



**Public Advocate for the City of New York**

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# **More Than Band-Aids**

**Investing in Public School-based Health Services  
to Improve Child Health and Well-being  
in New York City**

**March 2009**

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# Office of the New York City Public Advocate

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My fellow New Yorkers:

I have made the well-being of New York City's almost two million children a focal point of my tenure as Public Advocate. With chronic childhood diseases like obesity on the rise and others like asthma at historically high levels, it is critical that we make a long-term investment in our children's health.

We have made a great deal of progress when it comes to children's health, but low-income and minority communities still face major disparities. For example, in 2007, the infant mortality rate in New York City for blacks was 9.8 per 1,000 live births compared to 3.9 per 1,000 live births for whites; and according to health department data published in 2008, the teen pregnancy rate in the South Bronx (153 per 1,000 births in 2005) was more than double the national rate (75 per 1,000 in 2002) and much higher than New York City's overall rate (94 per 1,000). To address these disparities, I believe the city needs to develop a comprehensive health plan for children and youths.

One of the most promising institutional anchors for a city-wide plan to improve child health is the public school system. More than half of the city's children spend most of their day at school. Schools, therefore, must be part of a comprehensive solution to improve child health. In April 2008, I invited a group of advocates and experts to a roundtable discussion on the role schools could play in improving child health in New York City. Following the roundtable discussion, I asked the participants who have direct experience with school-based health services to share their thoughts. In the following papers, the authors share their knowledge of three different types of school-based services:

- Megan Charlop from the School Health Program at Montefiore Medical Center discusses school-based health centers (SBHCs);
- Dr. Alan Shapiro from the South Bronx Health Center for Children and Families, describes community partnerships; and
- Elizabeth Howell from the Community Healthcare Network discusses school-based wellness programs.

Taking into account each of the contributing authors' recommendations, I recommend the following:

The City of New York should:

- Create a long-term plan to place school-based health services in every city school.
- Create a public-private fund to support city funding of school-based health services.
- Ensure that all new schools planned by the School Construction Authority (SCA) have the capacity necessary for health services.

The State of New York should:

- Create a mechanism for SBHCs to receive reimbursement for services provided to children enrolled in Child Health Plus (CHP).
- Change state regulations to allow Medicaid reimbursement for school-based nutrition counseling services.

I am convinced that schools are an important and necessary partner in advancing the health and well-being of children in New York City. Schools should not duplicate and cannot replace the city's healthcare provider network, but are well positioned to effectively support the primary care system, especially by serving hard-to-reach populations in areas with provider shortages and by acting as partners in the prevention of chronic childhood diseases.

Now may seem like an inopportune time to recommend a major investment in school-based health services. But I believe it is an investment we cannot afford not to make. By expanding these services the city and the state can save resources otherwise spent on chronic disease care and hospitalizations; improve absenteeism; and reduce gaps in achievement for minority and low-income children that are fueled by poor health. The recommendations at the end of this collection are intended to begin a more extensive conversation on how the city can prioritize certain school-based services and best use its resources to improve child health and well-being.

Betsy Gotbaum  
Public Advocate for the City of New York

## Table of Content

---

Introduction  
page 5

School-Based Health Centers – An Idea Whose Time Has Come  
(Megan Charlop)  
page 16

Community Health Center and School-based Health Clinic Partnership:  
A Collaborative Model  
(Alan Shapiro)  
page 21

Healthy Lifestyles: A Model for Community Health Center/School  
Partnership to Improve the Health of Children  
(Elizabeth Howell)  
page 25

Conclusion  
page 28

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## Introduction

### The Need for a Comprehensive, City-Wide Child Health Plan

#### *Healthcare Disparities in New York City*

Nearly two million children live in New York City—more than in any other city in the U.S. and roughly twice as many as in Los Angeles, the U.S. city with the second largest population of children.<sup>1</sup> To overcome socio-economic health disparities that have persisted for decades and to address the increasing prevalence of childhood chronic diseases, the city needs to develop a long-term comprehensive child health plan.

Over the last ten years, the health and well-being of New York City children has improved overall, but in many areas, progress still lags behind New York State and the nation. Data collected by the Citizens' Committee for Children in New York (CCC) shows that "the city has a [...] higher rate of babies born at low birth-weight, and a lower rate of children who are immunized than in the rest of New York State and the nation."<sup>2</sup> (See Table 1.)

Table 1

CHILD HEALTH INDICATORS	US	NYS	NYC
Babies born at low birth weight	8.1%	8.2%	8.9%
Children's immunization rate (0-2 yrs)	76.1%	74.4%	70.5%

Source: CCC, *Keeping Track of New York City's Children*, 2008

Moreover, health indicators for children have improved unevenly, with large income- and race-related disparities in health status across the city.<sup>3</sup> For example, in 2007, the Department of Health and Mental Hygiene (DOHMH) reported the lowest citywide infant mortality rate to date—5.4 deaths per 1,000 live births. Yet the infant mortality rate for blacks was 9.8 per 1,000 compared to 3.9 per 1,000 for whites. Infant mortality rates also remain significantly higher in low-income neighborhoods. The rate in Bedford Stuyvesant in Brooklyn (9.7) is more than triple the rate on the Upper East Side in Manhattan (2.6).<sup>4</sup>

Similarly, nearly all of the key health issues affecting school age-children are more prevalent in economically disadvantaged communities. New York City has a significantly higher percentage of children under the age of 18 who live below the poverty level<sup>5</sup> (27.3 percent) than New York

<sup>1</sup> Citizens' Committee for Children of New York, Inc. (CCC), *Keeping Track of New York City's Children*, 2008, p.4.

<sup>2</sup> *Ibid.*

<sup>3</sup> For detailed discussions of race- and income-related health disparities in New York City, see: New York City Department of Health and Mental Hygiene (DOHMH), *Health Disparities in New York City*, 2004. See: <http://www.nyc.gov/html/doh/downloads/pdf/epi/disparities-2004.pdf>. DOHMH, *Community Health Profiles*, 2006. See: <http://www.nyc.gov/html/doh/html/data/data.shtml>. Office of the New York City Comptroller, *Health and Wealth: Assessing and Addressing Income Disparities in the Health of New Yorkers*, 2007. See: [http://www.comptroller.nyc.gov/bureaus/opm/reports/09-27-07\\_health-wealth-report.pdf](http://www.comptroller.nyc.gov/bureaus/opm/reports/09-27-07_health-wealth-report.pdf).

<sup>4</sup> DOHMH, "Health Department reports largest decline in Infant Deaths since 2001," Press Release September 3, 2008. See: <http://www.nyc.gov/html/doh/html/pr2008/pr060-08.shtml>.

<sup>5</sup> For 2007, the average poverty threshold for a family of four was \$21,203. U.S. Census, "Poverty Thresholds for 2007 by Size of Family and Number of Related Children Under 18 Years." See: <http://www.census.gov/hhes/www/poverty/threshold/thresh07.html>.

State (19.4 percent) or the nation (18.5 percent).<sup>6</sup> Pediatric asthma, childhood obesity, and teenage pregnancies are problems throughout the city, but rates are particularly high in low-income neighborhoods and among minority children and youths.<sup>7</sup>

Stark disparities in health status are part of a vicious circle: low-income urban areas have higher incidences of chronic illness than higher-income areas and, at the same time, less access to healthcare and less healthcare capacity to prevent and treat such illness.

### *Health Issues Affecting Children and Youth*

New York City children and youth increasingly suffer from conditions that can be successfully managed or prevented altogether with continuous quality healthcare and comprehensive health education. Without care and education, however, these conditions present significant health risks or may turn into chronic conditions that can lead to low quality of life, high healthcare costs, hospitalizations, and premature death. In New York City, the most pressing concerns include obesity, asthma, teen pregnancy (see Table 2), Sexually Transmitted Diseases (STDs), tooth decay, and mental health issues.

Table 2

School-age Children – Health Indicators	NYS	NYC	Bronx	Brooklyn	Manhattan	Queens	Staten Island
Obesity rate <sup>8</sup> for public elementary students <sup>9</sup>	N/A*	24%	32%	N/A*	N/A*	N/A*	N/A*
Asthma hospitalization rate (per 10,000 children aged 5-14,) 3-year average, 2004-06 <sup>10</sup>	23.4	40.9	66.5	37.5	45.3	28.1	17.5
Teenage (age 15-19) pregnancy rate (per 1,000 females), 3-year average, 2004-2006 <sup>11</sup>	61.3	92.4	127.6	92.0	93.2	72.9	57.9

\*The New York State Department of Health (DOH) does not provide child obesity data. The NYC DOHMH only provides child obesity data for the Bronx and the city as a whole.

### Obesity

In 2004, 18.8 percent of children age six to 11 were overweight (i.e. with a Body Mass Index between the 85<sup>th</sup> and 95<sup>th</sup> percentile for age and gender), nearly triple the rate in 1980. In New

<sup>6</sup> CCC, *Keeping Track of New York City’s Children*, 2008, p.4.

