



A Qualitative Evaluation of Elev8 New Mexico School-Based Health Centers

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ABSTRACT

There is a scarcity of qualitative studies on school-based health centers (SBHCs). We established two primary aims for this study: (a) to assess stakeholders' perceptions of Elev8 New Mexico SBHCs' functionality and (b) to provide a snapshot of the overall contribution of the program to the schools and communities they serve. We collected the data through observations and semistructured interviews. We identified issues that diminish the functionality of SBHCs, such as limited infrastructure and services, lack of cooperation between school personnel and health care providers, and lack of long-term financial sustainability. These structural, interpersonal, and logistical issues limited the contribution of the SBHCs to the health of the students and the community at large. However, Elev8 New Mexico SBHCs serve communities with considerable education and health needs and constitute a unique opportunity to provide health education, disease prevention, and quality health care to a large number of youth and adults. *J Pediatr Health Care.* (2016) 30, e49-e59.

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Adolescent health, minority youth, school-based health care

INTRODUCTION

Prior research has confirmed the potential benefits of well-integrated and adequately funded school-based health centers (SBHCs), including improving health care access, reducing absenteeism, facilitating management of chronic disease, and preventing risky behaviors among students (Guo, Wade, Pan, & Keller, 2010; McNall, Lichty, & Mavis, 2010; Richardson & Wright, 2010). More recently, SBHCs have been identified as potential contributors to the medical home model (Albright et al., 2016; Keeton, Soleimanpour, & Brindis, 2012; Larson & Chapman, 2014; North, McElligot, Douglas, & Martin, 2014). Professional organizations such as the American Academy of Pediatrics and researchers have argued that SBHCs facilitate better management and control of behavioral problems that affect student performance and disrupt the school environment (Council on School Health, 2012) and that the benefits extend beyond physical and mental health to include decreased dropouts and improved academic success (Kerns et al., 2011; Walker et al., 2010). These extended benefits might be more pressing for African American and Hispanic youth, because they experience higher dropout and lower postsecondary graduation rates than White students (Aud et al., 2012; Chapman et al., 2012). In fact, recent studies have explored the potential role of SBHCs in addressing health issues among minority groups (e.g., mental health, pregnancy and sexually transmitted infections, immunizations, and access to care) and contributing to the elimination of health disparities (Bains,

Franzen, & White-Frese, 2014; Daley, 2012; Federico, Abrams, Everhart, Melinkovich, & Hambidge, 2010; Guo et al., 2010; Kempe et al., 2012; North et al., 2014).

Although the scope of services offered by the 2,315 SBHCs and programs identified by the last national census is comprehensive and community specific, the most frequently reported services include those related to primary care and behavioral/mental health (School-Based Health Alliance, n.d.; Strozer, Juszczak, & Ammerman, 2010). The American Academy of Pediatrics recommends that SBHCs provide state-mandated services (e.g., health screenings, verification of immunization status, and infectious disease reporting), address minor health complaints, administer medication, handle emergencies and other urgent situations, deliver services such as physical therapy for students with special needs, facilitate access to mental health, provide counseling on substance and reproductive health, and support students' management of chronic conditions (Committee on School Health, 2001; Council on School Health, 2012). Additional activities that may enhance contribution to academic performance include teaching school health education curricula, collaborating in the development of school safety protocols, serving on school planning or service collaboration committees, conducting sports physicals and providing first aid, intervening in emergency situations, and offering referrals (Geierstanger, Amaral, Mansour, & Walters, 2004). In addition, according to Tucker (2011), facilitating access for and providing services to community members would also enhance the scope of SBHCs' contributions.

Two key components of well-functioning SBHCs are integration and sustainability. Integration should involve the health education curriculum and other school core programs (Hacker & Wessel, 1998) and should be driven by a community-based approach that takes advantage of available resources in the educational, health care, and social services sectors (Committee on School Health, 2001; Council on School Health, 2012; Duncan & Igoe, 1998).

Two key components of well-functioning SBHCs are integration and sustainability.

A sound financial base is also an essential component of a sustainable SBHC. Private foundations, health insurance plans, school health funds, Medicaid, Chapter I, Title X, Title XX, and other federal and state programs are examples of traditional sources of funding (George Washington University, 1995). The 2013–2014 Census of SBHCs identified state and local governments, public and private health insurers, and the federal government as their main sources of revenue (School-Based Health

Alliance, n.d.). More than 40% received funds from private foundations, and 9 out of 10 sought reimbursement for services from public and private health insurers. However, sustainability continues to be a major barrier limiting the functioning and contribution of SBHCs (Keeton et al., 2012), particularly given current economic constraints. Although the 2010 Affordable Care Act appropriated funds to build SBHC capacity, in 2011 the U.S. House of Representatives voted to eliminate the remaining funding for fiscal years 2012 and 2013 (National Conference of State Legislatures, 2011). Federal support for SBHCs has not increased in the last few years.

