



## **Maryland School-Based Health Center Program Needs Assessment**

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**Submitted by  
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&  
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**Maryland School-Based Health Center Program Needs Assessment**

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## Maryland School-Based Health Center Program Needs Assessment

### Executive Summary

#### ***Background***

Maryland's first school-based health center (SBHC) opened in 1985 in Baltimore City. Since then, SBHCs have played a critical role in providing a comprehensive array of health care services to children in 95 Maryland schools in 17 counties across the state. The Maryland SBHC Program has recently undergone several transitions, which provide a tremendous opportunity to strengthen school-based health care across the state, support the physical and behavioral health of our children and youth, and for SBHCs to play an even larger role in reducing health disparities and promoting health equity.

The Kirwan Bill (HB 1300), passed during the Maryland 2020 legislative session,<sup>1</sup> increased state funding for the Maryland SBHC Program from \$2.5 million to \$9 million annually, and HB 409 of 2020<sup>2</sup> effectively expanded the types of organizations that may sponsor SBHCs by expanding Medicaid reimbursement to include hospitals, physician groups, and other organizations. Further, administration of the Maryland SBHC Program transitioned from the Maryland State Department of Education (MSDE) to the Maryland Department of Health (MDH) effective July 1, 2022. The Program is now managed by the Bureau of Maternal and Child Health within MDH's Prevention and Health Promotion Administration (Bureau).

MDH engaged The Hilltop Institute at the University of Maryland, Baltimore County (UMBC) and Aurrera Health Group (Aurrera Health) to conduct a landscape needs assessment of the state's SBHC Program. The assessment will inform the Program's strategic priorities, growth, and structure as it transitions from MSDE to MDH. The assessment includes an analysis of the status of SBHCs in Maryland, geographic areas that may benefit from establishing SBHCs, and recommendations for program implementation and SBHC funding allocation. This analysis is part of ongoing efforts to strengthen school-based health care across the state to support the physical and behavioral health of our children and youth.

#### ***Methodology***

Hilltop and Aurrera Health convened an SBHC Needs Assessment Steering Committee, consisting of a variety of stakeholders, to provide input and expertise on the assessment. The assessment included both quantitative and qualitative approaches. Hilltop created a descriptive profile of existing SBHCs, including data from the SBHC Annual Health Outcome Survey, the SBHC Annual Application, and a supplemental billing survey that MDH conducted in summer 2022. The team also analyzed geographic areas and schools that may benefit from SBHCs. Through a literature review, Hilltop identified seven domains in which SBHCs have shown significant impact and then retrieved data from several sources to identify Maryland schools

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<sup>1</sup> 2020 MD Laws Ch. 36.

<sup>2</sup> 2020 MD Laws Ch. 198.

whose students experience disparities in these domains. In addition to these quantitative analyses, Aurrera Health conducted interviews with SBHC stakeholders that asked about the strengths and challenges of SBHCs, the services offered, enrollment and billing logistics, and collaboration within the school and with external providers and organizations. Aurrera Health also collected written comments through an online portal. Finally, Aurrera Health reviewed other state SBHC programs across the country in states with large investments in SBC programs. Interviews were conducted with Louisiana, Michigan, and New York to identify best practices and lessons learned that could benefit Maryland's SBHC Program.

## ***Findings and Recommendations***

### **Current State of the Maryland SBHC Program**

The Maryland SBHC Program improves access to physical, behavioral, and oral health services for children and youth through 95 SBHCs that currently operate in 17 counties. The majority of SBHCs are sponsored by local health departments, and a majority are located inside the school building, while others are on the school campus or provide services via telehealth. SBHCs make it easier for children to receive the care they need and then return to the classroom to continue to learn. SBHCs are convenient for parents who do not have to arrange for time off work or transportation to a separate health clinic. SBHC providers and students often develop strong and trusting relationships, which are critical to children's health and wellness. For some high school sites in particular, the relationship between providers and students is the critical link to youth getting health care services.

However, the SBHC Program is experiencing some key challenges that were identified in the most recent annual survey and interviews, including:

- **Hiring/retaining the necessary qualified staff to provide services:** More than three-quarters of SBHCs reported staff recruitment and retention as a barrier to operating effectively. SBHCs have had to adjust the available services and service hours based on staffing levels. Additionally, some providers rotate between SBHCs to ensure coverage for a minimum number of hours per week.
- **Funding:** Over half of SBHCs reported funding as a challenge to operations and in retaining and recruiting staff. Annual budget data indicate that the MDH SBHC Program grant funds are the main SBHC funding source.
- **Enrollment and service utilization:** Low enrollment and service utilization has been a challenge for some SBHCs, particularly since the COVID-19 pandemic. Prior to the pandemic, fewer than half of SBHC-enrolled students accessed at least one SBHC service.
- **Billing Medicaid and commercial insurance:** More than three-quarters of sponsoring agencies report billing Medicaid for any services, and 50% bill commercial insurance. Of those that bill, 12% of sponsoring agencies bill Medicaid for 100% of billable services and 6% for commercial insurance. Interview and survey data revealed a number of billing barriers.

## Schools/Jurisdictions that May Benefit from an SBHC

There are currently seven counties in the state without an SBHC (Allegany, Anne Arundel, Calvert, Carroll, Cecil, Charles, and Garrett). In counties that have at least one SBHC, they are only in certain areas and schools. Considering the expansion opportunities described above, MDH requested an analysis of communities in Maryland with health and educational disparities that may benefit from establishing new SBHCs or expanding existing SBHCs.

Based on the academic literature, qualitative findings, and feedback from the Steering Committee, this report identifies health and educational outcomes in which SBHCs have demonstrated an impact. Using publicly available data on school-level and county-level measures of these outcomes, this report identifies a set of schools that rank among the lowest in the state with respect to the magnitude of, or relative performance on, measures of academic achievement, attendance, structural resources, school climate, and county-level population health metrics for access to care, prevalence of chronic and behavioral conditions, and rates of engagement in risky behavior among students.

The report proposes and describes three potential pathways for allocating funding to create or expand SBHCs: (1) 57 schools that have the greatest disparities for the highest number of health and educational measures *across the state*; (2) 30 schools with the greatest disparities for the highest number of measures in *counties currently without an SBHC*; and (3) *counties* (Prince George's, Baltimore City, Somerset, and Charles) with the greatest immediate gaps in health care access or highest prevalence of childhood disease conditions such as asthma and depressive symptoms.

## Recommendations

This report makes 14 recommendations and proposes actionable strategies for improving the Maryland SBHC Program. These recommendations are organized into three phases in recognition that the order of activities is important, and that it will take time to conduct them. SBHCs have an opportunity to increase their positive impact on the health and well-being of children and youth, and better integrate into the broader health care system. All stakeholders who support children and youth—both inside and outside of SBHCs and schools—will need to work together to improve children's health and well-being. This report makes the following recommendations:

1. Delineate roles and responsibilities for MDH and stakeholders
2. Improve connections between SBHCs, school health, school administration, and external providers and organizations
3. Leverage information technology
4. Create a standardized MDH funding allocation approach
5. Plan for and fund SBHC physical infrastructure as part of school building and renovations
6. Develop and execute a plan for recruiting and retaining SBHC staff
7. Increase SBHC enrollment and utilization through education and marketing, enrollment process streamlining, and performance metric goals
8. Continue to expand SBHC service offerings, including physical, behavioral, and oral health; telehealth services; and vaccines

9. Explore increasing revenue for SBHCs including through the Consortium for Coordinated Community Supports, the Maryland Community Health Resources Commission, hospital community benefit, and community funding
10. Improve coverage and reimbursement through Medicaid and commercial health insurance
11. Improve data collection and analysis and use data to drive program decisions and technical assistance
12. Establish shared learning and a technical assistance program
13. Explore priority schools and jurisdictions for creating or expanding SBHCs
14. Integrate SBHCs into other statewide population health initiatives

## Maryland School-Based Health Center Program Needs Assessment

### I. Introduction

The Maryland Department of Health (MDH) engaged The Hilltop Institute at the University of Maryland, Baltimore County (UMBC) and Aurrera Health Group (Aurrera Health) to conduct a landscape needs assessment of the state's School-Based Health Center (SBHC) Program. The assessment will inform the Program's strategic priorities, growth, and structure as it transitions from the Maryland State Department of Education (MSDE) to MDH. The assessment includes an analysis of the status of SBHCs in Maryland, geographic areas that may benefit from establishing SBHCs, and recommendations for program implementation and SBHC funding allocation. This analysis is part of ongoing efforts to strengthen school-based health care across the state to support the physical and behavioral health of our children and youth. The purpose of this report is to summarize the assessment's findings and recommendations for improvement of the SBHC Program. The following sections of this report provide background information on the SBHC Program, describe the methodological approach to the assessment, describe key findings, and conclude with recommendations.

### ***Background***

The state's first SBHC opened in 1985 in Baltimore City. Since then, SBHCs have played a critical role in providing a comprehensive array of health care services to children in 95 Maryland schools in 17 counties across the state. SBHCs are health centers located in a school or on a school campus that provide onsite, comprehensive preventive and primary health services. Referral arrangements are made for additional services not available onsite. The entities that sponsor and administer the SBHCs determine the services that are offered. Maryland SBHCs are guided by a set of standards, which MDH is currently in the process of updating.<sup>3</sup> Figure 1 below provides a map of Maryland SBHC locations and the grade levels they serve.

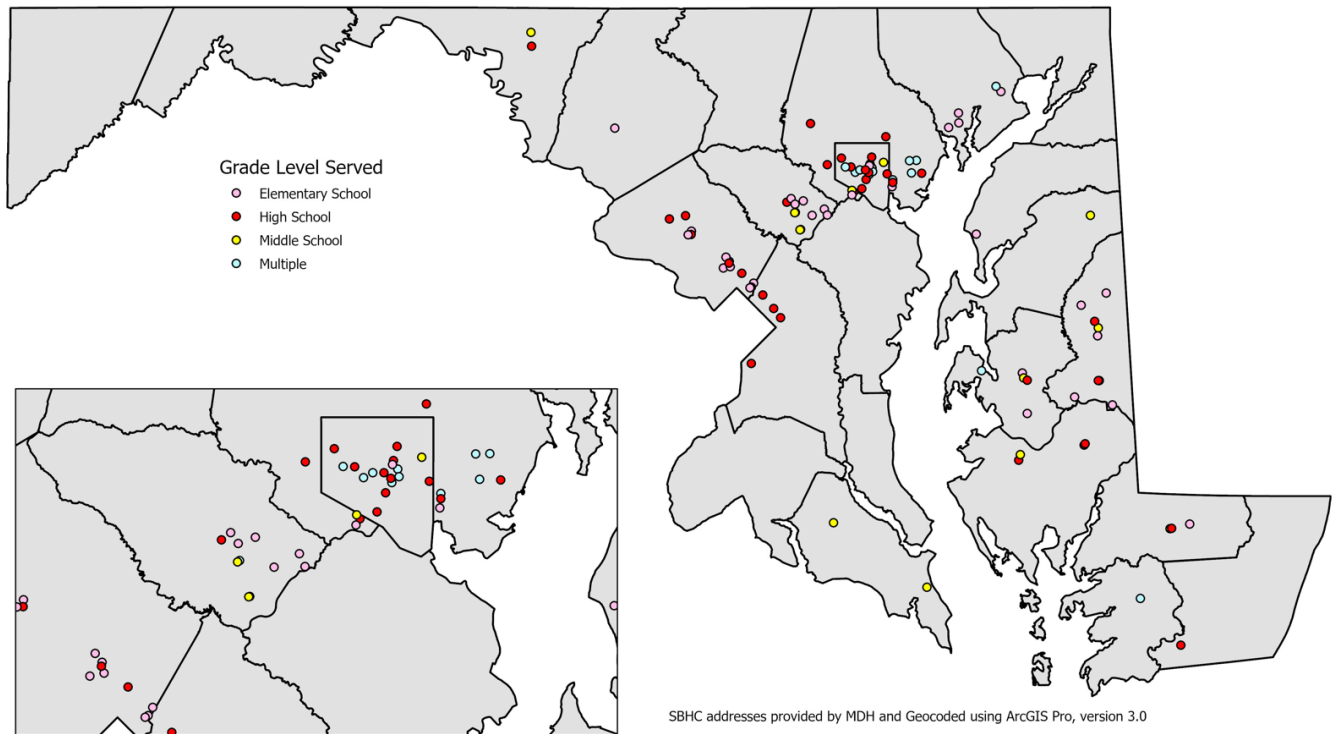
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<sup>3</sup> The most recent standards are available here:

<https://marylandpublicschools.org/about/Documents/DSFSS/SSSP/SBHC/MD-SBHC-Standards.pdf>

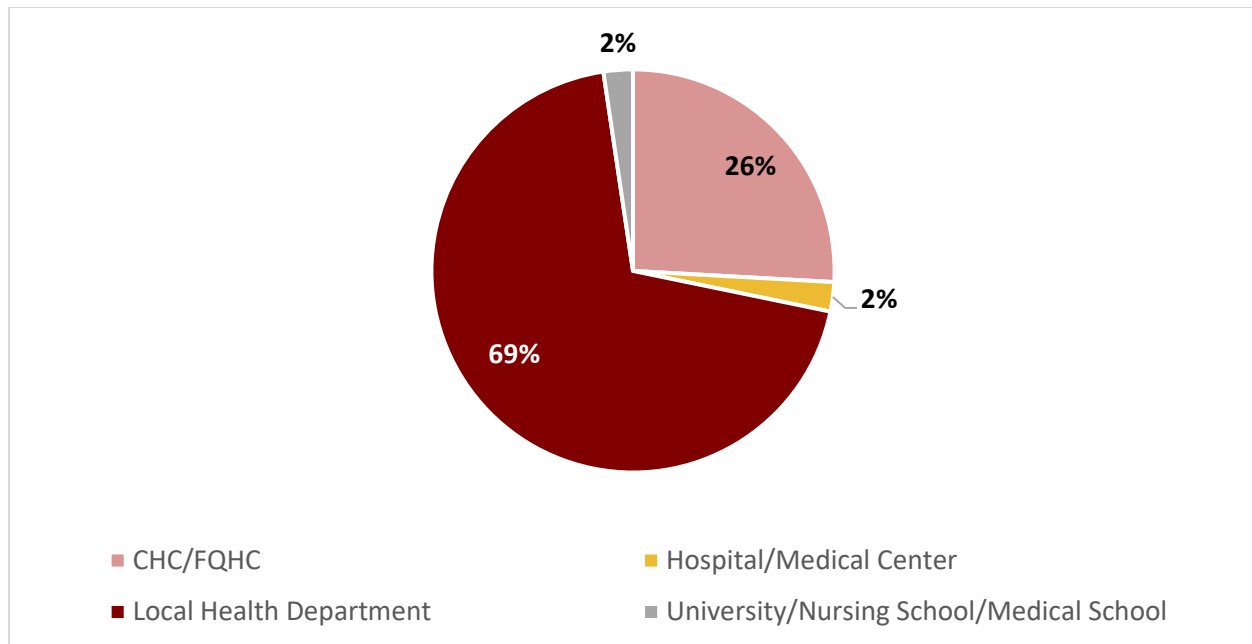


**Figure 1. Map of Locations of SBHCs and the Grade Levels Served (Central Maryland Inset)**



SBHCs must have a clinical and an administrative sponsoring agency (one organization may fill both roles). Clinical sponsors can be local health departments, federally qualified health centers (FQHCs)/community health centers, hospitals, private medical practices, physician groups, university medical centers, or managed care organizations (MCOs). Clinical sponsors must provide medical liability coverage and provide a medical director who provides clinical oversight and reviews policy and procedures. Figure 2 below shows that the majority (69%) of SBHCs in Maryland are sponsored by local health departments, followed by FQHCs (26%). SBHCs are staffed by a range of health care providers, such as pediatricians, family medicine practitioners, nurse practitioners, behavioral health professionals, and clinical support staff.

**Figure 2. Maryland SBHCs by Sponsoring Agency, 2020-2021 Annual Survey**



### ***Administration and Oversight***

Maryland's SBHC Program has recently undergone several transitions. The Kirwan Bill (HB 1300) of 2020<sup>4</sup> increased state funding for the SBHC grant Program from \$2.5 million to \$9 million annually, and HB 409 of 2020<sup>5</sup> effectively expanded the types of organizations that may sponsor SBHCs in Maryland by expanding Medicaid reimbursement to include hospitals, physician groups, and other organizations. Further, administration of the Maryland SBHC Program transitioned from MSDE to MDH effective July 1, 2022. The Program is now managed by the Bureau of Maternal and Child Health within MDH's Prevention and Health Promotion Administration (Bureau), with three full-time equivalent (FTE) employees dedicated to the Program (with plans to expand to four FTEs). MSDE continues to be committed to the SBHC Program and plays an important role since SBHCs are located in schools. In order to receive state grant funds, SBHCs must submit an annual application and complete an annual survey (among other requirements).

In addition to this state oversight of the Program, the Maryland General Assembly established the Council on Advancement of School-Based Health Centers (CASBHC) in 2015, which is staffed by the Maryland Community Health Resources Commission (MCHRC). CASBHC is required to facilitate collaboration between state entities and other stakeholders that play a role in administering SBHCs. CASBHC also provides advice and recommendations on improving and advancing the role of SBHCs across the state. The Maryland Assembly on School-Based Health

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<sup>4</sup> 2020 MD Laws Ch. 36.

<sup>5</sup> 2020 MD Laws Ch. 198.

Care (MASBHC) is a non-profit organization that plays a key role in advocating and providing technical assistance on behalf of SBHCs.

## **II. Needs Assessment Methodology**

Hilltop and Aurrera Health conducted both quantitative and qualitative analyses. To guide the effort, the project team convened an SBHC Needs Assessment Steering Committee to provide on-the-ground input and expertise. The Steering Committee had the opportunity to provide both verbal and written input on the data to be analyzed, the list of potential individuals to interview, stakeholder interview questions, the data analysis and findings, MDH funding allocation, and recommendations. See Appendix A for the list of Steering Committee members.

### ***Quantitative Analyses***

Hilltop conducted two overarching sets of quantitative analyses: a descriptive profile of existing SBHCs and an analysis to identify Maryland communities that could benefit from an SBHC.

#### **Profile of Existing SBHCs**

Hilltop analyzed the following three key data sources:

SBHC Annual Health Outcome Survey data for school years 2018-2019, 2019-2020, and 2020-2021: These surveys are collected at the health center level and include data about SBHC characteristics, staffing, services provided, billing and insurance, enrollment, and service utilization.

