

Telemedicine in School-based Health Centers: A Profile of the Center for Rural Health Innovation



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The Center for Rural Health Innovation (the Center) is a nonprofit organization in western North Carolina dedicated to applying innovative technologies to improve access to health care in rural communities. Through its Health-e-Schools telemedicine program, it uses high-definition video to enable providers to deliver health care in schools. Health-e-Schools currently serves schools in four North Carolina counties.

Accessing basic health services such as primary care, behavioral health services, and dental care can be difficult in the areas Health-e-Schools serves. Residents often have to travel long distances to reach the few available providers. Even when some aspects of health care, including qualified providers, are available and affordable, lack of pharmacies also presents a challenge. For example, in one instance Health-e-Schools providers were able to provide treatment and write a prescription for a student, but the student's father had to walk four miles to purchase the medication.

The Center's founder, Dr. Steve North, developed the Health-e-Schools program out of recognition that academic and health outcomes are tightly linked. Before attending medical school, Dr. North taught school in North Carolina and realized that untreated health issues limited his students' academic achievement. After completing his residency and fellowship, Dr. North worked in a rural health center in western North Carolina. The rural location of the clinics meant the services he provided were not easily accessible. Dr. North realized that providing telemedicine in schools would enable students to access a reliable source of health care and would improve both health and academic outcomes. He received a grant to conduct a community health needs assessment and then established the Center and its Health-e-Schools program.

The Health-e-Schools Program and Implications for the ACA

Health-e-Schools is the Center's telemedicine program. Students visit their school nurse, who uses telemedi-

cine cameras to present the student to a doctor or nurse practitioner in another location. Health-e-Schools is able to provide primary care, write and manage prescriptions, and provide behavioral health counseling via telemedicine.

The Center works with schools, school boards, and local primary care providers to implement the Health-e-Schools program. Schools and school districts approach the Center about providing telemedicine services. The Center explains the Health-e-Schools program to administrators and school nurses so that they can help implement the program by dedicating space to telemedicine equipment and serving students. Staff also form relationships with local primary care providers so that they can make referrals to the Health-e-Schools program.

The overall goal of Health-e-Schools is to improve health and keep students in school. Although accessing health care can be difficult for students in any location, it can be especially challenging in rural areas with few providers. Through telemedicine, Health-e-Schools is able to provide primary care and behavioral health services to students in schools, where they spend most of their time.

Providing easier access to health care, as Health-e-Schools does, is a primary goal of the Affordable Care Act (ACA). Many payment and delivery reforms in the ACA, including accountable care organizations (ACOs), provide financial incentives for preventing costly health conditions. Even as the ACA changes, state Medicaid programs and private insurers are implementing versions of this program and looking for ways to prevent serious

health conditions. Health-e-Schools has shown that it can increase access to primary care. As a result, it is preparing to take part in ACO reforms when North Carolina Medicaid implements them.

What Services Does Health-e-Schools Provide?

Similar to brick-and-mortar school-based health centers (SBHCs), Health-e-Schools provides physical health services. Treating minor illnesses via school telemedicine helps students stay in school as opposed to traveling a long distance with a parent to visit a pediatrician's office. For example, the mother of one patient was caring for the patient's sibling in a hospital. Health-e-Schools treated the primary patient for an upper respiratory infection and allergic conjunctivitis. The patient was able to return to class, and the mother did not have to leave the hospital.

Health-e-Schools' ability to easily reach and serve students enables it to fill in the gaps in care that children and adolescents may encounter. It is able to help students and their parents access community services and, when needed, other health care providers. For example, Tonya Hensley, a nurse practitioner with Health-e-Schools, recently treated an undocumented student for an asthma attack. In addition to helping stabilize the asthma attack via telemedicine, she was able to connect the student and his family to resources to help pay for health care and a community-based asthma management program. Another Health-e-Schools nurse practitioner recently treated a patient with a severe case of strep throat. Previously, the student had visited the school nurse about a sore throat, and the nurse contacted the patient's mother with a referral to a primary care provider. The mother did not contact the primary care provider, and the strep throat worsened. When the Health-e-Schools nurse practitioner saw the patient, he referred the student directly to the primary care provider, who saw the student and admitted him to the hospital. The Center also has a limited amount of funding to purchase prescription medications, healthy food, and school supplies for students from low-income families.

SBHCs excel in providing behavioral health services to children and adolescents, and Health-e-Schools is no different. Dr. North is able to prescribe and manage medication to address behavioral health issues. Health-e-Schools providers also collaborate with therapists and licensed social workers to manage patients' behavioral health needs by providing and receiving referrals.

The Center would like to increase the behavioral health services it offers through Health-e-Schools, as there is high demand but few providers. According to the Health Resources and Services Administration, North Carolina has only enough mental health care providers to meet **38 percent** of the need for services. There is a publicly available provider of behavioral health services in one of the counties that Health-e-Schools serves, but it is difficult for students to access.

The Center is also developing an asthma management program with a regional health system. It will provide information to school nurses about recognizing asthma triggers and symptoms and treating asthma with an inhaler. The program also includes an algorithm that nurses can use to determine what can be done at school to manage asthma, what can be done through a telemedicine visit, and what symptoms require further medical attention. The program's goal is to help school nurses manage asthmatic students and reduce emergency department admissions.

The Center uses Health-e-Schools' location in schools to its advantage by providing physical and behavioral health services to students and faculty, coordinating care, and collaborating with hospitals and community-based organizations. This comparatively high level of access to a patient population makes Health-e-Schools a strong partner for hospitals and others seeking to implement ACA reforms.

