

Health + Education = Opportunity: An Equation that Works



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CDF Mission Statement

The Children's Defense Fund Leave No Child Behind® mission is to ensure every child a *Healthy Start*, a *Head Start*, a *Fair Start*, a *Safe Start* and a *Moral Start* in life and successful passage to adulthood with the help of caring families and communities.

CDF provides a strong, effective and independent voice for *all* the children of America who cannot vote, lobby or speak for themselves. We pay particular attention to the needs of poor and minority children and those with disabilities. CDF educates the nation about the needs of children and encourages preventive investments before they get sick, drop out of school, get into trouble or suffer family breakdown.

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The insight, experience and input of a working group of children's health and education stakeholders helped to inform and shape this report and the subsequent recommendations. The recommendations do not necessarily reflect the views of individual task force members nor have they endorsed the recommendations and conclusions of this report. The following individuals contributed to the report by participating in work-group sessions, meeting with CDF-NY individually both in-person and by phone, or providing written feedback on drafts of the report:

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¹ <http://www.altmanfoundation.org/index>

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Executive Summary

New York City educates 1.1 million students across approximately 1,800 schools in the five boroughs.² These students experience a vast array of health care needs. While the primary mission of schools is to educate children so they can go on and lead successful lives, that goal cannot be reached if their health needs are unmet. Currently in New York City, all children receive, or have access to, some basic services in schools from nurses and other health care professionals through the Office of School Health. Still other students receive a greater range of primary and preventive services — varying by site — from school-based health centers.

As the capacity for health care delivery in schools increases, significant opportunities exist to better connect schools to the larger health care infrastructure that works to secure children's health and wellness. Schools must be considered as essential to children's health as community providers, specialists and hospitals. They offer unique advantages in their ability to improve health outcomes for children.

As a key link in the spectrum of children's health care services, school health providers and systems must develop a uniform scope of services available to all New York City school children. The Children's Defense Fund – New York (CDF-NY) believes that schools must play a two-fold role as a link in the greater health care system for children. Ultimately, CDF-NY has concluded that to fully achieve a satisfactory school-based health care delivery system, schools must be able to:

- 1. Manage those health conditions that must be addressed to facilitate the optimal personal learning environment for students and;*
- 2. Manage those health conditions that are detrimental to creating a foundation for lifelong wellness, particularly those conditions not well managed by traditional community providers.*

By directing efforts and resources toward these two responsibilities, schools can fulfill a necessary and unique role for children. This model accounts for the inherent advantages of the school setting and promotes positive growth on a number of long-term indicators of wellness.

² <http://schools.nyc.gov/AboutUs/default.htm>

Methodology

This report reflects the input of a group of committed children's health and education stakeholders. In November 2013, with support from the Altman Foundation, CDF-NY convened the *School Health NYC* task force. The task force included representatives from the Office of School Health, labor unions representing school nurses, school-based health centers, and New York City administrators. CDF-NY asked the task force members to consider an optimal scope of services that stresses enhanced care coordination for New York City school children. Following the meetings of the task force, CDF-NY conducted extensive research into New York City's school health system and successful models across the nation, and completed more individualized follow-up with task force members.

School Health Delivery Systems

Two largely separate service delivery systems provide school-based health care to New York City students: the Office of School Health (OSH) and independently operated school-based health centers (SBHCs).

Office of School Health

The Office of School Health is an administrative division drawn from the New York City Department of Education (DOE) and the Department of Health and Mental Hygiene (DOHMH). OSH plays the dual role of overseeing all school health services and making relevant policy decisions, while also delivering health care services to most New York City schools. The largest portion of OSH services are provided by school nurses. Ninety percent of schools, excluding those with a SBHC, have a nurse on site.³ School nurses treat the daily first aid needs of the student body, assist in the management of chronic illnesses, and provide a number of other services. While school nurses provide the majority of health care services in schools, OSH offers a vast array of services far beyond daily first aid management and skilled nursing services. OSH attempts to provide universal screenings for vision, obesity, asthma and more. Additionally, OSH makes available school physicians to perform physicals for students seeking working papers, or camp and sports physicals. OSH also coordinates the provision of behavioral health services through Article 31 clinics operated in a manner similar to the SBHCs. Moreover, OSH plays a strong public health role, developing and implementing a number of campaigns aimed at increasing children's knowledge of conditions such as asthma and obesity, ensuring compliance with vaccination requirements, and reducing the spread of infectious diseases.

School-Based Health Centers

One hundred thirty-eight school-based health centers, serving students in 330 schools, deliver high-quality, comprehensive services to many New York City children.⁴ Over 99,000 New York City school children receive services from a school-based health center each year.⁵ These clinics are fully certified as New York Article 28 clinics. The total program budget for New York City school-based health centers is approximately \$39 million per year.⁶ School-based health centers provide a range of primary care and ancillary care services. Namely, these include: first aid; diagnosis and treatment for pediatric and adolescent health needs; assessments and examinations for sports physicals and working papers; chronic disease monitoring and treatment; laboratory testing; reproductive health services; STI/HIV testing, treatment, and counseling; vaccinations; and mental health services. Centers also have the option to provide dental services.

³ <http://schools.nyc.gov/Offices/Health/default.htm>

⁴ <http://schools.nyc.gov/Offices/Health/default.htm>

⁵ <http://www.health.ny.gov/statistics/school/skfacts.htm>

⁶ <http://www.health.ny.gov/statistics/school/skfacts.htm>

Intersection of the Two Systems

The two service delivery systems currently do not operate under a collaborative model. Largely, the systems exist apart from each other. Except in rare situations, OSH does not place a school nurse in a school that already has a SBHC.⁷ Of course, if a SBHC only operates part-time in a school, OSH will place a nurse or other appropriate OSH provider in the school when the SBHC is not present. The task force agreed that the current division of services does not reflect the optimal model of care delivery. Members also noted challenges relating to space and financing. These issues currently prevent a more collaborative sharing of resources and a more coordinated system of care delivery. Overall, the current level of services provided is not enough for schools to be an integral, essential link in the greater health care infrastructure for all children. The current system, however, offers a sound model that ought to be preserved and expanded with the recommendations of this report so that schools can become critical health care access points for all children.

The Role of Health Care Services in Schools

Undoubtedly, schools cannot be the sole source of care for a child. Children need access to more intensive care settings, a broader range of specialty physicians and necessary emergency services. Schools, however, are increasingly important entry points for children to access health care services and address health inequities. As a fully integrated part of the health care delivery system, schools can play a strong public and primary health care role for children, improving both individual student and school-wide population health.

When detailing the specific role that schools should play in the continuum of children's health, it is important to consider the unique characteristics and advantages of schools. First, school health services must foster the optimal opportunity for children and youth to learn. Children with unmet health needs are far less likely to succeed in school.^{8, 9} A school that can better manage the day-to-day health care needs of its students will enable the best educational outcomes. Health care services should be delivered with a goal of returning students to class with minimal disruption.

School health services, particularly in New York City Schools, must also serve as a public health safety net. Schools enjoy distinct advantages over community providers in terms of providing care to an often difficult-to-reach population. Schools are a gathering place for nearly all New York City children. With so much of the young population easily accounted for, school health providers can generate serious health improvements by addressing a comprehensive and attentive audience. Additionally, schools provide a space in which providers can offer care in a more comfortable and confidential environment. Many of the services older students need most deeply are sensitive in nature. In the school setting, adolescents can discreetly access these needed services and improve their health care status.

Addressing Critical Child Health Indicators in Schools

While children face a wide range of health conditions, a few highly prevalent conditions affect children in such a way that they can adversely influence learning and future health. CDF-NY has identified four critical areas of need: asthma, behavioral health, obesity, and teen pregnancy. It is important for New York City to provide the resources for all schools to skillfully manage these conditions for all school children. Properly allocating health resources in a manner that satisfactorily addresses these prevalent health concerns will help secure the greatest academic and future health outcomes for children.