SBHC Annual Application: Currently, SBHCs must apply for state grant funding annually. Hilltop received access to deidentified budget reports submitted as part of the application for funding for the 2022-2023 school year. These reports contain line-item budgetary data at the sponsoring agency level by funding source (MDH SBHC grant program funds and other direct funding).

Supplemental billing survey MDH conducted in the summer of 2022: This was conducted at the sponsoring agency level and collected data on the extent to which SBHCs are billing/contracting with Medicaid and commercial health insurance companies, as well as barriers to billing. This supplemental survey collected more granular information than what is currently collected in the annual survey.

See Appendix B for more information about these data sources and the analytic procedures.

#### **Maryland Communities that Could Benefit from an SBHC**

There are currently seven counties in the state without an SBHC (Allegany, Anne Arundel, Calvert, Carroll, Cecil, Charles, and Garrett), and many existing SBHCs are located in areas of high need. As described above, recent legislation expanded funding for the SBHC Program as well as the types of organizations that may sponsor SBHCs. Considering these new

opportunities, MDH requested an analysis of communities in Maryland with health and educational disparities that may benefit from establishing new SBHCs or expanding existing SBHCs. Hilltop applied a health equity framework to profile potential schools and communities with relatively low performance on academic or health outcomes that SBHCs have been demonstrated to improve. Hilltop began by conducting a literature review that identified the following domains/outcomes on which SBHCs have had a measurable impact to enhance outcomes and/or reduce disparities:

- School performance
- Grade promotion
- High school completion
- Delivery of vaccines and preventive services
- Asthma morbidity
- Emergency department (ED) use and hospitalizations
- Health risk behaviors

See Appendix C for more detail on the literature review. After identifying these domains in the literature, Hilltop searched for relevant health and education data sources at the school level (in publicly available data from MSDE) and/or the county/jurisdiction level.

**Table 1. Select Variables for Academic and Health Outcomes**

<b>SBHC Impact Factors Identified in Literature Review</b>	<b>Measures from MSDE Database*</b>	<b>Subgroups &amp; Dimensions Available</b>
<b>Average Academic Performance (GPA)</b>	Star rating points Academic achievement score Academic progress score MCAP percent proficiency for 5 <sup>th</sup> & 8 <sup>th</sup> graders Percentile rank by grade span Percent proficiency for ELA, math, & science by grade span	Comparison with similar schools By race/ethnicity By economically disadvantaged status By disability status
<b>Grade Promotion / Academic Progress</b>	Student growth percentile for ELA & math (elementary & middle school levels only)	By grade level
<b>Rates of High School Non-Completion</b>	Graduation rate 4-year dropout rate College enrollment within 12 months	Comparison with similar schools (for graduation rate only)
<b>Other Relevant School-Level Factors</b>	<b>Measures from MSDE Database*</b>	<b>Dimensions Available</b>
<b>School Climate (student survey)</b>	Physical safety Emotional safety Substance abuse rating Behavioral and academic supports	By grade level
<b>Absenteeism</b>	Students absent more than 5 days Chronic absenteeism	School-level aggregate only

<b>SBHC Impact Factors Identified in Literature Review</b>	<b>Measures from MSDE Database*</b>	<b>Subgroups &amp; Dimensions Available</b>
<b>Structural Resources</b>	State and local expenditures per pupil	School-level aggregate only
<b>County-Level Factors</b>	<b>Measure</b>	<b>Data Source</b>
<b>Access to Health Care</b>	Proportion of children without health insurance coverage	ACS
	Proportion of students without a dental visit in previous year	YRBS
	Location of school in an HPSA or MUA~	HRSA
<b>Teenage Pregnancy Rate</b>	Proportion of females aged 15-19 years with recent birth	ACS
<b>Sociodemographic</b>	Proportion of children in households with income below the federal poverty level	ACS
<b>Disease Prevalence</b>	Proportion of students diagnosed with asthma	YRBS
	Proportion of students reporting depressive symptoms	YRBS
<b>Risky Behavior</b>	Proportion of students reporting recent use of cigarettes	YRBS
	Proportion of students reporting recent consumption of alcohol	YRBS

\*Measures were obtained from Maryland State Department of Education (MSDE) Maryland Public Schools Report Card for the latest academic year that data on the measure was available (2018-2019, 2019-2020, or 2020-2021).

~Although the data were provided at the county level, Hilltop geocoded the area boundaries to identify schools located within an HPSA or MUA.

ACS – 2016-2020 American Community Survey of the US Census Bureau. HRSA – Health Resources and Services Administration of the US Department of Health and Human Services. HPSA – health professional shortage area. MCAP – Maryland Comprehensive Assessment Program. MUA – medically underserved area. YRBS – 2018-2019 Maryland Youth Risk Behavior Survey/Youth Tobacco Survey

For each of the measures identified at the school level, Hilltop defined measures of disparity in performance between the given school and schools with a similar student profile, between the school and the highest performing schools across the state, and between students categorized as economically disadvantaged versus all other students within the school. Hilltop highlighted schools with the greatest levels of disparities on these measures across the state and within each county. Because data on most health outcomes were available only at the county level, Hilltop ranked all jurisdictions with respect to the prevalence of these characteristics and identified counties with school-aged populations in the lowest ranks across several indicators of diagnoses with chronic conditions, engagement in risky behaviors, and prevalence of social drivers of health. See Appendix C for more detail on the methodology, data sources, and measures.

## Qualitative Analyses

Aurrera Health conducted 22 interviews with 59 stakeholders between August and mid-November 2022. Interviewees included parents/caregivers, SBHC administrators and providers, school leadership, MDH, CASBHC, MASBHC, and stakeholders who do not have SBHCs in their county. Representatives from 19 of 24 Maryland counties participated in the interviews; individuals from counties who did not participate in interviews were asked to provide written input. Participants were asked about the strengths and challenges of SBHCs; the SBHC enrollment process; the services offered and utilized, including through telehealth; health insurance billing; and collaboration within the school and with external providers and organizations. Questions were tailored for each stakeholder type. See Appendix D for the list of stakeholder types interviewed and the core interview questions. Additionally, all SBHC administrators and the interviewees were provided with a website link where they and colleagues could provide written comments on SBHC Program opportunities.

The team also reviewed other state SBHC programs across the country, with a focus on how states with large investments in SBHC programs allocate funding, administer the program, and handle data reporting, transparency, and quality improvement. Interviews were conducted with Louisiana, Michigan, and New York to identify lessons learned that may inform opportunities for the Maryland SBHC Program.

## III. Current State of the Maryland SBHC Program

The Maryland SBHC Program improves access to physical, behavioral, and oral health services for children and youth. Table 2 provides basic information about all of Maryland's SBHCs by county, including the number that offer behavioral health and oral health services, and the counties that have telehealth-only programs. As this table and Figure 1 above show, the availability of SBHCs varies widely between counties, with most (59%) located in Baltimore City, Baltimore County, Howard County, and Montgomery County, though it is important to note that some programs also serve schools other than the one they are located in or with which they are primarily affiliated.

**Table 2. Basic Information on Maryland's School Based Health Centers\***

County	# SBHCs	Grade Level(s) Served				Offer Behavioral Health	Offer Oral Health	Telehealth Only	Average Somatic Care Hours per Week**
		Elem.	Middle	High	Mult. Grades				
Allegany	0								
Anne Arundel	0								
Baltimore City	18	1	2	9	6	7		1	19.9
Baltimore	13	3	2	7	1				
Calvert	0								
Caroline	8	4	2	2		8	8		24.4

County	# SBHCs	Grade Level(s) Served				Offer Behavioral Health	Offer Oral Health	Telehealth Only	Average Somatic Care Hours per Week**
		Elem.	Middle	High	Mult. Grades				
Carroll	0								
Cecil	0								
Charles	0								
Dorchester	4		2	2		1			23.5
Frederick	1	1							35
Garrett	0								
Harford	5	4			1	4			6.9
Howard	11	8	2	1					26.2
Kent	1	1							
Montgomery	14	9		5		14	14		27
Prince George's	5			4		5			36.2
Queen Anne's	3		1						
St. Mary's	2		2			2			20
Somerset	1				1	1	1	1	45
Talbot	6	3	1	1	1	4	4		18
Washington	2		1	1			2		20
Wicomico	3	1	1	1		3	1		33.7
Worcester	1			1		1	1		45
<b>Total</b>	<b>95</b>	<b>35</b>	<b>16</b>	<b>34</b>	<b>10</b>	<b>50</b>	<b>31</b>	<b>2</b>	<b>26.1</b>

\*: Information is from an inventory of SBHCs provided by MDH and includes programs that have not begun operations. Counts also may not align with similar counts from survey data reported elsewhere in this report.

\*\*: Hours were not reported for all programs.

Services provided by SBHCs include health education and preventive care such as vaccines, acute care for children who are feeling unwell, and ongoing care for children with behavioral health challenges and chronic conditions such as asthma and diabetes. SBHCs make it easier for children to receive the care they need and then return to the classroom to continue to learn. SBHCs are convenient for parents who do not have to arrange for time off work or transportation to a separate health clinic. It also reduces unnecessary trips to the ED.<sup>6</sup>

*"I think sometimes parents feel that you are challenging them or blaming them because their child has asthma or has whatever chronic disease. It's not that at all. We are partners here. To help your child have the best school year. And for you not to have to stay home with a sick child or go to the ER in the middle of the night. Those things are so positive....we are here to help you." - SBHC Administrator*

<sup>6</sup>Arenson, M., Hudson, P. J., Lee, N., & Lai, B. (2019). The evidence on school-based health centers: A review. *Global pediatric health*, 6, 2333794X19828745. <https://doi.org/10.1177/2333794X19828745>

SBHC providers and students often develop strong and trusting relationships, which are critical to the child’s health and wellness. For some high school sites in particular, the relationship between providers and students is the critical link to kids getting care. This is especially true for the students seeking behavioral health and sexual/reproductive health services, who might otherwise not receive services.

Additionally, professionals involved in education—from MSDE to superintendents to principals—recognize the importance of taking care of the whole child to support their physical and mental health, as well as their academic achievement. Interviewees noted that students are fortunate to have so many people who care about them and want them to stay healthy and thrive.

*“What we do in school-based health centers is extremely important. I have kids who have experienced a lot of trauma and loss. One young lady had experienced around 7 deaths within the last year. From COVID-19, from shootings, from overdose. It’s overwhelming sometimes where they can’t focus in class or get the work done because they are hopping from one loss to the other....it’s just endless, the things that we deal with. And in school-based care, we want to know what we can do to help support you so that you can continue with your academics.” – SBHC Provider*

### **State Capacity and Funding Allocation**

Interviewees were unanimously pleased with the transition of the Maryland SBHC Program from MSDE to MDH and the support that both agencies have provided. CASBHC and MASBHC expressed interest in continuing to support the transition. SBHCs are hopeful that the Program will benefit from MDH’s clinical expertise and that additional technical assistance for SBHCs will be provided. The MDH Bureau has three FTE employees dedicated to the Program (with plans to expand to four FTEs), which is a substantial increase in staff capacity that will enable them to focus on making Program improvements and providing more support to SBHCs.

CASBHC has played a critical and robust role over the last few years in bringing SBHC stakeholders together and making extensive substantive recommendations to the state to improve the Program. Additionally, MASBHC advocates for SBHCs and conducts webinars and a conference to promote school-based health care and provide technical assistance.

Maryland and many other states have provided level funding for SBHCs for many years, but the funding is not based on any particular information or formula. This past year, with the transition of the SBHC Program to MDH, MDH ensured that no SBHC received less funding, but also provided increased funding to many SBHCs using a formula that accounted for the size and service delivery of existing SBHCs. MDH also provided funding for various one-time infrastructure costs.



## ***SBHC Staffing and Infrastructure***

According to the 2020-2021 annual survey, 81% of SBHCs reported being in a school building on school property; 8% reported their facility was on school property but not in a school building; and 11% reported being in a school building on school property and providing both in-person and telehealth services. Schools typically require some level of building renovation to make physical space for SBHCs and to meet the facility requirements in the Maryland SBHC standards. SBHC administrators shared challenges in meeting physical space/facility requirements, including a lack of funding to support renovations. A small number of SBHCs appreciated being housed in new schools that had the foresight to establish a health suite.

Many SBHCs struggle to hire the necessary qualified staff to provide services, and this issue appears to be worsening over time. Table 3 shows that in the 2018-2019 annual survey, 45% of SBHCs reported that staffing recruitment and retention was a barrier to operating effectively. However, in the 2019-2020 survey, this increased to 83% before dropping slightly to 76% in 2020-2021. Relatedly, a majority of SBHCs also reported that funding in general was a barrier during the latter two years of the survey. Key challenges mentioned during the interviews included a shortage of applicants and non-competitive salaries. SBHCs have had to adjust the available services and service hours based on staffing levels. Additionally, some providers rotate between SBHCs to ensure coverage for a minimum number of hours per week.

**Table 3. Percentage of SBHCs that Responded Experiencing Certain Barriers to Effective Operations in the Past School Year, Annual Survey**

<b>Barrier</b>	<b>School Year 2018 - 2019 (N = 86)</b>	<b>School Year 2019 - 2020 (N = 86)</b>	<b>School Year 2020 - 2021 (N = 85)</b>
Staffing recruitment and retention	45%	83%	76%
Access to needed technology	28%	28%	34%
Data exchange limitations between SBHC stakeholders	26%	30%	36%
Limited English proficiency of students and parents/guardians	62%	56%	46%
Funding	31%	57%	52%
Need for community partnerships	23%	33%	26%
Enrollment	47%	57%	59%
Other	29%	35%	29%

Table 4 presents the number of SBHCs that reported having a certain number of various provider types (from zero to three or more). It shows that the majority of SBHCs employ nurse practitioners and registered nurses to provide somatic care; fewer employ physicians. Of the SBHCs offering behavioral health services, the majority employ licensed clinical social workers. Of those offering oral health services, dental hygienists are the main practitioners. In terms of administrative staff, 41% of SBHCs reported having no support staff in the most recent survey.

Please note that SBHCs may have different models of care, such that a provider may service multiple schools, either by visiting the schools on different days or through telehealth.

**Table 4. SBHC Staffing: Number of SBHCs that Reported Certain Numbers of Providers in the Annual Survey, by Provider Type**

Somatic Care Provider	2018 - 2019 (N = 86)				2019-2020 (N = 86)				2020-2021 (N = 85)			
	# of Employees											
	0	1	2	3+	0	1	2	3+	0	1	2	3+
Physicians	69	16	1	0	69	16	1	0	71	13	0	0
Nurse Practitioners	13	68	5	0	10	68	7	1	18	63	2	1
Physician Assistants	79	7	0	0	85	1	0	0	83	1	0	0
Registered Nurses	50	35	1	0	46	39	1	0	58	25	1	0
Licensed Practical Nurse	79	7	0	0	80	5	0	1	81	3	0	0
Other	41	18	27	0	38	39	9	0	36	43	4	1
Behavioral Health*	# of Employees											
	0	1	2	3+	0	1	2	3+	0	1	2	3+
Psychiatrist	56	0	0	0	62	5	0	0	63	5	0	0
Psychologist	56	0	0	0	62	5	0	0	63	5	0	0
LCSW	28	29	0	0	42	15	10	0	52	11	5	0
SUD Counselor	56	0	0	0	67	0	0	0	68	0	0	0
Other	48	4	4	0	57	0	10	0	63	0	5	0
Oral Health*	# of Employees											
	0	1	2	3+	0	1	2	3+	0	1	2	3+
Dentists	33	0	0	0	35	0	0	0	34	0	0	0
Dental Hygienists	23	10	0	0	23	12	0	0	23	11	0	0
Dental Assistants	33	0	0	0	35	0	0	0	34	0	0	0
Other	31	2	0	0	35	0	0	0	34	0	0	0
Administrative	# of Employees											
	0	1	2	3+	0	1	2	3+	0	1	2	3+
Administrator/Medical Director	71	5	9	0	69	9	8	0	66	6	12	0
Support Staff	32	39	13	1	35	42	9	0	35	36	12	1
Other	60	17	8	0	67	11	8	0	70	6	8	0
*Only includes SBHCs that reported offering these services in each year:												
2018-2019: BH - n = 57, Oral Health - n = 34 (one program did not report some staff counts)												
2019-2020: BH - n = 67, Oral Health - n = 35												
2020-2021: BH - n = 68, Oral Health - n = 34												

### **SBHC Enrollment**

In order to receive services, parents/caregivers must actively enroll their child in the SBHC. Typically, enrollment involves submitting a signed written form permitting the provision of health care services. In some SBHCs, children can enroll once and remain enrolled for the

duration of time at that school (unless they opt out). Some SBHCs reported that when a child comes to the SBHC and is not enrolled, they call the parent/caregiver to obtain verbal permission to provide services. One SBHC interviewed provides one service to students and then sends home an enrollment form.

Table 5 presents SBHC enrollment and students served for the most recent three years of data available. Please note that the pandemic impacted SBHC enrollment, the ability to serve students, and the ability to report data. In the school year prior to the pandemic, SBHCs enrolled over 28,000 students, and under half of those students received SBHC services. Although the data are not yet available, anecdotal reports indicate that enrollment and service utilization increased in the 2021-2022 school year as schools returned to in-person learning. See Appendix E for more detailed enrollment breakouts by race and insurance type.

**Table 5. SBHC Enrollment and Students Served, by School Year, Annual Surveys**

School Year	SBHCs Responding to Survey	SBHC Enrollment	# of Enrolled Students Served	% of Enrolled Students Served	# of SBHCs Reporting Zero or Missing Enrolled Students
2018-2019	86	28,497	12,532	44%	6
2019-2020	86	28,231	11,771	42%	3
2020-2021	85	17,053	1,676	10%	28

The level of enrollment varies across SBHCs and depends on the extent to which students, parents/caregivers, and school staff are aware of the SBHC and the services it offers. Many SBHCs reported low enrollment, which leads to low numbers of children utilizing services and therefore less revenue from health insurance reimbursement. Table 3 above shows that 59% and 57% of SBHCs reported enrollment as a barrier to effective operations in school years 2020-2021 and 2019-2020, respectively, while just under half reported it as a barrier in 2018-2019.