In addition to these services, Health-e-Schools' presence in schools is a physical reminder of the link between education and health. As school staff and faculty see the ways in which Health-e-Schools supports their work by keeping students in school, the association between education and health becomes clearer. This recognition can serve as the inspiration for changes in school policies and environments dedicated to improving health, such as reducing the presence of asthma triggers.

Challenges in Providing Telemedicine Services and How the Center Addresses Them

There are still economic, policy, and technological barriers to the use of telemedicine. Telemedicine equipment is expensive, and this is a barrier for many providers. In the sites it serves, the Center provides the equipment, which is funded through grants and revenue from service

provision. As telemedicine technology changes and improves, however, it is also becoming more affordable.

There are also significant policy barriers to providers receiving reimbursement for providing services via telemedicine. The Center is well established in North Carolina, and over the past seven years it has been able to receive reimbursement from Medicaid for the primary care and behavioral health services it provides through Health-e-Schools. However, some services that would benefit patients, such as nutritionist consultations via telemedicine, cannot be reimbursed because of North Carolina's Medicaid policies.

Lack of high-speed Internet access is a barrier to providing telemedicine services, particularly in rural areas. Although there is a federal program designed to increase high-speed Internet access in schools, the program is dedicated to school libraries. *Extending federal support for high-speed Internet to health services in schools would allow organizations such as the Center for Rural Health Innovation to serve more students and increase access to health care.*

SBHCs as Vital Partners of Accountable Care Organizations

The Center is eager to continue collaborating with other providers, and the ACA's reforms incentivize these partnerships. The ACO model—which is incorporated into the ACA and is being pursued and adapted by insurers, hospitals, and states—offers an opportunity for collaboration. ACOs are groups of providers, including primary care, behavioral health, and community service providers, that are dedicated to meeting the health care needs of a group of people at a set price. If they provide all needed care within the set price, they keep some of the savings as profit. ACOs must also meet quality measures to ensure that they do not skimp on care to save money.

Dr. North would like SBHCs, including telemedicine providers, to be seen as vital partners for ACOs. Hospital systems are investing in telemedicine to increase their reach and utilize health system resources more appropriately and efficiently. Health-e-Schools has also shown that SBHCs can effectively coordinate care, provide

screenings and behavioral health services, and promote prevention for children and adolescents. These capabilities are useful for ACOs, which need providers capable of effectively reaching and serving all groups to whom they are responsible for delivering care. The Center would like to take part in North Carolina's Medicaid ACOs when they become available.

The ACO model also poses challenges for SBHCs and the Center. With Health-e-Schools, the Center provides services such as care coordination, support for school nurses, and safety net assistance, in addition to primary care, that it would like to continue providing even while working as part of an ACO. It would also like to receive reimbursement for both the clinical services and preventive and safety net care it provides. Current ACO models do not provide payment for these types of care.

In addition, there is not currently an ACO model that would enable the Center and primary care providers to work together to manage a patient's chronic physical or behavioral health conditions and allow both to receive reimbursement. The Center provides primary care for some of its patients, but its main goal is to supplement care from primary care providers. It works to place students with traditional primary care providers and deliver care that provider might miss. The Center would like any ACO model that is developed to allow for reimbursement of both providers.

Conclusion

The success of Health-e-Schools shows that telemedicine can be used to effectively deliver health services in rural schools. The Center excels in coordinating care with primary care providers and other parts of the health system, including community-based organizations. The Center is also in the early stages of collaboration with a regional health system to address asthma in schools. These relationships will help it take part in reforms such as those introduced by the ACA. Most important, the Center, through the Health-e-Schools program has been able to serve as an easily accessible source of health care to children and adolescents who would otherwise struggle to access care.

Telemedicine in School-based Health Centers: a Profile of the Center for Rural Health Innovation is one of a series of case studies featuring school-based health centers that have taken part in federal policy reforms, including the Affordable Care Act. In addition to increasing insurance coverage, federal health reform efforts have included programs to coordinate care offered by different providers and increase access to community preventive services and mental health services, among other initiatives. This series of case studies highlights the efforts of SBHCs and their sponsors to implement reforms to improve the health of the children and adolescents they serve. For more information about specific policies, see the companion pieces to these case studies, [Federal Policies and Opportunities for School-Based Health Centers: For Sponsors](#) and [For Policymakers](#).

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APHA would like to thank Tonya Hensley and Steve North for participating in interviews to develop this case study.

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The American Public Health Association champions the health of all people and all communities. We strengthen the profession of public health, promote best practices and share the latest public health research and information. We are the only organization that influences federal policy, has a nearly 150-year perspective and brings together members from all fields of public health. Learn more at www.apha.org.

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The Children's Trust of Miami-Dade County Supporting School-based Health Centers



The Affordable Care Act, School Health, and the Children's Trust

One of the goals of the Affordable Care Act (ACA) is to achieve the Triple Aim of reducing the cost of health care, improving care quality, and improving patients' experience with the health system. The Children's Trust (The Trust) of Miami-Dade County, Florida, sponsors school-based health centers (SBHCs) that are taking part in the ACA implementation and working to achieve the Triple Aim. In addition to sponsoring SBHCs and other health programs in schools, The Trust supports efforts to address the [social determinants of health](#) (e.g., housing, food access) by funding after-school tutoring programs, nutrition and physical education programs, public benefit enrollment, parenting education, and a wide variety of other health programs. This funding allows the SBHCs sponsored by The Trust to both provide health care and connect patients to resources that support overall health and well-being.

