GRANT
MAKERS
IN HEALTH

foundations and the economic downturn

The United States is facing its most severe economic crisis since the Great Depression, and its concerns are similarly afflicting countries across the globe. The subprime mortgage crisis, a volatile stock market, and job loss are taking a toll on the nation's economy and the welfare of our most vulnerable communities. In mid-November the stock market hit its lowest level in more than six years and unemployment reached levels not seen since 1983 (Healy 2008; Goodman 2008).

Like the rest of the economy, foundations are feeling the squeeze: fewer resources coupled with increased need by individuals, families, and communities. Health foundations may face especially tough challenges if the level of uninsured and underinsured individuals begins to rise as the result of job loss and the weakening economy. In addition, public programs like Medicaid and the State Children's Health Insurance Program, as well as public health and other social services, are experiencing funding cuts due to tightening state and local budgets. How is this uncertainty affecting the role of philanthropy? What strategies can foundations use to support grantees more effectively? What can foundations do to address their own financial challenges? How can they do more with less?

One thing is clear: the role foundations can play as leaders is more important than ever. As Risa Lavizzo-Mourey (2008), president and CEO of Robert Wood Johnson Foundation, recently noted, "The long-term nature of our mission and our objectives, and the needs of and promises to our partners and grantees, dictate that we not react to daily fluctuations in the financial markets. The challenges we are addressing together are urgent." This essay provides a historical look at philanthropic giving trends in times of economic crisis and the factors that influence foundation grantmaking. It also presents examples of how foundations are responding to the current economic uncertainty.

THE CURRENT STATE OF PHILANTHROPY

There are more foundations today than at any point in history. In 2007 there were approximately 72,000 U.S. grantmaking foundations (Foundation Center 2008a). The number of private and community foundations in the United States doubled between 1992 and 2005. A large number of these were created after 1990, the result of increased giving

from the wealth of a new generation; the creation of new corporate foundations, especially in the pharmaceutical industry; and the conversion of nonprofit hospitals, health plans, and health systems to for-profit entities.

Foundations are also giving at unprecedented levels. Total giving in 2007 was an estimated $42.9 billion, up from an estimated high of $39 billion in 2006 – a 10 percent increase (Foundation Center 2008a). Giving between 2005 and 2006 grew by 7.1 percent from $36.4 billion to $39 billion. This significant increase in giving is largely attributed to strong gains in the stock market, the number of new foundations established in the last decade, and higher levels of foundation giving relative to assets than in the past (Foundation Center 2008a).

In the last decade, philanthropy has also seen the establishment of foundations with endowments of unprecedented size such as the Bill and Melinda Gates Foundation and the Peter G. Peterson Foundation. These large foundations may in fact continue to expand their grantmaking in the coming months despite the economic downturn.

FOUNDATION GIVING IN A WEAK ECONOMY

If history holds true, overall foundation giving trends may remain steady during the current economic uncertainty. Although foundations may have experienced asset reductions during past economic downturns, a number of factors helped mitigate the impact on total giving. For example, many foundations, including some of the nation's largest, determine their yearly grant budgets on a rolling average of their asset values over the previous two- to five-year period. This creates more stable levels of overall giving (Foundation Center 2008b). Second, foundations have shown a past willingness to use their corpus to ensure that multiyear grant commitments are met. Finally, as previously noted, the creation of new foundations has helped moderate the effects of recent downturns. In past recessionary periods, including 1981-1982, 1990-1991, and 2001, foundation giving in inflation-adjusted dollars increased slightly (Foundation Center 2008b).

This trend could be broken if the economic outlook worsens and the United States experiences a protracted recession. Moreover, in the current financial downturn, some foundations may be more vulnerable to market forces than

HIGHLIGHTS OF THE GIH SURVEY RESULTS

91 percent of GIH Funding Partners reported a decrease in asset base.

Effects of Economic Downturn on Grantmaking

- 61 percent are seeking new collaborations or partnerships with other public and private funders.

- 56 percent are convening funders to coordinate funding strategies.

- 43 percent are decreasing grants budgets.

- 37 percent are maintaining the percentage of the endowment that will be paid out in grants.

- 34 percent are delaying consideration of new initiatives or multiyear obligations.

Effects of Economic Downturn on Foundation Operations and Administration

- 58 percent report reductions in overall administrative expenses.

- 49 percent are building in new efficiencies such as moving toward electronic publications or telecommuting.

- 44 percent are reducing staff travel budgets.

- 40 percent are holding staff salaries at 2008 levels or reducing salary increases below level of recent years.

in past recessions, specifically corporate and community foundations. In fact, an October 2008 survey of U.S. community foundations found that most expect 2009 asset bases to be 10 percent below 2007 levels (Community Foundation Insights 2008).

Surveys conducted by a number of organizations in fall 2008 found that overall foundation assets declined from 2007 to 2008. The most common reason cited was decreased return on investments. Eighty percent of foundations in the Washington, DC metropolitan region, for example, experienced a drop in assets during this period (Washington Regional Association of Grantmakers 2008). About half of these foundations anticipate that their 2009 grants budgets will be the same or slightly less than 2008 budgets. In addition, surveys found that foundations expect asset bases to continue to decline into 2009. Since foundations generally determine budgets based on a rolling average of assets over the past two- to five-year period, 2009 grant budgets may not be significantly affected. As 2008 declines enter the equation, however, foundations may begin to experience more notable declines in giving.

GRANTMAKERS IN HEALTH SURVEY ON THE EFFECTS OF THE FINANCIAL CRISIS ON HEALTH PHILANTHROPY

In December 2008 Grantmakers In Health (GIH) surveyed the field of health philanthropy to find out how the current economic crisis is affecting health funders.[1] Findings are consistent with other philanthropy surveys and reflective of recent statements issued by foundations. The survey revealed that 91 percent of responding GIH Funding Partners (defined as foundations and corporate giving programs that annually contribute general or program grants to GIH) experienced a decrease in asset base in 2008. As a result, 68 percent have taken actions to change programs or operations. Funding Partners are altering programs and grantmaking in a variety of ways. Forty-three percent of foundations are decreasing grants budgets, 34 percent are delaying consideration of new initiatives or multiyear grant obligations, and 30 percent report maintaining calendar year 2008 levels of grantmaking for 2009.

Meanwhile, GIH Funding Partners are finding alternative ways to support grantees and other partners during this difficult period. For example, 61 percent are seeking new collaborations or partnerships with other funding organizations such as corporations and government, and 56 percent are convening funders in their communities to coordinate funding strategies. In addition, 43 percent of Funding Partner respondents reported getting staff more involved in working with community or constituent organizations and coalitions, and 40 percent are increasing advocacy efforts or providing technical assistance to grantees on managing budget constraints.

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[1] GIH surveyed its Funding Partners and other health foundations in December 2008. Of the 255 Funding Partners surveyed, 127 (or 50 percent) responded.

PHILANTHROPIC RESPONSE TO THE CURRENT CRISIS

Philanthropy involves more than just writing checks. Foundations are mission driven and, as a result, can act as a "countervailing force" in hard economic times (Guth 2008). This is particularly important as charitable giving by individuals and businesses decreases and as public agencies experience budget cuts. Foundations have an opportunity to not only award grants, but also provide leadership, support advocacy and policy work in new ways, and play other important roles.

In response to the turbulence of the financial markets, and as reflected in GIH survey findings, many foundations are holding 2009 budgets at 2008 levels. This approach allows them to maintain support for existing grants and initiatives without substantially reducing grant portfolios. It also provides stability for grantees and the communities they serve. This strategy, however, may prevent foundations from entering into new program areas or committing to larger multiyear grants and initiatives. It also may require foundations to dip into their endowments, with the knowledge that the foundation's corpus can be rebuilt when the economy and stock market improve.

Another approach to the crisis is foundation flexibility and the application of resources in creative ways. Grantmakers can work with grantees to refocus or reprogram existing grant dollars to meet new and emerging needs. For example, nonprofits, such as community-based health care clinics, may experience revenue decreases, thus requiring more core operating support. Shifting grantmaking to emphasize short-term operational support can benefit organizations that rely heavily on public funding sources.

Foundations can also leverage their resources. Creating partnerships with other funders and developing a targeted response for meeting community needs can be an effective strategy to get nonprofits the resources they need most. Other innovative grantmaking strategies include program-related investments (PRIs). Used in the form of bridge loans, PRIs can help nonprofits facing revenue shortfalls, particularly organizations that can raise funds after the economy improves (Community Foundation Insights 2008).

Leadership is a valuable resource in the current economic environment. Foundations can readily bring community stakeholders together to discuss critical issues such as foreclosures, public funding cuts, and other issues of concern (Community Foundation Insights 2008). They can also lead coordinated efforts to address community needs resulting from the economic downturn. Opinion pieces in newspapers are another way to provide leadership and advocate for

TIPS FOR CUTTING OPERATIONAL COSTS

1. Shift to electronic forms of communication to distribute annual reports, newsletters, and other publications.

2. Make use of Webinars and other virtual meeting technology.

3. Reduce budgets for professional development, conferences, and other trainings.

4. Reduce annual events such as open houses and awards.

5. Cut down on use of consultants or temporary office staff.

6. Offer staff opportunities for unpaid leave.

7. Temporarily reduce some staff benefits or perks.

8. Establish a hiring freeze.

communities affected by job loss, foreclosures, and economic instability.

On an operational level, foundations can support and develop the skills of other nonprofits to help them work more efficiently and communicate the value of their work to a broader funding audience. Nongrant resources, such as office space and technical assistance from staff, are creative strategies to support grantees and other community organizations. Foundations that own their buildings can lease space to local nonprofits at a reduced rate or allow outside groups to use meeting space and conference rooms free of charge. Foundation staff can also provide technical assistance to nonprofits, working with grantees to increase access to the media or improve their Web sites. Helping grantees effectively tell their stories and share results, for example, can help nonprofits build the case for continued public funding or increase exposure to new funding sources. Other types of assistance include organizing workshops for nonprofits on grant writing, evaluation, or information technology.

The grantmaking budgets of corporate foundations may be hardest hit by the economic downturn. Their nongrant resources, however, can be very valuable. Product donations from pharmaceutical companies or manufacturers of medical equipment can assist community clinics or programs providing free medication to low-income populations. Corporate funders can also call upon staff to volunteer time and skills or provide pro bono health services (Council on Foundations 2008).

Finally, foundations can trim their operating budgets. As

reflected in GIH's survey results, almost 60 percent of GIH Funding Partners report reducing administrative expenses. Discretionary spending, such as staff travel, professional development, and meeting expenses, are areas where many foundations will cut back as budgets tighten. Webinars, podcasts, and other Web-based tools may be lower-cost alternatives to in-person meetings or training programs. Increased use of electronic communications can cut back communications expenses. Disseminating annual reports, newsletters, and other publications via the Internet and e-mail are low- or no-cost alternatives.

As the economic crisis continues to unfold, foundations will play critical leadership roles. They must remain committed to their missions and be steady partners for grantees and other organizations. Remaining flexible is also important, and foundations may find new opportunities for budgeting and grantmaking. To do this effectively, foundation leadership must communicate clearly with staff, grantees, and the larger communities of which they are a part.

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we the people:
key demographic trends in the United States

Recent projections from the U.S. Census Bureau and the Pew Research Center verify what demographers have long recognized: the United States is undergoing a demographic revolution. Immigration continues to increase our numbers, and we are growing older and more racially and ethnically diverse by the day. How we experience these changes will depend on a variety of factors, including social, economic, and political decisions that are ours to make. So while these demographic shifts present a challenge for families, communities, government, health care, and other sectors, forethought in policy planning and a willingness to invest resources where they are needed most can make the difference between this transformation being a crisis or an opportunity.

DEMOGRAPHIC TRENDS

In contrast to many other developed nations, the United States has sustained fairly vigorous population growth and will keep growing at a rapid pace over future decades. The current U.S. population is estimated to be 305 million, and it is expected to grow to over 438 million by 2050 (Figure 1). While it is true that the country's total fertility rate (2.1) is high for an industrialized country, the increase in popula-

tion will come, for the most part, from immigration (Population Reference Bureau 2008).

The United States has always been a nation of immigrants. Over the past few decades, international immigration has been fueled by the global integration of economies, variations in population growth, and economic disparities across nations. In 2005 the United States had a larger foreign-born population (38 million) than any other nation (Population Reference Bureau 2008). Russia was second with 12 million immigrants, and Germany was third with 10 million. Immigrants make up approximately 13 percent of the overall U.S. population. According to projections from the Pew Research Center, new immigrants and their U.S.-born descendents will account for 82 percent of the nation's population growth, while the resident population and its descendents will account for 18 percent (Passel and Cohn 2008).

