years. Teen pregnancies among Blacks are nearly twice that of Whites. Black adolescents are disproportionately affected by HIV/AIDS, comprising 60 percent of the cases, while White and Hispanic adolescents comprised 32% and 8% respectively (DPH, 2011).

Factors linked to sexual risk taking include drug and alcohol use, family connectedness, community involvement, access to reproductive services and contraception, and comprehensive sexual education. Strategies for reducing adolescent pregnancy and sexually transmitted

infections (STIs) need to be sustainable and provide: state and local infrastructure development, the creation of supporting policies, access to health care services, community engagement and education, a means of utilizing data to target vulnerable populations, and methods to ascertain progress.

The *Delaware Adolescent Sexual Health State Plan* from the Division of Public Health and the Teen Pregnancy Prevention Advisory Board provides a course of action to reduce the high teen pregnancy rate in Delaware. The goals for the State of Delaware are based on Healthy People 2020 goals for adolescent reproductive health:

1. Adolescents, adults, and families must understand and apply essential sexual and reproductive health information and develop communication skills in order to make positive choices concerning relationships and sexual health
2. Rates of unintended teen pregnancy are reduced
3. Rates of subsequent teen pregnancies are reduced
4. Rates of sexually transmitted infection are reduced
5. Racial, ethnic, and geographic-based sexual health disparities are reduced

Using a systems perspective, these goals will be realized by emphasizing coordination and collaboration between Delaware state agencies and community organizations serving adolescents. As part of the plan, the Delaware Division of Public Health plans to implement and replicate two evidence-based health education programs targeting both school-based and community-based adolescent populations in reducing teenage pregnancy statewide. Targeted sites will include census county divisions (CCDs) with correspondingly high rates of social and economic risks, teen births, and STIs and HIV/AIDS infections. A Sexuality Education Training Institute was established to provide technical assistance, materials, and a train-the-trainers model.

Other suggested strategies focus on access to reproductive health care, methods to foster parent-teen relationships, and means to address sexual diversity. Inclusive in this process will be the stakeholders—those that the project serves or affects, such as youth, parents and guardians, teachers, service providers, program coordinators, health agency administrators, and community members (DPH, 2011).

Part One. Review of the literature

A sound place to begin this investigation of teen sexual activity and potential outcomes is with the perceptions of youths. This report will provide a foundation about teens' thoughts on the impact a pregnancy or birth would have on their lives as the root of sexual decision-making and a discussion of teens' perceptions of the accessibility, use, and effectiveness of condoms and contraception. The literature on school based wellness and health centers will be examined highlighting teen perceptions of SBHCs and RHS as described in the literature. Finally, a review of what is known in the literature about stakeholder perceptions will be synthesized in order to frame the current study.

Statistics related to teen sexuality in DE

In Delaware and nationally teen pregnancy and birth rates have been steadily declining since 1991 (Hamilton & Ventura, 2012). Much discussion has ensued attempting to lay claim to the reasons behind this decline as means to foster ongoing efforts and determine those factors most responsible for the decline. Kearny and Levine (2012) examined factors for this decline, attributing the greatest impact to the decreased sexual activity among teens and the increased use of contraception for sexually active teens. Factors found to be less or not associated with this decline included sexuality education (comprehensive or abstinence-only), welfare benefit restrictions, labor market conditions, access to abortion (as abortion rates have also declined), or

expansions in Medicaid family planning access (Kearny & Levine, 2012). This emphasis on accessibility and information about contraception as a means to further impact on teen pregnancy rates for sexually active youth reinforces the importance of RHS in SBHCs.

Sexual activity

Newest Youth Risk Behavior Survey (YRBS) data tells us that 59% of Delaware High School Students are sexually active, 19% of middle school students have had sexual intercourse, and Delaware youth continue to have greater levels of sexual activity, earlier ages of sexual initiation, and greater numbers of sexual partners than other states (Gealt, 2012). In comparison with other states, Delaware ranks first in the nation in sexually experienced teens, second in the nation with sexually active teens, third in the nation with multiple sex partners, and forth in the nation for early sexual activity (below thirteen years of age) (Gealt, 2012). These sobering statistics warrant action. Appendix 4 provides additional YRBS data about youth sexual activity in Delaware. National data reflect that 43% of never married teen girls and 42% of never married teen boys reported experiencing sexual intercourse (Martinez, Copen, & Abma, 2011). A recent study of the Centers of Disease Control and Prevention (CDC) noted that nationally about 54% of female teens are sexually active, with 60% using highly effective contraception and 18% not using any contraception (CDC, 2012b). Significant racial disparities were evident in this analysis, with Hispanic and Black teens less likely to use contraceptives. The authors discussed the need to provide easily accessible and low effort contraception for teens, especially targeting those populations most at risk (CDC, 2012b).

An analysis by the Center for Drug and Alcohol Studies (CDAS) at the University of Delaware (2010) noted that teens engaging in high risk behaviors, including those who had sex before 13 years of age, those with four or more sexual partners in the last three months, those

with a reported pregnancy, or those who gave or received oral sex, were significantly more likely to achieve lower academic grades in school. Teens demonstrating other behaviors, including those who were sexually active without the use of condoms, those forced to have sex, and those diagnosed with STIs, had lower grades but these did not reflect statistical significance (CDAS, 2010).

Teen pregnancy

According to a study underwritten by the Guttmacher Institute (Kost et al., 2010), Delaware ranks sixth in the nation for teen pregnancy rates with a teen pregnancy rate of 83/1000 and the national average being 70/1000. Both these rates are characterized by a steady and modest decline since the 1990's (Terzian & Moore, 2012). Most concerning is the Delaware Hispanic teen pregnancy rate of 211/1000 in contrast to the US Hispanic rate of 125/1000 which also ranks Delaware as one of the highest states in the nation. The white, non-Hispanic rate of 52/1000 and the black rate of 131/1000 appear to be more in synch with the US rates, though still high enough to warrant this ranking in the US (Kost et al., 2010). Ehrenthal, Gunter, Maiden, and Martin (2011) noted that, by reviewing Delaware Pregnancy Risk Assessment and Monitoring System (PRAMS) data, of teen women 17 years or less trying not to conceive, 43% reported not using birth control. Of women ages 18-20 who were not trying to get pregnant, 49% stated that they did not use birth control. Teens identified that the three most common reasons for not using birth control included thinking that they could not get pregnant, lack of access to contraception, and partner disapproval of birth control. Among girls 17 and under, 34% revealed that they did not know where to get birth control (Ehrenthal et al., 2011). National research substantiated that most teen pregnancies are unintended, yet almost one-half of all teens were not using birth control and one-third thought they could not get pregnant at the

time of sexual activity (CDC, 2012a). Additional research conjectured that lack of access to contraception may be framed within a context of its relationship with increased rates of unintended pregnancy and abortions, potentially garnering support from divergent ideologies (Fuller, 2007).

In addition, Delaware's unintended pregnancy rate is among the highest in the nation (ranked #3) which in turn relates to teen birth and abortion data (CDC, 2012a). About 10% of teens in Delaware describe their pregnancy as intentional (Ehrenthal et al., 2011). Delaware abortion rates are among the highest in the nation, ranked fourth the fifty states (Kost et al, 2010). Teens in Delaware often have pregnancies complicated by untreated STIs, threatening the health of mother and baby (Ehrenthal et al., 2011).

Teen births

Delaware's teen birth rate for 2009 was 41.6/1000. This demonstrated significant racial disparities in that the White teen birth rate was 34.6/1000 while the Black rate was 63.8/1000 (Delaware Health Statistics Center, 2011). Preliminary 2010 data reveal Delaware's rate at 30.5/1000, ranking it 31st in the nation (Botham, 2012; Hamilton & Ventura, 2012). Delaware's reductions in teen birth rates were among the 16th largest declines in the nation (Hamilton et al., 2012). The highest number of teen live births was localized in several areas, including the City of Wilmington, New Castle, and Dover (Delaware Health Statistics Center, 2011). According to the Delaware Health Statistics Center (2011), "the 2007 to 2009 decline seen in teens aged 15-19 was apparent in both the 15-17 and 18-19 age groups, whose birth rates declined by 19 and 14 percent respectively. Birth rates for teens in both age groups were highest in Sussex County" (p. 35). The repeat teen pregnancy rate in Delaware is 20%, in line with the national average (Schelar, Franzetta, & Manlove, 2007). Ehrenthal et al. (2011) noted that 92%

of young mothers 17 and younger and 82% of those 20 and younger used birth control in the post-partum period. This indicates an important point of intervention for young parents and reinforces the need for access to contraception for ongoing protection.

Economic costs of teen childbearing

Additional elements to be considered in the discourse on RHS in SBHCs and teen pregnancy prevention are the economic costs associated with teen births. Estimates indicated that teen births in Delaware cost taxpayers at least $35 million in 2008. Taxpayers costs associated with children born to teen mothers included $8 million for public health care (Medicaid, SCHIP), $6 million for child welfare, and, for children of teen parents who have reached adolescence or young adulthood, $13 million for increased rates of incarceration and $7 million in lost tax revenue due to decreased earnings and spending (National Campaign to Prevent Teen and Unintended Pregnancy, 2011). Between 1991 and 2008 there were approximately 23,675 teen births in Delaware costing taxpayers over $800 million during that time period (National Campaign to Prevent Teen and Unintended Pregnancy, 2011). An additional analysis by the Guttmacher Institute (2012) examined the social, emotional, educational, and financial costs of unintended pregnancy. Their study disclosed 2006 spending figures in which, of the $11.1 billion spent on unintended pregnancy, $6.5 billion represented federal and $4.6 billion state expenditures (Guttmacher, 2012).

New research concluded that each woman on oral contraception saves $13,000 over a five year period when comparing the costs of birth control pills with the direct medical costs associated with an unintended pregnancy (Berryman, 2012). This was a very modest comparison since it only attended to medical costs of the birthing process, but provided an important savings estimate of the costs associated with a birth and oral contraception (Berryman, 2012). New

research by Ehrenthal et al. (2011) revealed that prenatal care, delivery, and newborn care of unwanted pregnancies among women 19 and younger in 2008 cost $12 million, of which $10.1 million was paid by Medicaid, a joint state and federal program. The teen age group represented the largest use of Medicaid dollars of any of the age groups in Delaware (Ehrenthal et al., 2011).

Sexually transmitted infections

According to Planned Parenthood of Delaware, although youth 15-24 years of age represent 25% of those who are sexually active, they account for about 50% of the newly diagnosed STIs each year. Of the 8368 youth tested for STIs in 2009, 12% were positive for one or more infection (Sexuality Education Training Institute [SETI], 2012). Delaware rates of sexually transmitted diseases are high when compared to per capita rates in other states. Delaware has high rates of chlamydia (ninth in the nation) and gonorrhea(sixteenth in the nation) among teens and stable rates of syphilis, though this is readily treatable (Luta, Kennedy, Vella, & Dowling, 2010; SETI, 2012). Delaware ranks sixth in the national in cumulative AIDS incidence rates (SETI, 2012). Due to physical and emotional factors, the highest growing population of those diagnosed with HIV/AIDS is young, minority females (Roye & Seals, 2001). According to Delaware Department of Health and Social Services (DHSS) (2010), the latest comparative data related to reportable communicable STIs are noted in Appendix 5.

These data demonstrate that many Delaware teens are sexually active, sustain unintended pregnancies and STIs as a result of unprotected sexual activity, and are in need of more intense education and resources related to birth control. Silberberg and Cantor (2008) reinforced the imperative for SBHCs to meet community needs related to services. Promoting responsible sexual behavior in teens in Delaware is one such vital need to enhance the health of the State.

School-based Health Centers (SBHCs) in DE

The first SBHC opened in 1985 and Delaware now has 28 SBHCs in high schools across the state. According to the SBHC DHSS web site (2012), these settings provide access and primary care for the high school student body in accordance with community needs and work in partnership with parents, medical providers, schools, school nurses, and students. Each multidisciplinary team provides holistic services and referrals for comprehensive health care and works with the students' primary medical home to create a seamless healthcare package. SBWCs are overseen by the DHSS/Division of Public Health School-Based Health Center Central Office. Each is administered by a medical vendor, including Christiana Care Health Systems, Beebe Medical Center, Bayhealth Medical Center, Inc., La Red Health Center, Inc., and Nanticoke Health Services. Each vendor has parental consent procedures and records are confidential in accordance with the Health Insurance Portability and Accountability Act (HIPAA). The goals of SBHC care revolve around basic tenets of preventative care, improving health decision-making, reducing risk behaviors, and early diagnosis and treatment of potential and chronic health conditions. Such services may include physical health (sports physicals, treatment of illness, routine medications, immunizations, and pregnancy testing), diagnosis and treatment of STIs, HIV testing and counseling, mental health services, nutritional health counseling and services, and health education. The initiation of reproductive health services in 14 of the SBHCs in the State commenced in January 2012 and is the subject of study in this report (DHSS, 2012). Although there was a belief that a law existed against the provision of RHS for SBHCs, no such legislative edicts exist (Rovner, Juszczak, & Schlitt, 2012). None of the sites, as yet, provide on-site emergency contraception or HIV testing and referral. The DPH has addressed many issues and controversies related to consent, privacy, reimbursement,

confidentiality, private insurance, Medicaid, and conflicting ideologies (Jones, 2012).

Teen perceptions

The thoughts and attitudes of teens are an important place to begin the study of teen reproductive behavior and the value of RHS in schools. These attitudes provide the foundation for teen behavior and should inform strategies to promote teen responsible sexual behavior. This section will highlight a variety of topics related to the perceptions of teens about adolescent parenting and births, of prevention, of access to condoms and contraception and associated information, and their thoughts on the use and effectiveness of condoms and contraception.

Teen perceptions of teen parenting and births

Authors indicated that discussing the realities of teen parenting may be important in the development of teen pregnancy prevention strategies (Hacker, Amare, Strunk, & Horst, 2000; Herrman, 2008; Herrman & Waterhouse, 2011; Little, Henderson, Pederson, & Stonecipher, 2010). As adult program developers, policy makers, and advocates gained appreciation of the need to determine teen perceptions about issues in order to design effective health programs, there were increases in studies designed to determine teen attitudes and beliefs. Most of those studies related to the perceptions associated with teen births are qualitative in nature and specifically generate data from teen mothers and, less often, fathers. Research with teen parent participants revealed both positive and negative perceptions of the impact the teen birth had on their lives in such areas as social life, family relationships, education, careers, finances, intimate relationships, and personal development (Clemmens, 2003; Herrman, 2006; 2007; Paskiewicz, 2001; Rentschler, 2003; Rosengard, Pollock, Weitzen, Meers, & Phipps, 2006; Spear, 2001; Spear, 2004). Experts question the soliciting of young parents' perceptions in retrospect of a teen birth due to the potential for subjects' reluctance to disclose negative perceptions that may

make the teens question their reproductive decisions (Kelly, Lesser, & Paper, 2008). Researchers propose that studies should focus the perceptions of non-parenting teens to inform teen pregnancy prevention interventions (Jewell, Tacci, & Donovan, 2000).

There is a paucity of research that targets the perceptions of non-parenting teens about the impact a teen birth could have on their lives. Previous research using focus groups with non-parenting teens revealed that having a baby was believed to have negative impacts on a teen's life, especially in the areas of friends and social life, career goals, levels of stress, amount of sleep lost, increasing personal responsibilities, and "missing the teen experience" (Herrman, 2008, p. 45). In interviews, other researchers found that teens perceived mostly negative impacts of the teen parent experience such as a loss of freedom, increased work juggling school and parenting, family discord, financial stressors, and hindrance in pursuing educational and career goals (Gallup-Black & Weitzman, 2004; Hacker et al., 2000; Kegler, Bird, Kyle-Moon, & Rodine, 2001; National Campaign to Prevent Teen and Unintended Pregnancy, 2006; Wiemann, Rickert, Berenson, & Volk, 2005). Non-parenting teens' negative attitudes also reflected the anticipated reaction of family members and peers to the announcement of pregnancy and the potential for social stigmatization (Wiemann et al., 2005).

In contrast, non-parenting teens noted positive aspects of having a baby, including: recognition of young parents' adult status with increased maturity, monetary gain in the form of child support and governmental subsidies, and opportunities for young mothers to complete their mothering earlier to allow for later educational and career pursuits. Teens believed that young mothers had children in order to maintain relationships with intimate partners, to gain attention from others, to get closer to their family, to have a source of pleasure in an otherwise stressed life, or to have someone special to love and cherish. Other teens thought that young parents may

make a more concerted effort to strive for a career and self-sufficiency, though these teens recognized the impact parental and community support played in the ability to reach these goals (Gallup-Black & Weitzman, 2004; Hacker et al., 2000; Herrman, 2008; Herrman & Waterhouse, 2011; Kegler et al., 2001; National Campaign to Prevent Teen and Unintended Pregnancy, 2006; Wiemann et al., 2005).

Selected demographic analyses noted specific individuals having more positive perceptions of the impact a teen birth would have on their lives. Those with more positive perceptions included teens who lived with one parent, reported themselves as low income, were Black or Hispanic, had a parent or sibling who had a teen birth, and those from rural or urban settings (Herrman & Waterhouse, 2011). Age and level of religiosity were not correlated with positive perceptions toward a teen birth (Herrman & Waterhouse, 2011).

Some gender differences were noted in these studies. Herrman (2008) noted that young men participating in focus groups identified that the need to pay child support and be responsible for the child financially had powerful impacts on how they viewed the teen parenting experience. A subsequent survey study revealed that males had more positive perceptions of the impact a teen birth would have on their lives when compared to females (Herrman & Waterhouse, 2011). Additional analyses noted that males perceived a birth during the teen years to more significantly impair future career pursuits than reported by girls. They were less likely than girls to believe that a birth would impact their finances or activities in their daily lives (Herrman & Waterhouse, 2011). These differences may reflect young men not having clear understandings of the day-to-day responsibilities and financial costs associated with parenting but more realistic perceptions of the career impacts having a child as a teen may impose. Kegler et al. (2001) found that females participating in focus groups were more likely than males to indicate the teen pregnancy

as a big problem and young men believed that parenting as a teen afforded them higher levels of esteem by peers, enhanced masculinity, and achievement of adult status. Boys mentioned life hindrances such as loss of freedom, educational impediments, financial costs, and damaged reputations, whereas girls discussed the daily parenting role, loss of relationships, and potential education impacts as priority (Kegler et al., 2001). Boys were less apt than girls to feel the daily responsibilities associated with parenting, perhaps reflecting a norm about gender and the parenting role (Kegler et al., 2001). These studies reflect that continued research is needed to determine the impact of how the realities of parenting may impact young peoples' sexual decision-making and that these elements may be employed differently based on gender.

Authors compared positive perceptions toward parenting and the increased incidence of a future teen pregnancy (Jaccard, Dodge, & Dittus, 2003; Rosengard, Phillips, Adler, & Ellen, 2004). Ambivalence toward pregnancy was noted to be associated with decreased use of contraceptives and the potential for unintended pregnancy (Bruckner, Martin, & Bearman, 2004). Researchers proposed that teens with positive attitudes toward teen parenting, or who believe that a pregnancy would not have a negative impact on their lives, may not respond to traditional teen pregnancy prevention messages, and may actually purposefully intend a pregnancy to glean perceived rewards (Bruckner et al., 2004; Jaccard et al., 2003).

Teen perceptions of prevention

Characteristics of adolescent development warrant unique methods of providing contraceptives to teens that are based on developmental principles (Herrman, 2005). The last part of the brain to mature is the prefrontal cortex. This is the part of the brain that provides teens with the skills to control impulses, establish goals, seek rewards, consider benefits and costs, take responsibility, appraise options, and engage in thoughtful consideration of the pros

and cons of sexual activity, contraception, and behaviors that offer risk. Other parts of the brain dealing with sensation-seeking, peer pressure, development of empathy, passion, coping with stress, and risk-taking all have implications as teens learn and master responsible sexual behavior. Use of alcohol and other substances may also have impact on decision-making (Herrman, 2005).

Teens typically do not seek out healthcare. Aside from being a healthy period of life with fewer recommended exams and needed immunizations, teens may be reluctant to pursue healthcare. This may be due to fears of lack of confidentiality, the potential for parental notification, transportation and other logistical barriers, fear of judgment about their behaviors, restricted office hours, lack of insurance, and worry about provider insensitivity to their needs (Harrison, Beebe, Park, & Rancone, 2003).

Forke et al (2011) acknowledged that 90% of sexually active teens who do not use contraception become pregnant in a year. In addition, several authors affirmed that information on pregnancy prevention options are more effective if known prior to the initiation of sexual activity (Daillard, 2001; Forke et al., 2011; Kohler, Manhart, & Lafferty, 2008; Mueller, Gavin, & Kulkarni, 2008). Research tells us that, due to these factors, for teens to seek out health care it must be easily accessible and require low amounts of effort with the highest reward in order to attend to the individual and developmental needs of adolescents (Herrman, 2005).

Deptula, Henry, Shoeny, and Slavick (2006) found that males were less likely than females to consider the costs associated with parenting when considering engagement in sexual activity. Young men focused on the pleasure associated with sex while females were more apt to consider the potential consequences and responsibilities associated with sexual behavior. Ryan, Franzetta, and Manlove (2007) found that negative attitudes toward pregnancy and parenting

were associated with enhanced contraceptive intentions and behaviors in females but not in males. These researchers noted that young women were more apt to diligently contracept in order to avoid a pregnancy whereas young men did not consider potential teen parenting as a deterrent to sexual activity (Deptula et al., 2006; Ryan et al., 2007).

Bruckner et al. (2004) noted that positive attitudes toward contraceptives were associated with consistent use of these methods and prevention of pregnancy. Attitudes toward contraception were stronger than those associated with pregnancy, indicating that supporting teens' accessibility to contraceptives may be a more effective teen pregnancy prevention message than the negative aspects of a teen pregnancy when designing prevention programming. In today's political climate, due to anti-contraceptive sentiments, these messages may be more difficult to portray but may be more effective in preventing pregnancy (Bruckner et al., 2004). Hacker et al.'s (2000) sample of teens revealed that access to healthcare information and condoms and contraception were critical to teen pregnancy prevention and more than 50% of the youth indicated that more information about contraception would predispose youth to engage in safer sexual practices. In a study by Brown, Pennylegion, and Hillard (1997), teens noted that some parents may oppose condom distribution in schools, but the teens believed that these parents would be a minority and their thoughts would be based on their antiquated attitudes. The teens believed that "times have changed," "parents don't understand what it is like to be a teenager today," and rates of sexual activity and risk of HIV warrant changes in practice (Brown et al., 1997, p. 7). Although teen pregnancy and birth rates have declined, lower ages of the initiation of sexual activity, multiple sexual partners, and epidemic rates of STIs warrant public education about the importance of reproductive health services for teens.

Teen perceptions of access to information, condoms, and contraception

In continuing the investigation of what we know about teen perceptions, this report turns to teen perspectives on access to, use of, and effectiveness of condoms and contraception. These three elements may inform how RHS may be perceived and used in SBHCs.

Teens often perceive they lack access to condoms related to cost, access to services, transportation, embarrassment, objections of their partner, threats to privacy or confidentiality, or perceived reduced susceptibility to pregnancy or STIs (Bell, 2009; Brown. DiClemente, & Crosby, 2008; Fanberg, Kaplan, & Naylor,1995) . Ehrenthal et al. (2011) revealed that the leading reason Delaware teens did not use contraception stemmed from their perception that they could not become pregnant from their level of sexual activity, potentially including infrequent sex, their first sexual encounter, using withdrawal, or the timing of their sexual activity. Teens often believe that their risk of STIs is associated with subjective assessments of partners, based on cleanliness, appearance, or personality traits without a clear understanding of the partner's current and previous sexual practices (Fuller, 2007).

A study by Klein et al. (2001) revealed that teens were more likely to access condoms from a store rather than a school or a clinic. Klein et al. (2001) noted that for teens, and perhaps adults too, increased visibility and signage were correlated with more accessibility and a greater propensity to purchase condoms. Studies demonstrated that teens will access condoms from large drug and grocery stores which offer greater anonymity and where displays of condoms are highly visible and do not require salesperson assistance. Teens perceived that smaller stores, or those where the condoms were placed behind the counter, restricted access to products (Bell, 2009). Teens commented that they do not want to have to ask for condoms as they may be ridiculed or judged for their actions (Bell, 2009; Dodd, 1998; Klein et al., 2001). This ridicule,

whether real or perceived, may be a significant barrier to access (Klein et al., 2001). Teens may feel criticized about their apparent planning to have sex, a tainted reputation, or due to a developmental tendency for embarrassment and egocentric thinking (Bell, 2009). Rural areas or more intimate communities provided a greater level of risk, threatened privacy, and potential for parental notification (Bell, 2009).

Brown et al. (1997) conducted a focus group and survey mixed-methods study of teens' perceptions of the availability of condoms. This sample overwhelmingly agreed that condom availability did not increase sexual activity, and that, in order for condom distribution to be most acceptable to teens, the services must be private, physically accessible, at reduced or no cost, and convenient. Cost is significant barrier especially for low-income youth, (Brown et al., 2008; Fanberg et al., 1995; Roye & Seals, 2001) with Klein et al. (2001) founding that 14% of youth made decisions about contraception based on cost.

The access issues associated with obtaining condoms in a store may be alleviated by condom availability in schools. Researchers explored teens' insights about school provision of condoms. A study of teens noted that 85% of students surveyed believed that condom distribution in schools would increase access and 76% believed that condom availability programs would not increase sexual activity in youth (Fanberg et al., 1995). Teens that were against condom distribution in schools (the 15%) noted that school was not the place to receive contraception, it was religiously wrong, it may increase the frequency of sexual activity, or "it is a waste to hand them out because I don't use them every time I have sex" (Fanberg et al., 1995, p. 182). In this sample, 42% of the students believed condoms should be made available in the nurse's office or wellness center, 45% in a machine in the bathroom, 8% from other students, and 5% from teachers (Fanberg et al., 1995).

Barriers to accessing oral contraception included cost, parental notification through the insurance/billing process, and the potential for a pelvic exam (which may or may not be required based on sexual history) (Fuller, 2007). In a focus group study, 31% of the sample indicated that teens believed that increased access to oral contraception would increase use of these practices (Hacker et al., 2000). This sample agreed with those in others studies that access to contraception did not increase level of sexual activity (Brown et al., 1997; Brown et al., 2008; Fanberg et al., 1995).

Another barrier to access is when contraception methods, most often condoms, are offered without complete information as to their use, such as in vending machines. As noted by one teen in a work by Herrman, Moore, & Anthony (2012), "we should be able to get condoms at school….not just a bowl laying out, but a place in school where teens can get it and talk about it" (pg. 12). The implications for this and RHS in SBHCs are clear.

Teen perceptions of use and effectiveness of information, condoms, and contraception

Teens expressed that the basic reasons for using contraception and condoms was to decrease the risk of pregnancy and STIs, with less mention made of HIV/AIDS (Roye & Seals, 2001). Data demonstrated that 63% of youth expressed using condoms as their primary method of birth control, 48% always using condoms, and 44% having sex without a condom in the last two weeks (Haignere et al., 2000). Several authors noted that teens focused on the risk of pregnancy rather than the risks associated with STIs, offering insight into the use of condoms among teens who perceive oral or hormonal contraception are sufficient to protect them (Bolton, McKay, & Schneider, 2010; Roye & Seals, 2001). Based on this premise, teens often spoke of

diligent use of oral contraception while not using condoms (Bolton et al., 2010; Roye & Seals, 2001).

Non-use of condoms was related to many factors, including not being available, sexual activity not being planned, substance use, passion, receiving gifts or incentives to forego a condom, and coercion or being "trapped into" not using one (Bauman, Hamilton, & Karasz, 2007, p. 255). Additional reasons included assumed monogamy, increased intimacy, desire for a long term relationship, desire for a child, perceived ineffectiveness, partner disapproval, inconvenience and hassles associated with condoms, and decreased sexual pleasure (AHC Media, 2008; Bauman et al., 2007; Bolton et al., 2010; Brown et al., 2008; Roye & Seals, 2001). Another author found that teens found condoms to cause vaginal "irritation" (Roye & Seals, 2001, p. 84). Brown et al. (2008) found that teens believed condoms would "ruin the mood" (p. 135).

Many youth spoke of using oral contraceptives as relationships progressed or evolved to committed relationships and not using condoms for a variety of reasons (Bauman et al., 2007; Bolton et al., 2010; Boyle & O'Sullivan, 2010; Brown et al., 2008). In addition to those cited above, not using a condom during sexual activity in a monogamous relationship symbolized commitment and trust. Sex without a condom with an intimate partner symbolized a greater love and belief that a partner would not expose them to harm by exposing them to STIs while using a condom could be interpreted as suspicion of infidelity, lack mutual trust, or disbelief in the exclusivity of the relationship (Bolton et al, 2010; Boyle & O'Sullivan, 2010; Brown et al., 2008). Interestingly, less than 50% of Bolton's and colleagues' (2010) sample of youth was tested for STIs indicating a risk of the practice of using hormonal contraceptives without condoms. Roye and Seals (2001) discussed the risk imposed by this serial monogamy where

several partners may expose individuals to STIs and HIV despite beliefs that they are practicing safe, single partner sex.

