This packet is an introduction and brief summary of information related to the strategy listed below. It is not exhaustive and is intended to be a starting point for the conversations that will take place at the Next Steps event. Your expertise and experience with this topic will help to fill in gaps and round out the conversation.

**Strategy: Establish school-based health centers in high-need areas**

**Group Charge:**
1) Prioritize the schools with highest need for school-based health clinics.

2) Create an implementation plan, using an evidence-based model, for establishing school-based health clinics at the identified high-need schools.

**WHAT WE KNOW**

**Background**

**In general**
- Children from low-income and racial and ethnic minority populations in the United States are less likely to have access to health care, are more likely to experience worse health, and are more likely to miss more days of school because of illness than do children from less economically and socially disadvantaged populations.¹
- Health and education are interrelated
  - Higher levels of education are associated with good health, and children and families in good health tend to have better education-related outcomes.²
- Health affects education
  - Factors related to health affect the ability to learn,³⁻⁶ which in turn, impacts whether a student completes high school.⁷
  - Childhood illness, mental health problems, and poor school performance and risky behaviors can lead to high school dropout.⁸
    - The effects of childhood illness on education are influenced by access and utilization of medical care.⁹
    - Mental health issues are often not identified or treated and can lead to poor school performance or dropout.⁹
    - Students who earn low grades are more likely to engage in risky behaviors,¹⁰ which can then lead to school dropout.
- Education affects health
  - Americans with less education, are more likely to have health problems, to smoke, and to be obese.¹¹,¹²
  - American adults without a high school diploma are likely to die 9 years sooner than college graduates.¹²
- As a place where children spend a significant amount of time, school plays an important role in their health and development and can be a central point for coordinating the delivery of health programs.⁷
About this strategy

- SBHCs provide health services to pre-K-12th grade students by an interdisciplinary team of health professionals (e.g., nurse practitioners, physicians, and mental health clinicians).13 SBHCs may be offered on-site (e.g., school-based centers) or off-site (e.g., school linked services). Although based on a recent national census conducted by the School-Based Health Alliance, 94.1% of SBHCs are school-based centers.14
- The number of SBHCs in the U.S. continues to grow,14 as seen in the graphic below.

Figure 1: The number of SBHCs in the U.S. has increased by 104% since 1998

- SBHCs are operated as a partnership between schools and community health organizations (e.g., health department, hospitals).15 Although formal agreements between SBHC lead agencies and schools are not common, formal written agreements can be useful in determining relationships between health centers and schools.16
- SBHCs are typically facilitated or sponsored by a lead agency, such as public health departments, community health clinics, medical schools, or hospitals.17 The roles of the lead agency often include:
  - Bringing much needed expertise, linkages to an array of services, and often other resources that enable children and adolescents to thrive in the classroom and beyond;18
  - Supporting the coordination of children’s health care by facilitating the implementation of needs assessments;
  - Identifying a health care sponsor (e.g., pediatricians, local hospitals) to address more general community needs;19 and
  - Facilitating the development of advisory committees to support the work.20
- The roles of the school/school district often includes:
  - Providing the facilities and utilities;
  - Providing access to students; and
  - Developing and implementing building-level policies to facilitate students’ enrollment and utilization.
- SBHCs must minimally provide medical health care (e.g., well-child visits, preventative screenings, diagnosis and treatment of illness and injury, and immunizations).
The level and scope of services provided are informed by the specific needs of the target population and are best identified through a needs assessment. Potential additional services may include:
- Behavioral Health
- Oral Health
- Prevention and Health Education
- Community Outreach
- Healthy living (e.g., healthy eating and active living)
- Sexual and Reproductive Health

Each SBHC differs slightly in the number and type of personnel it employs. SBHC staff may consist of a nurse practitioner or physician's assistant, physician, registered nurse, dietician, clinical psychologist, social worker, health educator, certified medical assistant, receptionist or office manager, or any combination. However, there are several staffing models commonly employed by SBHCs:
- The primary care model, includes a nurse practitioner or physician assistant who provides basic health services with supervision by a physician. In most SBHCs, a collaborating physician provides part-time medical services for students and works closely with the other health care provider (e.g., a nurse practitioner) to determine the appropriate course of treatment for complex medical problems;
- The primary care–mental health model has the addition of a mental health professional (e.g., licensed clinical social worker, psychologist). Mental health professionals are used to evaluate students' mental health needs and provide counseling to individuals, groups, or families; and
- The primary care–mental health plus model which comprises primary care and mental health providers with the addition of other professionals (e.g., health educators, case managers, nutritionists).

For more information on common characteristics of SBHCs in the U.S. see Appendix A: 2013-14 Census of School-Based Health Centers: Methodology, Key Report Data Details, and Acknowledgements.