<sup>7</sup> DOHMH, *Health Behaviors among Youth in East and Central Harlem, Bedford-Stuyvesant and Bushwick, and the South Bronx*, 2008.

<sup>8</sup> The DOHMH uses the following definition for “obesity”: “Among children, obesity is defined as a body mass index (BMI) equal or higher than the 95<sup>th</sup> percentile for age and gender.” See also: United States Centers for Disease Control and Prevention (CDC), *Growth charts*, [www.cdc.gov/growthcharts/](http://www.cdc.gov/growthcharts/).

<sup>9</sup> DOHMH, *Obesity in the South Bronx: A Look Across Generations*, 2007. The DOHMH report combines data from a 2003 citywide survey of public elementary students and 2005 data from the district public health office in the Bronx. See: <http://home2.nyc.gov/html/doh/downloads/pdf/dpho/dpho-bronx-obesity.pdf>.

<sup>10</sup> New York State Department of Health (DOH), “Asthma (Age 5-14) Discharge Rate per 10,000 Population.” 2004-2006 SPARCS Data as of March 2008. See: <http://www.health.state.ny.us/statistics/chac/hospital/asthma1.htm>

<sup>11</sup> DOH, “Teen Pregnancies (Age 15-19) – Rate Per 1,000 Females Age 15-19,” 2004-2006 Vital Statistics Data As Of April, 2008. See: <http://www.health.state.ny.us/statistics/chac/birth/tp1519.htm>.

York City, a 2003 DOHMH survey found that 43 percent of all elementary school students were overweight (19 percent) or obese (24 percent).<sup>12</sup> Overweight and obese children are at higher risk of developing chronic health conditions, including Type 2 diabetes, respiratory illnesses, and heart disease,<sup>13</sup> reducing their quality of life and increasing healthcare costs and the risk of premature death.

## Asthma

Asthma is the leading cause of school absences in New York City and the most common cause of hospitalizations among children age 14 and younger.<sup>14</sup> After dramatic increases in nationwide childhood asthma rates during the 1980s and 1990s, the U.S. Centers for Disease Control and Prevention (CDC) reported in 2006 the rates remained at historically high levels.<sup>15</sup> One in 10 New York City children are currently classified as having asthma, almost double the U.S. rate of five percent.<sup>16</sup> Pediatric asthma is most common in the Northeast Bronx, Fordham and Bronx Park, the South Bronx, East and Central Harlem, the Northwest Brooklyn, Williamsburg, and Bushwick.<sup>17</sup> Children living in low-income households are more likely to be exposed to asthma triggers,<sup>18</sup> such as cockroaches, mold, and second-hand smoke. A survey by the DOHMH found that children from low-income households are less likely to receive a written asthma management plan from a health care provider than children from high income households (41 percent v. 54 percent).<sup>19</sup>

Despite success in reducing overall asthma hospitalizations over the last decade, school-aged children in New York City are still far more likely to be hospitalized for asthma than children in New York State as a whole.<sup>20</sup> The latest statistics also show slight increases in asthma hospitalizations for children ages 5-14 between 2005 and 2006 for the Bronx and Staten Island.<sup>21</sup> In 2006, the average total charge for an asthma hospitalization in New York State was \$13,247.85.<sup>22</sup> Based on this figure, asthma hospitalization costs for school-age children in New York City added up to more than 50 million dollars in 2006, more than twice the cost to all other counties in New York State combined.<sup>23</sup>

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<sup>12</sup> DOHMH, "Obesity Begins Early: Findings Among Elementary School Children in New York City," *NYC Vital Signs*, Vol. 2, No.5, June 2003. See: <http://www.nyc.gov/html/doh/downloads/pdf/survey/survey-2003childobesity.pdf>.

<sup>13</sup> CDC, "Prevalence of Overweight Among Third-and Sixth-Grade Children—New York City, 1996," *Morbidity and Mortality Weekly Report (MMWR)*, Vol. 47 (45), pp.980-984, November 20, 1998. See: <http://www.cdc.gov/MMWR/preview/mmwrhtml/00055720.htm>.

<sup>14</sup> DOHMH, "Childhood Asthma in New York City," *NYC Vital Signs*, Vol.7, No.1, February 2008.

<sup>15</sup> Office of the New York City Comptroller, *Health and Wealth: Assessing and Addressing Income Disparities in the Health of New Yorkers*, 2007. p.25. See: [http://www.comptroller.nyc.gov/bureaus/opm/reports/09-27-07\\_health-wealth-report.pdf](http://www.comptroller.nyc.gov/bureaus/opm/reports/09-27-07_health-wealth-report.pdf).

<sup>16</sup> DOHMH, "Childhood Asthma in New York City," *NYC Vital Signs*, Vol.7, No.1, February 2008.

<sup>17</sup> *Ibid.*

<sup>18</sup> *Ibid.*

<sup>19</sup> *Ibid.*

<sup>20</sup> New York State Department of Health (DOH), "Asthma (Age 5-14) Discharge Rate per 10,000 Population." 2004-2006 SPARCS Data as of March 2008. See: <http://www.health.state.ny.us/statistics/chac/hospital/asthma1.htm>

<sup>21</sup> *Ibid.*

<sup>22</sup> DOH, Hospital Inpatient Data of New York State, 2006 Annual Report, Table 13B, "Top 50 Principal Diagnostic Categories Discharges/Percent of Total/Average Total Charge of Stay." See: [http://www.health.state.ny.us/statistics/sparcs/annual/t2006\\_13b.htm](http://www.health.state.ny.us/statistics/sparcs/annual/t2006_13b.htm)

<sup>23</sup> In 2006, 3,841 children aged 5-14 were hospitalized for asthma, adding up to \$50,881,727. In all other NY state counties combined, 1,604 aged 5-14 were hospitalized for asthma, adding up to \$21,249,551.4. For number of

## Teen Pregnancies and STDs

Teen pregnancies are another indicator that New York City youth lag behind New York State in health and wellbeing. The latest statistics show a slight rise in teenage pregnancies in Queens, Staten Island, and the Bronx, where the rate of teens giving birth climbed from 126.3 out of 1000 births in 2005 to 129.4 out of 1000 births in 2006.<sup>24</sup> Teenage pregnancies can have serious consequences, including higher rates of infant mortality. Children of teenage mothers are more likely to be born at low birth-weight, suffer developmental delay, and live in poverty.<sup>25</sup> Estimates of the nationwide costs of adolescent pregnancies and childbearing range from \$6.9 billion to \$38 billion annually.<sup>26</sup> Adolescents are also at increased risk of contracting STDs. Teenage women (15-19 years) represent about one-third of all chlamydia and gonorrhea infections in the city.<sup>27</sup>

## Tooth Decay

The Surgeon General's first report on oral health, issued in 2000, drew attention to the fact that tooth decay is the single most common chronic disease of childhood, affecting nearly six in 10 children in the United States—five times more common than childhood asthma.<sup>28</sup> Pain resulting from tooth decay or dental cavities can interfere with school attendance, learning, and play.<sup>29</sup> Left untreated, dental decay can impair the ability to eat, lead to infection, tooth loss, unsightly appearance, and loss of self-esteem.<sup>30</sup> In 2007, two young children died in Maryland and Mississippi from medical complications triggered by untreated tooth decay.<sup>31</sup>

More than half of New York State third graders (54 percent) experience dental cavities. Among those children, New York City third graders are more likely to experience untreated tooth decay (38 percent) than third graders statewide (33 percent) and nationwide (26 percent).<sup>32</sup> Disparities in oral health within the city are severe. Children from lower income groups in New York City are more likely to experience tooth decay (56 percent) than children from higher income groups (48 percent) and are far more likely to experience untreated dental decay (40 percent v. 25 percent).<sup>33</sup> Hispanic (37 percent), black (38 percent), and Asian (45 percent) third graders in

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hospitalizations, see: New York State Department of Health (DOH), "Asthma (Age 5-14) Discharge Rate per 10,000 Population." 2004-2006 SPARCS Data as of March 2008. See: <http://www.health.state.ny.us/statistics/chac/hospital/asthma1.htm>

<sup>24</sup> DOH, "Teen Pregnancies (Age 15-19) – Rate Per 1,000 Females Age 15-19," 2004-2006 Vital Statistics Data As Of April, 2008. See: <http://www.health.state.ny.us/statistics/chac/birth/tp1519.htm>

<sup>25</sup> DOHMH, *Who's at Risk? Teen Pregnancy in New York City*, December 2002, p.2. See: <http://www.nyc.gov/html/doh/downloads/pdf/fhs/tpreport.pdf>

<sup>26</sup> *Ibid.*

<sup>27</sup> DOHMH, Press Release, June 8, 2006. see: <http://www.nyc.gov/html/doh/html/pr2006/pr043-06.shtml>.

<sup>28</sup> U.S. Department of Health and Human Services. *Oral Health in America: A Report of the Surgeon General* Rockville, MD: U.S. Department of Health and Human Services, National Institute of Dental and Craniofacial Research, national Institutes of Health, 2000.