An important factor in condom use is the ability to frankly discuss contraception, protection, and sexual activity between partners (Boyle & O'Sullivan, 2010; Brown et al., 2008). Boyle and O'Sullivan (2010) noted that many couples were not able to have these conversations, hindering safe sexual behavior. In fact, factors associated with increased use of condoms included fear of pregnancy and STI's and the ability to express such fears to a sexual partner, in addition to not being in a steady relationship, having condoms available, reminder messages about the risks associated with HIV and STIs, the presence of young people as role models, and positive patterns of communication with parents (Roye & Seals, 2001). Males were found to report increased use of contraception if they had more knowledge about methods of birth control and protection; whereas, females reported more diligent use with an increased knowledge about the mechanisms of birth control and self-efficacy in use of methods (Ryan et al.,2007).

An important area to address with teen perceptions of and use of condoms and contraception is to assess their myths and the validity of these myths associated with conceptive methods. Teens were found to believe that condoms often break and have higher rates of failure even though the actual failure rate is 2% with perfect use and 15% with typical use (Fuller, 2007). They may also over or under estimate the failure rates of oral contraceptives which in actuality are 0.3% for perfect users and 8% for typical users (Fuller, 2007). Teens also often have many myths related to hormonal contraceptives, including: potential infertility, the need to be off the "pill" every one to two years, the need to only take "most of the pills," the need to take only when sexually active, the need to not use condoms when on birth control, and exaggerated occurrence and degree of side effects (Fuller, 2007). Although less commonly used, with only

15% of teens reported use of the female condom and 78% reporting preference to male condoms, this method should be addressed (Haignere et al., 2000). With this method, most criticism is associated with it being difficult to access, irritating, and uncomfortable (Haignere et al., 2000). The failure rates of the female condom are 5% with perfect use and 27% with typical use, potentially making it a less than optimal method for teens (Fuller, 2007).

Teens believed condoms and contraception were largely effective but placed more emphasis on the prevention of pregnancy than protection from STIs. Oral contraceptives were perceived more effective and, as stated, condoms were not needed in longer term relationships. The implications of these practices are apparent in placing teens at high risk of STIs. The literature agrees on several factors related to adolescent perceptions of access, use, and effectiveness of condoms and contraception. Teens prefer methods that are easily accessible; require low effort and are easy to remember; are discreet from parents and, potentially, partners; and are associated with information on how to use methods to increase confidence and to ensure effectiveness (Fuller, 2007). Although it may be evident, ease of accessibility is a significant factor in consistent use of condoms and contraception (Ryan et al., 2007). The holistic services in SBHCs to attend to the physical and emotional needs of the client, the comprehensive initial visits for dispensing and teaching about the methods, and the ability to follow-up with clients in subsequent visits make these the optimal settings for the provision of RHS.

School-based health centers in the literature

Access to SBHCs

The adolescent years are characterized by relative health and teens are less likely than any other age group to access primary and preventative care (Santelli, Morreale et al., 1996). This, coupled with engagement in high risk behaviors, reinforces the need for confidential,

accessible healthcare for screening, education, and treatment. SBHCs began in the 1970's to decrease barriers to healthcare and have grown in number significantly to provide healthcare to many youth, such that over 2000 SBHCs provide services to more than two million students in the United States (Klein et al., 2007; NASBHC, 2012). Despite the proliferation of SBHCs in the US, researchers contend that only a small percentage of teens actually have access to their services related to dropping out of school, schools not having SBHCs, and financial pressures which plague health center sustainability and ability to provide comprehensive services (Allison et al., 2007; Brindis et al., 2003; Crespo & Shaler, 2000). These limitations, in conjunction with lack of health insurance, insurance coverage limitations, economics, and decreased accessibility to primary care threaten the health of our youth (Brindis et al., 2003).

SBHC services are perhaps most meaningful for poor, at-risk populations (Allison et al., 2007; Crespo & Shelar, 2000; Daley et al., 2009; Lear, Banwell, & Beireis, 2008; McIntosh, Moore, & Elci, 2009). As noted by Scudder, Papa, & Brey (2007), poverty provides significant stressors which may lead to myriad high risk behaviors endangering the health of teens. It is this segment of teens that SBHCs are thought to prove their greatest worth . Albert, McManus, & Mitchell (2005) noted that 95% of their sample of SBHC clients had no other source of healthcare outside of the center services. Crespo and Shaler (2000) discussed the acute need for healthcare in rural areas that is fulfilled by SBHCs, yet the value of SBHCs is also realized in urban areas (Wade et al., 2008). Guo, Wade, Pen, and Keller (2010) postulated that SBHCs are effective means to reduce economic and racial disparities. In referencing RHS, studies specific to SBHCs indicate that the highest sexual activity associated risk is among males, those of African American descent, teens that identify as low income, those raised in a single-parent family, teens with history of abuse, use of substances, and those with sexually active peers

(Hutchinson et al., 2012; McIntosh et al., 2009).

SBHCs provide myriad services based on a pediatric healthcare model, usually with nurse practitioners providing clinic management and leadership. SBHC services vary significantly among sites and may include health screening and referral, counseling and mental health services, nutrition services, health and sports physicals, and reproductive health services (Santelli, Morreale et al., 1996). SBHCs have been heralded first and foremost for their effectiveness in meeting the primary healthcare needs of adolescents (Allison et al., 2007; Nystrom et al., 2004; Yi, Martyn, Salerno, & Darling-Fisher, 2009). Authors attest to the fact that SBHCs are known to provide holistic care in user-friendly settings (Clayton, Chinn, Blackburn, & Echeverria, 2010). Perhaps the greatest efforts of SBHCs, in their public health goals of health promotion and disease prevention, are their ability to educate teens and assist them in engaging in positive health behaviors and behavior change (Hutchinson et al., 2012; McNall, Lichty, & Mavis, 2010). Some SBHCs have expanded to provide services to other siblings, parents, extended family members, and community members, filling a critical need for the provision of primary healthcare (Oros, Perry, & Heller, 2007).

SBHCs work in collaboration with school nurses and individuals' medical homes, if they exist, to meet the needs of teen clients (Bannister & Kelts, 2011; Council on School Health, 2012). When possible, SBHCs engage parents in SBHC advisory boards, in decisions about their children's health, and in education about the importance of parental monitoring and involvement in the health of teens (Albert et al., 2005; Ford, Davenport, Meier, & McRee, 2011). SBHCs also partner with businesses and faith based groups. By appealing to business values and priorities, such as community development and building a strong work force, and with faith communities, in their inherent dedication to social justice, business and faith partnerships may

assist SBHCs to meet their caregiving goals (Juszczak, Moody, & Vega-Matos, 1996).

The services provided by a SBHC may also be impacted by the state and local legislative statutes. According to Medenwald (1998) about one-half of the states have laws related to teens decreased abilities to seek out contraceptive care without parental consent (in Delaware they may be provided to teens 12 and over), almost every state provides for STI testing and treatment, and some states include provisions for HIV and AIDS testing and referral. Every state requires school and health records to be kept separate in compliance with the Health Insurance Portability and Accountability Act (HIPAA) (Medenwald, 1998).

Lack of confidentiality in healthcare poses a significant barrier for teens such that compliance to these privacy of records regulations is integral to confidential care (National Institute for Healthcare Management Research and Education Foundation [NIHCM], 2011). Issues such as billing procedures, explanation of benefits (EOBs), parental consent, coding practices, and reimbursement may limit privacy. According to one research study, 70% of teens would not use a clinic if parental notification was deemed necessary (NIHCM, 2011). Delaware law "prohibits billing procedures from breaching confidentiality of minors seeking testing and treatment of sexually transmitted diseases" (NIHCM, 2011, p. 9). Parental permission is required for general health services but, in accordance with many state laws, teens are able to access STI care and family planning services independently of parental consent (Santelli et al., 2003). Further investigation and advocacy is necessary to offer the same rights associated with contraceptives and other RHS.

Impact of SBHCs

Several researchers attempted to determine the impact of SBHCs with varying results. Experts contend that much of this research is methodologically less rigorous and calls into

question the relative lack of research that heartily validates the value of SBHCs, including such variables as self-selection, comparison of SBHCs interventions on entire school population impacts, the existence of SBHCs in notoriously high risk areas, and lack of adequate sample sizes (Santelli, Morreale et al., 1996).

SBHCs have, as they have matured and in response to funder mandates, engaged in evaluative and quality improvement efforts. Ongoing strategies to establish and achieve benchmarks, validate efforts, and engage in evidence based practices reinforce the value of SBHCs (Booker, Schlister, Carillo, & McGrath, 2011; Gance-Cleveland, Costin, & Degenstein, 2003; Guo et al., 2010; Mavis, Pearson, Stewart, & Keefe, 2009; Shuler, 2000; Stephens, McLean, Cannatelli, & Stillman, 2011, Wade & Guo, 2010). Researchers affirmed the value of SBHCs in their effective provision of dental care (Albert et al., 2005; Bailit, Beazoglou, & Drozdowski, 2008; Clayton et al., 2010), obesity prevention and management programming (Clayton et al., 2010; Stephens et al., 2011; Trent et al., 2009; Van Helden, 2012), asthma control (Clayton et al., 2010; Gerald et al., 2006; Mansour et al., 2008; Oruwariye, Webber, & Ozuah, 2003; Wade et al., 2008), smoking cessation programming (Price, Yingling, Dake, & Telljohann, 2003), administration of immunizations (Allison et al., 2007; Foy & Hahn, 2006; Federico et al., 2010, Gold et al., 2011; Lancman, Pastore, Steed, & Maressa, 2000, Oros et al., 2000; Salerno, 2012), immunization recall (Kampo et al., 2012), medication compliance (Mears, Charlebois, & Hall, 2006), ADHD management (Wade et al., 2008), substance use prevention (Mandel & Kulig, 2012), violence prevention (Mandel & Kulig, 2012), and mental health counseling (Brener et al., 2007; Clayton et al., 2010; Hutchinson et al., 2012; Juszczak et al., 2003; Wade et al., 2008).

Many contend that one area in need of enhanced services is that of mental health. With

the increasing frequency of diagnosis, increased awareness of, increased need for screening, and the pressures of today's world, authors agree that this is one area for improvement (Brener et al., 2007; Juszczak, Melinkovich, & Kaplan, 2003). One study found that only 13.6% of school students received their mental health services from SBHCs, indicating a need for growth in services. Juszczak et al. (2003) noted that teens were more likely to seek out mental health services from SBHCs that from other community health settings, indicating the importance of enhancement of these services. Nonetheless, SBHC have been shown to enhance students' perceptions of quality of life in a variety of dimensions (Guo, Wade, & Keller, 2008).

Another means to assess SBHC effectiveness include the study of work performance. Mavis et al. (2009) noted that 46% of the healthcare professionals' time in the SBHC was direct patient care, with 75% including direct patient care and the associated documentation. The authors validated the importance of patient-focused care provided by SBHCs (Mavis et al., 2009).

Brindis et al. (2003), in examining SBHC usage, determined that the impact of SBHCs in providing first contact, continuous care, and referral to other resources is greatest among teens who are low income, minority status, living in urban areas, and those who are underinsured. Kisker and Brown (1996) studied the impact of 24 SBHCs on use of health care providers, use of SBHC services, knowledge of health, substance use, sexual activity, contraceptive use, pregnancies and births, and health status. By comparing youth who had access to SBHCs with a national sample of teens without such access, the researchers attempted to determine how such access impacted selected variables. Although the presence of a SBHC greatly increased teens' access to health services and increased teens' levels of knowledge concerning healthy lifestyles, most notably the increased access of healthcare for urban youth, there were no discernible

changes in risk behaviors or other outcomes, including pregnancies and births, delaying sexual initiation in youth, engaging in high risk behaviors, use of emergency rooms, school attendance/drop out, or educational outcomes. The authors conjectured that SBHC were an important foundational strategy to address high risk behaviors in youth, with additional efforts needed to effect meaningful change. It did appear that suicide ideations and intentions were significantly impacted by the presence of a SBHC, indicating a need for additional research (Kisker et al., 1996).

In contrast, a study by Santelli, Kouzis, and Newcomer (1996a) found that students with chronic conditions who used SBHCs, in contrast to other forms of primary care, were significantly less prone to hospitalization and use of emergency rooms than those who did not have access to SBHC. This difference reflected a clear economic benefit of SBHCs for teens with chronic health conditions and exposure to health risks. These researchers found no difference in school absenteeism or completion between samples (Santelli et al., 1996a).

Other researchers have confirmed decreased hospital associated costs among clients of SBHCs. Reduced emergency room visits, reductions in use of afterhours health care settings, decreased hospitalizations, less use of urgent care centers, decreased emergency transportation costs, and less medication usage was found among SBHC clients when compared to other healthcare routes, such as community health clinics, or lack of healthcare (Allison et al., 2007; Gerald et al., 2006; Juszczak et al., 2003; NASBHC, 2011; 2012).

School performance measures are another area explored by researchers studying the impact of SBHCs. Although findings are often mixed, studies documented lower absentee rates related to illness or disengagement in school, fewer early dismissals, reduced school exclusion due to lack of immunizations, increased graduation rates with fewer or delayed dropout rates,

increased seat time (time students are available for learning), fewer episodes of disciplinary action, and higher rates of promotion in schools with SBHCs (Center for Schools, Health, and Education, 2011; Foy & Hahn, 2009; Geierstanger et al., 2004; Gerald et al., 2006; Kerns et al., 2011; Mansour et al., 2008; NASBHC, 2018; Nystrom & Prata, 2008; Strolin-Galzman, 2010; VanCura, 2010). Zeanah et al. (1996) explored the link of fewer pregnancies with more girls staying in school as one of the benefits of RHS in school performance.

Schlitt, Juszczak, and Eichner (2008) explored state and other funding for SBHCs. Of the states surveyed, six reported no SBHCs, three states had one SBHC, and New York reported having 187. Delaware and Florida were unique in the stance that these states funded greater than 75% of the monies to run the SBHCs. Delaware and Kansas, at the time of the survey was completed, reported experiencing decreases in state funding allotments. According to this 2008 study, Delaware was one of the five states prohibiting contraception distribution on site. Suggestions were made to enhance the sustainability of SBHCs in states such as Delaware by seeking funding through community partners including hospitals and community agencies, solicitation of grants and foundation funding, and seeking Medicaid, state health insurance for children programs, and private insurance reimbursement for services (Swider & Valukas, 2004). These sources are being pursued in Delaware via the passage of House Bill 303 which allows SBHC to serve as healthcare providers and seek reimbursement (Short, 2012). A study by the Government Accountability Office (2010) noted that, although Medicaid reimbursements may provide a source for funding, some sites actually found the billing process and infrastructure costs actually negated any profits associated with reclaimed monies.

In this era of tenuous funding, the impact of the Affordable Care Act, and fiscal stringency, authors contend that SBHCs are a cost-effective way to save money, reduce

Medicaid costs (due to decreased hospitalization and early intervention), and provide key prevention services (Guo et al., 2010; Koppelman & Lear, 1998; Nystrom & Prata, 2008; Swider & Valukas, 2004; Wade & Guo, 2010). Guo et al. (2010) found that the state of Ohio saved $135 million over three years in Medicaid expenditures as a result of SBHCs. The Affordable Care Act provided funding for capital expenditures to improve SBHC facilities and enhance services. As noted by US Secretary of Education, Arne Duncan, "We know that if kids aren't healthy, they don't learn" (Tieman, 2011, p. 72). As the Affordable Care Act is implemented, ongoing funding streams may need to be sought to ensure SBHC sustainability. In contrast, economic hardships make it even more paramount to focus on prevention and the needs of children and youth (Lear et al., 2008).

Teen perceptions and use of SBHCs

Research demonstrates that teens believe SBHCs provide high quality healthcare and are well received by adolescents. Klein et al. (2007) compared teens' perceptions of healthcare from SBHCs and that received from physician offices and public clinics. Teen participants noted that SBHCs were thought to provide the same level of care as other resources and exceeded in levels of perceived confidentiality, positive communication patterns, and in the helpfulness of counseling methods (Klein et al., 2007). In addition, teens noted that SBHCs were more likely to provide screening and counseling with oral contraceptives and condoms, in pregnancy and sexually transmitted infection prevention, and related to diet, exercise, and weight control (Klein et al., 2007). Focus groups with youth discovered that teens were more likely to use SBHCs over other sources of health care due to perceptions of increased confidentiality, free services, convenience, and youth-friendly staff (Soleimanpour et al., 2010). These teens were found to prefer access to and using SBHCs for medical care (30%), family planning (63%), and

counseling (31%) (Soleimanpour et al.,2010).

Similar findings by Santelli, Kouzis, and Newcomer (1996b) found that 89% of SBHC recipients rated care satisfactory to excellent and 79% believed that SBHCs provided appropriate levels of privacy. Reasons mentioned for not enrolling in wellness center services revolved around satisfaction with current levels of care, being healthy, forgetting to return consent forms, disliking the health center, or lack of knowledge about the health center while those that were enrolled tended to have more complex health issues, were Medicaid Recipients, had friends enrolled in SBHCs, received special education programming, or were African American (Santelli et al., 1996b). As with many satisfaction parameters, Santelli et al. (1996b) found that personal and peer positive perceptions of experiences and longer term affiliation with centers were the greatest factors shaping patterns of use of SBHCs.

Nystrom et al. (2004) surveyed SBHC clientele in an effort to ascertain students' levels of satisfaction with care. The findings demonstrated that youth using SBHCs were satisfied with care, perceived they missed less class time using the SBHC services, and heard and embraced prevention messages put forth by the SBHC staff. Over 74% rated their care as excellent and 45% felt that the SBHCs were instrumental in their making safer choices related to sexual activity. When asked what they would do for healthcare without the existence of SBHCs, 59% stated that they knew where to access healthcare but 71% believed they would not or could not procure healthcare services if the SBHC was not available (Nystrom et al., 2004). This study was replicated in 2012 by the Oregon Health Authority with similar results. Students were overwhelmingly positive about the value of SBHCs, their satisfaction with their services, and the impact of such services on their health behaviors (Oregon Health Authority, 2012). Students believed they missed little class related to the presence of a SBHC and 81% thought it unlikely

that they would receive health care if not for the SBHC in their school (Oregon Health Authority, 2012). Juszczak (2011) and Juszczak et al. (2003) purported that SBHCs were especially valuable for young males and those most reticent to seek out health care, by offering accessibility, privacy, male health educators, and male-friendly spaces. Funding often precluded hiring specific personnel with specialties in interfacing with males. Similar results were found in a study by the Connecticut Assembly on School-based Health Centers (2009), affirming student positivity toward these services.

Wolk and Kaplan (1993) assessed those teens who frequently used SBHCs, defined as 15 times or more through the school year, versus those who visited three or fewer times during the school year. The purpose of their research was to compare the characteristics of these populations. Those who more frequently visited the SBHCs were noted to be more likely to be female, have lower grade point averages, were more likely to seek out mental health services; demonstrated higher engagement in high risk behaviors, greater alcohol use, participation in sexual activity; and reported to have more stressed family and peer relationships than less frequent users (Wolk & Kaplan, 1993). In a similar study, Pastore et al. (1998) noted that 60% of a school population was registered in the SBHC. About 75% of the users averaged three or less visits per year, were female, most often seeking mental health counseling, and 15% sought out contraceptives or RHS at the SBHC. These studies underscored that SBHCs are often most valuable to those teens that most significantly need these services and are perceived by teens to be critical resources for health care.

Reproductive health services in schools

Pregnancy prevention experts agree that, in order to be effective, reproductive information and services need to be easily accessible to teens. Researchers have endeavored to

explore the provision of reproductive services, most commonly condoms, in schools. Some of these are accessed via school health classes, some in the school nurse's office, and others in the rest rooms or other public areas (such as from vending machines). As will be discussed, these services may be provided without counseling or guidance, raising the potential of inappropriate use or less effective prevention of conception or STIs. Dodds (2011) affirmed that provision of RHS in schools may be indicative of school investment in health services, health policies, school administrations' perceptions of the issues of teen pregnancy and teen births, and awareness of such services. These issues will be explored in the current study.

Several authors explored the provision of condoms whether it is in stores, schools, or in nurses' offices or SBHCs. In a study examining where teens access condoms, Klein et al. (2001) found that teens reporting the most frequent sexual activity, identifying with a minority background, and living in poverty accesses condoms at schools because of the low or no cost associated with these agencies (Klein et al., 2001). This may have clear implications for the need for RHS in SBHCs in order to meet the needs of high risk populations. Similarly, research by Brown et al. (1997), affirmed that, in order for condom distribution to be effective, teens must also have access to information. These authors proposed that SBHCs are the optimal location for distribution related to the interpersonal rapports and the focus on counseling inherent of the SBHC environment, whereas the vending machines that dispense condoms lacked this personal attention and informational component (Brown et al., 1997). Other experts agree that an important element of the provision of RHS in schools is the implementation of fact-based, medically accurate, and developmentally appropriate information with services to ensure effectiveness (Hill & Abraham, 2008; Lindberg & Maddow-Zimet, 2012; Schmiedle, 2004).

Hill and Abraham (2008) found that condom education in schools increased positive

attitudes toward protection, increased intention to use condoms, and increased use of condoms in high school age youth. Wretzel, Visintainer, and Koenigs (2011) found that condom availability in schools decreased gonorrhea and chlamydia infections in male students but did not have an appreciable impact on female rates. In another survey study of high school teens, Soleimanpour et al. (2008) found that 35% of their sample of teens was sexually active and 44% of the sexually active teens did not use protection, citing the most common reason for non-use as condoms not being regularly available. In yet another study, students believed that having condoms available in schools reinforced positive prevention messages, made condom use more normative, and that condoms were used more effectively than those obtained from stores and from peers (Brown et al., 1997).

Wolk and Rosenbaum (1995) assessed a high school based condom availability program and measured the impact of this program on condom use and frequency/initiation of sexual activity. Access to condoms at school was found to increase use among sexually active teens but did not increase the ratio of sexually active teens when compared to the state's norms. The authors concluded that the benefits to sexually active students (tripling those teens likely to practice safe sexual practices) greatly outweighed the risk of encouraging non-sexually active students to become sexually active (Wolk & Rosenbaum, 1995). In a large sample study in Los Angeles County, California, students were surveyed before and after implementation of a condom availability program (Schuster, Bell, Berry, & Kanouse, 1998). No significant change as noted in levels of sexual activity among youth but males reported increased use of condoms at first sex (from 37 to 50%) and ongoing sexual activity (from 65 to 80%). These statistically significant changes were not found in young women in the sample (Schuster et al., 1998). A similar study in New York City with randomly selected schools having condom availability

programs and matched schools without such programs noted that students from schools with programs reported increased use of condoms at last sexual activity and increased use among those youth with three or more partners in the last three months (Guttmacher et al., 1997). Blake et al's (2003) results of a Massachusetts study reflected similar findings in which schools with condom availability programs actually heralded fewer sexually active teens and teens were more likely to use condoms, but no difference was discovered in school pregnancy rates (Blake et al., 2003). A later study in Los Angeles noted that condom availability programs in urban high schools increased students' levels of awareness of the need for condoms and acquisition of condoms secondary to aggressive marketing and compliance improvement measures. The authors noted modest increases in condoms use and sexually responsible behaviors as a result of these initiatives (DeRosa et al., 2012).

Kirby (2002) noted that, at that time, about 300 schools had condom availability programs, largely related to lack of local SBHCs. Citing the findings of four studies, Kirby (2002) surmised that condom availability programs did not increase the level of sexual activity but demonstrated varying levels of success regarding condom use and reported pregnancies and STIs. An integral comparison may be made in that Europe and Canada have extensive condom availability programs in schools, yet the teen sexuality rates are similar to those in the US (Dodd, 1998). These studies substantiate the positive impact of condom and contraceptive programs in schools and help to dispel the idea that condom availability increases sexual activity in teens.

Reproductive health services (RHS) in SBHCs

RHS in SBHCs may be examined by exploring the rates of provision of RHS, teen perceptions of RHS, and the effectiveness of the provision of RHS in meeting outcomes. Many sources have affirmed the need for RHS in SBHC as noted in the National Assembly on

School-based Health Care Position Statement on Adolescent Healthcare (2008) but, in many states, the issue remains controversial and sensitive (Santelli & Kirby, 2010).

Forke et al. (2011) stated "Given the amount of time spent in school, SBHCs increase access to services and give adolescents the opportunity to receive reproductive health care and discuss pregnancy prevention options in a familiar context" (p. 3). Researchers confirmed that adolescents' accessibility to family planning services are vital to continue to decrease teen pregnancy rates and are especially critical for selected groups of teens, including those of minority backgrounds or those with special needs (Yang & Gaydos, 2010). Interestingly, similar discussions about SBHCs, RHS, and preventative health care are going on in the United Kingdom (Formby et al., 2010). These researchers reflected that governmental policies, school administrations, and lack of collaboration served as the greatest impediments to the provision of RHS in SBHCs (Formby et al., 2010). Despite endorsement by such groups as the American College of Obstetricians and Gynecologists, American Academy of Pediatrics, American Medical Association, Institute of Medicine, and National Association of School Nurses, the provision of RHS in SBHCs is highly controversial (Alford, 2005; Schmiedle, 2004).

In fact, the provision of RHS by SBHCs is the most debated element of their care and often sets the stage for opposition to SBHCs in general (Broussard, 2002; Daley, 2012; Kirby, 2002; Rienzo, Button, & Wald, 2000; Zeanah et al., 1996). Those who oppose RHS in schools contend that contraception encourages sexual promiscuity, promotes abortion, undermines parental authority, oversteps the role of schools in the private lives of children and families, invades privacy, puts forth political agendas, and opposes fundamental religious beliefs (Zeanah et al., 1996). In contrast, the Center for Schools, Health, and Education (2010) sponsored a national poll of registered votes about SBHCs and their linkages to health, learning, and

educational success. The survey sample overwhelmingly supported SBHCs (75%) and increasing federal tax dollars and monitoring state monies in order to enhance their services (NASBHC, 2010). A random digit dialing study of 2636 registered voters from nine regions in the United States discovered that 56% of the sample supported youth access to RHS and 52% agreed to their provision at SBHCs (Richardson & Wright, 2012). Despite this support, framing RHS by SBHCs as a political, ideological, and economic issue continues to fuel this debate (Wald, Button, & Rienzo, 2001; Williams, Litvak, & Moriarity, 2004).

The provision of reproductive health services at SBHCs varies largely based on services provided, local perceptions, and the perspectives of school administrators and board members. Teens often consider SBHCs the appropriate settings for condom and contraception distribution because of the innate characteristics of the health care model, including privacy, sound healthcare, and youth-oriented services (Brown et al., 1997). In a study of high school students, 79% of the group reported they would be more likely to use condoms if they were available in the SBHC (Soliemanpour et al., 2008). In another study, students cited that SBHCs were optimal locations for these services since many obtained routine and gynecological care at the centers and care was known to be safe, respectful, and confidential (Brown et al., 1997). This sample was four times more likely to want to obtain condoms at SBHCs than from publicly located vending machines due to privacy and embarrassment issues.

Some contend that schools and SBHCs are not appropriate sites for dispensing RHS, but that primary healthcare providers should be the source of contraception. Research demonstrates that only 60% of female teens reported having a primary care appointment in the last year and, of that number, only 40% reported being asked about sexual activity or contraception (Burstein et al., 2003; Ma, Wang, & Stafford, 2005). Another study found that one-third of teens did not

receive medical care for depression, RHS, or other healthcare to address their concerns about puberty due to lack of access or fear of parental notification (Berryman, 2012). Harrison and colleagues (2003) postulated that perhaps the greatest value of RHS provided by SBHCs rested in their ability to offer follow-up on RHS, providing ongoing monitoring, education, and encouragement related to contraception and so necessary in the teen years. These factors, and others, validate SBHCs as viable sites for RHS.

Several studies attempted to discern the number of SBHCs providing RHS, the range of services, and the effectiveness of these services. Peak and McKinney (1996) reported on a 1993 survey of SBHCs in which about 20% of all health services provided were reproductive in nature. Those centers that were greater than 10 years old and in urban or suburban regions provided the broadest range of services. About 33% of the centers provided one contraceptive method and 82% reported some restrictions on allowed reproductive services, with school district policies providing the greatest level of limitations (Peak et al., 1996). Proponents of SBHCs seeking RHS on site in Louisiana presented that many schools reported over 50% drop out rates, young women requested 10-12 pregnancy tests per school year, and the fact that one-half of all high school girls experienced a pregnancy during the high school years (Zeanah et al, 1996).

In a 1999 publication by Advocates for Youth, three case studies were shared about the services provided by SBHC and their impact on reproductive health (Fothergill, 1999). In Baltimore, Maryland, teens had decreased STI rates and young women using oral contraceptives and Depot-Provera were more adherent to medical regimens after implementation of the RHS at the SBHC. A SBHC in St. Paul, Minnesota noted increased follow-through with contraceptive regimens when moving from a prescription to a dispensing system, a decrease in the repeat teen

pregnancy rate, and increased male participation in outreach activities after the inception of RHS at the SBHC. Similarly, a SBHC in Oregon providing RHS found increased use of wellness center and preventive services when RHS were offered as an option, increased compliance with contraceptives and condoms, and reduced teen pregnancy rates (Fothergill, 1999).

