



Colorado School-Based Health Center Sustainability Study



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Contributors

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Executive Summary

In 2012-2013, nearly 32,000 children across Colorado received comprehensive health care at 56 school-based health centers (SBHCs). Investing in high quality, effective, and sustainable SBHCs is paramount to meeting the identified health needs of children in communities across Colorado. Both The Colorado Health Foundation and the Colorado Department of Public Health and Environment (CDPHE) remain committed to ensuring SBHCs are a viable and sustainable resource in Colorado.

In February 2015, John Snow, Inc. (JSI), was hired to identify a SBHC business model and financing strategy that incentivizes efficiency and movement toward sustainability, addresses the primary care needs of the target population, and supports SBHC growth. The SBHC sustainability study allows funders, including CDPHE's SBHC Program, to strategically direct funding for SBHCs in an equitable manner that promotes sustainable, high-quality, responsive SBHC services across Colorado communities.

The sustainability study was designed to factor in SBHCs' unique qualities that influence their ability to sustain themselves and provide responsive, effective care to the community they serve. Specific SBHC characteristics examined throughout the study included mission and strategy of the SBHC, partnerships, organizational structure, target population, and SBHC services. The study consisted of both qualitative and quantitative research activities, including key stakeholder discussions to determine data sets and analysis; interviews with SBHC programs representing various SBHC models, size and geography; and analysis of the three most recent years of the Colorado Association for School-Based Health Care (CASBHC) and Colorado Health Institute (CHI) SBHC annual survey data.

SBHC interviews provided a more intimate understanding of the operational and financial considerations that impact SBHC sustainability, and a deeper understanding of the SBHC annual survey data. The findings include:

- SBHCs' mission and strategy focus on serving school-age children are often influenced by the health care market in their community.
- SBHCs strive to provide high-quality health care and not be seen as a second tier provider.
- SBHCs work to integrate primary care and behavioral health.
- SBHCs benefit from proactive student/patient enrollment activities—both enrollment into the clinic and enrollment into health insurance coverage programs, like Medicaid.
- SBHCs benefit from collecting patient revenue, specifically billing for patients covered by health insurance coverage programs. Billing is performed in-house or contracted through cost-effective billing services. Confidential services and uninsurable patients are important factors in SBHC billing.
- Grant funds are an essential element to the financial sustainability of SBHCs, yet they create risk due to their uncertainty and limited time frame.

- SBHCs are aware of the increased accountability for their financial performance from partners and funders.

An analysis of annual SBHC survey data looked at operational effectiveness: revenue generation, productivity, and staffing ratios. The analysis assessed correlations of performance tied to sponsoring agency type (Federally Qualified Health Center [FQHC], non-FQHC, and school district) and relationships among variables. Some of the findings included:

- Revenue mix – The average percentage of patient service revenue to total revenue for reporting SBHCs was approximately 30% across all three years, with significant variation across program types. The average percentage of revenue from federal, state, city, and private sources to total revenue averaged close to 70% across all three years. Average total revenue per user ranged from \$350 to \$750, with significant variation among individual programs.
- Payer mix – Medicaid was the largest source of patient services revenue for nearly all of the SBHCs. The percentage of patient service revenue from self-pay patients was significantly lower for FQHC-sponsored when compared to non-FQHC medical- and school district-sponsored.
- Productivity – The average number of visits per open hour per full-time equivalent (FTE) provider across all programs ranged from a high of 3.7 to a low of 2.0. Significant variation exists among the programs as well as within a program from one year to the next. Total visits per FTE provider averaged approximately 1300 across all programs for the three years.
- Access – Total visits per FTE provider averaged approximately 1300 across all programs for the three years. As with other data, there was variation among programs and within a program across years.
- Efficiency – The average number of non-medical FTE staff (support) to provider FTE across all centers and all years remains close to 1.0, indicating lean operations.

Based upon the study findings, guidelines provide factors to identify a sustainable SBHC including: having a clearly articulated mission and strategy; supporting a “champion” within the sponsoring agency; focusing on enrollment; collaborating with community providers; serving as the PCP when selected; submitting Medicaid claims for confidential services; maintaining strong coding and billing systems; staffing for demand, and maintaining a balanced revenue mix. To help CDPHE assess future investments, specific indicators suggest criteria for making grant funding decisions.

Background

Across Colorado, thousands of children receive comprehensive health care at 56 SBHCs. SBHCs provide accessible, affordable, and high-quality, comprehensive care with the goal of keeping children healthy, in school, and ready to learn. SBHCs serve students whose access to care is limited because of low income, lack of health insurance, or geographic isolation.

SBHC Program in Colorado

The number of Colorado SBHCs has grown substantially over the past 5 years. In 2009, The Colorado Health Foundation (TCHF) launched a \$10.8 million initiative to support school-based health care in communities throughout Colorado, concluding in 2013. Around this time, the Colorado General Assembly increased the state's funding of the SBHC Program, administered by CDPHE, to over \$5 million to support the continued growth and sustainability of SBHCs. Despite the exponential growth in SBHCs over recent years, a need for more SBHC services remains. A needs assessment conducted by CHI found that 100 urban schools and 21 rural districts show a "high need" for SBHC services. Investing SBHC Program funds in SBHCs that are high quality, effective, and sustainable will be essential for meeting the identified need. Both TCHF and CDPHE share a commitment to ensuring SBHCs are a viable and sustainable health care resource in Colorado communities.

Through the TCHF's School-Based Health Care Initiative, 36 new or existing SBHCs were supported with funding to plan, implement, and/or expand services over a four-year period. TCHF also funded an external evaluation to determine if the initiative was effective in moving its grantees toward self-sustainability. Findings from the initiative are documented in two publications from The Colorado Health Initiative, including *School-Based Health Care Initiative: 2012-2013 Evaluation Report*¹ and *School-Based Health Care Initiative: Evaluation Case Studies: Generating Patient Revenue from Billing and Financing Services for the Uninsured*.²

The evaluation report highlights eight sustainability factors identified by grantees in a self-assessment or interview process. These eight factors included: facility; staffing; provision of services; funding strategies; management practices; school integration; community partnerships; and marketing and outreach. Based on the initiative and findings from the evaluation, TCHF provided twelve key recommendations to help SBHCs, funders, and advocates build on their work.

Recommendations included:

1. Support SBHC expansion;
2. Carefully consider the role of the medical sponsor;
3. Continue to focus on insurance enrollment;
4. Continue to improve billing strategies;
5. Recognize the cultural shift required for SBHC billing;
6. Consider the potential of private insurance;
7. Consider sliding fee scales;
8. Advocate for long-term and flexible non-patient revenue;
9. Encourage SBHC partnerships with school-wide programs;

¹ The Colorado Health Foundation. (November 2013). The Colorado Health Foundation's School-Based Health Care Initiative: 2012-2013 Evaluation Report. Retrieved from: <http://www.coloradohealth.org/studies.aspx>

² The Colorado Health Foundation. (October 2013). The Colorado Health Foundation's School-Based Health Care Initiative: Evaluation Case Studies: Generating Patient Revenue from Billing and Financing Services for the Uninsured. Retrieved from: <http://www.coloradohealth.org/studies.aspx>

10. Continue to focus on SBHC marketing strategies;
11. Advocate for changes to behavioral health care funding; and
12. Advocate for continued state funding.

The sustainability study by JSI builds upon the important work from TCHF in their evaluation and case studies.

Health Care Environment

In recent years, both Colorado and the nation have seen significant shifts in the way health care, including primary care, is financed and delivered. Recognition and understanding of this shifting environment is paramount to assessing the factors that predict sound financing and quality care at Colorado's SBHCs.

With the passage of the Patient Protection and Affordable Care Act (ACA) in March 2010, many uninsured Americans would have access to previously unavailable or unaffordable health care insurance. In Colorado, this includes Connect for Health Colorado (state's Marketplace), and Colorado's Medicaid expansion for individuals up to 138% of the Federal Poverty Level (FPL). The ACA also provides opportunities for states to advance the coordination and quality of health care for individuals. One of the pillars of the ACA was the increased support for Accountable Care Organizations (ACOs), or groups of doctors, hospitals, and other health care providers to voluntarily and collectively provide coordinated high-quality care.³

Prior to the ACA, Colorado implemented statewide initiatives to ensure increased coordination and quality health care for Medicaid beneficiaries. Colorado's Accountable Care Collaborative (ACC) uses Regional Care Collaborative Organizations (RCCOs) to connect Medicaid clients, including children and adolescents, to Medicaid providers and "helps clients find community and social services in their area."⁴ Primary care providers (PCPs) contract with RCCOs to provide medical home services to Medicaid beneficiaries. PCPs, including SBHCs, that enroll as providers in the RCCOs can receive a variety of benefits, including enhanced payments for primary care, per-member per-month payments for attributed patients, and overall improved patient outcomes. The ACC has significantly shifted Colorado's delivery and financing model for Medicaid providers, including SBHCs.

Purpose of the Study

School-based health centers (SBHCs) are a unique health care model designed to provide convenient, comprehensive, integrated health care services to children and adolescents through school/health care partnerships. To this end, there are unique factors that influence an SBHC's ability to sustain itself and

³ Centers for Medicare & Medicaid Services. (2015). Accountable Care Organizations (ACO). Retrieved from: <https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/ACO/index.html?redirect=/aco>

⁴ Colorado Department of Health Care Policy & Financing. (2015). Regional Care Collaborative Organizations. Retrieved from: <https://www.colorado.gov/pacific/hcpf/regional-care-collaborative-organizations>

provide responsive, effective care to the community it serves. In February 2015, JSI was hired to identify the factors that allow funders to optimize their investments in SBHCs, as well as identify the gaps and opportunities in assessing the sustainability of SBHCs. The SBHC sustainability study provides CDPHE with the ability to strategically direct funding for the SBHC Program in an equitable manner that promotes sustainable, high-quality, responsive SBHC services across Colorado communities. The study is not an evaluation of any SBHC and/or the SBHC Program; rather, it is an analysis of factors that, when supported, may lead to better sustainability.

The study aims to identify a SBHC business model and financing strategy that incentivizes efficiency and movement to sustainability, addresses the primary care needs (physical, behavioral, and dental) of the target population, and supports SBHC growth. The objectives include:

- To identify the factors that best predict a high-quality, effective, and sustainable SBHC business model in order to determine which factors to consider in a new, equitable funding allocation.
- To develop a “best practice” financing strategy for Colorado SBHCs, including diversification of revenue sources and the appropriate and feasible distribution of revenue among the sources.
- To identify weaknesses in existing operations and financing that make SBHCs vulnerable to contraction or closure in order to support stakeholders’ assessments of potential vulnerabilities, development of capacity-building strategies, and evaluation of SBHC new starts.

The study identifies opportunities for funders to maximize their return on investment in SBHCs. The study provides recommendations to support the growth of financially-viable SBHCs throughout Colorado that provide health care services to children and youth in their respective communities.

Study Design

Key Stakeholder Discussions: JSI convened three discussions with experts from key organizations to inform the study design. The purpose of these conversations was to determine: (1) the alignment of data elements with the study’s analysis framework, (2) the quality of the data; (3) the feasibility of accessing the data in a way timely enough to use for the study, and (4) appropriate sustainability benchmarks. The results of the discussions allowed JSI to focus the quantitative analysis on two data sets; the Colorado Association for School-based Health Care (CASBHC) and Colorado Health Institute (CHI) annual SBHC survey, and Medicaid claims data from the Department of Health Care Policy and Financing (HCPF). Additionally, industry standard and comparative benchmarks were identified through The Colorado Health Foundation’s SBHC Initiative evaluation results and the School-Based Health Alliance proposed sustainability indicators and benchmarks, which are being tested in SBHCs across the nation.

