ABSTRACT. Children in the United States increasingly are at risk for health problems that are precipitated or exacerbated by social, community, and environmental factors. Currently, pediatricians are unable to sufficiently address these health conditions without expanding their roles beyond that of providing health care to individual patients. Thus, to improve child health, physicians must work within their communities to identify the needs of the population they serve and take appropriate action to influence the private and public policies that address these needs. Healthy People 2010 establishes a well-supported framework that confronts the social and community factors that affect children’s health and serves as a resource for community-minded pediatricians. In addition to Healthy People 2010, other successful initiatives have been created by pediatricians, and they must be expanded if the pediatric community is to alleviate the social, community, and environmental factors that negatively affect child health. Pediatrics 2005;115:1124–1128; advocacy, child health, collaboration.

As pediatricians enter the 21st century, it has become apparent that the face of child health is rapidly changing and challenging the skills of those charged to protect it. Child health is becoming more dependent on social, community, and environmental factors, which may cause various disease states and impair functioning, place certain populations at greater risk for morbidity and mortality, and interfere with a pediatrician’s ability to promote health and diagnose or treat disease adequately.

Whereas the late 20th century witnessed the increasing demands of the “new morbidity” (ie, behavioral and emotional disorders, functional distress, learning disabilities, and educational needs), we are now observing a “millennial morbidity.” Major lifestyle changes brought about by the technologic advances of the 20th century are now exerting a significant effect on the health of children for better and for worse. Mass media and environmental decay present new health and behavior risks for children as evidenced by school violence, decreased physical activity, and increased fast-food consumption among youth in the United States. At the same time, families suffer from new stresses caused by dynamically changing family configurations and worsening economic and social conditions that have increased child-poverty rates. Given the direct relationship between poverty and ill health in the United States and the fact that child poverty and deprivation are worsening in many parts of the country, a decline in the health of a significant number of US children may be forthcoming.

Children deserve a chance for a healthy start in life; however, researchers across the country have described many examples of the negative effect that social and economic disparities and hardship exert on child health. Patients who are poor and medically underserved and minorities experience significantly worse health outcomes than those with higher socioeconomic status, with health insurance, or who are white. In 2002, close to 900 000 children were determined to be neglected or abused, resulting in nearly 4 deaths per day nationwide. This is not surprising, given the fact that 20% of female heads of households on welfare were abused in 1994 versus 1.5% of a comparable group of women who were not on welfare, and female parents with low income show signs of depression at 2 to 4 times the rate of the general female population. Similarly, children who are poor suffer twice as much dental caries as their more affluent peers, and their disease is more likely to be untreated. Significant racial disparities also exist. Black and Hispanic children are more likely to be underimmunized, become overweight, develop diabetes, become pregnant as teens, and suffer from asthma than their white counterparts, and the mortality rate for black infants is twice that of white infants. These disparities result from complex interactions among environmental factors, specific health behaviors, and differences in health care access and quality.

Although many surgical and medical advances have been achieved, they have yet to demonstrate significant efficacy in alleviating many of the current major causes of mortality among individuals <25 years old: short gestation and low birth weight, unintentional injury, violence and assault, and suicide. Public health experts assert that social factors such as socioeconomic status, race and ethnicity, and education are among the most important determinants of health throughout the course of life. McKeown and Szreter argue that rising standards of living or public health initiatives were more in-
strumenental in the significant decline in overall mortality in Britain in the 19th and 20th centuries than the advent of vaccines and antibiotic therapy. It now seems that the next major advances in decreasing pediatric morbidity and mortality will require social and public health policy changes as well as continued scientific innovation.