Accountable Health Communities: An Opportunity for SBHCs to Take Part in Health Reform

SBHCs excel at filling in gaps in the care their patients receive and coordinating care and services with other providers and community-based organizations. Recognizing the importance of nonclinical services in improving health, the Center for Medicare & Medicaid Innovation, which was created by the ACA, offers Accountable Health Community grants to link clinical health care and the services offered by health departments, government agencies, and community-based organizations. Grantees enable patients who receive health care to also access services that address the social determinants of health. Many states are implementing similar programs, and as they become more common, the experience SBHCs have in working with nonclinical service providers could make them valuable partners in health reform efforts.

How The Children's Trust Supports SBHCs

The Trust currently collaborates with the University of Miami and Jessie Trice Community Health Center, a Federally Qualified Health Center, to operate SBHCs. The Trust brings some important unifying features to the two partners' SBHCs. All students in kindergarten and grades 1, 3, 6, and 9 receive screenings for vision, dental health, blood pressure, and body mass index in addition to the screenings mandated by state law. The Trust also leverages its sponsorship of other organizations to connect

SBHC patients to health and social services. For example, The Trust funds five community-based organizations to conduct community outreach and public benefit enrollment counseling. As a condition of their funding, The Trust requires that the community-based organizations work with its SBHCs to enroll students and their families in Medicaid, nutrition programs, housing and income assistance, and other benefit programs. SBHCs also refer their patients to other services and organizations supported by The Trust, including after-school activities and nutrition and physical education programs.

The University of Miami: Building on the ACA to Continue Innovation

With support from The Trust and the John T. MacDonal Foundation, the University of Miami operates four full-service SBHCs. Pediatricians and pediatric residents provide primary care. Clinical psychologists provide mental health services. Two of the SBHCs remain open to provide care during school summer breaks, and all of the SBHCs offer care to siblings of patients. As a teaching hospital, the University of Miami also views placing pediatric residents in SBHCs as a valuable tool in showing new doctors the strong link between health and education.

The University of Miami also focuses on connecting patients to community preventive services. During a typical visit, the doctor or psychologist will ask the patient about health issues (e.g., nutrition and reproductive health) that could be addressed through community preventive services and will make referrals when appropriate. Each SBHC also has a social worker to connect patients to services offered in the school and by community-based organizations. The SBHCs are currently collaborating with community-based organizations to deliver nutrition services and dental health, reproductive health, and mental health services to students.

The ACA has presented opportunities for the University of Miami's SBHCs. When the Department of Health and Human Services announced the establishment of the Health Care Innovation Awards in 2012, the University of Miami was eager to apply to show how SBHCs can improve health while also providing a positive return on investment. The federal government made these [grants](#) available to organizations to "test new care delivery and payment models, identify new ways to develop and use the health system workforce, and expand promising innovations." The University of Miami's SBHCs received one of the grants. The SBHCs used the award to develop telehealth capabilities, provide oral health and mental health services, and increase the number of patients enrolled in health insurance. Throughout the duration of the grant, the University of Miami tracked costs incurred and saved and found that SBHCs saved its health system more than \$4.3 million.

Telehealth

Telehealth capabilities allow the SBHCs to provide specialist care and make referrals to other providers in the University of Miami system. The most commonly

requested telehealth services during the award period were nutritionist consultations and school-to-school consultations (wherein school nurses ask doctors and nurse practitioners at other sites for guidance). Mental health and dermatology services are also offered via telehealth. Although the award period has concluded, The Trust has provided funding to continue these telehealth services.

Oral Health

The oral health component of the award focused on increasing access to basic oral health services (e.g., fluoride varnishes, sealants) and identifying patients with urgent and emergency care needs. The SBHCs provided fluoride varnishes and dental sealants to every patient who visited for oral health care (952 children 18 years or younger) and identified more than 30 percent of patients as needing follow-up oral care. The University of Miami viewed the oral health component as the most successful part of the award because it successfully served uninsured children 18 years or younger, a population in Florida that struggles to access oral health care.

Mental Health

The University of Miami also used the award to increase access to mental health services. SBHCs hired social workers and psychiatrists and connected patients in SBHCs without psychiatrists to these providers via telehealth. SBHC psychiatrists most frequently treated patients for depression, anxiety, and attention-deficit/hyperactivity disorder (ADHD). Social workers provided counseling related to family and peer issues, academic stress, and grief over the loss of a loved one. Mental health services are still in very high demand, although SBHCs have to overcome stigma and the difficulty of identifying patients with untreated mental health needs.

Community Health Workers

The award enabled the SBHCs to hire community health workers (CHWs) who focused on enrolling patients and their families in Medicaid and private health insurance. From 2012 to 2015, CHWs increased the percentage of patients with health insurance from 46 percent to 57 percent. The CHWs also conducted home environmental assessments for patients with asthma and helped individual patients develop asthma action plans. During home assessments, CHWs identified asthma triggers and educated patients and their families on ways to manage the condition. The asthma management program is continuing with the support of new funders.



Success Story

Dr. Jocelyn Lawrence, the director of the Innovation Award project, shared a story about her time at the University of Miami. For about a month, a student had been complaining to his father about chest pains, but the family did not have health insurance and could not afford a doctor's visit. The student went to the SBHC and reported the chest pain. The pediatric resident at the SBHC conducted a physical and an electrocardiogram that showed abnormal results. The resident referred the student to the University of Miami's hospital for emergency treatment. Later that month, the student had a scheduled cardiac surgery. All of his treatments were provided free of charge, and the student is now healthy and in college.