Despite the abundance of national- and state-level data and information on SBHCs, there are few qualitative studies exploring their functionality and overall contribution. Although researchers have recommended alternative designs and methods to document SBHCs' performance and contributions, including qualitative approaches (Geierstanger et al., 2004), we confirmed the lack of qualitative research on SBHCs by conducting an advanced search in February 2016, the results of which are presented in Table 1. Only six articles consisted of or included qualitative methods (Albright et al., 2016; Bains et al., 2014; Dolch, Meyer, & Huval, 2008; Sisselman, Strolin-Goltzman, Auerbach, & Sharon, 2012; Soleimanpour, Geierstanger, Kaller, McCarter, & Brindis, 2010; Yi, Martyn, Salerno, & Darling-Fisher, 2009), and only two of these related to the aims of the present study (Bains et al., 2014; Sisselman et al., 2012).

Other limitations within the existing literature are related to the implemented research methodologies. Although the literature includes examples of evaluation studies on SBHCs, these studies have generally followed quantitative designs that have led to methodologic issues related to design, sampling, attrition, and institutional review board protocols (Keeton et al., 2012; Soleimanpour et al., 2010). Additionally, research studies have not always taken a comprehensive approach that accounts for the variation in SBHC components, including scope of services, staffing, location, sponsorship, and funding (Silberberg & Cantor, 2008). The purpose of the current study is to respond to this gap in the SBHC research literature by using a qualitative design that explores the multiple components of the Elev8 model from a multidimensional perspective that includes a variety of stakeholders.

Study Aims

We established two primary aims for this study: (a) to assess stakeholders' perceptions of Elev8 New Mexico (NM) SBHCs' functionality and (b) to provide a snapshot of the Elev8 NM SBHCs' overall contribution to the schools and communities they serve.

TABLE 1. Literature search results (February 2016)

Query	PubMed	EBSCO
School-based health centers	628	173
School-based health centers[Title]	115	78
School-based health centers[Title] AND qualitative	4 ^a	3 ^b
School-based health centers[Title] AND qualitative[Abstract]	3 ^a	1 ^c
School-based health centers[Title] AND qualitative[Title/Abstract]	3 ^a	0
Qualitative[Title] AND school based health centers[Title]	0	0

^aAlbright et al., 2016; Bains et al., 2014; Soleimanpour et al., 2010; Yi et al., 2009.
^bBains et al., 2014; Dolch et al., 2008; Sisselman et al., 2012.
^cDolch et al., 2008.

Background

The mission of an SBHC is to provide comprehensive health education and primary medical, reproductive, and mental health services to enrolled students (Guernsey & Pastore, 1996). The first SBHCs, fostered by the American Academy of Pediatrics, were established in the late 1960s and early 1970s (Hutchins, Grason, Aliza, Minkovitz, & Guyer, 1999). In the late 1970s, the Robert Wood Johnson Foundation, a philanthropy dedicated solely to health, was instrumental in funding and disseminating SBHCs throughout the United States (Brodeur, 1999). The interest of private foundations in supporting SBHCs has continued through the present day.

In 2008, the Atlantic Philanthropies, a private foundation dedicated to the service of humanity, funded Elev8 to promote student success through a full-service community school environment. Elev8 supports integrated health, extended-day learning, and family support services in middle schools. Research indicates that providing access to these essential services can contribute to children's success in school. The program was originally implemented in four locations nationwide, including 20 community schools and 16 SBHCs (Alvarado-Mena, Brown, Johnson, & Mirabal, 2013; Atlantic Philanthropies, 2012). NM was selected as one of the first Elev8 implementation sites, with five schools housing four SBHCs receiving funds to adopt the program. (Two closely located schools in Albuquerque shared one clinic.)

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Setting

In NM, the 2013–2014 national census identified 72 SBHCs. Data on services provided are presented in

TABLE 2. Selected services provided by SBHCs, New Mexico 2010–2011 (n = 47)

Service	% of respondents
Primary care	100
Influenza immunization	38
Mental health	
Crisis intervention	83
Individual evaluation and treatment	81
Case management	68
Substance abuse counseling	81
Classroom behavior/learning support	72
Oral health	
SBHCs with oral provider	15
Oral health education	57
Dental screening	51
Health promotion/disease prevention	
Tobacco use	81
Violence	83
Healthy eating/weight management	83

Note. Abbreviation: SBHC, school-based health center.
Source: Lofink et al., 2013.