Examination of the National Longitudinal Study of Adolescent Health revealed that about 13.3% of those teens receiving family planning services and 8.9% of those receiving sexually transmitted disease related services obtained such care at a SBHC (Crosby & Lawrence, 2000). Those most likely to utilize SBHC services included those in rural areas, those younger and without a driver's license, and those from minority backgrounds, indicating those perhaps most in need of SBHC services (Crosby & Lawrence, 2000). Fothergill and Feijoo (2000) surveyed 1000 SBHCs to ascertain provision of reproductive and sexual health services, finding that while most centers were able to provide at least one reproductive service, most were restricted from the provision of contraceptives related to school district policies. About 25% provided contraception, most providing condoms (23%), Depot Provera (16%), and prescriptions for birth control (27%) with only 15% having birth control pills on site. Only 8% provided emergency contraception and 4% fitted and provided diaphragms (Fothergill & Feijoo, 2000). Researchers, in conjunction with recommendations by the American College of Obstetricians and Gynecologists and the Centers for Disease Control and Prevention, explored the use of intrauterine devices by clients of SBHC. The authors suggest further research for both the provision of and referral for intrauterine devices at SBHCs (Kohn et al., 2012).

Kirby (2002) synthesized several studies endeavoring to determine the impact of RHS by SBHC. These studies, as those related to condom availability programs, documented no

increased prevalence of sexual activity and varying impacts on desired outcomes. Studies showed reports of increased use of contraception, higher reported individuals choosing abstinence, and, in some studies, minimal differences between control and experimental groups (Kirby, 2002).

Santelli et al. (2003) reported that much of contraceptive services provided by SBHC's were by referral, such that 82% of the sites surveyed provided some level of on-site counseling, screening, pregnancy testing, gynecological examinations, and STI/HIV services and clients were referred to outside agencies for contraception prescription or dispensing. Provision of birth control was more limited with 28% providing condoms , 24% oral contraceptives, 20% Depot provera, and 3% implanted hormonal contraceptives. More than 76% of the sites reported some limitations associated with contraceptive provision, with policies of school districts and school boards and state laws providing the greatest level of restrictions (Santelli et al., 2003). Rurally located schools and centers serving younger children were less likely to provide RHS (Santelli et al., 2003). Although some SBHCs did not provide contraception on-site, 69% provided on-site birth control counseling and 58% provided on-site contraceptive follow-up (Santelli et al., 2003).

The National Assembly on School-Based Health Care 2007-2008 Census indicated that, of the 1909 SBHCs in the United States, the following services were provided: 68% screening and treatment for STDs, 84% abstinence counseling, 64% HIV screening and counseling, and 81% pregnancy testing (Strozer, Juszczak, & Ammerman, 2010). In addition, 70% counseled about birth control and 59% provided follow-up for contraceptive users, although only 39% were able to dispense contraception at SBHCs related to school district, state, and local policies (National Assembly on School-Based Health Care, 2008; Strozer et al., 2010). Soleimanpour et al. (2010) found that students in California used SBHC for 30% of medical, 63% of family

planning, and 31% of their counseling services.

Although not currently planned as part of the RHS at SBHC in Delaware, a frequent component of RHS is the prescription, education about, and dispensing of emergency contraception (EC). Plan B, the most popular formula used now, includes two administrations of a progestin-only pill that, if taken within 72 to 120 hours of unprotected sexual activity, is 89% effective in preventing pregnancy (McCarthy et al., 2005). Plan B is available over-the-counter for adults, but requires a prescription for those less than 18 years of age. Therefore, teens and women who are poor, and can't afford the medication, often confront barriers in accessing EC (Whittaker, Armstrong, & Adams, 2008).

According to a survey of SBHCs conducted by McCarthy et al. (2005), 60% provide education about EC, 59% provided referral to receive EC at other sites, and 30% provided prescriptions for EC. In a similar study, Santelli et al. (2003) determined that about 15% of those centers surveyed prescribed EC as part of their RHS. It is believed that the number of those SBHCs providing information, referrals, and prescriptions for EC is increasing and the need continues to ensure this valuable option is available to teens (McCarthy et al., 2005). Sidebottom et al. (2008) examined the varied reasons for seeking EC at SBHCs. These included having sexual activity without protection, condom breakage or failure, irregular use of birth control pills or other hormonal method, questionable protection by a hormonal method, and worry about contraceptive effectiveness. McCarthy et al. (2005) noted that additional opportunities for EC may be precluded by young women's lack of knowledge about and awareness of where to access EC. SBHCs may provide such information and referral even if the provision of EC does not fall within the SBHC scope of services.

Research demonstrates that 80% of teens state they would use EC after education about

the method (Whittaker et al., 2008). Researchers noted that, although 40% of those provided with EC did not attend their two week follow-up appointment, about 68% went on to initiate hormonal birth control with the SBHCs providing a supportive environment for initiation and follow-up for contraception services (Sidebottom, Harrison, Amidon, & Finnegan, 2008). EC may provide an important entrée into RHS at SBHCs and safe sexual behavior.

McCarthy et al. (2005) noted that the provision of EC at SBHCs included addressing principles of teen pregnancy prevention such as opportunities to discuss contraception, increased awareness of EC, and access to EC in communities when SBHCs did not provide EC. Barriers to the use of EC included parental objections, confusion of EC as an abortifacient, school/ state/ healthcenter/sponsor policies, the belief it potentially enhances sexual risk taking, liability concerns, and lack of education about the method (McCarthy et al., 2005).

Accessibility of RHS at SBHCs is impacted also by teen's perceptions and use of such services. Coyne-Beasley et al. (2003) surveyed 949 sexually experienced teens to determine their likelihood to use SBHC provided RHS. Because North Carolina, at the time of publication, did not provide RHS, students were asked if they would seek out such services if available. Of the sample, 52% reported inconsistent contraceptive use and 18% of females reported a history of pregnancy. In addition, 58% stated they would use SBHCs for screening and treatment of STIs, 51% for pregnancy testing, and 48% for birth control (Coyne-Beasley et al., 2003). The authors concluded that access to RHS at local SBHCs would meet a critical need for an underserved and high-risk population of youth in North Carolina and lack of these services "represents a missed opportunity to provide healthcare to adolescents who are at substantial risk of pregnancy and sexually transmitted infections" (Coyne-Beasley et al., 2003, p. 196).

Several authors attempted to determine the effectiveness of SBWCs in achieving positive

reproductive health outcomes. Bearss, Santelli, and Papa (1995) found that SBHCs were successful in helping teens access and continue to use oral contraceptives, assisting teens to choose abstinence, and increasing students' reported condom use. Sidebottom, Birnbaum, & Nafstad (2003) studied the differences in a SBHC voucher system (where students were prescribed and given a voucher for contraception to be received at another site) versus a direct-provider system, wherein students were given the birth control method at the encounter. The authors noted that 99-100% of students received and reported use of the method when the contraceptives or condoms were given at the first encounter but only 25-50% of these products were received under the voucher system (Sidebottom et al., 2003). The authors concluded that providing an on-site delivery system reduces formidable barriers for teens and contended that schools were the optimal location to provide RHS by removing many of the barriers to initiating contraception and facilitating follow-up care. They noted a decrease in the time from initiation of sexual activity to the use of contraception, significantly decreasing the risk of pregnancy and STIs/HIV (Sidebottom et al., 2003).

A similar study by Zimmer-Gembeck, Doyle, and Daniels (2001) found that young women selected hormonal methods sooner and more consistently when contraceptives were available on-site at a SBHC rather than needing to pursue off-site contraceptive services. In another study, Mears et al. (2006) discovered that about one-half of the students receiving only prescriptions for medications from a SBHC did not fill the request one week after the writing of the script. Additional research by Smith, Novello, & Chacko (2011) found that schools that had a referral system for contraceptives had significantly higher pregnancy rates than schools providing on-site contraceptive prescription and dispensing services. Due to convenience, follow-up, and the provision of effective contraception both initial and repeat pregnancies were

prevented (Smith et al., 2011). The researchers noted that 100% of the clients seeking on-site contraceptive services received a hormonal method of birth control. In contrast, only 50% of those in the referral system actually kept their appointments and obtained a reliable method of birth control (Smith et al., 2011). The implications for this for contraceptive medication are apparent, warranting on-site dispensing of medications or, at the very least, ongoing follow-up related to prescribed medications.

Researchers correlated the reduction in Black teen fertility rates and the provision of RHS at SBHCs. The high rate of fertility among Black teens in Denver, Colorado declined more rapidly in areas with schools with SBHCs providing RHS when compared with schools that did not have wellness centers or provide such services. The study authors surmised that this statistically different decline in rates represented advances in healthcare via RHS at SBHC including "population-based health promotion and education; aggressive identification, intervention, and follow-up with students with high-risk behaviors; and proactive use of formal referral links" (Rickets & Guernsey, 2006, p. 1592).

Researchers noted that family planning services in SBHCs increased compliance with birth control in sexually active youth when compared with those not using SBHC (Soleimanpour et al., 2010). Joffe et al. (2008) found SBHCs highly effective sites for screening and treating asymptomatic male students with Chlamydia trachomatis. Similar findings were noted in chlamydia screening for females in SBHCs (Braun & Provost, 2010). Nsuami et al (2006) indicated that screening for chlamydia and gonorrhea infections, diseases which occur in high rates in DE and the US, is an important role of SBHC services and that these procedures should be expanded in order to impact these high rates.

Soleimanpour et al. (2010) found that teens perceived that other youth would seek out

family planning services at SBWC related to confidentiality, free services, convenience, and youth friendly services. These authors noted that teens using SBHC reported greater levels of care, more consistent care, and more satisfaction with their birth control methods than those received at other providers (Soleimanpour et al., 2010).

The most current study related to teen perceptions by Ethier et al. (2011) noted that, in California SBHCs, females were more likely to receive pregnancy and STD prevention services, to use contraception at last sexual encounter, and to have been screened for an STD than girls without such access. Females were also more likely to have used emergency contraception at last sexual encounter when SBHCs provided RHS. These positive impacts were not found to impact males' receipt or use of condoms or contraceptives (Ethier et al., 2011).

In a metasynthesis of research studies, Strunk (2008) noted positive impacts of SBHCs for pregnant and parenting teens, including RHS. Teens who have children usually continue their level of sexual activity after birth of their children, making SBHCs including of routine gynecological care and contraceptive services essential factors in preventing unintended repeat pregnancy. Studies demonstrated SBWCs as effective in reducing repeat pregnancy, increasing contraceptive use, and increasing satisfaction with contraception among young parents (Strunk, 2008). These successes, in turn, increased the likelihood for young mothers to complete their education which is a significant predictor for self-sustainability in the future (Strunk, 2008).

Although not based in a SBHC providing RHS, Sadler et al. (2006) proposed that negative pregnancy tests served as optimal times to provide contraceptive counseling and supplies. Delaware SBHCs have traditionally provided pregnancy tests as part of their services. The addition of contraceptives capitalizes on this critical and sensitive prevention in high risk young people. Franklin and Corcoran (2000) highlighted the associations between substance use

and sexual abuse to risky sexual health behaviors. Because SBHCs provide comprehensive services including counseling, it is anticipated that the addition of RHS would increase the ability of the centers to provide care related to sexual health risk, substance use, and prevention.

Health Policies Services Research Group study of stakeholder perceptions

Study design

Ongoing research will investigate stakeholder perceptions of RHS in SBHCs in Delaware. In order to provide a foundation for this research, an unpublished study is presented and compared and contrasted with several other studies conducted throughout the United States. The telephone survey, conducted by the Health Policy Services Research Group of the University of Delaware, was designed to determine the opinions of adult residents of Delaware about teen pregnancy, sexual activity, sexual education, and teen accessibility to contraception (Solano et al., 2007). The purpose of this research was to assess the beliefs most commonly held by Delaware adults such that these perceptions may inform local sexuality education and teen pregnancy prevention practices (Herrman et al., in review). A comprehensive analysis of the Solano et al. (2007) study is described here to provide a thorough review of the public opinion of Delaware adults related to sexuality and teens. It is recognized that not all the survey results are cogent to RHS in SBHCs, but may provide important insights and inform further investigation into public opinion about teens and the promotion of responsible sexual behavior.

The sample was drawn by a random number generator from a sampling frame of 229,881 Delaware households that had listed telephone numbers on landline telephones located throughout the entire state. Each randomly chosen, anonymous telephone number was attempted ten times before the potential respondent was dropped from the drawn sample. The ten attempts varied by day of the week and were made randomly throughout the day. If a call was unanswered

or an adult was not present, the household was called again until all ten attempts were exhausted. When called, individuals were informed of the purpose of the survey and asked if they were an adult. If a person age 17 years or less answered the phone, the interviewer asked to speak with an adult; if no adult was present, the interviewer concluded the call. If an adult in the household refused to be interviewed, the call was completed immediately and the household was not called again.

From the sampling frame 2,104 households were designated for interviews. Demographic data of survey respondents are found in Appendix 6. Of the 2,104 households, the final number of completed interviews was 352, produced a sampling error of 5.22%, just slightly above the 5% sampling error needed to achieve a 95% confidence interval. Therefore, the margin of error produced a very minimal difference in the inferences that may be made from the sample respondents. The 32 item questionnaire included various topics and issues about teenage pregnancy and prevention; sexual behavior of teenagers; parental communication about issues related to sex with their children; access to contraceptives, condoms, and associated information; and policies to reduce the risks associated with sexual behavior of teenagers. Historically, two competing ideologies dominate the sex education debate including groups supporting abstinence-only education (AOE) and those that support comprehensive or abstinence-plus sexual education (CSE). AOE focuses on teaching children and teens that abstinence from sexual activity until marriage is the only way to avoid STIs, HIV/AIDS, and unplanned pregnancy (Healthy Teen Network, 2007). CSE also stresses that abstinence from sexual activity is the surest way to prevent the transmission of STIs and HIV/AIDS and to avoid unplanned pregnancy. However, CSE focuses heavily on the availability of education about and access to contraceptives in order to prepare youth for exposure to sexual situations (Health Teen Network, 2007).

Results

When survey respondents were asked to rate the importance of six issues that prevailed in Delaware, 82% ranked reducing the teenage pregnancy rate as a serious concern. When compared to other issues, the reduction of the teenage pregnancy rate ranked far higher in priority than building new roads, slightly higher than unemployment, and slightly lower than the importance of reducing crime, improving education, and reducing cancer. When respondents were asked if they believed that teens today were at more risk, the same risk, or less risk of getting pregnant than youth were 10 years ago, 61% were of the opinion that female teenagers were at greater risk, 16% of the adult population thought the risk of teen pregnancy has declined, and 23% believed the risk was the same as it was 10 years ago.

Over half (54%) of all adult Delawareans, both those with and without children, believed that parents of school aged children were not providing sufficient information to their children surrounding issues involving sex. When respondents were asked if most parents talked about issues related to sex when their child is too young, too old, or about the right age, 70% stated "too old." When respondents were asked what they thought was the right age to talk to children about sex, 50% of adults believed that parents' discussion should begin at ten years of age or less, while 50% believed the discussion should start at eleven years or older, with responses ranging from two to sixteen years. Among those adult respondents who had children, 79% stated that they talked to their children about matters involving sex. Less than half (46%) of respondents stated that their parents had discussed sex with them. When respondents indicated that their parents had not discussed sex with them, they were asked to cite any reasons they thought their parents didn't talk to them about sex. Of those, 49% responded that their parents were embarrassed, 25% stated that religious or moral values stopped the discussions, 23%

thought that their parents perceived they were already knowledgeable about sexual issues, and 45% believed that their grandparents never discussed sex with their own parents during childhood.

Respondents were asked whether they supported teenagers' access to condoms; support was indicated by answering either "definitely yes" or "probably yes." More than 82% of respondents supported teenagers having access to condoms, while 15% respondents "definitely no" or "probably no" indicating that they opposed teenagers having access to condoms with only 3% of the sample indicating neutrality on this issue. More than 73% reported that teens should have access to other contraceptives, while 22% reported that teens should not have such access and only 5% indicating indecision in this matter. Approximately 76% of this sample expressed that teens should have access to services at health professional offices where education is provided along with condoms. When the sample was asked where teenagers should be able to get contraceptives, 12% responded at the school nurse's office and 19% stated school wellness center. When asked if teaching abstinence would reduce teenage pregnancies, 50% of Delawarean adults did not believe that teaching abstinence was an effective prevention measure. This question did not allow for separation of those who supported either abstinence-only versus abstinence-based education. It is not known if the participants were skeptical about abstinence alone as a message or if they preferred one ideology over the other (Herrman & Baker, 2008). Those who did not believe abstinence would lower teen pregnancy rates were more likely to be supportive of access to birth control for teens (Herrman & Baker, 2008).

In questions addressing sexuality education for teens, 52% of respondents felt that public schools should be more involved as they are now and 22% felt that public schools were appropriately involved in sexual education. About 65% of respondents reported that the State

does not spend enough money on sex education for teens and 86% of respondents answered that the State should provide increased support for educating teens on contraceptives and their use.

Although not unanimous among survey respondents, the majority of Delawareans surveyed agreed that to prevent teenage pregnancy adolescents should have access to information regarding sex and access to contraception and condoms. Furthermore, Delawareans were in favor of providing more resources to public schools and agencies to help reduce teenage pregnancy within the State (Herrman & Baker, 2008).

Comparison of additional research of adult perceptions

Surveys from other states and nationally examined the American public's views on sexuality education, access to contraception, and teenage pregnancy prevention. The following research studies provided for the comparative analysis of such surveys:

- A random telephone survey of 534 South Carolina residents, conducted by the University of South Carolina Survey Research Laboratory in 1998, determined the public support for sex education in South Carolina's public schools, support for specific sex education topics, and at what grade level those topics should be introduced (Lindley et al., 1998). A follow-up study by Lindley, Reininger, and Saunders (2001) surveyed registered voters in South Carolina on their views of RHS in SBHC.
- A computer-assisted anonymous telephone survey, held in October 2003, of 1306 parents of children in North Carolina public schools assessed support of sexuality education and their thoughts on 20 specific topics as far as their inclusion in sexuality curricula including access to and demonstration of condoms (Ito et al., 2006).
- A random survey of 517 Indiana residents, conducted by the Indiana University Center for Survey Research from July 2003 to October 2003, assessed public opinion about education

on condom use, condom availability in Indiana public high schools, and other issues related to condom promotion, use, and effectiveness (Yarber, Millhouse, Crosby, & Terabit, 2005).

- A telephone survey of 1,605 Minnesota parents carried out by the University of Minnesota in 2006 and 2007 assessed parents' beliefs about sex education, curriculum topics, the grade levels at which such topics should be taught, and general attitudes toward sex education (Eisenberg, Bernat, Bearinger, & Resnick, 2008). A subsequent analysis determined parental attitudes toward the provision of condoms and education in schools (Eisenberg, Bernat, Bearinger, & Resnick, 2009).
- A survey of 2,504 adult residents throughout the state of California measured thoughts on population growth, perceptions on the extent to which unplanned teen pregnancies were considered a problem, access to birth control, the importance of sex education, and the public's knowledge of and attitude toward adolescent access to birth control and contraceptives (Baldassare, 2005).
- In 2006, another study assessed 1284 California residents for their thoughts on sex education, attitudes toward the prevention of unplanned teen pregnancy, and the importance of selected topics for inclusion in sexuality education and appropriate grade levels for such subject matter (Constantine, Jerman, & Huang, 2007a).
- The Annenberg National Health Communication Survey of 1,096 adults ages 18 to 83 randomly selected from around the nation. The survey's goal was to assess support for abstinence only education, comprehensive sexuality education, and condom instruction in schools (Bleakley, Hennessy, & Fishbein, 2006).

- Zeanah et al. (1996) reported focus group findings of community responses to the provision of RHS at three SBHCs in Louisiana. Focus group members included students, teachers, parents, staff, school administrations, and community members.
- Finally, the National Campaign to Prevent Teen and Untended Pregnancy conducted several telephone surveys via an independent research company of adults and young people to discover their opinions on teen pregnancy and related issues (Albert, 2003; 2007; 2012).

Synthesizing research findings

Recognizing teen pregnancy as a problem

Many public health practitioners and researchers recognize teenage pregnancy in the United States as a social issue in need of attention. Much like the views of Delaware's respondents, 74% of California survey respondents felt that unplanned teen pregnancies are either a big problem (41%) or somewhat of a problem (33%) in their region (Baldassare, 2005). Focus group members concurred that it was a significant problem warranting attention (Zeanah et al., 1996).

Abstinence-only sex education versus comprehensive sex education

Most of the Minnesota respondents (89%) displayed a clear preference of CSE, as opposed to AOE (Eisenberg et al., 2008). Among California residents, 89% supported CSE in schools, while only 11% supported AOE in schools. (Constantine et al., 2007a). According to Ito et al. (2006), 89% of their sample supported CSE and 91% thought that sexuality education should occur in schools. In North Carolina, 89% supported CSE (Ito et al., 2006), similar to the 81% supporting CSE in South Carolina (Lindley et al., 1998). The national sample echoed that 82% supported CSE (Bleakley et al., 2006). Although Delaware residents were not specifically

asked about educational preferences, their support of access to condoms and sexuality information implies favorable attitudes toward CSE (Herrman & Baker, 2008).

Stated another way, some surveys explored whether or not to include information about contraceptives or condoms in sex education in schools. A majority of adults (93%) and teens (90%) expressed that teens should hear a message including abstinence until they graduate high school with 73% of adults and 56% of teens stating that this should also include information about contraception (Albert, 2007). A majority (78%) of the sample from South Carolina supported the discussion of contraception (Lindley et al, 1998). A majority (86%) of Minnesota survey respondents felt that schools should educate and inform teenagers about condoms (Eisenberg et al., 2009). More than 83% of Indiana survey respondents expressed that all teenagers need information about correct condom use and 69% agreed that providing condoms does not promote sexual activity among teens (Yarber et al., 2005). About 71% of Indiana survey respondents strongly or somewhat agreed that sex education instruction should include condoms with 77.2% of these respondents strongly or somewhat agreeing that schools should educate about condoms to prevent HIV/AIDS (Yarber et al., 2005). In California, 78% of parents expressed that schools should teach about abstinence, condoms, and contraceptives (Baldassare, 2005) and a later study found 96% of California adults supported these practices (Constantine et al., 2007a). Nationally, 50.7% of respondents strongly opposed or somewhat opposed AOE programs (Bleakley et al., 2006). Of national respondents, 82.1% strongly or somewhat supported teaching other methods of preventing pregnancy and sexually transmitted diseases in addition to teaching about abstinence. In this sample, 68.3% of respondents strongly or somewhat strongly supported instruction on how to use condoms properly (Bleakley et al., 2006).

Importance and effectiveness of sex education

The American public's views on whether or not sex education should be in schools are critical primarily because parents' beliefs should inform educational practices. Among those surveyed in California, 75% of all respondents and 82% those who were parents with public school children said that it is very important for sex education to be part of the curriculum (Baldassare, 2005).

Delaware adults indicated that sexuality education should include such topics as the dangers of STIs, means to enhance abilities personal communication, parental responsibilities and child support, use and means to access contraceptives, consequences of teen pregnancy, relationship skills, and the benefits of delaying sexual activity until school completion or marriage (Herrman & Baker, 2008). These were very similar to those noted by residents of California, also indicating that positive attitudes about sexuality should be discussed (Baldassare, 2005). When Minnesota parents were asked about the content of sexuality education classes, respondents indicated the following: 89.3% both abstinence and other strategies for pregnancy prevention, 98.6% reproductive anatomy, 95.9% parenting responsibilities, 67% sexual orientation, 63% abortion, 91.3% pregnancy prevention, and 94.6% sexually transmitted diseases/infections (Eisenberg et al., 2008). Even more controversial topics, such as sexual orientation (67%) and abortion (63%) received majority support for inclusion in sexual education curricula at age-appropriate levels (Eisenberg et al., 2008). Of those in North Carolina surveys, 91% believed that sex should be taught in the public schools and less than 25% of their sample identified topics that should not be addressed in CSE, the three most common topics recommended by this sample as not to be included were oral sex, anal sex, and sexual orientation

(Ito et al., 2006). Lindley et al. (1998) also found that homosexuality was the only topic not endorsed by more than one-half of their sample.

According to these studies, most of those surveyed felt that sex education was effective in preventing teen pregnancy and encouraging teens to use contraception. Of the Minnesota parents 72.1% believed that CSE classes were somewhat effective in getting students to use contraception if they did have sex, 69.8% somewhat effective in preventing HIV/AIDS, 73.1% somewhat effective at preventing pregnancy, and 57.7% somewhat effective at getting students to wait until they were older to have sex (Eisenberg et al., 2008). Among those surveyed in California, 62% of residents believed that sex education was very or somewhat effective in helping teenagers avoid pregnancy (Constantine et al., 2007a). In another study, California public school parents rated education services slightly higher, with 69% responding that sex education was very or somewhat effective at helping teenagers avoid pregnancy and 71% stated it was effective in helping teens avoid STIs (Baldassare, 2005).

In Minnesota, parents who believed in school-based sexuality education thought instruction should begin during 6th through 8th grade, though information about puberty, anatomy, and healthy relationships may be initiated in grade school (Eisenberg et al., 2008). Similarly, in South Carolina, 10% of respondents indicated that sexuality education should occur at every grade level with the strongest support for the middle school years. About 59% believed that it should occur in the sixth through eighth grades, and 23% in the ninth through twelfth grades (Lindley et al., 1998). In California, 68% of adults (and 72% of public school parents) believed that sex education should be required at both the middle school and high school levels (Baldassare, 2005). In North Carolina, 38% of residents thought sexuality education should begin in elementary school, 55% in middle school, and 7% in high school (Ito et al., 2006). The

results from these surveys are similar to the ages expressed by those Delaware adults surveyed with education about relationships at all ages and comprehensive coverage of topics concerning sexuality in the middle school years.

Access to birth control and condoms

Whether or not teens should have access to birth control and condoms in any setting-whether it be a health clinic, school nurses' office, pharmacy, or other sites, is a highly debated issue and most relevant to the current investigation. Some propose that increased access to contraception will lead to increased sexual activity among teenagers, while others disagree. According to the Delaware study, the public viewed access to contraception was important for reducing teenage pregnancies and that contraception should be made available to adolescents. The data reflected that 82% supported access to condoms and 73% to oral contraceptives dependent upon age and, to a lesser extent, parental consent (Herrman & Baker, 2008). Findings from the California survey revealed that 71% of respondents agreed that access to birth control methods or contraceptives was very important for reducing the number of unplanned teen pregnancies in their region and 73% supported government funding for birth control for teens (Baldassare, 2005). Additionally, almost half of respondents of the Indiana survey strongly or somewhat agreed that condoms should be available without parental permission (48%) and without cost (46%) (Yarber et al., 2005). Similarly, a majority of Minnesota parents were in favor of information about condoms in schools (86%) and 77% thought that condoms should be demonstrated in the classrooms (Eisenberg et al., 2009).

The South Carolina study revealed that their sample supported the following RHS in SBHC with the percentages following each: abstinence counseling (71%), contraceptive counseling (66%), education about contraception (62%), referral to community organizations for

contraception (49%), diagnosis of STIs/HIV (45%), treatment of STIs/HIV (32%), pregnancy testing (23%), provision of prescriptions for birth control (20%), and dispensing birth control (17%). Most supported providing the first four services above at the middle school years, with the final ones in the high school time period. The authors explored these findings in that 29% of males and 10% of the females at the time reported having sex prior to the age of 13 years and 36% of males and 20% of females reported more than four sexual partners (Lindley et al., 2001).

In contrast, in an earlier study in Louisiana, though focus group members voiced concerns over teen pregnancy and its impact on graduation and individual lives, there was little consensus that the provision of RHS by SBHCs was the solution to this issue (Zeanah et al., 1996). The researchers reinforced that, in order to garner support for SBHCs, their link to school completion must be the primary message for the community (Zeanah et al., 1996).

According to Albert (2012), 49% of teens and 74% of adults supported condoms and contraceptives to be readily available to teens. Almost 55% of those adults surveyed believed that those who oppose abortion should support a prevention platform that includes contraception information and access (Albert, 2012). These beliefs remained relatively constant in surveys conducted over the last decade (Albert, 2003; 2007; 2012). As with the Delaware study, large majorities of those surveyed supported the provision of information about all methods of birth control in addition to the provision of supplies to ensure effective and appropriate contraception.

Summary of the review of the literature

This review of the literature provided evidence related to teen perceptions of birth and parenting; use, access to, and effectiveness of contraception; SBHCs; and RHS in schools and SBHCs. It also addressed public opinion, as key stakeholders, in the provision of information and contraception to teens. Though some current studies were found, a majority of the research

originated in the 1990's. This may be related to decreases in public interest in this issue, the sentiment that the research is already conclusive about the impact of RHS provided by SBHCs, or may reflect the political, moral, and ideological controversy and vacillation of attitudes and attention to adolescent sexuality. The dearth of research about SBHC, RHS in SBHC, and teens' perceptions of these services highlights an important gap in the literature. It is hoped that the analysis of RHS in SBHCs in Delaware provides a current and future perspective and reignites energies in the analysis of RHS provision by SBHCs.