It can be argued that immigration is a vital counterbalance to another critical demographic trend: the aging of the baby boom generation (Puentes 2008). In 2030, when all of the baby boom generation will have reached retirement age, nearly one in five U.S. residents is expected to be 65 and

FIGURE 1: ACTUAL AND PROJECTED U.S. POPULATION INCREASE, 1960 TO 2050
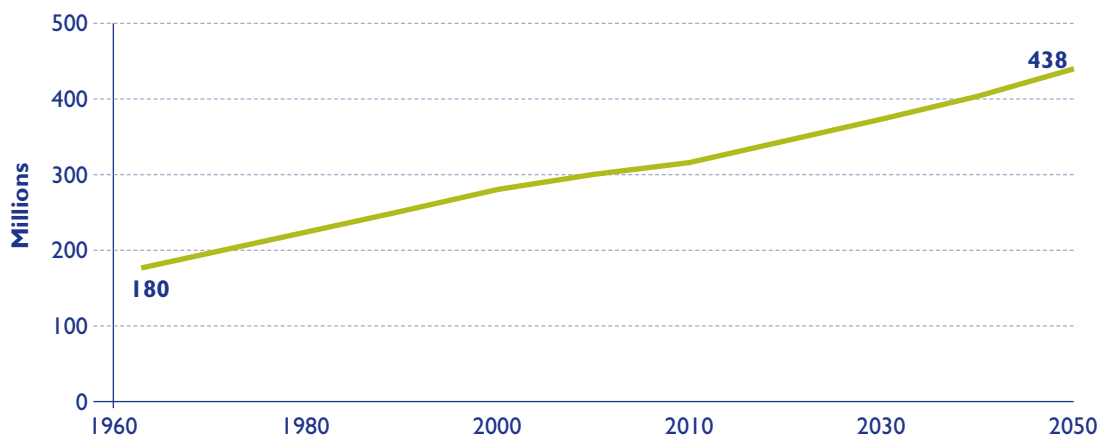
Source: Passel and Cohn 2008

older (U.S. Census Bureau 2008). This age group is projected to increase to 88.5 million in 2050, more than doubling the number in 2008 (38.7 million). At that point, the elderly population will be 19 percent of the population (Passel and Cohn 2008). The 85 and older population

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is expected to more than triple, from 5.4 million to 19 million between 2008 and 2050 (U.S. Census Bureau 2008).

As the elderly increases as a share of the population, the percentage of the population in the traditional working ages of 18 to 64 is projected to fall. So although the working-age population will reach 255 million in 2050, the rate of increase will be lower than for the population as a whole, and the percentage of working-age adults will drop from 63 percent in 2008 to 57 percent in 2050 (Passel and Cohn 2008; U.S. Census Bureau 2008). All of the growth in the working-age population over this period will be among immigrants and their descendents born in the United States, and without new immigration, there would be a decline of 7 million people in this category (Passel and Cohn 2008).

For many, diversity is this nation's demographic headline. It is projected that minorities – defined by the U.S. Census Bureau as everyone except non-Hispanic, single-race whites – will make up the majority of the U.S. population in 2042. By 2050 Hispanics, African Americans, Asian/Pacific Islanders, and American Indian/Alaska Natives, now roughly one-third of the U.S. population, will account for 54 percent of the population (U.S. Census Bureau 2008). The non-Hispanic, single-race white population is expected to drop from 66 percent of the total population in 2008 to 46 percent in 2050. In the meantime, the Hispanic population is anticipated to nearly triple, from 46.7 million to 132.8 million (15 percent to 30 percent) during the 2008-2050 period. In 2050 it is projected that one-third of U.S. residents will be Hispanic (U.S. Census Bureau 2008).

Other minority groups will also grow, with the African-American population projected to increase to 65.7 million, or 15 percent; the Asian population projected to climb to 40.6 million, or 9.2 percent; the American Indian and Alaska Natives populations projected to rise to 8.6 million, or 2 percent; and the Native Hawaiian and Pacific Islander population expected to nearly double, to 2.6 million. The number of people who identify themselves as being of two or more races is projected to more than triple, from 5.2 million

to 16.2 million (U.S. Census Bureau 2008).

This trend will have the largest effect on working-age and child populations. The working-age population is projected to become more than 50 percent people of color in 2039 and be 55 percent people of color in 2050 (up from 34 percent in 2008). Also in 2050, the working-age population is projected to be more than 30 percent Hispanic (up from 15 percent in 2008), 15 percent African American (up from 13 percent in 2008), and 9.6 percent Asian (up from 5.3 percent in 2008). In 2050 the nation's population of children is expected to be 62 percent people of color, up from 44 percent today. Thirty-nine percent are projected to be Hispanic (up from 22 percent in 2008), and 38 percent are projected to be single-race, non-Hispanic white (down from 56 percent in 2008) (U.S. Census Bureau 2008).

CHALLENGES

Each of these demographic trends brings its own challenges. Immigration has become an increasingly contentious issue, with many Americans being uneasy about the cultural impact of immigration and expressing concern – despite some evidence to the contrary – about whether immigrants replace native workers in available jobs, overwhelm hospital emergency departments, or place other strains on society. Public and private conversations about immigration quickly become divisive, politicized, and emotional (Grantmakers In Health 2005; The Opportunity Agenda 2007).

The aging of the population is of concern for two reasons. The first is because of the dependency ratio, the ratio of the economically dependent part of the population to the productive part. It is assumed that a larger number of older or younger Americans in proportion to the number of workers results in increased costs for (and strain on) workers to support the care of the economically dependent. The elderly dependence ratio was 20 people ages 65 and over for every 100 people ages 18 to 64 in 2005 and is projected to rise to 32 elderly per 100 people of working age in 2050 (Passel and Cohn 2008). In contrast, the child dependency ratio is projected to undergo little change, remaining at about 40 children for every 100 people of working age through 2050.

The second reason the aging of the population is of concern is because older adults experience high rates of chronic diseases, which cause pain and disability, sap function and independence, and are a major contributor to health care costs. Because older Americans are high users of

the health care system, they are also especially vulnerable to its failings, especially the lack of coordination between acute and long-term care systems. And determining how best to bolster the workforce of paid and unpaid caregivers and how care provided to the elderly will be financed in the future are major challenges.

Finally, projections about our country's increasing diversity give a new urgency to efforts to address racial/ethnic disparities in health and health care. Although aggregate data mask important differences between groups, in general, people of color have poorer health and shorter lives than whites, suffering disproportionately from many illnesses, even after controlling for socioeconomic status and insurance coverage (Grantmakers In Health 2007). Reducing these disparities is a complicated task that will require work to address the many factors that affect health, including: the condition of the social environment, including racism and poverty; access to care; health behaviors; structural aspects of the delivery system that affect both quality and patient care experiences; and the condition of the environments in which minorities live and work, including air and water quality and exposure to other environmental hazards (Grantmakers In Health 2007).

Fully aware of these demographic trends, many funders are investing in efforts to improve the health, social connectedness, and opportunities of immigrants; creating a movement for chronic care and long-term care reform; and building the public and political will to end health disparities.

IMPROVING THE HEALTH AND SOCIAL CONNECTEDNESS OF IMMIGRANTS

Many foundations play an important role in ensuring the health and well-being of immigrant populations and are engaged in activities that build capacity in immigrant communities, promote immigrant integration, expand health care coverage, educate immigrants on their rights and eligibility for health care services, increase public awareness and understanding of immigration, and address the cultural and linguistic needs of these populations. Two illustrative examples of this type of work follow.

Many immigrants and refugees from Africa, Asia, Eastern Europe, and Latin America now call Minnesota home. According to the U.S. Census 2000, the number of Minnesotans born outside the United States increased by 130 percent between 1990 and 2000, and Minnesota was home to the country's largest Somali and second-largest Hmong and Liberian populations – most of them political refugees (Blue Cross and Blue Shield of Minnesota Foundation 2008). The Blue Cross and Blue Shield of Minnesota Foundation's Healthy Together: Creating Community with New Americans initiative bridges the foundation's former funding priority, which helped people with unique cultural needs navigate the complex health care system, and its new focus on the social determinants of health. Designed to reduce health inequities for immigrants and improve the health and vitality of the entire community, the initiative includes grants to projects that foster facilitated exchanges between immigrants and the receiving community, leading to greater social connectedness, healthier communities, and increased opportunities available for all; build the capacity and viability of immigrant-led organizations; and promote the mental health and social adjustment of new Americans. The initiative boasts an impressive list of desired outcomes, including:

- an intentionally more cohesive community of newcomers and long-time Minnesotans that is sustainable over time;

- strong organizations that serve as "bridging" institutions between immigrants and the larger community, including partnerships with other organizations to maximize program effectiveness and efficiency;

- increased resources to foster the healthy social adjustment of new immigrants through the use of community health workers; and

- prevention and early detection of mental health and social adjustment problems, especially through community-level programs.

The foundation is evaluating the initiative to document results; generate lessons for improved effectiveness; and show

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progress toward the desired outcomes related to health, immigrant integration, and social connectedness. The evaluation will be operated on collaborative and participatory principles, providing opportunities for grantees and foundation staff to learn along the way through engagement in evaluation design, data collection and interpretation, and peer reflection.

In 2006 the U.S. Census Bureau reported that there were more than 102,000 New Hampshire residents, five years and older, who speak a language other than English at home (Endowment for Health 2008). Within a five-year period, the number of New Hampshire residents who spoke other languages at home increased by almost 9 percent, and that number is expected to continue to grow. The New Hampshire-based Endowment for Health has made considerable investments in building the state's capacity for medical interpretation by supporting training, a statewide interpreter brokerage, and infrastructure for the state's Medical Interpretation Advisory Board (MIAB). The statewide interpreter brokerage is the Language Bank, administered through Lutheran Social Services of Northern New England, which provides language interpretation services, interpreter training, outreach and education to potential users of the service, as well as coordination for service providers. What began as an idea to provide language interpretation services to refugees has grown considerably – about 150 interpreters who collectively speak 60 languages serve nearly 300 organizations. Through its state-of-the-art database, Language Bank coordinates about 750 interpreter appointments each month. These services are offered in health care and legal settings and in school administration and social service environments. Through four active committees, the MIAB is implementing the New Hampshire Medical Interpretation Strategic Plan to improve systems to collect race, ethnicity, and language data; expand funding for medical interpretation; strengthen the medical interpretation workforce; and promote high-quality medical interpretation through advocacy. The endowment has also worked with ethnic-based community organizations to identify the unique mental health needs of African refugees and Latino immigrants. It has made a $134,000 grant to the city of Nashua to create and implement a plan for improved immigrant and refugee integration by strengthening coordination among municipal, social, and health care agencies to better serve new arrivals; empowering individuals to navigate various public systems; and improving the provision of culturally and linguistically appropriate services.

CREATING A MOVEMENT FOR CHRONIC CARE AND LONG-TERM CARE REFORM

Mindful of the challenges presented by the aging of the population, funders are focused on a number of efforts related to aging and health, from training and supporting paid and unpaid caregivers and extending independent living, to creating seamless systems of care and helping seniors navigate Medicare. Two illustrative examples of this type of work follow.

In April 2008 the Institute of Medicine (IOM) released *Retooling for an Aging America: Building the Health Care Workforce*, which examines the critical shortage of medical professionals and direct care workers who are needed to meet the health care needs of the United States' growing and diverse older population. It also proposes steps to address the shortage by enhancing geriatric competence of the workforce, increasing recruitment and retention, and redesigning models of care. During the development of the report, The Atlantic Philanthropies and The John A. Hartford Foundation approached the Meridian Institute to explore the "advisability and feasibility of convening a national alliance to use the recommendations of the IOM task force as the basis for collaboratively developing and implementing solutions to the challenges identified in the report" (Meridian Institute 2008). The broad goal of the alliance would be to "expand and improve the workforce responsible for ensuring that all older adults receive high-quality, patient-centered care." To gauge interest levels in forming such an alliance, the Meridian Institute conducted interviews and facilitated exploratory meetings with stakeholder organizations. A diverse group of stakeholders has expressed interest in participating in the effort to develop a workforce capable of meeting demands in care. Priority areas have been identified for action in the legislative and policy arenas, and alliance participants are in the process of creating a framework to begin work. Potential next steps include creating a leadership group and work groups; identifying actions to make progress in workforce recruitment, training, and retention; and promoting effective models of care.

Developing a sustainable continuum of quality care for seniors will improve outcomes, reduce the number and duration of acute care episodes, support patient involvement in decisionmaking, encourage independence, and reduce overall costs. The funding strategy of The SCAN Foundation, a new foundation dedicated to long-term care reform and to the creation of a continuum of care for seniors, is to support programs that stimulate public engagement, develop realistic public policy and financing options, and disseminate promising care models and technologies. Recently the foundation announced its first grants, which attempt to refocus the debate about health care for seniors. The University of California, San Francisco (UCSF) was awarded a two-year, $450,000 grant to support a patient- and caregiver-focused section on aging and independence to be submitted for peer review and possible publication in *The Journal of the American Medical Association*. UCSF will organize the section, interview patients, and work with experts in the field who will author articles on issues in aging related to maintaining independence and reducing morbidity. The journal *Health Affairs* was given two grants, totaling almost $950,000, to fund a policy briefing in Washington, DC, in 2009 to raise awareness around why long-term care must be

on the nation's broader health reform agenda and to support a special issue on themes such as lessons learned from successful programs aimed at keeping the elderly independent in their own homes, effective models from other countries, and issues surrounding financing long-term care and long-term care insurance. The foundation has also made a three-year grant to The Henry J. Kaiser Family Foundation to support the Kaiser Health News service, which provides in-depth coverage of health care issues of concern to America's senior population. Funding from the foundation will result in coverage of health care issues affecting the nation's age 65 and older population through articles, interviews, Web casts, and other Web-based materials. Topics covered will include long-term care, Medicare and other health coverage for seniors, affordability, and delivery of care for seniors, among others (The SCAN Foundation 2008).

BUILDING THE PUBLIC AND POLITICAL WILL TO END RACIAL/ETHNIC HEALTH DISPARITIES

In the past decade, health philanthropy has contributed to our understanding of the causes of racial/ethnic disparities in health status and health care, how disparities differ between and within groups, disparity trends, and the impact of various interventions. In the coming years, foundations have a role to play in ensuring that the next generation of work on disparities explores interactions with social class, uses a life-course perspective, intervenes at both the individual and environmental level, emphasizes policy change, and experiments with strategies for building public and political will. Two illustrative examples of this type of work follow.

