PARTNERSHIPS

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The School as the Center of a Healthy Community

SYNOPSIS

Educational institutions have long been an important focus for public health initiatives. Their readily accessible populations of young people provide an excellent forum for health education, vaccination, and other public health interventions. However, schools can also play an important role as various sectors of the community seek to build new relationships. This article explores opportunities for public health leadership in strengthening schools, an important community asset.

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As the 21st century begins, we face a national challenge in the design of environments for learning. This year's public and private K–12 school enrollment will reach a record 52.7 million students, surpassing last fall's all-time high by 500,000. New enrollment records will continue to be set for the next eight years, with public high school enrollment expected to increase to a record 54.3 million students in the year 2008, according to the US Department of Education.

In 1996, the US General Accounting Office said $112 billion in renovations to school facilities nationwide was needed just to achieve a "good overall condition." The needs outlined included routine maintenance and repair necessary to meet the functional requirements of existing instructional programs. They did not include an undetermined additional amount of renovation and new construction needed to update these same facilities to accommodate reductions in class size and other important advances in teaching and learning.

Replacing educational facilities is an ongoing process. The life span of most educational facilities is about 40 years. This means that, on a 40-year cycle, the entire national educational facilities infrastructure has to be renovated or replaced.

The current need to renovate or replace educational facilities presents an unprecedented opportunity to create new designs that can maximize the educational, social, environmental, and financial return on public investment. In addition to addressing educational criteria, a more collaborative strategy for developing and managing educational facilities can provide greater access to community and social services, improve environmental sustainability, and reduce the cost of building and maintaining physical infrastructure.

At this point, most of the consensus on criteria related to educational needs has developed around what *doesn't* work. Large classes and large schools, once seen as the panacea for increasing curriculum options and financial efficiency, have more recently become the subject of serious scrutiny, and a new movement has begun toward smaller and more intimate learning settings. Another looming consensus seems to be building around the long-held suspicion that the bureaucracy of large school districts may be too cumbersome to deal with the more intimate and urgent needs of local communities.

Schools have the potential to be broad-based public health intervention sites.

Community-based planners are now making use of innovative and practical learning environments that address these and other needs. These include new designs for the traditional, isolated school site that provide more effective spaces for teaching and for other resources such as health clinics and recreation and arts programs. Other approaches abandon the stand-alone school and create integrated learning environments that take advantage of a wider range of the community's physical, cultural, social, economic, organizational, and educational resources—for example, formal learning institutions that are near museums, zoos, and shopping centers.

NEW SCHOOLS/BETTER NEIGHBORHOODS

A May 1999 symposium sponsored by New Schools/Better Neighborhoods, a Los Angeles civic group organized to promote the design of schools that better serve a broad and integrated view of the needs of their communities, was just the kind of venue needed to deal squarely with some of these challenges. Approximately 150 local and state leaders discussed broad subjects, from vision and goals to policy and regulation. Presentations and panels explored obstacles and opportunities for an expanded vision of schools that could better serve students, educators, neighborhoods, and communities. The symposium included presentations of local case studies that addressed these issues in ways that were both informative and insightful.

In the first case study presented, a Los Angeles Unified School District official reviewed the site selection process for the proposed new Cahuenga Elementary School, which is in one of the most overcrowded attendance areas in the district. More than 1,600 students living in Cahuenga's attendance area are bused to other locations every day. The official had worked in earnest to meet the goals of the site selection process, which had followed a Site Acquisition Flow Chart developed by the school district's Real Estate Branch. The chart lists no fewer than 124 functions, notifications, meetings, and actions required by the approval and acquisition process, including three neighborhood meetings.

A community meeting was held November 9, 1998, to explain the need for the new 1,600-student school and to invite suggestions for locations. A real estate consulting firm was retained to study each block in the area and identify three potential locations. In February 1999, district staff reviewed the recommendations. No community suggestions had been received. The staff recommended, by consensus, a 4.75-acre site that then housed 21 single-family homes and an eight-unit apartment building. The site was approved by the Los Angeles Board of Education in March 1999, and $6.5 million was set aside for site acquisition.