<sup>29</sup> The Kaiser Commission on Medicaid and the Uninsured, *Filling an Urgent Need: Improving Children's Access to Dental Care in Medicaid and SHIP*, July 2008, p.3.

<sup>30</sup> NYS DOH, *The Impact of Oral Disease in New York State*, December 2006, p.23.

<sup>31</sup> The Kaiser Commission on Medicaid and the Uninsured, *Filling an Urgent Need: Improving Children's Access to Dental Care in Medicaid and SHIP*, July 2008, p.1.

<sup>32</sup> NYS DOH, *The Impact of Oral Disease in New York State*, December 2006, pp.3-4/

<sup>33</sup> *Ibid.*

New York City are more likely to experience untreated tooth decay than white third graders (27 percent).<sup>34</sup>

## Mental Health Issues

While nationwide the occurrence of adolescent (13-20 years) suicide attempts has remained stable at around 8 percent, the percentage of attempts among New York City adolescents has increased from 7 percent in 1999 to 10 percent in 2005.<sup>35</sup> Forty percent of adolescent girls and nearly half (46 percent) of Hispanic adolescent girls report symptoms of depression.<sup>36</sup> Suicidal thoughts are particularly high for lesbian, gay, bisexual and transgender (LGBT) youths, more than 30 percent of whom report having seriously considered suicide within the past year.<sup>37</sup>

### *Barriers to Routine and Preventive Care*

Both financial and non-financial barriers—including lack of transportation, the inability to take time off from work for caregiving obligations, administrative obstacles, and language barriers—make it difficult to access preventive services and routine care. Financial barriers are experienced primarily by the uninsured and underinsured. Non-financial barriers primarily affect children in immigrant families without health insurance and limited English language skills,<sup>38</sup> children raised by a single parent or two working parents, and children from poor families.

Adolescents have the lowest rate of primary care usage of all age groups and are among the least likely to have access to health care.<sup>39</sup> Barriers to access specific to adolescents include lack of providers trained in adolescent health care, requirements for parental consent and notification, and inability of parents to accompany adolescent children on medical visits.<sup>40</sup> Studies show that adolescents do not seek routine medical care and often delay care until medical problems have become severe.<sup>41</sup>

New York has been one of the states leading the nation in providing public health insurance to children and recently expanded the income eligibility level to 400 percent of the federal poverty level.<sup>42</sup> However, even before this expansion, a large number of uninsured children were already eligible but not enrolled, suggesting that non-financial barriers also prevent families from enrolling their children.

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<sup>34</sup> *Ibid.*

<sup>35</sup> DOHMH, “Mental Health of NYC Youth,” *NYC Vital Signs*, Vol.7, no.2. March 2008. Note: Between 2005 and 2007 NYC self-reported suicide attempts among teens declined to 8 percent.

<sup>36</sup> As measured by feelings of sadness or hopelessness that last for two weeks or more. DOHMH, “Mental Health of NYC Youth,” *NYC Vital Signs*, Vol. 7, no. 3, March 2008.

<sup>37</sup> *Ibid.*

<sup>38</sup> New York City Council Primary Care Initiative (PCI), *Community Health Assessment, Final Report*, August 2008, p.6.

<sup>39</sup> US Congress, Office of Technology Assessment. *Adolescent Health: Summary and Policy Options*. 1991. See: [http://www.princeton.edu/~ota/disk1/1991/9102\\_n.html](http://www.princeton.edu/~ota/disk1/1991/9102_n.html)

<sup>40</sup> *Ibid.*, pp. 26 and 31.

<sup>41</sup> Tiezzi, L., “Testimony prepared by the New York State Coalition for School-based Health Centers for NY State Partnership for Coverage Hearing,” November 2, 2007, p. 3.

<sup>42</sup> For 2007, the average poverty threshold for a family of four was \$21,203. U.S. Census, “Poverty Thresholds for 2007 by Size of Family and Number of Related Children Under 18 Years. See: <http://www.census.gov/hhes/www/poverty/threshold/thresh07.html>

Families may have difficulties understanding the administrative process or taking time off from work to complete all administrative requirements or fear that public benefit agencies will disclose their immigration status to the authorities. Some children may be enrolled in public health insurance programs for a period of time, but lose coverage at the time of recertification. Cycling in and out of health insurance<sup>43</sup> can disrupt continuity of care for children, who may receive check-ups and vaccinations one year but not the next. A recent report by the Primary Care Initiative (PCI) Community Health Assessment<sup>44</sup> found that focus group participants from underserved communities<sup>45</sup> reported “difficulties navigating the healthcare system, particularly in obtaining health insurance.”<sup>46</sup>

Certain populations, even those with health insurance, face their own specific non-financial barriers to care. Lack of time and transportation, as well as insensitivity to their special needs on the part of service providers, may prevent adolescents in general, and LGBT adolescents in particular, from seeking care, including reproductive and mental health services.<sup>47</sup>

### *Shortage of Healthcare Providers and Services*

Poverty, lack of health insurance, and the low reimbursement rates that providers receive through public health insurance all lead to a shortage of primary care and specialty providers. The ten most underserved areas identified in the recent PCI community health assessment include the South and Central Bronx, Central and East Harlem, and Central and North Brooklyn. Large sections of these same neighborhoods have been designated as medically underserved or suffering from a shortage of health professionals for years, some going back to the 1970s.<sup>48</sup> Many of these neighborhoods also have the youngest demographic profiles. For example, 35 percent of residents of the Central Bronx are children (0-17 years), compared to 24 percent city-wide.<sup>49</sup>

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<sup>43</sup> Often referred to as “churning”. See for example: The Commonwealth Fund, “Entrances and Exits: Health Insurance Churning 1998-2000, September 2005.

[http://www.commonwealthfund.org/publications/publications\\_show.htm?doc\\_id=300283](http://www.commonwealthfund.org/publications/publications_show.htm?doc_id=300283).

<sup>44</sup> The Mayor’s Office and the New York City Council have dedicated funding for an expansion of primary care in New York City. In FY 2008, the Health and Hospitals Corporation (HHC) conducted a community survey (see: New York City Council Primary Care Initiative (PCI), *Community Health Assessment, Final Report*, August 2008) to assess barriers to healthcare experienced by residents of the most underserved areas. Based on this report, the DOHMH will issue Requests for Proposals to expand primary care services in the areas with the most severe primary care shortages.

<sup>45</sup> To determine which New York City neighborhoods to target for surveys, the PCI report rated all New York City ZIP codes on the basis of ten variables predictive of poor healthcare access: percentage of households living in poverty, Medicaid-eligible population, Medicaid-eligible population per primary care provider, percentage of population that is foreign-born, preventable hospitalization rates—children, preventable hospitalization rates—adults, households living in linguistic isolation, median household income, number of uninsured patients, and location within a Health Professional Shortage Area (HPSA). New York City Council Primary Care Initiative (PCI), *Community Health Assessment, Final Report*, August 2008, p. 17.

<sup>46</sup> *Ibid.*, p.6.

<sup>47</sup> *Ibid.*, p. 32.

<sup>48</sup> The U.S. Dept. for Health and Human Services (HHS) may designate as “Health Professional Shortage Areas” (HPSAs) a geographic area (a county or service area), a demographic group (low income population) or an institution (a federally qualified health center or other public facility) with a shortage of primary medical care, dental or mental health providers. Medically Underserved Areas (MUAs)/Populations (MUPs) are areas or populations designated for having too few primary care providers, high infant mortality, high poverty and/or high elderly population. See: US HHS, Health Resources and Services Administration (HRSA), <http://datawarehouse.hrsa.gov/>

<sup>49</sup> DOHMH, “The Health of Central Bronx,” *Community Health Profiles*, Census (2000) Snapshot, p.2.

In the survey portion of the PCI community health assessment, 49.5 percent of respondents reported that their neighborhood had an acute need for dentists, one-third of respondents said their neighborhood needed more primary care doctors, and fifteen percent reported having difficulties accessing mental health services. In addition, survey respondents and focus group members reported that waiting times for appointments and in the waiting room were too long.<sup>50</sup> Nearly forty-three percent of survey respondents identified long wait times in their health care provider's waiting room as a barrier to seeing a nurse or doctor in their neighborhood.<sup>51</sup>

Without preventive services, expensive preventable hospitalizations and emergency room visits for routine care increase. In a recent analysis of emergency room visits that did not lead to admissions, the highest rate was identified in East Harlem, which had 80 visits per 100 East Harlem residents per year, compared to a citywide rate of 37 visits per 100 residents per year. For very young children (0-4 years), the report found eight neighborhoods,<sup>52</sup> with emergency room visit rates that exceeded 100 visits per 100 children.<sup>53</sup>

## **Expansion of School-based Healthcare**

### *Existing School-based Healthcare in New York City*

With 1.1 million school children, New York City's more than 1,400 schools comprise the largest public school system in the country. A large proportion of the students in the system are first- and second-generation immigrants; 150 languages are spoken in the homes of New York City school children. A high proportion of students in the system also come from low-income families. In school year 2006-2007, 77.7 percent of New York City public school students enrolled in grades K-6 qualified for free or reduced lunch,<sup>54</sup> compared to 32.3 percent in the rest of the state.<sup>55</sup>

The New York City public school system serves as a point of access to a large number of medically underserved children in the city. By bringing health services free of charge to the place where children already spend most of their time, city can help low-income families with children or adolescents overcome many of the barriers to healthcare they otherwise experience.