## ***SBHC Services***

### **Somatic Care**

All SBHCs in Maryland are required to offer primary care services.<sup>7</sup> Table 6 summarizes various types of somatic health care visits provided by SBHCs. Please note that there are discrepancies in the total visit count reported by the SBHCs, compared with summarizing the visit types. This table reflects decreased utilization due to the pandemic. Across all three reporting years, the most frequent somatic visit type was for the treatment of injury and illness. During the interviews, many stakeholders expressed that it is ideal to conduct sports physicals in SBHCs. One high school principal shared that not being able to obtain a sports physical is a major barrier to playing high school sports, which has positive health and social impacts. As shown in

<sup>7</sup> SBHC Standards, p, 27, <https://marylandpublicschools.org/about/Documents/DSFSS/SSSP/SBHC/MD-SBHC-Standards.pdf>

the table below, 58 SBHCs report offering sports physicals in the most recent year of data available.

**Table 6. Descriptive Statistics on Somatic Health Care Visits, Annual Surveys**

Visit Type	School Year 2018 - 2019 (N = 86)			School Year 2019 - 2020 (N = 86)			School Year 2020 – 2021 (N = 85)		
	# of SBHCs	Mean [Min-Max]	Sum	# of SBHCs	Mean [Min-Max]	Sum	# of SBHCs	Mean [Min-Max]	Sum
Illness/Injury-related	81	224 [0-1,982]	18,168	70	115 [0-1,194]	8,078	60	9 [0-184]	510
Any Somatic Telehealth	68	4 [0-105]	245	58	40 [0-567]	2,291	56	1 [0-37]	68
Well-Child Visit	78	28 [0-168]	2,193	71	36 [0-324]	2,522	59	3 [0-39]	174
Other Risk Assessment	77	40 [0-506]	3,111	64	62 [0-484]	3,936	58	9 [0-205]	539
Sports Physical	77	15 [0-172]	1,139	66	12 [0-101]	783	58	1 [0-18]	39
Asthma Visits	78	20 [0-274]	1,575	65	18 [0-317]	1,189	56	1 [0-49]	82
<b>Total Somatic Visits*</b>	<b>78</b>	<b>339 [0-2,068]</b>	<b>26,419</b>	<b>74</b>	<b>256 [11-1,205]</b>	<b>18,932</b>	<b>60</b>	<b>26 [0-242]</b>	<b>1,586</b>

\*SBHCs report this value separately; it is not a sum of columns in this table.

Table 7 summarizes additional types of services offered by SBHCs. Over half of SBHCs participate in the federal Vaccines for Children (VFC) program; over half provide condoms; and less than one-third offer contraceptives. Many interviewees expressed challenges with being designated as a VFC provider due to the requirements and costs related to storing and transporting vaccines. VFC providers must have certain equipment to be able to fulfill the Center for Disease Control & Prevention's (CDC's) vaccine storage, handling, and administrative requirements. This includes an electronic health record system to be able to submit vaccine administration data, pharmaceutical grade storage refrigerators and freezers, and digital data loggers to be able to continuously monitor vaccine storage temperature. In addition, there are challenges with transporting vaccines (temperature monitoring), managing vaccine inventory, and preparing for any potential power outages.

**Table 7. Percentage of SBHCs Offering Certain Types of Specialty Services, Annual Surveys**

Service Type	School Year 2018 - 2019 (N = 86)	School Year 2019 - 2020 (N = 86)	School Year 2020 - 2021 (N = 85)
Community MH Provider in the School (separate from SBHC)	78%	77%	72%
Contraceptives	37%	28%	28%
Condoms	55%	51%	58%
VFC Providers	57%	50%	52%

## **Sexual and Reproductive Health**

Some SBHCs and providers shared the critical and positive experience they have had providing sexual and reproductive health services at schools, including testing for sexually transmitted diseases and family planning. However, in other jurisdictions, SBHCs do not offer these services because of lack of local support. Some areas that have SBHCs in elementary schools expressed that this lack of local support is the primary barrier to opening SBHCs in middle and high schools.

Related to these concerns about reproductive health services, various interviewees mentioned the issue of minor consent. Maryland law allows minors the same ability as adults to consent to certain services, including:<sup>8</sup>

- Treatment or advice about drug abuse
- Treatment or advice about alcoholism
- Treatment or advice about venereal disease
- Treatment or advice about pregnancy
- Treatment or advice about contraception other than sterilization
- A minor who is 12 years or older who is determined by a health care provider to be mature and capable of giving informed consent has the same capacity as an adult to consent to consultation, diagnosis, and treatment of a mental or emotional disorder<sup>9</sup>

Without the consent of or express objection of the minor, the provider may, but need not, give the parent/guardian/custodian information about the treatment needed by or provided to the child. Some interviewees expressed that the issue of minor consent was a barrier to billing for these services. They noted the importance of being a trusted provider for these services and expressed concern that health insurance plans might provide an explanation of benefits to the parent/guardian. A related concern was also expressed about claims denials. Maryland law requires that “on written request of the claimant, an insurer that denies a claim made on an individual health insurance policy shall give written notice to the claimant that states fully the reason for the denial.”<sup>10</sup> If the insurer sends that written claim denial, then parents/caregivers may receive it and become aware of the treatment their child received without their knowledge or consent.

## **Behavioral and Oral Health Services**

SBHCs have the option of providing behavioral and oral health services. According to the 2020-2021 annual survey, 68 SBHCs offered behavioral health services and 34 offered oral health services. Although the survey collects information on the types of behavioral and oral health visits, missing rates were too high to meaningfully report. The concerns described above

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<sup>8</sup> Md. Code Ann., Health-Gen. §20-102(c).

<sup>9</sup> Md. Code Ann., Health-Gen. §20-104(b).

<sup>10</sup> Md. Code Ann., Ins. §15-1006(a).

regarding minor consent and explanation of benefit forms also apply to behavioral health services.

## **Telehealth**

According to the [2021 CASBHC Annual Report](#), 42 SBHCs across 8 jurisdictions provide telehealth services. As noted in Table 6 above, utilization of somatic telehealth services in SBHCs was low pre-pandemic, increased in the 2019-2020 school year, and then decreased in the 2020-2021 school year. CASBHC recommended promoting telehealth to expand SBHC services to additional students and to expand the types of services that are provided. One of the challenges is determining which physical health services are appropriate to provide via telehealth. Two recent bills further impact the provisions of telehealth in SBHCs:

1. SB 278 of 2021 prohibits MDH from requiring SBHCs already approved to operate in the state from submitting an application or seeking approval to provide health care services through telehealth.<sup>11</sup>
2. The Preserve Telehealth Access Act of 2021 requires the Maryland Health Care Commission (MHCC) to study the impact of telehealth statewide and submit recommendations on telehealth coverage and payment levels relative to in-person care.<sup>12</sup> The report is due by December 1, 2022. MHCC is currently engaged in a large research and stakeholder engagement effort in the development of this report and recommendations.<sup>13</sup> Because of the broad charge of this group, we assume recommendations will impact the provision of telehealth in SBHCs.

## ***SBHC Connections with Schools and External Providers/Organizations***

There is variation across SBHCs in how they interact with the school health program at their school. Some staff reported a collaborative relationship with the school nurse, particularly in schools where the school nurse and the SBHC are co-located. The school nurse often serves as the entry point for students who are then triaged based on their needs. However, in other schools, school nurses and SBHC interaction is minimal but there is interest in increasing collaboration.

The types of connections between SBHCs and external physical and mental health providers vary by location and depend on such factors as the type of sponsoring agency and the SBHC services provided. For SBHCs where a FQHC serves as the provider, youth may receive services from the same provider but in multiple locations, enabling a true medical home model. Alternatively, one SBHC we interviewed does not provide primary care services because of community primary care provider concerns that SBHCs would take their business and duplicate their efforts. Most other SBHCs noted that community primary care providers have come to

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<sup>11</sup> 2021 MD Laws Ch. 348.

<sup>12</sup> 2021 MD Laws Ch. 71.

<sup>13</sup> For more information, see:

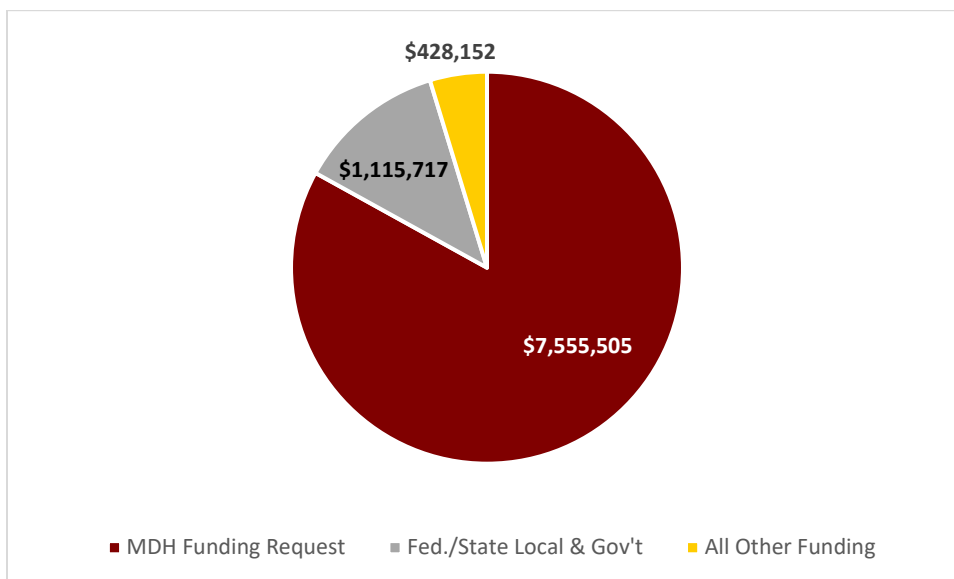
[https://mhcc.maryland.gov/mhcc/Pages/hit/hit\\_telemedicine/hit\\_telemedicine\\_legislative\\_update.aspx](https://mhcc.maryland.gov/mhcc/Pages/hit/hit_telemedicine/hit_telemedicine_legislative_update.aspx).

understand the value of SBHCs and that increased provider capacity is critical to meeting the local demand for services.

### ***SBHC Revenue, Including Health Coverage and Reimbursement***

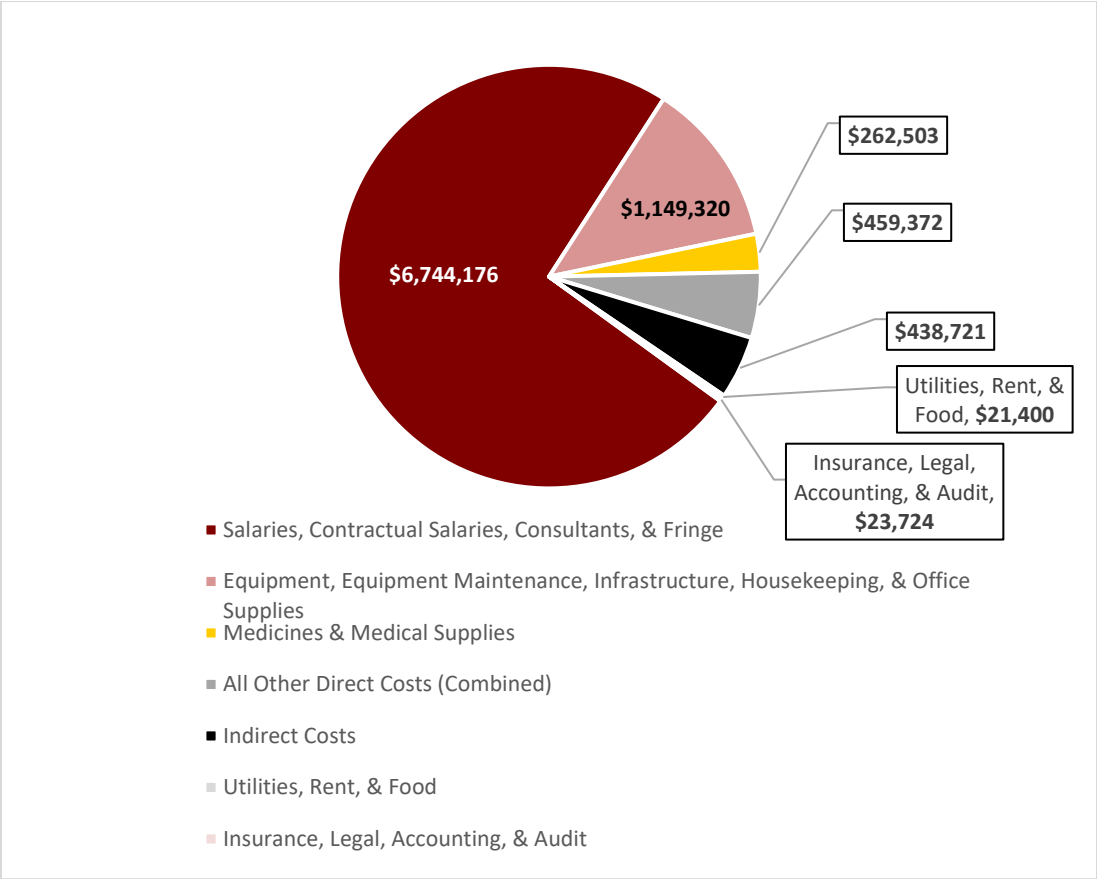
According to the SBHC annual funding application for the 2022-2023 school year, SBHCs reported total budgets just over \$9 million, the majority of which are funded by MDH's grants program. Twelve sponsoring agencies rely solely on the SBHC grant funds or were unable to accurately report on other funding sources. MDH staff spent considerable time providing technical assistance to the SBHCs to more accurately report budget information for the current school year and reported that SBHCs will need continued technical assistance to improve financial reporting.

**Figure 3. SBHC Budgets by Funding Source**



The largest line item in SBHC budgets by far is staff salary and fringe, followed by equipment.

Figure 4. SBHC Budgets by Line Item





The budget information collected in the annual application does not explicitly address billing/claims reimbursement as a funding source. Instead, information about billing is collected in the annual outcomes survey, as well as the one-time billing survey MDH conducted in the summer of 2022. Table 8 presents the number and percentage of SBHC sponsoring agencies that bill Medicaid MCOs and/or contract with commercial health plans. All but three sponsoring agencies currently bill Medicaid MCOs or plan to within the next year. Ten sponsoring agencies currently contract with commercial health insurance plans or have plans to start contracting.

**Table 8. Number and Percentage of SBHCs that Bill Medicaid MCOs and Contract with Private Insurance Plans, 2022 Billing Survey**

	# Sponsoring Agencies	% Sponsoring Agencies	# Sponsoring Agencies	% Sponsoring Agencies
	Medicaid MCO		Commercial Insurance	
Yes	13	76%	8	50%
No/Missing	3	18%	7	44%
No, But Will Begin in the 2022-2023 School Year	1	6%	0	0%
No, But in Credentialing Process	0	0%	1	6%
Temporarily not Billing due to IT Issues, but Working on Reinstating	0	0%	1	6%
<b>Total</b>	<b>17</b>	<b>100%</b>	<b>17</b>	<b>100%</b>

Table 9 shows similar information but for individual SBHCs by insurance and service type, as reported by the SBHCs in the annual surveys. A majority of SBHCs reported billing Medicaid and private insurance for somatic services almost every year, while substantially fewer reported billing for behavioral or oral health services. There were decreases across nearly all service and insurance types from 2019-2020 to 2020-2021, likely due to pandemic-related closures.

**Table 9. Percentage of SBHCs that Reported Billing Each Service Type, by Insurance Type, Annual Survey**

Service Type	School Year 2018 - 2019 (N = 86)	School Year 2019 - 2020 (N = 86)	School Year 2020 - 2021 (N = 85)
<b>Medical Assistance</b>			
Somatic	77%	77%	60%
Behavioral Health*	51%	46%	28%
Oral Health*	23%	34%	32%
<b>Private Insurance</b>			
Somatic	62%	55%	42%
Behavioral Health*	44%	37%	19%
Oral Health*	23%	29%	29%
<b>Uninsured/Unknown</b>			
Somatic	56%	37%	33%
Behavioral Health*	44%	18%	12%
Oral Health*	23%	34%	32%

\*Denominator only includes SBHCs that reported offering these services:  
 2018-2019: BH - n = 57, Oral Health - n = 34  
 2019-2020: BH - n = 67, Oral Health - n = 35  
 2020-2021: BH - n = 68, Oral Health - n = 34

The 2022 billing survey also asked sponsoring agencies to report on the percentage of billable services that were billed to Medicaid MCOs and private insurance plans. Two sponsoring agencies report billing 100% of billable services to Medicaid, and one reports billing 100% to commercial health insurance.

**Table 10. Percentage of Billable Services Billed to Medicaid MCOs and Private Insurance, 2022 Billing Survey**

	# of Sponsoring Agencies	% of Sponsoring Agencies	# of Sponsoring Agencies	% of Sponsoring Agencies
	Medicaid MCO		Commercial Insurance	
Do Not Bill/Not Applicable/Missing	5	29%	9	53%
100% of Billable Services Submitted	2	12%	1	6%
95% of Billable Services Submitted	2	12%	2	12%
75% of Billable Services Submitted	6	35%	2	12%
50% of Billable Services Submitted	2	12%	1	6%
25% of Billable Services Submitted	0	0%	1	6%
Other	0	0%	1 <sup>14</sup>	6%
<b>Total</b>	<b>17</b>	<b>100%</b>	<b>17</b>	<b>100%</b>

Table 11 shows that SBHCs reported billing substantially more than they were reimbursed in nearly every survey year and to each insurance type. According to the annual survey, SBHCs reported billing \$1,535,997 for somatic care services in 2018-2019, \$1,263,510 in 2019-2020, and \$227,579 in 2020-2021. Of these amounts billed, approximately 46% was reportedly reimbursed in 2018-2019, 45% in 2019-2020, and 52% in 2020-2021. As expected, the amount collected for uninsured/self-pay patients was minimal. There was significant variation in the reported amounts billed by SBHCs in each survey year and for each insurance type, and many SBHCs reported billing \$0 for somatic services or did not provide billing information at all. Even less information was reported on billing for behavioral and oral health services, so it was not summarized.

<sup>14</sup> One SBHC noted that they have not yet opened as of the survey date but hope to bill private insurance for 100% of billable services.

