

# Health At School: A Hidden Health Care System Emerges From The Shadows

The time is ripe for a viable school-community health care collaboration.

by **Julia Graham Lear**

**ABSTRACT:** A vast array of child health professionals—99,000 counselors; 56,000 nurses; 30,000 school psychologists; 15,000 social workers; and smaller numbers of dental hygienists, dentists, physicians, and substance abuse counselors—provide care to children and adolescents at school. However, most thought leaders in child health know little about this “hidden” system of care or are skeptical about its capacity to contribute to children’s well-being. Increased interest in prevention and chronic disease management, powered by escalating concern about childhood overweight, might end the isolation of school health programs and link them more effectively to community-based prevention programs and health care services. [*Health Affairs* 26, no. 2 (2007): 409–419; 10.1377/hlthaff.26.2.409]

SCHOOL-BASED HEALTH PROGRAMS ARE increasingly recognized as important players in children’s health care. Writing for this journal in 1995, Duke psychologist Barbara Burns and colleagues declared that schools were the “default mental health system” for children in the United States.<sup>1</sup> In 2003, President Bush’s New Freedom Commission on Mental Health argued that expanding mental health services in school was a key step toward overcoming barriers to mental health care.<sup>2</sup> That same year, Gov. Mike Huckabee of Arkansas secured legislative approval for a state mandate requiring schools to measure and report to parents the body-mass index (BMI) of all elementary and secondary school students, thereby placing school health personnel at the center of childhood obesity surveillance.<sup>3</sup> A 2005 Institute of Medicine (IOM) report on childhood obesity endorsed a lead role for schools in confronting the epidemic.<sup>4</sup> Concurrently, other government agencies and professional organizations have called on school-based health professionals to monitor or treat chronic conditions including asthma, diabetes, and other disabling conditions.<sup>5</sup>

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■ **Drivers of school involvement.** Several factors are driving efforts to involve schools in improving children's health status and increasing access to care for the underserved. The No Child Left Behind legislation, with its required testing and demonstrated annual yearly progress by all children, is compelling school districts to acquire new tools to help children learn. Addressing untreated or inadequately treated health problems among their students is one of many strategies being pursued. From the health system's perspective, persistent lack of insurance among nine million children and unyielding disparities in health status among poor and minority children, in addition to escalating obesity rates, are compelling health systems to consider how health care at school can improve children's and adolescents' health outcomes. The recent arrival of record numbers of immigrant and refugee children has increased the number of vulnerable children at risk for both school failure and untreated health problems.

■ **Information gap among policymakers.** Despite this mounting attention to school health services, health policy decisionmakers remain largely unfamiliar with this "hidden system" of health care. It is not operated by mainstream health care organizations, it is not commonly reimbursed by third-party payers, and its ways of doing business are rarely scrutinized in major health services research journals. Thus, no trusted body of evidence offers a guide to the school health world—its providers, services, financing, and outcomes. As a result, the health care community has difficulty understanding the basics of school-based health and is hard pressed to imagine how the community-based system of care might link with this unknown but possibly promising service network. The goal of this paper is to bridge the information gap by describing school health fundamentals, identifying several major barriers to integrating school- and community-based systems of care, and suggesting possible directions for collaborative effort.

## **Health Care At School—2007**

■ **The providers.** Despite well-publicized news stories in which school nurses have been fired or legislators have zeroed out school-based health center budgets, data confirm the continued growth of school-located health professionals. By the early twenty-first century, an estimated 56,000 school nurses; 1,725 school-based health centers; 99,000 school counselors; 30,000 school psychologists; 14,000 school social workers; and smaller but unknown numbers of dentists and dental hygienists, physicians, substance abuse counselors, family planning counselors, and HIV/AIDS counselors were working in about 95,000 public schools serving more than fifty million students across the country.<sup>6</sup> Added to this rich mix of providers should be the uncounted community providers who spend some part of their work weeks in school settings but whose presence might not be captured in national surveys or reported to the U.S. Department of Education.

Some of these professionals care for all children attending schools; others provide services only to special-needs children who require certain physical or men-

tal health services to attend school or to benefit from the education offered. This latter group of children is eligible for health services as a result of federal laws adopted in the past thirty years that protect the civil and educational rights of children with disabilities.<sup>7</sup> The growing numbers of these “protected” children have contributed to increases in the numbers of school health professionals.

■ **The services.** School-based providers offer a diverse, often idiosyncratic, range of services.