Table 2 (Lofink et al., 2013; School-Based Health Alliance, n.d.). Prior state-level studies and reports found financial, ethical, and political factors to be the primary obstacles to effective school-based programs in NM. For instance, a study found that students were unaware of not only the existence and purpose of the school-based clinics but also of the SBHC infrastructure, which was designed to include an alliance of interested parties, such as the health team, school administration, parents, and students, to best meet the students' needs (Gonzales et al., 1985). In addition, a recent status report stated that NM has experienced a plateau in the number of SBHCs because of limited federal and state funding opportunities (Office of School and Adolescent Health, 2015). Despite the limitations, Elev8 NM constitutes a worthwhile endeavor as students face problems that compromise their development and learning. The leading causes of death among young New Mexicans still include unintentional injury (predominantly motor vehicle crashes), suicide, and homicide, all of which are linked to behaviors such as alcohol and drug use, suicidal ideation and attempts, and physical violence (NM Department of Health, n.d.).

Despite the health needs of NM youth and the potential role of SBHCs in addressing these needs, state and governmental support has been inconsistent, and budget cuts have affected SBHCs' funding and services. Although the NM Office of School and Adolescent Health supports SBHCs as a venue for providing health care to school-age children and youth (Office of School and Adolescent Health, 2015), the NM Alliance for School-Based Health Care estimated that between 2009 and 2013 the NM Office of School and Adolescent Health lost nearly \$1 million in SBHC funding (State of NM Legislative Education Study Committee, 2013).

Financial restrictions limited the number of student visits to the clinics, as well as delivery hours for primary care and behavior health services. The administrative infrastructure of the SBHCs was also significantly affected, and some centers were closed. Similarly, in 2013, the NM governor signed The Community Schools Act to facilitate effective partnerships between community-based organizations and local districts and to improve both school climate and student achievement (State of NM Legislature, 2013). However, in spring 2016 the NM Department of Health announced that it is cutting the budget and closing five SBHCs (NM Department of Health, 2016).

METHODS

We used a descriptive, qualitative design and collected data during 8 months through participant observation and semistructured interviews. This qualitative approach provided the opportunity for a holistic perspective that defined concepts broadly and included a variety of stakeholders representing schools, their SBHCs, and the Elev8 program. Similarly, we were able to explore multilevel factors not usually captured by more traditional evaluation designs aimed at identifying specific health or education outcomes. For instance, the construct functionality comprised several thematic elements such as physical location, facilities, accessibility, activity, and services. Although overarching constructs were identified through the prior literature search, some of the thematic elements emerged from the data (Table 3).

The protocol for the study was approved by the University of Texas at El Paso Institutional Review Board, and written informed consent was obtained from all participants.

Sample

We purposively recruited interview participants to represent all five middle schools implementing Elev8 NM. These included three urban schools in Albuquerque, Bernalillo County, served by two SBHCs, and two rural schools housing their own SBHC: a Native American school in Cibola County, and a primarily Hispanic school in Doña Ana County (Figure and Table 4). At the time of the study, the SBHCs at these schools were administered by three distinctive bodies including two medical departments at a university health sciences center and a private nonprofit, community-based organization.

Data Collection

Our primary purpose in conducting this study was twofold: (a) to collect descriptive data on the environment at each participating clinic, including physical location, facilities, accessibility, and activity and (b) to compare and contrast interview data on functionality through a confirmatory approach. We combined multiple data sources, including observations and inter-

TABLE 3. Constructs and thematic elements

Constructs documented in prior literature	Thematic elements present in Elev8 SBHCs
Functionality—observed	<ul style="list-style-type: none"> • Facilities: Clean, well-equipped^a • Accessibility/physical location^a: Centralized school-based location essential in rural communities • Awareness • Activities: Promotion and actual services
Services—perceived	<ul style="list-style-type: none"> • Primary, secondary, tertiary prevention • Primary care • Mental/behavioral health • Health promotion/education and disease prevention
Integration—perceived/observed	<ul style="list-style-type: none"> • School environment • Health curriculum • Other Elev8 components^a • Community needs and groups • State agencies and advocacy groups^a
Sustainability—perceived	<ul style="list-style-type: none"> • Formal long-term plan • Reliable sources of funding • Evaluation protocol^a • Communication strategy^a