Several studies purport that parents, health professionals, teachers, and teens should decide on adolescent access to contraception, rather than others who may be encumbered by personal views without appreciating the realities of today or evidence-based practices. This premise warrants that each school should carefully consider the current research and the views of the adult public in order to provide the most comprehensive, medically accurate, developmentally appropriate, and publicly supported reproductive services. Ito et al. (2006) found that 90% of respondents felt parents and public health professionals should determine access to contraceptives, with 93% opposing political involvement in the issue. Yarber et al. (2005) found that 71% of their sample believed parents should make contraceptive access decisions and 48% believed teens should be involved in the decision-making processes. Whitaker, Miller, May, and Levi (1999) found powerful links between open and skilled parental communication about condom use, negotiation skills, and communication with partners and the actual use of condoms in sexual activity. Lagus et al. (2011) noted that parents were a critical factor in the provision of safe and effective RHS for teens, but parents were often ill-equipped to provide such education. Additional research indicated that parents often felt embarrassed or lacking knowledge in providing information related to sexual activity and access to contraception

(Constantine, Jerman, & Huang, 2007b) and that parents held, and passed on, inaccurate information on sexuality, contraception, and reproduction (Eisenberg et al., 2004). A retrospective study noted that fewer girls reported talking to their parents about birth control and sexually transmitted diseases in 2010 as compared to 1995, though the rates of conversations between boys and their parents remained stable (Robert & Sonenstein, 2010). As noted in a focus group study, teens themselves question restrictions on access to contraception, one young man remarking "telling kids not to have sex doesn't work and makes them go and do it to be bad…people tell us every day not to do stuff and we do it, this needs to be different" (Herrman, 2008). These findings substantiate the need for RHS in SBHC.

Locally, a recent opinion editorial (op-ed) by Wright (2012) highlighted the need for RHS at SBHC. The author reinforced the opportunity nursing practitioners with prescriptive privileges hold in providing birth control and condoms in SBHC and impacting teen safe sexual behavior. Alluding to recent trends, such as patient care issues, high STD rates, the high rate of abortions, and reported lack of contraception use among sexually active youth, the author believed SBHC providing RHS were important vehicles for prevention. According to Wright (2012), referral to outside clinics for contraception services were often unfulfilled related to embarrassment, complex school schedules, and lack of transportation.

What is evident from a review of this research and most useful in the current study is the consensus surrounding the provision of condoms and contraception at developmentally appropriate times and the benefit of such services at SBHCs where information is provided with RHS. Much of the current controversy related to RHS in SBHCs is rooted in how individuals, including parents, school personnel, teens, and others view adolescent sexual activity. On one hand, sex may be perceived as a reproductive act reserved for the sanctity of marriage. On the

other, it is a pleasurable act characterized by caring, responsibility, varying levels of commitment, and informed by developmental and societal norms (Luker, 2006). How America chooses to recommend, mandate, and legislate this issue may be best informed by recognizing the pluralistic perspectives involved in sexual activity among teens. Although the teen pregnancy rate in the United States has declined over the past two decades, there is room for continued progress. As noted by Daley (2012), "The current restrictions placed on the services available to teens in SBHCs have not proven to change adolescents' decision-making about engaging in sexual activity, but create insurmountable hurdles, encourage secrecy, stifle communication, limit shared decision making between clinicians and patients, and facilitate unprotected sexual activity (p. E45)." Given the effectiveness of RHS as determined by multiple evaluation studies, as well as the widespread support for these types of programs among the American public, school policies should be compatible with both what the American public believes and what is effective in reducing the teenage pregnancy rate.

Part Two.

Results of the study

Background

Twenty-eight School-based Health Centers (SBHCs) currently function in high schools in Delaware providing sports physical examinations, nutrition and mental health counseling, and primary care screening and treatment. High rates of teen sexuality, pregnancies, births, and sexually transmitted infections have prompted SBHCs to consider providing reproductive health services (RHS). RHS may include pregnancy testing, education about and prescription for oral contraceptives, education about and distribution of condoms, testing and treatment of sexually transmitted infections (STIs), and testing and referral for HIV treatment. Some centers provide pregnancy tests, testing and treatment for STIs, or none of these services. At this time, 14 school boards and school administrations have agreed to provide RHS including the provision of condoms and oral contraceptives and adopted consent forms to begin services. Provision of emergency contraceptives is, at this time, not part of RHS. One school provided HIV testing and referral in the past but these practices were halted in order to develop a standard procedure for addressing HIV assessments in the schools.

The SBHCs in the twenty-eight schools have varying levels of enrollment in their schools, ranging from 40-80% of the student body. Re-registration processes and changes in the consent forms has posed some difficulty in accessing the maximum number of students achievable in each school. SBHC staff are actively engaged in recruitment efforts and staff appear optimistic about achieving previous numbers of enrolled students.

Funding for the supplies for RHS in the SBHCs is provided by Title X. Title X is a national family planning program as part of the Public Health Service Act. These funds are

designed to support direct client services, family planning centers in vulnerable communities, and supporting infrastructure needs. It is estimated the Title X funds prevent more than 1500 unintended pregnancies among teens in Delaware annually (Guttmacher, 2011). Further analysis conjectured that the teen pregnancy in Delaware would be 69% higher if Title X funds were not available (Guttmacher, 2011). Questions on the survey asked participants about this funding and the economic aspects of the provision of RHS in SBHCs.

Teens are already using SBHCs and feel satisfied with their quality of care. Offering RHS at a site that is proven to reach the sexually vulnerable population of adolescents instills great hope in lower teen pregnancy and STI statistics for Delaware. Support for the issue includes that teens are reluctant to pursue healthcare for many reasons, including cost and transportation, but would utilize services if they were more accessible. In addition, services would be present to further their ongoing education about reproductive health and encourage follow-up care. Much of the current controversy related to RHS in SBHCs is rooted in how individuals, including parents, school personnel and teens, view adolescent sexual activity and the effects of RHS on sexual activity. The literature demonstrates that teens and adults support the placement of RHS in the SBHCs that they already utilize for routine care. The perceptions of adults in Delaware are unclear and are the subject of this research.

Purpose Statement

The focus of this study is to evaluate the perceptions of adult key informants and stakeholders regarding the provision of reproductive health services (RHS) by School-based Health Centers (SBHCs).

Methods

Design

This qualitative study included individual, semi-structured interviews seeking out key stakeholder thoughts on the provision of RHS at SBHCs.

Procedure

Following IRB approval, individual key informant interviews were initiated throughout Delaware. All interviews were conducted by the Principal Investigator using the interview guide. The original proposal used audiotaping capability to record each interview. It was decided to increase the number of people consenting to the interviews and the comfort of those during the session and not audiotape the interviews. These sentences were stricken from the consent and information forms. The interviews ranged from 25 to 70 minutes in length with most interviews lasting 45 minutes. Interviews were conducted from September 7 to November 5, 2012. The interview worksheet is found in Appendix 7. During each interview the PI took detailed notes reflecting participant answers to each question. After the interview, the PI filled in notes to include full clauses and to augment data with additional details. If a client made a quote that would be important component of the data, the PI wrote the statement verbatim. These handwritten notes were typed and collated by nursing students at the University of Delaware. These data were proofed by the PI and organized for readability, yielding 63 pages of transcripts. No identities were linked with individual data items. These pages were read several times in preparation for data analysis and ascription of themes.

Sample

The purposive sample of participants was accessed via researcher identification and snowball technique wherein current participants suggested future sample members. Seventy-two

potential candidates for interview were contacted via email for participation in the study. These potential interview subjects received a brief introduction to the study and an invitation to participate along with the information letter, the consent form, and the interview guide as email attachments. Participants were asked to respond to the email. A total of 50 stakeholders consented to participate and were interviewed. Interview subjects included public health clinicians and administrators, school-based health center staff, experts in reproductive health, advocates, community members, vendor administrators, physicians, school administrators, teachers, school resource officers, school board members, and parents. Geographically, 24 of the sample members were from New Castle County, 8 from Kent County, 13 represented Sussex County, and 5 represented statewide agencies. The final worksheet of interviews is found in Appendix 6.

Setting

Eight interviews were done via telephone, mostly related to scheduling difficulties, and 42 interviews were conducted in-person. In-person interviews were conducted in private locations deemed convenient by participants.

Interview guide

This questionnaire asked participants to consider their thoughts about teens' accessibility and use of reproductive health services, the provision of reproductive health services in school-based health centers, and policy implications. The interview guide is found in Appendix 2.

Data analysis

The data was analyzed using classical qualitative methods including template analysis and examination of recurring, iterative, and emerging themes. The information was grouped into data chunks under each Interview Guide question such that each concept may be reviewed with

all fifty participants' answers as a unit. The typewritten transcripts were reviewed by the PI to clarify words that were difficult to read, the ensure matching of the handwritten notes with the transcripts, and to maintain fidelity to the answers of each participant. The results were re-examined and ten themes were identified. These themes transcended questions, such that the themes represented different dimensions than the questions. The themes were associated with exemplar quotes and then the data were analyzed for evidence of each theme. These dimensions are described in the next section as they explore the perceptions underlying each theme.

Results

Thorough analysis of the data yielded the following ten themes:

1. **Teens** ***in Delaware are highly sexually active, secondary to myriad influences, and access to RHS does not increase the rate of sexual activity.***
2. ***Education of all stakeholders, most importantly teens and parents, is a critical element of effective contraception and prevention of teen pregnancy.***
3. ***Parents have a critical role in healthy sexual behavior and educating their children; other resources are vital for families when parents' capacities are limited.***
4. ***Teens see sexuality and RHS as a routine part of their healthcare.***
5. ***Access to RHS is limited for teens, with transportation serving as the greatest obstacle to teens' accessing RHS.***
6. ***Access is not the only reason sexually active teens do not use contraception, but it is an important reason.***
7. ***SBHCs, in addition to other settings, are logical, accessible, and appropriate sites to provide RHS that teens perceive as confidential and teen-friendly.***

8. ***Key decision makers, including school board members and others, about RHS in SBHC may or may not represent the perspectives of other stakeholders, including parents, school administrators, healthcare providers, advocates, and teens.***
9. ***RHS provided by SBHC at this time are perceived as effective at reducing rates of teen pregnancy, STI's, HIV, and economic costs and these services have encountered very few issues in implementation.***
10. ***The addition of RHS to SBHCs is one of the many changes impacting perceptions about SBHC at this time.***

The following section provides the themes, exemplar quotes, and an analysis of these themes within the context of the perspectives revealed in the research findings.

Theme 1: Teens in Delaware are highly sexually active, secondary to myriad influences, and access to RHS does not increase the rate of sexual activity.

- *"Rates are high among some populations - teens should have access, they are having sex and should do it responsibly"*
- *"Teens do not have sex more because of protection. Access to RHS will decrease teen pregnancy and teen birth rates. It's part of good health, will have a positive impact on graduation, and reduce teen childbearing costs to community and individual."*

Most of the participants did not believe that access to RHS increased risk of sexual activity and embraced the belief that teens are sexual beings and that that, developmentally, teens will participate and experiment with sexual activity. In fact, one participant shared that access to RHS *"doesn't increase sexual activity-the evidence doesn't support that—evidence show access has a large impact on teen pregnancy, teen birth, STI, and HIV rates."* Another presented the

following analogy: "*access to RHS doesn't increase teen sexual activity or STIs any more than drivers education increases the number of car crashes...it is more multidimensional than that…need to have a broader view of sexuality, need to get teens to have a safe way to engage in sexual activity."*

Participants noted that "*teen sex is perfectly normal," "Obviously teen sexuality is a given. Teens have hormones*," *"they're going to do it regardless," "Kids will have sex, no matter what," "teens are experimenting and would do it anyway,"* and "*teens are definitely doing it, adults think or pretend that they aren't."* One participant shared "*teens are going to have sex, if they don't have the resources and information, the teen pregnancy and teen birth rates will increase."* Another added, "*A pocket full of students stay abstinent, planning for the future, but by senior year most are sexually active."* This goal orientation was discussed as a means of teen pregnancy prevention, wherein RHS would *"have no impact on sexual activity. RHS will have an impact on teens who had a concern, if they do get pregnant, it is a true oops!"*

Other participants discussed the potential intentional nature of teen pregnancy and the lessor impact RHS will have on those desired pregnancies. According to one participant, "*In our area, many intended pregnancies happen."* As will be discussed under theme six, there are a variety of reasons teens may desire pregnancy, indicating the importance of prevention interventions in addition to access to RHS.

Despite this consensus about the inevitability of teen sexual activity, there was also collective alarm at the young age of sexual activity, the rate of youth sexual activity, and concern over the potential consequences associated with such behavior. Participants expressed deep concern over the sexualization of society and the powerful influences upon teens. They stated, *"Our culture allows people to grow up too soon…media, television, even books...wrong role*

models to emulate…society glamorizes sex without responsibilities," "sex has become too casual," "sex is all around…on billboards, television, internet," "the media is hypersexual and people dress provocatively—adults are not in tune," and "*media has a huge impact."* They discussed the need for teens to learn about loving relationships along with sexual information related to prevention and personal sexual responsibility. One sample member noted "*teen pregnancies are symptoms of problems in society—troubled families, limited support, one-parent families."* A participant expressed concern over *"earlier sexual activity….teens are sexually active – the older the more sexually active."* Another discussed the lack of diversional activities available, stating, "*Sussex country rates are higher, Milford higher…there's less to do and more sex to be had."*

Some participants had a more hopeful approach to the viewing addition of RHS to SBHC. This person stated RHS *"could decrease sexual activity rates if they have access to RHS-if they are diagnosed with sexually transmitted, may change sexual behavior."* Others shared *"Possibly, access to supplies and counseling will increase the number of teens who choose abstinence"* and "*will not increase the rate of sexual activity, in fact, if education happens with RHS, will actually make rates go down."*

Also causing alarm were the negative consequences associated with unsafe sexual practices. One participate stated *"pregnancy rates are going down about sexually transmitted infections have a way to go."* Another member stated that teens *"seem very reluctant to use birth control, STI rates higher, not sure why they do not use birth control."* In fact, several participants worried about the lack of concern teens had over STI's and HIV, only addressing prevention of pregnancy in their safety behaviors. A sample member stated "*they are on the pill, that doesn't protect them completely."*

A small percentage of the sample expressed concern over teen sexuality and that access to information or RHS may increase sexual activity rates. They reinforced the need to address abstinence as the only option for sexual education and they did not support RHS in the SBHCs. One participant noted *"some are less likely to be sexually active. They need more counseling and education. Need information on relationships. Need to deal with the pain in society related to sexual abuse, bullying, etc. They need to learn to live slower-the internet and fast food means people live faster."* Others added to this sentiment, "*I don't believe in RHS in the SBHC," "abstinence is key," "I don't believe people don't want to wear condoms…I think they will have more sex if they are available, having contraception makes girls feel pressured,"* and *"yes, it increases sexual activity, I think it is wrong. If they can't get birth control, they won't have sex."* Although this represented a small percentage of the sample, this sentiment has played a large role in preventing RHS in some SBHCs and may continue to serve as an obstacle to further expansion of RHS in other schools.

Theme 2: Education of all stakeholders, most importantly teens and parents, is a critical element of effective contraception and prevention of teen pregnancy.

- *"We need more sex education in the schools and the community, parent education, and access to sexual health care—SBHCs could easily reduce birth rates if these three were in place."*
- *"Cultural challenge [related to]socioeconomic status – teens in poverty lack resources and information to make best decisions, abstinence is not practiced"*

The group broadly agreed in the role education plays in promoting safe sexual behavior and positive sexual experiences. There was agreement on the need for teens to receive appropriate education and, in fact, this appeared to be one of the greatest assets of RHS in the

SBHCs. The focus on individualized and ongoing education for each client receiving RHS, along with ongoing follow-up and accessibility for answers to questions as they arise, were seen as positive attributes of the SBHC environment. As one participant commented *"I do believe with continued education and information during their high school career this could change and teenagers will become more likely to protect themselves and their partners during sex."*

Education of teens was addressed as a large need, including reinforcing teens to have goals for the future, value relationships in their lives, the importance of ongoing education, and how to stay safe. Participants added "*I truly feel that one of the best ways to begin to change our statistics of teenagers having irresponsible sex is education first. The more consistent information that they have exposure to…the more likely they will be to make an informed decision…education is my passion. Education about prevention is critical," "education will keep them safe and in the classroom…more likely to graduate," "Education is the key difference…they may abstain," "some information they get out there is not true or appropriate,"* and *"The information they have is limited and doesn't always come from the most reliable sources."* Several participants identified the need to focus on relationships in order to promote responsible sexual behavior. They stated that teens "*need to understand relationships-they don't need to give in to sex, they need intimacy and closeness—too often sex takes the place of building friendships and healthy relationships…information is a deterrent" "don't value the relationship," "education—you need to begin in kindergarten about relationships…need to continue on until adulthood,"* and *"need to teach respect for women and more involvement of fathers in education."* Another participant focused on the unique needs of teens by adding "*It needs to be offered more than a onetime shot…teenagers need to have information given over and over in different ways in order for it to work…education needs to be relevant to them and*

their issues…kids need reasons, not because I said so…give them a good reason and they'll make good choices…if they don't know the reason, they won't make good choices."

Parental education was also reinforced. Several participants commented on the lack of parental knowledge about teen sexual behavior, as in *"parents are in denial"* and *"parents are unaware that Delaware has such high rates—if they did they would change it…we would have serious, unobstructed access."* Parents were appreciated as a very powerful influence in their children's lives and, therefore, needed to have factual, medically-sound information on board when teaching their teens. Participants stated *"Mothers are passing on old myths about the side effects of the pill"* and *"Parents are of the belief 'I told you to come to come to me' and the kids do not go to them."* Others added *"parents need information to educate their children"* and "*parents think if they tell their kids not to have sex, they will listen."* Education reinforcing the need for open, honest communication was emphasized, one individual noting "*teens are not honest with parents about sexuality, on the questionnaire they are honest, [they are] not as honest in their own house."* Another shared the observations of a teen, recounting her words "*she said, my mom says I can go to her, but she will be disappointed and not take me for birth control."*

Education of school administration and school board members was also noted as a need. One participant noted *"We need more education at the top down – school boards, administration, parents. We need to reframe RHS to be not as demonic but more a preventative, public health focus."*

The requisite for education was often highlighted as a key function of the SBHC and this level of education made the SBHC an optimal source of the provision of RHS. Participants pointed out that "*without comprehensive, consistent education, we will NOT see a significant*

change in the way our teens are approaching sexual activity. We need to take an active role in making RHS available to our sexually active teenagers, however for it to be truly comprehensive is must come with the education piece." Others added, *"education and access go hand in hand"* and *"need counseling with RHS-human development, healthy relationships, valuing your body, communication skills, self-respect, and role modeling."* SBHC and their inherent ability to provide education along with RHS was captured as "*At SBHC we have an ongoing relationship with teens. It is the ideal setting. We provide more valuable and valid information. They don't always get good information elsewhere."* Because SBHC personnel *"have more time with students, they have time for education."*

The ongoing nature of addressing education and access to contraception heralded a concern of several participants, one citing: *"adolescent health and sexuality are always changing—we need sustaining effort."* Another declared *"the major long term impact of education is on self-care and their ability to pass it on."*

Theme 3: Parents have a critical role in healthy sexual behavior and educating their children; other resources are vital for families when parents' capacities are limited.

- *"Parents need information to educate their children…parent expectations are very important."*
- *"Parents are in denial about their kids and sex."*
- *"Don't want to take away or question parental rights."*

Parents were noted by the sample to be the most powerful influence in their children's lives, stating "*parental influence is key,"* "*parents need to be proactive*," "*parents don't encourage teens to be conscientious or responsible about birth control,"* "*parents need to have conversation and tell kids where they can get access*," and *"adults need to have conversations*

early and often." One person stated *"Parents are often wiser, responsible, see issues through adult sense—there is a disconnect between parents and teens, teens think it is easy."* Members of the sample highlighted the weaknesses of parents, indicating there are *"societal issues—we need to be honest with teens and sexuality, rules, etc. Parents enable, kids don't want parents to be their friends"* and *"parents-when they do talk, they focus on not wanting teens to get pregnant but don't talk about prevention."* In addition *"those who have a good relationship with parents…parents will talk them to resources for RHS."*

The role of the SBHC in fostering parental education and awareness about their integral role was addressed by several participants. They shared *"parents are concerned about sex and want to talk to their children, but teens don't think they want to talk about it…we need to open up conversation...we are not open about sex…we need to protect our children's childhoods"* and *"as a parent, we should be talking to kids but they are not, teens are having sex and parents don't reinforce family values."*

Interestingly, for some parents interviewed, this role as a parent was placed jeopardy by the provision of RHS at the SBHC. A small number of parents believed that the consent form encouraged teens to negate their parents' rights to information and to offer permission. They believe it pitted parents against the SBHC and provided a mechanism to subvert parental authority. One parent noted "*Having RHS in SBWC takes away and questions parental rights.*" Another stated *"I believe when parents don't pay an active role, the kids suffer. All children have a parent, guardian who helps make decisions."* It is not known whether this is a common sentiment.

In contrast, SBHC personnel reinforced their respect for the parental role and frequently noted their practice of encouraging teens to talk with their parents about their health and sexual

practices. The SBHC staff noted that they often provided potential conversation-starters to open these discussions and periodically asked about parental thoughts. *"We encourage teens to talk to parents but many say their parents can't talk about it," "parents don't realize we encourage communication," "we want to include parents—include them in the process before prescribing medications...like to know the medications student is one so parents can help advocate," "I tell them to talk to parents so parents are involved—so they are not a barrier,"* and *"we encourage talk with parents—we use role play to at SBHC"* were common sentiments noted by SBHC staff.

One sample member noted "*Greater access decreases barriers – still need parental consent. Still getting those parents who say no. With parental permission (RHS will) decrease TP and TB rate. Parental engagement is a key element."* Informants shared that parents often worried that "*if I give consent, it is like giving permission for sex"* In addition, SBHC staff voiced a concern that parents don't always appear to understand the consent procedure, sometimes consenting for controversial processes, like RHS, but denying children the permission to obtain sports physicals or dietician consultation. Newer consent forms by some vendors may decrease this level of confusion.

In some situations, parental guidance may be unavailable or inadequate. It is here that SBHCs provide their greatest value and filled a void for the teen, as in "*not sure if all teens have a powerful parental presence that provides truthful information for teens"* and "*I understand those who don't have those parental supports may really need these resources."* SBHCs provide information and support so needed by the growing teen.

Theme 4: Teens see sexuality and RHS as a routine part of their healthcare.

- "*Teens think it is part of routine care" (when asked about what teens think about RHS at SBHCs)*
- *"SBHC-Students are used to going there—RHS are no big deal. They can get follow up at SBHCs."*

Interestingly, the issue of RHS at the SBHC is controversial for adults, pinning those who promote reproductive health care for teens, comprehensive sexual education, and access to contraception against those who rest in the camp of abstinence only education and limiting access to reproductive resources for youth. Students see RHS as "*part of healthcare,*" "*kids see it as a holistic part of healthcare*," and a *"natural part of what they do."* A revealing insight emerged from this research indicating that teens do not see the need for this controversy, nor do they understand the level of energy devoted to the debate. Participants in this sample declared that teens see reproductive health as simply another element of their care, in conjunction with other services provided at the SBHCs or *"part of wellness*," "*don't make a big deal about it,"* "*a natural process*," or "*part of comprehensive care."* One SBHC staff noted that during "*acute visits and sports physicals—we pursue it with students, students like that everything is at school and part of health care."* Another shared *"for example, like adherence to asthma treatment, the best birth control methods uses the wellness model, social workers not in a vacuum, dieticians deal with Depot and the weight gain, more time than in private practice to build rapport."* While accessing counseling, sports physicals, episodic care, care for chronic conditions, or dietetic teaching, teens see referral for reproductive services another key component of holistic care. Quotations from participants expressed that teens believe that those who want access to RHS services should be availed such resources if desired, while those who do not want them can

simply not utilize them. Participants exclaimed "*Teens say having access to RHS is just damage control…sex is happening"* and *"they do not feel comfortable or confident enough to seek out information, however, if it is something that is current and part of their lives on a consistent basis, they will be more likely to seek out information or even just know what to do and where to get what they need"* To many of the teens, according to the adult stakeholders interviewed, there is no need for discord—it is a matter of personal choice. Adults stated "*if they have access to RHS, they are more likely to care for their health"* and "*when RHS are integrated into normal care, then we will see changes."*

Theme 5: Access to RHS is limited for teens, with transportation serving as the greatest obstacle to teens' accessing RHS.

- ***"****Transportation is a big barrier…even if parents are on board, no money or no car"*
- *"Younger adolescents are unable to drive"*

There was overwhelming consensus by the sample that there was not enough access for teens as far as RHS. Participants shared *"teens should have complete access, we should make access as easy as possible for students" "the more access...better chances getting early in sexual activity,"* and "*we should remove all barriers."* Another added *"not always available or easy…the public considers them to be available but they are not always encouraged or supported."* Sample members discussed a lack of resources related to distance, limited or inconvenient hours, the closing of services available in the past, unreliability of hours from those posted on the door or signs, cost, and, most frequently, transportation. Sample members that teens don't have cars, drivers' licenses, or the uncommitted time to get to clinics and other resources. Sample members noted *"in rural areas, we need schools to provide access*," "*there are areas in Delaware where they can't get the services," "they are not accessible to everyone,"*

and *"downstate, very limited access."* Again, transportation was paramount, as in *"can't get there for birth control, pregnancy, or abortion services, transportation limits a lot."* One member noted that teens need a current list of open services. Cost was also noted, participant stating teens "*lack knowledge in sliding scales"* and "*money amount is inflated in teens' heads."*

In contrast, sample members also disclosed that teens do have access to RHS, but that, due to developmental and other factors, these resources are not used. Participants commented that *"depends on the individual, they can get it if they want it," "there are no limits to access…they have it and don't use it," "some consider it the other persons responsibility," "some crowds know, depends on their circle of friends," "they do have access one way or another, whether they use it or not is another matter,"* and *"it's more of a perceived difficulty than anything else."* Others discussed that teens lack knowledge as to where to access RHS, stating *"ask them where to get it….they say I have no clue"* and *"teens know about clinics and resources but don't know how to use them…take the next step…know where a clinic is, but not how to move it forward."*

There were individuals that noted that access may also be associated with teen-friendliness of services." Participant noted that *"settings are not for teens—need a teen model of care, need special accommodations, teen door, rap room, and people who know teens"* and *"They may not want to go to a strange place or fear pelvic exams*." One healthcare professional reinforced that a pelvic exam is not required for birth control, though "*we do recommend they get one soon after graduation."* Others believed there were limitations in the abilities of certain health care providers in addressing reproductive needs in teens, as in *"primary care providers embarrassed to talk about sex," "They don't ask questions about sex,"* or "*we have 20 minutes*

for the entire health exam—don't always have time for sexual health and to handle all the issues."

Other participants discussed different types of contraception as having varying levels of accessibility. Key informants disclosed that "*condoms, teens don't like to buy them because of cost and embarrassment," "Most health professionals are for access to EC, not all of the public is," "we have oral contraceptives and condoms, but nothing else…would like EC and Depot,"*

Parents are also seen as placing limitations on access to reproductive resources. As noted by one participant, *"another barrier is the fear of parents finding out." "do they believe the site is confidential?"* and *"they fear parents…being judged or being punished."* The interview participants noted that teens did not access or use birth control for fear of parents finding out or "*Parents not signing up for access to SBHC because of RHS."*

Finally, confidentiality, or fear of lack thereof, was found to be a significant barrier to successful use of RHS. Interview participants mentioned that teens, in both SBHCs and other services, *"teens worry about confidential services and the EOBs," "the current consent form is a barrier, parents don't sign because they want to know about their kids, but kids don't want them to know," "do they believe services are confidential, available, and private? Will my family know? Will I go to the drug store and see someone I know?"* and "*don't want to be seen accessing contraceptives."*

Theme 6: Access is not the only reason sexually active teens do not use contraception, but it is an important reason.