SBHC Interviews: JSI conducted interviews with four existing SBHCs (three in-person; one phone interview) and one closed SBHC program. The SBHCs interviewed were selected to represent various

models (i.e., type of sponsor), size (i.e., number of sites and target population) and geography (i.e., rural/urban).

Annual SBHC Survey Data: CASBHC and CHI solicit and collect SBHC data from all Colorado SBHCs through an annual survey. The survey collects SBHC-specific data on populations served, program services and financial data. JSI, in partnership with CASBHC and CHI, obtained permission from 43 of the 49 CDPHE-funded SBHC sites to release their annual survey data to JSI for use in the study. JSI analyzed the survey finding by SBHC program to inform the quantitative findings. Key analyses included: revenue mix, population served and productivity. Findings from the analyses were compared the sustainability benchmarks identified through The Colorado Health Foundation’s SBHC Initiative and the School-Based Health Alliance proposed benchmarks.

Data Limitations

Annual SBHC Survey Data: The annual survey data is self-reported and the methods for abstracting and summarizing the data are not standardized, so some variation across SBHC programs is expected. To help address this issue, JSI used descriptive statistics to summarize information, but did not perform statistical tests to compare across SBHCs. Second, the financial data is reported at the program level rather than the individual SBHC site level. Thus, a health care organization that sponsors multiple SBHC sites reports financial data (e.g., revenue mix) aggregated across all of its SBHCs. To address this limitation, JSI used program-level data for all of its analyses rather than site-specific comparisons.

Colorado Medicaid Claims Data: The original study design included an analysis of Colorado Medicaid claims data to identify SBHC services billed for and collections received. JSI worked with HCPF to obtain these claims data, but received the data just prior to the conclusion of the study period. JSI will perform an analysis of the data and publish an addendum to this report, including any relevant findings.

SBHC Interviews: The original study design included a comparative analysis between high-performing SBHCs and low-performing SBHCs. Because low-performing SBHCs were not identified, the study design was modified to exclude a comparative analysis.

Considerations in Analysis

As noted in the Colorado Health Institute’s *The Evolving Role of School-Based Health Centers in Colorado*⁵, each SBHC is unique, with varying organizational structures, service mix, etc. This uniqueness brings a challenge to developing a common set of measures that can best predict a high quality,

⁵ Colorado Health Institute. (October 2, 2014). *The Evolving Role of School-Based Health Centers in Colorado Results of the 2012-13 Survey*. Retrieved at http://www.coloradohealthinstitute.org/uploads/downloads/SBHC_Chartpack_10_2014_v2.pdf

effective, and sustainable SBHC, but a challenge that nevertheless must be met. In order to develop a set of measures that are valid and reliable, it is essential to interpret the results of the qualitative and quantitative data analyses within the context of the various SBHC models as well as the environment in which they operate. These contextual considerations of our findings to date are discussed below.

JSI conducted an extensive literature review to inform the analysis and study of sustainable SBHC models. The literature review looked at U.S.-based studies published in the last 8-10 years with the following terms: “school based health centers” and “sustainability”; “school based health centers” and “sustainability” and “financing” and/or “funding”; “school based health centers” and “effectiveness”; and “school based health centers” and “quality improvement.” The search yielded 289 articles, and upon further review for relevancy, the JSI team selected 38 articles to evaluate and use to support the analysis. These articles were separated into three tiers, with the most relevant and applicable articles in tier one. The bibliography is included in Appendix II.

Key findings from the tier one literature review include:

- Encouraging increased use of listserv communication between SBHC programs may provide an opportunity for connecting with other programs and peers in the state to better equip individual programs with current evidence-based practices as well as connect to address sustainability challenges and successes (Adams S. & Barron S., 2009).
- A need for funding at the state or federal level to provide the infrastructure to enable the creation and dissemination of knowledge, as schools, particularly rural or small communities in Colorado, do not have the resources needed to support the infrastructure (Adams S. & Barron S., 2009).
- Consistent across the literature, SBHCs provide preventive health services, including many elements of primary care: “first contact care, longitudinal care, comprehensive care, coordination of care, and referral for specialized care” (Gibson E.J., et al, August 2013).
- SBHC service delivery must take into account the varying health needs of adolescent health compared to elementary-aged children (Gibson E.J., et al, August 2013).
- The extent to which SBHC programs are integrated into the school and not seen as a “guest” on school grounds impact the relationship and effectiveness of the SBHC program (Mandel L.A., November-December 2008).
- Public policies to support long-term sustainability of SBHCs including making contracts between SBHCs and managed care organizations to support reimbursement of SBHC services provided to Medicaid enrollees (Keeton V., Soleimanpour S., & Brindis C.D., July 2012).

Consideration of SBHC Models

In the sustainability study, JSI examined several characteristics of SBHCs. The characteristics discussed below include the mission or strategy of SBHCs; partnerships; organizational structure; target population; and services at SBHCs. These characteristics are important to consider due to the variance in

size, location, patient volumes, and a variety of other factors when making funding decisions about SBHC programs.

Mission/Strategy: SBHCs can vary significantly in their mission and strategy that, in turn, define the way they are organized, their target populations, and their funding streams. In addition, SBHCs in general may be shifting their mission and strategy with a growing focus on population health. For example, SBHCs may be expanding health promotion activities for the entire student body that are not part of reimbursable services. SBHCs may also be shifting their strategy to qualify as patient-centered medical homes so that they can participate in Medicaid managed care contracts.

Partnerships: SBHCs' sponsoring organizations can have significant implications on their performance. This is especially true for FQHC-sponsored SBHCs for several factors that include cost-based Medicaid/Child Health Plan *Plus* (CHP+) reimbursement, access to integrated electronic health record and patient accounts management systems, and operational supports. Apex Education Inc., CDPHE's evaluator for the SBHC Program, plans to add SBHC referrals to outside providers for needed services as an evaluation metric.

Organizational Structure: SBHCs' sponsoring organizations, size, and staffing plan will have impacts on the services that they can provide, their ability to operate effectively, and their ability to generate patient service revenues.

Services: SBHCs vary in the services they offer. The variations may be based upon their mission, for example, to be a full-service PCP to all students or to serve low-income students that do not have another regular source of primary care. Services may also vary based upon the sponsoring organization, for instance, the ability to provide confidential services if the school is the sponsoring agency. Another consideration on service mix is the level of reimbursement relative to cost of providing the service; services with higher contribution margins may cross-subsidize services with low or no profit margin but which are considered essential to improving the health of the target populations such as health promotion activities that are offered to the entire student body. The focus on population health by integrated delivery systems, Medicaid, and commercial health plans may also increase the demand for health promotion services.

Market Analysis: SBHCs are a part of a larger provider network within a community and are subject to the same market forces as other providers. The analysis of SBHC-specific data must, therefore, take into consideration its position within the larger health care market. For example, SBHCs located in more rural areas where there is a shortage of primary care providers (PCP) may serve as patient-centered medical homes for students. Another environmental consideration is the number of undocumented children living in the community and/or attending the schools, as these children would not be eligible for Medicaid or federally-subsidized health insurance. An additional factor is the ability of SBHCs to participate in RCOs as Medicaid and other payers shift to value-based global payment arrangements.

Findings

Qualitative Results

Qualitative data were obtained through site visits and interviews with selected SBHCs. JSI's initial plan was to conduct interviews with a selection of SBHCs identified as lower-performing centers to better understand their situations and higher-performing centers to better understand success factors. This comparative analysis was not possible when lower-performing centers were not identified. Instead, we conducted site visits with three SBHCs and interviews with a fourth that collectively included a cross-section by geographic area, urban/rural, and sponsoring agency type excluding FQHC-sponsored. We also interviewed the medical sponsor for a SBHC that recently closed. Through the site visits and interviews, we explored financial sustainability considerations and also used that opportunity to gain a deeper understanding of the data included in the CASBHC/CHI SBHC Survey (for 2010/2011, 2011/2012, and 2012/2013). Key findings from the site visits/interviews are outlined below.

Mission, Strategy and Operational Plan – Serving school-aged children is by definition at the core of the SBHC's mission, although the broader mission of the SBHCs varied. For example, SBHCs may see as part of their broader mission to provide services to parents where there are limited services within the community so that parents can remain healthy and able to take care of their children. SBHCs may also have in their mission to serve all infants and children in the community as the full-service pediatric provider. The SBHC's mission is often influenced by the health care market in which they operate. For example, SBHCs that operate in communities with dominant and competitive pediatric practices may serve more as a safety-net provider for low-income children, especially those that are uninsured or have more complex behavioral issues. Health care reform in Colorado has increased competition for Medicaid patients that are insured through the RCOs because of the ability for PCPs to receive enhanced payments and participate in shared savings.

SBHCs develop strategic and operational plans to achieve their mission, which can be a challenge in times of economic downturn for communities. Strategies focused on several areas: enrollment of students in the SBHC and referrals from school staff; patient service revenue maximization; providing confidential services; and maintaining high quality services. Operational plans focused on such areas as appointment scheduling and referrals, avoiding no-shows, space configuration for convenient access for the general community, confidential access for adolescents/teens, behavioral health and primary care integration, and financial management.

Clinical Quality – SBHCs strive to provide high-quality care and not be seen as second tier. Ensuring clinical quality can be a challenge when the SBHC is not the student's primary care provider. For example, they must collaborate and share information with the student's PCP to ensure that well-child visits have been completed. The need for collaboration on well-child checks is also related to revenue generation since insurers will not pay for more than one such visit per year. Clinical quality can also be more challenging for SBHCs that have the school district as their sponsoring agency because the school

district must have an arrangement with the clinical provider to provide oversight and help to ensure that the SBHC is following evidence-based practices. Ensuring credentialed providers is also essential for quality assurance and being able to contract with public and private health plans.

Behavioral Health – SBHCs strive to provide behavioral health services that are integrated with primary care. From our findings, the role of the school counselor differs from that of the behavioral health provider(s) within the SBHC. School counselors focus more on emotional support, but can serve as a referral source for SBHCs’ behavioral health services for those students with mental health needs. Smaller SBHCs may find it difficult to support behavioral health providers and may need to obtain services through community providers or advanced training of PCPs.

Oral Health – Oral health was not a major topic of discussion during the site visit because the sites visited did not have on-site dental services. We did learn that medical providers can provide certain oral health services, for example oral exam/risk assessments and fluoride varnish, that are reported as dental visits on the CASBHC/CHI SBHC Survey. Hence, SBHCs can report dental visits without having dentists on staff.

Enrollment – There are two components to enrollment: (1) enrollment of students as potential users of the SBHC, and (2) enrollment of patients into Medicaid or other insurance plans.

1. *Enrollment of students for SBHC services* benefited by host schools including SBHC information and enrollment forms with school packets mailed to incoming students and their families. From our site visits/interviews, we gathered that charging an enrollment fee could be burdensome on families and generally not supported by the schools. However, one school district opted to fund the nominal enrollment fee being charged by the SBHC for all students. This not only generated revenue for the SBHC, but also achieved nearly 100% enrollment. Although, it should be noted that many school districts are hurting financially and looking for ways to cut costs. SBHCs may also have made a commitment that the center would be at no cost to the school district, excluding in-kind contributions such as space and utilities. Supported enrollment campaigns are especially important for those SBHCs that operate in more competitive environments.
2. *Enrollment of patients (students and general community) into Medicaid, CHP+, and other insurance plans* is essential for SBHCs, and SBHCs need to have staff that can carry out this function. SBHCs that have historically operated more as a “free clinic” also need to have a cultural shift among staff and patients that are now being asked to provide insurance information and/or pay for services.

