

Holes in the Net: Surveying the Impact of the Current Economic Recession on the Health Care Safety Net

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The Recession: Surveying the Landscape

Each day brings more bad news regarding the widening impact of the current economic recession. Disruption of the nation's banking system, constriction of the credit market and declining consumption have led to widespread unemployment across the country.

The unemployment rate, at 8.1 percent in February 2009, is at its highest since 1983.¹ Since the recession began in December 2007, 4.4 million workers have lost their jobs *and* their health insurance, bringing the total number of unemployed adults to 12.5 million, and adding millions of Americans to the ranks of the uninsured.²

State Medicaid rolls are swollen with new beneficiaries, despite many states' recently enacted restrictions aimed at limiting eligibility and enrollment to balance state budgets.³ Food stamp caseloads have jumped by almost 10 percent during the last year, with one of every five children and one of every 10 adults relying on food stamps to eat.⁴ Millions have lost their homes, and many more unemployed Americans are struggling to make monthly mortgage payments without a paycheck.⁵



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This sudden and precipitous economic decline has left millions of Americans dependent on state and local governments for access to basic necessities, including food, housing and, in particular, health care. Yet state and local governments are also struggling with ballooning budget deficits worsened by a large, sustained drop in tax revenues.

These deficits have led to cuts across a wide swath of health programs and services that plan for, protect, and maintain the public's health. A decade's worth of investments in the health care safety net for vulnerable populations are being dismantled, as is the public health infrastructure that supports disease prevention and health promotion programs. As the public health infrastructure crumbles under the weight of the economic recession, our nation is at risk of losing the major gains in life expectancy achieved over the last century.

For example, health departments have reduced or eliminated community-based prevention services such as tobacco cessation, pregnancy prevention, and childhood immunization programs—as well as clinical preventive services such as screening and early detection for cancers, diabetes, and hypertension.

In addition, essential disease-tracking and environmental surveillance efforts have been marginalized. Public health laboratories, on which we depend for a wide range of testing, have had to reduce capacity and services. And the nation's ability to strategically plan for and safeguard the public health has been greatly diminished.

These reductions also have compromised the health care delivery system for our most vulnerable citizens. Community health centers, and an array of free, mobile, and other ambulatory clinics around the nation, have reduced their hours and services, and in some instances, closed their doors.

Public and non-profit hospitals are watching their budgets and their capacity stretched to the breaking point as they sink under the weight of the growing numbers of uninsured seeking medical care. Even emergency responders are being reduced or eliminated from state and local budgets, particularly in rural areas.

The unfortunate fact is that the health care safety net is unraveling at a time when millions

of Americans have nowhere else to turn for health services but local and state government-supported safety net providers.

This paper addresses the impact of the current economic recession on the ability of an overextended, underfinanced system of safety-net providers to meet the growing demand for health care. It also examines the marginalization of the public health infrastructure in its ability to plan for and protect the public's health.

Declining state and federal funding—together with an unprecedented demand for health care from safety-net providers—has led to a shift away from strategically planned, population-based services, and toward fragmented delivery and information systems.

While stimulus dollars will certainly help stabilize the financial situation of many providers, this paper makes the case that a one-time cash infusion will not repair our fragmented health system, and that national health reform must include substantive and strategic investment in the public health infrastructure.

Investment must do more than simply shore up gaps in the safety net. It must build a comprehensive and integrated delivery system capable of strategically and systematically planning and executing population-based initiatives to prevent disease, promote wellness, and assure accessibility to quality health care for all residents.

America is embarking on a national endeavor to build a more comprehensive, just and equitable health delivery system. At this critical point in our nation's history, it is imperative that we rethink the role of public health, America's health safety net, and its integration with our overall health delivery system.

The Impact on Public Health

Increases in deaths from heart disease, cancer, and psychiatric disorders have been observed during previous recessions and have been linked to trends in unemployment in the United States and Europe.⁶ Data from the U.S. recession in the mid-1980s, and again in the mid-1990s, documented the association between unemployment, recession, and higher levels of anxiety,

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stress and depression, with greater risk of death from suicide and cardiovascular disease.⁷ Recent data from doctors and hospitals around the country reveal that early in 2008, as the recession began to ripple through the country, people appeared to be immobilized, and put off going to the doctor or hospital to avoid unnecessary expenses.⁸

But as the recession has deepened, so has the general level of despair. Patient volume in psychiatric and public hospital emergency departments has been much higher than normal. People are drinking more and returning to addictive behaviors—including alcohol, tobacco and drug use among those who had been successfully controlling their addiction; and compulsive eating among obese patients with successful histories of weight loss.⁹