Leveraging ACA Funding to Establish Lasting Programs

The University of Miami has been successful in increasing access to primary care and specialty care among young people age 18 and under. Although the grant provided funding for only three years, the university has been able to continue many of the services the grant funded by demonstrating their efficacy and leveraging funding from other sources. The grant provided a lasting investment for the University of Miami's SBHCs and the young people they serve.

The Jessie Trice Community Health Center's SBHCs

With the support of The Trust, Jessie Trice Community Health Center (Jessie Trice CHC) operates two full-service SBHCs. The SBHCs offer physical and mental health services and collaborate with community-based organizations, the local health department, foundations, and businesses to provide community preventive services. Jessie Trice CHC has an agreement with the University of Miami to provide specialist care and oral health services to students via telehealth. Both of its SBHCs are patient-centered medical homes, which means that they are able to coordinate care with other providers, including community-based organizations, and use electronic health records to monitor whether referrals have been completed.

One of the SBHCs is accessible through its own entrance, so it serves as a clinic for non-students after school hours and during the summer. There is high demand in the community for health care, and visits by non-students to the SBHC have increased every month since its opening. Jessie Trice CHC now operates two SBHCs, and it would like to open more.

Similar to an Accountable Health Community, these SBHCs bring together primary care and community preventive services. The SBHCs collaborate with the lo-

cal health department to screen for sexually transmitted infections and to develop action plans and conduct home environmental assessments for students missing school as a result of asthma. In order to improve nutrition, SBHCs have partnered with Target and Wholesome Wave, a non-profit organization, to issue vouchers for fresh fruits and vegetables to students with a high body mass index. The SBHCs are also working with a nonprofit organization to provide vision care and glasses to uninsured students and students on Medicaid.

For patients without a traditional provider, SBHCs are able to serve as the primary care provider. For patients who have a primary care provider, SBHCs are able to fill in gaps in care, including managing chronic conditions during school hours and coordinating with primary care providers. Electronic health records enable the SBHCs to see whether patients have completed referrals and, if they have not, to remind them to do so.

As with many SBHCs, there is high demand for mental health services at the Jessie Trice SBHCs. Jessie Trice CHC receives financial support from The Trust and partners with an organization called Agape to hire licensed social workers and child psychiatrists who provide mental health services in SBHCs and the adjoining schools. Despite the high level of demand, providing mental health services to all students in need is a challenge. Jesse Trice CHC would like to partner with school district psychiatrists to increase access to mental health providers, but the school district also has limited capacity.

Conclusion

The Trust has supported SBHCs that have improved the health of both students and non-students. The SBHCs have been able to leverage their funding and build partnerships with community-based organizations and businesses to better serve students. Overall, The Trust's SBHCs can serve as an example to other SBHCs interested in trying new care delivery methods.

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Montefiore Health System Developing Patient-Centered Medical Home Standards for School-based Health Centers



Montefiore Health System and the Bronx

Montefiore Health System (MHS, or Montefiore) is one of the largest and most innovative health systems in the United States. Based in the Bronx, New York, MHS operates 11 hospitals and nearly 50 primary care clinics in the New York City area. MHS's school-based health center (SBHC) program is the largest in the country, operating in 22 locations and serving 74 schools.

Providing preventive care and addressing the social determinants of health are especially important in the Bronx. Of the 62 counties in New York State, the Bronx ranks last with respect to health outcomes, according to [County Health Rankings](#). In addition, only [56 percent](#) of Bronx ninth graders graduate from high school in four years. This has [significant implications for health](#), as individuals with lower levels of education (relative to those with more education) are at increased risk of early death and high levels of smoking and being overweight. Forty-three percent of children 18 years or younger in the Bronx live in poverty, as compared with the state average of 23 percent, which makes paying for health care and other necessities [difficult](#).

Montefiore is dedicated to improving health and educational outcomes in the Bronx. As part of its requirement to complete a [community health needs assessment](#), MHS partnered with the New York City Department of Health and Mental Hygiene to conduct eight community meeting events. Community members identified high school graduation as one of the most important issues affecting the health of people living in the Bronx. Montefiore is also working to incorporate SBHCs into payment and delivery models, such as those authorized by the Affordable Care Act (ACA), dedicated to reducing costs and preventing hospitalizations.

Montefiore's SBHCs: Providing Clinical Care and Community Health Services and Creating Healthy Environments in Schools

Montefiore's SBHCs offer a wide range of primary care services, including preventive care, first aid, and management of chronic conditions. Most of Montefiore's SBHCs also provide mental health services such as individual counseling, preventive services, and healthy relationship counseling to address social and emotional health. Some SBHC locations provide dental care as well. Overall, MHS has identified [five priority areas](#) for its SBHCs: asthma management, nutrition counseling, physical activity, reproductive health services, and emotional health services and support. They address these priority areas by providing both clinical services and community health services.

SBHCs are Montefiore's largest provider of community health services. In addition to clinical care, SBHCs provide school-wide services to help address the five priority areas. For example, they conduct school-wide screenings for asthma and obesity and then follow up with individual students at risk. Along with treatment, SBHCs also conduct psychosocial assessments of students with asthma to determine what social and environmental factors may contribute

to asthma attacks. To help students manage obesity, SBHCs offer nutrition counseling and cooking classes to students and families. MHS is also working with the New York City Department of Public Health and Mental Hygiene and the New York City Department of Education on developing an evidence-based reproductive health curriculum for ninth graders.

SBHCs also create healthy environments in schools. To improve nutrition options in schools, a Montefiore SBHC first worked with its host school and cafeteria supplier to replace whole milk with low-fat milk. MHS then worked with the school district to have the change to low-fat milk take effect across the school district and then across all of New York City. To reduce asthma triggers and help students manage asthma, MHS is working with schools to find a way to keep school buses from idling next to school buildings.