Billing for Services – SBHCs that are part of an FQHC organization or non-FQHC medical practice benefit from having access to internal billing services with trained and experienced staff. SBHCs that are not part of such organizations can obtain cost-effective billing services through private companies. Further, software-as-a-service (SAS) companies, such as Athena Health, can provide a total solution of electronic medical record (EMR), billing, and patient accounts management system that can be affordable even for

smaller entities. The SBHC can also provide guidelines on collection policies to ensure that the billing service is being sensitive to the patient population and not violating the SBHC's mission. Technical assistance support may still be needed for registration and coding to ensure that patient service revenues are maximized. Centers that invested in improving their billing practices did see increases in patient service revenues.

Two common topics of conversation during the site visit/interviews related to patient service revenue were: (1) confidential services, and (2) uninsured patients. Patients receiving confidential services were sometimes classified as uninsured even though they may be covered by Medicaid or private insurance. Confidential services would not be billed to private insurance or to home to maintain confidentiality. Such services can be billed to Medicaid because Colorado Medicaid will not send an Explanation of Benefits (EOB) for these services. There was still some resistance to submit claims to Medicaid for confidential services for fear that an EOB would be sent and/or students would not seek services if they knew that a claim would be submitted. The CASBHC/CHI survey combined self-pay and uninsured users into one group, but it will be important to separate these for internal financial management. It is also important to track charges for non-billable confidential services to identify the costs of services provided that would need to be supported by grant funds or other funding sources.

Also related to confidential services was the ability for adolescent/teen patients to access confidential services from the local health department at no cost. SBHCs want to provide services directly, but it can put a financial burden on the SBHC. If SBHCs are to refer patients to the health department for these services, they need to feel confident that the adolescent/teens will go and that they are able to obtain those services in a supportive, confidential and timely manner.

Grant Funds – When asked about essential elements for financial sustainability and greatest risk for financial sustainability, a common response was that grant funds both supported sustainability and created a risk because of their uncertainty and limited time frame. Grants to develop programs were appreciated but created the risk that the program could not be sustained after the grant period. Having ongoing grant dollars to cover the costs of non-reimbursable services and to maintain sufficient provider staffing levels and hours of operation was considered essential.

Community Support and Health Care Environment – As noted above, the characteristics of the community and health care market environment can have an impact on the SBHC's strategy. Several themes emerged in the conversations:

- SBHCs that are sponsored by school districts (or not part of FQHC or non-FQHC medical organizations) have the challenge of developing collaborative relationships with community-based health care providers without being perceived as competitors and instead viewed as providing care for the uninsured (safety net). Collaboration is needed for care coordination, developing relationships for clinical oversight, and establishing PCP relationships. Several of the SBHCs have updated their enrollment forms to ask if the patient has a PCP, and if not, their

willingness to select the SBHC provider as their PCP. This was done to support patient engagement and attribution of the patient to the SBHC for value-based payment arrangements.

- SBHCs feel the need to be seen as quality health care providers and not as second-tier care.
- SBHCs were sensitive to the perception of the community regarding how much they promote confidential services (family planning and behavioral health) for adolescents and teens.

Financial Accountability – SBHCs, regardless of their sponsoring agency, were being asked to be accountable for their financial performance, that is, to operate at or above breakeven taking into consideration in-kind contributions. Those sponsored by school districts have an added challenge of demonstrating that they could operate without taking away funds for academic initiatives.

Quantitative Results

The quantitative analysis results were obtained from an analysis of CASBHC/CHI SBHC Survey data for 2010/2011, 2011/2012, and 2012/2013. The analysis of measures was performed at the program level rather than the individual clinic level. Measures were developed to look at operational effectiveness—revenue generation, productivity, and staffing ratios—across the three-year period of analysis. Measures for individual programs were compared to averages across all programs as well as industry benchmarks or comparative measures when available. The analysis looked at correlations of performance to sponsoring agency type (FQHC, non-FQHC medical, or school district) and the relationships among variables; for example, revenue generation in relation to payer mix. Survey data did not include cost information, so it was not possible to look at measures related to costs. The key measures included:

- Revenue mix – % of revenue by revenue source
- Payer mix – % of revenue by payer within patient service revenue
- Total revenue generation – revenue by FTE provider, revenue per user, revenue per visit
- Patient service revenue generation – revenue by FTE provider, revenue by user, revenue per visit, in total and by payer
- Productivity – visits per hour of operation per FTE provider, visits per FTE provider
- Access – number of visits per user, percentage of school-age users to school enrollment
- Efficiency – number of non-medical FTE staff to provider FTE

The results are for those SBHCs that agreed to share data, which were the majority that participated in the CASBHC/CHI survey. Graphs of various analyses can be found in Appendix I.

Revenue Mix – The average percentage of patient service revenue to total revenue for reporting SBHCs was approximately 30% across all three years, which is below the School-Based Health Alliance proposed target of 50%. There was significant variation among the SBHCs, with percentages ranging from a low of less than 1% to a high of almost 85%. (Note: The health center with less than 1% was one that was just beginning to bill for services and is expected to increase over time). Percentages were more consistent

across FQHC-sponsored SBHCs and closer to the target rates. There was greater variation in those with non-FQHC medical sponsors, with some equal to or higher than FQHC-sponsored SBHCs and others much lower. School district-sponsored FQHC SBHCs had a lower percentage, which may reflect the fact that they serve a higher percentage of uninsured. As a group, FQHC-sponsored centers generated 50% to 60% of total revenue from patient service revenue compared to 20% to 30% for non-FQHC medical group sponsored and 10% to 20% for school-district sponsored. The higher percentage for FQHC-sponsored was most likely due to enhanced rates from Medicaid. We found from our site visits that in general SBHCs were working to improve their patient registration and billing processes to increase patient service revenues and set goals for percentage of patient service revenues.

The average percentage of revenue from federal, state, city, and private sources to total revenue averaged close to 70% across all three years but varied by group. FQHC-sponsored health centers were much lower than average (between 30% and 50%) compared to non-FQHC medical- and school district-sponsored which were between 80% and 90%. As noted above in the qualitative findings, grant funds were seen both as a key to financial sustainability as well as a risk to sustainability. The relatively high percentage of revenues that comes from grant funds means that SBHCs, in particular those that are non-FQHC medical- and school district-sponsored, are sensitive to changes in grant funding.

Revenue Generation – Average total revenue⁶ per user⁷ ranged from \$350 to \$750 across the three years, and there was significant variation among individual programs. Total revenue per user increased for all three groups from 2011/2012. In 2013/2014, non-FQHC medical-sponsored groups had the highest average total revenue per user at \$672, compared to \$473 for FQHC-sponsored, and \$509 for non-FQHC medical. The results are different when looking at patient service revenue⁸ per user. FQHC-sponsored group's average is much greater than those for non-FQHC medical- and school district-sponsored across all years. In 2013/2014, FQHC-sponsored centers had an average of \$274 compared to \$145 for non-FQHC medical and \$58 for school district-sponsored. FQHC-sponsored centers appear to be able to generate higher patient service revenue and less dependent upon grant revenues. Because the survey does not include cost information, we were not able to determine if the revenue per user is sufficient to cover costs per user.

Payer Mix (based upon patient service revenue by payer rather than users) – For this analysis, we looked at payer mix for 2013/2014 by program and within the three groups. Medicaid was the largest source of patient services revenue for nearly all of the SBHCs. Those with lower percentages of Medicaid revenues were transitioning from being a “free clinic” to a full service primary care practice and/or

⁶ Revenue is defined as all of the cash revenue a clinic receives (i.e. grants, patient revenue, donations, fundraising, and other earned income).

⁷ User is defined as an individual who received at least one face-to-face visit in the past year.

⁸ Patient service revenue is defined as the cash revenue a clinic receives for treating patients (i.e. Medicaid, CHP+, CHAMPUS, TRICARE, and other government programs, private insurance, and patient self-pays (fees, co-pays)).

implementing processes to increase enrollment of patients into Medicaid and bill for services. FQHC-sponsored SBHCs generally had the higher percentages of revenue from Medicaid, which is consistent with enhanced reimbursement rates; Medicaid revenue per Medicaid user for FQHC-sponsored was nearly three times that for non-FQHC medical- and school-district sponsored. Non-FQHC SBHCs contracted with RCCOs were able to increase Medicaid revenues through value-based payments; RCCO payments were sometimes included in “Other” payer revenue rather than Medicaid, which understated Medicaid revenues for those clinics. One SBHC with a high percentage of Medicaid patients had lower-than-average Medicaid revenue per Medicaid user, but they were in the process of engaging a billing service to improve coding and charge capture, and expected those revenues to increase.

The percentage of patient service revenue from self-pay patients was significantly lower for FQHC-sponsored when compared to non-FQHC medical- and school district-sponsored. The reasons for this difference are not known for sure. It could be the FQHC-sponsored SBHCs have more fully developed patient outreach and enrollment services or that non-FQHC medical- and school district-sponsored centers operate in areas with uninsurable populations, such as undocumented immigrants. When looking at users, FQHC-sponsored centers averaged 20% self-pay/uninsured compared to 30% for non-FQHC medical-sponsored centers and 50% for school district-sponsored centers. And the average self-pay revenue per self-pay/uninsured user averaged \$50 compared to \$212 for Medicaid across all centers and all years.

Private insurance represented 6.4% of total patient service revenue for FQHC-sponsored and 13.5% for non-FQHC medical-sponsored. School district-sponsored centers had 0% from private insurance, which may be due to billing practices and lack of contracts with private health plans. There are multiple aspects to increasing revenues from private insurance—credentialing providers to contract, obtaining the necessary insurance information to bill for non-confidential services, and ability to submit claims to various health plans.

CHP+ represented only 4% for FQHC-sponsored and 5% for non-FQHC medical-sponsored. School district-sponsored centers had no CHP+ revenues.

Productivity – The average number of visits per open hour per FTE provider across all programs ranged from a high of 3.7 to a low of 2.0. There was significant variation among the programs as well as within a program from one year to the next. Further investigation would be needed to understand these variations; for example, the number of visits decreased dramatically in one year but the number of providers remained constant. Most of the SBHC programs clustered around 1 to 2 visits per hour. SBHCs are likely not able to achieve the 3 to 4 visits per hour for a community-based primary care practice given that they are constrained by students’ schedules and school breaks. Working with SBHCs to provide a reliable value for this measure is important because it would be possible then to compare this value to the productivity measure and benchmarks proposed by the School Based Health Alliance:

(1) primary care patient visits per productive hour, and (2) mental or behavioral health patient visits per productive hour.⁹

Total visits per FTE provider averaged approximately 1300 across all programs for the three years. As with other data, there was variation among programs and within a program across years. As a group, non-FQHC medical-sponsored centers had higher total visits per FTE provider than the other two groups, but the averages merged in 2013/2014. In 2013/2014, FQHC-sponsored averaged 1,287 visits per FTE provider, non-FQHC medical-sponsored averaged 1330, and school district-sponsored averaged 1,221. The number of visits per FTE provider is approximately one-half to one-third of what might be expected in a community based health center.

Access – The average number of visits per user across all programs was about 3.5 for all three years. This rate is on target with the School-Based Health Alliance’s proposed target of 3.0-3.5 visits per user. FQHC-sponsored programs as a group was right on the average, while non-FQHC medical-sponsored were slightly higher (4.0), and school district-sponsored were slightly below (3.0); but all were within range of the average and target.