Many resources that our patients require are rationed by a system that is not under a physician’s direct control; rather, these resources fall within the realm of public or corporate policy. Although a pediatrician can write a prescription for an antibiotic, the pediatrician cannot write a prescription for 1 of the 9.2 million children (12.1%) who are uninsured.12 Although a primary care physician can refer a patient to a nutritionist, the healthy foods that are recommended often cost more than junk food and may not be geographically or financially available.13 Neonatologists make great strides in ventilatory support, yet the nation’s infant mortality rate was ranked 28th among industrialized countries in 1998.14 More effective medications are available to pulmonologists, yet poor environmental quality is responsible for 25% of preventable illnesses.9 A surgeon may be able to extract a bullet from a wound, but is unable to remove the victim from the environment of failing schools, gangs, drugs, violence, and struggling families that constitute the culture of poverty.2 Such obstacles to health require pediatricians to expand their roles to include that of advocate, not just for the individual but for the population of children as a whole.

In addition to the needs of our patients, future workforce pressures also may require practitioners to expand their roles and areas of expertise. As the ratio of children to general pediatricians decreases,15 the field of pediatrics may need to redefine itself, placing more pediatricians in the role of political, social, or public health advocates for children and practicing community-oriented primary care16 (see also American Academy of Pediatrics policy statement “The Pediatrician’s Role in Community Pediatrics”17).

HEALTHY PEOPLE 2010

Healthy People 201018 provides guidance for pediatricians who wish to become better advocates for the children of their communities. This broad-based collaborative effort among federal, state, and territorial governments, as well as hundreds of private, public, and nonprofit organizations, has set national disease-prevention and health-promotion objectives to be achieved by the end of this decade in the hope of accomplishing its 2 goals of increasing quality of life and eliminating racial and ethnic disparities. Ten high-priority public health issues were chosen as indicators of the nation’s health to focus efforts on improving them (Table 1). These leading health indicators result from the combination of a vast amount of knowledge, collaboration, and commitment and were chosen for their ability to promote action. The status of each of the indicators depends on several factors such as information people have about their health and how to make improvements; behavioral factors; environmental, economic, and social conditions; access to health care; and characteristics of the health care system.

Pediatricians can play an integral role in achieving the goals set forth in Healthy People 2010. Many of the indicators have roots in childhood and pediatric care. Each indicator depends on risk-taking behaviors, the antecedents to many of which are framed in childhood before the behaviors emerge in adolescence. These risk behaviors may then persist into adulthood. For example, during childhood the antecedents of overweight and obesity (eating and activity behaviors) are formed.19 Although the pediatrician may encourage increased activity to an overweight individual, if that person does not have a safe environment in which to exercise, little progress can be achieved. Thus, action extending beyond advocacy on behalf of the individual is required to ensure that safe environments that promote good health are available.

When working to improve children’s environments, it is important to look beyond air and water quality. Pediatricians can work with community members to identify the messages that their communities are sending to children about their self-worth. A community in which the role models are few, clean and safe play areas are rare, and vandalism and dereliction run rampant may lead to a state of hopelessness and cause children to believe that they are not worthy of a better environment or existence. Such hopelessness may contribute to poor academic performance and risky behaviors. Children are very aware of the risks and messages of their environment (as shown in Fig 1). This photograph is one of many taken by sixth-grade students of a school that is in one of the poorest areas of Rochester, New York. The children were asked to document by photograph and essay health risks that they see in their community and thus provided a sobering view of the threats to their well-being. Such projects may provide more compelling information than any survey or focus group and should be embraced by physicians looking to help the children of a community.

WHAT CAN A PEDIATRICIAN DO, AND HAS ANYONE DONE IT?

The journey of a thousand miles begins with one step.

Lao Tse20

Often, the most difficult aspect of advocacy lies in finding an issue about which one is passionate and taking the first steps to address the issue. Once goals have been established and collaboration achieved, advocacy projects take on a life of their own. We encourage pediatricians to discover an issue of in-
interest and serve as an advocate for children within their communities. One may choose to advance a leading health indicator as it pertains to children.21 However, successful advocacy often originates from a desire to fill a need witnessed within one’s own community. The advancement of pediatric knowledge originated from physicians recognizing, describing, and treating patterns of medical and psychiatric disease. Likewise, pediatricians may identify among their patients patterns of poor health or functional impairment that may result from inadequate social, economic, or physical environments or poor public policy. In response, physicians may advocate for their patients in a number of ways: by writing a letter to a legislator, composing an editorial piece, volunteering to work in a community clinic, educating others in the community about the needs of its members, serving on steering committees of community organizations, or running for political office. Many pediatricians already are involved in their communities and serve as effective advocates as individuals, members of institutions, and members of national movements.