⁷ <http://schools.nyc.gov/Offices/Health/default.htm>

⁸ Case, A., Lubotsky, D., & Paxson, C. (2002). Economic status and health in childhood: The origins of the gradient. *The American Economic Review*, 92, 1308–1334

⁹ Ding, W., Lehrer, S. F., Rosenquist, J. N., & Audrain-McGovern, J. (2009). The impact of poor health on academic performance: New evidence using genetic markers. *Journal of Health Economics*, 28(3), 578–597.



Recommendations

The school health system in New York City plays a crucial safety net role in addressing the academic and health care needs of New York's children. With adequate support and a strategic analysis of need, school health stakeholders can foster positive growth for the role of schools in the larger children's health infrastructure. The recommendations presented in this report provide an early road map for the preservation and expansion of school health resources. An enhanced, coordinated and well-funded school health system will better guarantee that New York City's school-aged children achieve their full academic potential, while establishing a foundation for life-long health and wellness. The following recommendations will support a more efficient and sustainably expanded model for schools.

Data Collection

Accurate and population-wide data are the foundation of an efficient and comprehensive school health system. The current school health system does not have an agreed upon method for sharing data across different OSH and SBHC provider systems. Developing a universal method for tracking school level data points, with appropriate protections for a student's protected health information, will be crucial to determining the best allocation of resources.

- Improve the collection and sharing of data between Office of School Health providers and school-based health center providers.
- Connect school health records with relevant providers in the greater children's health infrastructure.
- Track school-level data focusing on key health indicators that demonstrate high demand for health care services.
- Use enhanced data to determine the placement of more intensive school health services, specifically SBHCs.

Scope of Services

With the new data systems in place, school health stakeholders can move forward in developing a universal scope of services. In order to have an equitable health care system in schools, all children must have access to a standard baseline level of services, which stresses universal assessment and preventive screenings for at least asthma, behavioral health issues, sexual health issues and obesity. Additional services can be provided above the baseline level based on need identified by school input and data.

- Develop a uniform scope of services, focusing on preventive services for all and intensive services for those identified as having increased needs.

Increasing Capacity and Securing Financing

Preservation and expansion of the school-based health model are deeply needed. The best school health system cannot be achieved by simply maintaining the current level of services. Before expanding, school health delivery models must secure the necessary operational capacity and financial viability.

- Require school administrators to consider the health care needs of a community when constructing a new school or performing a major capital renovation on an existing school.
- Partner with community organizations to deliver health care services off-site.
- Secure enhanced Medicaid funding for Office of School Health services.
- Preserve the financial viability of SBHCs at the state level, particularly with regard to Medicaid-managed care.
- Work with private and Child Health Plus (CHPlus) plans and the State Department of Health to develop a satisfactory model for SBHC providers to bill for reimbursement.
- Explore the possibility of SBHCs joining or forming a Performing Provider System (PPS) under the state's Delivery System Reform Incentive Payment (DSRIP) initiative.

An enhanced, coordinated and well-funded school health system will better guarantee that New York City's school-aged children achieve their full academic potential, while establishing a foundation for life-long health and wellness.

Integrating School-Based Health Centers and School Nursing Services

An optimal school health delivery system is one that finds school-based health centers and school nurses working together. A complementary model that utilizes the talents of both SBHC and OSH staff will enable schools to offer a universal baseline of services, while also addressing more intensive needs.

- Develop a complementary model that incorporates school nurses into school-based health centers.

Already, New York City delivers care in schools under a robust and diverse provider system. The recommendations in this report hope to capture the strengths of the existing school health system and sustain that model in a changing health care landscape. The intersection of health and education may happen first for children in their school, but these two forces will continue to cross paths long into adulthood. Children's advocates should safeguard this initial crossroads and work to ensure that it becomes a launching pad for life-long wellness.





Introduction

New York City educates 1.1 million students across approximately 1,800 schools in the five boroughs.¹⁰ These students experience a vast array of health care needs. While schools are not positioned to provide all of the health care services a child may require, health care delivery in schools holds a great deal of promise for improving the health of New York's young people. For years, schools have been home to at least some, minimal level of health care services. Over time, schools have grown increasingly capable of treating student's health care needs above and beyond daily first aid needs. Currently in New York City, all children receive, or have access to, some basic services in schools from nurses and other health care professionals through the Office of School Health. Still other students receive a range of more comprehensive services, varying by site, from school-based health centers.

As the city moves towards a greater appreciation of the “community school” model, children's health stakeholders are well positioned to reconsider and promote the role of health care in schools. The community school model is one that wraps health and social supports around the traditional educational offerings of schools. Community schools seek to foster a positive, encouraging space in which children can grow and develop into healthy, productive adults. As the capacity for health care delivery in schools increases, significant opportunities exist to better connect schools to the larger health care infrastructure that works to secure children's health and wellness.

Indeed, schools must be considered an integral player in the larger children's health infrastructure. No longer can school health systems afford to exist as an extraneous care delivery mechanism. Schools must be considered as essential to children's health as community pediatricians, specialists and hospitals. They offer unique advantages in their ability to improve health outcomes for children. Providing health care services in a learning environment enables students to receive care in a confidential setting open to nearly all New York City children and fosters a

¹⁰ <http://schools.nyc.gov/AboutUs/default.htm>

fertile atmosphere for academic growth. Bringing school-based health interventions into the larger health care landscape will better enable all providers to ensure the health and wellness of children. Additionally, a greater connectivity to more mainstream delivery systems will better ensure the long-term stability of school health providers.

Schools can play a comprehensive and unique role in the continuum of health care services needed by children as a complementary – not duplicative – primary and preventive care access point. As a key link in the spectrum of children's health care services, school health providers and systems must develop a uniform scope of services available to all New York City school children. While all students deserve barrier-free access to a full range of health care services, the reality of having a full-service school-based health center in every New York City public school is not practical given current fiscal and logistical constraints. The placement of more intensive services currently depends on a number of factors including intensity of need, school principal and health care provider buy-in, space availability and financial viability. Often times, those non-health factors prohibit the most strategic placement of more intensive school health services. Consequently, the resulting school health system does not reflect a universal scope of services. Some students have access only to first aid services and sparse health education. Others can access the full benefits of a school-based health center.

The role of school health, and the resulting scope of services, must be settled and agreed upon before it can be welcomed as an essential actor in the broader health care system. The Children's Defense Fund – New York (CDF-NY) believes that schools must play a two-fold role as a link in the greater health care system for children. Ultimately, CDF-NY has concluded that to fully achieve a satisfactory school-based health delivery system, schools must be able to:

- 1. Manage those health conditions that must be addressed to facilitate the optimal personal learning environment for students and;*
- 2. Manage those health conditions that are detrimental to creating a foundation for lifelong wellness, particularly those conditions not well managed by traditional community providers.*

By directing efforts and resources toward these two responsibilities, schools can play a necessary and unique role for children. This model accounts for the inherent advantages of the school setting and promotes positive growth on a number of long-term indicators of wellness.

The remainder of this report discusses the current school health system and its natural advantages, and details a list of four critical children's health needs that require attention to achieve the two above stated goals. The report concludes with a number of steps that service providers can take to facilitate the implementation of this scope of services and prepare schools to more fully engage in the broader children's health landscape.