In order to make progress, it will be essential to disseminate lessons learned about how best to eliminate health disparities and tie disparities interventions to larger quality improvement efforts. The Robert Wood Johnson Foundation's recent work to reduce racial and ethnic disparities in health care focused on several goals and supported:

- research to document the extent of racial and ethnic health care disparities and evaluate potential solutions;

- efforts to understand the extent to which hospitals, health plans, and others were collecting race and ethnicity data on patients for the purposes of identifying gaps in care;

- learning collaborative projects with hospitals to test interventions to improve the quality of care for minority patients; and

- efforts to integrate the views of health care quality experts with those of leading disparities experts (National Quality Forum 2008).

Building the public and political will to end health disparities will require, among other things, leaders with the knowledge and skills to lead effective health strategies and advocate for policy change.

The foundation learned several lessons from this work, including:

- Some barriers to improving the quality of care for minority patients are related to issues with increasing the overall availability of health care information.

- Collecting race and ethnicity data is legal, and more health plans are collecting this data than many thought.

- Racial and ethnic health care disparities vary within and across regions but remain a persistent problem.

The foundation is continuing to focus on reducing racial and ethnic health care disparities through a new strategic approach known as Quality/Equality. The foundation will work with up to 20 regions across the country to improve health care in both inpatient and outpatient settings.

Building the public and political will to end health disparities will require, among other things, leaders with the knowledge and skills to lead effective health strategies and advocate for policy change. The Connecticut Health Foundation's Health Leadership Fellows program is designed to "foster, support, and promote a generation of leaders committed to eliminating racial and ethnic health disparities in Connecticut" (Connecticut Health Foundation 2008). The program accepts up to 20 Connecticut residents to participate in the one-year program. The fellows represent a variety of public and private sectors in public policy, health practice, health care administration, community, law, business and commerce, advocacy, and academia. Fellows make a commitment to attend two weekend retreats, monthly seminars, and other education activities. Learning occurs through participatory sessions, team learning projects, and peer-to-peer consultations. Additionally, fellows participate in a project of their choosing that demonstrates their leadership ability to influence others to take collective action to eliminate racial and ethnic health disparities. The benefits of the fellowship include a stipend of $1,500 to aid a fellow's personal or professional development, a $500 grant to a fellow's nonprofit employer, opportunities to meet with national

and local health leaders and policymakers, and professional coaching sessions.

CONCLUSION

The fact that demographic changes will affect the future is inarguable. But attempting to predict the future by focusing solely on population size and distribution is too simplistic. We decide our fate. Decisions that grantmakers, policymakers, and the public make now can affect educational attainment, family formation, labor force participation, economic mobility, equal opportunity, and cultural competency. Setting thoughtful and just priorities will allow us to shape our own future. In the wise words of Robert Friedland and Laura Summer (2008), "Demography is not destiny."

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GRANT
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unequal opportunities:

inequalities in the United States

A society's development is often judged by the quality of its population's health, whether there is fair distribution of health across the social spectrum, and the degree of protection people receive from disadvantages caused by ill health (WHO 2008). Over time, there has been greater acknowledgement that inequalities in social and economic structures of a society are interdependent and powerful determinants of health and mortality. These inequalities result in marked differences, variations, and disparities in the health status and outcomes of vulnerable, poor, and underserved individuals and groups (Kawachi et al. 2002).

The root causes of inequalities represent complex interactions among social, economic, environmental, and personal factors. Social inequality refers to people's lack of access to housing, health care, education, employment opportunities, political participation, and social status. It excludes people from full and equal participation in what a society considers valuable, important, personally worthwhile, and socially desirable (Preston 1992). Economic inequality relates to disparities in the distribution of economic assets and income. The term typically refers to inequality in material conditions such as income or total wealth between individuals or groups within societies or between nations. Differences exist between social and economic inequalities, though the two are closely linked.

This essay focuses on a selection of inequalities that has either continued to increase in magnitude or has stayed at relatively stable, though unacceptably high, rates across various populations. These inequalities range from social determinants related to race, education, and inequitable living conditions, to economic issues related to poverty and income inequalities. The antecedents, as well as numerous repercussions that can affect health status and outcomes, will be discussed. Additionally, several examples illustrate philanthropic initiatives and other potential opportunities for health funders to become involved in efforts focused on combating inequalities.

HIGHLIGHTING TRENDS IN INEQUALITIES

A number of trends underscore continued inequalities among groups, though some improvements in conditions over time have been noted. For example, racial and ethnic inequalities persist in social indicators such as infant mortality rates, where African Americans continue to be the most affected among all U.S. racial and ethnic groups. Rates in this group are almost 2.5 times higher than for whites (13.6 vs. 5.66, respectively, per 1,000 live births) (Mead et al. 2008). Life expectancy at birth has risen for all groups, including a narrowing in the gap between African Americans and whites. At the same time, however, African Americans still live 6-10 fewer years than the 78 years of average life expectancy among whites (Mead et al. 2008).

In relation to economic indicators, there have been slight overall improvements in income and poverty among most individuals. According to a recent 2007 U.S. Census Bureau survey, real median household income rose for the third year in a row, increasing from 1.3 percent between 2006 and 2007 (or $49,568 to $50,233) (DeNavas-Walt et al. 2008). Income inequality also decreased between 2006 and 2007, as measured by the shares of aggregate household income quintiles and the Gini index. Despite these improvements, incomes among the wealthiest U.S. households have doubled since 1980, while middle- and lower-income household earnings have mostly stayed flat (DeNavas-Walt et al. 2008).

The United States is unique among other industrialized countries in that it has the highest level of income inequalities and the sharpest growth in disparities in the past 25 years (Neckerman and Torche 2007). The United States also currently ranks below many industrialized countries in life expectancy and mortality rates (WHO 2008). Additionally, despite the fact that the United States spends over 50 percent more per capita on medical care than most countries in the world, health outcomes in the United States remain the poorest among most other industrialized countries (WHO 2008).

KEY CONTRIBUTORS TO SOCIAL INEQUALITIES

The social conditions in which people live and work are a powerful influence on the development and subsequent treatment of illnesses and other contributors to poorer health and socioeconomic outcomes. A social gradient exists in which disadvantaged minority populations and those at lower socioeconomic and educational levels often experience worse outcomes than their counterparts (Mechanic 2002).

FIGURE 1: SELF-REPORTED HEALTH STATUS AMOUNG ADULTS AGE 18+, 2005
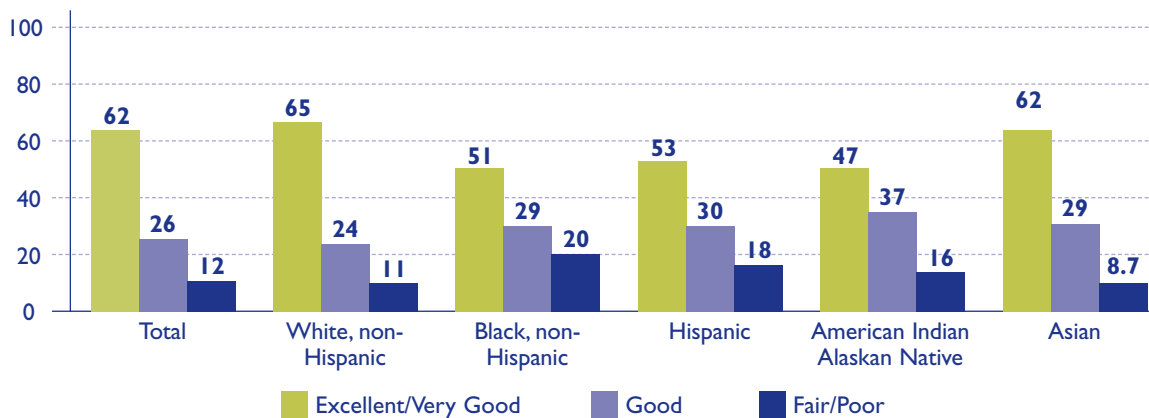
Source: National Center for Health Statistics 2005

Social inequalities can affect many factors, including race, gender, education, social status, and health care. For the purposes of this essay, however, we will focus on the substantial inequalities related to race, education, and living conditions among various populations.

➤ *Racial Inequality* – Marked inequalities continue to occur according to race and ethnicity in this country and have remained relatively similar over the past 50 years (Syme 2008). These racial and ethnic inequalities have resulted from persistent experiences of social disadvantage, discrimination, and other historical trauma over time among minority populations. These inequalities occur independently of income, education, insurance status, and other factors (Smedley et al. 2002).

   Despite substantial improvements in the overall health of U.S. citizens over the last century, the health status and outcomes of minority groups continue to lag behind those of whites. In general, minority groups, with the exception of Asian Americans, are more likely to report their health status as "fair" or "poor" (Figure 1) (Adams et al. 2007). Leading causes of death and health status indicators, such as life expectancy, are also measures used to capture health inequalities among racial groups. For example, study findings have shown a 20-year gap in life expectancy between white men in the healthiest areas of the United States and black men in the unhealthiest areas (Deaton 2002).

   In terms of racial inequalities in income, research indicates that many minority groups have significantly lower income levels than whites (Mead et al. 2008). These income deficits can often be instrumental in increasing exposures to health risks or limiting the availability of social or economic opportunities. Unfortunately, even after adjusting for socioeconomic status, racial differences persist in employment rates, overall family wealth, education quality, and occupational health risks. Additionally, though the largest numbers of the severely poor are white, blacks and Hispanics are still disproportionately the most affected racial and ethnic groups (Thomas and Crouse Quinn 2008).

➤ *Education* – Education is the primary means of social and economic mobility in the United States. Unfortunately, the educational system in this country often does little to weaken class divisions. Of the nearly 50 million students enrolled in the public school system, one-third are from low-income families (Grantmakers In Health 2007a). Differences between poor and non-poor children's development and skills emerge as young as the age of three. Additionally, the quality of schools is often closely linked to family income and where one resides. Therefore, deficiencies in schooling reinforce these troublesome gaps and poorer outcomes for disadvantaged children.

   The level of education a person attains can facilitate or limit her ability to earn income and improve occupational and social status. In particular, educational deficits may limit individuals to lower-paid positions often associated with poorer, more stressful physical working conditions (Adler et al. 2007). Completing each degree from high school through graduate or professional programs also leads to greater income potential (Haskins et al. 2008).

For example, the annual income of a 25- to 34-year-old high school dropout is approximately $18,000; the annual income for a college graduate is $36,000. As time goes on, this income-earning disparity compounds. It is estimated that the average high school dropout earns $1 million less over a lifetime than a college graduate (Grantmakers In Health 2007a).

Evidence from a number of industrialized countries indicates that an additional year of education has the beneficial effect of reducing mortality rates at all ages by approximately 8 percent (Deaton 2002). By race, however, research indicates that minority populations are much less likely than whites to have advanced degrees (Mead et al. 2008). In particular, Hispanics are the least likely to attain a bachelor's degree or higher.

➤ *Living Conditions* – The social and physical conditions people live in tend to contribute to positive or negative community-level outcomes, including health status, social and economic opportunities, and community cohesion. Deeper processes and social structures often shape inequalities in living conditions. In particular, systematic policies, practices, and social norms that tolerate or promote unfair access and distribution of wealth, power, and other resources further constrain opportunities in some communities (WHO 2008). Often, the communities that shoulder a disproportionate amount of unequal outcomes are economically challenged, racially segregated, and more likely to have fewer resources within their local area (Prevention Institute 2002).

Individuals located in impoverished social and physical environments have greater exposure to numerous stressors and avenues by which they can become ill, suffer an injury, or engage in negative behaviors. Stress, especially when extreme or prolonged, also increases people's susceptibility (Altschuler et al. 2004). Disadvantaged populations often have little to no resources available to buffer or avoid the effects of these stressors. Furthermore, exposure to factors, such as neighborhood violence; overcrowded, dilapidated housing conditions; social isolation; and limited access to healthy foods, jobs, and adequate community resources, can increase individuals' stress levels and take a toll on health (Adler et al. 2007).

FACTORS INFLUENCING ECONOMIC INEQUALITIES

It is an unfortunate reality that no matter where you are in society, poorer individuals tend to be sicker and die younger than richer people. Many complex, interrelated factors contribute to economic inequality within societies. Some of these factors include poverty rates, income level, education,

race, gender, and culture. Rates of morbidity and mortality are often inversely related to correlates of socioeconomic status, including income and education levels. Likewise, health, or the individual characteristics that determine health, plays a role in the achievement of socioeconomic position (Kawachi et al. 2002).

Absolute poverty refers to the inability to meet basic human needs such as shelter and food. It is defined using the poverty line as the threshold for the resources considered necessary to meet these minimum human needs. Based on the official poverty threshold of $21,203 for a family of four in 2007, approximately 12.5 percent of American households (or 37.3 million individuals) live in poverty (DeNavas-Walt et al. 2008). Many argue that the official threshold does not reflect the true cost of meeting basic needs and should be revised. If revised, more of the population would actually fall below the poverty line.

Income inequality is a measure of income dispersion with high levels of inequality associated with lower levels of social cohesion and support and poorer health. Within wealthy countries, income inequalities are considered more responsible for impacts on the health of their populations than average individual income levels. In the United States, both individual and family income inequality appear to be on the rise and are more extreme than in other advanced industrial countries (Figure 2).