**Table 11. Average and Total Amounts SBHCs Reported Billing to and Being Reimbursed by Insurers for Somatic Care, by Insurance Type, Annual Surveys**

Patient Type	School Year 2018 - 2019 (N = 86)			School Year 2019 - 2020 (N = 86)			School Year 2020 - 2021 (N = 85)		
	SBHCs Reporting*	Mean (\$)	Sum (\$)	SBHCs Reporting	Mean (\$)	Sum (\$)	SBHCs Reporting* *	Mean (\$)	Sum (\$)
Medicaid Billed	44	22,269	979,842	70	13,740	961,817	65	2,822	183,455
Medicaid Reimbursed	44	15,091	664,009	70	7,957	556,972	65	1,702	110,656
<b>Difference</b>	<b>44</b>	<b>7,178</b>	<b>315,833</b>	<b>70</b>	<b>5,784</b>	<b>404,845</b>	<b>65</b>	<b>1,120</b>	<b>72,800</b>
Private Insurance Billed	60	2,104	126,260	72	719	51,793	62	207	12,853
Private Insurance Reimbursed	60	689	41,339	72	182	13,125	62	106	6,560
<b>Difference</b>	<b>60</b>	<b>1,415</b>	<b>84,920</b>	<b>72</b>	<b>537</b>	<b>38,668</b>	<b>62</b>	<b>102</b>	<b>6,293</b>
Uninsured/Self-pay Billed	63	6,824	429,895	72	3,471	249,900	62	504	31,271
Uninsured/Self-pay Reimbursed	63	50	3,168	72	11	774	62	2	98
<b>Difference</b>	<b>63</b>	<b>6,774</b>	<b>426,728</b>	<b>72</b>	<b>3,460</b>	<b>249,126</b>	<b>62</b>	<b>503</b>	<b>31,173</b>
*: 18 SBHCs were excluded from the 2018-2019 Medicaid analysis and 7 from the Private insurance analysis for likely erroneous values.									
**: 1 SBHC was excluded from the 2020-2021 Medicaid analysis for likely erroneous values.									

The data presented above show that there is an opportunity to increase/improve billing, but the interviews and the 2022 billing survey revealed several barriers. The largest barrier reported in the billing survey (and echoed during the interviews) was concern about submitting claims for confidential services because an explanation of benefits might be sent home to the parent/guardian.

**Table 12. Barriers to Billing Medicaid MCOs and Private Insurance, 2022 Billing Survey**

	# of Sponsoring Agencies	% of Sponsoring Agencies	# of Sponsoring Agencies	% of Sponsoring Agencies
	Medicaid MCO		Private Insurance	
Do not Submit Claims for Confidential Services	10	59%	11	65%
Claims Historically Denied	N/A	N/A	2	12%
Lack of Accurate Insurance Information	7	41%	4	24%
Lack of Billing Support Needed to Bill Commercial Insurers	N/A	N/A	4	24%
Lack of Administrative Support for Billing	3	18%	N/A	N/A
Other	3	18%	3	18%

During the interviews, SBHCs stated that some activities, such as the additional coordination between teachers and families, do not align with the traditional primary care fee structure. Some sites reported low SBHC enrollment, which leads to low utilization and therefore minimal health insurance reimbursement revenue. Some sites reported that they do not bill health insurance for any services provided, primarily to prevent any confidential services, such as behavioral health or reproductive health services, from potentially being reported to parents/caregivers.

### Medicaid Billing Requirements

MDH publishes a Medicaid billing manual for SBHCs. In order to receive Medicaid reimbursement, SBHCs must enroll as a Medicaid SBHC provider in MDH's electronic Provider Revalidation and Enrollment Portal (ePREP).<sup>15, 16</sup> Providers seeking to enroll as SBHCs must also be approved by MDH (previously MSDE) as an SBHC; satisfy the conditions of participation for a free-standing clinic, physician, or nurse practitioner; and provide services through health professionals who meet certain qualifications, including possessing training in serving school-aged children and EPSDT certification.<sup>17</sup>

<sup>15</sup> Enrollment in ePrep is required for all providers to bill Medicaid; this requirement is not unique to SBHCs.

<sup>16</sup> SBHC Provider Manual, available [here](#), at p. 7-8.

<sup>17</sup> COMAR 10.09.76.03(B).

## **Services Eligible for Medicaid Reimbursement**

Medicaid allows SBHCs to bill for the following Medicaid-covered services: comprehensive well-child care when performed by EPSDT certified providers and rendered according to state EPSDT standards; follow-up positive or abnormal EPSDT screening components without the approval of the primary care provider, except when referral for specialty care is indicated; comprehensive preventive and primary health services; family planning services; dental services; and specialty behavioral health services.<sup>18</sup>

Time spent by a clinician on care coordination can be counted towards the appropriate evaluation and management (E&M) codes as long as the activities take place the same day as the student's visit. Care coordination activities that take place on days other than the day of the student's visit are not separately reimbursable.<sup>19</sup> There are certain services that SBHCs may provide that are not reimbursed by Medicaid. See Appendix F for more information.

## **Medicaid Payment System**

Almost all (99%)<sup>20</sup> Medicaid-participating children aged 0-18 years are enrolled in HealthChoice, Maryland's Medicaid managed care program. According to the SBHC billing survey, 44% of SBHC sponsoring agencies contract with Medicaid MCOs. However, SBHCs are not required to have contracts with MCOs in order to bill and instead can be self-referred. "Self-referral" means that an MCO must reimburse an SBHC for an MCO-covered service, regardless of whether the SBHC is a contracted or network provider.<sup>21</sup> To receive payment, the SBHC must submit a completed request for payment in the format designed by the MCO, including providing any required documentation.<sup>22</sup> Some services for MCO enrollees are carved out of the MCO benefit package and are administered on a fee-for-service (FFS) basis. Key carve-out services for children include oral and behavioral health, and these services are billed to the respective administrative service organizations. See Appendix F for more information about Medicaid billing and payment requirements. During interviews, MCO representatives expressed enthusiasm for collaborating with SBHCs and restarting efforts to improve data sharing between MCOs and SBHCs.

## **Information Technology**

According to the 2022 billing survey, all but one sponsoring organization reported having an electronic health record (EHR) system. However, the type and the sophistication of the software varies among sites. Only six sponsoring organizations reported having practice management systems; nine reported having connectivity to the Chesapeake Regional Information System for Our Patients (CRISP, Maryland's health information exchange) for all sites; one reported that some (but not all sites) are connected to CRISP; and seven are not

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<sup>18</sup> COMAR 10.09.76.04.

<sup>19</sup> CASBHC SBHC billing recommendations.

<sup>20</sup> Source: The Maryland Medicaid DataPort, The Hilltop Institute at UMBC

<sup>21</sup> MCO contract, available [here](#), at p. 225 of the PDF.

<sup>22</sup> COMAR 10.09.76.07(A).

connected to CRISP at all. For those SBHCs that do have access to CRISP, some reported during the interviews that they view data but do not submit data to CRISP. There is still a significant level of manual data entry for some sites in completing the annual survey and application, and this is a challenge for SBHCs that lack administrative support staff. In addition to fluctuation in clinical staff, SBHCs express a shortage of administrative staff to be able to support such activities as billing, communication, data analysis, reporting, etc. This is highlighted in Table 3 above, showing that 41% of SBHCs have no administrative support staff.

### ***Data Collection and Analysis***

In analyzing the most recent three years of survey data, Hilltop noted a number of challenges with missing data and inconsistent responses across questions, making it difficult to summarize and draw meaningful conclusions from many of the survey questions (we realize that the pandemic has impacted responses for two of the three years reviewed). Hilltop also noted that many of the survey questions did not have clear instructions/definitions, making it difficult for SBHCs to respond and to ensure “apples to apples” responses. In our experience with primary data collection from a variety of providers and health plans, very explicit instructions and definitions need to be provided, particularly for summarizing clinical visit data.

These challenges were echoed during the stakeholder interviews. SBHC staff reported multiple challenges in reporting data to the state. For those submitting data via the statewide SBHC survey, interpreting some of the questions can depend on who is filling out the request. There is variation among SBHCs in the type of IT and administrative support, and some SBHCs report challenges with having enough advanced warning for data requests and the technical capability to extract patient and center data. There was wide agreement among providers, administrators, and staff that the data that is submitted to the state is not shared back with SBHCs, and there is a missed opportunity for SBHCs to be able to review not only their own summary data, but also to compare with other areas in the state.

*We should be using data to drive our decision making, policies and protocols. Right now, we are fortunate, and we have a data administrator, but I think having more assistance around data and thinking critically about resource mapping and utilizing data in terms of tailoring services or how we offer services – we would love support there. – County health official*

## **IV. Analysis of Health and Educational Needs Across the State**

Given the recent expansion in grant funding for SBHCs and in the types of organizations that may sponsor SBHCs, MDH requested analyses to identify communities in Maryland with health and educational disparities that may benefit from an SBHC. The results of the analysis described in the methodology section are presented below.

Based on estimates from the 2016-2020 5-year American Community Survey (ACS), Maryland ranks 17<sup>th</sup> among the 50 states and Washington, D.C. in the proportion of children without health insurance coverage (3.5% versus a national average of 5.2%), 20<sup>th</sup> in proportion of females aged 15-19 years with a recent birth (9.8 per 1,000 persons versus a national average

of 11.3), and 6<sup>th</sup> in the proportion of children in households with income below the federal poverty level (11.6% versus a national average of 17.5%). Table 13 includes the estimated proportions and ranks (from lowest to highest) of these outcomes for each Maryland county.

**Table 13. Estimated County Proportions and Quartile Ranks for Measures of Access to Health Care, Teen Fertility Rates, and Sociodemographic Characteristics among the School-Aged Population**

County	Proportion of Individuals < 18 Years in households with income below federal poverty level		Proportion of individuals <18 years without health insurance coverage		Females 15-19 years with birth within previous year	
	%	Quartile	%	Quartile	Per 1,000 persons	Quartile
Allegany	19.7%	4 <sup>th</sup>	3.4%	3 <sup>rd</sup>	23.9	4 <sup>th</sup>
Anne Arundel	7.4%	1 <sup>st</sup>	2.7%	1 <sup>st</sup>	5.3	2 <sup>nd</sup>
Baltimore City	27.8%	4 <sup>th</sup>	3.2%	2 <sup>nd</sup>	12.0	4 <sup>th</sup>
Baltimore County	12.0%	2 <sup>nd</sup>	3.6%	3 <sup>rd</sup>	11.4	4 <sup>th</sup>
Calvert	4.3%	1 <sup>st</sup>	2.5%	1 <sup>st</sup>	7.7	3 <sup>rd</sup>
Caroline	19.4%	4 <sup>th</sup>	3.7%	3 <sup>rd</sup>	3.5	2 <sup>nd</sup>
Carroll	5.3%	1 <sup>st</sup>	1.8%	1 <sup>st</sup>	14.1	4 <sup>th</sup>
Cecil	14.1%	3 <sup>rd</sup>	2.5%	1 <sup>st</sup>	9.0	3 <sup>rd</sup>
Charles	9.1%	2 <sup>nd</sup>	3.7%	3 <sup>rd</sup>	8.1	3 <sup>rd</sup>
Dorchester	28.1%	4 <sup>th</sup>	3.5%	3 <sup>rd</sup>	0.0	1 <sup>st</sup>
Frederick	8.0%	2 <sup>nd</sup>	2.8%	2 <sup>nd</sup>	5.9	2 <sup>nd</sup>
Garrett	13.1%	3 <sup>rd</sup>	4.4%	4 <sup>th</sup>	0.0	1 <sup>st</sup>
Harford	8.3%	2 <sup>nd</sup>	2.7%	2 <sup>nd</sup>	2.5	2 <sup>nd</sup>
Howard	5.7%	1 <sup>st</sup>	2.5%	1 <sup>st</sup>	5.1	2 <sup>nd</sup>
Kent	17.0%	3 <sup>rd</sup>	3.9%	3 <sup>rd</sup>	6.5	3 <sup>rd</sup>
Montgomery	7.9%	1 <sup>st</sup>	2.9%	2 <sup>nd</sup>	8.5	3 <sup>rd</sup>
Prince George's	11.7%	2 <sup>nd</sup>	5.9%	4 <sup>th</sup>	17.2	4 <sup>th</sup>
Queen Anne's	7.0%	1 <sup>st</sup>	0.9%	1 <sup>st</sup>	1.4	1 <sup>st</sup>
Saint Mary's	10.1%	2 <sup>nd</sup>	4.2%	4 <sup>th</sup>	9.1	3 <sup>rd</sup>
Somerset	28.7%	4 <sup>th</sup>	4.6%	4 <sup>th</sup>	0.0	1 <sup>st</sup>
Talbot	12.3%	3 <sup>rd</sup>	3.3%	2 <sup>nd</sup>	75.9*	4 <sup>th</sup>
Washington	17.1%	3 <sup>rd</sup>	4.2%	4 <sup>th</sup>	1.6	2 <sup>nd</sup>
Wicomico	20.0%	4 <sup>th</sup>	3.1%	2 <sup>nd</sup>	0.2	1 <sup>st</sup>
Worcester	15.3%	3 <sup>rd</sup>	4.9%	4 <sup>th</sup>	0.0	1 <sup>st</sup>

Source: Estimates from 2016-2020 5-year American Community Survey. The quartiles are ranked starting from the counties with the lowest proportion or counts (1<sup>st</sup> quartile) to counties with the highest proportions or counts (4<sup>th</sup> quartile).

\*This estimate should be interpreted with caution owing to a large margin of error reported ( $\pm 98$  per 1,000 persons), implying a higher degree of variability relative to the estimates for other counties.

From the Maryland Youth Risk Behavior Survey (YRBS)/Youth Tobacco Survey (YTS), the county ranks and proportions of high school students reporting prevalence of specific health conditions, lack of access to dental care, and engagement in risky behaviors are presented in Table 14.

**Table 14. County Proportions for Measures of Disease Prevalence, Access to Dental Care, and Engagement in Risky Behaviors among High-School Students**

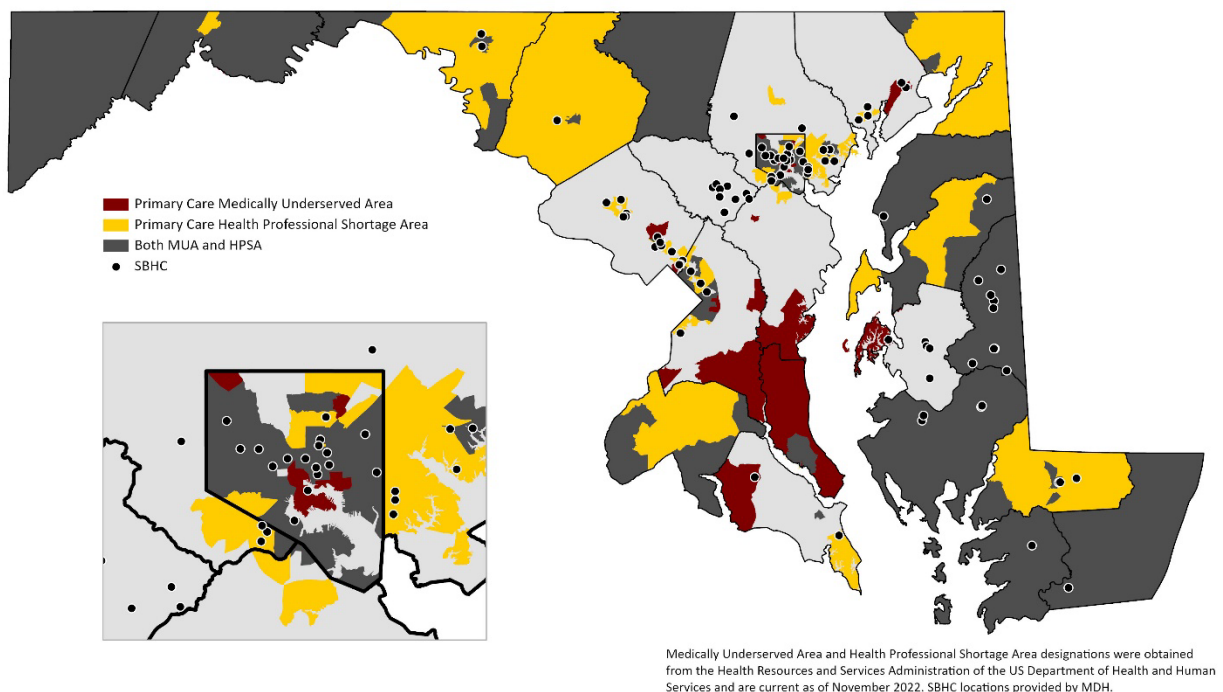
County	Proportion of Students Reporting Depressive Symptoms in Previous 12 Months	Proportion of Students Who Smoked a Cigarette(s) in Previous Month	Proportion of Students Who Consumed an Alcoholic Drink in Previous Month	Proportion of Students without a Dental Visit in Previous Year	Proportion of Students with Previous Diagnosis of Asthma
Allegany	34.3%	10.8%	30.3%	23.2%	25.3%
Anne Arundel	32.0%	7.2%	27.5%	23.7%	26.2%
Baltimore City	31.6%	6.0%	21.9%	34.8%	33.3%
Baltimore County	33.7%	4.2%	22.3%	26.1%	27.0%
Calvert	31.9%	5.8%	30.8%	18.1%	25.2%
Caroline	31.1%	7.9%	33.7%	22.6%	26.5%
Carroll	28.6%	5.8%	29.0%	17.1%	23.7%
Cecil	34.4%	6.6%	33.1%	20.8%	24.7%
Charles	32.0%	5.0%	20.7%	26.2%	29.2%
Dorchester	32.9%	11.7%	25.2%	28.0%	34.9%
Frederick	31.2%	4.8%	30.9%	17.5%	23.1%
Garrett	30.5%	13.7%	34.9%	22.1%	23.9%
Harford	30.6%	4.9%	31.0%	18.3%	23.6%
Howard	28.4%	2.7%	21.9%	17.5%	22.4%
Kent	36.0%	6.8%	37.6%	22.6%	27.1%
Montgomery	31.5%	3.7%	20.4%	18.4%	21.8%
Prince George's	34.2%	4.0%	18.3%	34.5%	31.5%
Queen Anne's	29.2%	8.1%	40.4%	19.8%	23.3%
Saint Mary's	33.6%	7.3%	30.0%	20.0%	22.8%
Somerset	30.4%	9.7%	31.3%	31.7%	31.4%
Talbot	27.8%	5.1%	30.5%	19.7%	30.2%
Washington	34.2%	7.4%	25.8%	23.2%	22.7%
Wicomico	30.5%	6.9%	22.9%	25.3%	27.4%
Worcester	29.8%	7.7%	32.0%	23.6%	24.4%

Source: 2018-2019 Maryland Youth Risk Behavior Survey/Youth Tobacco Survey



As shown in Figure 5, there are currently 8 counties with a total of 420 census tracts designated as health professional shortage areas (HPSAs) for primary health care, as well as 14 entire counties with the same designation. Altogether, there are 434 primary care HPSAs in Maryland (areas colored red), with every county except for Howard and Talbot having at least one. There are 400 designated primary care medically underserved areas (MUAs) in the state (areas colored yellow), with at least one in every county except Howard. Of Maryland's 400 MUAs, 378 are at the census tract level, 14 are at the county subdivision level, and the remaining 8 are entire counties. Finally, there are 389 parts of the state that are designated as both a HPSA and MUA for primary care services (areas colored teal).