Methodology

This report reflects the input of a group of committed children's health and education stakeholders. In November 2013, with support from the Altman Foundation, CDF-NY convened the *School Health NYC* task force. The task force included representatives from the Office of School Health, labor unions representing school nurses, SBHCs, and New York City administrators. CDF-NY asked the task force members to consider an optimal scope of services that would stress enhanced care coordination for New York City school children. After the initial group meeting, CDF-NY identified three important areas needing further exploration; School Health Financing, Care Coordination, and Care for Children with Special Health Care Needs. Stakeholders divided into three subgroups based on the identified areas of need. Each of these subgroups met an additional two times via conference call to further discern the appropriate action needed to address these unique challenges. Following these meetings, CDF-NY conducted extensive research into New York City's school health system, successful models across the nation, and completed more individualized follow-up with task force members.

School Health Delivery Systems

Two largely separate service delivery systems provide school-based health care to New York City students; the Office of School Health (OSH) and independently operated school-based health centers (SBHCs).

*Office of School Health*¹¹

OSH is an administrative division drawn from the New York City Department of Education (DOE) and the Department of Health and Mental Hygiene (DOHMH). OSH plays the dual role of overseeing all school health services and making relevant policy decisions, while also delivering health care services to most New York City schools. The largest portion of OSH services are provided by school nurses.¹ City, state and federal laws mandate the majority of OSH services. Local law 57 mandates that elementary schools have a school nurse and that middle schools have either a school nurse or a public health advisor.¹² High schools do not have a mandate to deliver school nursing services. Ninety percent of schools, excluding those with a SBHC, have a nurse on site.¹³ School nurses treat the daily first aid needs of the school, assist in the management of chronic illnesses, and provide a number of other services. Section 504 of the Rehabilitation Act and the Americans with Disabilities Act (ADA) outlines the need for schools to provide a nurse to administer medication to children with identified needs.^{14,15} Additionally, the Individuals with Disabilities Education Act (IDEA) prescribes the creation of Individualized Education Plans (IEPs) for students with special needs. IEPs often require a student to receive skilled nursing services. These skilled nursing services are provided by an OSH nurse. School nurses often deliver high-quality chronic disease management for children under these regulations. For a child with diabetes, a school nurse may be responsible for routinely administering medication, monitoring blood glucose levels, and taking appropriate remedial actions in the event of a diabetes related emergency.¹⁶

While school nurses provide the majority of health care services in schools, OSH offers a vast array of services far beyond daily first aid management and skilled nursing services. OSH attempts to provide universal screenings for vision, obesity, asthma and more. Furthermore, OSH makes available school physicians to perform physicals for students seeking working papers, or camp and sports physicals. OSH also coordinates the provision of behavioral health services through Article 31 clinics operated in a manner similar to the SBHCs.

Moreover, OSH plays a strong public health role, developing and implementing a number of campaigns aimed at increasing children's knowledge of conditions such as asthma and obesity, ensuring compliance with vaccination requirements, and reducing the spread of infectious diseases.¹⁷ OSH has a strong track record of promoting improved population health with its public health experience and resources.

Funding for OSH programs comes largely from New York City budget allocations. The New York City DOHMH and DOE each set aside funding for the provision of school-based health interventions. A very small portion of funding comes from the Medicaid School Supportive Health Services Program.

¹ New York City school nurses work under either DOHMH or DOE. DOHMH employs 61.5% of general education nurses. District Council 37 represents DOHMH nurses. DOE employs the remaining 38.5% of general education nurses. The United Federation of Teachers (UFT) represents DOE nurses. DOE nurses also provide services in New York City's District 75 schools which serve children with severe learning challenges. They too are represented by the UFT.

¹¹ <http://schools.nyc.gov/Offices/Health/default.htm>

¹² <http://legistar.council.nyc.gov/LegislationDetail.aspx?ID=662393&GUID=04D6ABD5-E7CA-4382-BF5F-0801AA403618&Options=&Search=>

¹³ <http://schools.nyc.gov/Offices/Health/default.htm>

¹⁴ <http://www.hhs.gov/ocr/civilrights/resources/factsheets/504ada.pdf>

¹⁵ <http://www.hhs.gov/ocr/civilrights/resources/factsheets/504.pdf>

¹⁶ <http://schools.nyc.gov/NR/rdonlyres/952DB10B-23B4-4BA5-A09C-4327CBA5B3E9/0/5RevisedDMAF.pdf>

¹⁷ <http://schools.nyc.gov/Offices/Health/default.htm>

School-Based Health Centers¹⁸

One hundred thirty-eight SBHCs, serving students in 330 schools, deliver high-quality, comprehensive services to many New York City children.¹⁹ Over 99,000 New York City school children receive services from a school-based health center each year.²⁰ These clinics are fully certified as New York Article 28 clinics. School-based health centers provide a range of primary care and ancillary care services. Namely, these include: first aid; diagnosis and treatment for pediatric and adolescent health needs; assessments and examinations for sports physicals and working papers; chronic disease monitoring and treatment; laboratory testing; reproductive health services; STI/HIV testing, treatment, and counseling; vaccinations; mental health services; and, optionally, dental care.²¹

Improving the health of a child in poverty enhances his or her chance of educational achievement and advancement out of poverty.

Centers are staffed by a multi-disciplinary team of licensed health care professionals and support staff. By and large, they are staffed by Nurse Practitioners (NPs) or Physician Assistants (PAs). One NP or PA is designated to serve between 700 and 1,500 students. A supervising physician from the center's sponsoring agency is required to be accessible to the NP or PA at all times during operating hours. Mental health needs may be addressed at the school site or by referral. If services are provided on-site, one full-time licensed mental health provider should be available for every 700-1,500 students enrolled in the program. Lastly, all Centers have a medical or health assistant on site who schedules appointments, conducts data entry, and assists the NP and PA in patient care.

Centers that offer expanded services may have additional staff on-site, which may include a health educator, a community outreach worker, registered nurses, a nutritionist, or a dental professional. The multi-disciplinary teams deployed by SBHCs create a "one-stop shop" care model to promote care coordination and ensure that providers address all aspects of a child's wellness. The nature of this model allows providers to focus on achieving high-quality outcomes for their patients.

The total program budget for New York City SBHCs is approximately \$39 million per year.²² SBHC revenue comes from a variety of sources. Approximately half of SBHC operating revenue comes from the Medicaid program.²³ Additional funding comes from state and federal grants.

History and data have shown that access to SBHC care is a fundamentally effective model to promote improved health outcomes. SBHCs skillfully provide disease prevention and early detection and treatment that fosters both immediate and long-term wellness.²⁴ Moreover, SBHCs lead to educational advancement and economic development for youth who are poor and underserved. Studies have shown improved school attendance, grades and graduation rates as a result of SBHC intervention.²⁵ Improving the health of a child in poverty enhances his or her chance of educational achievement and advancement out of poverty.²⁶

¹⁸ Information in this section is borrowed largely from CDF-NY's previously released report on school-based health centers. The report can be accessed here: <http://www.cdfny.org/research-library/latest-reports/school-based-health-centers.pdf>.

¹⁹ <http://schools.nyc.gov/Offices/Health/default.htm>

²⁰ <http://www.health.ny.gov/statistics/school/skfacts.htm>

²¹ The New York State Department of Health considers dental services to be "optional." Many school-based health centers are unable to provide dental services because of the high cost and inability to supplement Medicaid dental revenue with grant funding.

²² <http://www.health.ny.gov/statistics/school/skfacts.htm>

²³ <http://www.cdfny.org/research-library/latest-reports/school-based-health-centers.pdf>.

²⁴ Webber et. al. (2005). Impact of Asthma Intervention in Two Elementary School Based Health Centers in the Bronx. *Pediatric Pulmonology*: 40 (6), 497-493.

²⁵ <http://www.eric.ed.gov/PDFS/ED539815.pdf>.

²⁶ Webber MP, Carpinellos KE, Oruwariye T, Lo Y, Burton WB, Appel DK. (2003). Burden of Asthma in inner-city Elementary School children: Do School-Based Health Centers Make A Difference?" *Arch. Pediatric & Adolescent Medicine*, 157, 125-129.