Statistics indicate that the top 1 percent of American households received over 40 percent of the increase in household income in 2004 (Center on Budget and Policy Priorities 2006). Furthermore, the country's economic growth over the past 25 years has principally benefited the very rich with income gains among high-income households vastly surpassing those among middle- and low-income households (Grantmakers In Health 2007b). Family incomes for both whites and blacks also have risen over this time period, though there has been no progress in reducing the growing income gap between these two groups (Figure 3).

Reducing poverty is critical for enabling individuals to purchase items related to health, including health care and nutritious food, as well as for relieving stress related to daily challenges to make ends meet (Deaton 2002). Documented health improvements have resulted from people receiving enough income support to bring them to adequate standards of living (Mechanic 2002). Programs to provide a safety net for these populations include Social Security, Temporary Assistance for Needy Families, and the Earned Income Tax Credit. In comparison to other economically advanced countries, however, the U.S. government does the least in efforts to transfer and sustain poor families and move them out of poverty (Grantmakers In Health 2007b).

FIGURE 2: TRENDS IN INEQUALITY OF U.S. WORKER EARNINGS AND FAMILY INCOME, 1937-2005
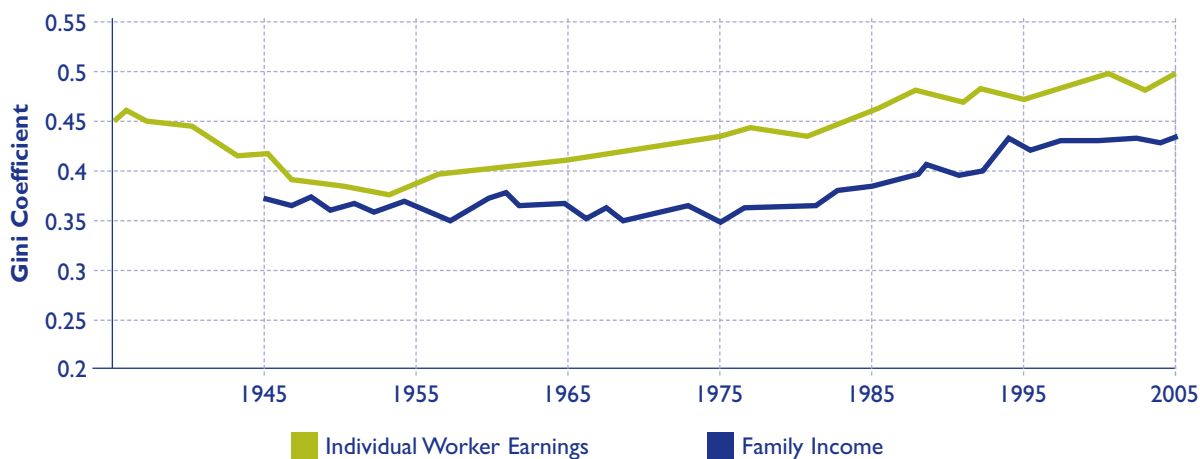
Source: Haskins et al. 2008

There is considerable evidence to support the assumption of causality between better health and resources, such as income, occupation, and wealth, and the health benefits of poverty reduction (PolicyLink 2002). Health status for groups at the higher ends of the socioeconomic ladder is consistently higher than for those at the lower ends. At the same time, because of the proportional relationship between income and mortality, absolute reductions in mortality associated with each dollar of income are much greater at the lower end of the income distribution than at the top (Deaton 2002).

PHILANTHROPIC ROLES IN COMBATING INEQUALITIES

Inequalities affect numerous facets of social and economic life, providing many opportunities for health foundations to become involved. Because of the breadth of the issue, foundations can employ multipronged approaches utilizing a broad focus on inequalities; a narrower centering of attention on specific topics, strategies, and upstream approaches to the social and economic determinants of health; or various combinations of the two. The following examples highlight some of the contributions funders have made in efforts to combat inequalities affecting health.

The Rapides Foundation aims to increase the level of educational attainment and achievement as the primary pathway toward improved social, economic, and health status, as well as to improve economic opportunity and family income. The foundation has chosen targeted programs that seek to improve student achievement through proven long-term

strategies, including teacher and administrative training and support, enhancing subject-specific knowledge, and increasing communities' ownership of schools. To increase community economic development, the foundation is also funding the Cenla Advantage Partnership, a regional nonprofit economic development organization, and the Entrepreneurial League System of Central Louisiana, which works to increase the number of business start-ups in the local community (Grantmakers In Health 2008).

In order to provide education and training to the public health workforce, funding from the Universal Health Care Foundation of Connecticut, Inc. has been used to develop a blueprint on integrating social justice into public health practice to address health inequalities in the state. The foundation has also supported efforts to create and promote a Connecticut-specific Health Equity Index as a way for public health directors to monitor and address health inequalities throughout the state.

A statewide social marketing campaign to combat poverty and income inequality was developed and implemented using funding from the Connecticut Health Foundation. This campaign aimed to educate the public, news media, and opinion leaders about the state's growing income asset divides, the impact of poverty and inequality on residents' health, and state budget choices essential to reducing poverty and inequality and enhancing health. The foundation has also provided funding to pretest a Social Determinants of Health Equity Index instrument, which will illuminate the conditions that perpetuate health inequities at the local level and inform the planning and advocacy efforts of a

community's health needs.

The Arizona Project received funding from The Nathan Cummings Foundation to address issues of economic and political inequality in Arizona, with special emphasis on health and health care. Project organizers identified and developed leaders of the Arizona Interfaith Network, equipping them with the research, organizing, and other skills necessary to advance its Human/Family Development agenda locally and statewide. The project supported individual and small group meetings, institutional assemblies, training sessions, and research actions. Efforts also focused on large-scale public meetings to develop leaders and create public dialogues about the conditions faced by low-wage workers, immigrants, and their families as related to health care and wages.

In addition to these specific types of strategies to combat social and economic inequalities, health funders can contribute through efforts such as:

• increasing understanding, advocacy, and incorporation of equity and human rights perspectives into grantmaking efforts to raise awareness of issues such as discrimination or inequitable distributions of health care providers and facilities in disadvantaged communities;

• supporting the implementation of equitable health care financing to ensure that individuals with the least resources pay the least; and

• building public will to demand equality of opportunities for all people in both policy and institutional practices, as

well as level the playing field for individuals to access and utilize quality resources and supports.

CONCLUSION

Most societies consider health inequalities to be fundamentally wrong. Inequalities contribute to poverty and gradients in health, which often result from poor social policies, inequitable economic conditions, and disadvantageous politics. Social inequalities that reinforce privilege among the wealthy and increase disadvantages among the poor also buttress the perpetuation of economic inequalities into subsequent generations (Neckerman and Torche 2007).

The work to improve the future health of our country and tackle inequalities must be a long-term, multipronged effort involving diverse stakeholders (including the individuals and communities most directly affected), investments, and significant changes in social and political policies and economic institutions and arrangements. Numerous opportunities exist for the participation of philanthropic organizations. Health funders can be instrumental in efforts to convene or educate policymakers, health professionals, and the general public regarding the social determinants of health and their contributions in amplifying health inequalities. Additionally, work must be done to continually measure the degree of inequalities existing within and among groups in order to design both targeted and broad-based strategies to improve conditions for those most adversely affected. Ongoing assessments must also be conducted on the impact of various interventions so that we can learn and strengthen our approaches to combat inequalities.

FIGURE 3: MEDIAN FAMILY INCOME OF WHITE AND BLACK ADULTS, AGES 30-39 (2004 DOLLARS)
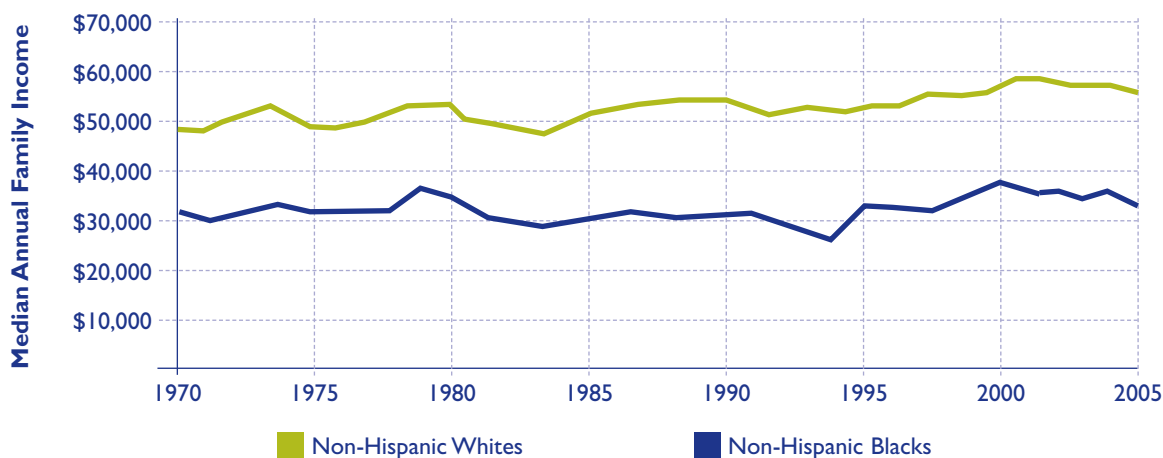
Source: Haskins et al. 2008

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the future health care workforce:
BIGGER and better

Projections of future health needs challenge the health care workforce to grow in size and skills. As more fully explored in the accompanying essay *We the People: Key Demographic Trends in the United States*, demographic and other societal changes will have a profound impact on demand for health care services, significantly influencing both the magnitude and nature of those service needs. As the population ages, demand for health care services is expected to grow dramatically. Between 2000 and 2020, hospital inpatient days are expected to increase by 30 percent, outpatient visits by 20 percent, and emergency department visits by 17 percent (HRSA 2003). Long-term care needs will also rise with the number of nursing home residents increasing by 40 percent and the number of home health visits by 36 percent. Fueled by the increasing number of senior citizens, as well as increasing prevalence of chronic disease among younger populations, the future need for services promises to be staggering. At the same time, the demographic make-up of the population is becoming increasingly diverse, challenging health care service providers to address a broad spectrum of cultural norms and linguistic needs.

Rapidly escalating service use (along with mounting levels of unmet need) will likely shine a bright light on the inefficiencies and inequities that exist within the health care system. The extent to which system failures will force a fundamental re-engineering of delivery and financing dynamics remains unclear, but many health systems researchers and philanthropic leaders have already sounded cautionary alarms. Many believe that the health care system cannot begin to accommodate forecasted levels of demand absent significant systems innovation such as an increased

Current personnel shortages suggest an immediate need to reorient the training and practices of the health care workforce while simultaneously attracting additional workers to the field.

reliance on technological supports; improved engagement of patients and informal caregivers; more efficient diagnostic and therapeutic processes; better alignment of payment incentives; a stronger emphasis on prevention; and (perhaps most difficult to achieve) new roles for, and

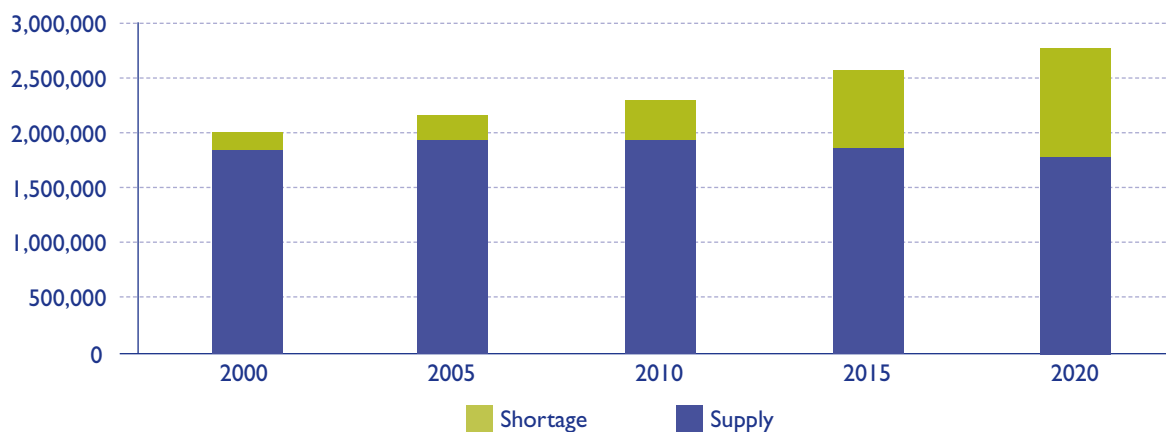relationships among, professional and direct care health care workers.

CURRENT AND FUTURE WORKFORCE SHORTAGES

Current personnel shortages suggest an immediate need to reorient the training and practices of the health care workforce while simultaneously attracting additional workers to the field. Today the recruitment and retention of health care workers is a significant concern across most disciplines and care settings. The Institute of Medicine (2008) reports current shortages for nurses, primary care physicians, certain physician specialties (such as psychiatry, endocrinology, and cardiology), pharmacists, and dentists. These workforce shortages are particularly severe in nonurban areas and are felt most acutely by elderly, low-income, uninsured, and other vulnerable patient groups. Workforce capacity constraints are also apparent for other types of health professionals, such as psychologists, social workers, medical technicians, and dental hygienists, as well as for direct care workers, such as nursing assistants and home health aides. Prevailing shortages in some health professions have been attenuated somewhat in recent years through recruitment of health professionals educated outside of the United States, but the long-term feasibility and ethical concerns raised by this strategy are troubling. The number of internationally educated health professionals is finite and their immigration to the United States only serves to erode the health resources of their home countries.