- *"access is there…it is the water and the horse thing—don't always have to drink."*
- "*there has been a change, there is a large segment of youth that want to get pregnant, young teenagers who are not stigmatized by pregnancy."*

Teens may, related to developmental variables, not use contraception related to a variety of reasons. Although some teens "*for the most part say they are having protected sex*," sample members indicated that teens may not think they can get pregnant, are impacted by sociocultural and economic norms, or intend to get pregnant. One informant noted there are *"three groups of kids out there: one group is fatalistic, life happens, some are goal oriented—to college, have a career, others wait for life to sort it out."*

One participant noted *"they have access to condoms—they don't use them or don't use them all the time, they do have services but don't take the extra time…not a priority to take care of selves, don't take the time to access services."* Others relayed *"They have access, access is not the problem. It is the teen mind. Girls mature before boys-boys are not worried about the consequences. They know where to get protection if they want it. Sex is not premeditated during the teen years-they are not prepared."* A parent stated *"teens are not consequential thinkers…this results in unplanned pregnancies, sexually transmitted infections, and multiple partners. If asked, they will tell you that they have access and knowledge about contraceptives, however, their actions tell another story."* These developmental limitations were also noted by those against access to RHS, one informant stating "*Teens not developed to understand the impact of birth control on their bodies."*

A goals orientation was seen by this sample as a means to promote use of contraception and to prevent teen pregnancy. According to one sample member "*Those on their way to college are purposeful about prevention. If they get pregnant, they terminate. They are college bound and goal oriented. They find others to drive them and pay for it. They can get emergency contraception. Some come to me for advice, but that is rare…the time element is there. They find friends over 18 to buy it. They are smart and have resources."*

One element, often surprising to parents, is the potential intentionality of a teen birth or the lack of intention to contracept by sexually active teens. Essentially, young people do not attempt to get pregnant, but also do not use prevention or contraception during sexual activity. Stakeholders declared *"Much of teen pregnancy is intentional, or at least, not prevented. Teens need to have ready access to birth control," "it is self-esteem, they want to be loved and accepted," "for some income groups, teen pregnancy is not the worst thing in the world…it's not the end of the world,"* and *"they want someone to love them."* Participants noted that *"pregnancy is accepted and normalized," "some who don't have a male in their life seek male love and affection…they'll do whatever he says have a baby with him so he stays forever," "girls look for affection," "pregnancy is considered something special, a way to get affection,"* and *"teen sexuality is a reality, many pregnancies in schools, there is a family history of teen childbearing, no stigma, they are seeking love."*

Gender issues were also addressed. According to one participant "*Young women do not feel confident enough to INSIST that their partners wear condoms during sex nor do they understand the mechanics of how one works properly. The young men are not conditioned to take on the responsibility of protecting their partners and in most cases they feel invincible."*

This may also be informed by cultural or family variables. In order to make change, it was noted that *"you need to change social norms."* Participants commented *"grandmom cares for the baby," "people grew up in homes where all women had babies as teens,"* and there was *"little support system"* to use birth control. Several participants indicated that among teens who are *"Hispanic, it is expected, accepted to have sex and a baby"* as a teen, "*In the Hispanic culture it is a norm. Women never say no to a man. Women obey men about sex, birth control, and condoms. Couples stay intact but don't marry. Grandparents help out…it is a hurdle but not*

a disaster. They can be good mothers, work hard to stay in school, and breastfeed. Being a good mom is a way to be recognized, their family cares for them but they are also highly dependent on subsidies," "Their culture supports, if not promotes early pregnancies, and the secondary rewards they bring, some want to get out of their parents' house and think this pregnancy is the way to do it," and *"In the Hispanic culture, they may be seeking out parenting and pregnancy as a solution and status symbol, in the family history it is an okay thing for girls."* These perceptions were held by some members of the sample and continued analysis needs to be done to ascertain their validity.

Theme 7: SBHCs, in addition to other settings, are logical, accessible, and appropriate sites to provide RHS that teens perceive as confidential and teen-friendly.

- *"Kids wouldn't miss school - for example due to limited hours of clinics, must miss school and encourages students to lie to parents"*
- *"Teen friendly- no appointment, confidential, diverse staff, facility is equipped, posters & magazines"*

The sample provided a list of a variety of sites available for teens to access reproductive services in the state. Participants stated that birth control should be accessed "*anywhere they can"* and *"placed on every corner."* These included public clinics (including PPDe, ARC, and DPH), SBHCs, community centers, hospital clinics, colleges, and, to a lesser extent, physician practices, including primary care providers, obstetricians, and pediatricians. One participant stated *"they need to be wherever teens are, we need to be creative, ask them where they want it…libraries, where kids congregate, malls!" "they should be anywhere accepting state or federal funds,"* while another mentioned *"we should have a mobile van to bring supplies to the teens."* All of these sites offer significant resources to teens but may also have inherent

limitations. These include, as stated, transportation, limited hours, cost, teen orientation, confidentiality, and others.

SBHCs as resources for health care are well established in the Delaware. Their role in providing RHS bears some controversy. As noted by one participant "*Even before we had RHS, we helped them use the community—get them into care--for students to get services in the community."* Others stated "*Parents should get with the times…we should have SBHCs in middle schools"* and "*having RHS at our school have made it incredibly easy*." With half of the SBHCs providing RHS and other centers expressing wishes to explore this option, the group interviewed cited many characteristics that made SBHCs the optimal place to provide services to teens. Such characteristics include promoting student responsibility ("*students will take responsibility for healthcare and follow up for their health at SBHC"* and *"autonomy is offered at SBHC—allows teens independence and motivation in decision-making-stick with it, it's their own idea"),* immediate accessibility (*"teens are a captive audience");* ease and convenience (*"kids are there, they don't need to go anywhere," "during school and not after school hours," "if it is in the school building—teens will think access is 'on my time," "easy to make an appointment,"* and *"it is a one stop shop")*, the team approach, the ability to provide holistic assessments ("*deal with the whole student")*, comprehensive education, and ongoing follow-up; teen-friendly personnel (*"SBHC are more accessible, have more time with students, they have more time for education," "need a teen-centered office")*; having good rapports with students *("feel more comfortable with a known person and trust quality care"*); confidentiality as far as teens being able to use the SBHC and it not being known that they are accessing RHS (*"teens go in there and no one knows why,")*; no cost; comprehensive screening services ("*screening and risk assessments then allow for education*"), and referral to other needed services as accessing

RHS may provide a *"gateway to access health services"* "*sees another options for care,"* or *"can refer to a medical home."* Another participant noted that *"nurse practitioners in health classes—sees them in class, need to help them, more than sports physicals."*

The group discussed the Delaware law that allows teens to access health and reproductive health services at age 12 without parental consent. Although there was some conflict over the age selected as 12 years, there was general consensus supporting the intent of the law to protect young people. Participants noted that "*although the law says 12, few 12 year olds seek out birth control...14-16 are the greatest numbers," "the 12 year old law protects a handful of kids," "12 is old is kind of shocking, but is it consensual?"* and "*allows for teen focused care without parental interference…sometimes parents are needed but, in some cases, it needs to be confidential."*

Those who opposed the law thought the age was too young, indicating 16 or 17 as better ages for these rights to be afforded to youth. Others thought the law subverted parental rights to information and their responsibility for the healthcare of their children. One parent noted "*I don't agree with the law. I am responsible for this child. I don't agree with the way children are confronted. We shouldn't bring up sex, it is taking away parents' rights and can deceive parents...other adults step over parents' rights."*

There was some deliberation over the agents that should be readily accessible for teens, both at schools and other sites. The sample generally agreed that condoms, oral contraceptives, pregnancy testing, STI testing and treatment, and comprehensive information about these methods were appropriate for teen access. One person clarified that condoms should be distributed "*in an educational way…no fish bowl of condoms…need to make and appointment and learn"* and another stated *"condoms very effective and used, very needed in schools."* One

reservation was voiced, in that "*teens don't always understand the significance of communication and making sure care is coordinated. The electronic health record might help someday…gets very complex for medically complex children."* They also expressed some potential issues regarding follow-up with oral contraception during the summers, emergencies, off-hours, and on weekends, but that the proximity of the SBHC allowed students to receive ongoing "*follow up."* Interviewees discussed that "*oral contraceptives have bigger side effects—parents may need to know."*

Much more controversy surrounded access to emergency contraception and HIV testing and referral. Some individuals supported HIV testing, participants stating they were *"disappointed HIV testing is not done, that part completes the STI package" "the sooner prescription, prognosis better," "information about HIV is not presented to our teenagers in a way that they feel truly at risk,"* and "*I think schools should have HIV testing."* Another individual clarified that the Centers for Disease Control and Prevention have declared that all barriers should be lowered with regard to access to HIV testing. One individual reported that she had training in HIV testing and counseling and would like to implement in the SBHC; others thought those needing *"HIV testing should be referred to the community"* and *"HIV testing is very time consuming, very different from STI testing, not sure doing it is needed in schools."*

Emergency contraception (EC) raised much more concern when potentially offered at SBHC. At this time, EC is not provided. Several people were proponents of EC in the schools, including "*Plan B is necessary, easiest, and safest method and should be on the menu," "EC should be available without signing or drilling at any age," "not sure why the controversy with EC, teens can go on the internet and find out the number of their pills to take," "EC is almost more important, teens not on oral contraceptives need EC with unprotected sex," "EC is a fine*

idea—need to improve relationships with health care professionals, make sure using contraception with emergency for special circumstances-should not be overused," "EC is less risky than pregnancy," "need to offer EC and condoms…need the two to protect," and "*need to provide EC—if it is so safe and 18 year old can get it in a drug store, why can't we provide youth who know they had unprotected sex?"* Others were against such provision, indicating "*EC not in the schools…at that point you need to go to a doctor, need medical knowledge," "limitation of summers and weekends for EC," "EC-parents have the right to deny access but should have all options," "if they do EC, they need more expanded hours and summer hours to provide,"* and *"EC-complicated, SBHCs fear providing EC would result in a lot of pressure to shut down SBHCs."* Another participant shared that "*there is a misunderstanding about Plan B—it doesn't always just prevent implantation, but it also thickens the cervical mucus and prevents ovulation—these prevent fertilization—lots of misconceptions out there."*

Some interview individuals voiced a concern that some students may not access RHS at SBHCs due to the stigma associated with membership and care. One teacher stated not being sure *"they would use SBHC—there's a stigma that they are for mental health."* It appears, in reflecting on several interviewee comments, that SBHC are associated with differing levels of stigma dependent upon the school. Some SBHC staff discussed the high rate of poverty among their students, a high ratio of registration for SBHC services, and an atmosphere promoting full usage of services by students, families, and school personnel alike. Others shared less endorsement of SBHC services and more reservations about "*being seen using services*." Much of this stigma appeared to surround use of mental health services, and potentially, RHS.

As stated previously, some individuals were opposed to teens' abilities to obtain RHS in SBHCs. As stated by one parent "*I am not supportive of RHS in schools. It increases the*

severity of issues. I am a strong conservative. We can have education but not supplies. Need to teach about self-esteem and responsibility" and one community member *"not in schools, focus is on education and parents, parents need to take the time and educate teens. We need to make sure parents are equipped to pass down values."* Another sample member added "*It says on the SBHC website they would never provide contraception, now they do, it was a bait and switch. Bothered me greatly."*

Theme 8: Key decision makers, including school board members and others, about RHS in SBHC may or may not represent the perspectives of other stakeholders, including parents, school administrators, healthcare providers, advocates, and teens.

- "*We don't have RHS. There is so much controversy. I would love to have it. The school board won't say yes to it. The far right is an obstacle. Religious conservatives feel making RHS is going to make kids have sex."*
- *"School board – one to two people can sway access to RHS, there are few people on boards"*

The overwhelming opposition to approval of RHS in SBHCs, in this sample and in the literature, were school board or school administration members. In interviewing administrators and school board members who both are for and against RHS at the SBHCs, some observations were made. As noted by one participant "*the SBHC agrees they want to provide it (RHS) and there is one board advocate to support it, but it is not approved by the school board."*

Opposition appears to fall into two camps: those school board members that fear public rebuttal to the RHS and those who have true religious or other convictions that oppose their dispensing in the SBHC. According to proponents of RHS *"RHS are not a platform of elections, few vote and so the conservative community get on school boards and are not approving*

RHS…the issue is pregnant women in middle and high school and not prevention…they think it is a family issue" and "*conservatives really limit access to RHS—in drug stores, in schools, etc. They believe teens should not have sex, period…they hear the data but don't change."*

Those school board members and school administrators who fear rebuttal are thought to act from a variety of perspectives, including: "*the school has other things to worry about…we have a large drop-out rate and rating in the state," "the principal doesn't think the school board is ready—it is split down the middle, one-half conservative, one-half not," "it's a political hot potato," "afraid of parent lawsuits," "fear of parental involvement, one phone call,"* and *"politics and conservative school boards—some are open and straight forward, students with high minority and low socioeconomic status really need it."* Several discussed the school board's fear of public reprisal, individuals noting "*people have a stigma about what RHS would do to their schools and communities"* and *"schools may not be the place for contraception."* Others explored that the voices of the public are largely unknown, and "*conservative board members and parents are like one person with the voice of 30…they follow other school boards. Don't like new things or uncharted territory…they will join the masses…when it doesn't seem like a bad idea, others will join…have to watch that the extremes don't dictate policy."*

Other informants feared that the opinions of the school board do not represent the voices of their students and parents. Individuals articulated this as *"the school board process is the biggest obstacle…they are set in their ways and don't represent their constituency"* and "*schools' administrations—ours is supportive and makes referrals—in some schools, that is an issue, the community of school board is different from the school students...need for the school board to represent the students in the school."* Another added "*school boards are trying to act and be politically correct...school board members have feelings and exert those on the whole*

school population." Another shared that the school board also has other priorities, referring to *"education is their focus."*

Those that hold negative convictions about RHS seemed to ground their concerns in two different areas, those that advocate for the sanctity of family/parental rights and those who oppose birth control for religious reasons. On the side of parental rights, the provision of RHS under the blanket consent of parents for SBC services opposes parental rights to approval and notification of the care received by their children. Participants noted "*SBHC should be supportive of parental rights, there are conflicts between teens' rights and parents' rights," "they should not step over parents' rights,"* and *"parents want to control their kids exposure to sex and exposure to prevention."* Another stated "*Parents want to know…I have the perspectives of both sides…I understand their needs to be respect for parents' rights but also teens have needs."*

Sample members with strict religious convictions stated *"condoms have been passed out since the 80's, no big decrease in rates, only real protection against STIs is abstinence."* Another stated "*as far as EC…need to be based on truths…we consider the embryo life. Can't step over people of faith, people need to give all information. Even with consent, once they are in school, everyone will be getting it…any of those (condoms, oral contraception) should only be used with parental approval."* Another shared "*no RHS in schools…the focus is on education…parents need to take the time and educate teens. We need to make sure parents are equipped to pass down values."*

Those advocating for RHS in SBHC counter such claims with such statements as "*adults' perspectives are limited, community members are barriers….they don't know kids today"* and *"we will try again to get services."* Others believe the systems are already in place to deal with

parents who do not want their kids to access RHS. As noted by on SBHC employee *"school parents have the right to sign up for SBHC services or not. If they don't want RHS then don't use the SBHC*." The sample shared that new consent procedures will clarify the process of signing up for SBHC but others feared it will limit students' access to any SBHC services at all, as in *"some parents won't sign up for anything…may decrease enrollment and will not allow their children to use them at all."*

When asked about their thoughts of "cons" in implementing RHS in SBHC, this sample responded most frequently with resounding "*NONE*!" The cons included "*may take away from class, but if needs are addressed, teens can focus on school," "complex patients…need communication with healthcare professionals," "confidentiality—students might tell each other," "what about summers?"* and "*parental resentment."* Several participants worried that RHS in SBHC may cause *"public backlash," "could put SBHC out of business, if RHS caused less support, but it is part of total care...an unplanned pregnancy has significant negative consequences"* and *"could jeopardize wellness centers at all."* Another stated "*it could cause negative references to SBHCs but some are gonna be negative anyway!"* Sample members expressed some fear about pursuing approval for RHS in schools, one participant noting *"in the best of all possible worlds, have RHS in schools, however not always possible. Today's political climate focuses on early on when there were no RHS in SBHC. Then some agreed to allow. In current ultra-conservative/tea party—there could be a blow-up and then have no SHBC at all. Unfortunately, adults play politics. Because it concerns kids it is even more hot-button….the schools have huge issues…worried about enrollment decreasing and the school's reputation."*

Theme 9: RHS provided by SBHC at this time are perceived as effective at reducing rates of teen pregnancy, STI's, HIV, and economic costs and these services have encountered very few issues in implementation.

- **"***Decreased teen pregnancy, teen births, STI, and HIV if they use it"*
- *"Want free condoms, may decrease STD & HIV through increased usage"*

This sample supported the notion that offering RHS at SBHCs would offer a positive element to the menu of services offered by the SBHC and would enhance the health care of teens in Delaware. There was overwhelming agreement that access to such services at the SBHC would provide another means to educate teens and, in turn, to decrease rates of unintended pregnancies, STIs, and HIV. Only a select few believed these services would not yield these impacts.

One element not asked in questions specifically, but introduced by several interviewees was the potential for these services to decrease economic costs of unintended pregnancies and other consequences associated with the savings inherent of prevention. As noted *"prevention saves money…it is an important part of health," "good contraception prevents unintended pregnancies and abortions," "taxpayer dollars—prevention is cheaper,"* and "*understand some people don't think school is the place….but kids are here. We are trying to keep kids from being pregnant and keep them in school. It reduces public funding—having a baby is a huge expense."*

The sample voiced concerns about teens' limited appreciation of the negative consequences of unprotected sex. It appeared, to members of this sample, that teens were more concerned with pregnancy and less worried about STIs and HIV. One participant revealed that teens "*see the largest implications is pregnancy, what about suicide, bullying, STIs, mental health issues."* They shared that often teens believed that STIs could be treated "*with a pill"*

and that even "*HIV is treated with medication"* without consideration of the long term consequences of such views. Members of the sample reinforced the educative nature of SBHC and the value this education holds for newly sexually active populations as they begin their sexual practices and habits. Therefore, one sample member noted "*access will decrease STI rates…girls truly believe he's the one…don't use protection…don't think about STIs…only think they have to worry about pregnancy."* Members concurred that "*RHS services help teens talk to parents," "help teens appreciate the intensity of parenting," "teens don't have sex more because of protection, access to RHS will decrease teen pregnancy rates and have a positive impact on graduation, poverty, and money spent on teen childbearing to the individual and community," "some decrease in teen pregnancy and STIs but a lot of factors impact teen decision-making,"* and "*No evidence to indicate that access to RHS decreases teen pregnancy and STI rates, but anecdotally, I say it makes a great difference."*

Those that had implemented RHS at SBHCs relayed few negative repercussions associated with the introduction of such services. At the time of one of the interviews, at all 14 centers, 134 teens across the state had accessed oral contraception or condoms in unduplicated visits. Those providing RHS at their SBHC disclosed provision of services to 10-20 students per site, such that students were accessing services in *"not huge numbers...but it is a big service to those who are using."* One site reported there were *"waiting lists when they started."*

The sample also discussed the lack of feedback or "*community backlash*" associated with introduction of these services. Although one member voiced that *"we are still working out the kinks of oral contraceptives and condoms,"* others shared that the process has been very smooth. Sample members added *"not one complaint or concern...support has been incredible," "students use RHS at SBHC successfully," "our students thought we already provided it,"*

"most teens are curious…they are ready to have serious conversations," "less are using it than I thought," "teens like it but want expanded services," and *"we're surprised, parents call to get kids on birth control."* Another shared *"kids are not banging down my door, we are slowly getting requests, trickle in and use the risk assessment."* A SBHC staff member stated "*since the board passed RHS, teens love that it is available here…administration has been very proactive about wellness…they love the relationship the students have with SBHC staff."* Although one person noted that *"It is definitely the buzz…they are telling each other about services,"* others found that there has been no *"parental backlash," "no negatives,"* and *"not a lot of discussion or public or school outcry…the superintendent said make it happen like asthma or other chronic issues."* Others highlighted the positive methods of implementation, stating *"it is going well…no push back, being done respectfully and framed as public health"* and *"it is tastefully done, ask students if sexually active during sports physicals, students that seek services, or word of mouth."* Teens appeared very happy about the services, stating they *"are very happy if they are interested, many teens are not aware of it…that is why I go to the classes and talk about their options and services," "Students like it on site…like the convenience," "teens ask about confidentiality, if their parents will be called," "females know it is there and listen, males want to know the quality of condoms,"* and "*teens love it*."

Theme 10: The addition of RHS to SBHCs is one of the many changes impacting perceptions about SBHC at this time.

- "*we are more holistically focused, evolved from other models"*
- *"There are issues that are challenges – cultural issues – we don't have much control over"*

- *"[SBHCs] now micro-managed- clinics do not meet needs of their own adolescents."*

The last several years have posed some challenges and concurrent changes in SBHCs in order to adapt to current needs or to create sustainability for the future, including the introduction of RHS. Previous funding for SBHCs has been primarily been associated with state provisions and, to a lesser extent, federal monies. Reductions in funding yielded changes in models of care, staffing, hours, and services and prompted new ways of obtaining needed funds. One participant noted that these changes may be approached with resistance, as most "*of us are creatures of habit…habits are hard to change."*

When asked about changes, the group appeared to strongly believe in the mission of SBHCs and the devotion to high quality care for teens who may be most at risk for health issues has been upheld throughout these changing times. Those teens most needy for services, living in poverty, or having the fewest resources were seen as most benefitting from SBHC services. This sample also purported that the devotion to holistic services for clients has persisted despite, or perhaps because of, changes and issues. SBHC staff stated *"The quality of care hasn't changed…services haven't change"* but that *"we constantly have to defend our services…we need to address myths and negativity as we define ourselves."*

In converse, some issues emerged as controversial or difficult in the course of SBHCs. These included the consent process including changes in: clients' needs, models of care, in staffing, vendors, the consent form, re-registration processes, funding, and best practices. Some discussed that SBHC used to be more part of school activities and staff were more involved in *"IEP meetings, prom committee, and others,"* while another participant noted *"we used to be more of a separate entity from the school…now we are more likely to follow their rules."*

Another SBHC staff noted "*we are guest in their school…we need to follow their rules."* Other participants emphasized a revisiting of the focus of care. One stated "*would like to go back to the original disease prevention and health promotion model…it is supposed to be prevention, but we have become treatment focused."*

One insight shared by group members was the change in care needs warranted by this population. Although "*the kids haven't changed,"* their needs appear to be perceived as more complex. Mental health needs, complex chronic illnesses, and sexual activity at younger ages and exposure to more partners, have necessitated changes in services. Several participants noted that the need for mental health services was perhaps the most startling change in SBHC practices. Participants stated "*most important element is mental health services," "reproductive health services are an important part of mental health,"* and *"mental health needs keep growing."*

The growing LGBTQQIAA community, although perhaps a stable number but increased in public announcement of orientation, is thought to be better served by current SBHC practices. The screening and case-finding functions were also noted to have improved during the life course of SBHC as in "*we are more able to identify the needs of students and how to meet their needs."* Several individuals cited that today's SBHCs are more "*holistically focused"* with a better eye on students' needs, chronic illness, and acute issues. One participant shared that there was more "*parental involvement than in the past."* Some felt that "*access to SBHC is easier than in the past"* while others expressed concern, stating *"we are busier…learned to do more with less."*

DPH no longer requires a single model of care, allowing each vendor to select the model most fitting for their sites and agency needs. Changing in model of care by one vendor was

operationalized as social workers becoming center coordinators, rather than nurse practitioners. Another change in model of care was a "*floating concept*" where staff members moved among several sites in order to provide services. Other vendors maintained traditional formats.

The financial constraints plaguing the SBHCs were commonly referenced by sample participants. The need to increase revenues and ensure sustainability with reductions in state funding led to pursuit of Medicaid funding and, in the future, private insurance reimbursement. These changes, perhaps, had the most significant impact on SBHCs and their operation. The need to collect different data, develop procedures for third-party reimbursement, and deal with confidentiality issues dominated staff attention. One member noted "*there's a whole host of issues we need to address as we embark on third party billing."* New legislation (House Bill 303) allowed SBHCs to be interpreted as healthcare providers and eligible for third-party reimbursement. Because the Medicaid reimbursement rates, as dictated by the state insurance commissioner, were deemed competitive, explanations of benefit (EOB) forms sent to parents were suppressed, and co-pays omitted, the transition to Medicaid reimbursement has been smooth. These issues continue to be wrestled with when working with private insurance companies. The need for these private companies to send EOBs to parents may jeopardize the confidentiality of patient services, in conflict with HIPAA and Delaware state law. As noted by one parent *"insurance issues are a problem…parent's need the right to consent for all care. When I get a report from the insurance company, I want to know what it is….there is a potential for fraud."* In contrast, SBHC staff voiced concerns over confidentiality as in "*EOBs to parents limits access for confidentiality of services," "with parents billed, parents won't want to pay and kids won't use services...may decrease enrollment"* and *"billing parents is okay if no deductible or co-pay—creative with EOB's, other states came up with generic codes."* Other questioned

how services would be billed for, adding: *"new questions—how do we get paid for education and counseling sessions…how do we recover paid visits versus informal visits"* and *"there's no billing codes for what we do…just create problems."*

There was broad agreement in the use of federal Title X funding for reproductive health supplies. Some felt that funding should stay at the state level and private insurance billing should not be pursued, stating "*that the funding should continue…prevention is cheaper"* and "*billing is a fool's errand."* Others stated "*I don't care who pays…needs to be available."* Others questioned the use of public monies for controversial practices, such as contraception, adding "*some people have an issue with federal funds being spent on RHS."* The consensus appeared to be that, in order to maintain sustainability, new methods of funding needed to be explored. Although many embraced the old ways of state funding, they recognized the lack of increases in this funding in the past and the realities associated with sustainability. "*Going to Medicaid and private insurance…it is a sign of what is necessary for sustainability"* stated one interview participant.

The consent issues have also posed difficulties and barriers to care. One noted *"current issues over consent offer the biggest barriers at SBHC," "consent forms have been a barrier to RHS," "Our consent process—parents will say yes and not without really understanding form—at times would like a much freer consent process," "consents are a double-edged sword and may be more restrictive for students,"* and *"new consents make it difficult to see all students."*

One common complaint voice referred to the data collection and evaluation processes. Although the group appeared to appreciate the need for data and practice evaluation, there appeared to be a lack of understanding of the need for some data, a question of how data is being used, the time devoted to data collection, and the usefulness of data to measure outcomes, create

benchmarks, and to be used in evaluative purposes. Participants added "*we need to evaluate public health looking at HIV/STI rates, hospitalization outcomes, need to use national data points," "need to look at school attendance, obesity, and do benchmarking," "the new data base has overwhelmed staff," "database harder to work with," "need to change productivity measures from number of visits to costs recovered,"* and *"we need the electronic health record, it will be great."*

As these issues are confronted, ongoing attention will be given to confidentiality, sustainability, and best practices. Another question asked of participants was how they thought the provision of RHS in schools could be improved. The group had many and varied suggestions. The included how to design change ("*have teens be involved…they are creative and can identify their own needs," "we need a needs assessment, what do the teens really need?"),* relationships ("*there is competition between school nurses and wellness centers…need to be focused on the needs of the whole school"),* and services *("offer more comprehensive services, enhance mental health services"* and "*need child care in the schools").* Other suggestions were more process in nature, including having an advocate advisory board to oversee the conduct of SBHC in articulation with DPH and a focus on data keeping and use for performance improvement and revision of services.

Specific to RHS, participants suggested increased the level of comprehensive sexual education in the schools (especially at younger ages), increase the contraceptive devices available (including EC, Depot, the Patch, Nuva ring, long acting reversible contraceptives such as Implenon and Explenon, and intrauterine devices [IUDs]), provide comprehensive instruction about RHS to all involved parties, and ensure appropriate mental health services to accompany RHS. Several sources were quick to point out that, due to hours, nurse practitioner skills sets,

and space, the insertion of IUDs was not a recommended SBHC service at this time, but referral pathways should be continued for this method for teens in accordance with current healthcare recommendations.

As noted in Theme Two, education of the public, school board, school administration, parents, and teens is required to ensure everyone is clear on the services provided and the issues associated with the provision of RHS by SBHCs. In addition, several of the members of the sample were quite emphatic about the need to specifically assess cultures and groups most impacted by teen pregnancies, births, STIs, and HIV, including those living in poverty, those most at risk for dropping out, Hispanics and other racial minorities, and those most vulnerable. An area of consensus among many is the role of parents in protecting and education of teens. It is here also that education is needed to ensure safety among teens related to their sexual activity.

Discussion

The previous analysis of results demonstrates a diverse set of perceptions that describe a complex issue confronting Delaware at this time, that of providing RHS at SBHCs. It appears that this diversity is characterized by many facets. This research may clarify perceptions as additional schools and school boards consider the provision of RHS by SBHCs. The overwhelming agreement with the provision of RHS voiced by this sample (see pages 89-94 and the themes emerging from the data), and substantiated by the Solano et al. (2007) research (see pages 54-65) validate that RHS is a desired and effective practice. The benefits and positive evaluations of RHS in SBHC noted in the literature provide a strong foundation upon which to build supportive efforts (see pages 43-54 and the comprehensive review of the literature).

As health professionals and others in Delaware attempt to reach consensus about RHS in SBHC, one important perspective to consider is the opposition to RHS for teens related to

religious convictions. In our sex-negative environment, in which sexuality is viewed based on negative consequences, teen sexuality is not addressed from a perspective of pleasure, responsibility, maturity, and relationships. One expert was quoted as saying, "to talk about teen sexuality by only mentioning STIs and unintended pregnancy, is like talking about nutrition and only mentioning anorexia and bulimia" (Turner, 2012). This reflects the perspectives of many of those who have distinct beliefs against any RHS available to teens because they may increase teen sexual activity, oppose family values, and lead to negative consequences.