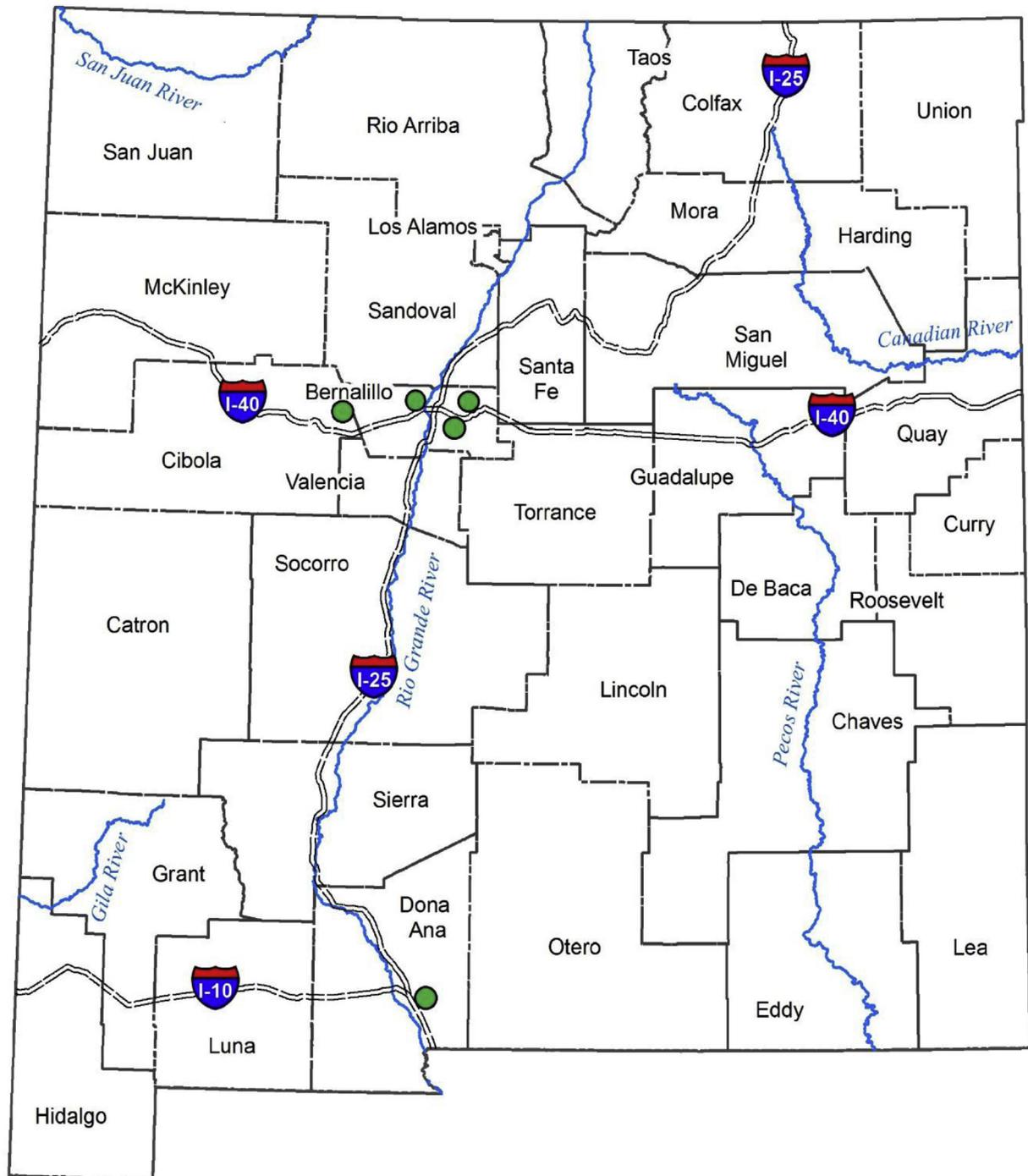
Note. Abbreviation: SBHC, school-based health center.
^aThematic elements not previously reported in SBHC literature.

views, to enhance the reliability of the findings. We developed an observation guide to facilitate consistency across observers and enhance data quality, and we passively observed all participating SBHCs for 2 hours: two investigators observed activities during two separate site visits at various times on week days (e.g., morning, early afternoon). Although the observers were introduced to staff and visible to patients, they did not alter the setting or interfere with activities.