Community health providers have seen a dramatic rise in somatic complaints, such as headaches, abdominal pain, muscle aches, insomnia, and depression among their patient populations, and have reported an uptick in reported use of tobacco, alcohol, drugs, and domestic violence.¹⁰

Anecdotal reports from safety-net providers—including staff of community health centers, free clinics, health department clinics, public hospitals, and non-profit hospital emergency departments—reveal that the demand for care from the uninsured has exploded far beyond their capacity to meet it.¹¹

The unabated surge of uninsured patients and their families seeking help for complex medical conditions has strained health care safety-net providers and their available resources, resulting in a generalized breakdown in the morale of safety-net staff.¹² Longer hours, fewer community resources to draw from, the loss of wrap-around, enabling and support services, and the resulting departure of staff have greatly weakened the capacity of local communities to care for vulnerable populations most in need.¹³

Safety Net at the Breaking Point

The traditional health care safety net comprises a broad range of institutions, programs and professionals that—either by legal mandate or explicitly adopted mission—offer care to patients regardless of their ability to pay for services. A substantial proportion of such patients are uninsured, underinsured, socially disadvantaged, or otherwise vulnerable.¹⁴

Millions of Americans depend on this loosely connected patchwork of safety-net providers for health care. These providers are often the only



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choice available to a community. They include state and local health departments, community health centers, freestanding and mobile clinics, public, non-profit, and academic teaching hospitals, community primary-care providers, nongovernmental organizations, emergency responders, and urgent care centers.

These facilities provide a wide range of health care and public health services. They include acute, urgent, chronic, rehabilitative, and preventive services, case management, education and outreach, health screenings, quality assurance and disease tracking, as well as surveillance and response to potential environmental hazards and risks in communities. They also provide a wide range of non-health, non-revenue-generating services that are essential to communities, including enrollment in public assistance programs, interpretation and translation services, transportation, and community referrals for food, housing, heating assistance, day care, and job training.¹⁵

The safety net is extremely local in nature. Its composition—and the services it offers in any given community—depends on the local demand for certain kinds of care, the depth and breadth of Medicaid coverage and other public insurance, the economic and political environment, and the level of state and local support for the care of vulnerable populations.¹⁶

Populations most likely to seek care from safety-net providers include the uninsured, Medicaid or State Children's Health Insurance

Health services research has repeatedly shown that in countries with a strong primary-care infrastructure, there is a high level of overall performance of the larger health system, while a weak primary-care infrastructure is linked to poor performance and poor health outcomes.

Program (SCHIP) beneficiaries, substance abusers, the frail and elderly, low-income children, pregnant women, the mentally ill, the homeless and those who have HIV/AIDS.

Safety-net providers have grown in number and sophistication over the last decade, in response to the mounting number of uninsured and underinsured individuals and high-risk communities around the nation. These providers also have grown in response to the availability of funds to support the services they furnish.

As previously noted, communities have different levels of political and economic commitment to the development and maintenance of a health care safety net. As a result, there has been a growing disparity between top-tier, economically viable safety-net providers, and the larger group of smaller, less successful ones.¹⁷ However, even those which had been relatively successful are experiencing significant financial troubles due to the recession.¹⁸ Five major factors have contributed to the fragility of the health care safety net:

- **The growing national shortage of primary-care providers—and an even more limited number of providers choosing to care for uninsured or underinsured patients in a community setting—has substantially reduced access to primary care for vulnerable populations.** Primary-care providers are the lynchpin of the safety net. Since 1997, the number of medical school graduates going into primary care has dropped

50 percent¹⁹ and according to a recent survey published in the *Journal of the American Medical Association*, only 2 percent of medical students are choosing primary care.²⁰ National shortages of nurses and nurse practitioners have also undermined the availability of primary care, despite a concerted national effort to increase the nation-wide supply of nursing students.²¹ Declining reimbursements, difficult working conditions, and increased caseloads, among other factors, have contributed to this problem.

- **An increased number of geographically isolated and economically depressed communities has produced fragile safety nets prone to financial failure.** Large concentrations of uninsured and very low-income individuals in any given community limit financing options, discourage retention of health professionals, and hobble efforts to attract new providers, including hospitals, ambulatory clinics, and private physicians, to their communities.
- **An increase in the numbers of uninsured and underinsured low-income patients—and an increase in the complexity and severity of their health conditions—has made these patients difficult to treat and manage.** Multiple medical conditions commonly present in low-income adults—including obesity, diabetes, hypertension, and cardiovascular disease—require intensive, expensive and repeated diagnostic testing, specialist consultations, multiple prescriptions, and frequent hospitalizations. This has severely strained the limited resources available to safety-net providers. Furthermore, primary care providers are frustrated by their inability to address the root causes that underlie these conditions, such as poverty, violence, unemployment, lack of education, and lack of social supports.²²
- **Substantial reductions in government funding for desperately needed public health programs undermine the ability of community providers to refer patients for appropriate care.** Monies have been cut for key public health services such as tobacco cessation, mental health counseling, obesity prevention and nutrition counseling, medication assistance, cancer screenings, vaccination programs, elderly day care, alcohol and sub-



stance abuse treatment, and domestic violence prevention programs.