One means of analyzing these viewpoints is the Stayton Sexual Values Systems Model (Stayton, 1996). This framework dictates that there are three perspectives by which to view the construct of sexuality. Under the first set of beliefs, Value System A, sex is designed for the goal of procreation and needs to include another person of the opposite sex, must be sexual intercourse, and is only appropriate within the context of marriage. Those who ascribe to this belief contend that anything that does not adhere to these qualities is wrong, including: same-sex marriage, birth control, abortion, sexual experimentation, and, in this case, offering RHS to unmarried teens. This system provides an absolute structure through which to view issues and provides clear delineations between right and wrong. The second set of beliefs, Values System B, indicates that sex only exists in the context of relationships. What is sanctioned in sexuality is what is good for maintaining relationships with self, others, God, and the environment. The consequences of the actions on relationships determine the morality of the actions. In this model, there are no true correct or incorrect actions, just the perspectives of how such actions impact the relationships of the individual in a variety of situations. This perspective requires to individuals to use decision-making skills to determine appropriate actions and to consider the impact on others. According to Stayton (1996), most people adhere to a third perspective or the

beliefs of Value System C, wherein individuals make decisions about the appropriateness of sexual actions based on the context of the relationship, how comfortable they are with the act, and the core beliefs held by the individual. This set of beliefs both uses the guidelines of Values System A and the autonomy of Values Systems B to set up a personal guide for what is considered appropriate and inappropriate. According to Stayton, value conflicts may be considered from these three vantage points when viewing issues associated with sexuality.

The interviews with self-identified religious conservatives clearly demonstrated those value associated with Values System A. Teen sexual activity, according to this system, is wrong and should not be supported through provision of RHS. Those interviewed were advocates of limited abstinence-focused education in the SBHC and ongoing pregnancy, STI, and, in some cases, HIV testing, but did not support provision of birth control, condoms, or referral to community resources for RHS.

The majority of those interviewed often mentioned abstinence as an option, but clearly appreciated the level of teen sexual activity in Delaware and felt compelled to act in order to maintain the safety of the youth, more echoing the sentiments of Values System C. In order to build consensus between these values systems Stayton (1996) contended that one must appreciate that individuals are comfortable in their own value system, to question it is scary, and, in order to effect meaningful change, conversations must be frequent and sensitive to issues. Turner (2012) recommended first the act of listening in order to build consensus. By listening to the concerns of those who oppose next steps related to RHS paves the way for potential progress. In this case, it is important to ensure that the voices of conservatives are heard and the core beliefs are delineated. It is also suggested to attempt to find common ground about the issues. In this case, Delaware has already identified an area of agreement in its campaign to foster parental

rights as far as RHS. Although the formal campaign was not implemented, the consent process and other aspects allow parents to select RHS either as one of its options (the old consent) or as a total package for use of SBHC at all (the current consent). Because this issue is so emotionally charged, the issue raises the ire of all involved. The area of common ground, parental rights, may provide continued working space for resolution.

Others have reinforced that the presentation of research and facts, which to many would be convincing, does not change the beliefs of those who adhere to the absolute beliefs of Value System A (Turner, 2012). Instead, it may be more effective to reinforce that these values are important and may be absolute for the individual, they are not shared by all. The current study clarified that it is indeed a small minority who oppose RHS in the schools and that the values systems of a few perhaps should not dictate policy. Focusing on the need for policy to represent the needs of many, rather than those of a few, may not change those who ascribe to Values System A, but may highlight that there are these three values systems that need to be considered. This may provide a platform for moving on to resolution.

One area of emphasis could be informed by the needs, wishes, and thoughts of teens themselves. This study provided a glimpse into teen perspectives through the eyes of adults. As discussed, teens consider RHS just a part of health care, and something that should be available to those who want it, and easily accessible to encourage safety. Research specifically accessing the perceptions of teens is recommended to ensure their authentic voices are used to inform policy. Zorila, Baxter, & Heater (2012) recommend the use of youth advisory boards to effect change that is based on teen perceptions. Also to be considered is the premise that teens do not perceive RHS as a separate entity but simply an important component of holistic health. Rather than "*making a big deal of it*," adults may best address the provision of RHS in SBHC from this

holistic and non-monumental perspective, allowing teens to act in developmentally appropriate ways to sustain their own health while under the watchful eye of caring adults.

From a developmental standpoint, as teens mature, their sexual decision-making matures. As noted by Herrman (2005; 2007), interventions designed to support responsible sexual decision making need to include assessments of individual teens' abilities for mature decision-making and social and emotional maturity; gradual exposure to opportunities to test decision-making skills; guidance from responsible and respected adults; and ongoing support in decision-making opportunities.

Adults often view teen decision-making from two polar perspectives. One view of decision-making as a rational process in which an individual views the costs and rewards of a behavior, understands the consequences of decisions, and takes part in a conscious, deliberate process. Another view conceptualizes teen decision-making as impulsive, unconscious, peer-influenced, emotion-driven, and spontaneous with a lack of appraisal of consequences. New teen brain research revealing the role of the maturing prefrontal cortex and how it allows for some combination of these two facets of decision-making may inform the developmental appropriateness of graduated availability of RHS. Several participants made reference to the teen brain, as in *"the teen brain thinks it can't happen to them," "the teen brain means it needs to be easily accessible,"* and "*in high and middle schools where the teen brain is most prevalent."* With the ideas that, at this time, relatively few teens are using RHS at the SBHC; provision includes heavy emphasis on education, assessment, and personal choice; and we are providing teens the skills and supplies to maintain their own safety and health practices; information on the teen brain may provide an important slant to approach ongoing implementation efforts. Taken from these perspectives and attending to current youth sexual

behavior statistics, the introduction of RHS in SBHC may be viewed as a health promotion, developmentally appropriate, and evidence-based practice.

Recommendations

The advocacy process important to continued expansion of RHS to other SBHCs in Delaware may be facilitated by using a model for action developed by Leahman and Zuckman (2012). The steps in this process include:

1. Education of stakeholders about the issues, consequences, and potential revisions. For the current issue, sharing the data related sexual activity among teens, the ranking in the nation, current interventions and limitations, and other information may be shared. In addition, the results of this research may be shared with specific, identified stakeholder groups and disseminated via presentation and publication.
2. Recruitment of committed, well-placed champions. The Teen Pregnancy Prevention Advisory Board, the Wilmington Teen Pregnancy Council, and the newly forming Delaware Assembly on School-based Healthcare all provide ready access to advocates in Delaware. Whether these or another group provides advisory capacity to SBHC administration in Delaware may facilitate communication and processes. Champion legislators, such as Senator Patty Blevins and Representative Margaret Rose Henry, along with DHSS and DPH partners, have provided consistent support of RHS in Delaware. Because this decision is made by individual school boards, successes in implementing RHS by SBHC, their limited but steady use, and history of public and parental support must be shared between school districts and administrations.
3. Obtain diverse and bipartisan support. RHS and effective contraception may be viewed as a highly effective method to reduce abortion rates in Delaware. In addition, effective

contraception is fiscally responsible and prevention of unintended births is highly economically. Enhancing graduation rates will also positively influence Delaware's productivity and tax revenues. Third party reimbursement for RHS, which is still being discussed, may also generate revenue for SBHCs, increasing their success and sustainability. These factors may engender allies among liberal and conservative school board members. Alliances with educational experts in the state, who may support RHS as a way to prevent drop-out, encourage access during school hours and limiting time out of school for off-site appointments, and supporting educational and career goals may also create positive partner opportunities. Another important factor, previously cited, relates to who the decision makers are, who they represent, and whose needs and beliefs should prevail. As noted by several researchers, the decision for the provision of RHS by SBHC should rest with parents, teens, and health professionals (Ito et al., 2006; Yarber et al., 2005). School boards may benefit from current data revealing popular beliefs and insights from interview informants.

4. Avoiding and managing controversy. Some of this has been handled by the limitation of the menu of RHS to birth control pills, condoms, and testing/treatment of STIs. This restricted list avoids controversy over EC and issues with confidentiality of HIV testing/referral. Allowing schools and SBHCs to select their own consent form, the current practice by DPH, will allow additional flexibility of services and ensure schools and school boards feel an element of choice in program implementation. Because provision or referral to abortion services is one of the main oppositions to SBHC, providing prevention may be seen as a positive initiative (Leahmann & Zuckman, 2012).

5. Provide timely information on successes. This study and others will share that the implementation of RHS in 14 schools has generated little controversy within schools, has met little parental resistance, and has been used in small numbers. There has not been a significant "rush" for services, nor has there been any apparent increase in teen sexuality rates. In converse, those teens who were already sexually active are now doing so responsibly.
6. Openness to compromise while staying focused on the objective. Several compromises have been already enacted, including restriction of services, dispensing condoms at the end of the day, encouraging parent engagement in processes, and focusing on abstinence. The consent process also represents a compromise dependent upon the vendor and SBHC procedures. These may be continued.

To further examine this issue, one way to broaden the research and generalizability of findings would be to develop a quantitative survey that could be implemented with a larger group, allow for randomization of participants, and yield data that could be analyzed via statistical analyses. It is also strongly recommended that future research include the examination of the views of teens themselves. As presented by one participant "*teens need a voice themselves, they need decision-making.*" Current research reinforces the need for teens to participate in research and to voice their concerns from their own perspectives, rather than to be analyzed through the lenses of adult stakeholders. A comprehensive and random-selection process with teens would ensure their voices are heard and used to inform future practices.

It is most important that these results are disseminated to those in Delaware with interest about the provision of RHS in Delaware. The support of these services, the importance of education, the need for consent forms to ensure teen and parental rights, the need to base

practices on current evidence, the somber statistics reflecting the sexual activity of Delaware's youth, and the potential readiness of this service to allay a significant public health problem all warrant that practices continue to change in response to the health needs of today's youth.

Withholding health practices based on the opinions of a minority, restricting access to services needed to ensure health, and continuing old practices just because of thirty year old promises and past sentiments are no long acceptable. Appreciation of dissenting views about RHS is important in order to address reservations and ensure access to those teens who have parental consent, a sincere need, and lack of access to resources in their current world. As the state pushes forward with determining the ability of the balance of the 14 other SBHC to provide RHS, it is hoped that these data provide fuel for ongoing approval of such services with the betterment of teen health as the goal.

Limitations

This research represented qualitative methodology and included fifty semi-structured interviews with key stakeholders. The purpose of this qualitative methodology is to obtain rich, deep data about an issue from the perspectives of individuals who have knowledge about the issue. The sample was obtained through principal investigator identification and the snowball technique. In this method each individual interviewed was asked to identify other sources of information. As such, the sample tended to represent healthcare professionals, administrators, and others who espoused similar views about the issues. Efforts were made to identify parents, school administrators, and school board members known to express negative views and conservative viewpoints about the issues, but their numbers was fewer than proponents of such services. This needs to be considered when attempting to generalize results, but, when taken in

consideration of previous research findings (Solano et at., 2007), the findings do represent the perspectives of the citizens of Delaware.

In order to encourage participation in the study, the decision was made not to audiotape interviews for future transcription. Instead, the principal investigator took copious notes during the interviews. It is not known if this note-taking practice limited the interpersonal nature of the interviews. In addition, to facilitate the interview, the principal investigator took notes in phrases rather than complete sentences. Every attempt was made to add to these clauses after the interview to capture the intent of the interviewee. It is not known if subtle changes in meaning resulted from these practices. As the notes were transcribed, phrases may have been altered slightly. Re-reading of the notes after each interview, reviewing the transcriptions repeatedly, and having a single interviewer minimized the potential threat to authenticity of findings.

Conclusion

This study brought many important topics to light surrounding RHS and adolescent sexuality. We found that most people have distinct views when it comes to the appropriate actions and precautions to take regarding teen sexuality. In order to appreciate both sides of the spectrum, and still feel like we are doing the best thing for the adolescent population, we need to make RHS accessible but in a non-threatening manner. Additionally, we can conclude that the vast majority support some form of RHS in SBHCs but it was not as overwhelmingly clear as to what constitutes RHS. Some believe that it is just sex education and others believe it should include everything from condoms to emergency contraception. Lastly, we want to emphasize how important sex education is as a tool to lower rates of teen pregnancy and STI's. Teens may be taught about safe sex and that the only method that can prevent pregnancy and STI's 100% is abstinence. However, as a society we need to acknowledge that teens may have sex and we

should facilitate the safest practice possible. It also highlights the need for consensus building and, as one person noted, "*to see groups come together and advocate for teens…it should be people coming together for this purpose…it's good to see*." Continued efforts need to reach compromises and explore solutions in order to provide optimal reproductive health care services for teens in Delaware.

References

AHC Media. (2008). Condoms: Fears of partner disapproval, less pleasure linked to teens' nonuse. *Contraceptive Technology Update, 29* (12), 133-136.

Albert, D.A., McManus, J.M., & Mitchell, D.A. (2005). Models for delivering school-based dental care. *Journal of School Health, 75,* 157-161.

Albert, W. (2003). *Science says #7: American opinion on teen pregnancy and related issues.* Retrieved from: www.teenpregnancy.org.

Albert, W. (2007). *Science says #31: American opinion on teen pregnancy and related issues.* Retrieved from: www.teenpregnancy.org.

Albert, W. (2012). *With one voice 2012: Highlights from a survey of teens and adults about teen pregnancy and related issues.* Retrieved from: www.teenpregnancy.org.

Alford, S. (2005). *Condom effectiveness.* Washington, DC: Advocates for Youth. Retrieved from: www.advocatesforyouth.org/component/content/article.

Allison, M.A., Crane, L.A., Beaty, B.L., Davidson, A.J., Melinkovich, P, & Kempe, A. (2007). School-based health centers: Improving access and quality of care for low-income adolescents. *Pediatrics, 120,* e887-e894.

Bailit, H., Beazoglou, T., & Drozdowski, M. (2008). Financial feasibility of a model school-based dental program in different states. *Public Health Reports, 123,* 761-767.

Baldassare, M. (2005). *PPIC statewide survey*. San Francisco: Public Policy Institute of California.

Bannister, A., & Kelts, S. (2011). NASN position statement: The role of the school nurse and school-based health centers. *NASN School Nurse, 26,* 196-197.

Bauman L. J., Hamilton A., & Karasz A. (2007). Understanding failure of condom use intention among adolescents: Completing an intensive preventive intervention. *Journal of Adolescent Research*, *22* (3), 248-274. doi: 10.1177/0743558407299696.

Bearss, N., Santelli, J.S., & Papa, P. (1995). A pilot program of contraceptive continuation in six school-based clinics. *Journal of Adolescent Health, 17,* 178-183.

Bell, J. (2009). Why embarrassment inhibits the acquisition and use of condoms: A qualitative approach to understanding risky sexual behavior. *Journal of Adolescence, 32,* 379-391.

Berryman, P.S. (2012). *Reducing teen and unplanned pregnancy to strengthen the future workforce.* Washington, DC: National Business Group on Health.

Blake, S., Ledsky, R., Goodenow C., Sawyer, R., Lohrmann, D., & Windsor, R. (2003). Condom availability programs in Massachusetts high schools: Relationships with condom use and sexual behavior. *American Journal of Public Health, 93,* 955-962.

Bleakley A., Hennessy M., & Fishbein M. (2006). Public opinion on sex education in U.S. schools. *Archives of Pediatrics and Adolescent Medicine,160,* 1151-1156.

Bolton, M., McKay, A., & Schneider, M. (2010). Relational influences on condom use: A qualitative study of young adult women in dating relationships. *Canadian Journal of Human Sexuality, 19*(3), 91-104.

Booker, J.M., Schluter, J., Carrillo, K., & McGrath, J. (2011). Quality improvement initiative in school-based health centers across New Mexico. *Journal of School Health, 81,* 42-48.

Botham, K. (2012) Teen births in US on the decline. *Wilmington News Journal,* April 10.

Boyle, A., & O'Sullivan, L. (2010). General and sexual communication in established relationships: An exploration of possible links to condom use among young adults. *Canadian Journal of Human Sexuality, 19*(1-2), 53-64.

Braun, R.A., & Provost, J.M. (2010). Bridging the gap: Using school-based health services to improve chlamydia screening among young women. *American Journal of Public Health, 100,* 1624-1629.

Brener, N., West, M., Adelman, H., Taylor, L., & Vernon-Smiley, M. (2007). Mental health and social services: Results from the School Health Policies and Programs Study 2006. *Journal of School Health, 77,* 486-499.

Brindis, C.D., Klein, J., Schlitt, J., Santelli, J., Juszczak, L., & Nystrom, R.J. (2003). School-based health centers: Accessibility and accountability. *Journal of Adolescent Health, 32S,* 98-107.

Broussard, L. (2002). School-based health centers: Politics and community support. *Policy, Politics, & Nursing Practice,3* (3), 235-239.

Brown, L.K., DiClemente, R., & Crosby, R. (2008). Condom use among high-risk adolescents: Anticipation of partner disapproval and less pleasure associated with not using condoms, *Public Health Reports, 123,* 610-607.

Brown, N.L., Pennylegion, M.T., & Hillard, P. (1997). A process evaluation of condom availability in the Seattle, Washington public schools. *Journal of School Health, 67,* 336-340.

Bruckner, H., Martin, A., & Bearman, P.S. (2004). Ambivalence and pregnancy: Adolescents' attitudes, contraceptive use, and pregnancy. *Perspectives on Sexual and Reproductive Health, 36,* 248-257.

Burstein, G.R., Lowry, R., Klein, JD., & Santelli, J.S. (2003). Missed opportunities for sexually transmitted diseases, HIV, and pregnancy prevention services during adolescent health supervision visits. *Pediatrics, 111,* 996-1001.

Center for Drug and Alcohol Studies University of Delaware (CDAS). (2012). *2011 Youth risk behavior survey results.* Retrieved from: http://www.udel.edu/delawaredata/Pages/level03/yrbs.htm.

Center for Drug and Alcohol Studies University of Delaware (CDAS). (2010). *Delaware high school survey: Risk behaviors and academic performance report.* Newark, DE: Author.

Centers for Disease Control and Prevention(CDC). (2012a). Pre-pregnancy contraceptive use among teens with unintended pregnancy resulting in live births—PRAMS, 2004-2008. *Morbidity and Mortality Weekly Report, 61* (2), 25-29.

Centers for Disease Control and Prevention(CDC). (2012b). Sexual experience and contraceptive use among female teens, US, 1995, 2002, & 2006-2012, *Morbidity and Mortality Weekly Report, 61* (17), 297-301.

Center for Schools, Health, and Education. (2011). *The dropout crisis: A public health problem and the role of school-based health care.* Retrieved from: www.schoolbasedhealthcare.org.

Clayton, S., Chin, R., Blackburn, S., & Echeverria, C. (2010). Different setting, different care: Integrating prevention and clinical care in school-based health centers. *American Journal of Public Health, 100,* 1592-1596.

Clemmens, D. (2003). Adolescent motherhood: A meta-analysis of qualitative studies. *MCN The American Journal of Maternal Child Nursing, 28,* 93-99.

Connecticut Assembly of School-based Health Centers. (2009). Student satisfaction survey 2009. Retrieved from: www.nasbhc.org.

Constantine N.A., Jerman P., & Huang A.X. (2007a). California parents' preferences and beliefs regarding school-based sex education policy. *Perspectives on Sexual and Reproductive Health, 39*(3), 167-175.

Constantine N.A., Jerman P., & Huang A.X. (2007b). Motivational aspects for school-based comprehensive sex education. *Sex Education, 7,* 421-439.

Council on School Health. (2012). School-based health centers and pediatric practice. *Pediatrics, 129,* 387-393.

Coyne-Beasley, T., Ford, C.A., Waller, M.W., Adimora, A.A., & Resnick, M.D. (2003). Sexually active students' willingness to use school-based health centers for reproductive health care services in North Carolina. *Ambulatory Pediatrics, 3,* 196-202.

Crespo, R., & Shaler, G.A. (2000). Assessment of school-based health centers in a rural state: The West Virginia experience. *Journal of Adolescent Health, 26,* 187-193.

Crosby, R.A., & St. Lawrence, J. (2000). Adolescents' use of school-based health clinics for reproductive health services: Data from the National Longitudinal Study of Adolescent Health. *Journal of School Health, 70* (1), 22-27.

Daillard, C. (2001). *Sex education: Politicians, parents, teachers, and teens: The Guttmacher report on public policy*. New York: Guttmacher.

Daley, A.M. (2012). Rethinking school-based health centers as complex adaptive systems. *Advances in Nursing Science, 35,* E37-E46.

Daley, M.F., Curtis, C., Pyrzanowski, J., Barrow, J., Benton, K., Abrams, L., Federico, S., Luszczak, L., Melinkovich, P., Crane, L., & Kempe, A. (2009). Adolescent immunization in school-based health centers: A national survey. *Journal of Adolescent Health, 45,* 445-452.

Delaware Department of Health and Social Services (DHSS). (2012). *School-based health centers.* Retrieved from: http://dhss.delaware.gov/dhss/*dph/chca*.

Delaware Department of Health and Social Services (DHSS) (2010). *Communicable disease yearly statistics*. Retrieved from: http://dhss.delaware.gov/dhss/dph/epi/epi.html.

Delaware Health Statistics Center. (2011). *Delaware Vital Statistics Annual Report, 2009*. Dover, DE: Delaware Department of Health and Social Services, Division of Public Health.

Deptula, D.P., Henry, D.B., Shoeny, M.E., & Slavick, J.T. (2006). Adolescent sexual behavior and attitudes: A costs and benefits approach. *Journal of Adolescent Health, 38,* 35-43.

DeRosa, C.J., Jeffries, R.A., Afif, A., Cumberland, W.G., Chung, E.Q., Kernat, P.R., Ethier, K.A., Martinez, E., Loya, R.V., & Dittus, P,J. (2012). Improving the implementation of a condom availability program in urban high schools. *Journal of Adolescent Health, 51,* 572-579.

Division of Public Health (DPH), Delaware Department of Health and Social Services (DHSS). (2011). *Delaware adolescent sexual health state plan*. Dover, DE: Author.

Dodd, K.J. (1998). *School condom availability*. Washington, DC: Advocates for Youth. Retrieved from: www.advocatesforyouth.org/component/content/article.

Dodds, E. (2011). Are sexual health services in schools adequate? *British Journal of School Nursing, 6,* 397-403.

Ehrenthal, D., Gunter, W., Maiden, K., & Martin, S. (2011). *Teen births in Delaware: Context, correlates, consequences, and costs. An unpublished study.* Newark, DE: Christiana Care Health System and University of Delaware.

Eisenberg, M.E., Bearinger, L.H., Sieving, R.E., Swain, C., & Resnick, M.D. (2004). Parents' beliefs about condoms and oral contraceptives: Are they medically accurate? *Perspectives on Sexual and Reproductive Health, 36,* 50-57.

Eisenberg, M.E., Bernat, D.H., Bearinger, L.H., & Resnick, M.D. (2009). Condom provision and education in Minnesota public schools: A telephone survey of parents. *Journal of School Health, 79,* 416-424.

Eisenberg, M.E., Bernat, D.H., Bearinger, L.H., & Resnick, M.D. (2008). Support for comprehensive sexuality education: Perspectives from parents of school-age youth. *Journal of Adolescent Health, 42,* 352-359.

Ethier, K.A., Dittus, P.J., DeRosa, C.J., Chung, E.Q., Martinez, E., & Kerndt, P.R. (2011). School-based health center access, reproductive health care, and contraceptive use among sexually experienced high school students. *Journal of Adolescent Health, 48,* 562-565.

Fanburg, J.T., Kaplan, D.W., & Naylor, K.E. (1995). Students' opinions of condom distribution at a Denver, Colorado high school. *Journal of School Health, 65*(5), 181-188.

Federico, S., Abrams, L., Everhart, R.M., Melinkovich, P, & Hambidge, S.J. (2010). Addressing adolescent immunization disparities: A retrospective analysis of school-based health center immunization delivery. *American Journal of Public Health, 100,* 1630-1634.

Ford, C.A., Davenport, A.F., Meier, A., & McRee, A. (2011). Partnerships between parents and healthcare professionals to improve adolescent health. *Journal of Adolescent Health, 49,* 53-57.

Forke, C.M., Mollen, C., Zlotnik, S., Kavanagh, J.E., Sell, K., & Noonan, K. (2011). *Preventing adolescent pregnancy.* Philadelphia, PA: Children's Hospital of Philadelphia Center to Bridge Research, Practice, and Policy.

Formby, E., Hirst, J., Owen, J., Hayter, M., & Stapleton, H. (2010). 'Selling it as a holistic health provision and not just about condoms:' Sexual health services in school settings: Current models and their relationship with sex and relationships education policy and provision. *Sex Education, 10,* 423-435.

Fothergill, K. (1999). *Contraceptive access at school-based health centers: Three case studies.* Washington, DC: Advocates for Youth. Retrieved from: www.advocatesforyouth.org/component/content/article.

Fothergill, K., & Feijoo, A. (2000). Family planning services at school-based health centers: Findings from a national survey. *Journal of Adolescent Health, 27,* 166-169.

Foy, J.E., & Hahn, K. (2009). School-based health centers: A four year experience, with a focus on reducing student exclusion rates. *Osteopathic Medicine and Primary Care, 3* (3), 1-4.

Franklin, C., & Corcoran, J. (2000). Preventing teen pregnancy: A review of programs and policies. *Social Work, 45* (1), 40-52.

Fuller, J.M. (2007). Adolescents and contraception: The nurse's role as counselor. *Nursing for Women's Health, 11*(6), 546-556.

Gallup-Black, A., & Weitzman, B.C. (2004). Teen pregnancy and urban youth: Competing truths, complacency, and perceptions of the problem. *Journal of Adolescent Health, 34,* 366-375.

Gance-Cleveland, B., Costin, D.K., Degenstein, J.A.K. (2003). School-based health centers: Statewide quality improvement program. *Journal of Nursing Care Quality, 18,* 288-294.

Gealt, R. (2012). *Presentation: Sexual behavior of Delaware Adolescents: 2011 unpublished Youth Risk Behavior Survey data.* Received March 22, 2012; May 18 ,2012.

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,* 347-352.

Gerald, L., Redden, D., Wittich, A., Hains, C., Turner-Henson, A., Hemstreet, M., Feinstein, R., Erwin, S., & Bailey, W.C. (2006). Outcomes for a comprehensive school-based asthma management program. *Journal of School Health, 76,* 291-295.

Gold, R., Naleway, A., Jenkins, L., Riedlinger, K., Kurosky, S.K., Nystrom, R.J., & Kurilo, M.B. (2011). Completion and timing of the three-dose HPV series among adolescents attending school-based health centers in Oregon. *Preventative Medicine, 52,* 456-458.

Government Accountability Office. (2010). *School-based health centers: Available information on federal funding.* Washington, DC: US Government Accountability Office.

Guo, J., Wade, T.J., & Keller, K. (2008). Impact of school-based health centers on students with mental health problems. *Public Health Reports, 123,* 768-780.

Guo, J., Wade, T.J., Pen, W. & Keller, K. (2010). School-based health centers: Cost-benefit analysis and impact on healthcare disparities. *American Journal of Public Health, 100,* 1617-1623.

Guttmacher Institute. (2012). *Facts on unintended pregnancy in the United States.* Retrieved: www.guttmacher.org.

Guttmacher Institute. (2011). *State facts about Title X and family planning.* Retrieved: www.guttmacher.org.

Guttmacher, S., Lieberman, L., Ward, D., Freudenberg, N., Rodosh, A., Jarais, D. (1997). Condom availability in NYC public schools: Relationship to condom use and sexual behavior. *American Journal of Public Health, 87* (9), 1427-1433.

Hacker, K.A., Amare, Y., Strunk, N., & Horst, L. (2000). Listening to youth: Teen perspectives on pregnancy prevention. *Journal of Adolescent Health, 26,* 279-288.

Haignere, C.S., Gold, R., Mashovski, J., Ambrosini, J., Rogers, C., & Gollub, E. (2000). High risk adolescents and female condoms: Knowledge, attitudes, and use patterns. *Journal of Adolescent Health, 26,* 392-398.

Hamilton, B., & Ventura, S.J. (2012). Birth rates for US teenagers reach historic lows for all age and ethnic groups. *National Center for Health Statistics Date Brief, number 89.* Hyattsville, MD: National Center for Health Statistics.

Harrison, P.A., Beebe, T., Park, E., & Rancone, J. (2003). The adolescent health review: Test of a computerized screening tool in school-based clinics. *Journal of School Health, 73,* 15-20.

Healthy Teen Network. (2007). *Comprehensive sex education.* Baltimore, MD: Author.

Herrman, J.W. (2005). The teen brain as a work in progress: Implications for pediatric nurses. *Pediatric Nursing, 31* (2), 144-148.

Herrman, J. W. (2006). The voices of teen mothers: The experience of repeat pregnancy. *MCN The American Journal of Maternal Child Nursing, 31* (4), 243-249.

Herrman, J. W. (2007). Repeat pregnancy in adolescence: Intentions and decision-making. *MCN The American Journal of Maternal Child Nursing*. *32,* (2), 89-94.

Herrman, J. W. (2008). Adolescent perceptions of teen births. *Journal of Obstetrical, Gynecological, and Neonatal Nursing, 37* (1), 42-50.

Herrman, J.W. & Baker, M. (2008). *What Delawareans think about teenage pregnancy Prevention: Executive summary.* Newark, DE: University of Delaware.

Herrman, J.W., Moore, C., Anthony, R. (in press). Using film clips to teach teen pregnancy prevention: The Gloucester 18 at a teen summit. *American Journal of Sexuality Education, 7* (3), 198-211.