*School nursing services.* Beginning in the 1890s, school systems and local health departments employed nurses and physicians to screen and exclude from school students found to be infected with contagious diseases. Over the past century, the numbers of school nurses and physicians waxed and waned depending on the interests of school boards and the size of local budgets. From immunization surveillance to treating playground injuries, nurses have assumed responsibility for most school health functions relating to physical health issues.

School-nurse staffing is sometimes augmented by aides, more formally known as unlicensed assistive personnel (UAPs). The number of aides employed nationwide is unknown, and their training varies widely. Aides typically function under the state license of a school nurse. In some instances, several aides are supervised by a single nurse; in others, aides may be the only “health” personnel in a school, with a single nurse administrator responsible for numerous school-based aides. Some schools and school districts have no health personnel serving the general school population.

Larger school districts tend to have more robust health programs. Data from two school districts suggest the range and intensity of such programs. Boston, Massachusetts, and Austin, Texas, are school districts of similar sizes, enrolling about 63,000 and 78,000 students, respectively. While the Boston school health program, administered by the Boston Public Schools, is staffed with ninety-five bachelor’s degree school nurses, the Austin program, managed by the Seton Health System’s Children’s Hospital, is staffed with a combination of sixty-five mostly full-time nurses and fifty-two health aides. Both programs are busy, with Boston’s school nurses handling about forty visits daily and Austin’s health aides and nurses averaging thirty. Episodic care—including illness assessment, first aid, and health education—is the most common service, with medication management the second most common (Exhibit 1).

*School-based health centers.* School-based health centers (SBHCs) caught the attention of a handful of state legislatures in the 1980s. Attracted by their potential for overcoming barriers to health care access for underserved children and adolescents, legislatures in New York, Connecticut, Delaware, Oregon, and Michigan appropriated funds to place primary care centers inside schools in their neediest communities. Over the next twenty years, Illinois, Louisiana, Maine, Maryland, Massachusetts, North Carolina, New Mexico, Rhode Island, Texas, and West Virginia followed suit. With state support, the centers have increased from fewer

**EXHIBIT 1**  
**Student School Nurse/Aide Encounters In Two Cities, 2001–2002**

Type of encounter	Austin, TX		Boston, MA	
	Number	Percent	Number	Percent
Episodic	338,489	57.5	416,650	57.8
Medication	187,897	31.9	227,114	31.4
Procedure	– <sup>a</sup>	– <sup>a</sup>	44,369	5.7
Screening	61,786	10.5	36,645	5.1
All encounters	588,172	99.9	721,300	100.0

**SOURCE:** J. Frederick and E. Schainker, "Opportunities to Strengthen Medication Management at School: Tales from Two Cities," <http://www.healthinschools.org/sh/presentation.asp> (accessed 20 December 2006).

<sup>a</sup> Included under episodic and medication.

than 100 in the late 1980s to more than 1,700 in 2005. For the most part, these centers have been sponsored and managed by mainstream health care institutions—community hospitals (32 percent), public health departments (17 percent), community health centers (17 percent), and academic medical centers (5 percent). The health centers are found in all types of schools: high schools (39 percent), elementary schools (23 percent), middle schools (18 percent), elementary-middle (9 percent), middle-high (7 percent), and K–12 (4 percent).<sup>8</sup> Perhaps because health care institutions typically sponsor SBHCs, the centers are the school-based provider type that is best understood by the health care field. It is also the provider type that makes the most effective link between school- and community-based care.

Although state funding has played the principal role in school health center growth, local dollars and leadership have contributed to the development of the largest concentrations of SBHCs. Baltimore, Bridgeport, Denver, Portland (Oregon), and Seattle all support extensive SBHC networks. The influence of local dollars in driving growth was demonstrated in August 2006 when Miami-Dade County Public Schools, the Health Department, and the Children's Trust announced that eighty new health centers, or mini-clinics, would open in the public schools during the fall semester. The centers, to be staffed with a nurse or nurse practitioner, a social worker, and two health aides, are to be funded primarily by the Miami-Dade County Children's Trust, with \$10 million in property taxes allocated to that agency by the county voters.<sup>9</sup>

Similar to the school nursing programs, the service offerings of the health centers have been determined by budget and staffing. However, from their earliest days, delivery of comprehensive care—primary care, mental health services, and preventive services—has been the gold standard to which most centers aspire (Exhibit 2). In addition to providing physical and mental health services, not quite a third of the health centers also provide social services, health education, nutrition counseling, and dentistry.<sup>10</sup>

*School mental health.* The earliest school mental health programs—counseling and