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<sup>50</sup> New York City Council Primary Care Initiative (PCI), *Community Health Assessment, Final Report*, August 2008.

<sup>51</sup> The other four top barriers were "Needed an appointment sooner than the appointment time offered" (37.5 percent), "Doctor or nurse did not spend enough time with us." (29.5 percent), "Doctor or nurse did not listen carefully enough" (26.1 percent) and "could not afford the bill" (22.7 percent). *Ibid.*

<sup>52</sup> East Harlem (146), Highbridge and Morrisania (136), Central Harlem (134), Hunts Point and Mott Haven (128), Central Bronx (125), Fordham and Bronx Park (113), Bushwick and Williamsburg (110) and West Queens (106). United Hospital Fund (UHF), "Use of Hospital Emergency Departments in New York City: What Does It Tell Us About Access to Care?" *Hospital Watch*, Vol. 18, No. 2, April 2008.

<sup>53</sup> *Ibid.*

<sup>54</sup> Children from families with incomes below 130 percent of the poverty level, or \$27,560 for a family of four, are eligible for free lunch. Children from families between 130 percent and 185 percent, or \$39,220 for a family of four, USDA, National School Lunch Program, Fact sheet. See: <http://www.fns.usda.gov/cnd/lunch/AboutLunch/NSLPFactsheet.pdf>.

<sup>55</sup> DOH, "Children Receiving Free and Reduced-Price School – Public Schools. Number and percent of children in K-6." *Kids' Wellbeing Indicator Clearinghouse, KWIC Indicator Profile*. See: [http://www.nyskwic.org/access\\_data/ind\\_profile.cfm?subIndicatorID=52&go.x=8&go.y=9](http://www.nyskwic.org/access_data/ind_profile.cfm?subIndicatorID=52&go.x=8&go.y=9).

In fact, New York State has been one of the national leaders in school-based healthcare. State guidelines mandate that school-based health centers (SBHCs) “provide age-appropriate primary health, mental health, social, and health education services” and that services be targeted to “schools having students with the highest prevalence of unmet medical and psychosocial needs.”<sup>56</sup> State guidelines require that SBHCs<sup>57</sup> retain, at a minimum, a supervising physician and an on-site nurse practitioner or physician assistant. The state also sets space requirements for SBHC facilities,<sup>58</sup> for example 1,500 to 2,000 square feet of space for a SBHC in a school with 700 students.

The first SBHC was opened in New York City in 1983 at the Manhattan Center for Science and Math High School.<sup>59</sup> A grant-funded state initiative has ultimately established more than 120 SBHCs in New York City to date. Fewer than a dozen school-based health centers are funded by the city.<sup>60</sup>

The benefits of SBHCs are well-documented. A study of 949 school children with asthma in the Bronx found that asthmatic students in elementary schools with SBHCs were less likely to be hospitalized and missed, on average, three fewer school days than those attending schools without a SBHCs.<sup>61</sup> A study comparing adolescent managed care enrollees with and without access to a SBHC found that adolescents with access to a SBHC were 10 times more likely to make a mental health or substance abuse visit and made up to 55 percent fewer emergency and urgent care visits than those without access to a SBHC. A significantly higher percentage of enrollees with access to a SBHC (80 percent) had made at least one comprehensive health care visit than those without access (68.8 percent).<sup>62</sup>

Many education experts argue that overcoming health disparities can also play a critical role in closing the achievement gap for minorities and low-income students.<sup>63</sup> According to the Centers for Disease Control, health-related factors such as hunger, the experience of physical or emotional abuse and chronic illness, as well as unhealthy behaviors, such as substance abuse and physical inactivity, are linked to academic failure and can negatively affect students’ school attendance, grades, test scores and ability to pay attention.<sup>64</sup> By contrast, studies consistently show that school health programs can “minimize the extent to which health problems become

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<sup>56</sup> DOH, *Principles and Guidelines for School Based Health Centers in New York State*, updated March 2006, p.4

<sup>57</sup> *Ibid.*, pp. 9-13.

<sup>58</sup> *Ibid.*, pp. 18-19.

<sup>59</sup> Christine Kiernan, “Infusion of City Cash to Expand School Health Clinics,” *School Stories, Reporting on Education in NYC*, see: <http://www.coveringeducation.org/schoolstories/clinics.html>.

<sup>60</sup> Since the mid-1980s, the city funded one school-based health center in each borough. In 2007, the city proposed to fund seven additional school-based health centers, two funded through the city council – Bayard Rustin High School in Chelsea and Monroe High School in the Bronx, and the other five Evander Childs, Herbert Lehman, Health Opportunities, Acorn High School for Social Justice and Springfield Gardens, by the Commission of Economic Opportunity. *Ibid.* However, as of now, Monroe High School did not receive a school-based health center.

<sup>61</sup> Webber, M. et al, “Burden of Asthma in Inner-City Elementary Schoolchildren,” *Archives of Pediatric and Adolescent Medicine*, Vol. 157: 125-129, February 2003. See: <http://archpedi.ama-assn.org/cgi/reprint/157/2/125.pdf>

<sup>62</sup> Kaplan, D., et al. “Managed Care and School-Based Health Centers. Use of Health Services.” *Archives of Pediatric and Adolescent Medicine*, Vol. 152: 2533, January 1998. See: <http://archpedi.ama-assn.org/cgi/reprint/152/1/25.pdf>.

<sup>63</sup> A Broader, Bolder Approach to Education, “Expert Task Force Charges School Reform Alone Will Fail in Closing Achievement Gap.” Press Release, June 10, 2008 See: <http://www.boldapproach.org/>

<sup>64</sup> CDC, “Student Health and Academic Achievement,” *Healthy Youth*. See: [http://www.cdc.gov/HealthyYouth/health\\_and\\_academics/index.htm](http://www.cdc.gov/HealthyYouth/health_and_academics/index.htm).

obstacles to success in school.”<sup>65</sup> A 2006 survey in Oregon found that students, who reported better physical and/or emotional health were much more likely to receive A’s and B’s. Students with poorer health were more likely to receive C’s, D’s, or F’s.<sup>66</sup>

### *Public Advocate’s School-Based Healthcare Roundtable*

In April 2008, Public Advocate Betsy Gotbaum invited a group of advocates and experts to a roundtable discussion on the role schools could play in improving child health in New York City. Participants in the round table discussion included Catherine Abate and Elizabeth Howell from the Community Healthcare Network, Dr. Harold Appel from the Doctors’ Council, Kathleen Bennett from the Nurse-Family Partnership, Megan Charlop from the School Health Program at Montefiore Medical Center, Dr. Alan Shapiro from the South Bronx Health Center for Children and Families, and Laura Tomasko from the Children’s Aid Society. The participants, most of whom have worked for years on child health issues in medically underserved communities, generally supported the idea of further expanding school-based healthcare.

To further explore the successes and limitations of school-based health services, the Public Advocate asked three roundtable participants with direct insight into school-based health services to write papers based on their experiences delivering health and wellness services to students. This collection includes papers by Megan Charlop on SBHCs, Dr. Alan Shapiro on community partnerships, and Elizabeth Howell on school-based wellness programs.

### *Overview of Papers*

**Megan Charlop**, Community Health Director for the School Health Program at Montefiore Medical Center, explains the unique ability of SBHCs to reach special populations, such as the otherwise hard-to-reach adolescent population, by “bringing multidisciplinary teams of health professionals to students where they spend most of their time – in schools.”<sup>67</sup>

SBHCs do not charge any out-of-pocket costs, do not require parents to arrange transportation for their child or take time off work, and are readily accessible to teenagers seeking confidential care. For these reasons, SBHCs are able to provide preventive services, reproductive health, and mental health services along with routine and acute care to special populations more effectively than the primary care system alone. Studies have shown that SBHCs save the state millions of dollars in avoidable hospitalization costs and emergency room visits.

Charlop argues that the success of SBHCs warrants a commitment to placing “a fully functioning, well equipped SBHC within every New York City high school facility.”<sup>68</sup> To achieve this long-term goal, funding for SBHCs must be expanded and restructured. Charlop endorses the advocacy work of the New York State Coalition for School-based Healthcare, which seeks stable and adequate reimbursement for SBHCs through the New York State Health

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<sup>65</sup>A Broader, Bolder Approach to Education, “Expert Task Force Charges School Reform Alone Will Fail in Closing Achievement Gap.” Press Release, June 10, 2008 See: <http://www.boldapproach.org/>

<sup>66</sup> Oregon Department of Human Services: Public Health Division, *School-Based Health Centers*, See: <http://www.oregon.gov/DHS/ph/ah/sbhc/docs/SBHCopinionbrochure.pdf>

<sup>67</sup> Charlop, M. “School-based Health Centers—An Idea Whose Time has come,” below, p.16.