Effectiveness
SBHCs have been shown to have an impact on access to health care and health care costs, health outcomes, and academic outcomes. Evidence is strongest for SBHCs serving adolescents (e.g., those in middle and high schools).
- SBHCs have been shown to increase access to health care, particularly for vulnerable populations, and increase health care utilization.
- SBHCs can reduce health care costs by reducing high cost services, such as ER visits and hospitalizations, and lower Medicaid costs.
- SBHCs have been shown to help screen and manage diabetes, manage asthma, and promote positive physical and behavioral health.
- SBHCs improve school attendance and graduation rates.

Need In St. Louis
The need for SBHCs in St. Louis is high. SBHCs have the potential to impact those with highest needs with regards to their health and academic outcomes.

Health outcomes in St. Louis
- Compared with white students, African American students experience five times the rate of injuries from violence and 11 times the rate of asthma-related visits to the emergency room.
- African American youth report higher rates of diagnosis for mental health problems (28% v 12%), are more likely to visit the emergency room for mental health conditions (rate of 3.7 versus 7.0 per 1,000 individuals under age 15), and have a higher rate of hospitalizations for mental health conditions (rate of 38.9 versus 58.4 per 10,000 individuals under age 15).
• African American teens in St. Louis City and St. Louis County are more than three to four times likely to become pregnant compared with white teens.47

• African American teens, age 15-19, in St. Louis are significantly more likely to contract chlamydia (10 times more likely in City; 17 times more likely in County) and gonorrhea (21 times more likely in City; 34 times more likely in County).48

**Education outcomes in St. Louis**

• Compared with white students, the proportion of African American students in St. Louis who are frequently absent from school is twice as high, the high school dropout rate is five times higher, and the proportion of third graders with below-basic English Language Arts proficiency is six times higher.7

• A high percentage of African American students are performing at the below basic level on the MAP eighth grade math test, and several districts also have high rates of African American students classified as below the basic level in Algebra I.2

**Current state of SBHCs in Missouri**

• As of 2013 Missouri is one of the states with the fewest number of SBHCs, having a total of four SBHCs.14 In comparison, Florida has 322; California has 237; and New York 230.

**Level of need in St. Louis region (by school)**

*For the Sake of All* contracted with Missouri Wonk to determine the level of need for SBHC for each elementary, middle, and high school in the St. Louis region. In order to determine this, Missouri Wonk created a composite score for each school based on health, education, economic, and social support indicators and then ranked the schools accordingly. The number 1 ranked school has the greatest need for health interventions.48

• See Appendices B, C and D for a summary of each school, in order by rank.

• See Appendices E, F, and G for details on each school, in order alphabetically.
PLANNING & IMPLEMENTING A SCHOOL-BASED HEALTH CENTER

Best Practices

- Guidelines regarding best practices for SBHCs have been developed over time and include\(^{37,51-55}\):
  - Performing a community needs assessment;
  - Coordinating care with the medical community, hospitals, and public health providers;
  - Documenting the effect of SBHC services on students’ health and educational outcomes; and
  - Fostering student engagement in the planning and implementation of the SBHC; and
  - Establishing a business plan to generate grants, contracts, and billings to match SBHC expenses.
- For additional information on recommended practices, see Appendix H: Right Place Right Time.\(^56\)
- The School-Based Health Alliance developed a set of seven core competencies that encompass the common characteristics of great SBHCs.\(^18\) The competencies include:
  1. The SBHC assures students’ access to health care and support services to help them thrive. This can be supported by:
     - Performing a community needs assessment;
     - Coordinating care with the medical community, hospitals, and public health providers;
  2. The SBHC team and services are organized explicitly around relevant health issues that affect student well-being and academic success. This can be supported by:
     - Performing a community needs assessment;
     - Coordinating care with the medical community, hospitals, and public health providers;
  3. The SBHC, although governed and administered separately from the school, integrates into the education and environment to support the school’s mission of student success. This can be supported through:
     - Documenting the effect of SBHC services on students’ health and educational outcomes\(^{37,51-54}\);
  4. The SBHC routinely evaluates its performance against accepted standards of quality to achieve optimal outcomes for students. This is supported through:
     - Documenting the effect of SBHC services on students’ health and educational outcomes\(^{37,51-54}\);
  5. The SBHC promotes a culture of health across the entire school community.
  6. The SBHC coordinates across relevant systems of care that share in the well-being of its patients.
  7. The SBHC employs sound management practices to ensure a sustainable business. Experts agree that sustainable SBHCs share three common characteristics:\(^57\)
     - Develop and nurture strong partnerships with school and community stakeholders committed to SBHCs;
     - Create a comprehensive business model and sustainability plan that includes a variety of stable and predictable funding sources; and
     - Operate high quality health care practices that meet all the needs of students.
- For more information on SBHC sustainability, see Appendix I: Recommendations for Sustaining School-Based Health Centers.\(^58\)

Putting the Model into Action

Several states have developed toolkits or how-to manuals for planning and implementing SBHCs. These toolkits are valuable resources and can be used to inform the development of SBHCs in Missouri and the St. Louis region. For more information see:

• California’s toolkit From Vision to Reality: How to Build a School Health Center From the Ground Up. This resource is available via: www.schoolhealthcenters.org or call (510) 268-1260 to order.