Montefiore has been successful in improving health outcomes and keeping students in school. [MHS has found](#) that students in schools with SBHCs have half as many emergency department visits as children in schools without them. SBHCs in the Bronx have also helped to reduce hospitalizations among children with asthma and to [increase their school attendance](#). The ability to improve health through prevention enables SBHCs to make valuable contributions to Montefiore's health reform efforts.

SBHCs as a Vital Part of Montefiore's Health System and Health Reform Efforts

MHS views SBHCs as a critical part of the health system. Its SBHCs are primary care providers for some students, and for other students they provide care that other providers might miss, such as reproductive health services and mental health services. As students learn about the availability and convenience of SBHCs, more of them choose to receive care from the centers. In fact, by the end of the school year, Montefiore's SBHCs enrolled 80 percent of the students on the campuses they served and provided 80 percent of their health care visits. The ability to serve students and address gaps in the care they receive makes SBHCs valuable partners in Montefiore's implementation of ACA payment and delivery programs and other reforms.

Montefiore and its SBHCs coordinate the services that students receive by using electronic health records (EHRs). These records allow SBHCs to see treatments and diagnoses that students have received from other providers in the MHS system. EHRs also help Montefiore identify gaps in services needed by students and tailor SBHC services in response.

By providing a convenient source of preventive care, Montefiore's SBHCs have reduced the cost of treating students. Montefiore's cost evaluations have shown that the health system saves a moderate amount by treating students in SBHCs; outpatient costs have increased, but these increases have been offset by decreased hospital costs. While MHS operates in an urban area, it estimates that the cost savings of SBHCs are even higher in rural areas. These savings make SBHCs an attractive partner for health systems seeking to reduce costs by preventing expensive health conditions.

MHS may see only a moderate financial benefit from preventing hospitalizations, but receiving preventive care keeps students healthy and in school. Patients of SBHCs, particularly those with chronic conditions, have improved health outcomes. SBHCs also help their patients manage health conditions before they become serious. The benefits



Photo by sshepard courtesy iStockphoto

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of SBHCs to students—staying healthy, staying in school, and graduating on time—are substantial.

Montefiore’s Development of PCMH Standards for SBHCs

The ACA encourages primary care providers to attain patient-centered medical home (PCMH) status. A PCMH is a primary care practice that provides its patients with access to 24-hour care that is coordinated with all of their health care providers. PCMHs use EHRs to track and improve the quality of the care they provide. As part of its health reform efforts, Montefiore has been working with the National Center for Quality Assurance (NCQA), which certifies PCMH providers, on developing PCMH standards specifically for SBHCs.

All PCMHs must meet standards for care quality, data collection, accessibility, and comprehensiveness of services. Attaining this status enables providers, including SBHCs, to qualify for increased payments. It also gives providers credibility in forming partnerships to work on health reform efforts. These factors—dedication to tracking and improving quality, increased payments, and the opportunity to take part in further health reforms—made Montefiore interested in the PCMH model for its school health centers. However, attaining PCMH status, even under SBHC-specific standards, can be difficult. Montefiore’s centers attempted to attain PCMH status by achieving non-SBHC-specific standards, but this effort was not successful.

Montefiore worked with other school health center sponsors and NCQA to develop PCMH standards specifically for SBHCs. These standards better match the capabilities of SBHCs and recognize their strengths and traditional roles while also challenging them to improve care and coordinate with other providers. They emphasize prevention rather than management of chronic conditions, and they focus population health strategies on all students in a school as opposed to all people in a hospital system with a particular chronic condition. SBHCs identify one of three levels of care they will offer each patient. They have the option of providing (1) comprehensive primary care, (2) care coordinated with a non-SBHC primary care provider, or (3) episodic care to patients who regularly see a non-SBHC primary care provider. To determine which level of service they provide a patient, centers can ask parents at enrollment what level of care they would like, they can ask students to identify gaps in services, or they can look at ways each student uses the services provided. Overall, there are 40 core criteria and 60 elective criteria for the new standards. The core criteria focus on co-

ordinating care with primary care providers and using EHRs. The elective criteria are aspirational goals for SBHCs.

Montefiore and NCQA have finalized the standards, which enable SBHCs to qualify for enhanced payments. Other states across the country also accept NCQA’s standards for PCMHs and may allow SBHCs that meet them to qualify for enhanced payments. Now that the standards have been approved, Montefiore’s SBHCs are working to attain PCMH certification.

SBHC Collaborations with ACOs and Community Service Providers

MHS is also interested in incorporating SBHCs into other health reforms. Montefiore is a national leader in developing the accountable care organization (ACO) model. ACOs are groups of providers, including primary care, mental health, and community service providers, that are dedicated to meeting the health care needs of a group of people at a set price. If they provide all needed care within the set price, they keep some of the savings. ACOs must meet quality measures to ensure that they do not skimp on care to save money. The ACA includes ACO programs, but private health insurers and hospital systems are also forming their own versions of ACOs.

Montefiore is interested in developing a pediatric ACO model that incorporates SBHCs. For SBHCs to successfully participate in ACOs, they have to overcome some challenges with this model of care. ACOs must provide services to a set group of individuals who receive their care from providers assigned to them by the ACO. Many of the students served by Montefiore’s SBHCs change schools often, which could lead to changes in health care providers. Even a small move, for example from one part of the Bronx to another, could result in a student changing schools. Making matters more complicated, the student’s first school may have an SBHC but the new school may not. If the student still has her assigned primary care provider as the first school’s SBHC, she would have to leave the school to receive primary care, just as she would for a traditional primary care provider. If the student finds another primary care provider instead of continuing to receive care at the SBHC, the ACO may lose a patient. Despite the challenges presented by payment and delivery reforms, MHS is well aware of the health and financial benefits of SBHCs, and it is working to develop an ACO model that can incorporate them.