<sup>68</sup> *Ibid.*, p.20.

Care Reform Act (HCRA),<sup>69</sup> grant-based funding, and “the creation of a mechanism to reimburse SBHCs for services provided to [Child Health Plus] enrollees.”<sup>70, 71</sup>

**Dr. Alan Shapiro**, Senior Medical Director for Community Pediatric Programs at the South Bronx Health Center for Children and Families, presents a case for partnerships between Community Health Centers (CHCs) and SBHCs in medically underserved areas. While CHCs already bring stable, accessible, and culturally competent services to poor urban neighborhoods, “barriers preventing children and their families from accessing needed care still exist.”<sup>72</sup>

Shapiro argues that, to maximize resources, SBHCs should serve as complements to CHCs, rather than extension clinics that may duplicate services. By working in collaboration, CHC and SBHCs can provide “family-centered community-based care and improve [...] continuity of care, mitigating school absenteeism and reinforcing key health messages.”<sup>73</sup> A partnership model that divides health care services and responsibilities between SBHCs and CHCs is particularly useful in addressing chronic health conditions such as asthma and obesity, which may require education, monitoring, and interventions both during and outside of school-hours, as well as preventive care, reproductive health services, and health education.

**Elizabeth Howell**, Assistant Vice President of Development and Public Relations at the Community Healthcare Network (CHN), describes a model in which school-based healthy lifestyle programs are linked with a network of community-based services to address specific public health goals. Based on the “Healthy Schools/Healthy Families” (HSHF) initiative currently piloted by CHN in seven elementary schools in Northern Manhattan, the model incorporates best practice guidelines from the federal Centers for Disease Control (CDC) and “emphasizes leadership and engagement of parents and school staff in development of culturally appropriate activities tailored to each school’s particular needs.”<sup>74</sup>

In this model, CHN dietitians facilitate nutrition fairs and physical activity programs, identify families in need of primary care services, and act as health navigators, referring children and other family members for comprehensive medical care. In addition to promoting a healthy lifestyle, the program also facilitates health insurance enrollment, immunizations, and access to services for children with identified health needs like asthma.<sup>75</sup> By making effective use of resources within the school community, the program can be replicated in other schools and modified to meet the needs of students at different age levels.<sup>76</sup>

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<sup>69</sup> The New York State Healthcare Reform Act, 2000. See: <http://www.health.state.ny.us/nysdoh/hcra/hcrahome.htm>

<sup>70</sup> Charlop, M. “School-based Health Centers—An Idea Whose Time has come,” below, p.20.

<sup>71</sup> While a Medicaid carve-out currently allows SBHCs to bill services for Medicaid beneficiaries on a fee-for-service basis despite managed care rules, the same is not true for CHP beneficiaries. SBHCs either have to treat CHIP enrollees as if they are uninsured or refer them to a primary care provider within their managed care plan.

<sup>72</sup> Shapiro, A. “Community Health Center and School-based Health Clinic Partnership: A Collaborative Model,” below, p. 21.

<sup>73</sup> *Ibid.*, p. 22.

<sup>74</sup> Howell, E. “Healthy Lifestyles: A Model for Community Health Center/School Partnership to Improve the Health of Children, below, p.25.

<sup>75</sup> *Ibid.*, p.25.

<sup>76</sup> *Ibid.*, p.26.

## “School-Based Health Centers – An Idea Whose Time Has Come.”

Megan Charlop, MPH

Megan Charlop, MPH, is the founder and Director of the Community Health Division at the Montefiore School Health Program where she oversees the program’s public health initiatives. The Montefiore School Health Program offers comprehensive care to 15,000 students in 16 school-based health centers located in the Bronx. Ms. Charlop spearheaded the development of the Montefiore Safe House for Lead Poisoning Prevention, the Hunts Point Asthma Initiative’s school component, Greening for Breathing, and the Norwood Nursery. She currently serves on the boards of the NYC Coalition to End Lead Poisoning and the Public Health Association of NYC.

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### **Overview**

School-Based Health Centers (SBHCs) are unique in the healthcare system, bringing multidisciplinary teams of health professionals to students where they spend most of their time - in schools. SBHCs provide student-friendly access to a range of care that runs from diagnosis and treatment of disease to mental health counseling; from dental screening to health education and health advocacy. Students have access to these services with no out-of-pocket expenses, and they utilize the services. Parents appreciate having clinical services in the school so they do not have to take a day off from work for their child to be seen, and many high school students report that the relationships that they had with their SBHC provider was the key to their ability to graduate.

There are 196 SBHCs in New York State with 129 located in New York City. State-wide in 2006, over 200,000 students were served in SBHCs in more than 665,565 patient visits. SBHCs are Article 28<sup>77</sup> extension clinics and a few clinics are also Article 31 sites.<sup>78</sup> There are currently 56 Article 28 facilities sponsoring the 196 SBHCs in New York State.

SBHCs provide comprehensive services for students. National surveys find that 35 percent of SBHC visits are for the treatment of acute illness and injuries, 24 percent for preventative services, 22 percent for mental health, 12 percent reproductive health services and 7 percent for chronic disease management. Concrete services within these categories include immunizations, daily sugar level testing, lab work, crisis intervention, on-going mental health counseling, dental screening and cleaning, reproductive health services and health education.

### **Historical Development**

SBHCs were originally created in the 1970’s to address the unmet health needs of adolescents in urban areas. Adolescents have the lowest healthcare utilization rates and are

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<sup>77</sup> Ed. note: Facilities licensed under Article 28 of the New York State Public Health Law include, but are not limited to, general hospitals, public health centers, diagnostic and treatment centers, dental clinics and out-patient clinics.

<sup>78</sup> Ed. note: Mental health clinics, licensed under Article 31 of the New York State Mental Hygiene Law.

the least likely to have health insurance of all age groups. Most adolescents who do visit a healthcare provider do not receive preventive services, which is not the case for students in SBHCs. A recent study in the *Journal of Adolescent Health* found that SBHC users were more likely than those enrolled in Medicaid or commercial insurance plans to receive critical screening and counseling and said that they trusted their centers as a confidential place to go for care.

In the 1980's and 1990's, there was an expansion of SBHCs from high schools to elementary and middle schools. By 1999, 37 percent of SBHCs [nationwide<sup>79</sup>] were in high schools, 34 percent in elementary schools and 16 percent were in middle and junior high schools. This expansion into the lower grades yielded impressive results. [A New-York-City-based study showed<sup>80</sup>] elementary school children with asthma in schools without a SBHC miss three more days on average compared to those in a school with a SBHC. In 2006, SBHCs saved New York State nearly \$3 million in hospital inpatient costs alone for children with asthma, and emergency room visits were more than double for children from schools without a SBCH compared to students in schools with a SBHC, another cost savings.

Over the past few years, the number of SBHCs has continued to grow throughout New York State and New York City with the number of visits increasing by 85 percent over the past seven years. However, the base level of funding from both levels of government [city and state] has remained flat.

### **School-Based Health Centers – Serving an Unmet Need**

*Mental Health Services:* The high number of mental health visits in SBHCs is not surprising. Young people facing stressful challenges in their lives have a difficult time finding options for mental health services in their neighborhoods especially during hours that accommodate parents' work schedules and the family's insurance status. Students feel free to seek mental health services in SBHCs because they know and trust the staff and they find the SBHC environment non-judgmental and welcoming.

- Over **90 percent** of children referred to a SBHC for mental health services are assessed and engaged in care compared to **15 percent** in community mental health settings.
- Principals and teachers in New York City schools with SBHCs that have a mental health provider report greater calm during the school day. Many more plead for mental health services.
- Many children presenting to the SBHCs with stomachaches, headaches and minor medical complaints turn out to have other significant medical or mental health issues.

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<sup>79</sup> The Center for Health and Healthcare in Schools, "1999-2000 Survey of School-Based Health Center Initiatives: Number o Centers and State Financing," see:

[http://healthinschools.org/static/sbhcs/sbhcs\\_table.aspx](http://healthinschools.org/static/sbhcs/sbhcs_table.aspx)

<sup>80</sup> Webber, M. et al, "Burden of Asthma in Inner-city Elementary Schoolchildren," *Archives of Pediatrics & Adolescent Medicine*, Vol. 157, No. 2, February 2003.

*Oral Health Services:* Dental needs are also addressed by SBHCs. Tooth decay is one of the most common childhood illnesses, causing the loss of more than 51 million hours of school time [nationally]. Dental screening is performed in more than half of the SBHCs and an increasing number also give fluoride, cleaning and sealants to students, substantially reducing the number of caries. An informal study of students in the Montefiore School Health Program showed that 25 percent of students seen in elementary schools had never seen a dentist prior to the SBHC visit.