Intersection of the Two Systems

The two service delivery systems currently do not operate with a collaborative model. Largely, they exist apart from each other. Except in rare situations, OSH does not place a school nurse in a school that already has a SBHC.²⁷ Of course, if a SBHC only operates part-time in a school, OSH will often place a nurse or other appropriate OSH provider in the school when the SBHC is not present. The task force agreed that the current division of services does not reflect the optimal model of care delivery. Members also noted challenges relating to space and financing. These issues currently prevent a more collaborative sharing of resources and a more coordinated system of care delivery. Overall, the current level of services provided is not enough for schools to be an integral, essential link in the greater health care infrastructure for all children. The current system, however, offers a sound model that ought to be preserved and expanded with the recommendations of this report so that schools can become critical health care access points for all children.

The Role of Health Care Services in Schools

Undoubtedly, schools cannot be the sole source of care for a child. Children need access to more intensive care settings, a broader range of specialty physicians and necessary emergency and inpatient services. Schools, however, are increasingly important entry points for children to access health care services and address health inequities. The traditional role of the school nurse has grown in scope with nurses now capable of providing more complex health management activities within schools, with support from additional OSH providers, such as school physicians and public health advisors. SBHCs have brought full-scale medical clinics into the school building. These school-based interventions have a unique ability to provide primary and preventive care in a

²⁷ <http://schools.nyc.gov/Offices/Health/default.htm>

way that brings significant savings to the health care system. With that in mind, school health must be considered as a deeply important link in the larger public health infrastructure for children. No longer should children's health stakeholders consider school health as a separate care delivery system. School-based health interventions must be an integral part of the continuum of care provided to children, ensuring solid connections to community hospitals, clinics and providers while providing a unique scope of services. As a fully integrated part of the health care delivery system, schools can play a strong public and primary health care role for children; improving both individual student and community health.

When detailing the specific role that schools should play in the continuum of children's health care, it is important to consider the unique characteristics and advantages of schools. First, school health services must foster the optimal opportunity for children and youth to learn. Schools primarily serve as educational institutions. As such, the aim of all school-based services should be to return to children to the classroom and promote the intellectual growth of children. Children with unmet health needs are far less likely to succeed in school.^{28, 29} The presence of unmanaged health conditions in children was shown to be highly correlated with negative performance on math and reading standardized tests.³⁰ Without proper school-based health support, children lose significant academic seat time. With minimal health care services in a school, an asthma attack that could be properly managed in a clinic or prevented with health education and self-management instruction becomes an emergency room visit that takes the student away from school for at least the rest of that day. Such inefficient care demands greater financial and parental resources. A school that can better manage the day-to-day health care needs of its students will enable the best educational outcomes. Health care services should be delivered with the goal of returning students to class with minimal disruption. The National Association of School Nurses reports the presence of a school nurse saves teachers an average of 20 classroom minutes each day.³¹ This health management must occur for the full spectrum of health care needs, both large and small. Health staff must manage the minor, first-aid and urgent care needs of students, while also taking on larger health issues – managing chronic conditions such as asthma and diabetes; accommodating children with special health needs; managing behavioral health concerns; monitoring children's weight, diet and exercise; and preventing teen pregnancy.

Second, school health services, particularly in New York City Schools, must serve as a public health safety net. Beyond ensuring that students have the tools needed to succeed academically, schools are uniquely positioned to provide health services that students may not sufficiently receive through traditional community providers. Schools enjoy distinct advantages over community providers in terms of providing care to an often difficult-to-reach population. Schools are a gathering place for nearly all New York City children. Over 98 percent of children in the United States between the ages of 7 and 13 are enrolled in school.³² With so much of the young population easily accounted for, school health providers can generate serious health improvements by addressing a comprehensive and attentive audience.³³ Schools therefore are equipped to serve as the medium for universal health assessments. Schools promote better overall population health by requiring students to receive needed immunizations, universal vision screenings, as well as other necessary health screenings. The early detection and treatment of pressing health care needs helps to secure improved long-term wellness.

²⁸ Case, A., Lubotsky, D., & Paxson, C. (2002). Economic status and health in childhood: The origins of the gradient. *The American Economic Review*, 92, 1308–1334

²⁹ Ding, W., Lehrer, S. F., Rosenquist, J. N., & Audrain-McGovern, J. (2009). The impact of poor health on academic performance: New evidence using genetic markers. *Journal of Health Economics*, 28(3), 578–597.

³⁰ Eide, E. R., Showalter, M. H., & Goldhaber, D. D. (2010). The relation between children's health and academic achievement. *Children and Youth Services Review*, 32(2), 231–238.

³¹ *Five Ways a School Nurse Benefits a School*; <http://www.nasn.org/Portals/0/about/FiveWays.pdf>

³² https://nces.ed.gov/programs/digest/d12/tables/dt12_007.asp

³³ Public schools are the major recipient of OSH services. School health services, however, are also available in some private and charter schools.

Additionally, schools provide a space in which providers can offer care in a more comfortable and confidential environment. Many of the services older students need most deeply are sensitive in nature. Often, community providers are unable to adequately offer the services that address the unique needs of children and adolescents. Students often fail to seek behavioral and reproductive health services because of the stigma found among peers and within their communities. In the school setting, adolescents can discreetly access these needed services and improve their health status.

Addressing Critical Child Health Indicators in Schools

While children face a wide range of health conditions, a few highly prevalent conditions affect children in such a way that they can adversely influence learning and future health. CDF-NY has identified four critical areas of need: asthma, behavioral health, obesity, and teen pregnancy. It is important for New York City to provide the resources for all schools to skillfully manage these conditions for all school children. Properly allocating health resources in a manner that satisfactorily addresses these prevalent health concerns will help secure the greatest academic and future health outcomes for children.

Asthma

Asthma affects more than 10 percent of New York City elementary school students.³⁴ The high prevalence of asthma among New York City children has negative effects beyond a student's health status. Uncontrolled asthma can lead to increased school absences and worsened academic performance resulting from frequent trips to the emergency room during severe asthma attacks.³⁵ One study found that, on average, children with asthma were absent from schools five days more than children who do not suffer from asthma.³⁶ Nationally, children miss 14 million days of school because of asthma.³⁷ With such reduced seat time, children have greater difficulty learning. Asthma additionally affects children from low-income neighborhoods at a higher rate than those in medium and upper-income neighborhoods. Lower-income neighborhoods in the Bronx and central Brooklyn have some of the highest rates of asthma in the country.³⁸

Students often fail to seek behavioral and reproductive health services because of the stigma found among peers and within their communities. In the school setting, adolescents can discreetly access these needed services and improve their health status.

Research has shown that the presence of school health services aimed at better managing asthma yields both positive health and educational gains. Though highly prevalent, asthma is one condition that can be treated easily with proper care management. Accordingly, children can reach their maximum academic potential if school health providers meet a child's asthma needs. One study conducted in Detroit elementary schools found that children who received a school-based asthma intervention experience fewer daytime and nighttime symptoms, were absent less often, and even achieved higher grades in science.³⁹

³⁴ <http://schools.nyc.gov/Offices/Health/default.htm>

³⁵ Fowler, M. G., Davenport, M. G., & Garg, R. (1992). School functioning of US children with asthma. *Pediatrics*, 90(6), 939-944.

³⁶ Fowler, M. G., Davenport, M. G., & Garg, R. (1992). School functioning of US children with asthma. *Pediatrics*, 90(6), 939-944.

³⁷ http://www.nhlbi.nih.gov/files/docs/resources/lung/asth_sch.pdf

³⁸ http://www.osc.state.ny.us/reports/economic/asthma_2014.pdf

³⁹ <http://journal.publications.chestnet.org/data/Journals/CHEST/22008/1674.pdf>

New York City's school health system's treatment of asthma could be used as a model for the scope of services discussed in this report. Currently, OSH provides a significant level of services aimed at reducing asthma morbidity. OSH has developed and implemented programs that identify students with this particular need, and equip these children with the tools to adequately address their asthma as a means of ensuring future health and academic achievement.