This gap between workforce supply and demand is expected to swell over the next 10 to 20 years. By 2020 increased demand for health care services will likely result in a 33 percent increase in the requirements for physicians and similarly large increases in demand for other health professions: 28 percent for nurses, 18 percent for physical therapists, 20 percent for optometrists, 28 percent for podiatrists, 30 percent for licensed practical nurses, and 33 percent for nurse aides (HRSA 2003). These estimates assume a continuation of current patterns with respect to per capita utilization rates, provider productivity, and provider

FIGURE 1: PROJECTED SUPPLY, DEMAND, AND SHORTAGES FOR RNS (FTES)

Source: HRSA 2004

staffing patterns. The scale of these projected "status quo" growth requirements, however, suggests that even if efficiency-boosting innovations could be factored in, the health care workforce will need to expand considerably in order to meet future demand.

CHALLENGES

Bolstering the ranks of the health care workforce has proved to be a surprisingly difficult feat. In recent years the numbers of new entrants to the field have risen in a number of professional disciplines. The same demographic trends fueling increased demand for services, however, are also working to undercut supply. The aging and retirement of the current health care workforce threatens to erode recent gains in training new workers. For example, under baseline scenarios the number of practicing registered nurses (RNs) is expected to decrease by 4 percent between 2000 and 2020, largely due to anticipated retirements. Recalibrating the capacity of "pipeline" training programs to overcome these attrition-related losses and anticipate future growth in demand is urgently needed. This recalibration will likely be an incremental process, in part because of the practical realities of expanding training programs, but also because training targets within and across disciplines are likely to shift as practice patterns evolve and provider mix adapts to these clinical models.

Efforts to revamp workforce development must go further than simply scaling up existing training programs. Preparing health care workers (both the newly minted and the more experienced) to address emerging health needs and to adopt novel, more cost-effective practice models will also necessitate significant changes in the content and structure of pipeline training programs and continuing education efforts. Few workers now receive focused training in geriatrics, cultural competency is not widespread, communication and information technology skills are lacking, and "team-based" care is the exception rather than the rule. Ensuring that these and other training needs are fully addressed will require numerous adaptations in curricula, practicum requirements, faculty composition, accreditation standards for academic institutions, competency assessment techniques, financial support for training programs, and other policies.

Shifting responsibilities within and across professions and occupations creates additional complexities. A report by the Association of Academic Health Centers (AAHC) (2008), funded in part by the Josiah Macy, Jr. Foundation, noted that over the last 25 years, a bifurcation of the health care workforce has occurred—with increases in the proportion of workers at both the lowest and highest educational levels. AAHC attributes this shift to two divergent forces: the desire for professional associations and their members to increase the scope and standing of their discipline and the desire for employers to minimize their personnel costs. In some cases, technological advances have allowed health care provider organizations to substitute baccalaureate-level personnel (such as clinical laboratory scientists or medical technologists) with associate-level or certified staff (such as medical technicians).

At the same time, a number of professions have sought to either increase the educational requirements for "entry to practice" or promote advanced practice for individuals achieving higher levels of education. For example, primary care services are increasingly being delivered by master's level nurse practitioners. "Degree creep," particularly the

increasing numbers of professions offering doctoral-level preparation, has historically led to an increasing overlap in the scope of practice across disciplines and advocacy for higher levels of professional autonomy. The AAHC report concluded, "Whether this provides greater access and service to the public, or just greater friction and potential dysfunction within the health system, depends on one's perspective" (AAHC 2008).

Negotiating "turf battles" and other forms of inter-disciplinary conflicts that so often impede transformative innovations will be critical. More effective, efficient approaches to patient care will likely involve an expanded scope of responsibilities for some types of workers; an increased emphasis on delegation, oversight, and consulta-tion for other types of workers; and more collaborative approaches to patient care across disciplines. The creation of unprecedented job functions, functional classifications, credentials, certifications, educational degrees, and training requirements may also be necessary. These functional shifts within and across professional disciplines and occupational categories may require supportive policy changes related to professional credentialing standards, accreditation of degree-granting programs, licensure requirements, scope of practice laws, and reimbursement policies.

Health philanthropy has been, and continues to be, a critical change agent in helping the health care workforce adapt to changing environmental pressures and evolving service needs. These efforts include reshaping the structure and capacity of education and training programs, developing innovative approaches to patient care, and cultivating public and private sector policies that support these goals. The following narrative describes illustrative examples of grantmaking in each of these areas.

RESTRUCTURING WORKFORCE DEVELOPMENT

A large number of private philanthropies provide scholar-ships, loan programs, and other support services for students seeking careers in health care, but many health funders are also striving to increase the capacity and effectiveness of education programs and other workforce development efforts. For example, the Hawaii Medical Service Association (HMSA) Foundation convened leadership from nursing schools and skilled nursing facilities across the state to discuss strategies for encouraging nursing careers in the long-term care sector. These efforts resulted in the inclusion of geriatrics in nursing school curricula, clinical placements in long-term care settings for nursing students, efforts to

encourage practicing nurses to specialize in geriatrics, and in-service education programs to develop leadership skills for nurses practicing in long-term care settings. In order to support these efforts, the HMSA Foundation was successful in leveraging funds from other local foundations, as well as from the national Partners Investing in Nursing's Future (PIN) program, which is developed and implemented jointly by the Robert Wood Johnson Foundation (RWJF) and the Northwest Health Foundation (NWHF) (PIN 2008).

RWJF has made a substantial investment in the nursing workforce, committing over $150 million to nursing programs over the last 30 years, and PIN represents a key component of the foundation's current nursing initiative. PIN strives to stimulate innovative grassroots strategies for building a stable nursing workforce at the community level. PIN provides grants directly to local foundations, encourag-ing them to engage with nurse leaders and catalyze solutions to the nursing shortage that are customized for their own local circumstances.

PIN has supported creative experimentation across the country, with 31 sites receiving funding since the program was launched in 2006. Each PIN partner site receives up to $250,000 for projects lasting up to 24 months, and local

Health philanthropy has been, and continues to be, a critical change agent in helping the health care workforce adapt to changing environmental pressures and evolving service needs.

funding partners provide matching grants further leveraging RWJF and NWHF support. Collectively the projects address goals in the following areas: diversity, faculty development and educational infrastructure, public health, geriatric and long-term care, and collaborative practice. Most projects include at least two of these themes, but the focus of each effort varies significantly, reflecting local needs and priorities.

PIN-funded efforts have included reaching out to and supporting minority high school students to encourage nursing as a career, revising nursing school curricula, creating a faculty development program built around nurses actively practicing in clinical settings, and developing an accelerated bachelor of science nursing program for students with a bac-calaureate degree in another field. PIN partners participate in a national learning collaborative, technical assistance, and evaluative activities, supporting their efforts to learn from one another and promote successful interventions. PIN part-ners are also encouraged to participate in the National Nurse Funders Collaborative, which convenes over 100 public and

private funders seeking to develop strategic approaches to the problems facing nursing.

While each health profession faces somewhat different challenges in terms of degree of shortage and barriers to workforce expansion, the issues that confront nursing are often emblematic of broader workforce concerns (Joynt and Kimball 2008). A number of health funders have supported efforts to expand and enhance educational capacity for different components of the health care workforce. These efforts have included increasing the capacity of existing

Innovative care models not only increase the quality and efficiency of services, but often contribute to improved job satisfaction and employee retention.

teaching programs, establishing new training programs, enriching curricula and practicum experiences, and developing skill-building opportunities for practicing clinicians. Workforce sectors with particularly acute shortages, such as oral health, dental health, and geriatrics, are often targeted in these initiatives.

For example, the W.K. Kellogg Foundation, in partnership with the Rasmuson Foundation of Anchorage, Alaska; the Bethel Community Services Foundation Inc. of Bethel, Alaska; and the M.J. Murdock Charitable Trust of Vancouver, Washington, has funded a groundbreaking effort to establish a dental health aide therapist (DHAT) training program in the United States. The Alaska Native Tribal Health Consortium initially relied on eight DHATs (midlevel dental providers) trained in New Zealand to provide prevention services and perform fillings, extractions, and other limited dental services for children. A $2.7 million grant from Kellogg, combined with an additional $1 million from the other funding partners, supported the creation of the program at the University of Washington's Bethel, Alaska campus, which will train 24 students to become DHATs over a four-year period. Graduates will provide services through the consortium upon completion of the two-year training program (W.K. Kellogg Foundation 2008).

The effort has met resistance, including a recently settled lawsuit brought by the Alaska Dental Society and the American Dental Association, which alleged that DHATs were violating Alaska's Dental Practice Act. The suit was dropped after the state's Supreme Court ruled in favor of the consortium, finding that federal law governing the provision of health care to American Indians and Alaska Natives preempts Alaska state law (Kaplan 2008). The unique param-

eters of this ruling make the potential for broader replication of the DHAT model unclear. The W.K. Kellogg Foundation and its partners are now funding a comprehensive evaluation of the initiative, to be conducted by RTI International, to examine the quality, effectiveness, and efficiency of services.

The Rasmuson Foundation cautions that foundations must be prepared for controversy and opposition when addressing entrenched health problems, such as those seeking to restructure the health care workforce (Kaplan 2008). The foundation had to fight for better oral health "tooth and nail," but through passion, commitment, patience, and an emphasis on forging effective partnerships, progress has been achieved. The foundation's strong relationships with public officials and private sector leaders within the state are seen as critical components of the effort's current success, despite considerable opposition to innovation.

REORIENTING CLINICAL PRACTICE

Health funders are also seeking to develop innovative models of clinical practice that more effectively and efficiently leverage the expertise and time of health care workers. These innovative care models not only increase the quality and efficiency of services, but often contribute to improved job satisfaction and employee retention.

The John A. Hartford Foundation has invested in a broad range of initiatives to support training, research, and service innovations to improve the health of older Americans. The foundation is currently working to disseminate team-based, patient-centered care models developed through the Geriatric Inter-disciplinary Teams in Practice (GIT-P) grants. These grants yielded four promising models of interdisciplinary care, which are now being disseminated nationwide through a three-year, $1.1 million grant to the University of Colorado Health Sciences Center. The most broadly adopted of these efforts, the Care Transitions model, has been replicated in over 100 sites (The John A. Hartford Foundation 2007).

Care Transitions is focused on reducing the miscommunication and fragmentation that often occur when patients transfer across care settings, such as returning home after being discharged from a hospital. The model is focused on helping patients self-manage their medications, developing a personal health record, ensuring timely primary care or specialty follow-up, and identifying red flags signaling a worsening in the patient's condition. Centered around a

"transition coach" (typically a physician's assistant or nurse practitioner) and improved use of information technology, the Care Transitions model both empowers patients to play a more active role in managing their own health service needs and facilitates better coordination across sectors and providers.

While these interdisciplinary models largely focus on improving communications across health professions, The John A. Hartford Foundation also recognizes the important role frontline or direct care workers play in the quality of long-term care services. The foundation has funded a variety of efforts seeking to improve the work environments in which these caregivers are employed. Turnover in the direct care workforce is high, compensation levels are low, and the nature of the job is physically and emotionally taxing. The Paraprofessional Health Institute (PHI) works to improve the lives and work environment of direct care workers with the goal of creating high-quality long-term care services and stable relationships between residents and staff.

The John A. Hartford Foundation and The Atlantic Philanthropies have provided a four-year, $4.7 million grant to PHI to support its Center for Coaching Supervision and Leadership. The center strives to help direct care workers succeed in their jobs by improving the communication and management skills of their supervisors. The center combines a "train the trainer" approach for nurses and other supervisors of direct care workers with leadership development for senior executives in long-term care organizations. The program strives to create a respectful culture that values the input of direct care workers and helps develop their problem solving and prioritization skills. Through prior research and demonstration activities, PHI has proven that strong coaching supervision and peer mentoring lead to reductions in staff turnover and absenteeism, as well as increased job satisfaction (The John A. Hartford Foundation 2008).

REFRAMING SUPPORTIVE POLICIES

The long-term success of attempts to redesign workforce education and clinical practice often hinges on the enactment of policies that support and sustain these innovations. Policies relevant to workforce development include public sector policy decisions (such as funding for workforce training programs, state-level scope of practice laws and licensure requirements, and reimbursement policies through Medicaid and Medicare), as well private sector policies (such as credentialing standards established by professional

associations and accreditation standards established by organizations that certify degree-granting institutions and health care providers).

Health funders have sought to marshal support for key policy changes in a variety of ways. Data collection and analyses that publicize regional workforce shortages, training needs, and funding gaps are important tools that health philanthropies have used to stimulate policy action. For example, The California Endowment (TCE), The California Wellness Foundation (TCWF), and the California HealthCare Foundation have funded numerous analytic studies assessing the adequacy of the current supply of health care workers and the capacity of current educational programs to train new workers. Among these efforts is a series of reports exploring the demographic characteristics of physicians, dentists, pharmacists, RNs, and physical therapists practicing within the state, along with a demographic analysis of students studying in these disciplines. Efforts to increase diversity and improve participation in educational programs by underrepresented groups are also highlighted (Bates et al. 2008).

Building on these analytic studies, TCE has funded the statewide initiative Connecting the Dots, which focuses on increasing health professions' workforce diversity. This comprehensive initiative has sought to identify barriers to, and opportunities for, increased diversity; raise the visibility of exemplary practices (such as those related to pipeline investments, admissions, institutional climate, faculty

The long-term success of attempts to redesign workforce education and clinical practice often hinges on the enactment of policies that support and sustain these innovations.

recruitment and retention, and financial aid); explore how the issue is framed by the media; document benefits of diversity; and consider the K-12 network of support available to minority students. The effort seeks to culminate in the development of a statewide strategy and the active engagement of key stakeholders and policymakers. In 2006 TCWF introduced a complementary public relations campaign to increase diversity in the health professions, which includes the Web-based resource *Health Jobs Start Here*, designed to help young people explore careers in health.