Meanwhile, the Beverly-Kingsley Neighborhood Association had been meeting to discuss the new school project. The site chosen by the school district included 19 of the community's most prized Craftsman bungalows, which had been nurtured by the neighborhood association for years. At the New Schools/Better Neighborhoods symposium, the neighborhood association presented an alternative community-designed plan that would redistribute the 1,600 students into three smaller schools. The proposed sites would eliminate some of the community's

most blighted properties and put the schools closer to the heaviest concentrations of students.

The Cahuenga case study became even more interesting after the director of a neighborhood nonprofit organization, Pueblo Nuevo Development, led a second neighborhood case study. In collaboration with other community leaders and organizations, Pueblo Nuevo proposed to create the Camino Nuevo Charter Academy, a 240-student charter school that would occupy an existing one-third-acre shopping center site in the MacArthur Park neighborhood. Recreation space would be provided through a joint use arrangement with MacArthur Park, three blocks away. The total capital costs for the project were estimated at $650,000 for site acquisition and another $350,000 for construction, or an average of about $4,200 per student.

As the Pueblo Nuevo presentation continued, contrasts with the Cahuenga Elementary proposal—where the cost per student would probably exceed $4,000 just for land acquisition—became obvious. Including the cost of construction, the total cost per student for Cahuenga could exceed $22,000, more than five times as much as in the Camino Nuevo Academy proposal. Even considering that the quality of space at a renovated shopping center may not compare favorably with that of a new facility at Cahuenga, the lower cost and lack of complexity of the smaller project and the opportunity to house a lot of students in smaller, more intimate educational settings made for a compelling comparison. Given the large number of small, faltering shopping centers in the Los Angeles area, the lack of disruption to existing residents and improvements to the urban fabric of the adjoining commercial streets presented other clear advantages for planning on a smaller scale.

John Dewey said that we need not only education in democracy but also democracy in education.

Another compelling case study presented at the symposium came from the not-for-profit environmental group known as Tree People. This group had been developing an integrated planning model that addressed environmental issues that applied to all Los Angeles school sites. One focus of their work was asphalt paving, which is an enormous source of heat at schools and a contributor to flooding and pollution. A large portion of a recent facilities bond had been allocated for repaving asphalt at Los Angeles Unified School District (LAUSD) schools, among the largest one-owner pieces of pavement in the Los Angeles watershed. With the help of scientists at the US Department of Energy and Lawrence Berkeley Labs, Tree People determined that planting trees to help shade (and cool) the buildings would achieve a net savings of 12% to 18% in energy costs, which on its own would more than pay for installing and maintaining the landscaping. As a result, the School Board had agreed to replace more than 30% of the asphalt on each campus with trees and greening.

The Tree People team was also exploring how more natural landscape can also curtail runoff, reducing the construction of expensive storm water drainage structures and pollution abatement facilities, and reducing capital and maintenance costs for other state and municipal agencies.

In many ways, all the Los Angeles case studies shared a David and Goliath sub-theme: neighborhood associations and environmental groups facing limited resources and policy hurdles and still joining battle against the behemoth LAUSD and its policies. Yet one of the most endearing qualities of the case study presentations was the spirit of camaraderie that prevailed during the many alternating moments of frustration and revelation. No one stood up to blame the schools' director of real estate for what seemed to some like an impending boondoggle at Cahuenga. The director clearly had honorable intentions and was seen more as a victim than as a perpetrator. Pueblo Nuevo won a lot of sympathy in its quest for approvals and charter school status. The director of Tree People has attained heroic status as his programs and their convincing financial justifications attracted the attention of the imbedded Los Angeles school bureaucracy.

The New Schools/Better Neighborhoods symposium case studies are compelling examples of how a more systemic and community-based approach to designing educational facilities can maximize the social, environmental, and financial return on public investment. However, new environments for learning must also accommodate new strategies for educational delivery in which curriculum is becoming more interactive, "hands-on," and project-based. In the words of one student, "Tell us why we need to know it—make it real or just forget it!" One example of this kind of educational innovation is being developed in Dearborn, Michigan, at the Henry Ford Museum.