**Figure 5. Maryland Census Tracts Designated as Primary Care Medically Underserved Areas, Primary Care Health Professional Shortage Areas, or Both, and SBHC Locations (Baltimore City Inset)**



Nine counties are designated as geographic mental health care HPSAs, and 13 are geographic dental health care HPSAs. Mental health HPSAs are found in Calvert, Cecil, Charles, Harford, Kent, Prince George's, Queen Anne's, Saint Mary's, and Talbot Counties. Dental care HPSAs are located in 12 of 24 counties. In aggregate, 430 schools in the state are located in a geographic HPSA or MUA, including 46 schools with existing SBHCs.

In Section II above, as well as Appendix C, Hilltop describes the approach and the respective data sources used to create indicators for schools in the bottom statewide quintile for various measures of disparity in academic performance, academic progress, structural resources, and county-level health outcomes and risky behaviors. There were 57 schools in the bottom statewide quintile for at least 10 of 14 elementary school indicators, at least 15 of 19 middle

school indicators, or at least 11 of 18 high school indicators (Table 15). Separately, Hilltop identified 103 schools with the highest number of elementary, middle, or high school indicators within each county. A total of 150 schools had the highest number of indicators statewide or in the home county, with 83% (125) located in an HPSA or MUA, and 32 (21%) currently served by an SBHC. In comparison to all schools statewide, the 150 schools had a similar average number of enrolled students (651.2 vs. 640.5), but a higher average proportion of students eligible for free and reduced meals (57.7% vs. 45.1%) or in economically disadvantaged status (47.2% vs. 31.7%). Although the difference in average enrollment was not statistically significant at the 5% level, the comparisons of proportions were all significant at the 1% level. Specific names and locations for the 150 schools are provided in Appendix C.

**Table 15. Number of Schools in the Bottom Statewide Quintile for Defined Indicators of Disparity in Academic, Health, Sociodemographic, and Risk Behavior Outcomes/Measures, by County**

County	Schools with Highest Number of Indicators Statewide*	Schools with Highest Number of Indicators in Home County	Total Number of Schools Meeting Either Criterion	Total Number of Schools Meeting Either Criterion & Currently without an SBHC
Allegany~	0	5	5	5
Anne Arundel~	0	3	3	3
Baltimore City	40	6	40	31
Baltimore County	1	4	4	3
Calvert~	0	4	4	4
Caroline	0	3	3	0
Carroll~	0	4	4	4
Cecil~	0	3	3	3
Charles~	0	7	7	7
Dorchester	0	4	4	1
Frederick	0	3	3	3
Garrett~	0	4	4	4
Harford	0	5	5	2
Howard	0	2	2	1
Kent	0	4	4	3
Montgomery	0	8	8	7
Prince George's	15	3	16	16
Queen Anne's	0	6	6	5
Saint Mary's	0	5	5	4
Somerset	0	3	3	2
Talbot	0	4	4	0
Washington	1	7	7	5
Wicomico	0	3	3	2
Worcester	0	3	3	3
<b>Total</b>	<b>57</b>	<b>103</b>	<b>150</b>	<b>118</b>

The indicators identified schools in the bottom statewide quintile of measures of intra-school or inter-school disparities in average academic performance, academic progress, high school completion, students' assessments of school climate, absenteeism, and state and local expenditures per pupil. At the county level, we included indicators for schools located in a county that was in the bottom statewide quintile for health insurance coverage and access to dental care among children, teenage pregnancy rate, household income, prevalence of asthma and depressive symptoms, and engagement in risky behavior (consumption of alcohol and tobacco products). Details on the measures are in Table 1, and operationalization of the indicators is described in Appendix C.

\*This category includes schools that had at least 10 of a maximum of 14 indicators applicable to the elementary grade level, or at least 15 of 19 indicators applicable to the middle school level, or at least 11 of 18 indicators applicable to the high school level.

~These counties currently do not have an SBHC.

During interviews, county health officials and SBHC administrators expressed interest in opening SBHCs in jurisdictions that do not currently have any and expanding sites and/or services in areas that do. However, interviewees identified some challenges including funding and capacity. Some areas do not have the staff to dedicate to planning and building partnerships to create a new SBHC. However, this process has been substantially easier for SBHCs that use FQHCs to provide services because they already have service and billing infrastructure in place.

## **V. Recommendations**

Based on the findings from the quantitative and qualitative analyses, Hilltop and Aurrera Health developed a series of 14 recommendations for improving the Maryland SBHC Program. These recommendations have been prioritized into three phases in recognition that the order of activities is important and that it will take time to conduct them.

These recommendations will require that all stakeholders—MDH (Bureau and Medicaid); MSDE; CASBHC; MASBHC; SBHC administrators, providers, and billing staff; school and school health staff; county health officials; local health departments; FQHCs; commercial insurers; and MCOs—work together to maximize the positive impact of SBHCs on children's health. MDH should oversee all activities to ensure they are coordinated and moving toward a common goal, but they should also assign tasks with associated timelines to each stakeholder in a way that leverages each of their strengths. There are also activities that would benefit from vendors to provide expertise and to move efforts forward more quickly.

Across these recommendations, it is important to recognize that SBHCs are a product of local collaboration between schools and the health care system and need to be designed in a way that responds to the needs of the school community. These needs and the impact of local external factors can evolve over time. Therefore, it is critical to continue to permit flexibility so that SBHCs can be nimble to improve children's health.

The following recommendations are organized by category, with suggestions for a phased approach to each.

## ***Delineate Roles and Responsibilities for MDH and Stakeholders***

### ***Delineate Roles and Responsibilities Phase 1***

The recent change in administration of the SBHC Program to MDH provides the opportunity to further define the roles and responsibilities of Program stakeholders. To effectively maximize MDH's increased capacity to administer the SBHC Program and to leverage active stakeholder interest and engagement:

1. We recommend MDH provide clarity on the roles and responsibilities of MDH-Bureau, MDH-Medicaid, MSDE, CASBHC, MASBHC, and SBHCs.
2. We recommend that MDH maintain oversight of SBHC data/reporting and publication of SBHC data.
3. We acknowledge the unique role of CASBHC, which has its own legislative mandate and is an advisory council that sits outside of the department administering the SBHC Program. Typically, advisory groups are run by the program administrator. We recommend that MDH and CASBHC continue to work collaboratively and that MDH be responsible for identifying areas where CASBHC's input is needed. We recommend ensuring that CASBHC continues to increase representation from parents/caregivers and students.

Another way to expand state capacity and to facilitate activities more quickly is by engaging expert vendors. Throughout the recommendations we indicate where vendor support could be particularly useful.

### ***Improve Connections between SBHC, School Health, School Administration, and External Providers and Organizations***

To provide a comprehensive and effective network of support for students that promotes health equity, it is critical for SBHCs to be truly integrated into their schools and communities. SBHCs are a setting where care is provided, just like urgent care centers and some pharmacies. They improve access to physical and mental health care services for all students, and particularly for low-income and minority students. It is critical for school leadership and staff, school health providers, community providers, and community-based organizations to know this resource exists and to encourage its use as part of the continuum of care for children and youth.

These partnerships are critical for helping children prevent health issues and address acute and chronic health issues when they arise. Physical and mental health is fundamental to being able to go to school, to learn, and to develop skills that will serve them into adulthood. When everyone who touches the lives of Maryland youth bands together, we can create an effective network of care to ensure children receive the services and supports they need to thrive. SBHCs have an opportunity to play an important role in this network. We are excited that Maryland is building on its existing school health program and SBHC Program to develop community partnerships through the Consortium on Coordinated Community Supports. We hope that

these partnerships include all entities that support youth, including community-based organizations.

We recommend the following strategies for improving connections. These strategies are primarily for SBHCs, but MDH can support these efforts by providing technical assistance to SBHCs in these areas, developing materials for SBHCs to leverage and tailor to their schools and communities, and meeting with hospitals, community providers, health plans, and statewide community-based organizations and associations. Given that building partnerships takes time and resources, and SBHCs often lack staff and funding to do this type of work, MDH has an important role to play in supporting these efforts.

*Sometimes you feel a little isolated in that school-based health center in terms of trying to impart to our educational partners the significance and value of the services we are adding. That is an ongoing relationship building process. I think there is a lot of benefits or opportunity to frame what happens in SBHCs in terms of how that translates to improved educational outcomes so that our educational partners can be more engaged at the table. Naturally we are two different areas that sometimes overlap but there is just a cleft to bridge. – County Health Official*

### **Improve Connections Phase 1**

1. **Network of Care Directory.** Communities can create and expand their directory of partners, including community providers and community-based organizations, that outlines the services they offer, eligibility for services, and bi-directional referral processes. Ideally, these directories would be electronic and could be shared across partners. Start by identifying existing partners, then over time identify gaps and partnership opportunities and continue to expand the partnerships and Directory. The Consortium on Coordinated Community Supports has an opportunity to support this local Directory development of which SBHCs are a critical element.
2. **Students and Families.** Continue to educate students and families on the services offered by the SBHC. Leverage school events and the Parent Teachers Organization (PTO) to disseminate information (as further discussed below in a recommendation on strategies to increase SBHC enrollment).
3. **School Health Providers.** Collaborate more robustly with school health providers, e.g., school health providers can triage acute care needs and connect students who have chronic conditions and ongoing service needs to the SBHC; providers can work together to provide physical and mental health education to students.
4. **School Leadership, Teachers, and Staff.** Continue to educate all school leadership and staff about the services offered by the SBHC and how to refer students to it.
5. **Community Providers.** Develop a fact sheet that SBHCs can tailor and share with community primary care and behavioral health providers (as further detailed in a recommendation below on strategies for increasing SBHC enrollment).
6. **State and Community Health and Well-Being Initiatives.** MDH and SBHC staff could join standing meetings with key stakeholders across the state to educate them about SBHCs

and work toward integrating the SBHC program into broader child health and well-being initiatives.

### ***Improve Connections Phases 1-2***

7. **Students and Families.** Create a vehicle for obtaining student and family input, such as by establishing an advisory group led by two students who serve as liaisons to the student body, which would also provide the students with leadership opportunities.
8. **School Leadership.** Provide school leadership with an ongoing summary of non-identifiable data, including how many students are being seen and for what services, including confidential services.
9. **Community Providers.** Meet with local hospitals and other community providers to share information about the services offered by SBHCs and develop referral opportunities between these providers and SBHCs. For community providers, talk to them about the role SBHCs can play vs. the role of the student's primary care provider, addressing concerns expressed by some primary care providers that SBHCs may be duplicating their efforts or taking their business.
10. **Community-based Organizations.** Meet with community-based organizations that serve children and youth in the community. Talk to them about what the SBHC offers and learn what services they provide, eligibility for services, and referral processes. Identify a point person at the organization and a strategy for remaining connected. Document the organizations in the Directory.

### ***Leverage Information Technology***

Information technology challenges hinder the ability of some SBHCs to bill for services, share data with primary care providers and health plans, and provide important and necessary data for program administration/evaluation.

### ***Information Technology Phases 1-2***

We recommend that MDH explore options to provide IT infrastructure support, technical assistance, and/or grants to:

1. Implement an EHR for the one sponsoring agency that does not have one, such as by providing one-time grant funding to purchase a system and by meeting with the agency to determine any other barriers to implementing an EHR.
2. Establish connectivity with CRISP for the SBHCs not currently connected. This will likely require a learning collaborative to provide technical support, training, and guidance on consent, as well as one-time infrastructure grant funds as needed.

### ***Create a Standardized MDH Funding Allocation Approach***

It is important to acknowledge that state funding alone, even at the recently increased level, will not cover the full cost of operating SBHCs. SBHCs will need to continue to seek other

funding sources, such as by maximizing Medicaid reimbursement, federal funding, and commercial health coverage reimbursement; leveraging hospital community benefit expenditures; and exploring local philanthropic and community funds. Additionally, existing and new SBHCs should seek to work with FQHCs in their area when possible.

### ***Funding Allocation Approach Phase 1***

1. For the next year, we recommend maintaining the current funding allocation to SBHCs and beginning to plan for future funding formula changes. Any changes to the funding allocation approach should be shared with SBHCs far in advance so they can prepare accordingly.
2. During this next year and going forward, we recommend continuing to provide one-time infrastructure funding, such as for physical space renovations and equipment (e.g., a refrigerator to store vaccines) and implementing EHRs.

### ***Funding Allocation Approach Phases 1-2***

Over the next year, MDH should develop a funding allocation formula that incorporates the following elements, which would be implemented in Phase 2:

3. Provide multi-year operational grant funding to enable existing SBHCs to plan and to reduce the administrative burden on SBHCs and MDH.
4. Provide planning/start-up funding (including hiring staff) to organizations that are exploring opening an SBHC(s).
5. Provide base funding to all MDH/MSDE-approved SBHCs that seek state funding, based on staffing, hours of operation, and services offered. We realize that this is reliant on quality data. Please refer to our recommendations on data collection.
6. Provide add-on payments for the highest need areas and for meeting quality metrics such as increased SBHC enrollment and service utilization. In terms of developing the add-on payment, MDH could determine a small amount of pilot funding.
  - a. Quality measures: MDH may consider analyzing the next year's annual survey data (to allow for two years of data post the schools re-opening from COVID-19) to determine year-over-year changes in enrollment and service utilization (e.g., somatic visit counts). Based on the data, MDH may set a modest percent increase improvement target and allocate the funding equally across all SBHCs meeting the target. This is similar to an approach recently adopted by Louisiana. If the data show that some SBHCs have relatively high enrollment/utilization compared to other SBHCs, MDH may consider setting an attainment/maintenance target for those SBHCs. Please note that this will be dependent upon SBHCs reporting uniform and quality data.
  - b. Highest need: MDH may consider allocating a pot of funding equally across SBHCs in high-need areas, such as through the approaches listed in the Priority School/Jurisdiction section below.

### ***Funding Allocation Approach Phase 3***

7. In the long-term, a portion of funding could be tied to other performance targets, such as quality of data reporting, meeting quality measures, and enrollment/utilization targets.

### ***Plan for and Fund SBHC Physical Infrastructure as Part of School Building and Renovations***

#### ***Physical Infrastructure Phases 1-2***

1. MSDE should require that the process for building or renovating a school include consideration of a physical space for a future SBHC.
2. MSDE should provide information to these schools on the value of SBHCs and their physical space needs.
3. In the next year and ongoing, MDH should provide funding for one-time infrastructure costs that enable SBHCs to provide services.

### ***Develop and Execute a Plan for Recruiting and Retaining SBHC Staff***

There are health care workforce shortage issues across Maryland and the country. This is a challenge that needs to be tackled at the state level. However, there are some specific strategies that could be employed to recruit SBHC staff, including:

1. Use telehealth to spread the capacity of existing SBHC providers across a county. For example, if an SBHC provider is at a school with low SBHC enrollment and utilization, that provider can furnish services via telehealth to other schools in the county.
2. Review and increase health department staff salary levels.
3. Continue to build relationships with FQHCs who can offer workforce incentives.
4. Ensure there is a career path for SBHC providers to encourage retention.
5. Partner with Maryland education institutions to educate college and graduate students about school-based health opportunities such as for nurses, nurse practitioners, social workers, psychologists, and physicians. Maryland needs to create a pipeline of providers that understand the opportunity for providing health care services in schools.

MDH has engaged a vendor to conduct an assessment of school health workforce issues, so we look forward to those findings, which should inform both the Maryland SBHC Program and the work of the Consortium for Coordinated Community Supports. Additionally, MDH should work with SBHCs to identify professional development opportunities for SBHC providers. We recognize that health care workforce issues are a long-term challenge in the state and thus are not suggesting specific phases for these recommendations.



## ***Increase SBHC Enrollment and Utilization through Education and Marketing, Enrollment Process Streamlining, and Performance Metric Goals***

SBHCs reporting enrollment as a barrier to operations increased in each year of the annual survey, from 47% in 2018-2019 to 59% in 2020-2021 (Table 2). Communicating about SBHCs with students, parents/caregivers, and school staff is essential to increasing enrollment and ensuring that children receive the services they need to stay healthy. Building relationships with school staff and families is a continuous process that must mirror other school efforts to disseminate information and to encourage participation.

Communication tactics and messaging should be tailored for each stakeholder type and should cover the value of SBHCs, the services offered, how to enroll in the SBHC, how SBHCs are convenient for families and save time, and how getting care translates into improved health, well-being, and educational outcomes. It is also critical to continue to communicate with SBHC enrollees and their families to remind them of the available services and to encourage their utilization. In the 2018-2019 school year (prior to the pandemic), only 44% of SBHC-enrolled students accessed SBHC services. This rate expectedly decreased during the pandemic.

### ***Develop and Execute SBHC Education and Marketing Plan Phase 1***

There are a number of ways that SBHC education and marketing can be improved. MDH, potentially with assistance from a vendor, should develop an education and marketing plan and associated materials for SBHCs to tailor and execute/disseminate, including:

1. Expanding relationships with, and education of, school staff at all levels, including administration, teachers, specialists, custodians, and coaches, and explain how they can refer children to the SBHC. School staff are critical and trusted partners that serve as an important referral source to SBHCs.
2. Educating students, parents, and caregivers.
3. Developing fact sheets on SBHC services including confidential services, PowerPoint slides, and talking points for communicating with parents.
4. Integrating information about SBHCs into all aspects of school activities, including but not limited to principal and teacher emails, back-to-school events, peek-at-your seat before school starting, PTO meetings, school board meetings, health fairs, sporting events, and parent-teacher conferences.
5. Posting on the school's social media page and the PTO's page.
6. Creating competition among classes to incentivize SBHC enrollment (potentially working with the school's PTO).
7. Creating post-SBHC enrollment communications to remind children and families of the offered services and how to access them.
8. Expanding relationships with local hospitals and providers.