We did compute percentage of school-age users to enrollment, but we are not sure if we can use the results from the data because several SBHCs showed number of users 2 to 3 times school enrollment. Further review of the source data did not reveal why this would be the case. Further, looking at the percentage of users age 0 to 19 indicated that the SBHCs are reaching their target population—and not serving large numbers of adults that may throw off the ratios. It will be important to measure the percentage of enrolled students that are SBHC users and benchmark that to the proposed School Based Health Alliance target of 70%.

Efficiency – The average number of non-medical FTE staff (support) to provider FTE across all centers and all years was close to 1.0. This was supported by our findings during the site visits where we found that health centers were lean operations and adjusted staff to fit budgets. In addition, SBHCs received in-kind contributions from the sponsoring agencies for support functions such as accounting, human resources, and facility maintenance.

Interpretation of Findings

Volatility in measures from one year to the next created some difficulty in making correlations and correctly interpreting the results of the data analysis. For example, a low number of users can result in a relatively high “total revenue per user” if the SBHC had significant grant dollars in a given year. Efforts were made to adjust for anomalies in the data by removing certain data points; for example, zero values for sites that were not operational in the first and/or second year of the data series. We also contacted

⁹ *SBHC Sustainability Indicators and Benchmarks*, State Program Learning Forum, November 20, 2014, School Based Health Alliance presentation.

sites to confirm data that seemed inconsistent and make corrections; for example, .8 FTE staff reported in one year and 8 FTE staff in the next. By using multiple measures and cross-checking results across measures, we believe that we can interpret the findings in a way that is meaningful, reliable and valid, and that the findings can be used to develop recommendations which are presented in the following section.

Implications and Recommendations

How to Identify a Sustainable SBHC

As noted in describing the study design, we were not able to develop cohorts of high-performing and low-performing SBHCs and compare measurements across the cohorts. However, through the site visits, interviews, and analysis of survey data, we are able to provide guidelines on how to identify a sustainable SBHC.

Sustainable SBHCs have a clearly-articulated mission, a strategy for achieving their mission, and an operational plan to carry out the strategy. SBHCs' strategy will be influenced by the community in which they exist. SBHCs are a part of both the schools they serve and the medical provider community that are their peers. If the SBHC serves both the schools and the general community, this should be incorporated into the mission, strategy, and operational plan. For example, SBHCs that serve the general community have separate entrances that give convenient access to the community and confidential access to adolescent and teen students.

Sustainable SBHCs are those that have a “champion” within the sponsoring agency. This is especially true for school district-sponsored SBHCs because they may be seen as expendable or even competing for resources. Champions can include school nurse, teachers, counselor, principals, and superintendents. SBHCs' position is further strengthened by being able to show value for the school; for example, the ability to provide clinical support to wellness programs within the school, as well as the broader community

Sustainable SBHCs focus on enrollment as the first step in patient engagement and patient revenue generation. Ideally, enrolling students as a user of the SBHC would be part of the general school enrollment process. Enrollment may also assist families to enroll in Medicaid or subsidized health insurance through the Marketplace. If expertise does not exist within SBHC staff, the SBHC would collaborate with community-based organizations to conduct this process.

Sustainable SBHCs work in collaboration with community-based pediatric and family medicine providers. This includes: respect for the patient's selection of a PCP, sharing medical information such as when well-child visits have been completed, and demonstrating ability to provide high-quality health

care as part of the medical community. School district-sponsored programs also need to have clinical oversight by a local provider.

Sustainable SBHCs are those that can serve as the PCP if selected by the patient/caregiver. That means that providers are credentialed and contracted with RCCOs, Medicaid, CHP+, and relevant private health insurance plans. Being identified as the PCP is especially important under health care reform in Colorado so that patients are attributed to the SBHC providers and the SBHC has access to value-based payments.

Sustainable SBHCs are those that submit claims for confidential family planning services to Medicaid for reimbursement, and are able to differentiate between uninsured patients and non-billable services; for example, confidential services for patients with private insurance that want to have their access to such services remain confidential.

Sustainable SBHCs are those that leverage services within the community; in particular, family planning services that are provided by the local health department at no or little cost to the student, assuming of course that these services are provided in the same confidential and trusting way that they would be provided by the SBHC.

Sustainable SBHCs are those that have strong charge capture, coding, and claims processing systems. This could be provided by internal staff or through a high-quality billing service or software-as-a-service vendor that supports by the EMR and patient accounts management system. It may not be necessary to focus resources on collections since the amounts collected on self-pay accounts will most likely be minimal. What is more important is to have up-to-date insurance information so that claims can be submitted and paid and to ensure that the services being provided are captured in the appropriate billing codes.

Sustainable SBHCs are those that have staff to support demand for services and smooth demand as much as possible by scheduling appointments, sending reminders to students or retrieving students from class for their visit (depending upon age), and establishing strong referral relationships with school nurse/health techs, school counselors, and teachers. SBHCs can also fill demand by providing access to the community so long as low-income children and youth are given priority.

Sustainable SBHCs are those that have a balanced revenue mix and, to the extent possible, maximize patient service revenue from third-party payers; in particular, RCCOs, Medicaid, and CHP+. SBHCs are safety-net providers and as such must ensure access to services regardless of ability to pay. Grant dollars will be needed to support non-billable services for insured patients, services provided to uninsured patients, and non-reimbursable prevention services.

How to Make Decisions on Investments in SBHCs

Investment Criteria: CDPHE will want to make investments in SBHCs that will allow them to provide access to prevention and primary services, including confidential services, to the target population by

filling the gap between revenues generated from quality, effective and efficient operations and the cost to provide these services. CDPHE would base investment decisions on an application that outlines a clear business plan and continue investments based upon maintaining performance metrics. Proposed investment criteria are presented below.

1. **Demonstrate a clear mission statement with supporting strategic and operational plan.** The application would include a section for the SBHC to articulate its mission and lay out in broad terms its strategic and operational plan. This information would allow CDPHE to understand and take into consideration the environmental conditions that affect funding needs; for example, an SBHC that offers confidential family planning services to commercially insured adolescent/teens because it would otherwise not be available to them or an SBHC that offers health and wellness programs in a community with a high prevalence of childhood obesity.
2. **Demonstrate support from the school and provision of access to students.** The SBHC would include a description of its relationship with the school (referrals, collaboration on initiatives, etc.) and identification of “champions” within the school to maintain ongoing support. The SBHC would also describe how students are enrolled to use SBHC services and how this process is supported by the school/school district, for example, including SBHC enrollment forms and informational materials in school packet. Initial and ongoing funding amounts could be adjusted based upon access indicators.
 - Indicators:
 - Percentage of enrolled students that are users (separate students from community) – SBHA benchmark 70%
 - Number of visits per user – SBHA benchmark 3.0
3. **Demonstrate that the SBHC is providing quality services.** SBHC describes clinical oversight and how providers are credentialed. SBHC participates in the SBHC Program evaluation with Apex, including extraction and submission of EMR data to Apex for analysis.
 - Indicators
 - Well-child check in EMR (performed by SBHC or community provider) – SBHA benchmark 100%
 - Selected Healthcare Effectiveness Data and Information Set (HEDIS) measures (immunizations, asthma management, BMI screening, depression screening, STI screening)
 - Other relevant quality indicators (as identified in SBHC evaluation and research studies)
4. **Demonstrate ability to monitor financial performance** on a regular (monthly, quarterly, or at least annual) basis. SBHC has ability to produce a statement of revenues and expenses at least on a cash basis and preferably on an accrual basis including in-kind contributions.

5. **Demonstrate operational efficiency and effectiveness, and maximization of patient service revenues.** SBHC provides information that can be used to determine and support need for grant funds and that grant funds are being used to fill gaps in funding from other sources including Medicaid, health plans, and patients.
- Indicators:
 - Percentage of revenue from grants, percentage of revenue from patient service revenue – the percentage which indicates the SBHC’s reliance on grant funds to maintain operations
 - Percentage of revenue and collections rate by payer
 - Percentage of uninsured users
 - Patient service revenue per user, per visit overall, and by payer
 - Medical visits per open hour per FTE – compare to relevant benchmark from SBHA: primary care visits per productive hour (varies by number of exam rooms and support staff)
 - Behavioral health visit per open hour per FTE – compare to SBHA mental or behavioral visit per productive hour (individual or group)
 - Visits per provider FTE – use as the benchmark the average from the survey, approximately 1200 per FTE
 - Cost per user, per patient visit – cash basis and full cost including in-kind contributions
 - Other quantitative data:
 - Charges (or costs using cost-to-charge ratio) for confidential services for private insurance and self-pay patients. Charges should not include Medicaid as these can be billed to Medicaid without an EOB being sent to patient’s home.
 - Evidence of EMR and patient accounts management system – The SBHC provides information about its EMR and ability to capture charges from the EMR for billing purposes. SBHC describes how uninsured patients are counseled/assisted in applying for Medicaid or subsidized insurance. SBHC provides evidence that it is a presumptive eligibility provider.

Provide Grants for:

1. **Support for ongoing operations.** Qualitative research revealed that SBHCs need grant funds to support costs of providing services and that patient service revenue is not sufficient. Although the survey data did not include cost information, the quantitative analysis did show that the percentage of total revenue from federal, state, city, and private grant funds was close to 70% and patient service revenue represented 30%, well below the target of 50%. Several SBHCs were working to increase patient service revenue through better charge capture and billing processes, but grant revenues are needed to fill the gap. The following factors could be used to establish grant amounts:

- Charges (or % of charges) provided to uninsured patients for those SBHCs that have demonstrated strong patient outreach and enrollment practices. Grant funds would also be provided to support outreach and enrollment efforts, including staff and materials production. Charges provided for confidential services provided to patients that are insured under parent/guardian’s commercial insurance for those SBHCs that operate in communities where students cannot access confidential services at no cost, for example, through local health department.
- Costs related to lower productivity of providers in order to maintain sufficient number of hours to ensure access to students before and after school and during school hours. SBHCs operate at roughly one half to one third of community health center productivity levels. SBHCs demonstrate that they maintain adequate hours of operation and have procedures in place to minimize no show rates.
- Cost to provide non-billable wellness programs (in collaboration with school and other community providers).
- Cost of ongoing participation in SBHC Program evaluation, including use of behavioral health screening tool, submission of data to data warehouse, and quality improvement initiatives undertaken based upon evaluation results.