**EXHIBIT 2**  
**Selected Physical And Mental Health Services Provided By School-Based Health Clinics (SBHCs), By School Year, 2001–02**

Physical health service	Percent of SBHCs providing service	Mental health service	Percent of SBHCs providing service
Treatment of acute illness	96	Referral	89
Screening	93	Assessment	80
Asthma treatment	92	Crisis intervention	78
Medication prescription	91	Brief therapy	67
Comprehensive health assessment	90	Conflict resolution/mediation	64
Immunization	86	Tobacco use counseling	62
Treatment of chronic illness	86	Substance abuse counseling	55
		Mental health diagnosis	51

**SOURCE:** National Assembly on School-Based Health Care, "School-Based Health Center Census: National Census School Year 2001–02," 2003, <http://www.nasbhc.org/EQ/2001census/2001tables.htm> (accessed 20 December 2006).

school social work—have been around almost as long as school nursing. School counseling, which began as a vocation-oriented profession in the early twentieth century, has evolved into a profession that offers personal guidance as well as academic direction. Today, 79 percent of elementary schools and 98 percent of secondary schools have a school counselor on staff.<sup>11</sup> Although certification requirements vary among states, school counselors typically are trained in schools of education and have a master's degree. In most instances, they have not been accepted as insurance-reimbursable providers. School social workers, or school staff similar to them, were initially hired to enforce compulsory school-attendance rules adopted early in the twentieth century. Subsequently, school social workers—mirroring colleagues in community practice—became case managers who also paid increasing attention to students' psychosocial issues. There are many fewer school social workers than counselors; 44 percent of elementary schools and 41 percent of high schools report a social worker on staff at least part time.<sup>12</sup> Licensure, certification, or registration requirements for school social work also vary among the states.

The presence of school psychologists, whose beginnings extend back to the development of IQ testing early in the twentieth century, expanded with passage of federal legislation requiring all school districts to educate children regardless of disabilities. In the 1970s, passage of Section 504 of the Rehabilitation Act of 1973 and the Education of the Handicapped Act in 1975 required school districts to take affirmative measures to include students with disabilities in the educational process. This new federal obligation created a major impetus for schools to employ professionals who could assess the degree of children's disabilities and provide services to those in need of care. Many school psychologists have training far broader than testing and student assessment; however, school psychologists have reported spending an increasing percentage of their time on these activities, reaching 79 percent of their work hours by the 1999–2000 school year.<sup>13</sup>

More recently, violent school events, such as the Columbine murders, and indi-

vidual tragedies reflected in youth homicide and suicide rates have prompted federal legislation to pilot school mental health programs that are available to all students. The No Child Left Behind legislation and its spotlight on failing schools has also prompted schools to look to mental health programs as a potential vehicles for reducing the dropout rate and improving student performance. Some state initiatives are also helping test these strategies.<sup>14</sup>

A 2006 report from the District of Columbia School Mental Health Program suggests what some of the newer programs might look like.<sup>15</sup> Begun five years ago as a pilot effort funded by the federal government's Safe Schools, Healthy Communities initiative, the D.C. School Mental Health Program links the D.C. Department of Mental Health (DMH) with the public schools to provide DMH-funded preventive and early intervention services in twenty-nine public and public charter schools. Thirty-two clinicians—a mix of clinical social workers, psychologists, and counselors—work with school staff to implement the program. Current program costs of \$2.7 million are supported wholly by the DMH operating budget.

Program services are offered to all D.C. public school students and are not limited to students at risk for special education placement. The program has five components. Primary prevention activities, such as schoolwide interventions and classroom-based interventions, are allocated 25 percent of staff time. Secondary prevention activities, such as support groups and teacher consultations, are also allocated 25 percent of staff time. Thirty percent of staff time is devoted to clinical services—individual, family, and therapeutic groups. The remaining time (20 percent) is split between building partnerships with school and community colleagues and undertaking quality improvement efforts to strengthen program services and document service outcomes. The program hopes to demonstrate an impact on school attendance and dropout rates; however, during its first years, performance measures have included satisfaction surveys administered to parents, faculty, principals, and school staff. To date, results have been encouraging.

### **School Health: Who's In Charge, How It Works, What It Costs**

■ **Policy and program development.** With the usual caveat about variability across school health programs, there are a few rules of thumb concerning policy and program development in school health. Decisions about whether to expand or contract health services are traditionally made by a school system's central administration and its school board. Because funding for school health typically resides within the school budget, not the public health budget, school health programs inevitably compete with academic agendas—a difficult assignment in the era of No Child Left Behind.