Behavioral Health

One of the most understated health disparities facing children is the lack of treatment for behavioral health conditions. Among adolescents aged 13-18, more than 20 percent experience a form of mental illness that is severe enough to impact daily functioning. In a standard class room of approximately 20 students, one would expect to find four to five adolescents suffering from a serious mental health condition.⁴⁰ These issues include such conditions as depression, anxiety, attention disorders and suicidal ideation. Such conditions are certainly not restricted to adolescents. One report found that among New York City school-aged children, 270,000 were experiencing some form of significant mental illness.⁴¹ An additional 50,000 children under the age of 5 also experienced some behavioral health issue.⁴² Despite the high prevalence of behavioral health conditions, research has shown that treatment uptake rates remain woefully low. One study estimated that half of 8-15 year olds living with a behavioral health disorder received no treatment in the past year.⁴³ Black children were 70 percent more likely than White children not to receive needed mental health services.⁴⁴

Children suffering from behavioral health conditions are likely to miss school more frequently than their peers, and perceive themselves to be less capable of achieving academic success.^{45, 46} One study showed that many students with a behavioral disorder scored below average on standardized reading, writing and math tests.⁴⁷ The rate of suspension and expulsion for children with behavioral health needs is three times that of their peers.⁴⁸ Unmet behavioral health needs have negative consequences for children beyond the schoolroom. The percentage of youth in the juvenile justice system experiencing a behavioral health disorder exceeds 70 percent, a disproportionately large share when compared with the general population.⁴⁹

With so many New York City children experiencing the detrimental impacts of unmanaged behavioral health diagnoses, it remains critical for schools to be able to manage such conditions. Management of these conditions has positive returns in the short-term through improved academic success, and in the long-term through a host of enhanced social outcomes. Half of all lifetime cases of mental health and substance abuse disorders start by

⁴⁰ Blum, R. W., Beuhring, T., & Rinehart, P. M. (2000). Protecting Teens: Beyond Race, Income and Family Structure.

⁴¹ Citizens Committee for Children. (2013). *A Prescription for Expanding School-Based Mental Health Services In New York City Public Elementary Schools* (1sted.). New York, NY.

⁴² Citizens Committee for Children. (2013). *A Prescription for Expanding School-Based Mental Health Services In New York City Public Elementary Schools* (1sted.). New York, NY.

⁴³ Merikangas, K., He, J., Brody, D., Fisher, P., Bourdon, K., & Koretz, D. (2010). Prevalence and treatment of mental disorders among US children in the 2001-2004 NHANES. *Pediatrics*, 125(1), 75-81. doi: 10.1542/peds.2008-2595

⁴⁴ Children's Defense Fund. (2014). *The State of America's Children*. Washington, DC.

⁴⁵ Gall, G., Pagano, M. E., Desmond, M. S., Perrin, J. M., & Murphy, J. M. (2000). Utility of Psychosocial Screening at a School based Health Center. *Journal of School Health*, 70(7), 292-298.

⁴⁶ Masi, G., Tomaiuolo, F., Sbrana, B., Poli, P., Baracchini, G., Pruneti, C. A., ... & Marcheschi, M. (2001). Depressive symptoms and academic self-image in adolescence. *Psychopathology*, 34(2), 57-61.

⁴⁷ <http://csmh.umaryland.edu/Resources/Reports/CSMH%20SMH%20Impact%20Summary%20July%202013.pdf>

⁴⁸ Blackorby, J.; Cameto, R. 2004. Changes in School Engagement and Academic Performance of Students with Disabilities. In Wave 1 Wave 2 Overview (SEELS). Menlo Park, CA: SRI International.

⁴⁹ <http://www.ncmhjj.com/resources/faq/>

age 14.⁵⁰ Treatment of behavioral health issues as they emerge during these crucial development years creates a foundation for recovery, upon which students can achieve improved overall health and social-economic success. Students who received behavioral health interventions through a school-based program experienced drastic growth in GPA⁵¹; were absent less often⁵²; and were twice as likely as those who did not seek services to remain in school.⁵³

The adequate treatment of behavioral health conditions requires a robust infrastructure of qualified personnel, specialized resources and confidential space. While schools have access to students in a comfortable space, more discussion is needed around developing an adequate scope of services for behavioral health interventions in schools.

Obesity

Nearly half of New York City school children are living at an unhealthy weight.⁵⁴ One study of New York City elementary school students found that 43 percent of students were overweight, of whom more than half were obese (24 percent overall).⁵⁵ Prevalence of childhood obesity appears to correlate strongly with a child's neighborhood. Lower-income neighborhoods in the Bronx and Central Brooklyn reported the highest rates of childhood obesity.⁵⁶ Research has clearly established that obesity makes children more likely to develop diabetes, cancer, and heart disease later in life. One major study discovered that well over half of obese children showed serious warning signs for heart disease, and one-quarter displayed warning signs for diabetes.^{57, 58} More recently, research is beginning to emerge that also links obesity to poorer educational performance. One study found that obese children performed worse in mathematics compared to their non-obese peers.⁵⁹ The researchers suggest that obesity fosters feelings of social isolation and loneliness, which negatively affect school performance.

Schools manage a large portion of a child's diet and exercise. Accordingly, they are well suited to improve the physical health of students by ensuring access to quality food and allowing adequate time for proper physical activity. Under the existing service model, New York City schools both universally assess the Body Mass Index of students and educate children on the need and means for getting fit. Schools must heighten and expand current efforts.

School-based health interventions leveled at getting children to a healthy weight have been shown to yield positive outcomes for students. A study conducted in Massachusetts schools found that an obesity intervention had significant downward effects on the prevalence of obesity among students, particularly female students.⁶⁰

⁵⁰ Citizens Committee for Children. (2013). *A Prescription for Expanding School-Based Mental Health Services In New York City Public Elementary Schools* (1sted.). New York, NY.

⁵¹ Walker, S. C., Kerns, S. E., Lyon, A. R., Bruns, E. J., & Cosgrove, T. J. (2010). Impact of school-based health center use on academic outcomes. *Journal of Adolescent Health, 46*(3), 251-257.

⁵² Gall, G., Pagano, M. E., Desmond, M. S., Perrin, J. M., & Murphy, J. M. (2000). Utility of Psychosocial Screening at a School based Health Center. *Journal of School Health, 70*(7), 292-298.

⁵³ Brown, M. B., & Bolen, L. M. (2008). The school based health center as a resource for prevention and health promotion. *Psychology in the Schools, 45*(1), 28-38.

⁵⁴ <http://schools.nyc.gov/Offices/Health/default.htm>

⁵⁵ Thorpe, L. E., List, D. G., Marx, T., May, L., Helgeson, S. D., & Frieden, T. R. (2004). Childhood obesity in New York City elementary school students. *American Journal of Public Health, 94*(9), 1496

⁵⁶ http://www.nyc.gov/html/doh/downloads/pdf/epi/nyc_comhealth_atlas10.pdf

⁵⁷ <http://www.cdc.gov/healthyyouth/keystrategies/pdf/make-a-difference.pdf>

⁵⁸ <http://www.nhlbi.nih.gov/health/health-topics/topics/obe/risks.html>

⁵⁹ Gable, S., Krull, J. L., & Chang, Y. (2012). Boys' and girls' weight status and math performance from kindergarten entry through fifth grade: a mediated analysis. *Child development, 83*(5), 1822-1839.