- **Competition among private providers for publicly insured patients is jeopardizing the ability of safety net providers to care for the uninsured.** The increase in the number of uninsured patients has resulted in more private providers to compete for publicly insured patients, leading to a shift in the proportion of paying, sliding scale and non-paying patients among safety-net providers. This shift compromises the ability of safety-net providers to cross-subsidize the cost of care for the growing ranks of uninsured.

The situation is particularly serious in many urban and rural areas blighted by economic depression. These areas have lost the core cadre of public health, medical, and emergency professionals that together support primary care, and that create the infrastructure necessary to protect and maintain the public's health. The Institute of Medicine found that communities with high rates of uninsured individuals are at risk of losing medical and public health services as providers become financially strained.²³ Once the primary-care infrastructure dissolves, the overall health of the community is in jeopardy.²⁴

Health services research has repeatedly shown that in countries with a *strong primary-care infrastructure*, there is a high level of overall performance of the larger health system, while a weak primary-care infrastructure is linked to poor performance and poor health outcomes.²⁵ Elderly Medicare beneficiaries in fair or poor health, living in primary-care shortage areas are more likely to experience a preventable hospitalization compared to Medicare beneficiaries with access to primary care, regardless of educational and income levels.²⁶

Some major studies have shown that access to primary care is the most consistent *variable* linked to better health status, and correlating with lower overall mortality, lower death rates due to diseases of the heart and cancer, longer life expectancy, lower neonatal death rates and lower rates of low birth weight.²⁷ Furthermore, access to primary care may, in part, overcome severe socioeconomic disparities in health.^{28,29}

State and Local Health Departments

While state and local health departments have long filled gaps in health service programs for vulnerable and low-income populations, their role in protecting the public's health extends well beyond service delivery.

These health departments have a bird's eye view of a community's health and the factors affecting it. Their population-based perspective and their access to community-wide health data provide an invaluable contribution to strategically addressing the key determinants of health—and health disparities, including access to health services.

Health departments bring together disparate groups, including public and private partners, to address community-wide problems affecting public health—problems often identified through surveillance of local community environments. Epidemiologists work closely with public health physicians and nurses, laboratories, veterinarians, and biostatisticians to identify patterns of disease, disability and injury in a community, track the source—whether an insect, polluted water, contaminated food or other sources of infection,—and develop a strategy to eliminate or ameliorate the risks to members of the community.

Health departments hold statutory authority to enforce laws and regulations that protect the public's health and safety, and can exercise that power to close down facilities such as restaurants, day care centers, and public swimming pools that do not meet health and safety standards. After the terrorist attacks of September 11th, community preparedness planning for bioterrorism or pandemic influenza was a highly visible function of state and local health departments across the nation.

Health departments are also responsible for assuring the quality of the health care workforce and the services they provide through certification and licensure, and are quickly able to identify gaps in services for the population. Services vary among communities, but generally, state and local health departments provide or facilitate access to:

- Preventive, acute and chronic health care and enabling services for vulnerable populations, such as women and children, the frail and elderly, and the chronically ill;
- Diagnosis, treatment, management, and education for communicable and infectious diseases; and
- Referral and linkage to personal health and social services, such as food, temporary housing, heating assistance, and enrollment in other public programs such as Medicaid, SCHIP, and the Supplemental Program for Women, Infants and Children (WIC).

State and local health departments have a more comprehensive picture of the public's health than any single provider within a given community. The curtailment of their role and resources hinders



Cuts to local and state-funded programs have resulted in the elimination or reduced access to food programs, homeless shelters, direct medical and dental care, and mental health services. They also have affected preventive health services, including childhood vaccination programs, prevention programs aimed at HIV, Hepatitis C, meningitis and other infectious diseases; substance abuse programs, teen pregnancy prevention programs, child care, care for the frail elderly and cash assistance for the most vulnerable populations).

a community's ability to undertake initiatives to prevent disease and disability. These include redistributing health resources more equitably, adding new health care facilities to the system, reducing health disparities, mobilizing resources to address emerging infections or natural disasters, monitoring trends in health status, and delivering cost-effective and appropriate care.