• A comprehensive operations toolkit created by the National Assembly of School-Based Health Centers. The table of contents can be found here: http://www.nasbhc.org/atf/cf/%7BCD9949F2-2761-42EB-BCC7A-CEE165C701D9%7D/PUB_OTK_Table_of_contents.pdf. Contact NASBHC for the full toolkit.


Key Steps to Planning A SBHC (See Appendix K):

1. Educate yourself and others about SBHCs
2. Identify and prioritize which schools/communities may benefit the most from having a SBHC. In general, the evidence for the effectiveness of SBHC is strong, however, it is slightly stronger for SBHCs serving adolescents in high need populations (e.g., middle and high school aged youth).
3. Identify key stakeholders and form a planning/advisory committee. Your committee should include: students, parents, administrators, school board members, health care professionals, community health providers, elected officials, community champions, local business or other leaders, and content experts (e.g., adolescent health). For more information see: http://www.sbh4all.org/2014/09/sbhc-stakeholder-partnerships/
   a. Identify planning committee members’ interests and contributions to SBHC
   b. Identify committee members’ roles and responsibilities, meeting schedule, and name a facilitator.
4. Conduct a needs assessment. There are a variety of tools available to begin this process, including the CDC’s School Health Index, and others from organizations such as the Alliance for a Healthier Generation and the Whole Child Initiative of the Association for Supervision and Curriculum Development. These tools make it possible to evaluate a school’s programs, practices, and policies, and learn where there are successes and challenges.
5. Discuss and finalize what services are most needed.
6. Determine the service model (e.g., school-based vs. school linked)
7. Determine who the SBHC will service
8. Identify potential provider and lead agencies
   a. See more information about SBHC sponsor agency roles: http://www.sbh4all.org/2014/09/school-based-health-center-sponsors/
9. Develop staffing model
10. Develop sustainability plan, including start-up and operational costs.
11. Identify hours of services and staffing time.
12. Identify site facilities and resources.
13. Build community support for SBHC.
14. Obtain approval from decision-makers (e.g., school administrators, funders, school administrators, agency leadership).
15. Establish communication and coordination plan between agencies.
16. Launch services incrementally over time.
Cost Estimate

- A study of SBHCs in Oregon found:
  - Startup costs ranged from $49,750 to $128,250, with renovations to the space as the largest factor.
  - Average operating costs ranged from $90,750 to $208,500, with provider hours and provider types as the largest factors.
  - Revenue from billing covered an average of 26% of operating costs for Federally Qualified Health Centers (FQHCs).
- Table 1 displays the cost ranges for different types of health centers in Oregon.

### Table 1: SBHC startup and annual operations costs

<table>
<thead>
<tr>
<th>SBHC startup costs</th>
<th>Minimum cost</th>
<th>Midrange cost</th>
<th>Maximum cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Center without modular</td>
<td>$34,750</td>
<td>$49,750</td>
<td>$95,750</td>
</tr>
<tr>
<td>Center with modular</td>
<td>$110,250</td>
<td>$128,250</td>
<td>$163,750</td>
</tr>
</tbody>
</table>

#### Annual operations costs for SBHCs open during school year only (nine months)

<table>
<thead>
<tr>
<th>Minimum cost</th>
<th>Midrange cost</th>
<th>Maximum cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core center</td>
<td>$41,000</td>
<td>$90,750</td>
</tr>
<tr>
<td>Intermediate center</td>
<td>$60,000</td>
<td>$121,750</td>
</tr>
<tr>
<td>Expanded center</td>
<td>$88,500</td>
<td>$152,750</td>
</tr>
</tbody>
</table>

#### Annual operations costs for SBHCs open 12 months

<table>
<thead>
<tr>
<th>Minimum cost</th>
<th>Midrange cost</th>
<th>Maximum cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core center</td>
<td>$56,500</td>
<td>$116,000</td>
</tr>
<tr>
<td>Intermediate center</td>
<td>$85,000</td>
<td>$162,250</td>
</tr>
<tr>
<td>Expanded center</td>
<td>$127,000</td>
<td>$208,500</td>
</tr>
</tbody>
</table>
Examples

Locally
Two of the four SBHCs in Missouri are located in the St. Louis region.

- The SBHC at Roosevelt High School in the City of St. Louis, is a partnership between St. Louis Public Schools and Mercy. The clinic has been in operation since August 2012 and offers physical and behavioral services to students, staff, and community members.

- The SBHC at Jennings High School, is a partnership between Jennings School District and the SPOT (Supporting Positive Opportunities with Teens). The clinic opened in 2015 and provides physical and behavioral services to students. A needs assessment was conducted in 2015 to inform the types of services and service delivery model of the clinic.

Nationally

- As of 2013, there were 2,315 SBHCs serving students and communities in 49 of 50 states and the District of Columbia, which is a 20% increase in the number of SBHCs since the 2010-11 Census of SBHCs.
REFERENCES


Special thanks to Brian Schmidt at Missouri Wonk for his contributions to this summary.