At the state level, policies affecting school health services primarily concern licensure and certification of staff, with legislators weighing in occasionally on hot-button issues such as sex education and mental health screening. That said, state legislatures can direct funds toward specific types of school health services

and may encourage expansion of services through grant initiatives. Additionally, state executive agencies, such as Medicaid and insurance commissioners' offices, can facilitate funding of school health services through regulations and their interpretation. Medicaid and State Children's Health Insurance Program (SCHIP) officials may issue regulations that enable school-based providers to be reimbursed when Medicaid- or SCHIP-eligible beneficiaries receive certain covered services. Through their regulation of private insurance, the insurance commissioners might also influence revenue generation by determining the provider credentials required to secure payment under private-payer plans.

School health programs are typically undermanaged. These programs employ few, if any, managers who are assigned to strategic planning, budgeting, or working with elected officials. As a result, school health programs might not be staffed to discuss with potential community partners how collaboration might occur.

■ **Spending and funding.** Because there is no single data source that tracks health care spending at school, spending on current health programs can only be calculated approximately. In Exhibit 3, the average per unit cost of school-based health care providers is multiplied by the estimated number of providers. Estimates do not include management costs or costs associated with health aides, or community dental and mental health providers who provide care in schools. However, the conservative—and partial—estimate of \$10.4 billion in annual expenditures is large enough to compel attention.

*Local and state sources.* Funding to support this spending comes from the proverbial patchwork of revenue streams. Most school health services are funded through traditional school financing sources: local property taxes and formula-driven state allocations of revenues to local school districts. State governments

**EXHIBIT 3**  
**Estimated Annual Cost Of Health Programs At School**

Health staff or program in school	Number	Average cost per unit (\$)	Total cost (\$)
School nurses	56,000	40,201	2,251,256,000
School psychologists	30,000	65,000	1,950,000,000
School social workers	14,000	44,300	620,200,000
School counselors	99,000	52,303	5,177,997,000
School-based health centers	1,750	250,000	437,500,000
<b>Total</b>			<b>10,436,953,000</b>

**SOURCES:** U.S. Census Bureau, "Table 239: Average Salary and Wages Paid in Public School Systems: 1985 to 2004," *Statistical Abstract of the United States, Education*, 2006, <http://www.census.gov/compendia/statab/education/educ.pdf> (accessed 20 December 2006); A. Thomas, "School Psychology 2000—What Is Average?" *Communique* 28, no. 8 (2004), available online at <http://www.nasponline.org/publications/cq/cq288sp2000.aspx> (accessed 20 December 2006); U.S. Department of Labor, Bureau of Labor Statistics, "Social Workers," *Occupational Outlook Handbook*, 2006-07, <http://www.bls.gov/oco/ocos060.htm> (accessed 20 December 2006); and author's estimates for school-based health center costs based on reports of state- and city-funded programs.

**NOTE:** Data specifically on school-based mental health programs were not available.

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may also selectively support services through targeted grant initiatives such as those funding SBHCs, school mental health programs, and dental and mental health programs.

States have also adopted strategies to provide across-the-board support to local school health programs. In Pennsylvania, for example, the state reimburses communities for 40 percent of spending associated with school nursing. In Massachusetts, the state Office of School Health establishes performance standards, provides continuing education to school nurses, and works with the Department of Education to support school nurse certification requirements.

*Federal funding—mostly Medicaid.* The federal government supports a handful of federal discretionary grants directed toward school-based care; however, the most sizable resources supporting school health services are federal Medicaid payments to reimburse school districts for certain health-related services provided to students in special education.<sup>16</sup> In 2003 the U.S. Government Accountability Office (GAO) reported that combined state and federal Medicaid spending for these services reached \$2.3 billion.<sup>17</sup>

Medicaid funding for health services provided at school has been an object of considerable debate. In the late 1980s the Health Care Financing Administration (now the Centers for Medicaid and Medicare Services, or CMS) determined that Medicaid could reimburse schools for some services delivered to those covered by its programs. Not all states or school districts pursued this option: They didn't have the documentation and billing systems in place, they were uncertain about reimbursement rules, and some were very worried about being required to reimburse the federal government if expenses were deemed improperly billed.<sup>18</sup> Nonetheless, in some states, school districts began to bill Medicaid aggressively. Although the introduction of Medicaid managed care has made securing reimbursement for services provided to the general school population more difficult, services associated with special education requirements are typically carved out of Medicaid managed care plans, and school districts continue to bill Medicaid for those services and others, although not without continued debate.<sup>19</sup>

## **Challenges To School-Community Health Collaboration**

Current circumstances suggest that the time is ripe for school-community health care collaboration. Childhood obesity, chronic disease management, and new threats such as a bird flu pandemic provide impetus for greater cooperative effort. But the barriers to developing working partnerships are real and long-standing, and they involve the critical matters of power, money, and politics.