*"On back-to-school night when we have hundreds of people sitting in the audience, we share that the SBHC can serve as an urgent care facility that allows you immediate access to medical services that you would have to drive across the county to get. If your kid is sick, you can immediately be seen...." - Principal*

### ***Incorporate Outreach and Enrollment into Program Monitoring Phases 1-2***

9. We recommend that, as part of the annual SBHC survey, MDH require a summary of outreach activities conducted to increase enrollment, as is done in Michigan.
10. MDH and SBHCs should collaboratively set an annual target percentage for increasing enrollment. Increased enrollment is one performance metric Louisiana uses to inform funding. However, it is important to recognize that staffing shortages can impact an SBHC's ability to increase enrollment.
11. SBHCs should seek ways to streamline the enrollment process. It would be ideal to create an online SBHC enrollment form that does not have to be physically returned.
12. We recommend that MDH's SBHC's standards include a requirement that children only have to enroll in the SBHC once, and then remain enrolled for the future years while they attend the same school, unless they opt out. This means that a 9th grader who enrolls would remain enrolled through 12th grade if they stay at the same school, or potentially if they switch to another school that has the same SBHC provider.
13. MDH should further explore the permissibility of using an opt-out form for initial enrollment in the SBHC. Aurrera Health can provide an analysis that was conducted regarding related federal and Maryland requirements. During interviews, stakeholders mentioned that a challenge to one-time enrollment is keeping health insurance and consent information up to date. For those SBHCs connected to CRISP, CRISP uses an opt-out consent model.

### ***Continue to Expand SBHC Services Offerings, Including Physical, Behavioral, and Oral Health, Telehealth Services, and Vaccines***

According to the annual surveys, the majority of SBHC enrollees did not receive any services in any of the three years for which survey data were analyzed, though low enrollment and utilization in 2020-2021 were due to COVID-19 closures and disruptions. There is an opportunity to increase utilization of services just by focusing on the children who are already enrolled in SBHCs.

Providing services via telehealth serves as an important tool to improve access to care. For SBHCs that have multiple sites with a significant travel distance between locations, are understaffed or open limited hours, share staff among different sites, or have low enrollment, using telehealth can maximize patient and provider contact. This can work, for example, in a hub-and-spoke model where one school serves as the primary home for services and has telehealth capabilities to connect with other schools in the county.

MASBHC has studied telehealth issues to identify ways to help strengthen SBHC's role as a public health resource. These included recommendations released during the state's initial COVID-19 response, in July 2020 ([July 2020 recommendations](#)). In CASBHC's most recent report, telehealth is listed as priority and recommendations focused on promoting telehealth broadly ([CASHBC annual report 2021](#)). MHCC also has a forthcoming report that will recommend a statewide telehealth strategy.

### ***Service Expansion: Telehealth Phases 1-2***

We recommend that MDH:

1. Review the forthcoming MHCC report alongside the previous CASBHC report and develop a telehealth strategy for the Maryland SBHC Program. This may require updating the statewide standards to reflect the use of telehealth, which could include standards around consent and the use of memoranda of understanding (MOUs) to support telehealth.
2. Promote access to the use of technology, which would include integrating telehealth as a regular option for care and therapy at SBHCs.
3. Use telehealth with additional partners, take innovative approaches, and link the technology with the academic setting. This may include linking multiple different types of providers or integrating school-based health with school health.

### ***Service Expansion: VFC Phases 1-2***

SBHCs are an optimal location to increase access to vaccines. As noted earlier in the report, 52% of SBHCs report participating in the federal VFC program, and participation in VFC is a requirement for SBHCs to bill for Medicaid EPSDT services. Since the CDC covers the vaccine costs in the VFC program, ensuring that all SBHCs participate in the program will maximize federal dollars and increase access to vaccines. Participating in the program will also open the door for these SBHCs to bill for other Medicaid EPSDT services, further maximizing federal funds. We recommend that MDH:

4. Continue to provide one-time infrastructure funding to support the purchasing of equipment needed for meeting CDC storage and handling and other VFC requirements.

### ***Explore Increasing Revenue for SBHCs Including Through the Consortium for Coordinated Community Supports, MCHRC, Hospital Community Benefit, and Community Funding***

There are several opportunities for exploring increasing revenue for SBHCs.

#### ***Revenue Opportunities Phase 1***

1. **Coordinate Funding with Consortium for Coordinated Community Supports:** The [Maryland Consortium for Coordinated Community Supports](#) (Consortium) was

established by the Blueprint for Maryland's Future, Chapter 35 of the 2021 (Kirwin education reform bill) to "help meet student behavioral health needs and other related challenges in a holistic, non-stigmatized manner." This initiative dedicates an unprecedented amount of state funding to improve systems of care for children and youth, and SBHCs (and school health services more broadly) are a critical element of this system. The Consortium recently issued a request for public comment as it designs its grant program. We strongly recommend that MDH and the Consortium meet immediately and regularly to collaborate on what will be funded by each entity to ensure they are complementary.

2. **Coordinate with the MCHRC Funding:** We recommend that MDH collaborate with MCHRC to determine whether there are one-time SBHC infrastructure grant funding opportunities that align with MDH's priorities that could be included in the MCHRC's grant funding cycle. SBHC start-up/establishment funding should remain within MDH.
3. **Support Community Connections for Funding:** We recommend that the MDH work with its individual departments and with counties and philanthropy to identify potential opportunities for SBHC funding.

### ***Revenue Opportunities Phase 2***

4. **Explore Hospital Community Benefit as Potential Revenue Source and Leverage Hospital Community Health Needs Assessments:** The Internal Revenue Service (IRS) has a longstanding requirement for tax-exempt hospitals to provide community benefits to justify their tax exemption. The Affordable Care Act (ACA) created additional requirements for hospitals to conduct community health needs assessments (CHNAs) and implementation strategies every three years. Hospitals have typically relied on charity care to meet this requirement, but with the ACA coverage expansions and recent legislation, there is an expectation that Maryland hospitals more closely tie their community benefit expenditures to community need. The Maryland Health Services Cost Review Commission (HSCRC) has a legislative mandate to collect annual community benefit data from Maryland's 50 non-profit hospitals. The Maryland General Assembly updated §19-303 of the Health General Article in the 2020 Legislative Session (HB1169/SB774), requiring the HSCRC to update the community benefit reporting guidelines to identify hospital community benefit expenditures and activities to needs directly identified in the CHNA.<sup>23</sup> In FY 2020, Maryland hospitals spent \$1.9 billion on community benefit activities, and 33 hospitals reported including schools in their CHNA process. This provides a tremendous opportunity to encourage collaborations between hospitals and SBHCs. We recommend that: MDH meet with the HSCRC and the Maryland Hospital Association to: (1) identify ways to leverage the hospital CHNAs and include SBHCs in the CHNA process; and (2) explore ways to leverage community benefit expenditures and SBHCs to address community health needs. We also recommend that MDH SBHC Program staff participate in the HSCRC's community benefit workgroup meetings.

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<sup>23</sup> 2020 MD Laws Ch. 436; 437.

## ***Improve Coverage and Reimbursement for Medicaid and Commercial Health Coverage***

Three SBHCs sponsoring agencies report that they do not bill Medicaid, and seven do not bill commercial insurance. Of those that do bill, most do not bill for 100% of Medicaid or commercial health plan-reimbursable services and report a number of barriers to billing, particularly for confidential services. There is a major opportunity to increase revenue from Medicaid (which will maximize federal matching dollars) and commercial health coverage reimbursement. Following are some specific strategies we recommend employing:

### ***Improve Billing Infrastructure Phase 1***

1. **Improve SBHC Process for Collecting Health Coverage Information:** We recommend creating a standardized process and form for collecting child health insurance information. In order to facilitate identifying Medicaid enrollees, the form should collect the data fields necessary for the Medicaid Eligibility Verification System. Since we are also recommending that all SBHC connect with CRISP, the form should also collect the data fields necessary to match with CRISP. As previously noted, families should be able to access and submit the SBHC enrollment form online. Once a child is enrolled in the SBHC, emails should be sent to remind families of the services offered and to ask that they submit any updated health insurance information.
2. **Identify SBHC Billing Infrastructure and Process Challenges and Increase SBHC Capacity to Bill:** MDH has begun efforts to work with the SBHCs to identify specific billing challenges. We recommend that MDH continue to provide technical assistance while this is underway. Ensuring that SBHCs bill for Medicaid-reimbursable services is important not only for maximizing federal revenue, but also for program and performance evaluation. Without a claim/encounter submission, the SBHC service is not observable to the MCO or Medicaid program, and the service will not count toward Healthcare Effectiveness Data and Information Set (HEDIS) and other quality measures.

### ***Establish Formal Connections with Health Plans to Share Information and Improve Utilization and Outcomes Phase 1***

3. **Explore SBHC/Medicaid MCO Opportunities.** We recommend that MDH convene a meeting with the Medicaid MCOs in the near term (or use an already existing meeting) to continue to build on the enthusiasm from the conversations held as part of this needs assessment and to continue to explore opportunities for collaboration with SBHCs, including related to HEDIS and other quality measures.
4. **Improve Data Sharing.** Data sharing between the MCOs and SBHCs is critical to streamlining the MCO-SBHC relationship and for partnership in population health management. As noted above, we recommend that the MDH Bureau and MDH Medicaid provide technical assistance to the SBHCs and MCOs to establish CRISP connectivity, which will allow for this data sharing. Once CRISP connectivity is in place (likely in Phase 2), we recommend that MDH issue guidance to facilitate connections

between the MCOs and SBHCs. SBHCs should provide enrollment rosters to the MCOs, and the MCO should provide data back to the SBHC on children who are enrolled in SBHCs for the purpose of ensuring they receive needed services (such as vaccines, annual physicals, and well-child services). MCOs should also be required to proactively reach out to their members whose children live in a zip code where there may be an SBHC to inform them of this opportunity.

SBHCs currently bill commercial health insurance plans less frequently/consistently than Medicaid. We also recommend that MDH:

5. **Explore Commercial Health Plan Opportunities.** Meet with commercial health plans to better understand the extent to which billing and data sharing are occurring for SBHC services and identify opportunities for improvement.
6. **Analyze Commercial Health Plan Data.** Pursue using all-payer claims database (APCD) data maintained by MHCC to analyze SBHC utilization among commercial health plans and work with MHCC on ways to ensure that SBHCs may be identified in the data.
7. **Explore Network Adequacy Requirements.** Meet with the Maryland Insurance Administration and Maryland Health Benefit Exchange to determine how and whether SBHCs may fit into commercial health plan network adequacy requirements.

#### ***Permit Medicaid Coverage and Reimbursement for Sports Physicals Phase 2***

8. SBHCs are not currently allowed to bill Medicaid for pre-participation physical evaluations. If allowed, MDH should consider eliminating this exclusion, which would help SBHCs continue to provide this critical function for schools and students, for whom sports participation supports emotional and physical wellness.

#### ***Move Toward Medicaid Value-Based Payment for Care Provided Phase 3***

9. Over the long-term, once SBHCs are maximizing Medicaid reimbursement, we recommend that MDH explore with the SBHCs and MCOs concept development of a value-based payment, under which SBHCs may be compensated for meeting certain metrics related to the performance of certain services or achievement of specified outcomes. Before value-based payment would be feasible, the state and SBHCs need to improve SBHC billing and data collection efforts.

#### ***Improve Data Collection and Analysis and Use Data to Drive Program Decisions and Technical Assistance***

As noted throughout this report, data collection and data quality continue to be a challenge for the SBHC Program. SBHCs struggle with meeting data reporting requirements, but at the same time, MDH needs actionable data to make program decisions and allocate funding.

### ***Improve Annual Survey Phase 1***

We recommend the following improvements to the annual survey:

1. MDH should implement an electronic data collection platform to streamline data collection and analysis.
2. MDH should implement logic checks within the survey to help ensure accurate reporting. For example, when summarizing SBHC visits by type of service, that amount exceeded the total number of visits the SBHCs reported in another field. There were also high missing rates for several questions and for certain SBHCs. MDH should determine which fields are optional versus which are required and build this into the electronic reporting system.
3. Historically, the SBHCs have not received feedback on their annual survey submissions and may be unaware of some of the data quality issues. MDH should provide feedback to the SBHCs on their data reporting, including notifying them of logic errors, missing data, and other issues, and work with the SBHCs to rectify them.
4. MDH should update the survey questions and corresponding instructions. We realize that this will require input from the SBHCs and other stakeholders and may take longer than Phase 1 to complete a full revamp of the survey. This work could include:
  - a. Convening a technical group to understand how to better use EHRs to populate the survey, particularly around enrollment and visit counts. Where EHRs are unavailable, provide more detailed specifications for the utilization measures.
  - b. Streamlining questions and minimizing duplication with the data collected on the annual application.
  - c. Adding questions to collect information about SBHC outreach efforts, more information about telehealth, and more specific information about billing/barriers (including questions from the recent billing survey).
5. MDH should generate reports for the SBHCs, summarizing their data in comparison with other schools. These reports should continually be provided going forward.

### ***Improve Annual Survey Phase 2***

6. MDH should create a publicly available SBHC annual report, analyzing the newly collected data, as well as fact sheets that may be shared with stakeholders and the schools.
7. MDH should use the newly collected data to inform program decisions and technical assistance to the SBHC

### ***Medicaid Data Collection Phase 1***

Currently, SBHCs are identified in the Medicaid claims data using a place of service code of 03 (school) and the provider number. That place of service code, however, is also used for billing school health services. It is also unclear whether all SBHCs have their own unique provider number, or if some share under the umbrella NPI for the sponsoring organization. In order to better capture SBHC billing in the Medicaid claims:

8. We recommend that MDH-Medicaid develop a pathway to better identify individual SBHCs in the claims data, such as through alterations to the provider enrollment process for easier identification.

### ***Medicaid Data Collection Phase 2***

9. Once the modifier is implemented, we recommend analyzing SBHC utilization data, including identifying how/whether SBHCs are contributing to performance measures, such as well-child visits.

### ***Other Data Collection Phases 2-3***

10. SBHCs have major challenges in reporting cost data to MDH, and these data will be necessary for developing a long-term funding formula. MDH staff have reported spending considerable time providing technical assistance to the SBHCs in order to obtain basic budget information on their annual application for grant funding. MDH's Office of Finance is currently engaged in efforts to obtain better cost reporting from developmental disability and behavioral health providers in order to develop cost-based payment rates. These efforts entail using vendors to help create cost reporting/general ledger templates, piloting these templates, and providing technical assistance to the providers. We recommend that MDH Bureau consult with the Office of Finance on these processes currently underway and identify lessons that may be adapted to SBHC providers.
11. MDH should consider implementing an SBHC client survey to directly capture student experiences and identify opportunities to improve the Program.

### ***Establish Shared Learning and Technical Assistance Program***

MDH should create a shared learning and technical assistance program that could start small and be expanded over time. MDH should identify which stakeholders are best suited to provide shared learning and technical assistance on specific topics, including Medicaid, MSDE, CASBHC, MASBHC, SBHCs, SBHC providers, commercial health plans, MCOs, or expert vendors. To ensure the technical assistance program meets SBHC needs, it can be helpful to send out a survey asking about SBHC priority technical assistance needs.

### ***Shared Learning and Technical Assistance Phase 1***

Based on this needs assessment, high priority technical assistance needs relate to the following topics:

1. Medicaid and commercial health insurance billing series. This should begin immediately, even while MDH is beginning a contract to identify the needs of individual SBHCs.
  - a. Topics should range in recognition that SBHCs have different billing knowledge and infrastructure and include: the business case for submitting claims, how to assess the potential health coverage revenue, checking the Eligibility Verification



System to identify Medicaid enrollment, billing for health departments, addressing specific questions and challenges, applying updated policies around medical decision-making, coding, and care coordination activities.

2. Data collection involved in the updated SBHC annual survey to be released in the spring of 2023.
3. State-level overviews of policy and legal considerations, such as around SBHC enrollment and services consent and privacy.
4. Shared learning among stakeholders, including SBHC providers and how school health and SBHCs can collaborate.
5. Basic education and tools on the planning steps to starting a new SBHC. This could include connecting with local hospitals or others connecting local needs assessment, how to build a coalition, how to integrate SBHCs in a community health system, and how to set up referral relationships.

### ***Shared Learning and Technical Assistance Phase 2***

6. Once data collection is improved, a series on quality improvement, population health management, and designing models to be able to use health data.

### ***Explore Priority Schools and Jurisdictions for Creating or Expanding SBHCs***

As noted above, we recommend that the initial priority should be on maintaining current SBHCs, improving data collection, and analyzing data. As MDH is considering how to leverage SBHC Program funds to improve health equity, the analyses of publicly available data on academic and health outcomes in this report focus on identifying schools with the greatest disparity from top performers across the state on measures that SBHCs have been reported to improve in the literature and from the qualitative data gathered in this evaluation. Depending on the magnitude of funding available, there are three potential pathways MDH may consider in determining specific schools and districts in the state with the potential for greatest benefit from the creation or expansion of SBHCs. These pathways are not intended to be mutually exclusive and could be used in combination.

#### ***Approach 1***

MDH may decide to prioritize schools and districts in the bottom statewide quintile for the highest number of academic, health, sociodemographic, and risk behavior outcomes/measures assessed in this report. Hilltop identified 57 schools in the bottom statewide quintile of at least 10 measures applicable to the elementary grade level (out of a maximum of 14 measures), or at least 15 measures applicable to the middle school level (out of a maximum of 19 measures), or at least 11 measures applicable to the high school level (out of a maximum of 18 measures). These schools are concentrated in Baltimore City and Prince George's County, which are among the counties in the state with the highest prevalence of asthma among students, the highest estimated teenage pregnancy rate, and the lowest proportion of students reporting a recent dental visit. Ten of these 57 schools are currently served by an SBHC. Table 16 below summarizes characteristics of the student population of these select schools relative to schools

across the state. On average, the 57 schools have about two times the statewide average proportion of economically disadvantaged students, about two times the dropout rate, and more than double the proportion of chronically absent students as all schools in the state.