We also developed interview guides for each group of participants (e.g., health care providers, principals). However, to enhance fidelity and facilitate triangulation, all guides basically addressed the same issues. Questions elicited description of predetermined overall constructs and thematic elements (Table 3). Two investigators, including a note taker, conducted and digitally recorded the interviews.

We implemented different triangulation approaches with the aim of providing a multidimensional perspective of the issue and rich, unbiased data. These included the combination of two or more data sources (SBHC administrator, health care provider, school principal, Elev8 site coordinators), the involvement of multiple investigators (a minimum of two investigators), and mixed methodologic approaches (observations and interviews). This methodology is recommended to generate data that can be interpreted with a comfortable degree of assurance (Breitmayer, Ayres, & Knafel, 1993; Jick, 1979).

FIGURE. Elev8 New Mexico schools.



This figure appears in color online at www.jpedhc.org.

Data Management

Right after the observation, the two observers compiled their field notes and compared them for consistency on the main constructs of interest for the study. They obtained consensus on conflicting information, and then notes were classified according to constructs and thematic elements. Interview audio files were professionally transcribed verbatim. A third investigator who had not participated in the interviews crosschecked the

audio files for accuracy and errors. One interview was manually annotated by two investigators because the participant did not agree to be audio recorded. Right after the interview, the two investigators compared notes, and a final electronic version was generated. We uploaded all transcriptions to NVivo (QSR International, Doncaster, Victoria, Australia), a qualitative data analysis software program. One experienced investigator coded and classified the data and generated the reports.

TABLE 4. Student population in participating schools

School	% of students free lunch eligible	Student: Teacher ratio	American Indian/Alaskan native, <i>n</i>	Asian/Pacific Islander, <i>n</i>	Black, <i>n</i>	Hispanic, <i>n</i>	White, <i>n</i>	Total students by school, <i>n</i>
ABQ 1 ^a	80	13:40	44	9	36	371	61	532
ABQ 2 ^a	71	12:98	306	0	1	51	7	379
ABQ 3 ^a	58	13:71	20	21	14	384	161	621
NA ^b	70	N/A	61	0	0	10	0	71
SNM ^c	98	13:87	1	0	0	758	9	768
Total students by race/ethnicity, <i>n</i>			432	30	51	1,564	238	2,371

Note. Abbreviation: N/A, not applicable.
^aAlbuquerque schools.
^bNative American school.
^cSouthern New Mexico School.
Source: National Center for Education Statistics (n.d.).

The lead investigator reviewed the data and coding and confirmed or recommended additional discussion until agreement with the coder was reached.

Data Analysis

We examined the data for emerging and deviant themes and categorized new themes within the main overarching constructs. We convened all members of the research team to discuss deviant themes, and discarded or incorporated these into the thematic structure depending on their relevance to the main focus of the study. The information reported in the Results reflects the opinion of at least two categories of participants (e.g., SBHC administrator and school principal).

RESULTS AND DISCUSSION

We interviewed a total of 17 individuals, including three SBHC administrators, three principals, three site coordinators, three counselors/therapists/social workers, three health care providers, and two clinical assistants/receptionists. We conducted observations at all four participating SBHCs.

Functionality

Observation data indicate that clinic facilities were generally clean, comfortable, and organized, with visible signage to direct visitors. The physical location varied across sites. Although at some schools the SBHC was part of the main classroom and administrative structure, which made it highly visible and easily accessible to students, at other schools the SBHC was located in a separate portable building on school grounds but was disconnected from the classrooms and administrative facilities. All of the SBHCs had reception and waiting areas that were well equipped in terms of furniture and equipment, such as computers, telephone, and fax machines. Consultation and examination rooms varied in terms of furniture and equipment. All clinics included office space for behavioral and mental health services. Examination

rooms were very basic. All sites had space dedicated to dental care, with basic equipment, although at one clinic the dental equipment was still in its original packaging. Dedicated space for medication and pharmacy services at another clinic was vacant because services had been discontinued.

The analysis of the interview data indicated that participants were not in agreement regarding the perceived level of awareness of the SBHC and services provided. A principal mentioned, “I feel that the students and the parents are very aware of the support which they could receive from school-based health,” but a health care provider and administrator indicated that parents lag “a little behind [on awareness of services] because sometimes the notes don’t make it home,” and that “a fair number of students are aware of our services. I don’t know that all the parents are.” Participants also disagreed with respect to the population served by the SBHC: for example, one counselor stated that “students and their families” were served, whereas an administrator indicated that the clinics “don’t provide services to community members or to the faculty.” This is a point that merits further exploration, because experts consistently recommend going beyond serving students to include school staff and community members (Keeton et al., 2012).