2. One-time grants for operational enhancements to improve long-term sustainability.

- Enhancements to EMR and patient accounts management system to submit information to data warehouse for evaluation and ongoing quality measurement, track charges for non-billable confidential services, track payer mix and collection rates by payer, etc. The SBHCs that use outside billing service could use a one-time grant to cover the initial cost of setup and staff training.
- Training and technical assistance:
 - Charge capture/coding and billing
 - Provider credentialing and contracting with RCCOs and commercial health plans
 - Outreach and enrollment strategies
 - Development of financial reports, including revenue and expense statements

Conclusion and Going Forward to Sustainability

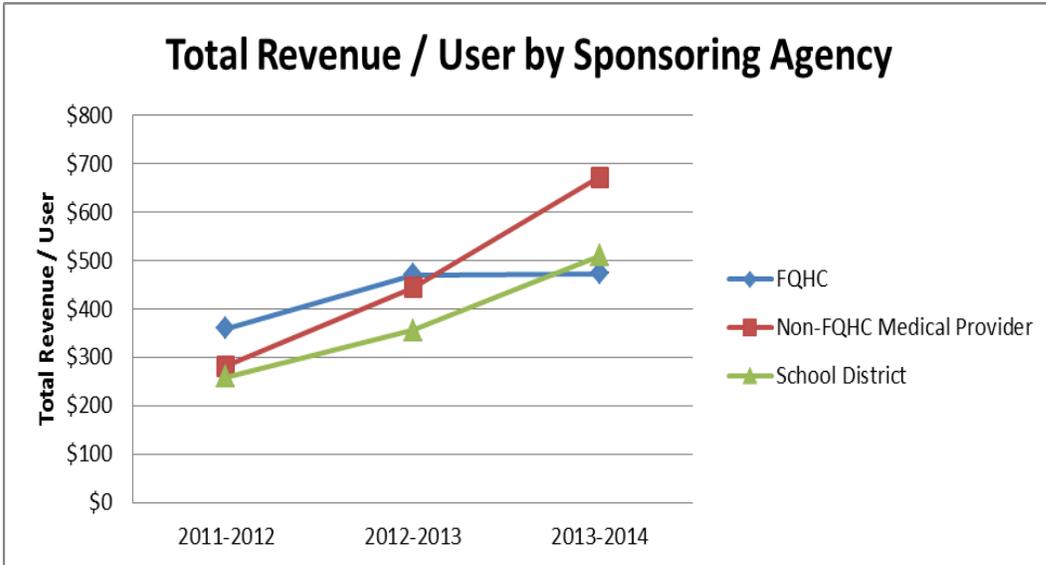
Colorado SBHCs are an important resource in their community and to the families and children they serve. The long-term viability of these health care providers is vital to ensuring thousands of Colorado children and youth continue to receive comprehensive, quality, affordable and convenient care. SBHCs are not only unique among other pediatric providers, but among each other. The sustainability study findings point to the need for flexible grant funds that account for SBHCs unique variations. Factors such as organizational model, sponsor-type, mission and strategy, and target population are some examples.

Maximizing patient revenue is one way to support sustainability. But it is unlikely that SBHCs will be sustainable from this revenue source alone. The sustainability study points to the need for grant funding to support ongoing operational costs. Simultaneously, SBHCs should continue to strengthen their coding and claiming capacity to collect third party revenue. Building operational and clinical capacity can be resource intensive, especially among lean SBHC programs. Grants that fund one-time operational enhancements to support sustainability will also be necessary.

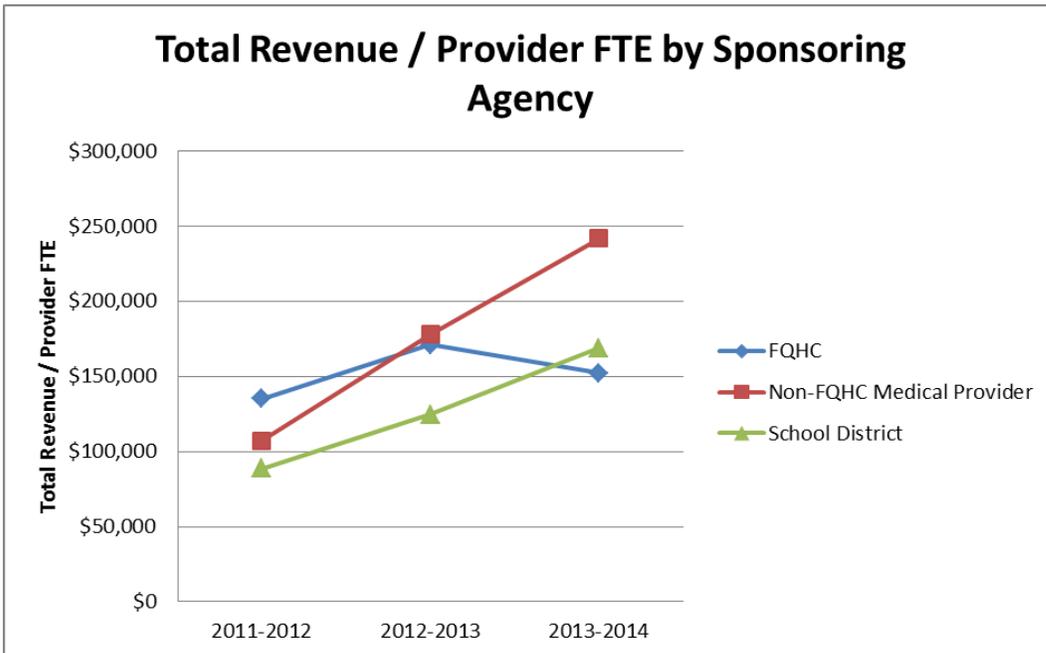
Finally, SBHCs want to be acknowledged as a provider of choice among their target population. Maintaining high-quality clinical and operational practices are the backbone of such recognition. Community partners and school district staff play an integral role in promoting and supporting the SBHC. Identifying and maintaining an internal, school-district champion has proven pivotal for all types of SBHCs.

Appendix I. Quantitative Analysis Graphs- Annual SBHC Survey Data

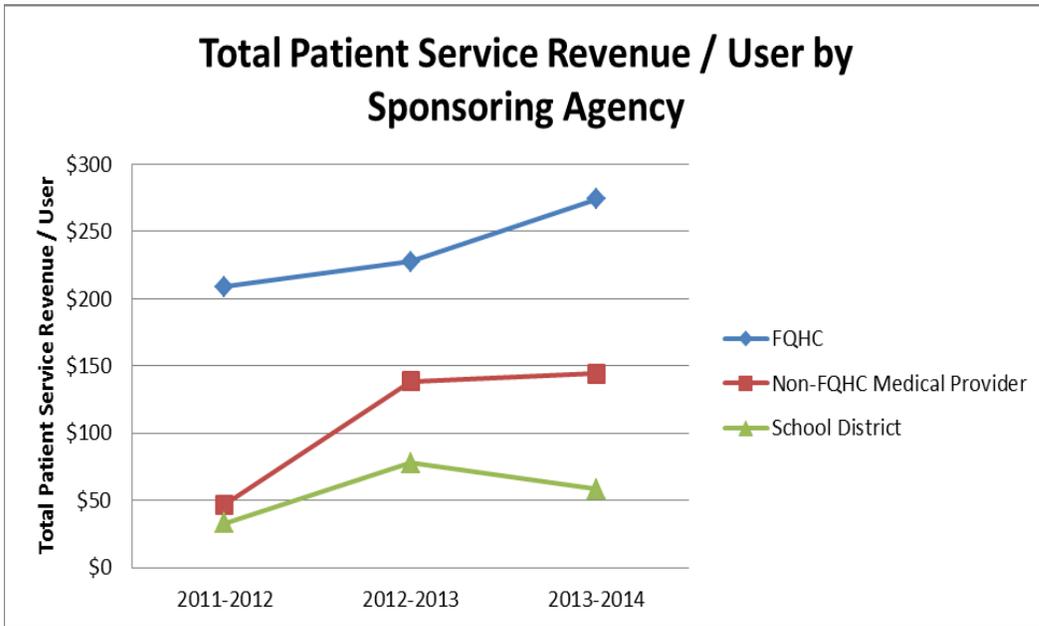
Graph 1. Total Revenue/User by Sponsoring Agency



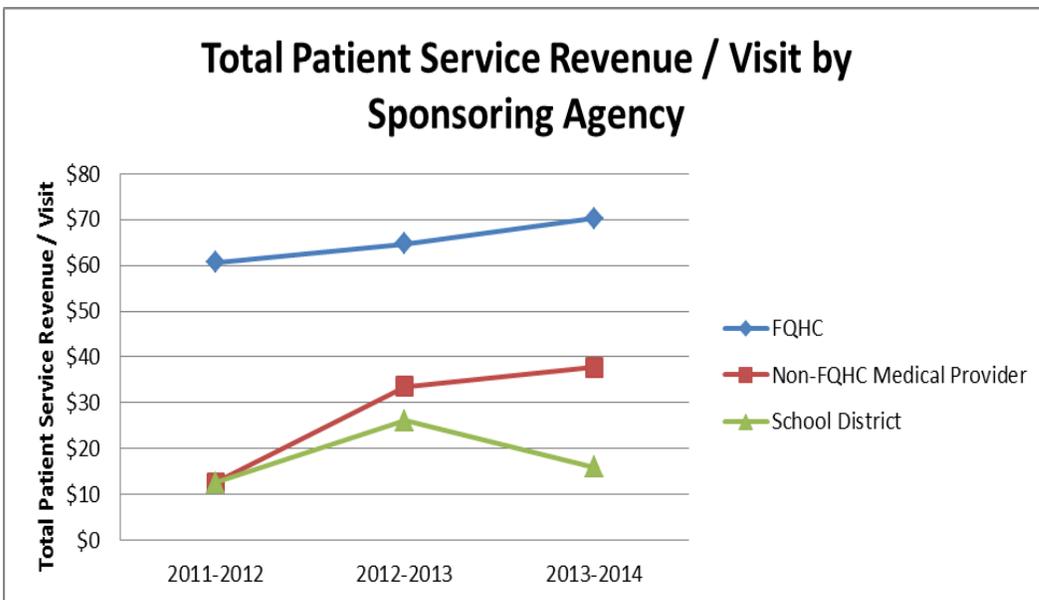
Graph 2. Total Revenue/Provider FTE by Sponsoring Agency



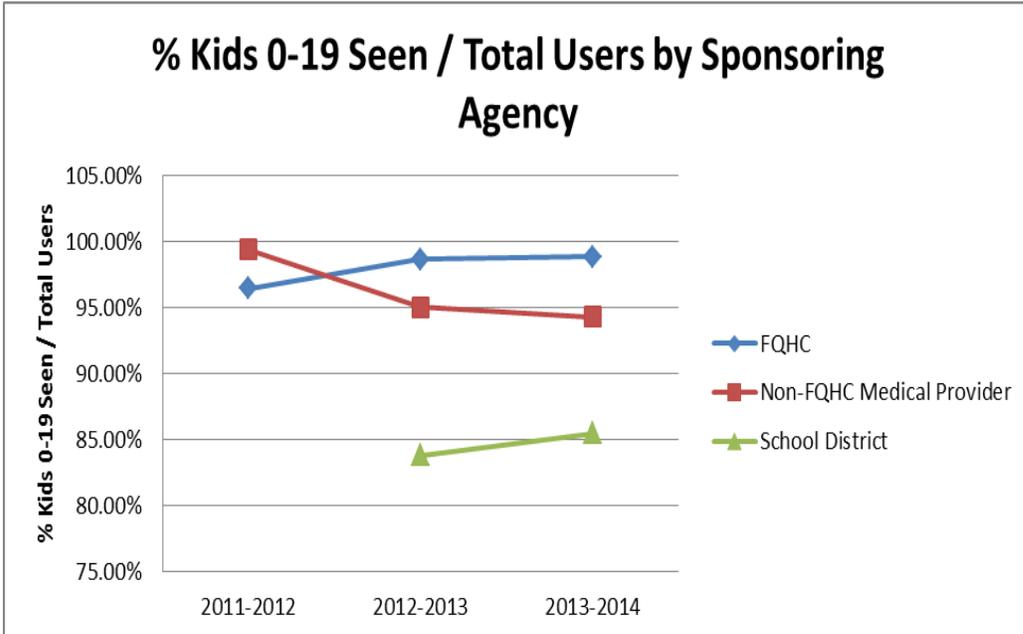
Graph 3. Total Patient Service Revenue/User by Sponsoring Agency