**Table 16. Characteristics of Students Enrolled in Schools Identified with Highest Number of Disparity Indicators Statewide or in Home County**

	All Schools in MSDE Directory (N = 1,397)	Schools with Highest Number of Indicators Statewide*		Schools with Highest Number of Indicators Statewide or in Home County	
		All Schools (n = 57)	Schools without an SBHC (n = 47)	All Schools (n = 150)	Schools Without an SBHC (n = 118)
School types*	E (798), EM (107), EMH (22), H (223), M (219), MH (28)	E (15), EM (18), EMH (1), H (19), M (1), MH (3)	E (15), EM (17), H (13), MH (2)	E (43), EM (20), EMH (4), H (48), M (28), MH (7)	E (37), EM (18), EMH (3), H (26), M (21), MH (3)
School districts	All	Baltimore City (40), Baltimore County (1), Prince George's (15), Washington (1)	Baltimore City (31), Prince George's (15), Washington (1)	All	All except Caroline and Talbot
Average student enrollment (2021)	641.7	586.0	572.8	651.2	639.8
Average racial-ethnic minority proportion of student body (2021)	59.2%	92.1%	91.4%	58.0%	56.8%
Average proportion of students eligible for FARMS (2021)	46.4%	70.5%	70.7%	57.7%	56.5%
Average proportion of economically disadvantaged students (2021)	33.5%	65.5%	64.7%	47.2%	46.0%
Average Star rating points earned, out of 100 (2019)	60.2	36.1	37.0	47.5	47.8
Average percentile rank for elementary level (2019)	49.5	5.0	5.3	17.9	16.5
Average percentile rank for middle school level (2019)	49.5	13.0	15.1	30.4	29.8

	All Schools in MSDE Directory (N = 1,397)	Schools with Highest Number of Indicators Statewide*		Schools with Highest Number of Indicators Statewide or in Home County	
		All Schools (n = 57)	Schools without an SBHC (n = 47)	All Schools (n = 150)	Schools Without an SBHC (n = 118)
Average percentile rank for high school level (2019)	49.5	9.1	8.8	32.7	35.0
Average proportion of 5th graders scoring proficient on MCAP math assessment (2021)~	21.5%	5.6%	5.7%	11.1%	11.0%
Average proportion of 5th graders scoring proficient on MISA science assessment (2021)~	38.6%	12.1%	12.0%	23.0%	21.2%
Average proportion of 8th graders scoring proficient on MCAP math assessment (2021)~	6.4%	5.1%	5.1%	5.6%	5.7%
Average proportion of 8th graders scoring proficient on MISA science assessment (2021)~	30.8%	7.3%	7.1%	21.7%	21.3%
Average annual dropout rate (2021)^	4.9%	10.3%	11.7%	7.1%	7.3%
Average chronic absenteeism percentage (2021)~	24.2%	62.0%	57.9%	41.8%	40.8%
Average state and local expenditures per pupil (2020)	\$15,621	\$15,098	\$14,505	\$16,171	\$16,124

Averages were computed for schools with non-missing school type and non-missing values for the measures.

\*School types are E (elementary only), M (middle school only), H (high school only), EM (elementary and middle), EMH (elementary, middle, and high), and MH (middle and high).

~Values at the extremes of the distribution were bottom-coded at 5% and top-coded at 95%.

^The lowest values were bottom-coded at 3%.

FARMS – free/reduced price meals. MCAP – Maryland Comprehensive Assessment Program. MISA – Maryland Integrated Science Assessment.

## Approach 2

MDH may also wish to consider prioritizing funding allocations to establish SBHCs in counties without such facilities, focusing on the school(s) within each county that rank(s) in the bottom statewide quintile for the greatest number of academic, health, sociodemographic, and risk behavior outcomes/measures assessed. Hilltop identified 30 schools that had the highest number of disparity indicators in counties that currently do not have an SBHC. These schools are located in Allegany (5), Anne Arundel (3), Calvert (4), Carroll (4), Cecil (3), Charles (7), and

Garrett (4) Counties. Allegany and Charles Counties, particularly, rank in the bottom half of the state for reported prevalence of lack of access to dental care, depressive symptoms, and asthma among high school students. The two counties are also in the bottom half for the proportion of school-aged kids without health insurance coverage.

### ***Approach 3***

Finally, MDH might want to consider focusing SBHC funding allocations to meet immediate gaps in health care access or to address high prevalence of disease conditions in specific counties that rank close to the bottom levels statewide. The health access and prevalence measures assessed in this report at the county level were proportion of school-aged children without health insurance coverage, proportion of high school and middle school students without a recent dental visit, prevalence of asthma among high school and middle school students, and prevalence of depressive symptoms among high school and middle school students. Prince George's County ranks in the bottom statewide quartile among counties for all of the seven measures above. Baltimore City (5), Somerset (6), and Charles (4) Counties also had several measures ranking in the bottom statewide quartile. Conversely, Queen Anne's, Frederick, Carroll and Howard Counties ranked in the top statewide quartile for all but one or two measures respectively.

### ***Integrate SBHCs into Other Statewide Population Initiatives***

Now that the Maryland SBHC Program resides within MDH, there is a great opportunity to better incorporate SBHCs into state/MDH population health initiatives and priorities. For example, there were efforts earlier this year between the MCOs and SBHCs to improve COVID-19 vaccination rates. Under Maryland's Total Cost of Care Model, the state has issued a Statewide Integrated Health Improvement Strategy (SIHIS), which includes population health targets around hospital quality, care transformation, diabetes, opioid use disorder, and maternal and child health.

1. We recommend that MDH continue to seek opportunities to better integrate the SBHC Program into statewide population health initiatives.

## **VI. Conclusion**

The recent increase in funding and the transition of the administration of the Maryland SBHC Program to MDH provides a tremendous opportunity to strengthen school-based health care across the state, support the physical and behavioral health of our children and youth, and for SBHCs to play an even larger role in reducing health disparities and promoting health equity. The SBHC program is fortunate to have so many stakeholders who are eager to collaborate with MDH to improve the program. The success of the program will require that all stakeholders work together to maximize the positive impact of SBHCs on children's health and well-being so they can thrive in the classroom and in life.

## Appendix A. SBHC Needs Assessment Steering Committee

Steering Committee members were recruited over the summer of 2022 and selected to ensure diversity.

Name	Role/Organization
Mary Gable	Maryland State Department of Education (MSDE)
Dr. Howard Haft	Maryland Department of Health (MDH), Division of Public Health
Dr. Kate Connor	Council on the Advancement of School-Based Health Centers (CASBHC)
Alicia Nelson	SBHC Administrator – St. Mary’s County Health Department
Judi Lockett	SBHC Administrator – Baltimore Medical Systems
Amy Edwards	SBHC Administrator – Washington County/Meritus Healthcare
Angela Macklin	SBHC Administrator – Prince George’s County Health Department
Dr. Nilesh Kalyanaraman	Anne Arundel County Health Officer
Kristie Gauck, CRNP	SBHC Medical Provider, Dorchester County
Dr. Casey Scott	SBHC Medical Provider, Dorchester County
Dr. Carmen Bailey	SBHC Medical Provider, Frederick County
Elena Ries	Mental Health Provider, Montgomery County
Jasmin Sias	Mental Health Provider, Montgomery County
Krystal Algier, CRNP	SBHC Medical Provider – Caroline County
Dr. Patricia Saelens	Superintendent, Queen Anne’s County Schools
Laura Wiseley	Pediatric Nurse, Caregiver

The Steering Committee met three times. In addition to offering verbal feedback during the meetings, members were invited to submit written comments throughout the project period. We received a total of 6 written comments.

## Appendix B. Analysis of Existing SBHC Data

MDH provided Hilltop with annual survey results for school years 2018-2019, 2019-2020, and 2020-2021 in the form of three Excel files (.xlsx), one for each year. Each file had a wide format, so each row represented a single SBHC, and each column was a response to a survey question. For survey questions that were split into multiple parts, separate columns often represented each part. This resulted in a final survey results file that was 555 columns wide in 2019-2020 and 2020-2021, and 856 columns wide in 2018-2019. The information was generally the same for each year, but the additional columns in 2018-2019 were due to a change in how responses were recorded for some questions. For example, the count of providers on staff was a continuous variable recorded in a single column for 2019-2020 and 2020-2021, but each possible response (e.g., zero physicians, one physician, etc.) was put into a separate column for 2018-2019. These columns took a value of “Selected” or were left blank (i.e., missing) depending on how each SBHC responded.

Since variable names were usually the same as the survey question (e.g., “Is the SBHC able to provide condoms for sexually transmitted infection (STI) prevention?”), they were renamed prior to analysis as sequential var1, var2, var3, ... varN and a key was made. To reduce the number of variables to a more manageable size, survey variables were first placed into one of seven categories:

- Staffing
- Special Services
- Billing
- Barriers
- Students Served
- Students Enrolled
- Visits by Condition/Visit Type

These categories were created based on internal discussions between Hilltop, Aurrera Health, and MDH, as well conversations with the Steering Committee. Within each category, variables were excluded if more than 50% of responses were missing. For single questions with multiple columns of responses in the 2018-2019 file, this missing rate was applied to all the columns combined for the question. Using the provider variable example above, all SBHCs that reported having one physician would have a value of “Selected” for that column while all SBHCs that reported any other number of physicians would have a missing value. This means the percentage of missing values was often high for each column, but when all related columns were combined it was much lower. Exceptions were made for questions that did not apply to an SBHC, such as questions about behavioral health services at SBHCs that reported not offering such services, or if the number of missing responses was considered an informative data point, though this latter condition was rarely the case.

After renaming the variables and reducing the size of the data set, SAS, version 9.4, was used to find the counts, percentages, and other descriptive statistics presented in the tables and charts of this report. All tables were ultimately made in Microsoft Excel.

## **Appendix C. Methodology for Identifying Maryland Communities that Could Benefit from an SBHC**

### ***Literature Review***

The following research questions guided the literature review:

1. Which health outcomes have SBHCs been most effective at improving and in which health practices/services have SBHCs been most effective in improving access?
2. What are the characteristics of the settings where SBHCs have been most effective on these outcomes or practices/services?

Hilltop searched for peer-reviewed articles through the UMBC library database. The search was generally restricted to articles published in the last 10 years, with a couple of older exceptions where the content seemed especially applicable. The search terms “School based health centers AND effectiveness OR efficacy OR success OR outcome” were used. Using article titles and abstracts, the search was narrowed by relevance before deciding on 18 articles that were determined to be sufficient for a preliminary survey of the literature. Analyzing the content of these articles revealed a number of health issues and outcomes for which the evidence suggests that SBHCs are effective. However, many of these studies were narrative reviews, and there was a large amount of heterogeneity in the SBHC characteristics in the studies. Because of these limitations, the team decided to focus on a systematic review of the SBHC evidence by HHS’ Community Preventive Services Task Force focused on health equity (Knopf et al).

The 18 articles reviewed are listed below:

Adams, E. K., Strahan, A. E., Joski, P. J., Hawley, J. N., Johnson, V. C., & Hogue, C. J. (2020). Effect of Elementary School-Based Health Centers in Georgia on the Use of Preventive Services. *American Journal of Preventive Medicine*, 59(4), 504–512.

<https://doi.org/10.1016/j.amepre.2020.04.026>

Arenson, M., Hudson, P. J., Lee, N., & Lai, B. (2019). The Evidence on School-Based Health Centers: A Review. *Global Pediatric Health*, 6, 2333794X19828745.

<https://doi.org/10.1177/2333794X19828745>

Bersamin, M., Paschall, M. J., & Fisher, D. A. (2017). School-Based Health Centers and Adolescent Substance Use: Moderating Effects of Race/Ethnicity and Socioeconomic Status. *Journal of School Health*, 87(11), 850–857.

<https://doi-org.proxy-bc.researchport.umd.edu/10.1111/josh.12559>

Brindis, C. D. (2016). The “State of the State” of School-Based Health Centers: Achieving Health and Educational Outcomes. *American Journal of Preventive Medicine*, 51(1), 139–140.

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## **Data Sources and Processing**

### **Data Sources**

#### **MSDE Public Schools Report Card**

Hilltop obtained school-level data from the publicly accessible archives of the Maryland Public Schools Report Card maintained by the Maryland State Department of Education. The measures included per capita state and local expenditures, student body enrollment, demographic characteristics, academic achievement metrics, attendance and absenteeism rates, graduation and dropout rates, college enrollment rates, and students’ responses to the Maryland School Survey on the school environment and resources. Data on outcomes of interest were computed for the aggregate population and/or for applicable grade levels. In some cases, results were stratified by students’ sociodemographic characteristics such as race/ethnicity, eligibility for certain services, or by categories like diagnosis with a disability or economically disadvantaged status. Each variable of interest was extracted for the latest available school year from data sets provided for the 2018-2019, 2019-2020, or 2020-2021 school years.

#### **American Community Survey**

Because population health metrics and outcomes were not readily available in the MSDE school-level data, Hilltop supplemented the school-level educational metrics with county-level data on prevalence of social determinants of health, and measures of access to health from the US Census Bureau’s American Community Survey (ACS). Using responses from the 2016-2020 5-year sample, Hilltop obtained, for each county in Maryland, the following proportions:

1. Proportion of individuals under 18 years of age residing in a household with income below the federal poverty level
2. Proportion of individuals up to 18 years of age who report not having health insurance coverage

3. Female individuals 15-19 years of age with a birth within the previous twelve months, per 1,000 persons

### ***Maryland Youth Risk Behavior Survey / Youth Tobacco Survey***

Every even year during the fall semester, the Centers for Disease Control and Prevention conducts its Youth Risk Behavior Survey (YRBS) and Youth Tobacco Survey (YTS) administered to students in Maryland public middle and high schools. The questions focus on behaviors associated with the leading causes of death and disability, including alcohol and other drug use, tobacco use, sexual behaviors, unintentional injuries and violence, poor physical activity, and dietary behaviors. The Maryland Department of Health (MDH) provides summary tables at the county level separately for middle- and high-school student responses with statistics in aggregate and also by student sex, grade, and age group. The latest available summary tables published by MDH are for the 2018-2019 school year. For each Maryland county, Hilltop obtained the proportion of middle school and the proportion of high school students reporting:

1. Feeling sad or hopeless almost every day for two weeks or more in a row that stopped them from doing some usual activities (Question 25 in the high school survey, Question 54 in the middle school survey)
2. Smoking a cigarette(s) during the previous 30 days (Question 32 in the high school survey, Question 19 in the middle school survey)
3. Having at least one drink of alcohol during the previous 30 days (Question 41 in the high school survey, Question 69 in the middle school survey)
4. Not seeing a dentist for a check-up exam, teeth cleaning, or other dental work in the previous 12 months (Question 86 in the high school survey, Question 72 in the middle school survey)
5. Previous diagnosis with asthma by a doctor or nurse (Question 87 in the high school survey, Question 47 in the middle school survey)

### ***Health Resources and Services Administration HPSA & MUA Designations***

The Health Resources and Services Administration (HRSA) of the US Department of Health and Human Services provides data on geographic areas, populations or facilities identified as having shortages of health providers and health services. The HRSA Bureau of Health Workforce evaluates whether the label of health professional shortage area (HPSA) applies to a geographic area based on shortage designation criteria that take into account the relative supply and demand for health professional providers of primary medical care, dental care, and mental health care. Medically underserved areas (MUAs) are defined by HRSA to be geographic locations with a lack of access to primary care services. Using boundary coordinates for HPSAs and MUAs provided by HRSA, Hilltop identified schools in the MSDE directory with the address location situated within an HPSA or MUA.

## **Data Processing**

Starting with schools listed in the MSDE directory for 2021, Hilltop linked data across the several files in the MSDE Report Card to create an analytic data set at the school level that included measures under the domains of average academic performance, grade promotion or academic progress, high school non-completion, school climate, absenteeism, and structural resources. This list includes the educational outcomes identified from the comprehensive review of the literature on educational outcomes that SBHCs have demonstrated potential to improve, as well as additional variables relevant to quality of the school environment and student success, and an indicator for location of the school in an HPSA or MUA. Hilltop also created a county-level data set that combined the metrics obtained from the ACS and YRBS.

## ***Development of Measures***

Hilltop conducted analyses to highlight schools and counties with the lowest levels of academic and health outcomes associated with SBHC effectiveness. The intent is to identify sites that could benefit from the creation or expansion of SBHCs based on the potential for this intervention to raise performance levels for the outcomes, to reduce disparities within the school population for the outcome, or to close disparities between the school or county relative to the highest performers in the state.

For the measures included in the school-level analytic data set, Hilltop operationalized three dimensions of disparity in performance for each school:

1. Comparison with similar schools: Hilltop assessed the difference in performance between the school's result for the measure and the average result among a group of schools defined by MSDE on the basis of having similar student profiles of grade span enrollment, race-ethnicity composition, economic disadvantage, proportion of English learners, and students with disabilities.
2. Comparison by economically disadvantaged status: For measures that reported results separately for students categorized in economically disadvantaged status versus all other students, Hilltop calculated the intra-school difference in performance between both groups.
3. Comparison to highest performers statewide: Hilltop computed the school's rank for the measure among all schools across the state reporting results.

Hilltop created an indicator for whether the school's magnitude of each defined disparity or the school's rank was in the bottom quintile (bottom 20%) of the statewide distribution, or if the school was located in a county in the bottom quartile (bottom 25%) for measures available only at the county level. Finally, Hilltop identified schools with the highest counts of these indicators at the statewide level and within each county. The specific indicators Hilltop defined are presented in the table below.

### Indicators Defined for School-Level Measures and Applicability to Grade Levels

An indicator was created for each school in the bottom statewide quintile for:	E	M	H
Percentile rank of Star Rating earned points for grade level	X	X	X
Disparity from similar schools in academic achievement points	X	X	X
Disparity from similar schools in academic progress points	X	X	
Graduation rate <b>OR</b> college enrollment rate <b>OR</b> disparity from similar schools in graduation rate			X
Disparity by socioeconomic status in percent proficient on 5 <sup>th</sup> grade MCAP math <b>OR</b> MISA science assessment	X		
Disparity by socioeconomic status in percent proficient on 8 <sup>th</sup> grade MCAP math <b>OR</b> MISA science assessment		X	
State & local expenditures per pupil	X	X	X
Percentage of students meeting proficiency standards on the state English <b>OR</b> math assessment	X	X	X
Science academic progress score (percentage of students scoring proficient on the MISA)	X	X	
Percentage of students absent fewer than 5 days among students registered for at least 90 days	X	X	X
Percentage of students chronically absent (10% or more of school days) while enrolled	X	X	X
Students' rating of school's physical environment & behavioral supports	X	X	X
Students' rating of school's physical & emotional safety & substance abuse	X	X	X
An indicator was created for each school located in a county in the bottom statewide quartile for:	E	M	H
Proportion of children under 18 years of age in households with income below the federal poverty level	X	X	X
Proportion of children up to 18 years of age without health insurance coverage	X	X	X
Proportion of students without a dental visit in previous year		X	X
Proportion of students diagnosed with asthma		X	X
Proportion of students reporting depressive symptoms		X	X
Proportion of students reporting recent use of cigarettes		X	X
Proportion of students reporting recent consumption of alcohol		X	X
Number of females 15-19 years of age reporting recent birth per 1,000 persons			X
An indicator was created for each school located in an HPSA or MUA	X	X	X
<b>Total applicable indicators</b>	<b>14</b>	<b>19</b>	<b>18</b>

HPSA – health professional shortage area. MCAP – Maryland Comprehensive Assessment Program. MISA – Maryland Integrated Science Assessment. MUA – medically underserved area.