*Medical Services:* Medical care in a school-based setting may be provided by a nurse practitioner, physician assistant or a physician and many have a licensed practical nurse or registered nurse as well. Providers see students for sick visits, physical examinations, prescriptions for medication, immunizations, laboratory tests, adolescent care and care of chronic illnesses such as asthma, diabetes, and sickle-cell anemia. Individual health education on disease management, and disease prevention, such as smoking prevention, are often part of the practice.

*Community Health:* This new SBHC component developed in response to the need for population-based interventions for many of the illnesses plaguing New York City students. Launched in only a small number of sites, the community health component has shown remarkable results reshaping the school environment and altering city-wide policy. The elimination of whole milk city-wide and chocolate milk in the Bronx, except for Fridays, was one such victory. Other programmatic victories include increasing the number of fitness minutes by making recess active and providing classroom-based aerobics, connecting with effective programs such as Mighty Milers and FoodChange's Cookshop, and increasing neighborhood access to and consumption of fruits and vegetables through the creation of Community Supported Agriculture programs and family cooking classes.

### **School-Based Health Centers - Connecting to the Larger Community**

SBHCs connect with families in a number of ways. As a rule, written parental consent is required prior to accepting students as patients. SBHC staff communicates with parents whenever a student is ill or injured, for physical examinations, for care of chronic illness, and, as appropriate, for mental health services. While SBHC providers uphold patient-provider confidentiality, they also strongly encourage children and teens to communicate with their families and help students build those relationships. Many SBHC sites engage parents through workshops, cooking classes, and other family health programs and events.

SBHCs work closely with the schools in which they are housed. Most SBHCs meet regularly with key members of the school community, including principals, assistant principals, teachers, coaches, guidance personnel, Office of SchoolFood staff, parent coordinators and parent and student representatives, in wellness or advisory meetings where the school's health goals and objectives are mapped out and implementation is monitored. The school administrators and SBHC staff work together to coordinate teacher orientations and workshops, parent workshops, immunization compliance, sport physicals, mental health services between guidance counselors and the SBHC mental health staff, and they work together to promote targeted objectives such as drop-out or pregnancy prevention, or healthy eating and fitness initiatives.

SBHCs link with community primary care providers and specialists as a routine part of student care. This has been facilitated with the introduction of electronic charting in an increasing number of SBHCs.

### **Funding SBHCs**

One of the reasons for the great success of SBHCs is the fact that, once registered, all students are eligible for the whole range of SBHC services regardless of their ability to pay. There are no out-of-pocket expenses for students so they are free to seek the services that they need, when they need them. A variety of federal, state and local funding sources all contribute so that SBHCs can provide those services to students.

Federal support: This year there has been a national advocacy effort to secure federal funds for SBHCs. Currently all funding for SBHCs is restricted to grant awards to community health centers that sponsor SBHCs.

New York State support: New York State provided approximately \$23 million in 2007 to support SBHCs as follows:

- \$11,889,400 in grant awards to 44 SBHC Article 28 providers and 126 SBHCs
- \$7 million in Health Care Reform Act (HCRA) funding is awarded this year to support SBHC activities. This funding is subject to an annual renewal process.
- \$3.5 million in Temporary Assistance to Needy Families (TANF) funding is awarded to promote a youth development approach to reduce adolescent risk behaviors (including pregnancy), by providing non-medical counseling and support services to students. This funding is also subject to an annual renewal process.
- Funds are generated by each site through Medicaid billing and, to a very small degree, third-party insurers.
- SBHCs also receive funds from various federal, state, local grant programs, grants provided by non-governmental organizations, as well as revenue generated from billing Medicaid and other third-party insurers.

New York City support: New York City traditionally funded all or part of five centers. Recently, with the push to reduce teen pregnancy rates, additional clinics are being supported/created by the NYC Department of Health and Mental Hygiene (DOHMH) and the Department of Education (DOE.) The number of SBHCs that New York City supports is still a small fraction, about 6 percent of all SBHCs within the city.

### **Funding Going Forward**

The New York State Coalition for School-Based Health Centers (the Coalition) has been seeking stable reimbursement for its child-centered healthcare safety net from major public insurance programs such as Medicaid and Child Health Plus (CHP). While HCRA dollars have been added over the last eight years, these funds have not kept pace with the increases in children's access (an 85 percent increase in visits), or the growth in new centers by 35 percent (from 148 to 196).

The Coalition celebrated a recent victory in Albany with a change in the Medicaid rules that allow reimbursement for psychotherapy services in school-based settings. But the more significant revenue source [CHP] still excludes SBHCs. While all SBHCs serve CHP enrollees, most do not receive reimbursement because either they are not part of the managed care plan's network or they are not designated the Primary Care Practitioner. The loss in reimbursement increased significantly in 2004 when 77,000 children were transferred from Medicaid to CHP, an estimated loss of \$6 million. A goal for this year is the creation of a mechanism to reimburse SBHCs for services provided to CHP enrollees.

On the city level, the Coalition seeks capital investment of \$10 million in new funds to improve the physical spaces so that all health centers would have running water, adequate ventilation, access to bathrooms and space suitable for confidential services. There are 10 high school clinics that need major renovation (4 in Manhattan, 2 in the Bronx, 2 in Brooklyn, 1 in Queens, and 1 on Staten Island.). To communicate respect to students, healthcare facilities must look as good for those who can pay as for those who can not.

Further funding by NYC for additional school-based health centers is another Coalition goal. The DOHMH/DOE should make a goal to ensure that there is a fully functioning, well equipped SBHC within every NYC high school facility.

# Community Health Center and School-based Health Clinic Partnerships: A Collaborative Model

Alan Shapiro, MD

Dr. Alan Shapiro is the Senior Medical Director for Community Pediatric Programs at the South Bronx Health Center for Children and Families, a community health center affiliated with the Children's Hospital at Montefiore. In partnership with the Children's Health Fund, Dr. Shapiro has piloted mobile delivery of pediatric care with a healthcare van in underserved New York City communities.

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## Introduction

School-based health clinics (SBHCs) and community health centers (CHCs) play an invaluable role in bridging the gap between need and access for medically under-served populations. Children living in poor urban and rural communities frequently lack access to comprehensive medical services, such as those provided by a medical home, the gold standard of care as defined by the American Academy of Pediatrics.<sup>81</sup> As a result of the inaccessibility of well child,<sup>82</sup> acute care, and chronic disease management services, indigent children often have the most profound unmet healthcare needs. Without access to a medical home, growth and development is not well monitored and chronic diseases are not identified and properly managed in a timely fashion. This dearth of services directly results in negative health outcomes, including increased emergency department visits, hospitalizations, and school absences. Lack of accessible quality healthcare leads to a marked decrease in quality of life for the child and places further stress on impoverished families already facing tremendous hardships.

The CHC movement, which began in 1965, was founded to provide comprehensive primary care services to poor urban neighborhoods and rural areas throughout the country. The CHC offers stable, culturally competent healthcare services that focus on the complex needs of patients and their families. CHCs have clinical hours that conform to the needs of the population they serve, typically including evening and weekend appointments. They offer a family-centered approach that is holistic and takes into account the needs, strengths and barriers of patients and the environments in which they live. Governance by a Community Board ensures relevant local feedback and keeps the health center focused on issues pertinent to the population served. While the CHC is vital in bringing healthcare services to under-served populations, barriers preventing children and their families from

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<sup>81</sup> American Academy of Pediatrics, National Center for Medical Home Initiatives  
<http://www.medicalhomeinfo.org/>

<sup>82</sup> Ed. note: Pediatric well-child visits are check-up visits for infants, toddlers, and young children with a pediatrician, which include a full physical exam and assess the infant or child's growth and development. Well-child visits are most frequent when the child's development is most rapid. Immunizations are often scheduled at the same time as well-child visits. The common schedule for well-child visits after the baby is born is: 1 week, 1 month, 2 months, 4 months, 6 months, 9 months, 1 year, 15 months, 18 months, 2 years, 3 years, 4 years, 5 years, 6 years. See, for example, Centers for Disease Control, Child Development – Developmental Screening for Health Care Providers, [http://www.cdc.gov/ncbddd/child/screen\\_provider.htm](http://www.cdc.gov/ncbddd/child/screen_provider.htm).

accessing needed care still exist. These barriers include, but are not limited to: uninsured or underinsured families; lack of transportation; scheduling difficulties due to parents' long work hours or being an overwhelmed single parent; language; immigration fears; and insufficiency of services (e.g. the presence of a CHC does not necessarily change a neighborhood's medically underserved status). Furthermore, adolescents requiring confidential health services (including sexual health and substance abuse counseling) have challenges accessing care that are both real and perceived.

Having a SBHC in an underserved community can provide an additional venue for the delivery of care, providing a safety net for children whose need may otherwise remain unaddressed.