Herrman, J.W., Solano, P., Stotz, L., & McDuffie, M.J. (in review). Public perceptions of comprehensive sexuality education.

Herrman, J.W., & Waterhouse, J.K. (2011). What do adolescents think of teen parenting? *Western Journal of Nursing Research, 33*(4) 577-592.

Hill, C.A., & Abraham, C. (2008). School-based, randomized controlled trial of an evidence-based condom promotion leaflet. *Psychology and Health, 23,* 41-56.

Hutchinson, P., Carton, T.W., Broussard, M., Brown, L., & Chrestman, S. (2012). Improving adolescent health through school-based health centers in post-Katrina. *Children and Youth Services Review, 34,* 360-368.

Ito, K.E., Gizlice, Z., Owen-O'Dowd, J., Foust, E., Leone, P., & Miller, W.C. (2006). Parent opinion of sexuality education in a state with mandated abstinence education: Does policy match parental preference? *Journal of Adolescent Health, 39,* 634-641.

Jaccard, J., Dodge, T., & Dittus, P. (2003). Do adolescents want to avoid pregnancy? Attitudes toward pregnancy as predictors of pregnancy. *Journal of Adolescent Health, 33,* 79-83.

Jewell, J., Dodge, T., & Dittus, P. (2003). Teen pregnancy: Whose problem is it? *Family Practice, 17,* 522-528.

Joffe, A., Rietmeijer, C.A., Chung, S., Willard, N., Chapin, J.B., Lloyd, L.V., Waterfield, G.A., Ellen, J.M., & Gaydos, C. (2008). Screening asymptomatic adolescent men for chlamydia trachomatis in school-based health centers using urine-based nucleic acid amplification tests. *Sexually Transmitted disease, 35,* S19-S23.

Jones, A. (2012). *Legislation and reimbursement of SBHCs*. Personal Communication. May 1, 2012.

Juszczak, L. (2011). Reaching adolescent males through school-based health centers. *Journal of Adolescent Health, 48,* 538-539.

Juszczak, L., Melinkovich, P., & Kaplan, D. (2003). Use of health services by adolescents across multiple delivery sites. *Journal of Adolescent Health, 32S,* 108-118.

Juszczak, L., Moody, J.K., Vega-Matos, C. (1996). Business and faith: Key community partnerships for school-based health centers. *Journal of School Health, 68,* 429-433.

Kampo, A., Barrow, J., Stokley, S., Saville, A., Glazner, J.E., Suh, C., Federico, S., Abrams, L., Seewald, L., Beaty, B., Daley, M.F., & Dickinson, L.M. (2012). Effectiveness and cost of immunization recall at school-based health centers. *Pediatrics, 129,* e1448-e1452.

Kearney, M.S., & Levine, P.B. (2012*). Explaining recent trends in the teen birth rate.* Cambridge, MA: National Bureau of Economic Research.

Kegler, M.C., Bird, S.T., Kyle-Moon, K., & Rodine, S. (2001). Understanding teen pregnancy from the perspective of young adolescents in Oklahoma City. *Health Promotion Practice, 2* (3), 242-254.

Kelly, P.J., Lesser, J., & Paper, B. (2008). Detained adolescent attitudes about pregnancy and parenting. *Journal of Pediatric Healthcare, 22,* 240-245.

Kerns, S., Pullmann, M.D., Walker, S.C., Lyon, A. R., Cosgrove, T.J., Bruns, E.J. (2011). Adolescent use of school-based health centers and high school dropout. *Archives of Pediatric and Adolescent Medicine, 165,* 617-623.

Kirby, D. (2002). The impact of schools and school programs upon adolescent sexual behavior. *Journal of Sex Research, 39* (1), 27-33.

Kisker, E.E., & Brown, R.S. (1996). Do school-based health centers improve adolescents' access to health care, health status, and risk-taking behavior. *Journal of Adolescent Health, 18,* 335-343.

Klein, J.D., Handwerker, L., Sesselberg, T.S., Sutter, E., Flanagan, E., & Gawronski, B. (2007). Measuring quality of adolescent preventive services of health plan enrollees and school-based health center users. *Journal of Adolescent Health, 41,* 153-160.

Klein, H., Rossbach, C., Nijher, H., Geist, M., Wilson, K., Cohn S., Seigel, D., & Weitzman, M. (2001). Where do adolescents get their condoms? *Journal of Adolescent Health, 29,* 186-193.

Kohler, P.K., Manhart, L.E., & Lafferty, W.E. (2008). Abstinence-only and comprehensive sexual education and the initiation of sexual activity and teen pregnancy. *Journal of Adolescent Health, 42,* 344-351.

Kohn, J.E., Hacker, J.G., Rousselle, M.A., & Gold, M. (2012). Knowledge and likelihood to recommend intrauterine devices for adolescents among school-based health center providers. *Journal of Adolescent Health, 51,* 319-324.

Koppelman, J., & Lear, J.G. (1998). The new child health insurance expansions: How will school-based health centers fit in? *Journal of School Health, 68* (10), 441-446.

Kost, K., Henshaw, S. & Carlin, L. (2010). *U.S. Teenage pregnancies, births and abortions: National and state trends and trends by race and ethnicity.* Retrieved from: http://www.guttmacher.org/pubs/USTPtrends.pdf.

Lagus, K.A., Bernat, D.H., Bearinger, L.H., Resnick, M.D., & Eisenberg, M.E. (2011). Parental perspectives on sources of sex information for young people. *Journal of Adolescent Health, 49,* 87-89.

Lancman, H., Pastore, D.R., Steed, N., & Maresca, A. (2000). Adolescent hepatitis B vaccination: Comparison among 2 high school-based health centers and an adolescent clinic. *Archives of Pediatric and Adolescent Medicine, 154,* 1085-1088.

Lear, J.G., Barnwell, E.A., & Beirens, D. (2008). Healthcare reform and school-based healthcare. *Public Health Reports*, *123,* 704-708.

Leahmann, B., & Zuckman, M. (2012). Strategic engagement with policy makers. In: Wright, T.D. & Richardson, J.W. *School-based Healthcare: Advancing educational success and public health.* Washington, DC: American Public Health Foundation.

Lindberg, L.D. and Maddow-Zimet, I. (2012). Consequences of sex education on teen and young adult sexual behaviors and outcomes. *Journal of Adolescent Health on-line,* doi: 10.1016/j.jadolhealth.2011.12.028.

Lindley, L.L., Reininger, B.M., & Saunders, R. P. (2001). Support for school-based reproductive health services among South Carolina votes. *Journal of School Health, 71,* 66-72.

Lindley, L. L., Reininger, B. M., Vincent, M. L., Richter, D. L., Saunders, R. P. and Shi, L. (1998). Support for school-based sexuality education among South Carolina voters. *Journal of School Health*, 68, 205–212.

Little, T., Henderson, J., Pederson, P., & Stonecipher, L. (2010). Perceptions of teen pregnancy among high school students in Sweet Home, Oregon. *Health Education Journal, 69,* 334-343.

Luker, K. (2006). *When sex goes to school: Warring views on sex and sex education since the sixties.* New York: W.W. Norton.

Luta, M., Kennedy, J., Vella, R., Dowling, J. (2010). *Delaware HIV/AIDS surveillance report.* Retrieved from: http://dhss.delaware.gov/dhss/dph/dpc/hivaidsprogram.html.

Ma, J., Wang, Y., & Stafford, R.S. (2005). US adolescents receive suboptimal preventive counseling during ambulatory care. *Journal of Adolescent Health, 36,* 441.

Mandel, L.A., & Kulig, J.W. (2012). School-based female-specific substance use prevention: Lessons from a Massachusetts demonstration project. In: Wright, T.D. & Richardson, J.W. *School-based Healthcare: Advancing educational success and public health.* Washington, DC: American Public Health Foundation.

Mansour, M.E., Rose, B., Toole, K., Luzader, C.P., & Atherton, H.D. (2008). Pursuing perfection: An asthma quality improvement initiative in school-based health centers with community partners. *Public Health Reports, 123,* 717-730.

Martinez, G., Copen, C.E,, & Abma J.C. (2011) Teenagers in the United States: Sexual activity, contraceptive use, and childbearing, 2006–2010 National Survey of Family Growth. National Center for Health Statistics. *Vital Health Statistics, 23*(31).

Mavis, B., Pearson, R., Stewart, G., & Keefe, C. (2009). A work sampling study of provider activities in school-based health centers. *Journal of School Health, 79,* 262-268.

McCarthy, S.K., Telljohann, S.K., Coventry, B., & Price, J. (2005). Availability of services for emergency contraceptive pills at high school-based health centers. *Perspectives on Sexual and Reproductive Health, 37,* 70-77.

McIntosh, K.H., Moore, J.B., & Elci, O.C. (2009). Predisposing factors related to adolescent sexuality among rural and urban school-based health centers in eastern North Carolina. *Journal of Public Health Management, 15,* E-16-E-22.

McNall, M.A., Lichty L.F., & Mavis, B. (2010). The impact of school-based health centers on the health outcomes of middle school and high school students. *American Journal of Public Health, 100,* 1604-1610.

Mears, C.J., Charlebois, N.M., & Holl, J.L. (2006). Medication adherence among adolescents in a school-based health center. *Journal of School Health, 76* (2), 52-56.

Medenwald, J. (1998). *Legal issues and school-based and school-linked health centers.* Washington, DC: Advocates for Youth. Retrieved from: www.advocatesforyouth.org/component/content/article.

Mueller, T.E., Gavin, L.E., & Kulkarni, A. (2008). The association between sexual education and youths' engagement in sexual intercourse, age at first intercourse, and birth control use at first sex. *Journal of Adolescent Health, 42,* 89-96.

National Assembly on School-Based Health Care (NASCHC). (2011a). *Benefits of school-based health centers.* Washington, DC: Author.

National Assembly on School-Based Health Care (NASCHC). (2011b). *Costs savings of school-based health centers.* Washington, DC: Author.

National Assembly on School-Based Health Care(NASCHC). (2008). *Keeping students healthy and learning: SBHCs and education.* Washington, DC: Author.

National Assembly on School-Based Health Care (NASCHC). (2010). Omnibus poll. Retrieved from: www.schoolbasedhealthare.org.

National Assembly on School-Based Health Care(NASCHC). (2008). *Position statement: Adolescent health care in school-based health centers.* Washington, DC: Author.

National Campaign to Prevent Teen and Unintended Pregnancy (2011). *Counting it up: The public costs of teen childbearing in Delaware in 2008.* www.TheNationalCampaign.org/costs.

National Campaign to Prevent Teen and Unintended Pregnancy (2006). *Teens' attitudes toward pregnancy and childrearing, 1988-2002.* Washington, DC: Author.

National Institute for Health Care Management Research and Education Foundation (NIHCM). (2011). *Protecting confidential health services for adolescents & young adults: Strategies and Considerations for health plans*. Washington, DC: Author.

Nsuami, M., Taylor, S.N., Sanders, L.S., & Martin, D.H. (2006). Missed opportunities for early detection of chlamydia and gonorrhea in school-based health centers. *Sexually Transmitted Diseases, 33,* 703-705.

Nystrom R., Lovrien, K., Gallant, L., Johnston-Silverberg, A.K., & Shelton, S. (2004). Oregon school-based health centers: Descriptive analysis of a patient satisfaction survey. *Californian Journal of Health Promotion, 2,* 11-21.

Nystrom, R., & Prata, A. (2008). Planning and sustaining a school-based health center: Cost and revenue findings from Oregon. *Public Health Reports, 123,* 751-760.

Oregon Health Authority. (2012). *2012 status update: SBHCs and youth voice.* Retrieved from: www.nasbhc.org.

Oros, M., Perry, L., & Heller, B. (2000). School-based health services: An essential component of neighborhood transition. *Community Health, 23* (2), 31-35.

Oruwariye, T., Webber, M.P., & Ozuah, P. (2003). Do school-based health centers provide adequate asthma care? *Journal of School Health, 73,* 186-190.

Paskiewicz, S. (2001). Pregnant adolescents and their mothers: Shared experiences of teen mothers. *MCN The American Journal of Maternal Child Nursing, 26,* 33-38.

Pastore, D.R., Juszczak,L., Fisher, M.M., & Friedman, S.B. (1998). School-based health center utilization. *Archives of Pediatric and Adolescent Medicine, 152,* 763-767.

Peak, G.L., & McKinney, D.H. (1996). Reproductive and sexual health at the school-based/school-linked health canter: An analysis of services provided by 180 clinics. *Journal of Adolescent Health, 19,* 276-281.

Price, J., Yingling, F., Dake, J.A. & Telljohann, S.K. (2003). Adolescent smoking cessation services of school-based health centers. *Health Education & Behavior, 30,* 196-208.

Rentschler, D.D. (2003). Pregnant adolescent perspectives of pregnancy. *MCN The American Journal of Maternal Child Nursing, 28,* 377-383.

Richardson, J. & Wright, T.D. (2012). Messages matter: Using data to inform school-based health center policy advocacy. In: Wright, T.D. & Richardson, J.W. *School-based Healthcare: Advancing educational success and public health.* Washington, DC: American Public Health Foundation.

Ricketts, S.A., & Guernsey, B.P. (2006). School-based health centers and the decline in Black teen fertility during the 1990's in Denver, Colorado. *American Journal of Public Health, 96,* 1588-1592.

Rienzo, B., Button, J.W., & Wald, K.D. (2000). Politics and success of school-based health centers. *Journal of School Health, 70,* 331-337.

Robert, A.C., & Sonenstein, F.L. (2010). Adolescents' reports of communication with their parents about sexually transmitted diseases and birth control: 1988, 1995, and 2002. *Journal of Adolescent Health, 46,* 532-537.

Rosengard, C., Phillips, M., Adler, N., & Ellen, J. (2004). Adolescent pregnancy intentions and pregnancy outcomes: A longitudinal examination. *Journal of Adolescent Health, 35,* 453-461.

Rosengard, C., Pollock, L., Weitzens, S., Meers, A. & Phipps, M. (2006). Concepts of the advantages and disadvantages of teenage childbearing among pregnant adolescents: A qualitative analysis. *Pediatrics, 118,* 503-511.

Rovner, J., Juszczak, L., & Schlitt, J. (2012). How state policies can support school-based healthcare.. In: Wright, T.D. & Richardson, J.W. *School-based Healthcare: Advancing educational success and public health.* Washington, DC: American Public Health Foundation.

Roye, C., & Seals, B. (2001). A qualitative assessment of condom use decisions by female adolescents who use hormonal contraception. *Journal of the Association of Nurses in AIDS Care, 12*(6), 78-87.

Ryan, S., Franzetta, K., & Manlove, J. (2007). Knowledge, perceptions, and motivations for contraception: Influence on teens' contraceptive consistency. *Youth Society,* 39, 182-206.

Sadler, L.S., Chen, J.Y., Daley, A.M., Leventhal, J.M., & Reynolds, H. (2006). Reproductive care and rates of pregnancy in teenagers with negative pregnancy test results. *Journal of Adolescent Health, 38,* 223-229.

Salerno, J. (2012). School-based and linked health centers immunization project: A state-funded effort to improve adolescent immunization rates. In: Wright, T.D. & Richardson, J.W. *School-based Healthcare: Advancing educational success and public health.* Washington, DC: American Public Health Foundation.

Santelli, J., & Kirby, D. (2010). State policy effects on teen fertility and evidence-based policies. *Journal of Adolescent Health, 46,* 515-516.

Santelli J., Kouzis, A., & Newcomer, S. (1996a). School-based health centers and adolescent use of primary care and hospital care. *Journal of Adolescent Health, 19,* 267-275.

Santelli J., Kouzis, A., & Newcomer, S. (1996b). Student attitudes toward school-based health centers. *Journal of Adolescent Health, 18,* 349-356.

Santelli, J., Morreale, M., Wigton, A., & Grason, H. (1996). School health centers and primary care for adolescents: A review of the literature. *Journal of Adolescent Health, 18,* 357-366.

Santelli, J., Nystrom, R.., Brindis, C., Juszczak, L. , Klein, J., Bearss, N., Kaplan, D.W., Hudson, M., & Schlitt, J. (2003). Reproductive health in school-based health centers: Findings from the 1998-1999 census of school-based health centers. *Journal of Adolescent Health, 32,* 443-451.

Schelar, E., Franzetta, K., & Manlove, J. (2007). *Repeat teen childrearing: Differences across states and by race and ethnicity.* Washington, DC: ChildTrends. Retrieved from www.childtrends.org/Files/Child_Trends-2007.

Schlitt, J.J., Juszczak, L.J., & Eichner, N.H. (2008). Current status of state policies that support school-based health centers. *Public Health Reports, 123,* 731-738.

Schmiedl, R. (2004). School-based condom availability programs. *The Journal of School Nursing, 20* (1), 16-21.

Schuster, M.A., Bell, R.M., Berry, S.H., & Kanouse, D.E. (1998). Impact of a high school condom availability program on sexual attitudes and behavior. *Family Planning Perspectives, 30* (2), 62-72, 88.

Scudder, L., Papa, P., & Brey, L. (2007). School-based health centers: A model for improving the health of the nation's children. *Journal for Nurse Practitioners, 3* (10), 713-720.

Sexuality Education Training Institute. (2012). *2012 Delaware teen sexual health fact sheet.* Newark, DE: Planned Parenthood of Delaware.

Short, B. (2012). *House Bill #303.* Dover, DE: 146th Delaware General Assembly.

Shuler, P.A. (2000). Evaluating students services provided by school-based health centers: Applying the Shuler Nursing Practitioner Practice Model. *Journal of School Health, 70* (8), 348-352.

Sidebottom, A., Birnbaum, A.S., & Nafstad, S.S. (2003). Decreasing barriers for teens: Evaluation of a new teenage pregnancy prevention strategy in school-based clinics. *American Journal of Public Health, 93,* 1890-1892.

Sidebottom, A., Harrison, P.A., Amidon, D., & Finnegan, K. (2008). The varied circumstances prompting requests for emergency contraception at school-based clinics. *Journal of School Health, 78, 258-263.*

Silberberg, M., & Cantor, J.C. (2008). Making the case for school-based health: Where do we stand? *Journal of Health Politics, 33* (1), 3-37.

Smith, P., Novello, G.,& Chacko, M. (2011). Does immediate access to birth control help prevent pregnancy? A comparison of onsite provision versus off-campus referral for contraception at two school-based clinics. *Pediatrics, 48,* S107-S108.

Solano, P., McDuffie, M.J., Tinsley, A., Knight, E., Bass, J., Powell, P., & Solano, A. (2007). *A survey of views on teen pregnancy prevention by the Delaware population (an unpublished manuscript).* Newark, DE: University of Delaware/Health Services Policy Research Group.

Soleimanpour, S., Brindis, C., Geierstanger,, S.P., Kandawalla, S., & Kurlaender, T. (2008). Incorporating youth-led community participatory research into school health center programs and policies. *Public Health Reports, 123,* 709-716.

Soleimanpour, S., Geierstanger, S.P., Kaller, S., McCarter, V., & Brindis, C.D. (2010). The role of school health centers in health care access and client outcomes. *American Journal of Public Health, 100,* 1597-1603.

Spear, H. (2001). Teenage pregnancy: "Having a baby won't affect me that much." *Pediatric Nursing, 27,* 574-580.

Spear, H. (2001). A follow up case study on teen pregnancy: "Having a baby isn't a nightmare, but it's really hard!" *Pediatric Nursing, 30,* 120-125.

Stayton, W.R. (1998) A theory of sexual pleasure. In: Thatcher, A., & Stuart,, E. (Ed.). *Christian perspectives of sexuality and gender*. Herefordshire, United Kingdom: Gracewing.

Stephens, M., McLean, K., Cannatelli, K., & Stillman, P.L. (2011). Identification of overweight, obesity, and elevated blood pressure: A school-based health center performance improvement initiative. *American Journal of Medical Quality, 26* (1), 34-38.

Strolin-Goltzman, J. (2010). The relationship between school-based health centers and the learning environment. *Journal of School Health, 80,* 153-159.

Strozer, J., Juszczak, L., & Ammerman, A. (2010). *2007-2008 National school-based health care census.* Washington, DC: National Assembly on School-Based Health Care.

Strunk, J.A. (2008). The effect of school-based clinics on teenage pregnancy and parenting: An integrated review of the literature. *The Journal of School Nursing, 24* (1), 13-20.

Swider, S., & Valukas, A. (2004). Options for sustaining school-based health centers. *Journal of School Health, 74,* 115-118.

Terzian, M., & Moore, K.A. (2012*). Examining state-level patterns in teen childbearing: 1991-2009.* Washington, DC: ChildTrends.

Tieman, J. (2011). Affordable Care Act: Another success story-school-based health centers. *Health Progress,* 72-73.

Trent, M., Jennings, J.M., Waterfield, G., Lyman, L.M., & Thomas, H. (2009). Finding targets for obesity intervention in urban communities: School-based health centers and interface with affected youth. *Journal of Urban Health, 86,* 571-583.

Turner, Y. (2012). Sex positive approaches in a sex negative environment. *National Sex Ed Conference, Center for Family Life Education,* Somerset, NJ.

Van Cura, M. (2010). The relationship between school-based health centers, rates of early dismissal from school, and loss of seat time. *Journal of School Health, 80,* 371-377.

Van Helden, B.W. (2012). Weight management and school-based health care. In: Wright, T.D. & Richardson, J.W. *School-based Healthcare: Advancing educational success and public health.* Washington, DC: American Public Health Foundation.

Wade, T., & Guo, J. (2010). Linking improvements in health-related quality of life to reductions in Medicaid costs among students who use school-based health centers. *American Journal of Public Health, 100,* 1611-1616.

Wade, T., Mansour, M., Guo, J., Huentelman, T., Line, K. & Keller, K.N. (2008). Access and utilization patters of school-based health centers at urban and rural elementary and middle schools. *Public Health Reports, 123,* 739-748.

Wald, K.D., Button, J.W., Rienzo, B.A. (2001). Morality politics versus political economy: The case of school-based wellness centers. *Social Science Quarterly, 82,* 221-234.

Whitaker, D.J., Miller, K.S., May, D.C., & Levin, M.L. (1999). Teenage partners' communication about sexual risk and condom use: The importance of parent-teenager discussions. *Family Planning Perspectives, 31,* 117-121. *Perspectives on Sexual and Reproductive Health, 40* (3), 162-170.

Whittaker, P.G., Armstrong, K.A., & Adams, J. (2008). Implementing an advance emergency contraception policy: What happens in the real world. *Perspectives on Sexual and Reproductive Health, 40,*162-170.

Wiemann, C.M., Rickert, V.I., Berenson, A.B., & Volk, R.J. (2005). Are adolescents stigmatized by pregnancy? *Journal of Adolescent Health, 36,* 352.e1-352.e7.

Williams, A.R., Litvak, I., & Moriarty, J. (2004). Moral traditionalism and the kinds of school-based health center services offered in the United States. *Social Science Quarterly, 85,* 1150-1160.

Wolk, L.I., & Kaplan, D.W. (1993). Frequent school-based clinic utilization: A comparative profile of problems and service needs. *Journal of Adolescent Health, 14* (6), 458-463.

Wolk, L.I., & Rosenbaum, R. (1995). The benefits of school-based condom availability: Cross-sectional analysis of a comprehensive high school-based program. *Journal of Adolescent Health, 17,* 184-188.

Wretzel, S.R., Visintainer, P.F., & Koenigs, L.M.P. (2011). Condom availability program in an inner city public school: Effect on the rates of gonorrhea and chlamydia infections. *Journal of Adolescent Health, 49,* 324-326.

Wright, H. (2011). School nurses must be involved in teen birth control. *Wilmington News Journal*, Feb. 12.

Yang, Z., & Gaydos, L.M. (2010). Reasons for and challenges of recent increases in teen birth rates: A study of family planning service policies and demographic changes at the State level. *Journal of Adolescent Health, 46,* 517-524.

Yarber, W.L., Milhausen, R.R., Crosby, R.A., & Torabi, M.R. (2005). Public opinion about condoms for HIV and STD preventions: A Midwestern state telephone survey. *Perspectives on Sexual and Reproductive Health, 37,* 148-154.

Yi, C.H., Martyn, K., Salerno, J., & Darling-Fisher, C.S. (2009). Develop and clinical use of rapid assessment for adolescent preventive services questionnaire in school-based health centers. *Journal of Pediatric Healthcare, 23* (1), 2-9.

Zeanah, P.D., Morse, E.V., Simon, P.M., Stock, M., Pratt, J.L., & Sterne, S. (1996). Community reactions to reproductive healthcare at three school-based clinics in Louisiana. *Journal of School Health, 66,* 237-241.

Zimmer-Gembeck, M.J., Doyle, L.S., & Daniels, J.A. (2001). Contraceptive dispensing and selection in school-based health centers. *Journal of Adolescent Health, 29,* 177-185.

Zorrila, M., Baxter, M., & Heater, H. (2012). Speaking truth to power: A youth advisory board's actions to change school-based policy in San Francisco. In: Wright, T.D. & Richardson, J.W. *School-based Healthcare: Advancing educational success and public health.* Washington, DC: American Public Health Foundation.

Appendix 1.

Proposed Project Time line

February 2012	State and UD IRB application Review of literature/best practices
March-May 2012	Individual interviews Focus groups
June 2012	Obtain and review of data for outcome evaluation: social, economic, and personal costs and rewards; Impacts of RHS
July 2012-August 2012	Completion of report Submission to DPH Presentation to school boards/legislators/other advocates and Stakeholders

Revised timeline to meet needs of sensitive legislation, logistical issues. and school schedules

Spring 2012	State and UD IRB application Review of literature/best practices
Fall 2012	Individual interviews
Fall 2012	Completion of report
December 2012	Submission to DPH
2013	Presentation to school boards/legislators/other advocates and Stakeholders

Appendix 2.

Interview Guide

1. What are your thoughts about the issues related to teen sexuality, teen pregnancy, and teen parenting in DE?

2. What are your thoughts about teens having access to reproductive health services (RHS)?
    a. Condoms?
    b. Oral contraception?
    c. Emergency contraception?
    d. Education about the use of condoms and contraception?
    e. Testing and treatment for sexually transmitted infections?
    f. Testing and referral for HIV?

3. What barriers do you believe exist when sexually active teens attempt to access RHS?

4. What impact do you believe teen access to RHS has on:
    a. Rates of teen sexual activity?
    b. Rates of teen pregnancy and teen births?
    c. Rates of STI's and HIV?
    d. The consequences associated with undetected/untreated STI's/HIV?

5. Where do you believe teens should be able to access RHS?

6. What are your thoughts about teens having access to RHS at the School-based Health Centers (SBHCs)?
    a. Condoms?
    b. Oral contraception?
    c. Emergency contraception?
    d. Education about the use of condoms and contraception?
    e. Testing and treatment for sexually transmitted infections?
    f. Testing and referral for HIV?

7. Do you believe that RHS services provided by SBHCs in schools will have a unique impact on:
    a. Rates of teen sexual activity?
    b. Rates of teen pregnancy and teen births?
    c. Rates of STI's and HIV?
    d. The consequences associated with undetected/untreated STI's/HIV?

8. Currently, school-based RHS are funded by state and federal funds.
    a. Who do you believe should pay for these services?
    b. What role should private and public health insurance play in the provision of RHS to teens in SBHCs?

9. (Only asked of selected individuals)
   Legal issues, consent, and confidentiality impact teen access to RHS.
   a. Are you aware that Delaware law indicates that teens twelve years old and above can receive RHS confidentially and without parental consent?
   b. Why do you believe this is in existence?
   c. What impact does this policy have on such outcomes as sexual activity, pregnancy, parenting, STI's, HIV, and other consequences?

10. As an adult, are you in contact with teens using RHS at SBHCs?
    a. If so, what has been their utilization of these services?
    b. If you are aware, what do teens think about RHS at SBHCs?
    c. What have you heard teens say about RHS in SBHCs?

11. How do you perceive SBHCs in Delaware have changed in the last four years? For example, in issues related to funding (insurance, EBOs, Medicaid, fee-for-service), sustainability, consent process, confidentiality, model of service, etc.?

Specific questions will be asked of selected key informants, including:

1. What are the cons of providing RHS at SBHCs?
2. How could the provision of RHS in SBHCs be improved?
3. What obstacles does one confront with the provision of RHS in the SBHCs?

Appendix 3.

Institutional Review Board Materials

Delaware stakeholder perceptions of the provision of reproductive health services by school-based health centers

Interest Letter

Dear Key informant:

As an individual in Delaware working with teens, adolescent reproductive health, in a School-based Health Center (SBHC), or as a concerned advocate, you may be aware that some SBHC are providing or considering providing selected reproductive health services to teens at schools. The Division of Public Health and the University of Delaware are conducting a study evaluating the provision of selected reproductive health services at school-based health centers. We are interested in key individuals' ideas about adolescent reproductive health and are planning to conduct interviews to gain more information about this issue. You have been identified as an individual with important perspectives on this issue. We would like you to participate in a 1 ½ hour interview designed to obtain information about adolescent sexual health, reproductive health services, teen access to reproductive health services, and the impact of such services on teen sexual activity, pregnancies, births, and sexually transmitted infections. ~~The interviews will be audiotaped and~~ no personal identities will be shared or reported. ~~Only those consenting to be audiotaped will be able to participate.~~ Only general job titles, roles, and geographic areas will be noted. We hope to conduct 20 interviews throughout DE.