Despite disagreements, most participants perceived the clinics and services to be a benefit to the students and the community. A principal noted, “The contribution has been tremendous.... It provided a service for a needy community and a poor community.” An

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administrator and a site coordinator agreed: “[SBHC] allows us to provide most importantly access [which] is so challenging in a geographical area like ours and the distance,” and “We have kids living with uncles, grandmas, aunts and they can’t afford health insurance and they can’t afford taking that student to the doctor.”

Services

With regard to services provided and use, data indicate that the SBHCs provided behavioral health and, to some extent, primary care, primarily to students. Participants perceived this to be true: an administrator noticed that “a very large percentage of the services provided are related to behavior health or emotional problems,” and a counselor expressed, “We are preventing kids from having exasperated mental health issues that become more of a school problem or a police problem.” Two health care providers talked about comprehensive care: “Every child that comes through here fills out a teen screen [with] a wealth of information,” and “It’s not about just taking care of the sports physical, [students] fill out the health questionnaire, an in-depth clinical assessment.” An administrator supported previous comments, indicating, “We work with the nurse to make sure that all those screenings [required by the public school system] are done.” However, participants’ responses regarding delivery of essential services pointed to important gaps. Some pointed to logistical barriers such as having the clinic administered by a separate entity (e.g., a department in a university health sciences center) rather than by the school or school district and having to deal with multiple agencies, as stated by an administrator: “It’s very hard for us to do [primary prevention such as immunizations] because we have to work through public health, Department of Health, and then with HIS [Indian Health Service].” These barriers seemed to limit the delivery of essential services such as immunization: “We’re not doing immunizations right now.... We’re figuring out how to make that happen.” Other statements with respect to delivery had to do with medication: “Most of the students take care of it [medication] themselves” and disease management: “I’m not aware of any specific protocols [for disease management].”

Activities for reaching out to students in areas of health education and disease prevention were scarce, at best, according to the data. Difficulties in hiring and retaining staff contributed to the burden of functionality, as confirmed by a site coordinator and a clinical assistant: “That’s been one of the biggest challenges... actually getting somebody to do that dental piece,” and “Right now we don’t have a primary care provider.”

Observation data confirm that participating SBHCs lacked equipment (e.g., x-ray and laboratory equipment) and human resources to conduct dental examinations, provide immunizations, or dispense medications, therefore compromising the full-service clinic approach. Additionally, in most clinics the ob-

servers reported minimal use of services. This suggests that perhaps services were not totally consistent with the needs of the population served and that recommended essential services were lacking, limiting the functionality of the clinics. Researchers such as [Richardson and Wright \(2010\)](#) point out that SBHCs must take an ecologic approach to health and include health promotion and disease prevention, early intervention, and risk-reduction education and services. They further contend that for SBHCs to have a positive influence on reduction of absenteeism, they must facilitate management of chronic disease such as asthma and early identification of risk behaviors.

Integration

Participants, including several administrators and principals, described common activities they perceived to be contributing to the school and school environment: “We have a school health advisory council, [an] attempt to address the poor quality of the food served in the cafeteria,” “[Teachers] are getting more support from the school-based health center.... We’ve had [therapists] sit in on the student led conference,” and “[The] behavioral health therapist is actually integrated within our [School-Health Advisory Council].”

However, participants also mentioned a lack of systematic efforts to achieve a more planned and functional integration with the school administrators and school environment, and some of the perceived challenges. A principal said, “I feel the most difficult task is getting the school-based health staff more integrated with what’s happening in the school, how it is functioning, where it is going.” A couple of counselors expressed a feeling of detachment: “[The system] does separate us as an outpatient clinic rather than part of the school. So we work with the school but we’re not actually part of it,” and “It’s not consistent integration [with the school]. It doesn’t go anywhere long-term.” Some administrators seemed to share the same feeling: “I don’t think we [the SBHC] have gotten to a place where we are working with the administrator to look at things together,” and “We’re not part of the school, we’re independent.”