Graph 4. Total Patient Service Revenue/Visit by Sponsoring Agency

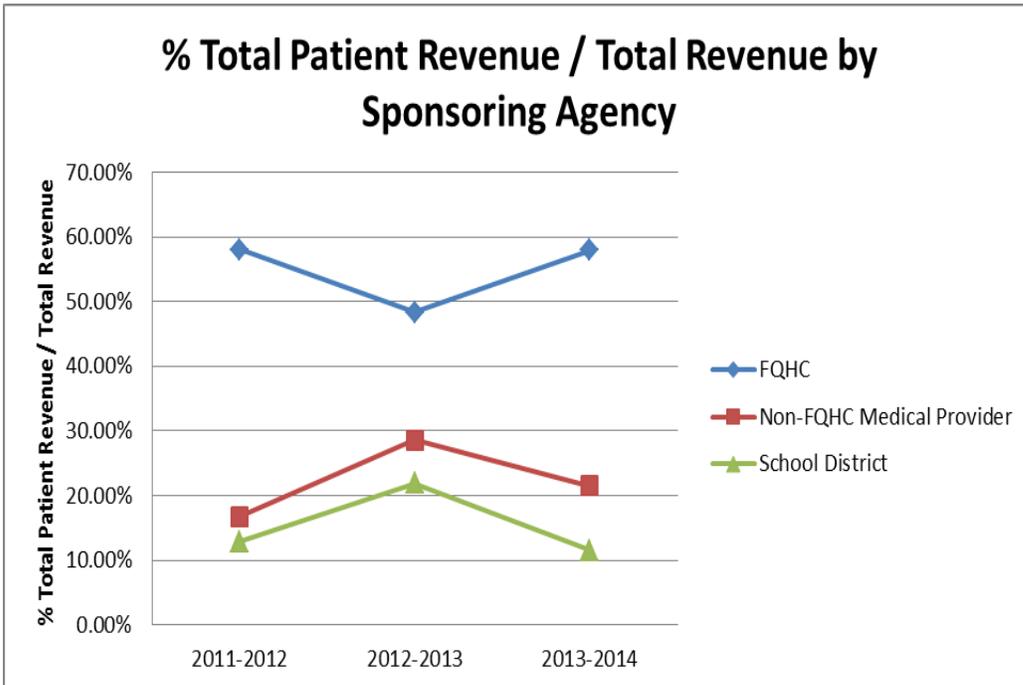


Graph 5. Percent Kids 0-19 Seen/Total Users by Sponsoring Agency

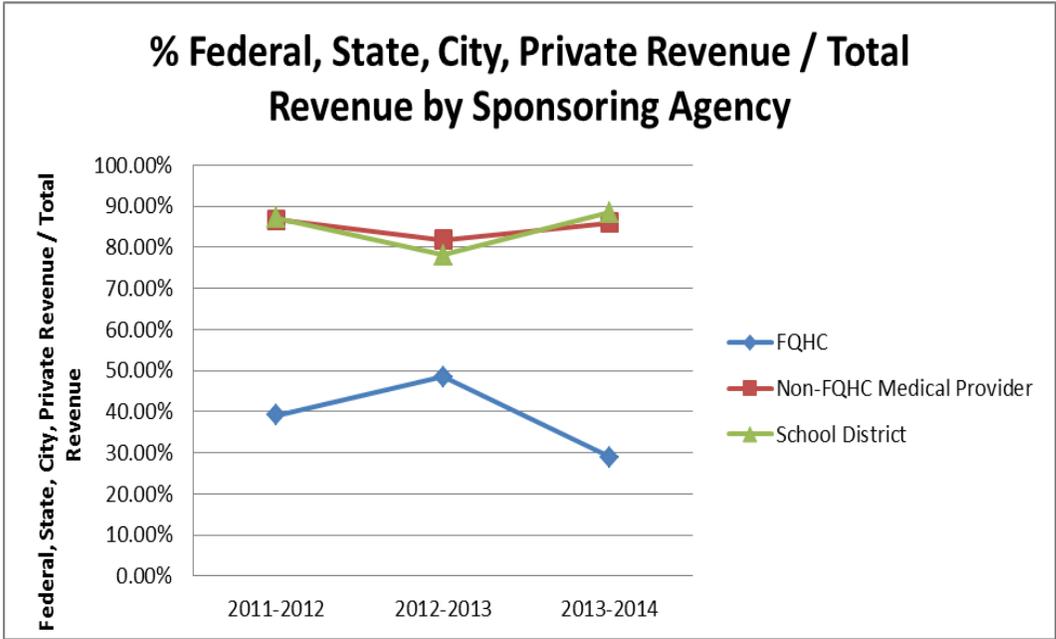


Please note school districts did not begin collection of this data until 2012 so there are only numbers reporting following 2012.

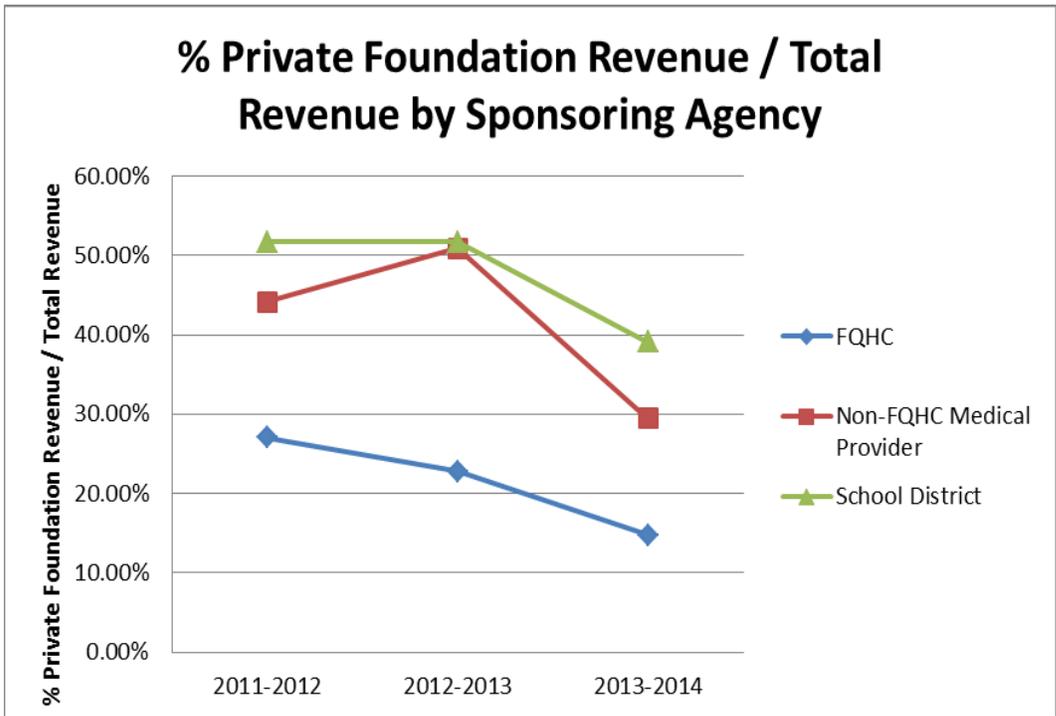
Graph 6. Percent Total Patient Revenue/Total Revenue by Sponsoring Agency



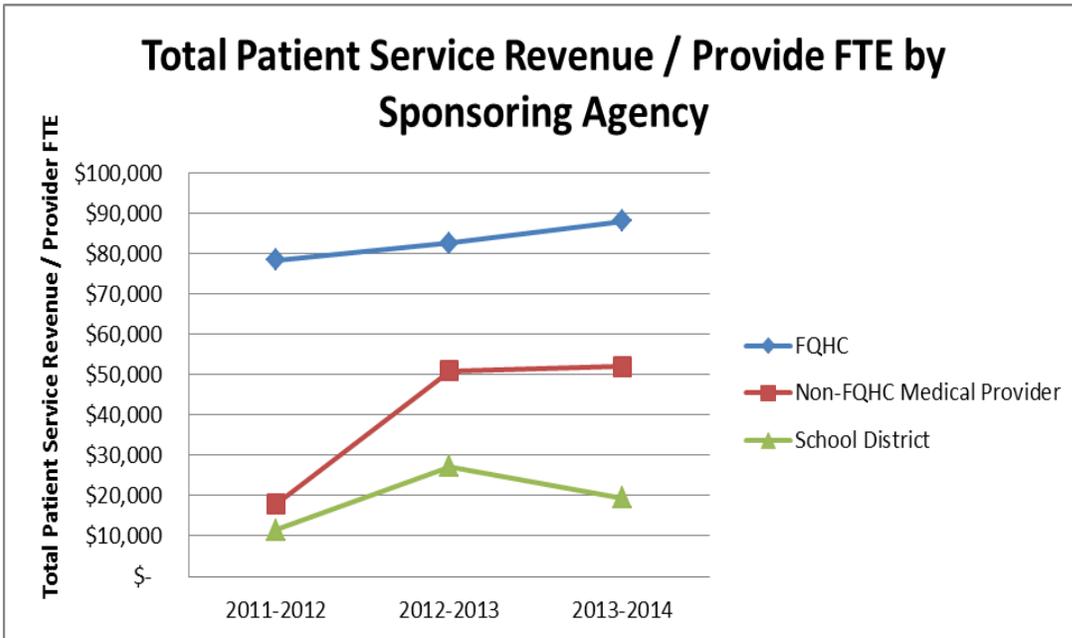
Graph 7. Percent Federal, State, City, Private Revenue/Total Revenue by Sponsoring Agency



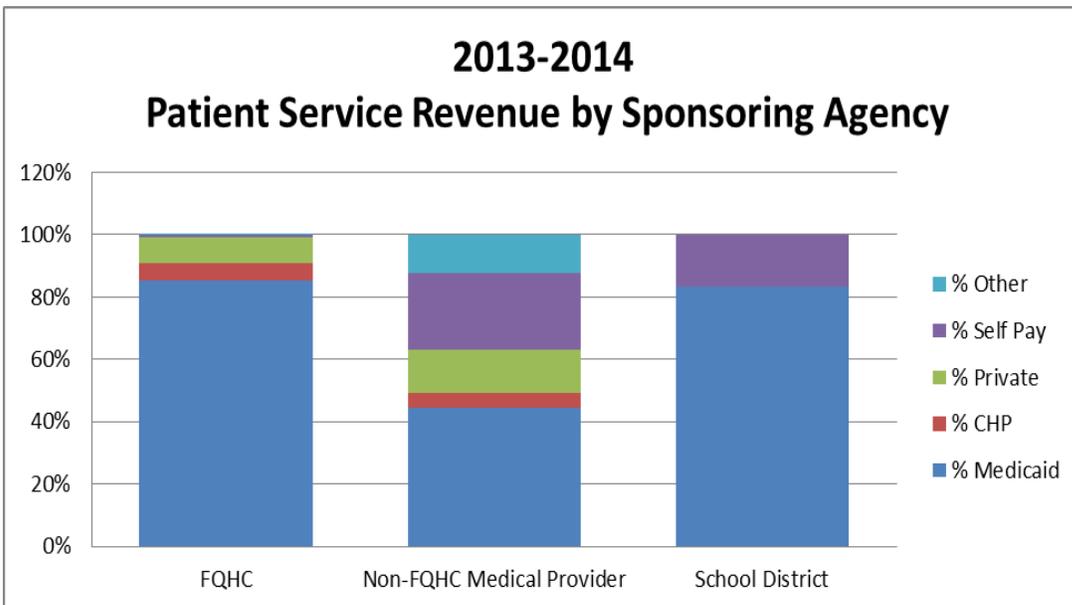
Graph 8. Percent Private Foundation Revenue/Total Revenue by Sponsoring Agency