⁶⁰ Gortmaker, S. L., Peterson, K., Wiecha, J., Sobol, A. M., Dixit, S., Fox, M. K., & Laird, N. (1999). Reducing obesity via a school-based interdisciplinary intervention among youth: Planet Health. *Archives of pediatrics & adolescent medicine, 153*(4), 409-418.

More specifically, researchers showed that the wellness program reduced the number of hours students watched television and increased their consumption of healthy fruits and vegetables.⁶¹

Teen Pregnancy

The reality of pregnancy is one that confronts nearly 17,000 New York City adolescent females each year.⁶² The rate of teen pregnancy in New York City per 1,000 females ages 15-19 is 99.4. That number jumps to 137.2 in the Bronx. While the rate of teen pregnancy in New York City has fallen 30 percent since 2001, it remains well above the national average of 79.8, and far higher than the rate in many nearby cities (Boston: 19.4).⁶³ Like asthma and obesity, teen pregnancies are not evenly distributed across all neighborhoods. Lower-income neighborhoods in the Bronx, Harlem and Central Brooklyn report the highest rates of teen pregnancy.⁶⁴

Teen pregnancy affects a student's opportunity to learn. Faced with the demanding task of caring for a child of their own, New York City adolescents who become parents must devote the majority of their energies toward their child. Just one in three teenage mothers obtains a high school diploma on time. Even fewer receive a college degree — less than 1.5 percent of teenage mothers earn an undergraduate degree by the time they reach 30 years of age.⁶⁵

Community providers often do not adequately address the sexual health needs of adolescents in New York City. A perceived lack of confidentiality and an unwillingness of some providers to address these issues contribute to students' inability to access these services. New York City schools have been actively delivering sexual health services in neighborhoods with high rates of teen pregnancy. Through interventions like the Nurse Family Partnership and the Connecting Adolescents to Comprehensive Healthcare (CATCH) program in schools, New York City DOHMH providers have sharply reduced the teen pregnancy rate in New York City. Among adolescents who received services under the Nurse Family Partnership program, new mothers were more likely to have fewer, more spaced out pregnancies and were more likely to graduate from high school or receive their General Educational Development diploma.⁶⁶



⁶¹ Gortmaker, S. L., Peterson, K., Wiecha, J., Sobol, A. M., Dixit, S., Fox, M. K., & Laird, N. (1999). Reducing obesity via a school-based interdisciplinary intervention among youth: Planet Health. *Archives of pediatrics & adolescent medicine*, 153(4), 409-418.

⁶² *Teen Sexual and Reproductive Health in New York City*, Citizens' Committee for Children of NY Policy Briefing, October 23rd, 2013, Deborah Kaplan, DrPH, MPH, R-PA, Assistant Commissioner, Bureau of Maternal, Infant and Reproductive Health, NYC Department of Health and Mental Hygiene

⁶³ <http://www.massteenpregnancy.org/research/teen-pregnancy-and-birth-rates>

⁶⁴ NYC Vital Statistics of 2012: Pregnancy Outcomes 2012. <http://www.nyc.gov/html/doh/downloads/pdf/vs/vs-pregnancy-outcomes-2012.pdf>.

⁶⁵ <https://www.dosomething.org/tipsandtools/background-teenage-pregnancy>

⁶⁶ <http://www.cccnewyork.org/wp-content/uploads/2013/11/DOHMHPresentation.pdf>

Moving Forward: Recommendations for an Improved School Health System

Based on the assessment of the existing school health landscape and the insight and guidance of the *School Health NYC* task force, CDF-NY has developed a set of recommendations to further expand and enhance the school-based health care system in New York City. The recommendations fall into four broad categories: data collection; scope of services; securing financing and increasing capacity; and integrating SBHCs and school nursing services.

Data Collection

Accurate and population-wide data are the foundation for an efficient and comprehensive school health system. The current school health system does not have an agreed upon method for sharing data across different OSH and SBHC provider systems. Developing a universal method for tracking school level data points will be crucial to determining the best allocation of resources.

The recommendations in this report regarding data sharing must be intensely mindful of privacy concerns. Children's health stakeholders must maintain appropriate security and confidentiality when sharing any child's "protected health information" (PHI). Two sets of federal law protect the health records of students receiving care in a school; Family Educational Rights and Privacy Act (FERPA) and Health Insurance Portability and Accountability Act (HIPAA).⁶⁷ In particular, these laws restrict the sharing of behavioral and reproductive health information.

Improve the collection and sharing of data between OSH providers and SBHC providers. Currently, OSH providers and SBHC providers do not share medical records. OSH providers use the Automated School Health Record (ASHR) system to collect patient data. The ASHR system is a health record accessible by school nurses in all New York City elementary, intermediate and high schools.⁶⁸ It tracks information based on a student's "Child & Adolescent Health Examination" form, any IEP information, and any visits to the school nurse. SBHC providers employ one of many private electronic health record systems. The creation of a new, universally adopted electronic medical system would be cost prohibitive and would require a burdensome upfront investment of financial and staff resources. OSH and SBHCs need to offer some access to one another's medical records, while protecting a patient's PHI. At the simplest level, OSH and SBHC providers could create a standard, shared process for student case management to track health outcomes for students who have received services from both OSH and a SBHC. The cross-availability of medical records would facilitate better communications, would reduce duplicate services, and would ensure more coordinated care.

Connect school health records with relevant providers in the greater children's health infrastructure.

In Delaware, school nurses have had success improving the delivery of care to students by connecting school health records with those of a large community health care system, which includes hospitals and clinics.⁶⁹ The data linkage has made care more efficient by ensuring that school nurses have the most up-to-date information on students, helping nurses avoid duplicative or unnecessary tests and follow-up that might take students away from the classroom. Such a data linkage would be logistically challenging to implement. Providers would need to be careful to preserve the confidentiality of student's PHI. Additionally, students in New York City schools receive care from a multitude of community providers. Connecting school nurses to community provider data

⁶⁷ Department of Education and Department of Health and Human Services. (2008). *Joint Guidance on the Application of the Family Educational Rights and Privacy Act (FERPA) and the Health Insurance Portability and Accountability Act of 1996 (HIPAA) To Student Health Records*. Washington, DC.

⁶⁸ <http://schools.nyc.gov/Offices/Health/default.htm>

⁶⁹ <http://www.pbs.org/newshour/rundown/access-students-online-health-information-boon-school-nurses/>

would be challenging, but may be successful with an initial pilot program. For example, schools in Brooklyn may be better served by connecting to the health information systems of a large health system that serves a large number of children throughout the borough.



New York City schools could connect with certain statewide data integration efforts. New York State is creating regional health information organizations (RHIOs) in different areas of the state to better facilitate the sharing of information from multiple providers, including primary care physicians, specialists, hospitals and other community providers. School health providers, both OSH and SBHCs, should seek to be a critical contributor and receiver of health information made accessible by RHIOs.

Such connectivity with local partners will be more complex in intermediate schools and high schools. Because New York City allows students to apply to schools outside of their home district, a school's student population may not reflect the population of the community.⁷⁰ In these cases, many students' local community providers may be more diversely distributed across the five boroughs. Evidence suggests, however, that students tend to favor nearby schools as their first choice.⁷¹ Over 80 percent of high school applicants selected a school in their home borough, at an average of just 2.5 miles from their home zip code, as their first choice. This finding suggests that connectivity with local health providers may still yield worthwhile benefits.

While as described above, optimal, secure and comprehensive data integration will require significant investment and patience, such investments will have long-term positive returns both financially and for child health.