Health funders are also working to catalyze workforce policy change at the national level. Partnering with the U.S. Department of Labor, RWJF convened a national Nursing Education Capacity Summit in June 2008. The summit brought together 18 state-based teams to engage in solution-

oriented discussions about the nursing shortage. Each team included representatives from nursing education, organizations that employ nurses, regulatory bodies, workforce investment organizations, government agencies and policymakers, and philanthropy (selected through a competitive process) The teams discussed best practices and action plans related to strategic partnerships and resource alignment, state policy and regulation, faculty expansions, and educational redesigns.

CONCLUSION

Several of the initiatives described above are multidimensional strategies that seek to simultaneously improve educational capacity, transform clinical practices, and promote supportive policies with the shared goal of strengthening the health care workforce. These strategies are clearly interrelated and mutually reinforcing. Health philanthropy has historically played a leadership role in raising the visibility of health workforce shortages, testing innovative approaches to shortages in both training and practice settings, and stimulating public and private sector reforms to more broadly disseminate these innovations. Responding to the magnitude and complexity of future health care needs will require continued momentum in all of these areas, locally, regionally, and nationwide. If necessity is in fact the mother of invention, then the demographic changes on the horizon portend a crucial opportunity for revitalizing the health care workforce, as well as the broader system of care.

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health and technology:
will health information technology deliver?

As we move ahead in the 21st century, technology will play an ever-increasing role within our daily lives. Technological advancements have revolutionized the way we work, play, communicate, and connect with people across the globe. In 1837 Samuel Morse transformed an electrical current into the first communications device connected by wire; today, personal computers, phones, and wireless devices enable us to instantaneously share ideas and ask questions. Technology breakthroughs have made us smarter, quicker, and more effective than ever before, and we expect that these advances will continue to be incorporated into all aspects of society, including public health and medicine.

THE PROMISE OF TECHNOLOGY

Innovative technologies are improving individual- and population-focused health outcomes, from new surgical instruments and medical devices, to advancements in vaccine development and delivery to combat global health epidemics. New technology infrastructure designed to consolidate health records and connect providers with patient data is increasing efficiency within local health care networks and improving quality of care. Telehealth – the use of telecommunications and health information technology (HIT) to carry out remote medical interventions, care management, health education, and prevention – has the potential to increase access to quality care among underserved populations; share medical knowledge among providers; and empower patients through virtual house calls, remote monitoring, and other on-demand health services.

We are also beginning to see new health disciplines take shape as a result of technological advances. Since the completion of the Human Genome Project – the identification and mapping of the entire human genetic sequence – researchers have focused on the links between variations in a person's genetic makeup and their reactions to specific diseases. For example, researchers recently isolated at least 10 genes linked to an individual's risk of developing diabetes. The future of genomics promises to help doctors and other health care providers determine why some people get sick from certain infections, environmental factors, and behaviors while others do not (CDC Foundation 2008). In turn, we envision a future where disease prevention and management will be informed by our genetic makeup, and new treatment methods will include molecular-level interventions such as gene, protein, and germ-line therapies.

As with genetic research, the burgeoning field of nanotechnology – the engineering of functional systems and devices at the molecular scale – has inspired new treatment approaches. Scientists are now developing synthetic, self-assembling nanostructures that have the potential to aid in the regeneration of human nerve fibers, muscles, and organs. In addition, experts believe that our best weapon in the fight against cancer is nanotechnology, which will enable doctors to detect and destroy cancer cells at the molecular level. The National Cancer Institute is supporting clinical research to harness the power of nanodevices and believes they will be used as diagnostic and therapeutic agents and change the very foundations of cancer diagnosis, treatment, and prevention (National Institutes of Health 2004).

CHALLENGES

➤ *Overutilization of New Technology* – Technology advances will continue to expand the limits of possibility within the fields of public health and health care. Yet while these leading-edge treatments and technologies hold great promise for the future, they may also pose significant challenges. One of the principal concerns is the rising cost of health care due to new technology. According to a recent report issued by the Robert Wood Johnson Foundation's Synthesis Project, the dominant driver of long-term cost trends within our health care system is advancing medical technology, where newer, more costly treatments replace older technologies or provide opportunities for intervention when none existed before. In fact, a technical review panel for the Centers for Medicare and Medicaid Services concluded that about half of real expenditure growth within the U.S. health care system is attributable to technology (Ginsburg 2008).

In many cases, these emerging health technologies diffuse more rapidly than clinical researchers can adequately assess them, which can lead to the overutilization or inappropriate use of such treatments. When a new technology or treatment arrives, providers must pay steep up-front costs to purchase it for their office; once the technology is in-house, providers are understandably motivated to utilize and charge for these new services in order to recoup their initial investment. To further complicate matters, patients

GETTING BEYOND THE JARGON: KEY HIT COMPONENTS

CDS (clinical decision support): Evidence-based embedded logic that supports clinical decisionmaking and reminds or alerts physicians within CPOE or e-Rx platforms.

CPOE (computerized physician order entry): A process of electronic entry of physician instructions for the treatment of patients under his or her care. CPOE is considered to be a component of a fully functional EHR that allows physicians, nurses, and clinical staff to electronically track orders for patient care. CPOE is also seen as a tool to reduce preventable medication errors.

e-Rx (electronic prescriptions): An electronic medication management system that enables physicians to order appropriate drugs for patients, sends prescription data to pharmacists, and informs nurses on which medications to administer. Many e-Rx systems are integrated with CDS systems to prevent harmful drug interactions and prescreen for patient allergies.

EMR/EHR/PHR (electronic medical record/electronic health record/personal health record): Tools that enable the collection, storage, recall, and analysis of patients' health information in central data repositories. EMRs are institutionally focused, while EHRs are designed for cross-institutional data sharing and therefore more valuable to providers. PHRs are consumer-oriented records that are usually Web-based and offer a more limited feature set than EMR/EHR solutions.

HIE/RHIO (health information exchange/regional health information organization): A local, regional, or state level network that facilitates the secure exchange of EHR clinical data across multiple providers. HIEs can improve the quality and continuity of care by providing physicians with a complete patient history that reduces clinical errors, decreases redundant testing, and increases operational efficiency through reduced interoffice paperwork. Also known as RHIOs, HIE is a broader term that also encompasses networks managed by multiple partner organizations.

Telehealth: The use of medical information exchanged from one site to another via electronic communications to improve patients' health status or expand access to specialized care. Videoconferencing, transmission of still images, remote monitoring of vital signs, continuing medical education, e-health Web portals, and nursing call centers are all examples.

Source: Gaylin 2008; California HealthCare Foundation 2008b

often demand the latest publicized treatments, regardless of efficacy or expense. As health care cost projections continue to rise over the next decade – currently outpacing U.S. gross domestic product growth by 1.9 percentage points per year – patients, providers, and payers must face the sobering challenge of balancing expectations of state-of-the-art care with the need to reduce costs within our health care system (Ginsburg 2008).

One example of this problem is the rising demand nationwide for magnetic resonance imaging (MRI) and computed tomography (CT) scanning. Since the early 1980s, the rapid diffusion of imaging units and the associated jump in utilization rates have led to major increases in costs for Medicare and other payers. While MRI and CT diagnostic imaging technologies offer clear benefits for patients and physicians, experts have questioned the overall cost-effectiveness of these procedures due to the lack of demonstrable improvements in health outcomes as a result of the procedure (Baker et al. 2008).

➤ *Health Information Technology: A Magical Solution?* – In addition to overutilization concerns, there is much debate over whether HIT – infrastructure designed to securely manage and exchange medical information between health care consumers and providers – alone will solve the multitude of problems facing an underperforming U.S. health care system. At the patient level, HIT investment has the potential to reduce preventable deaths, minimize medication errors, and provide evidence-based support for physician diagnosis and treatment options. At the provider level, electronic health records (EHRs) and tools, such as electronic prescriptions and computerized physician order entry (CPOE) systems, can eliminate administrative paperwork, streamline patient visits, and make offices more efficient. A well-coordinated regional health information exchange (HIE) can record and track patients across multiple providers, offering a complete medical picture of that patient to all parties involved and improving overall continuity of care.

In recent years, reports have suggested that widespread investment in integrated HIT solutions, such as EHRs, physician decision support systems, and CPOE systems, could significantly improve the delivery and management of care and generate considerable systemwide cost savings. In 2005 the RAND Corporation projected annual savings of $77 billion based on efficiency improvements due to shorter hospital stays, reduced staff and administrative time, and more effective drug utilization (RAND 2005).

Such rosy projections, however, have not gone uncontested. In 2008 the Congressional Budget Office (CBO) released a follow-up study examining the evidence

on the costs and benefits of HIT. CBO Director Peter Orszag explained that HIT "appears to be necessary but not sufficient to generate costs savings; that is, health IT can be an essential component of an effort to reduce cost (and improve quality), but by itself it typically does not produce a reduction in costs" (CBO 2008). Orszag argues that we should not consider HIT as the solution, but rather as a tool necessary to implement systemwide quality improvements and cost savings.

Similarly, a study supported by the Markle Foundation recently warned against false hopes raised by blind HIT adoption, arguing that HIT proponents must resist "magical thinking," including the notion that isolated HIT investments and standards will fundamentally "fix" a broken health care system (Diamond and Shirky 2008). Rather than focusing on technology adoption and universal interoperability, the study suggests we should work to improve health outcomes for patients using HIT as a means to carry out these changes.

With these cautions in mind, a number of health foundations are making strategic investments in HIT, such as EHRs and HIE and regional health information organization (RHIO) efforts, and new telehealth initiatives that can help improve quality, increase access to care, empower patients, and make our health care system more efficient – provided that funders and providers are realistic in their short-term expectations for these innovative new technologies.

IMPROVING QUALITY AND HEALTH OUTCOMES THROUGH HIT

While efficiency and cost savings have become key "selling points" for widespread HIT adoption, these outcomes are part of a larger vision of a future health care system in which new technology and infrastructure will deliver higher quality care and improved patient outcomes. When implemented properly, EHRs not only consolidate health data and reduce paperwork but also offer critical clinical decision support (CDS) tools to prevent adverse drug reactions and offer evidence-based recommendations concerning treatment and care. At the regional level, HIE initiatives designed to securely exchange health records and clinical data between providers can reduce duplicate – and potentially dangerous – medical procedures and tests. These data-driven HIT systems also enable providers and health departments to collect, analyze, and report clinical outcomes to track performance and advance the quality of care provided to patients.

The Community Clinics Initiative (CCI), a collaboration between Tides Foundation and The California Endowment, is one example of a regional HIT investment that has shifted focus toward quality improvement. Established in 1999 CCI provides resources, evidence-based programming and evaluation, education, and training to support community health centers and clinics throughout California. To date, CCI has awarded more than $69 million in grants, covering 163 clinics and 15 regional consortia of clinics. Although the initiative initially focused on developing basic information technology (IT) infrastructures (hardware, software, and personnel) for clinics, it evolved to include an understanding of how improved IT infrastructure contributes to improving health outcomes for both individual patients as well as the communities they serve. In theory, CCI views its HIT work in the context of a larger process:

> **Improved IT Infrastructure**
> *contributes to*
> **Better Data and Communications**
> *contributes to*
> **More Data-Driven Business and Clinical Decisions**
> *contributes to*
> **More Efficient Clinics and Higher Quality Care**
> *contributes to*
> **Stronger, Healthier Communities**
>
> Source: CCI 2006

Under this vision, CCI provided grantees with additional supports, including ongoing technical assistance; a learning community to support cross-program reflection; and access to CCI's on-line community, which provides news, e-mail updates, and discussion forums. CCI is also working with clinics to utilize the comparative data they are now able to collect from an operational and a health outcomes perspective (CCI 2006).

As a complement to CCI, a group of five California grantmakers in 2008 launched Tools for Quality, a $4.5-million technology program aimed at improving chronic disease care across the state. Jointly funded by the Blue Shield of California Foundation, the California HealthCare Foundation, CCI/Tides, Kaiser Permanente Southern California Region, and The California Endowment, Tools for Quality will provide 33 clinics with up to $40,000 each in matching funds to support chronic disease management systems (CDMSs), software designed to help doctors and nurses track and manage the care of patients suffering from chronic diseases such as diabetes, asthma, and depression. Although less complex or ambitious in scope than EHRs, CDMSs are a cost-effective way to introduce quality

improvements for providers by instituting chronic care regimens and automating patient follow-up (California HealthCare Foundation 2008a).

Other demonstration projects, including ones funded from the private sector, are also beginning to show how HIT can empower physicians and improve health outcomes. The Massachusetts eHealth Collaborative (MAeHC) was formed in 2004 as a nonprofit initiative of the physician community to build a statewide strategy for ubiquitous adoption of EHRs and establish community-focused RHIOs to enhance the quality, efficiency, and safety of care throughout Massachusetts. Initially funded by Blue Cross Blue Shield of Massachusetts, the $50 million project targeted three pilot communities within the state in order to implement fully functional EHR systems with CDS tools and develop local HIEs connecting community providers. Since then, MAeHC has partnered with 34 statewide health organizations and has brought over 130 practices on-line with EHRs using a centralized support model for training and technical assistance (MAeHC 2008a). MAeHC has also developed a Quality Data Center that reports on physician-level performance measures developed with the help of the Massachusetts Health Quality Partners. Based on the early success of MAeHC's pilot communities, Massachusetts has allocated $25 million in its 2009 state budget to fund new HIT investments in an effort to support statewide HIT adoption (MAeHC 2008b).