The interviews have been approved Division of Public Health/DHSS Human Subjects Review Board and the University of Delaware Institutional Review Board and will be an important part of ensuring the future health of teens in DE.

If you are interested in participating, please contact Dr. Judith Herrman, RN at jherrman@udel.edu or 302-831-8380. I will contact you to set up a convenient time for me to visit you and conduct the interview.

Thanks so much for your time and considering this opportunity.

Sincerely,

Judith W. Herrman, PhD, RN, ANEF
School of Nursing
University of Delaware

Delaware stakeholder perceptions of the provision of reproductive health services by school-based health centers

Key informant interview: Participant Consent Form

Dear Participant:

Description of the research:
The Division of Public Health and the University of Delaware are conducting a study evaluating the provision of selected reproductive health services at school-based health centers in Delaware. You have been identified as a person having knowledge and experience in this matter and as a potential interview candidate. We would like you to participate in a 1 ½ hour interview designed to obtain information about adolescent sexual health, reproductive health services, teen access to reproductive health services, and the impact of such services on teen sexual activity, pregnancies, births, and sexually transmitted infections. ~~The interviews will be audiotaped. Only those consenting to be audiotaped will be able to participate.~~ We hope to have about 20 key informants included in the interview process.

Conditions of participation/benefits and risks:
Withdrawing from or not participating in the interview will not result in any negative consequences or penalties for you and participation is voluntary. You may choose not to answer any question that you feel uncomfortable answering. There are no known risks in participating in this project. All identities will be kept confidential and all information will be reported as a group. Only general job title, roles, and geographic areas will be noted. ~~The interviews will be audiotaped and the tapes~~, typed transcriptions, and other notes will be maintained within a locked environment on the campus at UD and the data saved within a pass-code encrypted computer server in a UD locked office; all data will be kept for three years. All files ~~and tapes~~ will be then deleted and hard copies shredded and destroyed. Participating in this interview will provide you the opportunity to voice your opinions and influence adolescent health and SBHC experiences in Delaware.

Contacts:
If you have any questions about the project you may contact Judy Herrman, PhD, RN at 302-831-8380 (jherrman@udel.edu). If you have any questions about your rights as a participant, you may contact the Chair of the University of Delaware IRB at 302-831-2137 or Rosanne Griff-Cabelli, Chair, Department of Health and Social Services Human Subjects Review Board at 302-255-9133.

~~Please initial here to provide your consent to be audiotaped: _____~~

The signature below indicates your consent to participate in this project.

Interview Participant Signature

_____Date _____

DELAWARE HEALTH AND SOCIAL SERVICES

RESEARCH ABSTRACT

FOR APPLICATION TO
THE HUMAN SUBJECTS REVIEW BOARD (HSRB)
(Revised March 2011)

The form below is to be completed for all projects involving research and human subjects within the Department of Health and Social Services, in compliance with DHSS Policy Memo 55.

In addition to completion of the form provided here, the researcher will need to submit any proposal prepared for the funding agency to the HSRB.

The researcher also needs to sign and submit an Investigator's Agreement, which is available from the HSRB chairperson, and a Certificate of Completion of Training on Human Subjects Protection.
Item 20 below relates to review of the project by the Attorney General's Office. This submission is to be handled by the Division Director and should be done prior to

submitting the material to the Human Subjects Review Board so that any comments from that Office can be used by the Board in its deliberations. The need for this is to be handled on a case-by-case basis.

Projects being done as part of school coursework or in fulfillment of requirements for a college degree must be accompanied by a letter from the researcher's faculty advisor or instructor documenting that all project materials have been reviewed by him/her and that the work is endorsed by that individual.

Once the form below is completed and signed by the Researcher and the Division Director, one hard copy original of all signed materials, including the Investigator's Agreement and the Training Certificate, should be sent to: Linda Barnett, Ph.D., Chairperson, Human Subjects Review Board, Division of Management Services, DHSS, Main Building, Herman Holloway Sr. Campus, 1901 N. DuPont Highway, New Castle, DE 19720. In addition, all project materials should be sent electronically to Dr. Barnett (linda.d.barnett@state.de.us).
If there are any documents not available electronically and for those project documents which are extremely lengthy, then paper copies will need to be distributed to Board members by the researcher (addresses will be supplied). For clarification of these instructions, Dr. Barnett can be reached at 302-255-9133.

Project Descriptions; check all that apply:
☐ Must be HIPAA-compliant; involves protected health information maintained by a 'covered entity'
☐ Meets the criteria for exemption from HIPAA compliance allowed under 45 CFR Sec 164.512 (b)(i): involves protected health information to be used by a public health authority for a public health purpose
☐ Access to protected health information included in this project will require tracking on the part of _____ in order to be able to comply with the HIPAA provision that individuals, upon request, must be given an accounting of certain disclosures of their protected health information
X No protected health information requested; does not require HIPAA compliance

1.Title of project

Delaware stakeholder perceptions of the provision of reproductive health services by school-based health centers

2.Name, address, agency, e-mail address, and phone number of principal investigator(s) or project manager(s)

Judith W. Herrman, PhD, RN, ANEF
Faculty, School of Nursing, University of Delaware
375 McDowell Hall
Newark, DE 19716
jherrman@udel.edu
302-831-8380

3.Division whose clients/consumers will serve as research subjects

Division of Public Health/Department of Health and Social Services

4.Name and phone number of Division contact person for the project

Alisa Maria Jones (Olshefsky), M.P.H.
Chief, Family Health Systems Section
Delaware Division of Public Health
302-744-4901 (phone)
302-538-8801 (BlackBerry)
Alisa.Jones@state.de.us

5.Role of Divisional staff in the project

Project approval, appropriation of funding.

6.Purpose of project; hypotheses; or research questions (including information to substantiate the scientific merit of the project)

School-based Health Centers (SBHCs) are an important strategy to provide wellness services to adolescents. Twenty-eight SBHCs function in high schools in Delaware providing sports physical examinations, nutrition and mental health counseling, and primary care screening and treatment. High rates of teen sexuality, pregnancies, births, and sexually transmitted infections have prompted schools to consider providing reproductive health services (RHS) at the SBHCs. Services provided through the SBHCs are at the discretion of the school district board and each school's administration. At this time 14 schools have agreed to provide RHS and adopted consent forms to begin services, though actual provision of services is pending. RHS may include education about and prescription for oral contraceptives, education about and distribution of condoms, testing and treatment of sexually transmitted infections, and testing and referral for HIV. Provision of emergency contraceptives is, at this time, not part of RHS. **The purpose of this study is to qualitatively and quantitatively evaluated the impact, in terms of social, personal, and economic costs and rewards, of the provision of RHS by SBHCs.** It is anticipated that these findings will highlight potential areas of improvement and revision of practices, validate current RHS processes, and inform school districts, school administrators, and other advocates of the value of RHS in SBHCs. This study will be conducted in four phases. **Phase 1** of the study will include an in-depth review of the literature determining teen perceptions of teen parenting, their thoughts on access and use of reproductive health services, and their use of SBHCs and will examine best practices in the provision of RHS in SBHCs. **Phase 2** will include individual, semi-structured interviews with adult key informants/stakeholders about the provision of RHS in SBHCs. **Phase 3** includes two focus groups of parents, one from a school with a SBHC that provides RHS and one that does not. **Phase 4** will include evaluative data related to usage and effectiveness of RHS provided by selected SBHCs. Data will be obtained from SBHCs providing RHS including the number of educational sessions, the number of condoms and oral contraceptives distributed, and the number of tested and treated sexually transmitted infections. Data prior to the initiation of RHS and after RHS will be compared, data will also be compared with SBHCs that do and do not provide RHS. Information will be gathered from existing school records maintained by SBHCs and reported to DPH (See phase 4 sample data grid attached). The utilization of these services will also be assessed for economic impact. We are seeking human subjects approval for Phases 2, 3, and 4, including the semi-structured interviews, parent focus groups, and the record review.

7.Subjects or Population to be Studied

a. Age, gender(s) and approximate number

The population of study for Phase 2 are adults in Delaware with the greatest knowledge and interface with RHS in SBWCs. Potential candidates for key informants will be identified via record review, snowball technique, and identification by the Principal Investigator. Key informants will be asked to participate in semi-structured, individual interviews with the PI. The target is about 20 individual interviews. The letter of interest is attached.

The population of study for Phase 3 are adult parents of children in high schools with SBWCs. The parent groups will be identified by SBHC staff and will be solicited for

participation from the SBHCs at a school that does and does not provide RHS. The letters of interest are attached. Two focus groups will be conducted with 6-8 members per group. Phase 4 of the study will assess the documents of 10 SBWCs providing RHS and 10 SBWCs not providing RHS. These records will be accessed from the DPH Coordinator of SBWCs. The utilization of these services will also be assessed for economic impact.

b. Inclusion/exclusion criteria

Key informant interviews (Phase 2)--adults who work in SBHC with and without RHS, state officials involved in the process, school board members and school administrators from schools with SBHCs that do and do not provide RHS, community advocates in areas with schools with SBHCs that do and do not provide RHS, and experts in reproductive health
Focus groups (Phase 3)-- parents of students in schools with SBHC with and without RHS
Efforts will be made to ensure a slate of interview and focus group candidates that represents the entire state of Delaware, a cross-section of urban, rural, and suburban schools, and the diverse make-up of the state.
Interview and focus group candidates who meet the inclusion criteria will be included. Those that do not meet these criteria will not be asked to participate. Only those agreeing to be taped will be able to participate.

8.Method(s) of Recruitment, including plan for determining and recording reasons for refusal to participate; attach any information sheets or other documents used in recruitment

The semi-structured interviews, Phase 2 of the study, will be conducted with adult key informants/stakeholders about the provision of RHS in SBHCs. These participants will be include those who work at SBHCs that do and do not provide RHS, state officials involved in the process, school board members and school administrators from schools with SBHCs that do and do not provide RHS, general community members in areas with schools with SBHCs that do and do not provide RHS, and experts in reproductive health. Efforts will be made to ensure a slate of interview candidates that represents the entire state of Delaware, a cross-section of urban, rural, and suburban schools, and the diverse make-up of the state. Interview participants will be accessed via key documents/web sites, the snowball technique, or identified by the PI. Potential participants will be sent an interest letter (see attached). Those responding to this interest letter will be sent a consent form (see attached) with instructions to bring the consent form to the interview. Participation in these interviews will be voluntary. It is anticipated that these interviews will be about 1 ½ hours in length and interviews will include the questions in the interview guide (see attached). All interviews will be conducted by the PI and specific questions for potential candidates will be selected by the PI. All interviews will be audiotaped will be conducted at the individuals' places of work or at convenient public venues where audiotaping may be completed.
The focus group segment of the study, Phase 3, will include two focus groups of parents, one from a school with a SBHC that provides RHS and one that does not. Potential parents will be identified by SBHC staff and will be sent letters of interest. These letters are differentiated based on whether the SBWC is providing RHS (see attached). Those responding to the letter of interest will be sent an

informed consent form (see attached) with instructions to bring the form to the scheduled focus group. Consent forms for parents of children in schools with SBWCs providing and not providing RHS will be differentiated (see attached). Focus group questions will solicit parents' perceptions about access to RHS, the roll of the SBHC, educating teens about sexuality, and issues related to sexuality and health. The focus groups will be audiotaped. Standard rules of focus groups will be used to ensure confidentiality, total group participation, the power of group dynamics, and rigor of data analysis. The focus group question guide is attached. *The recruitment process will not exclude parents who parents who have expressed negative opinions about the school-based health centers, but will only include parents of children who use the health center services with parental consent.*

Data analysis for the qualitative data in Phase 2 and Phase3 will be conducted via template analysis, in which the questions provide the structure for the template, and will be assessed for emerging themes. The record review, Phase 4 of the study, will assess the documents of 10 SBWCs providing RHS and 10 SBWCs not providing RHS. The utilization of these services will also be assessed for economic impact. These records will be accessed from the DPH Coordinator of SBWCs. The records will be coded as (1) providing RHS and (2) not providing RHS and numbered within each category (see phase 4 sample data grid). The data will be analyzed comparing schools with and without RHS and comparing schools with RHS before and after implementation.

All information will be stripped of identifiers and will be reported as an aggregate. No school names, county, specific job titles, or individuals will be connected with the data. Only those agreeing to be taped will be able to participate. Due to confidentially issues, no HIV testing or referral information will be included in this data collection or analysis.

9.Compensation/Inducements to Participate (describe and give justification):

Interview participants will receive no compensation. Focus group participants will be provided with a light dinner in recognition of their time.

10.(a) If prior informed consent will be sought:

Method(s) for ensuring participant understanding of the project and obtaining prior informed consent and HIPAA authorization – if applicable [include copy of form(s) to be used].

Informed consent will be obtained from all interested parties prior to the interview or focus group. Individuals responding positively to the interest letter (via local phone or email) will be sent the informed consent form and will be asked to bring the signed form with them to the focus group or interviews (consent forms attached).

[Note: any 'contact' phone numbers provided should be local or toll-free. If either option is not available, participants should be advised that they can call 'collect.' In addition, the consent document should include the name and phone number of the DHSS HSRB chairperson as a 'contact' for questions participants may have about their rights as research subjects. If the phone number is not 'local' for the participants, they should be advised that they can call 'collect.']

Also, provide the following information, to document method(s) used to maximize participant understanding. Please elaborate on/explain any "no" responses in column two.

Form(s) have been edited to reduce use of technical terms/jargon	**yes/no**
Form(s) have been pre-tested by individuals comparable to potential participants	**yes/no** **Forms have not been pretested, but wording made appropriate for populations.**
Form(s) use subheadings	**yes/no**
Conceptual density has been minimized	**yes/no**
Active voice is used as much as possible, instead of passive	**yes/no**
Assistance is planned to ascertain participant understanding – such as: ❖ **having participant read form aloud to researcher with the option of asking for clarification as the reading progresses;** ❖ **having participant rephrase key aspects of the information in the form, as prompted by the researcher;** ❖ **having participant respond to questions designed to elicit understanding after going through the form independently first;** ❖ **putting a highlighted statement – right before the signature line – urging the individual to be sure to ask the researcher if he/she has any questions at all about the meaning of anything in the consent or authorization form (and in the case of materials that are mailed to potential participants, such a statement could remind the individual of the phone number to call to reach the researcher)**	**yes/no**
Readability score of forms (expressed as a grade level) / scale or methodology used	**Approx. 8th grade for parent forms** **Approx. 11th grade for key informant forms.**

10(b).: If a waiver of prior informed consent is requested:

explain why the research could not practicably be conducted without the waiver.

N/A

10©: If a waiver is requested, will this adversely affect the subjects' rights and welfare? Explain response.

N/A

11. If applicable, method for dealing with research subjects who choose to withdraw from the project and/or revoke their authorization, to include procedures for ensuring that participants understand these are or can be two separate steps.

Participation in the focus groups and interviews is voluntary. Participants may withdraw at any time.

12 (a).Description of any protected health information (PHI) that is being requested from DHSS files (or the files of its contractor agencies) for this research project, along with the justification for needing such information (in order to comply with the "minimum necessary" rule in the HIPAA regulations)

Phase 4 will include evaluative data related to usage and effectiveness of RHS provided by selected SBHCs. Data will be obtained from SBHCs providing RHS including the number of educational sessions, the number of condoms and oral contraceptives distributed, and the number of tested and treated sexually transmitted infections. Data prior to the initiation of RHS and after RHS will be compared, data will also be compared with SBHCs that do and do not provide RHS. Information will be gathered from existing school records maintained by SBHCs and reported to DPH.

The record review, Phase 4 of the study, will assess the documents of 10 SBWCs providing RHS and 10 SBWCs not providing RHS. These records will be accessed from the DPH Coordinator of SBWCs. The records will be coded as (1) providing RHS and (2) not providing RHS and numbered within each category (see data grid). The data will be analyzed comparing schools with and without RHS and comparing schools with RHS before and after implementation. The utilization of these services will also be assessed for economic impact.

All information will be stripped of identifiers and will be reported as an aggregate. No school names, county, specific job titles, or individuals will be connected with the data. Due to confidentially issues, no HIV testing or referral information will be included in this data collection or analysis.

12(b).Explain why the research could not practicably be conducted without access to and use of this PHI.

Phase 4 data requires these records in order to evaluate the use of reproductive health services and the impact of reproductive health services on rates sexually transmitted infections. The utilization of these services will also be assessed for economic impact.

13. Plan to ensure that identifying information will be protected from improper use or disclosure and that privacy and confidentiality of data collected will be maintained [include copy(ies) of the Notice of Privacy

Practices for the Covered Entity(ies) which maintain(s) the protected health information to be accessed] .

All information will be stripped of identifiers and will be reported as an aggregate. No school names, county, specific job titles, or individuals will be connected with the data. Due to confidentially issues, no HIV testing or referral information will be included in this data collection or analysis.

14. Plan for destroying all identifiers at the earliest opportunity consistent with conduct of the research; explain if there is a health or research justification for retaining the identifiers, or if such retention is otherwise required by law.

All identities will be kept confidential and all information will be reported as a group. Only general job title, roles, and geographic areas will be noted. The interviews will be audiotaped and the tapes, typed transcriptions, and other notes will be maintained within a locked environment on the campus at UD and the data saved within a pass-code encrypted computer server in a UD locked office; all data will be kept for three years. All files and tapes will be then deleted and hard copies shredded and destroyed.

15.Methodology and/or description of project approach, including description of plans for data collection and methods that will be used to analyze data, if applicable (include copies of proposed data collection instruments)

The semi-structured interviews, Phase 2 of the study, will be conducted with adult key informants/stakeholders about the provision of RHS in SBHCs. These participants will be include those who work at SBHCs that do and do not provide RHS, state officials involved in the process, school board members and school administrators from schools with SBHCs that do and do not provide RHS, general community members in areas with schools with SBHCs that do and do not provide RHS, and experts in reproductive health. Efforts will be made to ensure a slate of interview candidates that represents the entire state of Delaware, a cross-section of urban, rural, and suburban schools, and the diverse make-up of the state. Interview participants will be accessed via key documents/web sites, the snowball technique, or identified by the PI. Potential participants will be sent an interest letter (see attached). Those responding to this interest letter will be sent a consent form (see attached) with instructions to bring the consent form to the interview. Participation in these interviews will be voluntary. It is anticipated that these interviews will be about 1 ½ hours in length and interviews will include the questions in the interview guide (see attached). All interviews will be conducted by the PI and specific questions for potential candidates will be selected by the PI. All interviews will be audiotaped will be conducted at the individuals' places of work or at convenient public venues where audiotaping may be completed.

The focus group segment of the study, Phase 3, will include two focus groups of parents, one from a school with a SBHC that provides RHS and one that does not. Potential parents will be identified by SBHC staff and will be sent letters of interest. These letters are differentiated based on whether the SBWC is providing RHS (see attached). Those responding to the letter of interest will be sent an informed consent form (see attached) with instructions to bring the form to the scheduled focus group. Consent forms for parents of children in schools with SBWCs providing and not providing RHS will be

differentiated (see attached). Focus group questions will solicit parents' perceptions about access to RHS, the roll of the SBHC, educating teens about sexuality, and issues related to sexuality and health. The focus groups will be audiotaped. Standard rules of focus groups will be used to ensure confidentiality, total group participation, the power of group dynamics, and rigor of data analysis. The focus group question guide is attached.

Data analysis for the qualitative data in Phase 2 and Phase3 will be conducted via template analysis, in which the questions provide the structure for the template, and will be assessed for emerging themes. The record review, Phase 4 of the study, will assess the documents of 10 SBWCs providing RHS and 10 SBWCs not providing RHS. These records will be accessed from the DPH Coordinator of SBWCs. The records will be coded as (1) providing RHS and (2) not providing RHS and numbered within each category (see data grid). The data will be analyzed comparing schools with and without RHS and comparing schools with RHS before and after implementation. The utilization of these services will also be assessed for economic impact.

All information will be stripped of identifiers and will be reported as an aggregate. No school names, county, specific job titles, or individuals will be connected with the data. Due to confidentially issues, no HIV testing or referral information will be included in this data collection or analysis.

16.Costs/Funding

a. Cost of project to DHSS

Contract for PI's services via DPH

b. Funding source(s)

DPH

c. Source of funding after research or pilot phase, if applicable

N/A

17.Timeframe

a. Target start date

March 1, 2012, pending IRB approval

b. Completion date

June 30, 2012

18. Are subjects/clients at risk for any negative impact (often referred to as "adverse event") or consequences affecting their physical, psychological, economic or social well being as a result of participation in this project?

No more than minimal risk.

If yes, delineate the type of risk(s), the probability of occurrence, the anticipated level of severity, and steps to be taken to minimize such consequences.

N/A

19.Anticipated benefit(s) to subjects or society

It is anticipated that these findings will highlight potential areas of improvement and

revision of practices, validate current RHS processes, and inform school districts, school administrators, and other advocates of the value of RHS in SBHCs.

20. Review by Attorney General's Office, if applicable

N/A

a. Date sent for review

b. Feedback received

Submitted by: _____
Signature of Researcher/Title/Date
My signature attests to my agreement to carry out this project in accordance with the principles of the Common Rule and the Privacy Rule. In addition, I hereby assure that the information I obtain as part of this research (including PHI) will not be reused or disclosed to any other person or entity other than those listed on this form, except for authorized oversight of this project or as required by law. If at any time I want to reuse this information for other purposes or disclose the information to other individuals or entity, I will seek approval from the HSRB.

Approved by: _____
Division Director/Date
My signature attests to my understanding of and agreement to any HIPAA-related obligations imposed by this project, including any necessary recordkeeping to be able to account for disclosures as mandated by HIPAA regulations.

Approved by: _____
Chairperson, DHSS HSRB/Date
My signature attests to the fact that this project was reviewed and approved by the DHSS Human Subjects Review Board / Privacy Board.

Approved by: _____
Secretary/Date

Appendix 4.

Teen sexual activity in Delaware (YRBS Data)

Parameter	Age group (if known)	Percentage of teens
Have had sex		
	12th graders	75%
	High school students	59%
	Middle school students	19%
	Had sex before 13 years of age	9%
	Had sex before 11 years of age	5%
Sex in last three months	High school students	43%
Greater than 4 sex partners in lifetime	High school students	22%
Used condoms at last intercourse	High school students	59%
	Middle school students	75%
Used oral contraceptives at last intercourse	High school students	19%
Used Depot-provera at last intercourse	High school students	6%
Used a hormonal method at last intercourse	High school students	24%
Used condom with a hormonal method	High school students	10%
Alcohol involved in last intercourse	High school students	20%
Had oral sex		
	11th graders	63%
	9th graders	41%
Reported being told by an MD or nurse-Dx with STI		
	11th graders	2%
	9th graders	3%
Reported having a pregnancy or impregnating someone		
	11th graders	7%
	9th graders	6%

Data from 2011 Youth Risk Behavior Survey Results, CDAS (2012)

Appendix 5.

NUMBER OF DELAWARE CASES STATEWIDE: 2004 THROUGH 2009

Reportable Condition	2004	2005	2006	2007	2008	2009
AIDS	138	159	143	138	120	115
Chlamydia	2963	3392	3615	3479	3868	4718
Gonorrhea	896	913	1485	1293	1045	971
Herpes, genital	127	159	148	420	463	391
HIV (New Infections)	229	201	167	180	172	157
HPV (Human papillomavirus)	423	446	726	923	2263	2776
Syphilis (Primary & Secondary)	9	11	20	18	16	27

Appendix 6.

Table 3 Demographic characteristics of respondents in the Health Policy Service Research Group, University of Delaware study

Gender		
	Male	48%
	Female	52%
Marital status		
	Single	26%
	Married	57%
	Widowed	6%
	Divorced	10%
	Separated	1%
Ages		
	18-21	7%
	21-30	14%
	31-40	17%
	41-50	20%
	51-60	18%
	61-70	12%
	71 and over	12%
Annual Household Income		
	$10,000 or less	3%
	$10,001-$20,000	7%
	$20,001-$30,000	12%
	$30,001-$50,000	31%
	$50,001-$75,000	12%
	$75,001-$100,000	16%
	Greater than $100,001	10%
Race		
	African American	21%
	Caucasian	69%
	Asian	3%
	American Indian	<1%
	Other*	7%
Hispanic ethnicity		
	Yes	6%
	No	94%
Having Children		
	Yes	74%
	No	26%

Children <18 living in the household		
	Range	1-5
	Mean	1.96
	Median	2
School presently attended by children living in the household		
	Public School	66%
	Private/religious school	16%
	Private/non-religious school	3%
	Home school	0%
	Not in school	14%
Religious affiliation		
	Catholic	28%
	Protestant	37%
	Christian	17%
	Jewish	2%
	Muslim	<1%
	Mormon	<1%
	Buddhist	1%
	None/Agnostic/Atheist	12%
	Other	2%

Appendix 7.

Interview worksheet Fall 2012

	Email sent	Number	Date Scheduled	TY note	Consent done	Date completed	Recopied
1	9/1	101	9/7 1300	X	X	9/7	X
2	9/1	102	9/7 1400	X	X	9/7	X
3	9/1	103	9/13 0800	X	X	9/13	X
4	9/3	104	9/18 1400	X	X	9/18	X
5	9/3	105	9/18 1500	X	X	9/18	X
6	9/4	106	9/19 1000	X	X	9/19	X
7	9/4	107	9/19 0800	X	X	9/19	X
8	9/4, 15,19, 25	129	10/1 1100 **PHONE**	X	X	10/1	X
9	9/4	no					
10	9/4 9/16	128	10/1 1200	X	X	10/1	X
11	9/4 9/15	115	9/21 1400	X	X	9/21	X
12	9/4	108	9/24 0900	X	X	9/24	X
13	9/4 9/16	116	9/21 1100	X	X	9/21	X
14	9/5	109	9/18 1600	X	X	9/18	X
15	9/5	113	9/28 1500	X	X	9/28	X
16	9/5	112	9/18 1700	X	X	9/18	X
17	9/8	114	9/24 1200	X	X	9/24	X
18	9/8, 15, 19, 10/8	142	10/26 1500	X	X	10/26	X
19	9/8	110	9/17 2:45	X	X	9/17	X
20	9/8	111	9/14 0900	X	X	9/14	X
21	9/11, 9/16	117	9/24 1400	X	X	9/24	X
22	9/11, 16 10/8	no					
23	9/11, 9/15	no					
24	9/11	no					
25	9/11	no					
26	9/11	no					
27	9/14	118	10/31 1430 **PHONE**	X	X	10/29	X

28	9/16	134	10/10 1430 **PHONE**	X	X	10/10	X
29	9/16, 10/8	no					
30	9/16, 10/8	no					
31	9/16, 10/8	no					
32	9/16	126	10/10 1115	X	X	10/10	X
33	9/16	119	9/28 0930	X	X	9/28	X
34	9/16	120	9/20 0915	X	X	9/20	X
35	9/16, 10/8	Will call no					
36	9/16	124	11/1 1115	X	X	11/1	X
37	9/16	127	10/15 1000	X	X	10/15	X
38	9/16, 25 10/8	143	10/22 1130	X	X	10/22	X
39	9/16	125	10/10 0900	X	X	10/10	X
40	9/16, 10/8	no					
41	9/16	121	10/8 1300	X	X	10/8	X
42	9/16	122	10/8 11am	X	X	10/8	X
43	9/19,9/ 25,10/3	138	10/23 5P **PHONE**	X	X	10/23	X
44	9/19, 9/ 25, 10/2	137	10/22 0900	X	X	10/22	X
45	9/19	123	10/1 1515	X	X	10/1	X
46	9/25. 10/1	136	10/18 1700	X	X	10/8	X
47	9/25, 10/8	no					
48	9/21, 30 10/8	no					
49	9/21, 10/8	no					
50	9/21, 10/8	no					
51	9/21 9/30	133	10/11 0800	X	X	10/11	X
52	9/23, 10/8	150	11/1 1800 **PHONE**	X	X	11/1	X
53	9/23, 10/8	no	11/1 0930 Cx				

54	9/26	130	10/1 0900	X	X	10/1	X
55	9/26	no					
56	9/23	Will call no					
57	9/27	no					
58	9/30 10/8	145	10/22 1500	X	X	10/22	X
59	9/30	132	10/22 1315	X	X	10/22	X
60	9/28	131	10/8 1515	X	X	10/8	X
61	10/1 10/8	141	10/22 1400	X	X	10/22	X
62	10/1	135	10/23 1400 **PHONE**	X	X	10/22	X
63	10/1	140	10/8 0900	X	X	10/8	X
64	10/3	139	10/26 1200	X	X	10/26	X
65	10/8	144	10/22 1200	X	X	10/22	X
66		no					
67	10/10	149	10/25 1730	X	X	10/25	X
68	10/10	148	10/29 1330 **PHONE**	X	X	10/29	X
69	10/10	no					
70	10/12	no					
71	10/26	146	11/5 1330	X	X	11/5	x
72	10/27	147	10/29 **PHONE**	X	X	10/29	X