On a national level, Action for Healthy Kids addresses pediatric obesity, a health issue that is wide ranging, touches nearly every community, and has roots in behavior, public policy, education, and medicine.22 Launched at a national Healthy Schools Summit, the initiative has united pediatricians, family practitioners, school administrators, teachers, nutritionists, nurses, student organizations, parents, legislators, food-industry representatives, and researchers in an effort to improve nutrition and physical activity in schools. By striving for schools that provide a healthy environment in which children learn and participate in positive dietary and lifestyle behaviors and practices, the organization works to educate state and local leaders to enact curricular and environmental changes in schools. Action for Healthy Kids provides opportunities for advocacy at the national, state, and local levels as well as in the office setting. Every state has a team of advocates,
and physicians have played a key role in the establishment of healthy schools. Providing evidence-based expertise, individual pediatricians have testified to school boards about the importance of physical education and nutritious cafeteria food. They also have taken leadership roles within their communities, running for local school boards, and bringing health issues to the forefront of school policies.

The National Center for Primary Care, based at the Morehouse School of Medicine in Atlanta, Georgia, likewise encourages individual physicians to improve community health. By establishing partnerships with regional health care professionals, the center promotes research into primary care practices, education of primary care physicians, development of community programs, and analysis of health care policies related to primary care. Adopting a vision statement of “Optimal Health for All—Our Passion and Unmet Need,” the center uses a 3-dimensional model that monitors disease states and prevalence in the community, facilitates behavioral and health services and laboratory investigations of the determinants of community health, and initiates environmental changes based on its research and surveillance efforts. By incorporating and coordinating the efforts of community physicians, the center is developing primary care policies and practices to combat disparities in health.

Although institutions and national organizations may offer clearly defined opportunities for advocacy, many individuals effectively advocate on behalf of children at a local level. The work of Burton in South Carolina exemplifies how an individual pediatrician identified and embraced the needs of his community and, in doing so, initiated a process by which he could ensure health care access for thousands of children.

Similarly, the work of a pediatrician in training demonstrates how those with a minimal amount of time can make a difference in their community. Diana Kudes, MD, recently completed residency training in pediatrics at the Golisano Children’s Hospital at Strong in Rochester. As an intern she recognized the inadequacy of mental health resources available in the community. After enlisting the efforts of a local community-based organization that provides support to families of children with mental illnesses, Dr. Kudes assessed the needs of families, local primary care physicians, and residents concerning the availability of mental health services. With the support of the community-based organization, the efforts of the support staff of the department of pediatric’s advocacy office, and a protected half-day per month, she initiated several projects that benefited the children and child health care professionals of the greater Rochester area. Dr. Kudes directed the compilation of a practical mental health referral guide for local primary care professionals. Wishing to improve resident education, she established a mental health elective and worked to increase resident mental health experiences in the general curriculum. Finally, she served on a mental health task force that includes representatives from the health insurance industry and seeks to optimize the provision of mental health services to those in the Rochester area. This task force has improved mental health access by establishing a hotline that primary care physicians can call during designated hours to speak to a child psychiatrist about mental health issues that their patients face.