While the quality improvements delivered through HIT investment may be well documented, it is not safe to assume that these investments will produce immediate benefits for patients or providers. Funders seeking to implement successful HIT projects should expect to spend a significant amount of time collaborating with providers and other stakeholders in order to define the goals of the investment, ensure buy-in and physician trust, prepare staff for both clinical as well as technical workflow changes, and offer ongoing technical assistance and group reflection to ensure that the goals and health outcomes are met over time.

INCREASING ACCESS TO CARE

In addition to improving quality of care, HIT can also be seen as a tool for providers to help expand access in underserved communities. Administrative and clinical applications have the potential to both strengthen the organizational capacity of those serving the uninsured and underinsured and improve efficiency and patient outcomes (Grantmakers In Health 2008).

One strategy for increasing access to health care is through investment in EHR systems for local clinics serving vulnerable populations. As one component of its Healthcare Access Program (HAP), St. Joseph Community Health Foundation, a small foundation serving Allen County, Indiana, has supported the adoption and implementation EHRs at multiple safety net provider locations. Established in 2000, HAP convenes low- and no-cost primary health care providers, such as the county's free clinic and federally qualified health centers (FQHCs), to organize and administer projects that increase quality and efficiency and that reduce the cost of health care for the poor and uninsured. In 2002 the foundation and HAP partners began working with a local HIT vendor to implement EHRs in the county's free clinic. St. Joseph Community Health Foundation also provided grants for the purchase of hardware – computers, servers, and other equipment. The county's two FQHCs and clinics administered by the county health department then adopted the EHR system (Grantmakers In Health 2008).

Once site-level EHR systems were implemented, St. Joseph Community Health Foundation and HAP partners made further investments to establish a shared system that would capture the county's uninsured, Medicaid, and State Children's Health Insurance Program patients to improve care for patients receiving services at more than one safety net location. Today the shared clinical data are frequently used by Allen County's safety net providers in caring for patients with chronic medical conditions, giving providers access to selected information on patients' past and present diagnoses and treatment. The shared system has also reduced paperwork and made safety net providers more efficient throughout their day-to-day operations.

St. Joseph Community Health Foundation has provided more than $500,000 in grants for HIT over the last several years. This investment has been matched almost dollar for dollar through in-kind contributions, pro bono and reduced-rate technology services, and other donor investments. One of the most important roles played by the foundation, however, was that of neutral convener, bringing stakeholders together to ensure an interoperable approach to HIT development.

The Maine Health Access Foundation (MeHAF) is another foundation investing in multiple HIT initiatives that support their mission to expand access to health care and improve the health of all Maine residents. One such project, HealthInfoNet, is a statewide HIE designed to bring the most current and comprehensive clinical information to all caregivers across the state. In 2004 MeHAF – along with Maine CDC, the Maine Quality Forum, and the Maine Health Information Center – came together to study whether or not Maine was ready to develop a statewide HIE. The study found that strong support existed for such a system, and by 2006 HealthInfoNet was established as an

independent nonprofit organization to manage its development and engage stakeholders such as doctors, hospital officials, consumers, insurers, business leaders, and state government representatives.

Since its inception, MeHAF has invested more than $3 million in the HealthInfoNet initiative, including the planning and development of a two-year statewide demonstration program that began in early 2008. More than 2,000 healthcare providers, including 15 rural and urban hospitals across Maine and one-third of practicing physicians, are currently part of this demonstration. Participating hospitals and physician practices currently oversee more than half of the state's annual inpatient hospital admissions, half the annual emergency department visits, and nearly 40 percent of Maine's outpatient visits each year. As this demonstration enters its second year in 2009, providers across Maine will gain access to a more complete and up-to-date clinical profile of their patients in order to deliver better quality care and improve the coordination of care, particularly for those patients who see several providers and receive care in more than one community or care setting (HealthInfoNet 2009).

Although HealthInfoNet may not address the broader issue of access to health insurance for the uninsured, MeHAF views a statewide HIE as a critical step toward improving health services for vulnerable and underserved populations – especially those without consistent access to primary care due to a lack of coverage. For emergency departments overwhelmed by uninsured patients, HealthInfoNet can also enhance care coordination and build in administrative efficiencies that enable providers to handle more cases and offer improved continuity of care for those outside the traditional health care system.

MeHAF has also spent a significant amount of time and energy researching the benefits and challenges of telehealth as a means to improve access to care within Maine's rural population. In 2005 MeHAF sponsored the meeting *Enhancing Current Telemedicine Services* to discuss both the opportunities and barriers facing more widespread telehealth adoption in Maine. MeHAF then partnered with staff from the Governor's Office of Health Policy and Finance to convene a multisectoral State Health Plan Telemedicine Workgroup and commissioned the Center on Telehealth and E-Law to conduct a national study of state and federal telehealth policies. Based on the results of the workgroup and the national study, MeHAF found that, despite the early promise of telehealth models, there are a number of barriers to adoption, including regulatory challenges, reimbursement issues, and a lack of comfort on the part of existing providers and patients to utilize new telehealth technologies. Nevertheless, MeHAF's work has set the stage for an ongoing

SETTING OBJECTIVES FOR HIT INVESTMENT

The Markle Foundation's Connecting for Health initiative released formal recommendations to help guide future HIT investment and health care reform. Connecting for Health, a collaborative representing more than 100 organizations from all major perspectives in health care, engages stakeholders to develop and articulate practical approaches to manage complex HIT and information policy issues.

To modernize the health care system, HIT investments must be made with clear requirements ensuring trusted information sharing and achievement of health improvement goals. Specific policy and technology requirements include core privacy principles, sound network design principles, and adequate mechanisms to ensure proper oversight and accountability.

The Markle Foundation laid out expectations for stakeholders involved in new HIT investment:

1. Have clear, specific, and achievable health improvement goals (such as reducing hypertension, improving cardiac mortality rates, and increasing chronic medication adherence).

2. Outline effective strategies for using technology and HIT to reach these goals.

3. Articulate how IT and non-IT investments will be combined to achieve objectives. Examples of non-IT investments might include training, implementation support, care delivery redesign, chronic care management, and patient engagement.

4. Motivate widespread availability and use of key electronic information (medication history, lab and imaging results, after care summaries) to reach health goals.

5. Support rapid deployment and impact across entire communities.

Source: Markle Foundation 2009

dialogue among Maine telehealth stakeholders and has inspired further research on telehealth solutions for rural and remote communities (MeHAF 2009).

CONCLUSION

Over the next decade, the rapid development of new technology within the health care sector has the potential to generate both significant benefits and severe costs for patients, providers, and payers. Setting our sights on the

year 2020, it is important that health funders proceed with caution and avoid the wishful thinking of immediate health care transformation through technology investment. Nevertheless, funders committed to improving quality of care, expanding access, empowering patients, and increasing efficiency within our health care system have a unique opportunity to support their communities using a variety of technology-focused strategies. Above and beyond the

technology itself, however, an array of stakeholders must learn to utilize, trust, and adapt to these new tools as part of their mission to achieve the highest quality care for the patients they serve. Until and unless we recognize and internalize the clinical value of HIT and its impact on quality and efficiency, it is unlikely that we will see significant changes in our health care system, regardless of the incentives or mandates we choose to employ.

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GRANT MAKERS IN HEALTH

the environment,
health, and the future

Concern for the environment draws its focus and inspiration from a movement that began in the 19th century, picked up steam after the Second World War, and now embraces a wide range of local and global concerns that includes climate change (global warming); ozone depletion; loss of biodiversity; and pollution of the air, land, and water. This movement is driven by a sense of crisis about the effects of human and economic pressures on the planet and its ecosystems.

WHAT ARE THE MOST PRESSING ENVIRONMENTAL TRENDS?

In a brainstorming exercise conducted a few years ago, the U.S Environmental Protection Agency (EPA) developed a list of the environmental trends most likely to affect environmental quality at the federal, regional, and state levels between 2000 and 2025. This list reflects scientific understanding of current trends that are known to have a negative environmental impact and emerging knowledge about developments whose effects are still being understood.

The EPA exercise identified three trends as being most likely to have significant effects on environmental quality between now and 2025: water availability and quality, air pollution, and climate change (EPA 2008c). Four areas were seen as potential surprises that could have a positive or negative impact on environmental quality. On the positive side, future energy technology developments like fuel cells, tidal power, and nuclear power could have significant environmental benefits. On the other hand, climate change could potentially pass a "tipping point" where much larger negative effects occur, pharmaceuticals in waste water could be more destructive than we currently realize, and ocean pollution could have very serious biological effects. Additionally, technological solutions currently thought of as positive could turn out to have unanticipated side effects.

The EPA identified several issues where more of the agency's attention in the future would likely be required. These included indoor environmental quality, invasive species, and regeneration of ecosystems (EPA 2008c).

As for the forces driving future environmental change, the EPA exercise identified both helpful and harmful developments related to both technology and demographic change. Helpful developments included efficient transportation, new energy technologies, recycling, and changing generational consumption patterns. Harmful developments included sticking with traditional energy production, toxic chemicals, rapid international population growth, and population shifts in the United States to environmentally sensitive areas like the southwestern states.

The EPA's most pressing concerns were echoed in a list of environmental research priorities developed by an expert committee of the National Academy of Sciences (NAS).

THE MOST PRESSING RESEARCH NEEDS

In 2001 a high-level committee of the National Academy of Sciences was tasked with identifying the major environmental research challenges for the future. From hundreds of nominations submitted by the scientific community, they selected eight challenges, of which the following four are the most pressing in the immediate future:

1. **Biological Diversity and Ecosystem Functioning**. We need to understand the relationship between ecosystems and biological diversity, especially how to manage habitats so that they can support both human uses and natural life forms, and the effects of habitat alteration and loss on biological diversity.

2. **Hydrologic Forecasting**. We need better tools for understanding fresh water resources, including the ecological consequences of changing water use in the United States.

3. **Infectious Disease and the Environment**. We need a comprehensive ecological and evolutionary understanding of infectious diseases affecting human, plant, and animal health.

4. **Land-Use Dynamics**. We need to understand changes in land uses and land covers and their consequences.

Source: National Research Council 2001

ENVIRONMENT AND HEALTH

As the NAS list makes explicit, human health is part of the environmental equation. The health effects of environmental problems, however, are often indirect, in contrast with the traditional health domain in which the human connection is immediate and direct. As Figure 1 illustrates, environmental funders and other organizations that are concerned about climate change, ecosystem degradation, or species and biodiversity loss are all addressing issues with implications for individual and community health, although their grantees are more likely to be land trusts, toxics coalitions, or water groups than health-focused organizations.

In philanthropy there is vigorous interest in environmental issues, as reflected in the affiliation of more than 225 foundations from North America and around the world with the Environmental Grantmakers Association. Within this group, a subset of funders called the Health and Environmental Funders Network (HEFN) has a specific interest in environmental health. HEFN's members' grantmaking spans a wide range of issues, including:

- specific contaminants or sources of pollution;

- vulnerable populations like children, low-income communities, workers, or communities of color; and

- topical areas, including sustainable agriculture, smart growth and healthy building, climate change and energy, community health, environmental justice, chemicals and health, and green building.

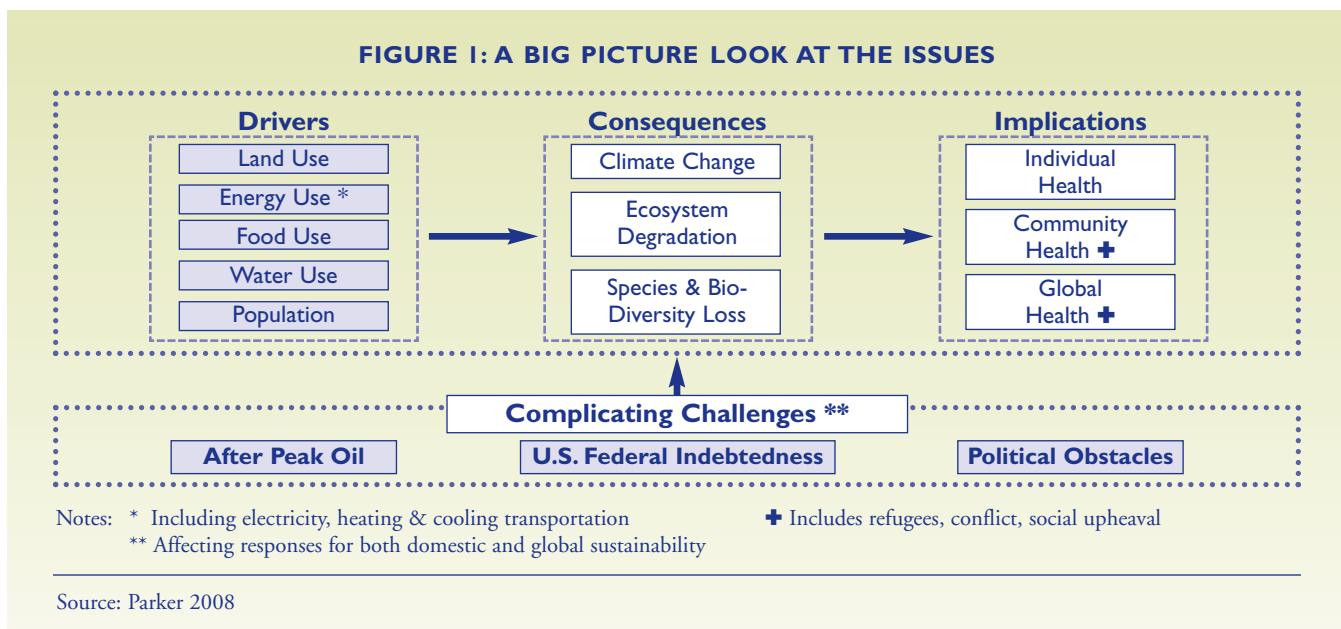In keeping with the spirit of the environmental movement, much of the work in the environmental health field is organized around social change strategies, including advocacy and organizing to change policies, pass legislation, change regulations, or press for enforcement of laws and regulations. Community empowerment strategies support organizing and capacity building to enable communities to address their own environmental health concerns. Market-based strategies build pressure on companies or industrial sectors, build alliances with business and industry, and encourage businesses to shift practices and products.