Montefiore’s SBHCs often partner with community-based organizations on implementing programs and services in schools to address nonclinical needs. For example, to

encourage fitness and healthy eating, MHS supports community gardens and active recess, fresh fruit for school breakfasts, and cooking classes. These nonclinical services can benefit all students in a school and help SBHCs reach students who may need additional services. MHS's goal for its collaborations between SBHCs and community groups is to provide access to social and emotional health services for all students in a school. One way MHS is combining clinical health, public health, and community-based services is through having community health workers coordinate care and help students complete referrals and prescriptions. So far, this program is available only in MHS's federally

qualified health centers; however, Montefiore would like to expand the program and have health insurance pay for it.

Conclusion

Montefiore will continue to support its SBHCs as a way to improve the health of young people. Its codification of SBHC-specific PCMH standards will enable the school-based health centers it sponsors, and centers throughout the country, to take part in health reform and qualify for enhanced payments. Its efforts to develop a pediatric ACO mean that MHS will continue to be a leader in the school-based health field.

Montefiore Health System Developing Patient-centered Medical Home Standards for School-based Health Centers is one of a series of case studies featuring school-based health centers that have taken part in federal policy reforms, including the Affordable Care Act. In addition to increasing insurance coverage, federal health reform efforts have included programs to coordinate care offered by different providers and increase access to community preventive services and mental health services, among other initiatives. This series of case studies highlights the efforts of SBHCs and their sponsors to implement reforms to improve the health of the children and adolescents they serve. For more information about specific policies, see the companion pieces to these case studies, [Federal Policies and Opportunities for School-Based Health Centers: For Sponsors](#) and [For Policymakers](#).

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The Oregon Health Authority and School-based Health Centers



The Oregon Health Authority as a Leader in Health Reform

The state of Oregon has long been a leader in reforming its health system. In 2009, it created the Oregon Health Authority (OHA, or Health Authority) with a **mission** of “helping people and communities achieve optimum physical, mental and social well-being through partnerships, prevention and access to quality, affordable health care.” It manages many of the state’s health programs, including Medicaid, public health, public employee benefit programs and school-based health centers (SBHCs). It also develops and implements health policies. These policies include service quality metrics for health care providers and development of new methods of paying for and delivering health services.

OHA currently provides funding to local agencies, including local health departments, federally qualified health centers, and community-based organizations, to operate school-based health centers. Overall, OHA helps fund 78 centers. In 2016-17, these SBHCs served 35,252 clients over the course of 114,380 visits. Forty-nine percent of clients were covered by Medicaid. One in four people served by OHA-funded SBHCs are younger than 5 years or older than 21 years. OHA also provides technical assistance and recommendations, issues grants, and sets standards for SBHCs. In addition, the Health Authority has been instrumental in developing standards that enable SBHCs to engage in health reforms taking place in the state.

Health Reform in Oregon

Oregon has dedicated itself to promoting widespread access to comprehensive primary care for Oregonians through patient-centered primary care homes (PCPCHs, or primary care homes), which are similar to the patient-centered medical homes included in the Affordable Care Act. PCPCHs must meet standards for quality, data collection, accessibility, and comprehensiveness. OHA’s goal with the primary care home model is to lower costs by emphasizing prevention rather than treating serious conditions in a hospital.

As the PCPCH model was being finalized, Oregon also began working on a way to coordinate the efforts of multiple

parts of the health system. The resulting coordinated care organizations (CCOs) are Oregon’s version of the Affordable Care Act (ACA) accountable care organization model. CCOs are groups of providers that are responsible for the health of a group of Medicaid beneficiaries. CCOs contract with wide networks of primary care, mental/behavioral health and hospital service providers to deliver comprehensive preventive and acute care within a shared budget. The shared budget contributes to the CCOs’ increased focus on prevention, providing care in the most efficient way possible and keeping people out of the hospital. To ensure that coordinated care organizations do not skimp on services to save money, they must meet quality metrics, some of which are relevant to SBHCs, such as providing adolescent well-care visits and child immunizations. Community groups and individual citizens serve on the board of each CCO to ensure that local health issues are prioritized.

Coordinated care organizations assign their patients to primary care homes, which at a member’s request can include SBHCs. These primary care providers direct the care patients receive from other health system practitioners, such as mental health providers, physical therapists, and specialty physicians.

How Oregon’s SBHCs Are Supporting Health Reform

OHA knew that SBHCs had valuable contributions to make to the health reform process. SBHCs can serve as

primary care homes by coordinating the care students receive from other providers while also offering primary care. SBHCs can also fill in gaps in other important types of care for youth and young adults, such as mental health and reproductive health services. Other parts of the health system can [struggle](#) to provide these [services](#). Given their unique population health perspective, SBHCs are also well positioned to coordinate with school nurses and other school health providers to support school-wide health screenings and programs. While SBHCs may be eligible for system-wide provider incentive payments, CCOs currently do not provide any additional incentives for these population-level services. However, recent changes to spending rules mean that CCOs have greater flexibility to consider these types of population health approaches.