Perceived barriers preventing a more integrated system included lack of planning and cooperation from administrators and teachers and a perceived lack of connection between education and health activities and between educators and health care providers. A principal referred to SBHC staff as “these people” and added, “Sometimes they are not there, or they don’t see it as important because they don’t see a high correlation of what they do and the same things we do as a school.” On the other hand, some providers seemed to blame teachers and school staff: “There’s a list of teachers who at the beginning of the year said, ‘no, you may not pull out anybody,’” and “We have posters and stuff up, but nobody’s come to me [to discuss an integrated health curriculum].” This perceived lack of

common ground between schools and SBHCs is not new and has been addressed in the literature. Scholars have reported that schools frequently use the term “guest” when referring to the SBHCs, which nurtures the perception that they are not full partners, and that they generally operate within very different cultures (Mandel, 2008). This is also consistent with the results of this study. Interview data suggest that neither school administrators nor SBHC providers were proactive in seeking a collaborative approach to the health curriculum, which would be expected to lead to a significant barrier to the provision of comprehensive services that go beyond primary and behavioral health. Additionally, the literature consistently mentions participation in the development of school health curricula as one of the major contributions a SBHC might make to the schools it serves (Hacker & Wessel, 1998; Strolin-Goltzman, 2010).

Sustainability

Participants perceived sustainability to be important and an issue that compromises the future of SBHCs. They discussed whose responsibility it is to seek and secure funds to maintain the clinic and their perspectives on how things were progressing. An administrator called for the schools themselves to play a more active role: “I don’t think the school sees it as their responsibility. I think the school sees it as our responsibility or our funder’s responsibility to keep it going.” A health care provider implied that the funding agencies should bear this responsibility: “Elev8 hasn’t been quick to respond in terms of making some decisions and implementing some changes [in ensuring economic support for the SBHC].” Several administrators provided ideas for sustainability, including better integration between “the health component and the education component and around the physical education piece” and the potential for having a “fully serviced and functioning clinic,” which should facilitate sustainability. They also discussed sustainability challenges and specific actions they were taking for improving effectiveness and achieving sustainability, such as “right sizing for the population they [SBHCs] serve” and improving billing procedures.

Despite these efforts, sustainability continued to generate uncertainty among administrators: “The future has always been ambiguous,” and “Have they [the principal and the superintendent] asked about planning or sustainability or what’s going to happen with funding?” These participant responses suggest that sustainability was affecting the functionality of Elev8 NM SBHCs. This is consistent with the literature, which indicates that the long-term sustainability of SBHCs has been an area of concern for health care, public health, and health policy experts and scholars. Although advocates at the national and state level have dedicated considerable resources to identifying strategies and resources that might sustain SBHCs, a

feasible formula to ensure the long-term survival of school-based health care has been elusive. For Elev8 NM SBHCs, both population size and academic calendar continue to be issues that undermine revenues. For instance, the student population at each participating school was less than 1,000; in one school, the population was less than 100 (Table 4). Participants also emphasized that the summer months, in which most schools are closed, constituted a real constraint to obtaining a consistent source of revenues. A recommended approach to overcome this constraint would be to open the SBHCs to school staff and the community at large (Tucker, 2011), but the participants interviewed in our study did not discuss this option.

Our interview data also suggest that perhaps more time was needed for the sustainability plans being considered and developed at the time of the study to materialize and that participants believed that a more long-term funding commitment was needed. However, the funding problem does not seem to have improved, even with the implementation of the Patient Protection and Affordable Care Act (HHS.gov, 2011; Office of School and Adolescent Health, 2015).

Study Limitations

We based the results and conclusions of this qualitative study on the information provided to the investigators by participants during the interviews. We limited the observations to the specific times the investigators visited the sites, which may or may not have reflected a normal activity or routine. We made methodologic efforts to increase the validity of the data and interpretative strength of the study and decrease investigator biases. These included the development of interview and observation guides, inclusion of diverse key informants, the collection of multiple perspectives, and the use of methods involving triangulation. Although these are recommended approaches (Denzin, 1970), we had no guarantee that informant subjectivity or investigator biases did not affect the collection, analysis, and interpretation of the data. Although we are reporting aggregated data, participating schools differed in terms of geographic location, student population size, and health care needs. Similarly, SBHCs differed in terms of administrative body, organization, facilities, and physical and human resources. The results and conclusions of this study might not be generalizable to other settings and wider populations. Findings might be unique to the Elev8 sites and the relatively few people included in this study.

Finally, it is important to note that although we did not interview other individuals who might have provided perspectives different from those of the participants, the evaluation contract that funded the present study included all three components of the Elev8 model (SBHCs, after school activities, and family support services). Other evaluation teams collected data on

BOX. Recommendations to improve the functionality of Elev8 NM SBHCs

Services

- Enhance outreach activities.
- Procure equipment and space to provide comprehensive services.
- Provide primary, secondary, and tertiary prevention.
- Hire health educators.
- Facilitate school-wide wellness/health promotion activities.
- Participate in the health education curriculum.
- Promote community level health education and promotion.