Most of the works cited in this article highlight collaboration as a key component to successful advocacy. Just as pediatricians sought partnerships with statisticians and epidemiologists to recognize population-based patterns of diseases in the past century, they now must reach out to educators, social workers, public servants, and politicians to eliminate the inequalities and significant social and environmental risks that threaten the health of the nation’s children. Our colleagues in the United Kingdom have been successful in doing so, often following the lead of other advocacy organizations when appropriate. Health improvement is a shared responsibility of the federal government, states, localities, policy makers, health care professionals, business executives, educators, community leaders, and the US public. Academic health centers and other health institutions should reach out and develop partnerships with community organizations to promote health and fulfill their roles as “health” centers, as opposed to “disease” centers. Currently, on a national and institutional level, the weight of funding and interest in research is concentrated on rare conditions and their cures, whereas social determinants of health receive limited research funding or attention. Our institutions should follow the lead of established academic-community partnerships and promote more social and community-based research and lobby local, state, and national government entities to embrace the knowledge gained from successful demonstration projects. Academic health centers and national health agencies should offer resources to individuals in their communities in the form of manpower, program-evaluation expertise, and grant-development education and thus serve as “advocacy homes” for the community.

SEE ONE, DO ONE, TEACH ONE

Never doubt that a small group of thoughtful, committed citizens can change the world.

Margaret Mead

We challenge pediatricians to recollect why they first chose to pursue a career in medicine and then pediatrics. Most will cite a genuine desire to help the most vulnerable members of our society who may have the most to gain from early intervention and prevention. Many reading this article likely have realized that a child whom they help may grow up to realize that a child whom they help may grow up to be a responsible citizen, and, in doing so, initiate a process by which he could ensure health care access for thousands of children.

The World Health Organization has defined health as “a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity.” We live in a society that claims to cherish childhood while allowing the
abuse, molestation, incarceration, subjugation, segregation, and exploitation of children. It is the responsibility of pediatricians to use their significant professional capital to inspire their societies, governments, colleagues, and patients’ families to ensure that each and every child has an opportunity to enjoy good health. Such efforts should not preclude dedication to one’s family and personal responsibilities but rather should be incorporated into each person’s daily practice of pediatrics.

Anyone who can learn the Krebs cycle can learn to be a child advocate.

J. A. Paulson

REFERENCES
The Expanding Role of the Pediatrician in Improving Child Health in the 21st Century
David Satcher, Jeffrey Kaczorowski and David Topa
*Pediatrics* 2005;115;1124
DOI: 10.1542/peds.2004-2825C

<table>
<thead>
<tr>
<th>Updated Information &amp; Services</th>
<th>including high resolution figures, can be found at: <a href="http://pediatrics.aappublications.org/content/115/Supplement_3/1124">http://pediatrics.aappublications.org/content/115/Supplement_3/1124</a></th>
</tr>
</thead>
<tbody>
<tr>
<td>References</td>
<td>This article cites 12 articles, 2 of which you can access for free at: <a href="http://pediatrics.aappublications.org/content/115/Supplement_3/1124.full#ref-list-1">http://pediatrics.aappublications.org/content/115/Supplement_3/1124.full#ref-list-1</a></td>
</tr>
</tbody>
</table>
| Subspecialty Collections      | This article, along with others on similar topics, appears in the following collection(s):  
  Advocacy                       | [http://classic.pediatrics.aappublications.org/cgi/collection/advocacy_sub](http://classic.pediatrics.aappublications.org/cgi/collection/advocacy_sub) |
| Permissions & Licensing       | Information about reproducing this article in parts (figures, tables) or in its entirety can be found online at: [https://shop.aap.org/licensing-permissions/](https://shop.aap.org/licensing-permissions/) |
| Reprints                      | Information about ordering reprints can be found online: [http://classic.pediatrics.aappublications.org/content/reprints](http://classic.pediatrics.aappublications.org/content/reprints) |
The Expanding Role of the Pediatrician in Improving Child Health in the 21st Century

David Satcher, Jeffrey Kaczorowski and David Topa

*Pediatrics* 2005;115;1124

DOI: 10.1542/peds.2004-2825C

The online version of this article, along with updated information and services, is located on the World Wide Web at:

http://pediatrics.aappublications.org/content/115/Supplement_3/1124