When state regulators and other representatives met to develop the primary care home model, local SBHC representatives joined the effort with the goal of ensuring that SBHCs could take part in new payment and delivery models. Relationship building was an important part of involving SBHCs in the development of the primary care home model. The Health Authority's school-based health team forged a strong relationship with the primary care home office by actively meeting with state PCPCH staff, providing feedback on suggested standards for the model and encouraging local SBHC sponsoring organizations to participate. These relationships enabled OHA to effectively represent the interests of SBHCs. They also allowed sponsors to become familiar with the PCPCH office. Strong relationships enable SBHCs to access help as they work to attain primary care home recognition, and they allow the Health Authority and the primary care home office to learn about the capabilities and needs of SBHCs.

SBHCs as Patient-Centered Primary Care Homes

To attain PCPCH status, a clinic must meet at least 11 service quality measures and submit 12 months of data to OHA. The service quality measures are designed to be achievable by most clinics without significant financial investment. They include continuous access to clinical advice via phone, quality tracking, mental health, substance use and developmental screening and referral, assignment to personal clinicians, written agreements with hospitals addressing communications and logistics of care transitions, availability of end-of-life planning, in-person or telephonic interpreters in the language of the patient's choice, and patient satisfaction surveys.

In 2013, the Health Authority considered requiring that all certified SBHCs work towards PCPCH recognition. After receiving feedback from SBHCs, the Health Authority decided that it would recommend but not require attainment of primary care home status. However, many SBHCs in Oregon were well positioned to seek primary care home recognition. Before the model was developed, the Health Authority was working with SBHCs on data collection and quality improvement. Despite some initial pushback, many SBHCs were tracking quality metrics and did not have to make a large number of changes to apply for and attain primary care home status.

Support from OHA Helps SBHCs Become Primary Care Homes

The Health Authority observed that SBHCs encountered some common challenges when applying for primary care home status. Completing application forms and implementing PCPCH reforms require substantial staff time and represent new challenges for SBHCs.

Oregon's PCPCH standards require written agreements between primary care homes and a hospital, which many SBHCs did not have. The Health Authority requires all primary care homes to develop a process for hospital admission, communication, sharing of medical records, and scheduling of post-hospitalization follow-up appointments. This was an unfamiliar role for most SBHCs, and they dedicated substantial staff time to writing these agreements.

Most SBHCs did not provide 24-hour access to a provider. SBHCs sponsored by larger health systems had an easier time meeting the 24-hour access requirement because they could set up a phone system for after-hour callers to another provider in the system. SBHCs that were part of smaller systems had a more difficult time finding a provider for after-hour referrals.

To help overcome these challenges, the Health Authority worked with SBHCs on implementing reforms. OHA issued grants to SBHCs to take part in health reform initiatives. Many recipients used them to hire staff to oversee the PCPCH application. Once the PCPCH standards were set, the Oregon School-Based Health Alliance hosted a one-day workshop for SBHCs to teach them about Oregon's health reforms. In addition to the workshop, OHA hosted regular work groups with centers and sponsors to help them in the transition process. The Health Authority then worked with individual SBHCs to help them align the work they were already doing with primary care home standards. For example, SBHC patient satisfaction surveys were adapted to include



PCPCH Status Complements SBHCs' Traditional Role

Even though the ACA has increased access to health insurance, SBHCs still fill an important niche in the health system, that of convenient safety net provider for young people age 21 and under. In this role, SBHCs also provide public health services, such as helping in the development of healthy school environments and supporting school nurses and school health services staff to conduct school-wide health education campaigns. These services are not included in primary care home service quality measures. Although many students benefit from having SBHCs serve as their primary care home, others may not need them to provide this level of care. SBHCs must balance their new role as primary care home and their traditional role as safety net and provider of public health services. The Health Authority and SBHC partners are working with CCOs to better support SBHCs' financial sustainability in providing both clinical and public health services.

metrics required for PCPCH recognition. Overall, SBHCs in Oregon have been successful in attaining primary care home status. Of the 78 SBHCs funded by the Health Authority, 47 have qualified as primary care homes. And in 2017, two Oregon SBHCs were among the 33 clinics statewide awarded 5 Star PCPCH designation, which is the highest level available and requires demonstration of advanced PCPCH measures.

Focusing Upstream and Developing an Alternative Payment Model for SBHCs

Policymakers in Oregon have high hopes for health reform in the state. OHA is looking for ways to reform its health system to address and provide payments in areas that are not traditionally the function of health care providers, such as access to non-clinical health-related services. It encourages SBHCs, along with all other components of the health system, to address the social determinants of health. For example, in 2015 it issued grants to SBHCs to hire navigators to help students and their families access community services and resources outside of centers.

OHA has spent the last two years convening a work group of SBHCs, their sponsors, coordinated care organizations, and other partners to discuss developing an alternative payment model for SBHCs. Through the work group, the Health Authority would like to develop a payment model that enables SBHCs to receive payments from CCOs for addressing the social determinants of health. As part of this process, the Health Authority is educating coordinated care organiza-

tions about what SBHCs have to offer. For example, SBHCs in Oregon see more children of color, more children who speak English as a second language, and children who are more likely to use health care than other providers. Despite caring for these high-need populations, SBHC patients are often more likely to be meeting coordinated care organization metrics.

The Health Authority stresses, however, that coordinated care organizations are being tasked with a heavy workload. OHA recognizes that SBHCs can help coordinated care organizations provide care to young people age 21 and under. At the same time, the Health Authority is cautiously framing the issue of increased payments for SBHCs. Rather than saying "SBHCs are doing a lot and they need more money," the Health Authority is showing how centers offer value to coordinated care organizations by serving as a point of access for a difficult-to-reach population and another way to help CCOs meet metrics and improve population health.