Integration

- Implement a participatory approach that integrates existing resources into the planning, implementation, and evaluation of the program.
- Encourage student, parent, and community participation and involvement in SBHC activities.
- Serve as a resource to school administration in the selection, development, and delivery of health education curricula.
- Build collaborative and mutually respectful relationships with school personnel.
- Solicit community input to address unmet health needs and to support the operations of the program.

Sustainability

- Develop a billing system to capture all possible revenues, including private insurers.
- Contemplate expanding services to school staff and community members.
- Partner with other SBHC and community services to enhance productivity and reduce costs.
- Maintain a physical plant that is adequate to deliver high-quality services.
- Develop evaluation protocols to show the impact of the SBHC on student performance and academic achievement.

students, parents, and community members. These data were integrated into an overall evaluation report that was submitted to Atlantic Philanthropies and disseminated to interested parties.

CONCLUSIONS AND RECOMMENDATIONS

Elev8 NM SBHCs serve a combined population of nearly 2,400 students in five middle schools. Approximately 90% of the students are of ethnic/racial minorities, including Hispanics, American Indians/Alaskans, Blacks, and Asian Pacific Islanders (Table 4; National Center for Education Statistics, n.d.). Considering the populations they serve, the five participating SBHCs constitute a unique opportunity to provide health education, disease prevention, and quality health care access to a large number of youth and adults of minority groups.

With respect to the focus of this study, many elements that relate to the overarching constructs explored by the study are interrelated and cannot be considered in isolation. For instance, achieving sustainability depends on proper integration within the school and the community to capitalize on the provision of comprehensive services and maximize cost-effectiveness.

This study found considerable limitations that are preventing Elev8 NM SBHCs from becoming a key component of a full-service community school. Results suggest that improvements are needed in areas such as awareness, services, integration, and sustainability for the clinics to fully contribute to the health and education of the youth and communities they serve. Although

Elev8's financial support contributed to the physical infrastructure and human resources of the participating SBHCs, there were still considerable unmet needs. Facilities were not totally functional, and our study did not find evidence of sustained activities in key areas such as health education and promotion, risk reduction, and primary and secondary prevention. Most administrators discussed their struggle in hiring and keeping qualified providers and staff. Additionally, SBHCs were not properly integrated within the school, other Elev8 components, or the community. There was no indication of collaboration between the school and the SBHC, and most participants referred to these as two separate entities in pursuit of unrelated academic and health outcomes. Similarly, SBHCs do not seem to have taken advantage of Elev8's after school and family and community activities to increase awareness, promote services, and gain social support. Proper communication between the school, the SBHC, and the community was lacking.

Finally, although sustainability strategies were being implemented, formal plans for ensuring long-term

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sustainability were lacking across participating SBHCs. For instance, participants in this study did not refer to or discuss program evaluation, and we did not find evidence of protocols that were in place to inform the program, assess impact, or address stakeholders' priorities. Furthermore, there seemed to be a lack of communication and collaboration between the SBHCs and the state agencies and advocacy groups whose mission is to support SBHCs. For example, participants did not discuss any collaborative activities with OSAH or NM Alliance for School-Based Health Care, nor did they refer to them as a potential resource for data, information, or support. These results suggest that in NM, the Elev8 program may have been implemented in isolation, without the potential contribution of other interested parties. This is a considerable limitation, and perhaps a main reason why the Elev8 model did not properly overcome issues that have traditionally weakened the impact of SBHCs. A more participatory approach that integrates existing resources may have improved both the process and the impact of Elev8 NM SBHCs and facilitated community ownership and support for the program.

The recommendations included in the **Box** are based on the results of this study. Although generalizability is not a necessary attribute of qualitative research, the literature indicates that the challenges and limitations of Elev8 NM SBHCs are shared by most SBHCs across the country. Therefore, recommendations may apply to SBHCs in general. In considering these recommendations, it is important to emphasize that, as indicated in the Study Limitations section, participating sites differed in terms of geographic location (e.g., rural vs. urban), student population size (e.g., 71 vs. 768 students), and health care needs (e.g., easy access to other health care facilities/providers vs. no other health care facilities in the community). Similarly, SBHCs differed in terms of administrative body (e.g., clinical-based vs. community-based), facilities (e.g., onsite vs. off-site SBHC), physical resources (e.g., integrated vs. portable building), and human resources (e.g., onsite primary care physician vs. nurse practitioner). However, the results of this study suggest that all participating SBHCs experienced similar challenges and limitations.

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