The SBHC movement began in the 1970s. There are now approximately 1,700 SBHCs throughout the country. These centers provide a unique opportunity to focus on child health issues amongst what is essentially a captive audience. For the adolescent student, SBHC can afford a level of confidentiality not always achievable in a private office or CHC. Mandatory preventive screening (e.g., vision and hearing) can assist in early detection of problems that greatly impact learning and school performance. Furthermore, the SBHC provides an additional venue to vaccinate children against preventable diseases such as measles, mumps, rubella, chicken pox, hepatitis, meningitis, and human papilloma virus. Moreover, the ability to manage certain acute (e.g. ear infections) and chronic diseases (e.g. asthma) in the school setting can drastically impact attendance, improve health outcomes, and prevent major disruptions in parental work schedules. SBHCs face certain challenges in providing comprehensive uninterrupted primary care, such as limited hours of operation, school closing for weekends, holidays and summer break, limited access to the child's family by the medical team, and, in some cases, a less comprehensive scope of services (e.g. nutritionist, mental health, case managers, etc).

### **A Collaborative Model of Care**

While CHC and SBHC attempt to serve as a medical home, the reality is that neither can offer the comprehensive services a child or adolescent needs at all times. Provision of preventive healthcare and chronic disease management may be best achieved by a collaborative model, which ensures family-centered community-based care and improves continuity of care, mitigating school absenteeism and reinforcing key health messages. Such models can be found throughout New York City and the country. CHCs have themselves established SBHCs to increase access to care in the communities they serve and to strengthen the impact of positive health outcome activities. Other examples exist in which SBHCs and CHCs have collaborated to supplement each other's services and to maintain continuity of care, for example when school is not in session.

Asthma, childhood obesity and adolescent health are three examples used below to illustrate how a collaborative model of care can improve the healthcare safety net for children.

## *Asthma*

Asthma is the most common chronic health condition of childhood and one of the leading causes of pediatric hospitalization. Inadequate care leads to recurrent exacerbations, emergency department visits and subsequent school absence. Nationally accepted clinical guidelines have been developed to provide optimal asthma care. These call for disease severity classification, symptom control monitoring, allergy/environment factor identification, and in-depth family-centered health education. The ultimate goal of quality asthma care is to minimize symptoms and allow the child to lead a normal life that includes full participation in school and recreational activities.

It is often difficult for either a CHC or SBHC alone to deliver all aspects of quality asthma care. A collaborative model has a better chance of achieving this goal as it reaches the child in multiple settings. School absenteeism is notorious in children with persistent asthma and should be closely monitored as an indicator of control. Without the presence of a SBHC, many asthmatic children would have to remain at home or leave school, when symptomatic, to receive treatment. Self-management “action plans” can be used by patients and providers at both CHC and SBHC to standardize and reinforce proper treatment. Administration of medication to prevent exercise-induced symptoms, as well as for acute exacerbations, can greatly normalize a child’s school day. Likewise, the collaborative model provides a place to receive acute and follow-up care in the community when school is closed. Asthma care in school has been the focus of public health efforts in New York City and throughout the country. Marked improvements in health outcomes have been achieved due to these efforts. The American Lung Association’s Open Airways For Schools (OAS) is an excellent asthma management program for schoolchildren aged 8-11 who have been diagnosed with asthma and has been shown to improve key outcomes.<sup>83</sup>

## *Obesity*

The epidemic of childhood obesity that has emerged over the past two decades bodes poorly for the future health of affected children. Obesity is the leading contributor to the development of adult-onset diabetes. A rise in this condition among adolescents has alarmed the pediatric community. Programs throughout the country are being implemented to reverse this disturbing trend. Obesity is a problem that requires intervention at the individual, family, and community level. A family-centered approach to diet and exercise, reinforced in various community settings (e.g., school) is arguably best for affecting behavioral change. The CHC can also serve as a referral and resource site for the school-based medical team to consult with nutritionists and mental health professionals. Lastly, the collaborative model strengthens advocacy with efforts such as revising cafeteria menus, eliminating junk food from vending machines, and supporting a more rigorous physical education curriculum.

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<sup>83</sup> American Lung Association: Open Airways for Schools  
<http://www.lungusa.org/site/pp.asp?c=dvLUK9O0E&b=44142> Note: Results from a study looking at 239 children showed that those “who received the OAS program took more steps to manage their asthma, improved their school performance, and had fewer and less severe asthma episodes. Parents of children receiving OAS reported taking more steps to help manage their children's asthma. The school environment became more supportive: children without asthma were more willing to help children with asthma, and children with asthma were able to give support to one another.”

## *Adolescent Sexual Health*

Reaching adolescents is perhaps one of the most challenging areas in pediatrics. Generally perceived to be healthy by themselves and their parents, medical care is often sought by this population only during times of acute illness. Health education around safety and sexual/reproductive health are key subjects that need to be addressed during teen years. Again, a collaborative model of care between SBHC and CHC can meet the challenges of providing such services. Discomfort by both providers and adolescent patients discussing sexual health issues and/or concerns regarding confidentiality may create barriers to receiving vital services at their family health center. An on-site health clinic at a teen's school becomes another point of access for such services affording the adolescent student more freedom to discuss health concerns, such as family planning, without fear of parental disclosure. Giving teens more settings to receive healthcare both empowers them and increases access to critical health information such as prevention of pregnancy and sexually transmitted infections. NYC DOHMH is currently piloting a program, Healthy Teen Initiative,<sup>84</sup> to improve access for high school students to navigate healthcare services at CHCs.

### **Conclusion**

CHCs and SBHCs are critical components for delivering comprehensive healthcare to children and adolescents. While each system of care cannot alone fulfill the healthcare needs of the child, new innovative models of care such as CHC – SBHC partnerships can achieve this goal. A collaborative model should:

- Be family-centered and focused on meeting comprehensive health needs of child.
- Have roles that are well delineated for each partner and aims to eliminate duplication of services.
- Be mutually cognizant and respectful of each partner's mission.
- Ensure channels of communication that are clear and accessible.
- Allow for exchange of medical information with appropriate consents and privacy safeguards (use of electronic medical records can greatly facilitate this goal).
- Strive to work together to achieve advocacy goals to improve healthcare, the environment and well being of children and their families.

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<sup>84</sup> NYC DOHMH Healthy Teen Initiative <http://www.nyc.gov/html/doh/html/pr2006/pr043-06.shtml>.

## Healthy Lifestyles: A Model for Community Health Center / School Partnership to Improve the Health of Children

Elizabeth Howell, MS

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Healthy Schools / Healthy Families (HSHF) is a child-centered and family-focused multi-partner initiative piloted in seven New York City elementary schools. The program promotes healthy lifestyle behaviors and a network of services that is accessible to all children, families, and school staff. In the HSHF target schools, a coalition of educators, parents, healthcare providers, and community leaders have designed a program that meets the specific needs of their school community.

HSHF is an innovative and successful school-based program in which health professionals partner with school staff and community organizations to assess the health needs of children and families in the underserved communities of Northern Manhattan and mobilize resources to address those needs. The program draws from the best practice guidelines for successful school- and community-based healthy lifestyle promotion programs outlined by the CDC<sup>85</sup> and the National Institute for Health Care Management.<sup>86</sup> HSHF is innovative in that it emphasizes leadership and engagement of parents and school staff in development of culturally appropriate activities that are tailored to each school's particular needs.

All program activities of Healthy Schools Healthy Families are anchored to several core principles: a public health approach of the school as community, goals achieved according to each school's individual resources and needs, school-based decision making, prevention-focused strategies, and the critical role of community partners. The overall program goals of HSHF are to facilitate insurance enrollment for children and families; to ensure that 100 percent of children have completed required immunizations; to screen for and facilitate access to services for children with identified health needs, particularly asthma; and to cultivate a culture of physical fitness, good nutrition, and Healthy Lifestyle behaviors.

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<sup>85</sup> MMWR Guidelines for School Health Programs to Promote Lifelong Healthy Eating <http://www.cdc.gov/mmwr/preview/mmwrhtml/00042446.htm>.

<sup>86</sup> NIHCM Foundation, *Tackling Childhood Obesity through Public-Private Collaboration*. April 2006.

The Healthy Lifestyles component is fully integrated into HSHF and takes a healthy behavioral approach to obesity prevention. Healthy Lifestyles uses a collaborative approach to address the risk and consequences of childhood obesity in poor, urban communities. This approach addresses the whole school population through community culture change, thereby avoiding stigmatization of overweight and obese children. The three goals of the HSHF Healthy Lifestyle component are as follows: 1) *Change community culture to promote healthy lifestyles through leadership development and community engagement*; 2) *Improve food environment and healthy eating behaviors in and around schools*; and 3) *Increase the amount of time every child is active*.

These goals are achieved through a variety of program activities including: a prevention-focused social marketing campaign centered around 8 *Habits of Healthy Kids*; body mass index (BMI) screenings and workshops; nutrition fairs; parent and staff wellness programs; a healthy snack campaign; a healthy breakfast initiative; Fresh Food Fresh Start farmers markets located at the schools; nutrition education; and physical activity programs. These program activities are facilitated by registered dietitians who are employed by Community Healthcare Network. This connection with a healthcare provider ensures that families in need of primary health services, which are identified through their participation in Healthy Lifestyles activities, can be referred for comprehensive medical care. As a federally qualified health center, Community Healthcare Network serves all patients regardless of insurance status or ability to pay.