HENRY FORD ACADEMY

Henry Ford Academy, a public institution designed to integrate public education with the extensive resources of the Henry Ford Museum and Greenfield Village, is being developed through a partnership of the Henry Ford Museum, Ford Motor Company, and the Wayne County Regional Educational Service Agency. Built by Henry Ford in honor of his mentor, Thomas Edison, the Henry Ford Museum includes more than one million museum artifacts at one 14-acre site. The Greenfield Village complex adds an 81-acre outdoor learning environment that contains more than 75 historic buildings, including the Wright brothers' bicycle shop, Thomas Edison's Menlo Park Laboratory (birthplace of the original light bulb), the homes of Noah Webster and Steven Foster, and many other facilities representing some of the nation's most noted innovators and their creations.

Henry Ford Academy, with a current population of 200 high school students from all over Detroit's Wayne County, will expand over the next two years to 400 students. The academy provides formal learning activities throughout the 80-acre campus. An innovative new curriculum that includes individual student initiatives as well as organized classes makes full use of the industrial and architectural artifacts that comprise this unique and compelling learning environment.

The lesson of Henry Ford Academy is that more integrative learning environments can help to make education more inclusive and more a part of the real world. Here, education is not only about the *what* of learning but also about *why* we need to learn something. In addition to educational content, students learn about the application of ideas in the context of everyday life. Greenfield Village and the museum artifacts are seen as concrete manifestations of mathematics, science, language arts, and social studies.

Henry Ford Academy is also a good example of the financial and environmental benefits of a more integrated planning model. As a result of planning to integrate the use of existing facilities, Henry Ford Academy is being constructed for about one-third the cost of more traditional educational facilities. Furthermore, there is none of the loss of "green field" or songbird habitat that might have been required to create a new stand-alone school, and because the school made use of existing structures, a

minimum of non-renewable building materials were needed for its creation.

THE SIX CATEGORIES OF COMMUNITY RESOURCES

The continued evolution of an ethic that embodies more inclusive and integrative principles in the restructuring of educational systems opens up significant opportunities for the community as a whole. Imagine the educational, social, environmental, and financial benefits of the Los Angeles case studies and the Henry Ford Academy at the scale of a whole community. It takes a lot of information to make a community, and a lot more to keep it going. The more information the community can identify and manage, the greater its potential for deriving understanding, knowledge, and wealth from that information. A community will attain maximum learning wealth when all its learning assets are integrated and accessible to every learner in the way that he or she wants to receive them.

In order to explore this concept more completely, it will be helpful to divide community resources into six interdependent categories: physical, cultural, social, economic, organizational, and educational.

The first of these refers to a community's *physical resources,* which encompass the total of the community's built and natural assets, including buildings, bridges, highways, and telecommunications infrastructure as well as natural resources such as parks and other outdoor recreation areas. The public health literature documents that positive health benefits can derive from physical environments that are not only free of pollution and toxins such as lead but are people-friendly and encourage physical activity with bike, running, and walking trails and safe streets for pedestrians. The environment encourages people to be outdoors, getting to know their neighbors, building community, discouraging drug dealers, and being safe.

The second environment of the interdependent community system encompasses the community's *cultural resources,* which include programs and artifacts related to the expression of individual and communal values and aesthetics. The All America City Awards for 1999 are evidence that an emphasis on culture can have a resoundingly positive effect on the health of young people. In one community, instead of starting a boot camp program for juvenile offenders, the community started a choir. This contributed to a significant reduction in drug use and violence in the community. The young people were counseled and tutored and improved their performance in school. In other communities, culture was a focus for economic development, which, in turn, gave people jobs—clearly a health-improving activity.

The *social resources* category represents the wide spectrum of health and human resource assets required to maintain a healthy community infrastructure. Herein lies a majority of the "focus on health" activity of community planning. Hospitals, public health agencies, citizens, civic organizations, and local government can form the "Healthy Communities team," addressing health issues of the community and focusing on the six elements as they relate to health.

A fourth part of the total community system is the *economic environment*. Poor health status runs hand in hand with poor economic status, and economic development is key to improving population health. Represented in this sector are programs and activities related to business and commerce, including activities ranging from regional and local economic development programs to innovations and initiatives developed by private entrepreneurs. Health interests have a leadership role in this arena both in terms of helping to improve the economic well-being of people and also in assuring that the economic development is health-enhancing, safe, and not toxic.