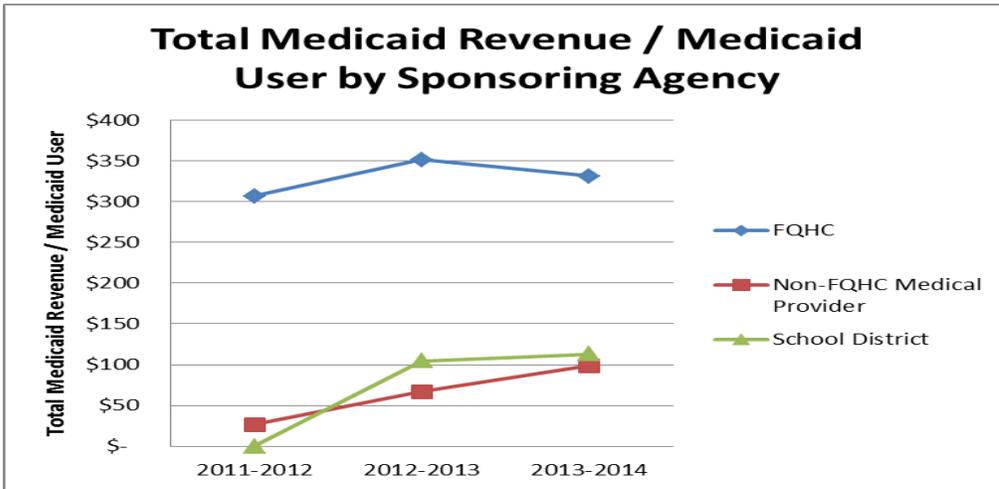
Graph 9. Total Patient Service Revenue/Provide FTE by Sponsoring Agency



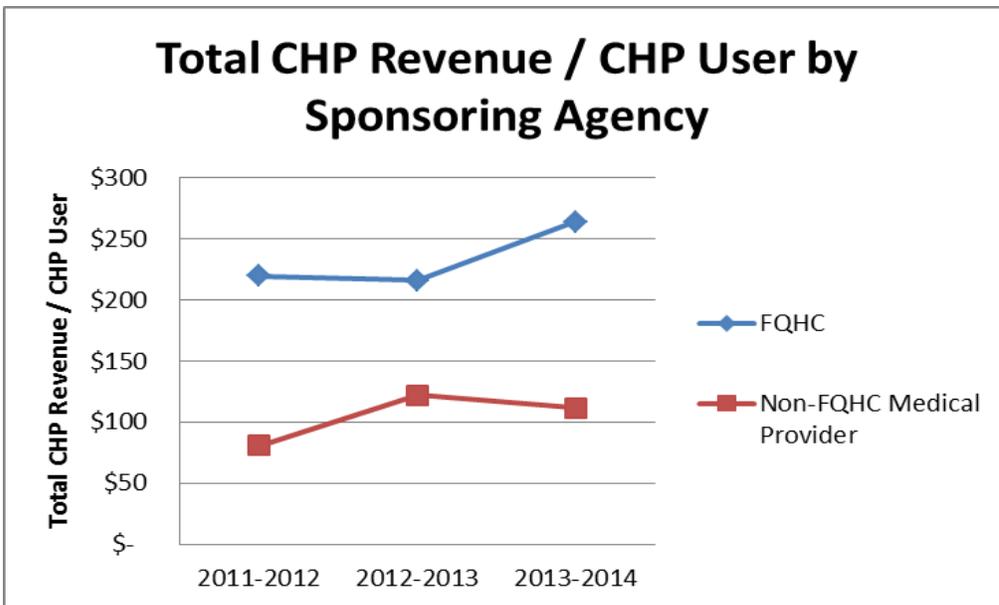
Graph 10. 2013 -2014 Patient Service Revenue Sponsoring Agency



Graph 11. Total Medicaid Revenue/Medicaid User by Sponsoring Agency

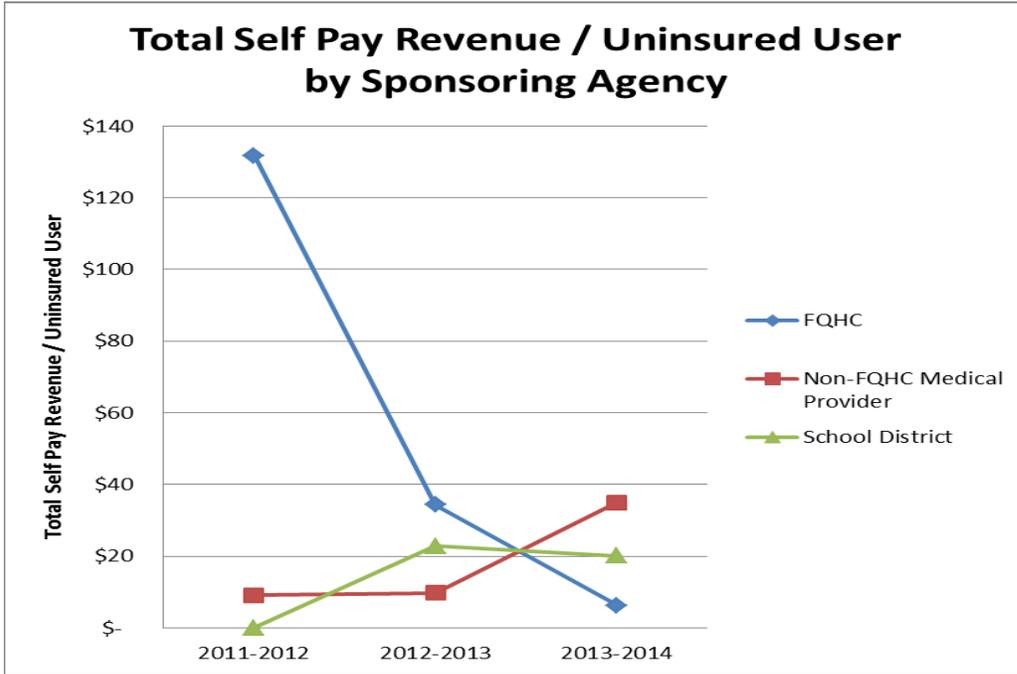


Graph 12. Total CHP+ Revenue/CHP+ User by Sponsoring Agency

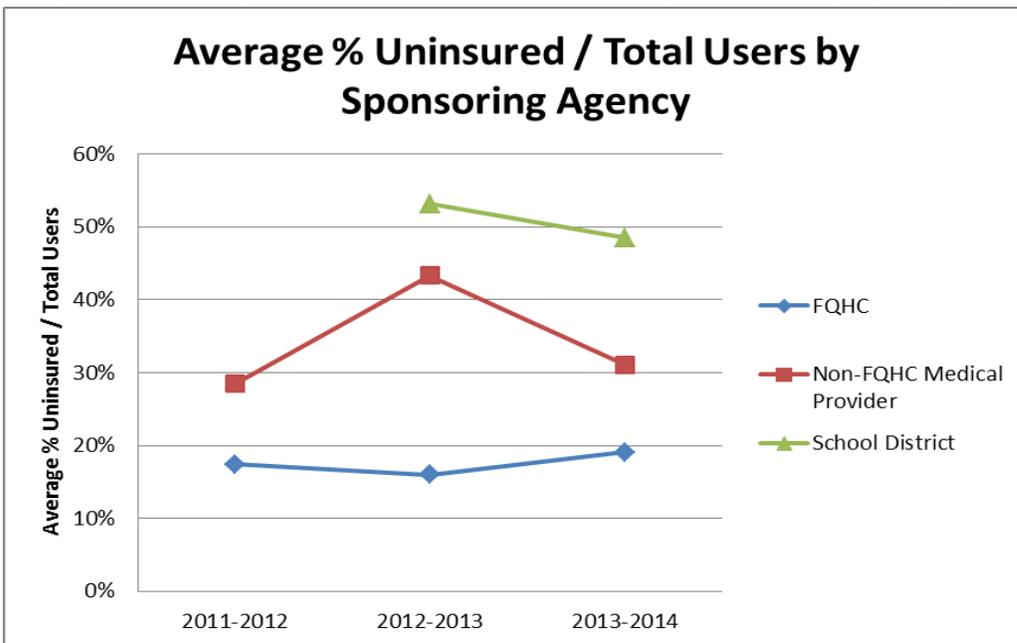


Please note there is no school district data available for Total CHP+ Revenue

Graph 13. Total Self Pay Revenue/Uninsured User by Sponsoring Agency

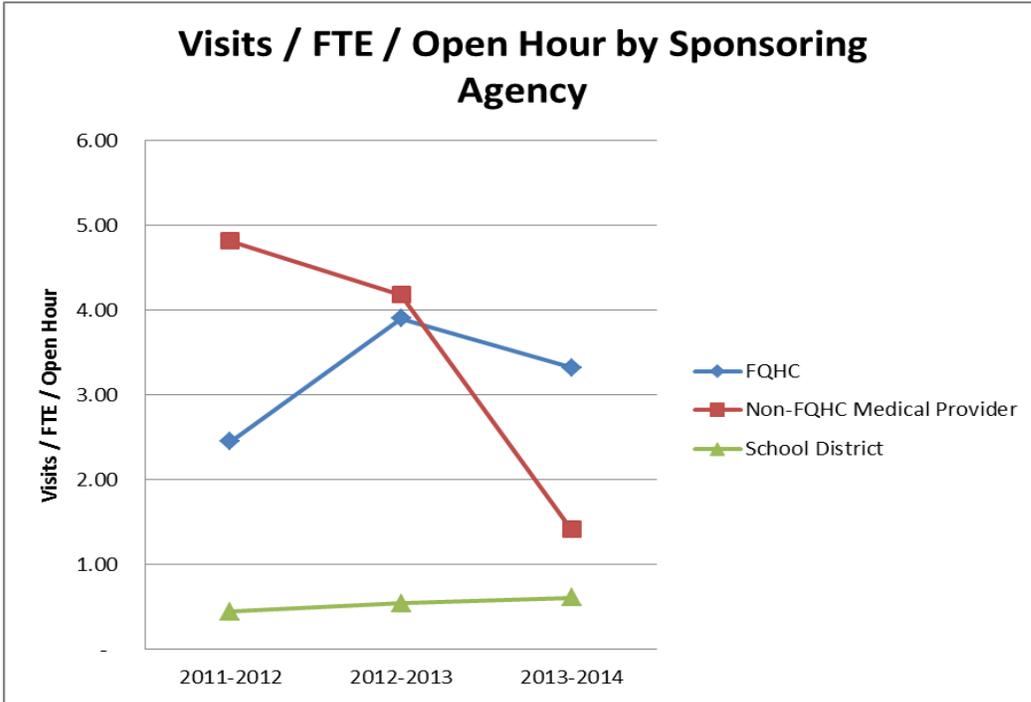


Graph 14. Average % Uninsured/Total Users by Sponsoring Agency

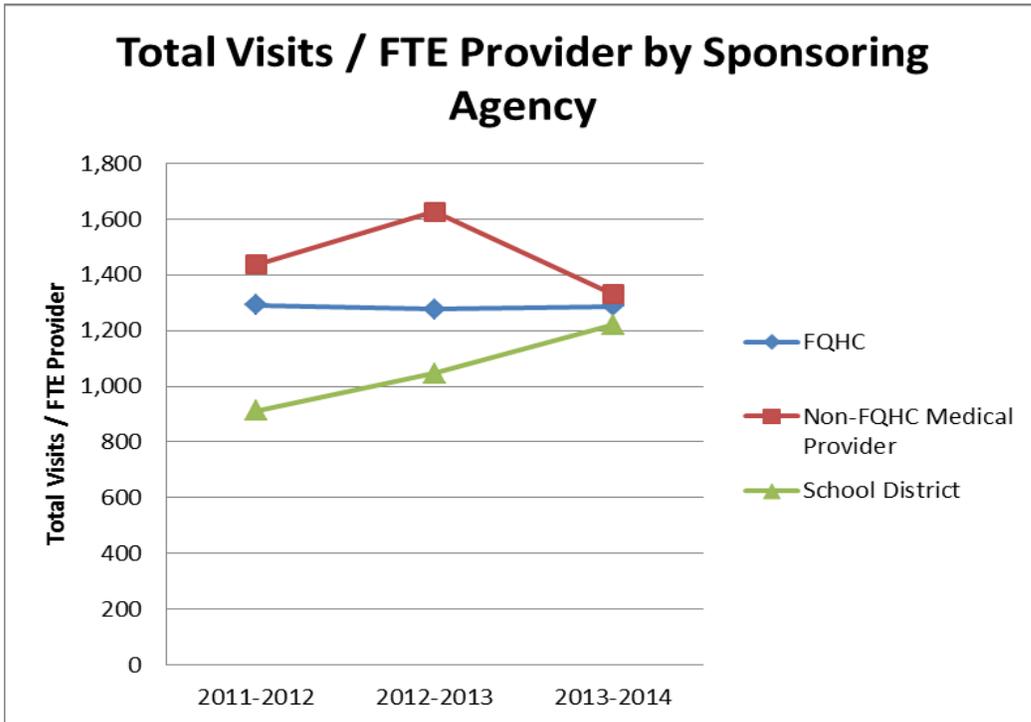


Please note school district data was not collected until 2012 so there is only data available following 2012.