Through the convergence of the skills and resources of the partners, in concert with the energy and talents of the target communities, this program can become a best practice model for healthy lifestyles promotion and obesity prevention among minority underserved communities. The model can be replicated and tailored to meet the needs and ages of the students.

One of the key factors to success requires attaining the support and commitment of the school's principal to dedicate the resources, including space, staff, and time. This is a significant challenge in view of competing demands to focus on core subjects and to maintain or improve academic performance. However, children who have a healthy diet and physical activity perform better in school.

## **Background**

Obesity is one of the most significant public health issues currently affecting children and adolescents ages one to nineteen in the United States. Nationwide, the prevalence of child and adolescent obesity and overweight is increasing. In fact, over the past 30 years, the percentage of children age six to eleven who are obese has tripled.<sup>87</sup> When examined by racial/ethnic group, prevalence in minority populations is generally even higher; among black children ages 2-19 the overall prevalence was 20 percent. Childhood obesity is more prevalent among Hispanic children than in other ethnic groups, and the U.S. problem has been steadily increasing over the past decade.<sup>88</sup>

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<sup>87</sup> <http://www.iom.edu/cms/3788/5867/22596.aspx>

<sup>88</sup> <http://www.ars.usda.gov/is/AR/archive/jun03/track0603.htm>

Factors contributing to the childhood obesity epidemic are multiple and complex, but it is clear that healthy lifestyles, including increased physical activity and improved nutrition, help reduce associated morbidity. Because nearly all children living in urban minority communities can be considered “high-risk” for the poor health outcomes associated with childhood obesity, there is a need for programs that employ an ecological model, targeting the entire community, rather than focusing on individual children who are already overweight or obese. This allows for the possibility of achieving a true culture change, avoiding stigmatizing individuals and risking impacting their self-esteem, and promoting healthy behaviors to establish life-long healthy habits.

The CDC's guidelines for School Health Programs to Promote Lifelong Healthy Eating state that "The influence of school goes beyond the classroom and includes normative messages from peers and adults regarding foods and eating patterns. Students are more likely to receive a strong, consistent message when healthy eating is promoted through a comprehensive school health program. A comprehensive school health program empowers students with not only the knowledge, attitudes, and skills required to make positive health decisions but also the environment, motivation, services, and support necessary to develop and maintain healthy behaviors. A comprehensive school health program includes health education; a healthy environment; health services; counseling, psychological, and social services; integrated school and community efforts; physical education; nutrition services; and a school-based health program for faculty and staff."<sup>89</sup>

This Healthy Lifestyles project represents a partnership between the Community Healthcare Network, the Morgan Stanley Children's Hospital of New York and the New York City Department of Education. This project is conducted within the Healthy Schools /Healthy Lifestyles Program which includes numerous additional community-based partners. The program is conducted at the following elementary schools in Northern Manhattan and Harlem: PS 4, PS 102, PS 128, PS 132, PS 152, PS 180, and PS 206.

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<sup>89</sup> MMWR Guidelines for School Health Programs to Promote Lifelong Healthy Eating  
<http://www.cdc.gov/mmwr/preview/mmwrhtml/00042446.htm>

## Conclusion

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The papers presented in this collection demonstrate that the city's public school system is uniquely positioned to provide access to healthcare services and health education to the city's medically underserved children. By bringing services free of charge to the place where more than half of the city's children spend most of their day, we can overcome most barriers to healthcare access otherwise experienced by children and adolescents in their communities.

There are a number of ways to use city schools to improve child healthcare and health education. Each of these different methods should be employed where they are most effective as part of an overall plan to improve child healthcare and health education citywide. Schools cannot match the services provided by the hospitals, clinics, and medical practices that constitute the city's healthcare provider network. Rather, schools can and should support the primary care system by acting as partners in the prevention of chronic childhood diseases for hard-to-reach populations in areas with provider shortages.

While the success of school-based healthcare in overcoming access issues is widely acknowledged, ultimately its expansion will be limited by the availability of funding. Finding stable funding sources remains the single greatest challenge to the expansion of school-based healthcare. The papers in this collection suggest some new funding mechanisms and point to significant long-term savings that can be achieved by investing resources in school-based health services.

Taking into account each of the contributing authors' recommendations, the Office of the Public Advocate recommends the following:

The City of New York should:

***Create a long-term plan to place appropriate school-based health services in every city school.***

Because adolescents are a priority population, the city should actively pursue a long-term goal of placing a school-based health center (SBHC) in every building and campus that serves high schools as funding becomes available. High schools with the highest percentage of children on Medicaid and the highest percentage of students receiving free or reduced price school lunch should be the first to receive new facilities.

For all other schools that currently lack school-based health services, the Department of Education (DOE) and the Department of Health and Mental Hygiene (DOHMH) should complete a basic needs assessment. The city should support community partnerships with community-based health centers and wellness programs that address the specific health needs of each school. For example, a school with a high rate of obesity could benefit from a wellness program modeled on the Healthy Schools/Healthy Families initiative.

***Create a public-private fund to support city funding of school-based health services***

The current economic crisis and the resulting budget cuts to schools and school-based health services—including, for example, the announced elimination of all school-based oral health clinics in the city—underscores the need to plan for the future. In order to restore, maintain, and expand school-based health services, new sources of funding for these services must be part of this planning process. The city should create a private-public partnership dedicated to supporting school-based health services and helping the city realize a “one-stop” model for city schools that includes health and other supportive services.

***Ensure that all new schools planned by the School Construction Authority (SCA) have the capacity necessary for health services***

Any plan to significantly expand access to school-based health services in the long-term depends on a commitment to ensuring that all new schools are designed and built to accommodate these services. As part of the long-term planning process for school construction, the SCA should ensure that all new school buildings and campuses have the capacity to house a SBHC.

The State of New York should:

***Create a mechanism for SBHCs to receive reimbursement for services provided to children enrolled in Child Health Plus (CHP).***

SBHCs provide services to students regardless of health insurance status and/or ability to pay. As the demand for school-based health services has increased, competition for the limited supply of grant funds has increased, as well. Limits on infrastructure and resources make it difficult for SBHCs to bill and collect from third party payers. In addition, most SBHCs are not in managed care plan networks and do not fulfill all the requirements necessary to qualify as a Primary Care Provider (PCP) under managed care rules. Nonetheless, SBHCs are not financially sustainable without reimbursement for at least a portion of services provided.

SBHCs in New York State are subject to an exemption or “carve-out” that allows them to bypass Medicaid managed care plans and charge the state Department of Health directly for services provided to students enrolled in Medicaid, regardless of their managed care plan. No equivalent mechanism exists for services provided to students enrolled in CHP. The state should create a mechanism equivalent to the Medicaid carve-out to allow SBHCs to bypass CHP managed care plans and obtain reimbursement directly from the state Department of Health.

The recent reauthorization of the federal State Children’s Health Insurance Program (SCHIP), H.R. 2 (2009) offers a new incentive for the creation of such a mechanism. H.R. 2 provides additional matching funds to states like New York that have extended the CHP program to children of families earning up to 400 percent of the federal poverty level.

With an estimated 70,000 more New York children<sup>90</sup> enrolled or eligible for CHP since last year's expansion and millions more federal dollars now available, the time is right for a mechanism that allows SBHCs to receive reimbursement for services provided to CHP enrollees.

If such a mechanism is not possible in the short-term, the state should negotiate with CHP managed care organizations, encouraging them to include SBHCs in their provider networks. In this scenario, SBHCs would still provide services to all students, but each managed care organization would reimburse for services provided to its members. Adolescents in SBHCs are more likely to receive preventive services than those who visit other types of healthcare providers. Therefore, including SBHCs in CHP provider networks would not only increase revenue for SBHCs but also improve overall pediatric quality of care for CHP plans.

***Change state regulations to allow Medicaid reimbursement for school-based nutrition counseling services.***

State regulations should be changed so that SBHCs—and CHCs that provide staff to schools for wellness programs—can receive Medicaid reimbursement for nutrition counseling services provided to Medicaid enrollees by a nurse practitioner, physician assistant, or dietitian in a school setting. A recent change to state Medicaid regulations allows SBHCs to receive payments for psychotherapy services provided by social workers to Medicaid enrollees. However, state Medicaid regulations still do not allow SBHCs to receive payments for nutrition counseling services. Nutrition counseling services often play a key role in helping children and their families prevent and manage obesity, as well as other acute and chronic diseases. Medicaid will reimburse health care providers, including nurse practitioners, for nutritional assessment and counseling provided to pregnant women and infant children. The same rules should apply to children enrolled in Medicaid using school-based services.

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<sup>90</sup> Families USA, *Issue Brief: Detour on the Road to Kids Coverage: Administration Creates Roadblocks So States seek Alternative Routes*, June 2008, p.5.