Track school level data focusing on key health indicators that demonstrate high demand for health care services. As previously noted, the major public health concerns facing New York City's school aged children include high rates of asthma, untreated mental health needs, high rates of obesity, and teen pregnancy. To best understand the fullness of these health indicators on children's health and welfare, administrators and children's health stakeholders must be aware of the prevalence of these conditions at the school level. Schools would gain from the development of a simple *children's health vulnerability index*, which would identify those schools and communities most vulnerable to negative educational outcomes and poor adult health. This vulnerability index would benefit from being simple and universally adopted. It would be helpful to supplement health data with additional factors about the school; particularly, the poverty rate within the school, the school's graduation rate, the number of suspensions, the number of students with IEPs, and the school absenteeism rate. These factors have been shown to reliably indicate social service need.⁷² With all schools adopting the children's health vulnerability index, Office of School Health staff would have a standardized tool for assessing which schools face the greatest health challenges.

⁷⁰ <http://schools.nyc.gov/ChoicesEnrollment/Transfers/PublicSchoolChoice/default.htm>

⁷¹ Corcoran, S. P., & Levin, H. M. (2011). School choice and competition in the New York City schools. *Education reform in New York City: Ambitious change in the nation's most complex school system*, 199-224.

⁷² Balfanz, R., & Byrnes, V. (2012). Chronic Absenteeism: Summarizing What We Know From Nationally Available Data. Baltimore: Johns Hopkins University Center for Social Organization of Schools.

Use enhanced data to determine the placement of more intensive school health services, specifically SBHCs.

Data collected from children's health vulnerability index can be combined with existing school health data to create a more comprehensive assessment of school health need. Schools typically receive more intensive health care services based on the number of students in each school, the presence of students with special health care needs, a principal's desire to have enhanced health services, and the availability of a willing provider and adequate space within a school. With limited resources for school health delivery, it remains important for the OSH to identify schools with the highest health care needs. Of course, implementation of more intensive school health services will still yield to principal and provider discretion and space availability, but the availability of more transparent and accessible data will stress the need to address health care concerns within the most vulnerable schools.

Scope of Services

With the new data systems in place, school health stakeholders can move forward in developing a universal scope of services. In order to have an equitable health care system in schools, all children must have access to a standard baseline level of services. This baseline of services should manage those conditions that dampen children's ability to learn and increase their likelihood of being unhealthy adults. Additional services can be provided above the baseline level based on need identified by school input and data.

Develop a uniform scope of services, focusing on preventive services for all and intensive services for those identified as having increased needs. A school health scope of services should reflect the ability to manage those conditions that impact a child's ability to learn and grow into healthy adults; specifically, asthma, behavioral health, obesity and teen pregnancy. While an ideal school health system with unlimited resources would provide comprehensive, intensive health care services in all schools, New York City schools face limitations of funding and space. Scarce, intensive health care resources need to be allocated in a strategic manner. The baseline of services should stress universal assessment and preventive screenings. All schools should have the capacity to screen students for — at minimum — asthma, behavioral health issues, sexual health concerns and obesity. Universal screening would then lead into lower level treatment options, such as asthma self-management education, appropriate behavioral health referrals, sexual health education and appropriate access to contraceptives, and nutritional counseling and physical education. Students who display a greater need for services would be directed to more comprehensive services. In conjunction with earlier recommendations around data sharing, schools identified as having a higher need would be prioritized for receiving a greater share of school health resources.

In many ways, this scope of services is at least initially reflected in the current OSH delivery model. OSH promotes universal screenings for prevalent health care issues, monitoring students' body mass index, assessing vision problems and more. On top of these screenings, OSH has launched a number of initiatives that seek to provide more intensive services for prevalent conditions. For example, the Healthy Options and Physical Activity Program (HOP) helps students reach a healthier weight following initial assessment.⁷³ CDF-NY, however, recommends further collaboration between OSH and SBHC services as a means for fully implementing the universal scope of services. This collaborative model is further described in a later recommendation.

Increasing Capacity and Securing Financing

Preservation and expansion of the school-based health model are deeply needed. The best school health system cannot be achieved by simply maintaining the current level of services. Before expanding, school health delivery models must secure the necessary operational capacity and financial viability.

⁷³ <http://schools.nyc.gov/Offices/Health/default.htm>

Require school administrators to consider the health care needs of a community when constructing a new school or performing a major capital renovation on an existing school. In New York City, administrators face great difficulty finding adequate space to accommodate the educational and social supports children need. With so many schools constructed before the advent of SBHCs, many schools simply do not have the space to accommodate a fully functioning health clinic. As administrators and the School Construction Authority seek to develop new schools and perform capital renovations, the health care needs of children should influence the design of schools.⁷⁴ With the development of the community schools model, future schools will not only be educational institutions, but also centers of social support and empowerment. The inclusion of health care needs and the appropriate space to develop healthy children from the initial stages of the planning process will be critical to the achievement of the goals outlined in the community schools model.

Partner with community organizations to deliver health care services off-site. Understandably, not every school will be able to accommodate a full-fledged school-based health center. For these schools, it will be important for administrators and OSH staff to secure memorandums of understanding (MOUs) with community organizations to provide health care services beyond what OSH can routinely administer. The appropriate MOUs will ensure that the schools meet the previously described scope of services. Community health centers, hospitals and behavioral health providers will be crucially important partners when establishing needed care connections.

For example, schools in Brooklyn partnered with the non-profit organization OneSight to deliver vision services to students.⁷⁵ Under an agreement with two Brooklyn schools, OneSight parks its “Vision Van,” a mobile vision clinic, in front of the school where it can conveniently provide services to students. Students can receive an eye exam and obtain needed eyewear with minimal disruption to their time in the classroom. MOUs with organizations that can provide near by clinic space or mobile units for the delivery of certain, needed services can help mitigate school space issues. This strategy helps schools manage those more intensive health care issues that traditionally require a full clinic to treat.

Secure enhanced Medicaid funding for Office of School Health services. Currently, OSH services draw very few Medicaid reimbursement dollars. As previously noted, allocations from school districts and the DOHMH budget fund those school health services not provided by SBHCs. Burdensome regulations regarding Medicaid billing and an inability to properly document services at the service delivery location have prevented school health providers from eliciting critical Medicaid funds. A recent report from the New York City Comptroller’s Office noted that New York City failed to secure \$356 million in Medicaid revenue under the School Supportive Health Services Program (SSHSP) between fiscal years 2012 and 2014.⁷⁶ As of 2010, New York State received approval from the Centers for Medicare and Medicaid Services to distribute Medicaid dollars in schools for the following services delivered to students with IEPs:⁷⁷

- Medical Evaluations
- Medical Specialist Evaluations
- Psychological Evaluations
- Audiological Evaluations
- Physical Therapy
- Occupational Therapy
- Speech Therapy
- Psychological Counseling
- Skilled Nursing
- Special Transportation

⁷⁴ School Construction Authority; <http://www.nycsca.org/Business/WorkingWithTheSCA/Design/Pages/DesignRequirements.aspx>

⁷⁵ <http://www.ny1.com/content/news/education/207525/nonprofit-has-clear-vision-for-city-s-underserved-students>

⁷⁶ Office of the New York City Comptroller. (2014). *Money Left on the Table: A Review of Federal Medicaid Reimbursement to the New York City Department of Education* (1sted.). New York, NY: Scott Stringer.

⁷⁷ Office of the New York City Comptroller. (2014). *Money Left on the Table: A Review of Federal Medicaid Reimbursement to the New York City Department of Education* (1sted.). New York, NY: Scott Stringer.

Medicaid funding could help reallocate existing funding toward expanded services and more universal assessments aimed at identifying major public health needs. It should be noted that, currently, DOE, not DOHMH, is responsible for securing SSHSP Medicaid reimbursement. While further sustaining the financing of school health through the integration of DOE and DOHMH funds would be optimal, it presents a complex challenge.

School health stakeholders must carefully examine the practice areas for which schools can submit Medicaid reimbursement claims. City funds should not be used for services that could possibly be paid for with federal dollars. However, considering the intense federal scrutiny over these services, administrators and providers must be careful to seek reimbursement only for appropriate services that can be correctly documented. The process of developing the appropriate protocols and data-sharing needed for school health Medicaid reimbursement will require significant input from providers and administrators at all levels of government.