■ **Barrier 1: Who will be in charge?** There are areas of great difference in how

education and health systems organize and pay for health services, and a critical question is, Whose rules will apply? Which system will shape a more closely linked system? For example, most counselors have been trained at schools of education and are certified by boards appointed by states' education departments. School counselor credentials are generally not accepted for reimbursement even when the services they are providing are personal, as distinguished from academic, counseling. Conversely, licensed clinical social workers, who are frequently employed in SBHCs, are typically eligible for patient care reimbursement. The politics involved in resolving certification and licensure requirements are daunting. Jobs, union memberships, and personal feelings of worth could all be on the line. Figuring out how both education and health can be "in charge" will be a key challenge for those wishing to link school-owned and health system-owned services.

■ **Barrier 2: Who will pick up the tab?** As noted earlier, school health services have historically been supported and managed by local government agencies, primarily school systems but also public health agencies. In both instances, school-based health services have been secondary to the main interests of education and public health. School health budgets have languished as a result. Growing interest in school health services suggests that demands on school health budgets can only increase. Figuring out how an underresourced system can assume additional responsibilities will require much imagination.

■ **Barrier 3: What will be the political cost?** One of the greatest challenges for those seeking to bridge the gap between school and community health is the attractiveness of school health issues for organizing by the political Right. Social conservative groups such as the Eagle Forum and Concerned Women of America cut their political teeth rallying against SBHCs as potential vehicles for abortions and contraceptives in schools.<sup>20</sup> More recently, these organizations have opposed mental health screening in schools as a threat to family privacy and parental rights.<sup>21</sup> The threat of controversy discourages both school and health leaders from pursuing high-profile efforts to expand health services in schools.

## Linking School And Community Health Services

In 2006, Charles Barnett, president of Children's Hospital in Austin, Texas, launched an effort to optimize children's health through a communitywide collaboration. Working with recommendations from an initial gathering of health services researchers, school superintendents, day care center operators, and others, a senior hospital staffer and consultant interviewed 147 city leaders across the city to learn how they diagnosed the barriers to achieving better outcomes for kids. Their views were unambiguous: Children's care in Austin was described as fragmented, weakened by limited data, and, through duplication of effort, wasteful of resources.

Follow-up meetings resulted in agreement on four priorities for further study and action. One of these, "Link and Leverage," is exploring opportunities to blend

school and community health services. The goal is to figure out how to maximize resource use by co-locating services and using system savings to expand care. With 30 percent of school-age children uninsured, the city of Austin has good uses for any savings that are generated. Diana Resnik, the hospital's vice president of community care, says, "What has the committee really jazzed is the possibility of linking health and education."<sup>22</sup>

### **Back To The Future**

In 1994, during the Health Security Act debate, policymakers began serious discussions about the role of school health in the larger health care system. A small group of health professionals assembled in Washington, D.C., to discuss the future of school health within the context of health care reform. That group called for state and local community stakeholders to come together "to assess the needs of school-age children, analyze available resources, and agree on what should be done at the school site, who should do it, and who should pay for it."<sup>23</sup> How that might occur was only vaguely perceived, but participants had a clear vision that school health could no longer remain apart from community health and that community health, to meet its obligations to school-age children, could no longer ignore school health.

Top-to-bottom realignment of school and community health is unlikely in the near future. The challenges to integration are too great and the divides too deep to be overcome with a single stroke of restructuring. But the opportunities for both systems are real. Health and education gain equally when children's asthma is controlled; the uninsured are insured; and emotional problems receive early, effective interventions. In the absence of perfect solutions, the path carved by schools, health professionals, and community leaders in Austin, Miami, and Washington, D.C., might provide inspiration. Driven by the compelling needs of large numbers of children and youth and faced with unyielding budget realities, elected officials and members of the public and private sectors might be drawn to opportunities that reduce duplicative services between the two systems and create potential to redirect savings toward expanded care for underserved children and youth.

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*The author is grateful to the Robert Wood Johnson Foundation for its financial support.*

### **NOTES**

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