Schools in the Bottom Statewide Quintile of the Highest Number of Indicators Statewide or in County of Location (N = 150)

County	School Name	School Type~	Current SBHC Status	Among Schools with Highest Number of Indicators Statewide*	Among Schools with Highest Number of Indicators in Home County
Allegany	Allegany High	H	No	No	Yes
Allegany	Fort Hill High	H	No	No	Yes
Allegany	Mountain Ridge High School	H	No	No	Yes
Allegany	South Penn Elementary	E	No	No	Yes
Allegany	Washington Middle	M	No	No	Yes
Anne Arundel	Anne Arundel Evening High	H	No	No	Yes
Anne Arundel	Phoenix Academy	EMH	No	No	Yes
Anne Arundel	Van Bokkelen Elementary	E	No	No	Yes
Baltimore City	Achievement Academy at Harbor City High	H	No	Yes	No
Baltimore City	Alexander Hamilton Elementary	E	No	Yes	No
Baltimore City	Augusta Fells Savage Institute of Visual Arts	H	Yes	Yes	No
Baltimore City	Barclay Elementary/Middle	EM	No	Yes	No
Baltimore City	Bay-Brook Elementary/Middle	EM	No	Yes	No
Baltimore City	Beechfield Elementary/Middle	EM	No	Yes	Yes
Baltimore City	Belmont Elementary	E	No	Yes	No
Baltimore City	Benjamin Franklin High School at Masonville Cove	H	No	Yes	No
Baltimore City	Bluford Drew Jemison STEM Academy West	MH	Yes	Yes	No
Baltimore City	Booker T. Washington Middle	M	Yes	Yes	No
Baltimore City	Collington Square Elementary/Middle	EM	Yes	Yes	Yes
Baltimore City	ConneXions: A Community Based Arts School	MH	No	Yes	No
Baltimore City	Curtis Bay Elementary	E	No	Yes	Yes
Baltimore City	Digital Harbor High School	H	Yes	Yes	No
Baltimore City	Dr. Bernard Harris, Sr., Elementary	E	No	Yes	No
Baltimore City	Excel Academy at Francis M. Wood High	H	No	Yes	No
Baltimore City	Franklin Square Elementary/Middle	EM	No	Yes	No
Baltimore City	Frederick Douglass High	H	No	Yes	Yes
Baltimore City	Garrett Heights Elementary/Middle	EM	No	Yes	No
Baltimore City	Highlandtown Elementary/Middle #237	EM	No	Yes	No
Baltimore City	Holabird Academy	EM	No	Yes	No
Baltimore City	James Mosher Elementary	E	No	Yes	No

County	School Name	School Type~	Current SBHC Status	Among Schools with Highest Number of Indicators Statewide*	Among Schools with Highest Number of Indicators in Home County
Baltimore City	Johnston Square Elementary	E	No	Yes	No
Baltimore City	Leith Walk Elementary/Middle	EM	No	Yes	No
Baltimore City	Lillie May Carroll Jackson School	EM	No	Yes	No
Baltimore City	Maree Garnett Farring Elementary/Middle	EM	No	Yes	No
Baltimore City	Matthew A. Henson Elementary	E	No	Yes	No
Baltimore City	Montebello Elementary/Middle	EM	No	Yes	No
Baltimore City	National Academy Foundation	MH	No	Yes	No
Baltimore City	New Era Academy	H	Yes	Yes	No
Baltimore City	North Bend Elementary/Middle	EM	No	Yes	No
Baltimore City	Patterson High	H	Yes	Yes	Yes
Baltimore City	Pimlico Elementary/Middle	EM	No	Yes	No
Baltimore City	Reginald F. Lewis High	H	No	Yes	No
Baltimore City	The Historic Cherry Hill Elementary/Middle	EM	No	Yes	No
Baltimore City	The Reach! Partnership School	H	Yes	Yes	No
Baltimore City	Thomas Jefferson Elementary/Middle	EM	No	Yes	No
Baltimore City	Wildwood Elementary/Middle	EM	No	Yes	Yes
Baltimore City	William Paca Elementary	E	No	Yes	No
Baltimore City	William S. Baer School	EMH	Yes	Yes	No
Baltimore Co.	Battle Grove Elementary	E	No	No	Yes
Baltimore Co.	Dundalk Middle	M	No	No	Yes
Baltimore Co.	Pleasant Plains Elementary	E	No	No	Yes
Baltimore Co.	Woodlawn High	H	Yes	Yes	Yes
Calvert	Calvert High	H	No	No	Yes
Calvert	Northern High	H	No	No	Yes
Calvert	Southern Middle	M	No	No	Yes
Calvert	Sunderland Elementary	E	No	No	Yes
Caroline	Lockerman Middle School	M	Yes	No	Yes
Caroline	North Caroline High School	H	Yes	No	Yes
Caroline	Preston Elementary School	E	Yes	No	Yes
Carroll	Crossroads Middle School	M	No	No	Yes
Carroll	Gateway School	H	No	No	Yes
Carroll	Robert Moton Elementary	E	No	No	Yes
Carroll	Westminster East Middle	M	No	No	Yes
Cecil	Bay View Elementary	E	No	No	Yes
Cecil	North East Middle	M	No	No	Yes
Cecil	Rising Sun High	H	No	No	Yes
Charles	Benjamin Stoddert Middle School	M	No	No	Yes

County	School Name	School Type~	Current SBHC Status	Among Schools with Highest Number of Indicators Statewide*	Among Schools with Highest Number of Indicators in Home County
Charles	Daniel of St. Thomas Jenifer Elementary School	E	No	No	Yes
Charles	Dr. Gustavus Brown Elementary	E	No	No	Yes
Charles	Henry E. Lackey High School	H	No	No	Yes
Charles	J. C. Parks Elementary School	E	No	No	Yes
Charles	Milton M. Somers Middle School	M	No	No	Yes
Charles	Thomas Stone High School	H	No	No	Yes
Dorchester	Cambridge-South Dorchester High School	H	Yes	No	Yes
Dorchester	Hurlock Elementary School	E	No	No	Yes
Dorchester	Mace's Lane Middle School	M	Yes	No	Yes
Dorchester	North Dorchester High School	H	Yes	No	Yes
Frederick	Ballenger Creek Middle	M	No	No	Yes
Frederick	Butterfly Ridge Elementary	E	No	No	Yes
Frederick	Walkersville High	H	No	No	Yes
Garrett	Broad Ford Elementary	E	No	No	Yes
Garrett	Friendsville Elementary	E	No	No	Yes
Garrett	Southern Garrett High School	H	No	No	Yes
Garrett	Southern Middle School	M	No	No	Yes
Harford	Center for Educational Opportunity	MH	Yes	No	Yes
Harford	Edgewood Middle	M	No	No	Yes
Harford	Halls Cross Roads Elementary	E	Yes	No	Yes
Harford	Magnolia Elementary	E	Yes	No	Yes
Harford	Magnolia Middle	M	No	No	Yes
Howard	Cradlerock Elementary	E	Yes	No	Yes
Howard	Homewood School	MH	No	No	Yes
Kent	Galena Elementary School	E	No	No	Yes
Kent	Kent County High	H	No	No	Yes
Kent	Kent County Middle School	M	No	No	Yes
Kent	Rock Hall Elementary	E	Yes	No	Yes
Montgomery	Benjamin Banneker Middle	M	No	No	Yes
Montgomery	Carl Sandburg Center	E	No	No	Yes
Montgomery	Col. Zadok Magruder High	H	No	No	Yes
Montgomery	Damascus High	H	No	No	Yes
Montgomery	John F. Kennedy High	H	No	No	Yes
Montgomery	John L Gildner Regional Inst for Children & Adol	EMH	No	No	Yes
Montgomery	Seneca Valley High	H	Yes	No	Yes
Montgomery	Stephen Knolls School	EMH	No	No	Yes



County	School Name	School Type~	Current SBHC Status	Among Schools with Highest Number of Indicators Statewide*	Among Schools with Highest Number of Indicators in Home County
Prince George's	Allenwood Elementary	E	No	Yes	No
Prince George's	Andrew Jackson Academy	EM	No	Yes	No
Prince George's	Bradbury Heights Elementary	E	No	Yes	No
Prince George's	Carmody Hills Elementary	E	No	Yes	No
Prince George's	Central High	H	No	Yes	No
Prince George's	Croom High	H	No	Yes	No
Prince George's	Crossland Evening/Saturday High	H	No	Yes	No
Prince George's	Dr. Henry A. Wise, Jr. High	H	No	Yes	No
Prince George's	Drew Freeman Middle	M	No	No	Yes
Prince George's	Hillcrest Heights Elementary	E	No	Yes	No
Prince George's	North Forestville Elementary	E	No	Yes	No
Prince George's	Northwestern Evening/Saturday High	H	No	Yes	No
Prince George's	Port Towns Elementary	E	No	Yes	Yes
Prince George's	Potomac High	H	No	Yes	No
Prince George's	Suitland High	H	No	Yes	No
Prince George's	Tall Oaks High	H	No	Yes	Yes
Queen Anne's	Centreville Middle School	M	No	No	Yes
Queen Anne's	Grasonville Elementary School	E	No	No	Yes
Queen Anne's	Kennard Elementary School	E	No	No	Yes
Queen Anne's	Queen Anne's County High School	H	No	No	Yes
Queen Anne's	Stevensville Middle School	M	No	No	Yes
Queen Anne's	Sudlersville Middle School	EM	Yes	No	Yes
Saint Mary's	Chopticon High	H	No	No	Yes
Saint Mary's	George Washington Carver Elementary	E	No	No	Yes
Saint Mary's	Leonardtwn High	H	No	No	Yes

County	School Name	School Type~	Current SBHC Status	Among Schools with Highest Number of Indicators Statewide*	Among Schools with Highest Number of Indicators in Home County
Saint Mary's	Lettie Marshall Dent Elem	E	No	No	Yes
Saint Mary's	Spring Ridge Middle	M	Yes	No	Yes
Somerset	Greenwood Elementary School	E	No	No	Yes
Somerset	Somerset 6/7 Intermediate School	M	No	No	Yes
Somerset	Washington Academy and High School	MH	Yes	No	Yes
Talbot	Easton High	H	Yes	No	Yes
Talbot	Easton Middle	M	Yes	No	Yes
Talbot	St. Michaels Elementary	E	Yes	No	Yes
Talbot	St. Michaels Middle/High School	MH	Yes	No	Yes
Washington	Bester Elementary	E	No	Yes	Yes
Washington	Boonsboro High	H	No	No	Yes
Washington	E. Russell Hicks Middle	M	No	No	Yes
Washington	Smithsburg High	H	No	No	Yes
Washington	South Hagerstown High	H	Yes	No	Yes
Washington	Springfield Middle	M	No	No	Yes
Washington	Western Heights Middle	M	Yes	No	Yes
Wicomico	Prince Street School	E	No	No	Yes
Wicomico	Wicomico County Evening High	H	No	No	Yes
Wicomico	Wicomico Middle	M	Yes	No	Yes
Worcester	Snow Hill Middle	EM	No	No	Yes
Worcester	Stephen Decatur High	H	No	No	Yes
Worcester	Stephen Decatur Middle	M	No	No	Yes

~School types are E (elementary only), M (middle school only), H (high school only), EM (elementary and middle), EMH (elementary, middle, and high), and MH (middle and high).

\*This category includes schools that had at least 10 of a maximum of 14 indicators applicable to the elementary grade level, or at least 15 of 19 indicators applicable to the middle school level, or at least 11 of 18 indicators applicable to the high school level.

## **Appendix D. Stakeholders Interviewed and Core Focus Interview Questions**

The following types of stakeholders were interviewed:

- Students
- Parents/Caregivers
- Mental health providers
- Physical health providers
- SBHC administrators
- Local health department officers
- Superintendents
- Maryland Association of Managed Care Organizations
- Commercial health plan
- Maryland Hospital Association
- Maryland Council on Advancement of School-Based Health Centers
- Maryland Assembly on School-Based Health Care
- Maryland Department of Health – Maternal and Child Health Bureau
- Maryland Department of Health – Medical Assistance Program
- Maryland State Department of Education

While interview questions were tailored to each stakeholder group, core interview questions included the following:

- What is working well / strengths of the SBHC Program?
- What role do you think the SBHC Program plays in addressing equity?
- What are greatest challenges in SBHCs when it comes to improving health and educational outcomes? Equity?
- What are the greatest sustainability challenges?
- How should MDH support SBHCs (e.g., resources, technical assistance, data, etc.)?
- What opportunities do you see for improved collaboration between community entities and SBHCs?
- What is your vision for SBHCs in the broader health care system/in the context of all of MDH's work?

## Appendix E. Detailed Enrollment by Race and Insurance Type

The tables below present enrollment data gathered from the SBHC annual survey by race and insurance type.

**SBHC Enrollment by Race, Annual Surveys**

Race	School Year 2018 - 2019 (N = 86)			School Year 2019 - 2020 (N = 86)			School Year 2020 - 2021 (N = 85)		
	SBHCs Reporting	Mean [Min-Max]	Sum	SBHCs Reporting	Mean [Min-Max]	Sum	SBHCs Reporting	Mean [Min-Max]	Sum
Asian/PI	73	4 [0-40]	293	73	7 [0-81]	546	75	4 [0-63]	308
Black	81	59 [0-381]	4,744	79	77 [1-1,063]	6,069	76	24 [0-234]	1,808
Hispanic/Latino	78	30 [0-314]	2,362	77	45 [0-255]	3,486	76	16 [0-195]	1,247
NA/AA	70	1 [0-34]	92	73	1 [0-13]	51	74	0 [0-8]	25
White	76	64 [1-317]	4,868	77	55 [0-566]	4,247	77	13 [0-81]	1,005
Two or more	76	11 [0-158]	835	72	21 [0-229]	1,517	74	6 [0-48]	433

**SBHC Enrollment by Insurance Type, Annual Surveys**

Insurance Type	School Year 2018 - 2019 (N = 86)			School Year 2019 - 2020 (N = 86)			School Year 2020 - 2021 (N = 85)		
	SBHCs Reporting	Mean [Min-Max]	Sum	SBHCs Reporting	Mean [Min-Max]	Sum	SBHCs Reporting	Mean [Min-Max]	Sum
Medical Assistance	80	60 [0-368]	4,803	81	55 [0-450]	4,445	76	13 [0-205]	1,012
Private	81	18 [0-101]	1,425	82	16 [0-115]	1,295	71	4 [0-85]	265
Uninsured/Unknown	79	64 [0-366]	5,085	82	55 [0-272]	4,515	73	7 [0-84]	485

## **Appendix F. Medicaid Reimbursement**

### ***Services not Covered***

Medicaid regulations prohibit reimbursement for the following services in SBHCs:<sup>24</sup>

- Services not specified as covered in COMAR 10.09.76.04
- Services not medically necessary
- Investigational and experimental drugs and procedures
- Basic school health services
- Services to individuals who are not enrolled in the school system
- Nursing or other health services provided as part of a participant's individualized educational program (IEP) or individualized family service plan (IFSP)
- Skilled nursing services provided to enable a participant to be safely maintained in the school setting (nasogastric tube feedings, catheterization, oral, nasotracheal, or tracheal suctioning, nebulizer treatment)
- School health services which are required in all school settings (hearing and vision screening, routine assessment of minor injuries, first aid, administration of medications, general health promotion counseling, review of health records)
- Routine sports physicals
- Vaccines supplied by Vaccines for Children
- Visits for the sole purpose of administering medication, checking blood pressure, measuring weight, interpreting lab results, or group or individual health education.
- Services provided outside of the physical location of the approved SBHC.

### ***Other Payment Requirements***

SBHCs providing self-referred services (or not in-network with the student patient's MCO) must verify eligibility and MCO assignment on the day of service through the program's eligibility verification system and submit claims within 180 days of providing the service using the CMS 1500 for paper processing and the HIPAA compliant 837P for electronic processing.<sup>25</sup> MCOs must pay any undisputed claim submitted by an SBHC within 30 days of the MCO's receipt of the invoice.<sup>26</sup> Payment must be made at the state's established FFS rate.<sup>27</sup> SBHCs that are enrolled as FQHCs are to be paid at the FQHC rate.<sup>28</sup>

MCOs must provide all SBHCs in its service area with the current information needed to facilitate communication between the SBHC, the PCP, and the MCO regarding care provided to the MCO's enrollee, and to effect reimbursement by the MCO. This includes instructions for

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<sup>24</sup> COMAR 10.09.76.05.

<sup>25</sup> COMAR 10.09.76.07(G).

<sup>26</sup> MCO contract at p. 323 of the PDF.

<sup>27</sup> Md. Code Ann., Health-Gen. §15-103(b)(19)(iv).

<sup>28</sup> COMAR 10.09.76.06(F).

submitting claims, the MCO's policies and procedures regarding the provision of pharmacy and laboratory services and contact information for someone at the MCO responsible for SBHC coordination of care, as well as the student enrollee's PCP.<sup>29</sup>

In turn, an SBHC is required to transmit a health visit report to the student's MCO and PCP within three business days of a student enrollee's health visit.<sup>30</sup> The health visit report must be transmitted on the day of the visit, in the event that follow-up care with the PCP is required within one week.<sup>31</sup>

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<sup>29</sup> MCO contract at p. 324 of the PDF.

<sup>30</sup> COMAR 10.09.76.03(B)(10)

<sup>31</sup> COMAR 10.09.76.03(B)(10).