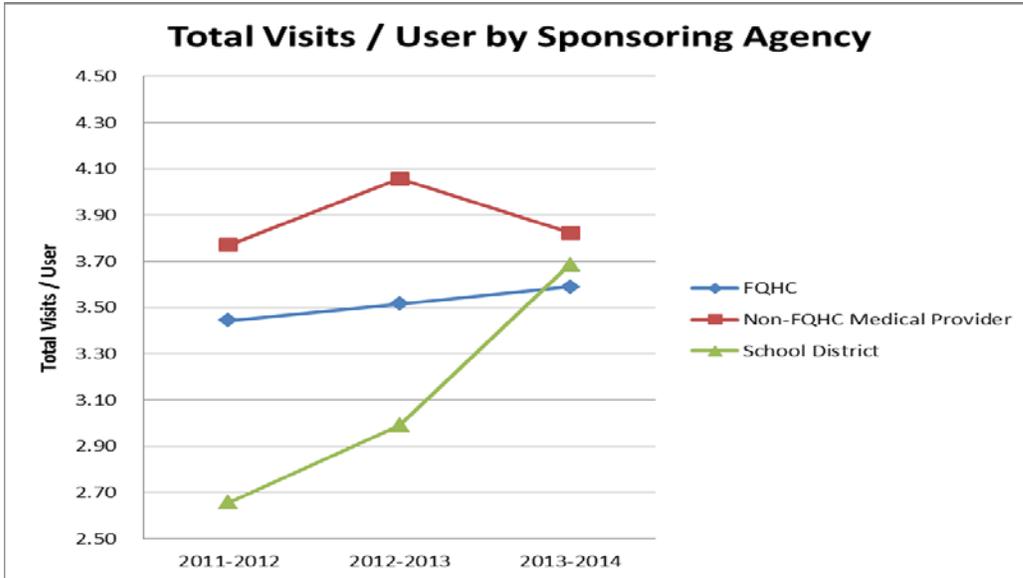
Graph 15. Visits/FTE/Open Hour by Sponsoring Agency



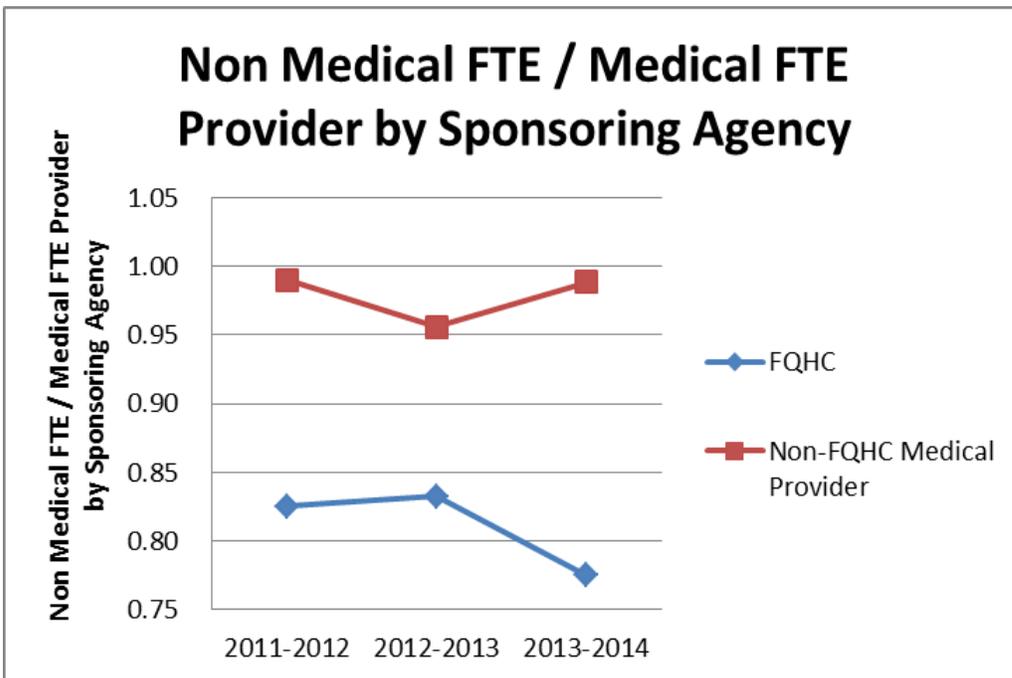
Graph 16. Total Visits/FTE Provider by Sponsoring Agency



Graph 17. Total Visits/User by Sponsoring Agency

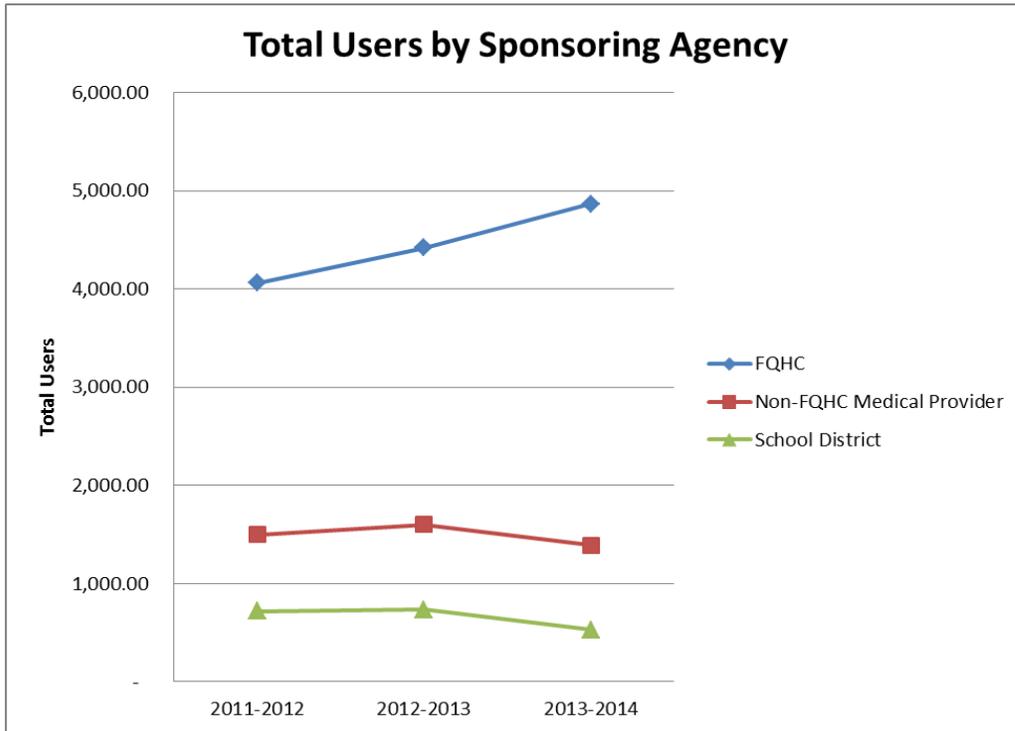


Graph 18. Non-Medical FTE/Medical FTE Provider by Sponsoring Agency



Please note there is no school district data available for non-medical FTE

Graph 19. Total Users by Sponsoring Agency



Appendix II. Bibliography

- Adams, S., & Barron, S. (2009). Use of Evidence-Based Practice in School Nursing: Prevalence, Associated Variables, and Perceived Needs. *Worldviews on Evidence-Based Nursing*, 6(1):16-26. doi: 10.1111/j.1741-6787.2008.00141.x.
- Allison M.A., Crane L.A., Beaty B.L., Davidson A.J., Melinkovich P., and Kempe A. (October 2007). School-based health centers: improving access and quality of care for low-income adolescents. *Pediatrics*, 20(4):e887-94.
- Bannister A, Kelts S. (May 2011). NASN position statement: the role of the school nurse and school-based health centers. *NASN School Nurse*, 26(3):196-7.
- Bosma L.M., Sieving R.E., Ericson A., Russ P., Cavender L., and Bonine M. (October 2010). Elements for successful collaboration between K-8 school, community agency, and university partners: the lead peace partnership. *Journal of School Health*, 80(10):501-7. doi: 10.1111/j.1746-1561.2010.00534.x.
- Gibson E.J., Santelli J.S., Minguez M., Lord A., and Schuyler A.C. (15 August 2013). Measuring school health center impact on access to and quality of primary care. *Journal of Adolescent Health*. 2013 Dec;53(6):699-705. doi: 10.1016/j.jadohealth.2013.06.021.
- Guo J.J., Wade T.J., and Keller K.N. (November-December 2008). Impact of school-based health centers on students with mental health problems. *Public Health Reports*, 123(6):768-80.
- Harris C.V. and Neal W.A. (September 2009). Assessing BMI in West Virginia schools: parent perspectives and the influence of context. *Pediatrics*, (124), Supplement 1:S63-72. doi: 10.1542/peds.2008-3586l.
- Keeton V., Soleimanpour S., and Brindis C.D. (July 2012). School-based health centers in an era of health care reform: building on history. *Current Problems in Pediatric and Adolescent Health Care*, 42(6):132-56; discussion 157-8. doi: 10.1016/j.cppeds.2012.03.002.
- Mandel L.A. (November-December 2008). Taking the "guest" work out of school-health interagency partnerships. *Public Health Reports*, 123(6):790-7.
- Nystrom, R.J. & Prata, A. (November – December 2008). Planning and Sustaining a School-Based Health Center: Cost and Revenue Findings from Oregon. *Public Health Reports*, 123: 751- 760.
- Petersen, S. (2008). Reinventing clinical roles and space at school. *New Directions for Youth Development*, (120). doi: 10.1002/yd.287

Appendix III. Acronym List

Affordable Care Act	ACA
Accountable Care Collaborative	ACC
Accountable Care Organization	ACO
Colorado Association for School-Based Health Care	CASBHC
Colorado Department of Public Health and Environment	CDPHE
Colorado Health Institute	CHI
Explanation of Benefits	EOB
Federal Poverty Level	FPL
Federally Qualified Health Center	FQHC
Department of Health Care Policy and Financing	HCPF
John Snow, Inc.	JSI
Primary Care Provider	PCP
Regional Care Collaborative Organization	RCCO
Software-as-a-Service	SAS
School-Based Health Center	SBHC