Preserve the financial viability of SBHCs at the state level, particularly with regard to Medicaid

managed care. The New York State Department of Health has scheduled school-based health center providers to transition into a Medicaid managed care reimbursement model by July 1, 2015. CDF-NY previously developed a report and set of recommendations on this issue. Typical managed care protocols require providers to perform more care coordination activities — often in the form of seeking prior authorization for services, obtaining referrals and establishing contracts with each managed care organization. In order to preserve financial viability of SBHC providers who already face a difficult financial landscape, the transition to managed care will need to ensure that providers can secure guaranteed reimbursement for services delivered to students. While it is acceptable to require SBHC providers to secure prior authorization and submit to care coordination requirements for primary and preventive services; chronic disease management, urgent, behavioral, and reproductive care will need to remain accessible without first securing authorization from managed care organizations. Additionally, the state must ensure that managed care organization reimburse SBHCs at sustainable rates. CDF-NY's report showed that a transition to typical managed care rates would draw approximately \$14 million from SBHCs in the downstate region. Clearly, average managed care rates would lead to the closure of some SBHC sites in New York City and would make expansion of the program nearly impossible. Lastly, in order to be prepared by the July 1, 2015 deadline, SBHCs will need to be able to contract with managed care organizations and credential providers in an expedited fashion. The ability to adequately bill providers will be essential to securing any Medicaid revenue. For a further analysis of this issue, you can access CDF-NY's report here:

<http://www.cdfny.org/research-library/latest-reports/school-based-health-centers.pdf>.

Work with private and Child Health Plus (CHPlus) plans and the Department of Health to develop a satisfactory model for SBHC providers to bill for reimbursement.

As SBHCs transition into Medicaid managed care, they will need to develop the capacity to bill multiple managed care organizations. With only minimal extra resources, this capacity can easily translate into the ability to more easily bill private insurance companies and Child Health Plus plans. More complete billing will enable SBHCs to secure a greater amount of revenue and decrease the amount of uncompensated care delivered. Many private and CHPlus plans do not reimburse primary care services not provided by a child's primary care physician. SBHCs, however, typically provide complementary, rather than duplicative, services. State administrators, plan managers and SBHC providers must create a rate structure that reimburses SBHCs for the complementary services provided by a non-PCP SBHC provider that improve a child's health outcomes.

Additionally, providers and plans must be sure to address issues around confidential services and the consequent explanation of benefits. Currently, SBHCs often provide care for confidential services, such as STI counseling, without reimbursement because the submission of a claim would send an explanation of benefits to a child's parents, thus violating that child's confidentiality. Managed care plans, CHPlus plans and private plans will need to develop a mechanism for identifying confidential visits and ensuring that they suppress the explanation of benefits.

Explore the possibility of SBHCs joining or forming a Performing Provider System (PPS) under the state's Delivery System Reform Incentive Payment (DSRIP) initiative. The state has introduced a bold vision for reforming the payment structure within Medicaid. The DSRIP program would work to slowly shift Medicaid funding toward an outcome based reimbursement model. Performing Provider Systems will be networks of Medicaid providers and community-based organizations that coordinate a comprehensive list of services aimed at better coordinating care, avoiding unnecessary hospitalizations and improving patient health outcome measures. These projects will begin receiving payments in 2015. The state has identified a desire to make this delivery system reform a cornerstone of the newly emerging health care landscape in New York.

SBHCs would benefit from inclusion in a PPS. The services delivered by SBHCs already work to integrate a diverse team of providers in a way that fosters integrated, outcome based care. Inclusion in a PPS would enable a SBHC to receive payment for their strong capacity to promote improved health outcomes, while best positioning themselves to be active players in the future of New York's Medicaid delivery system. For example, SBHCs have worked to reduce hospitalizations associated with asthma attacks. Often these hospitalizations can be avoided with proper self-management education and appropriate medical attention in the SBHC setting. Such a capacity to reduce unnecessary emergency room visits and hospitalizations would make SBHCs a valued partner in a PPS. Additionally, securing prominent roles within PPS networks would help establish schools as a key component of the health care infrastructure needed to foster the wellness of children.

Integrating School-Based Health Centers and School Nursing Services

An optimal school health delivery system is one that finds school-based health centers and school nurses working together. A complementary model that utilizes the talents of both SBHC and OSH staff will enable schools to offer a universal baseline of services, while also addressing more intensive needs.

Develop a complementary model that incorporates school nurses into school-based health centers.

The OHS does not place a school nurse in schools that have a SBHC. This existing policy creates a bifurcated school health care system in which school nurses and other OSH staff coordinate very little with SBHCs. CDF-NY believes that the systems need not be mutually exclusive. School health stakeholders should develop a model that combines school nurses with services offered by SBHCs.⁷⁸

School nurses and SBHC providers have found success working under a collaborative model in other parts of the country. Public schools in Maryland have particularly enjoyed the benefits of the collaborative model. During the school year beginning in 2007, 72 schools employed the services of both a registered school nurse and a SBHC. Under the Maryland model, the school nurse often served as the child's access point for care. The school nurse would assess the situation and evaluate whether the children could be treated under the nurse's care or would need to be referred for a higher level of care provided through the SBHC.

⁷⁸ http://www.marylandpublicschools.org/msde/divisions/studentschoolsvcs/student_services_alt/school_based_health_centers/index.html



Already, OSH providers and SBHCs provide distinct and complementary services. Under a more collaborative process, OSH providers, primarily school nurses, would manage the day to day flow of health needs within the school; while SBHCs would deliver more comprehensive, in-depth health services.⁷⁹ School nurses would be able to perform standard screenings and assessments, manage students' first aid needs, monitor chronic illnesses and administer medications, and implement students' IEPs. SBHCs would continue providing primary, behavioral and oral health services, offering physicals, prescribing medication, performing lab tests, and connecting students with public and private health insurance options. The two provider systems, under this model, could coordinate the care of students, and collaborate on services such as developing and offering health education programs. Under this model, OSH providers and SBHCs could best ensure the healthy growth and development of children, while also ensuring they have the best opportunity to succeed without creating inefficiencies.

Conclusion

As New York City moves toward a future of community schools, children's health stakeholders must discern the appropriate role of health care services within schools. This report suggests that schools should play a fundamental role in the fostering of healthy children. The children's health care delivery system must evolve to better incorporate schools as an integral actor in the promotion of wellness. While schools cannot supplant traditional care delivery models, it would be foolish to diminish the inherent advantages of school-based health care delivery to the simple management of daily first aid needs. Schools capture an often hard-to-reach population and offer a safe, confidential space in which providers and students can engage in honest and meaningful conversations that promote children's wellness. In a time where the health care landscape is renewing its focus on outcomes based medicine, schools provide an exceptional opportunity to capture the positive health outcomes that ensure both an optimal learning environment and a healthy adulthood.

Already, New York City delivers care in schools under a robust and diverse provider system. The recommendations in this report hope to capture the strengths of the existing school health system and further strengthen and sustain that model in a changing health care landscape. CDF-NY's recommendations regarding data collection; scope of services; securing financing and increasing capacity; and integrating SBHC and school nursing services will help school health delivery systems meet the long-term needs of New York City school children. The intersection of health and education may happen first for a child in their school, but these two forces will continue to cross paths as graduation approaches and long into adulthood. Children's advocates ought to safeguard this initial crossroads and work to ensure that it becomes a launching pad for lifelong wellness.

⁷⁹ National Assembly on School-Based Health Care and National Association of School Nurses; http://ds5cvxtqu2rt0.cloudfront.net/media/pdf/FactSheet_June14_1.pdf