Conclusion

With their embrace of new methods of delivering and paying for health care, Oregon's SBHCs can serve as an example for school-based health centers in other states. The ACA and private payers have supported models similar to primary care homes and coordinated care organizations across the country. State governments and SBHC sponsors can look to Oregon as an example of ways in which SBHCs are taking part in health reform initiatives.

The Oregon Health Authority and School-based Health Centers is one of a series of case studies featuring school-based health centers that have taken part in federal policy reforms, including the Affordable Care Act. In addition to increasing insurance coverage, federal health reform efforts have included programs to coordinate care offered by different providers and increase access to community preventive services and mental health services, among other initiatives. This series of case studies highlights the efforts of SBHCs and their sponsors to implement reforms to improve the health of the children and adolescents they serve. For more information about specific policies, see the companion pieces to these case studies, *Federal Policies and Opportunities for School-Based Health Centers: For Sponsors and For Policymakers*.

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Recommendations for School-based Health Centers on Taking Part in Health Reform



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The Affordable Care Act (ACA) and the broader movement to reform the health system present opportunities for school-based health centers (SBHCs) to promote health and well-being within their schools. Some of the SBHCs taking part in health reform efforts can serve as examples for other SBHCs. The recommendations outlined here come from conversations the American Public Health Association (APHA) had with SBHCs and their sponsors from across the country, and they are intended to offer guidance to SBHCs for leveraging health reform efforts at the federal and state levels to improve health and educational outcomes.

SBHCs Should:

Form partnerships to coordinate care, address the social determinants of health, and provide mental health services.

- **Share expertise on how to effectively serve those age 18 and under with local primary care providers, hospitals, and community-based organizations.** SBHCs are uniquely positioned to serve children and adolescents. Sharing best practices on engaging these populations and their distinctive needs can help establish strong relationships that can lead to improved care coordination. For example, SBHCs supported by the Oregon Health Authority are working with groups of hospitals and primary care providers in the state to help them meet their quality metrics for serving children and adolescents. In addition, SBHCs should take advantage of hospitals' requirement to conduct community health needs assessments. As part of the ACA, nonprofit hospitals are required to perform these assessments every three years, and SBHCs can share information on working with children and adolescents during the process.
- **Identify common goals and partner with local public health departments and community-based organizations to connect patients to a wider variety of services than an SBHC alone can offer.** The SBHCs operated by the Jessie Trice Community Health Center in Miami, Florida, worked with community-based organizations to connect their patients to services, including food vouchers and home environmental assessments, that SBHCs and other primary care providers typically do not offer. These services also help address the social determinants of health. As community health improvement coalitions such as Accountable Health Communities continue to form, SBHCs that have experience working with a wide variety of partners can take a leading role.
- **Identify the need for mental health services and form partnerships to address this need.** The SBHCs that APHA spoke with found that there was great demand for mental health services and that their providers could increase the number of students served through collaboration. For example, the Jessie Trice Community Health Center has partnered with a community-based organization to help students access mental health care providers in schools. Also, the Center for Rural Health Innovation in North Carolina works with school districts in the areas it serves to use telemedicine to provide mental health care.

Expand their role beyond providing traditional primary care to students

- **Utilize telemedicine technology as a tool to increase access to all types of health care.** The Center for Rural Health Innovation stresses that telemedicine can be adapted for many purposes in many different locations. The Center uses telemedicine technology in much of the physical and mental health care it provides because of the limited accessibility of health care providers in the areas it serves. Telemedicine is also used by SBHCs sponsored by the University of Miami to connect patients to specialty care that is not regularly provided in brick-and-mortar SBHCs. Telemedicine can even be used to provide dental care.
- **Extend care to school staff and faculty to expand opportunities for collaboration and generating revenue.** The Center for Rural Health Innovation recommends treating faculty and staff to show that SBHCs are able to provide services to adults, for whom accountable care organizations (ACOs) have separate health quality and service measures they must meet. Treating teachers and staff can also demonstrate to ACOs, sponsors, and grant makers that SBHCs are committed to serving as many patients as possible to achieve financial sustainability.

SBHC Sponsors Should:

- **Conduct research on return on investment to make the case for funding SBHCs.** Showing that SBHCs save money for hospitals by preventing emergency department visits is useful information for insurers, hospital systems, and policymakers interested in reducing the cost of health care. As part of its Health Care Innovation Award, the University of Miami researched the return on investment of SBHC services and found that they saved the university's hospital system \$4.3 million. The university then used this research to apply for and receive new sources of funding after the completion of its Innovation Award.
- **Take an active role in developing health reform policies and educating SBHCs about them to foster active SBHC engagement in the reform process.** Both the Oregon Health Authority and Montefiore Health System participated in the development of patient-centered medical home standards to make sure that the standards were achievable and relevant for SBHCs. In addition, the Oregon Health Authority held workshops and provided technical assistance to individual SBHCs to help them take part in health reform efforts.
- **Address the social determinants of health by expanding the focus beyond the walls of the SBHC to improve health and equity among the populations served.** Issuing grants and providing funding can help form relationships between SBHCs and community service providers. Once SBHCs are aware of services available in the community, they are able to make referrals to address health issues that cannot be resolved in a clinic. For example, the Oregon Health Authority is issuing grants to provide benefits navigators in SBHCs to connect patients and their families to available resources such as after-school programs, Medicaid, and housing assistance. Also, in addition to funding SBHCs, The Children's Trust of Miami-Dade County funds many community-based organizations and requires them to work with SBHCs to improve health as a condition of their funding.

Recommendations for School-based Health Centers is one of a series of case studies featuring school-based health centers that have taken part in federal policy reforms, including the Affordable Care Act.

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