MAJOR ENVIRONMENTAL CHALLENGES TO HEALTH

Selecting from the many issues with which environmental funders are concerned, this essay will focus on three – climate change, environmental justice, and sustainable development – that have saliency for the future, as well as major implications for health.

➤ *Climate Change* – The threat of climate change is the greatest environmental problem humanity has ever faced. With each iteration of the science of climate change, the links between human-caused carbon dioxide (CO_2) emissions – a byproduct of burning fossil fuels – and rising temperatures get stronger (Hewlett 2008).

Climate change contributes to the melting of glaciers, rising sea levels, the range and distribution of plants and animals, when trees bloom, the length of growing seasons, freezing and thawing of rivers and lakes, and the extent of the permafrost (EPA 2008c). Human beings are directly exposed to climate change through changing weather patterns and indirectly through changes in water, air, and food quality and quantity; ecosystems; agriculture; and

FIGURE 1: A BIG PICTURE LOOK AT THE ISSUES

Drivers	Consequences	Implications
Land Use	Climate Change	Individual Health
Energy Use *	Ecosystem Degradation	Community Health ✚
Food Use		
Water Use	Species & Bio-Diversity Loss	Global Health ✚
Population		

Complicating Challenges *

After Peak Oil	U.S. Federal Indebtedness	Political Obstacles

Notes: * Including electricity, heating & cooling transportation   ✚ Includes refugees, conflict, social upheaval
** Affecting responses for both domestic and global sustainability

Source: Parker 2008

economy. At this early stage the effects are small, but they are expected to steadily increase throughout the world (EPA 2008b).

These changes have an effect on health in several ways, including:

- *Extreme Weather* – Hurricane Katrina, which caused devastating social, economic, and psychological after-effects, is just one example.

- *Air Pollution* – Increased ground ozone and other pollutants dramatically raise rates of asthma and other respiratory diseases.

- *The Spread of Infectious Diseases* – Rising global temperatures may help spark a population boom in insects and disease-carrying animals.

- *Heat-Related Illness* – The European heat wave in 2003 killed an estimated 35,000 people.

Children are especially vulnerable to these changes. Their immune systems are not as evolved as adults; their bodies are still developing; they are more likely to come into contact with toxic substances both inside the house (such as stain-resistant chemicals used on carpets) and outside (such as playgrounds); and pound for pound, they take in more air, food, and liquids – possibly polluted – than adults do (EPA 2008a).

As the following snapshots illustrate, grantmakers approach climate change from a variety of perspectives: environmental conservation, building community capacity, and regulatory change.

The Nathan Cummings Foundation established the Ecological Innovation Program with the goal of addressing the challenges of climate change and promoting vibrant and sustainable ecological systems that support healthy communities and a just economy. The program encourages the development of broad alliances that advance integrated and sustainable approaches to social, economic, and ecological justice. It also promotes innovative public policies and other approaches by which corporations, governments, and other institutions take responsibility for the risks and costs of their activities and become drivers of positive ecological and social costs of their activities change (The Nathan Cummings Foundation 2008).

With foundation support, the organization Ceres is organizing large institutional investors to influence corporate boards and top management about taking action on global warming. Ceres has hosted two United Nations investor summits and has grown its investor group from eight institutions holding $600 billion in assets to over 50

with nearly $3 trillion in assets. These collective accomplishments have won substantial climate commitments from major companies, stimulating unprecedented investor action on an environmental issue and shaping the public debate on the business and financial aspects of climate change.

Health Care Without Harm is another of the foundation's grantees that has succeeded in changing corporate practices by working with the health care industry and care providers to reduce the use of harmful chemicals in everything from intravenous tubing to the food served in hospitals.

The Rockefeller Foundation's Initiative on Climate Change Resilience aims to develop the ability of communities to manage and plan for the inevitable effects of climate change and to make sure that planning includes the most vulnerable citizens. Over the course of the five-year, $70-million international initiative, the foundation expects to partner with governments, other foundations and donors, nongovernmental organizations, and groups from the private sector.

A component of the Climate Change Resilience Initiative will focus on raising awareness and exploring relevant solutions in the United States. The destruction caused by hurricanes, record heat waves, and wildfires in recent years underscores the need for local approaches to build resilience to climate change. For the foundation this includes developing a shared agenda between the groups working on climate change mitigation and those working on building resilience to climate change. For example, with Rockefeller support the New York City Climate Change Adaptation Task Force and Panel on Climate Change are simultaneously addressing the need to shrink New York City's carbon footprint to slow climate change and the need to adapt to the environmental changes that have already begun to take place. "Changes in the way we maintain and operate our infrastructure can help secure our city," Mayor Michael R. Bloomberg stated (The Rockefeller Foundation 2008). One such change will be to raise critical infrastructure like back-up generators to higher ground in areas prone to flooding.

➤ *Environmental Justice* – The number of American children who are members of minority groups is an increasingly large percentage of the U.S. child population. Many of these children will live in low-income communities. To ensure that they grow up healthy and free from the health disparities that characterize today's minority adults, it is vitally important to act now since it has been repeatedly demonstrated that children and families in

low-income neighborhoods and communities have a higher likelihood of exposure to a wide range of toxins, including:

- pesticides that are used extensively in urban schools, homes, and daycare centers for control of roaches, rats, and other vermin;

- outdoor particles from diesel smoke and ozone;

- mold from leaking, substandard housing;

- toxins from garbage dumps and factories; and

- indoor cigarette smoke (Rachel's Environment & Health News 2008).

In the National Cooperative Inner City Asthma Study, researchers who visited the homes of 1,528 asthmatic children in eight urban centers found smoking in 69 percent of the inner-city homes, elevated nitrogen dioxide in 24 percent, leaky roofs with water damage – raising the possibility of mold – in 29 percent, and excess roach allergen in the dust in 77 percent (Rachel's Environment & Health News 2008). Children who were sensitized to mold, cockroaches, and dust mites had many more emergency visits to the hospital.

Awareness of the broad array of environmental burdens and hazards that are borne disproportionately by lower-income communities and by racial and ethnic minorities is a growing – but relatively recent – concern in the environmental community. Many health funders are addressing these problems as well, although their starting point may be a health problem, such as asthma, rather than the conditions that gave rise to it.

The California Endowment's approach to urban environmental health broadly encompasses sources of environmental pollution as well as affected communities – in keeping with their focus on the social determinants of health. For example, the endowment supports the Trade, Health & Environment Impact Project, which focuses on reducing the effects of trade, ports, and goods movement activities on health and community life. The project is a collaboration of community and university partners that uses evidence-based data to inform public policy decision-making to encourage healthy solutions for communities affected by ports, rail yards, intermodal facilities, distribution centers, trucking routes, and other goods movement expansion activities. One of project's goals is to ensure that reducing health, environmental, and community effects becomes central to the transportation and goods movement planning and policy process. The project also seeks to shift the nature of the debate about ports and freight movement

to elevate community voices in the policy arena, while also using the science and policy work of academic partners to strengthen those voices (The Trade, Health & Environment Impact Project 2008).

The project links air quality and transportation specialists, truckers, and advocates with health care providers who are concerned about asthma. One of the challenges the project faces is to expand the role of health care providers so that they are not only involved in environmental issues, but are also present in discussions with environmental specialists who would not otherwise be concerned about health.

Another California funder, the Liberty Hill Foundation, maintains an Environmental Justice Fund that strives to improve public health in communities of color and low-income communities in the Los Angeles area by reducing emissions and exposure to environmental hazards and toxic chemicals and improving the quality of life. The fund is supported by donations from foundations and individuals. With a motto of "Change, Not Charity," Liberty Hill aspires to be a catalyst in building a movement for social and racial equality, economic justice, environmental sustainability, and a shared sense of social responsibility. To support this goal, the foundation also provides technical assistance to grantees, connects foundation donors to grassroots campaigns, and helps shape public debate on important issues (Liberty Hill Foundation 2008).

The Environmental Justice Fund's grantees are organizations that actively involve the community through empowerment and education, foster leadership development, and build alliances and strengthen relationships among diverse communities. Recent examples include the Del Amo Action Committee, which is informing residents about the health effects of toxic DDT contamination and securing permanent relocation for affected residents, and the Healthy Homes Collaborative, which is training tenant leaders who will identify and eliminate lead poisoning in apartment buildings. The People's Community Organization for Reform and Empowerment, another organization with fund support, is training local high school students and community members to build and use air sampling buckets to test for myriad air pollutants in their communities and present their findings to policymakers.

The Ford Foundation's Environment and Development grantmaking portfolio reflects the foundation's vision that healthy communities are a result of environmental justice. The "healthy communities" element focuses on what good economic growth means in communities and

includes collaboration among experts from the fields of public health and medicine, economic development, and social justice (Ford Foundation 2008).

The program works to support natural resource management and environmental justice strategies in poor communities, as well as the underlying factors of economic exclusion and social marginalization.

Grantmaking is international in scope. Examples include:

- The Conservation Fund, a longtime Ford partner, is using a $400,000 grant to spread the word about community ownership of forests and tackle issues of rural poverty in North Carolina. The fund's Resourceful Communities program is working with communities and grassroots leaders to develop a forest management plan that protects forest lands from large developers.

- Asociación de Comunidades Forestales de Petén (ACOFOP), a federation of 22 community organizations, has been serving the areas surrounding the Maya Biosphere Reserve in Peten, Guatemala, since 1996. With a recent grant of $300,000, ACOFOP will continue to assist organizations with the management of forest resources and will build on recent successes such as the nearly 500,000 hectares of forest under timber production that they helped get certified as sustainably managed.

- The Gulf Coast Fund for Community Renewal and Ecological Health, created in response to Hurricanes Katrina and Rita through the Rockefeller Philanthropy Advisors, is using a $650,000 grant to engage and empower displaced residents in the sustainable and equitable rebuilding of the Gulf Coast region.

- West Harlem Environmental Action, the first environmental justice organization in New York City and one of the first in New York State to be run by people of color, is using a $250,000 grant to engage residents in community organizing, education, advocacy, and public policy surrounding sustainable development.

➤ *Sustainable Development* – Sustainable development is an approach to environmental issues that ties together concern for the carrying capacity of natural systems – the atmosphere, ecosystems, land and water resources, biological diversity, toxic chemical and hazardous wastes – with the social challenges facing humanity – poverty, consumption patterns, demographic growth, health, and so forth. The goal is to meet human needs while preserving the environment so that these needs can be met not only in

the present, but also in the indefinite future.

The Jessie Smith Noyes Foundation's funding priorities reflect this perspective. The foundation's approach to the environment is shaped by a view of the earth as one community, an interconnected web of life in which human society is an integral part. Within this framework, the foundation's goals include protecting the health and environment of communities threatened by toxics and advancing environmental justice (Jessie Smith Noyes Foundation 2008).

One of the foundation's grantees, Anchorage-based Alaska Community Action on Toxics (ACAT), achieved a major victory in February 2007 when the Alaska Department of Environmental Conservation denied a permit to the Alaska Railroad Corporation for the spraying of herbicides along its more than 600 miles of right-of-way. Over 1,500 water bodies, including rivers, streams, and creeks, are within 225 feet of the tracks, making salmon and salmon habitats vulnerable to contamination from herbicides. ACAT worked with the Eklutna Tribe and the Montana Creek Native Association, providing technical information on the environmental and health effects of the proposed herbicides and helping write a resolution opposing the railroad spraying plan. Other local tribes, municipalities, and borough governments issued formal resolutions proposing alternatives to the use of chemical herbicides.

ACAT and its allies successfully used a combination of community organizing, scientific and technical information, and testing to help communities throughout Alaska address the effects of toxic chemicals.

CONCLUSION

The challenges of the future that worry environmental funders affect all of the earth's resources, of which humans are just a small part. Some environmentalists see people as part of the problem, while others see people as part of the solution. Because of this difference in perspective from health funders, for whom people are the central concern, the immediate goals of the two groups of funders can differ. It will be a challenge to balance the future needs of both humanity and the environment in keeping with the goals of sustainable development.

Ultimately health and environmental funders both share a commitment to healthy, safe environments that provide a high quality of life for people and other species and a commitment to the implementation of informed policies and programs that will improve our collective future and halt further deterioration of living environments. They share an understanding that the solutions for solving many health

problems lie outside the health care system, in the environments in which we live, work, go to school, and play. There is also an increasingly shared awareness that handling complex challenges at the intersection of the environment and

health will require working across sectors to leverage knowledge and skills. Working from these shared values, funders can find ways to work collaboratively to ensure improved human health now and in the future.

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