Organizational resources encompass the various components of community governance, including the school board, city and county governing units, Rotary Club, Lions Club, and myriad other civic organizations. This category addresses how decisions made on behalf of the community at large are developed, considered, and implemented and how the visions, dreams, and desires of communities are incorporated into the decision-making process. Much of what people want in communities is health-enhancing, such as green space, safety, economic opportunity, and access to needed resources.

The sixth environment includes all of the community's *educational resources*. Included are all schools (pre-kindergarten to 12th grade), community colleges, and universities, plus all of the community's civil service training and skills development programs and similar programs in the private sector. The community's educational resources have long been recognized as a major vehicle of health promotion for all ages and must assure that health is incorporated appropriately into their curricula.

These six resource areas include a wide cross-section of the community's most vital learning assets. Although they are components of every community system, it is the quality of their interactions that can contribute to the community's learning health and well-being. In the ideal scenario, educational information is linked with economic information and also with cultural and social data, and on and on to the point where all interactions form a

contiguous living web of interactive data and knowledge. In this context, and in the context of the philosophy of Healthy Cities, our current community learning malaise can be seen as a kind of congenital disease that blocks the flow of information between a community's vital organs. When the system is functioning to its maximum advantage, the parts support the collective whole and the collective whole nourishes all of its parts.

But the development, celebration, and integration of these diverse community assets must be in tune with the heartbeat of the community organism. This is why the most successful examples have been developed through the creative input of a wide range of community stakeholders. The planning and design of a more integrated and ubiquitous learning community provides an opportunity to engage students, parents, educators, and a wide variety of community stakeholders in decisions that benefit all aspects of the community's health and well-being.

The Role of the Public Health Professional

According to *The Future of Public Health,* the mission of public health is seen as "fulfilling society's interest in assuring conditions in which people can be healthy."[1] The report goes on to say:

> Public health is distinguished from health care by its focus on communitywide concerns—the public interest—rather than the health interests of particular individuals or groups. Its aim is to generate organized community effort to address public concerns about health by applying scientific and technical knowledge.[1]

Public health is in a unique position in the community. The science base of public health compels public health leaders to be active in "assuring conditions in which people can be healthy." With the recognition of the unique role of the "school as the center of the community," the science that public health brings to the table in the education community becomes vitally important. Schools have the potential to be broad-based public health intervention sites. These sectors must be better connected, not just with clinics but with the whole range of community-building opportunities.

In addition, the development of the systemic planning practices needed to implement more integrative learning environments must become even more of a collaborative enterprise than it is now. Public health planners have developed some effective tools for implementing community-based collaboratives. These tools must be shared, modified, and expanded to serve a broader purpose in community-based planning. Through communication and collaboration, professional planners from a wide range of disciplines can develop powerful new tools and apply them to all aspects of community-building.

The common ground between public health and education planners is also fertile in other ways. Some of the predictors of health status, such as mother's literacy and high school graduation rates, are derived from the discipline of education; at the same time, some of the most compelling challenges that educators face every day in the classroom have more to do with the physical and emotional health of their students than with any limits imposed by intellect. A stronger connection between the disciplines of education, public health, and health care could lead to a better understanding of the systemic qualities of learning.

One way to support this connection is through a third component of interdisciplinary planning. "Agencies should seek stronger relationships and common cause with other professional and citizen groups pursuing interests with health implications."[1] Think of planning as a kind of barn-raising experience where everyone contributes to the design of a single product according to his or her own talents and skills. One valuable outcome of this kind of planning process is that everyone gets to know each other a little better. Another outcome can be a more efficient means for implementing the planning product. Leadership networks established by public health planners can pave the way for education reform and vice versa.

We have an unprecedented opportunity to consolidate and integrate community resources and create community learning environments that can better promote physical as well as intellectual well-being. The development of a more systemic planning process and a more integrative institutional framework to support these systemic goals is a challenge for the collective talents of planners with a wide array of skills and vision. Still, planners can only hope to facilitate and guide the process. A community-wide interdependent living and learning environment that is developed and sustained by its constituents is at the core of the ongoing evolution of the American democratic vision. If the public health community assumes its appropriate leadership role to enable this vision, it will be "fulfilling its role and society's interest in assuring conditions in which people can be healthy."[1]

Reference

1. Institute of Medicine. The future of public health. Washington: National Academy Press; 1988.