State and local health departments have been hit hard by the recession. According to a December 2008 survey by the National Association of County and City Health Officials, 53 percent of local health departments lost staff in 2008, amounting to more than 7,000 jobs lost among health departments nationwide. An additional 32 percent of health departments expect staff reductions in 2009.³⁰ At least 34 states have plans for further reductions of their workforce via freezes, layoffs, wage reductions, and delays in scheduled pay increases—and almost half of all local health departments anticipate budget cuts in 2009.³¹ Nationwide, an estimated \$300 million has been eliminated from local health department budgets in 2008.

The implications of such dramatic reductions on an already depleted and overwhelmed public health workforce are profound and alarming. Cuts to local and state-funded programs have resulted in the elimination or reduced access to food programs, homeless shelters, direct medical and dental care, and mental health services. They also have affected preventive health services, including childhood vaccination programs, prevention programs aimed at HIV, Hepatitis C, meningitis and other infectious diseases; substance abuse programs, teen pregnancy prevention programs, child care, care for the frail elderly, and cash assistance for the most vulnerable populations;³² and limited eligibility for maternal and child health services such as newborn screening, Special Supplemental Nutrition programs for Women, Infants and Children (WIC).³³

Safety-net providers are scrambling to identify resources within their larger community to support the increasing number of patients in need. As state governments cut between 3 percent and 10 percent of their state budgets for 2009, further reduction or elimination of safety-net programs and services, will disproportionately affect those vulnerable populations who are already at greatest risk for disabling morbidity and premature mortality.³⁴

Additionally, state and local health departments have been forced to reduce or eliminate food safety inspections, laboratory testing, and epidemiological investigations. These cuts threaten their ability to detect outbreaks of infectious diseases, and mobilize responses quickly.³⁵ They have also

reduced local and state health departments' ability to respond to natural disasters such as hurricanes, floods, fires and earthquakes, leaving populations in many states at heightened risk for calamity.

Public health laboratories also have been affected—96 percent of all government laboratories have endured deep budget cuts, resulting in loss of key staff, lengthy delays in purchasing much needed supplies and equipment, and the elimination or reduction of services essential to national security and the public health.

Budget cuts have eroded our nation's capacity to test for West Nile Virus, food safety, respiratory diseases, HIV, environmental contaminants, blood lead levels, Hepatitis A, B and C, radiation chemistry, and water microbiology.³⁶ Overall, public health laboratories are less prepared than ever to respond to a large infectious or novel disease, food or waterborne disease outbreaks, bioterrorism or chemical terrorism.³⁷

The reductions in the public health infrastructure make it increasingly difficult to detect and track emerging diseases or environmental hazards in any given community, making it less likely that communities will be able to mount an aggressive and appropriate campaign to prevent, limit or halt the spread of disease, injury or premature death and—and more likely that millions of Americans will be needlessly and adversely affected.

Community Health Centers

In 2008, approximately 1,200 community health centers (CHC) delivered health services to approximately 18 million people in 6,600 sites across the nation.³⁸ While most health centers operate as stand-alone clinics, in some cases, community health centers are operated by public hospital systems and public health agencies.

At least two-thirds of CHC patients were members of ethnic or racial minority groups;³⁹ and an estimated 84 percent lived below 150 percent of the federal poverty level.⁴⁰ About 40 percent of patients are uninsured and another 35% depend on Medicaid.⁴¹ CHCs' relatively low cost of care compared to the private sector; their effectiveness in delivering acute and chronic care to vulnerable populations (and functioning as a medical home in many cases); their location in medically underserved areas, including geographically depressed, blighted and/or isolated rural and urban communities; and the attendant creation of community jobs has made them a political and community asset as well as a critical safety-net provider.

Outpatient clinics that are part of an integrated



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hospital system have the added advantage of being able to combine extensive outpatient services with inpatient hospital care. But as with other safety-net providers, community clinics, regardless of ownership, have been struggling to meet the escalating demand for health care.⁴²

Workforce shortages at CHCs are well-documented, reflecting the difficulty in attracting primary-care providers to work in these settings.⁴³ There is a growing reluctance of physicians, including specialists such as psychiatrists and dentists, to work in community health centers due to declines in Medicaid reimbursement; the lack of community support and diagnostic, therapeutic and counseling resources; antiquated buildings and equipment; and in many instances, their geographic isolation.⁴⁴ Wait lists for appointments exceed four months at many health centers, despite regular overbooking and the addition of evening and weekend hours.⁴⁵

Recent anecdotal reports have confirmed that nurses and other key allied health professionals are leaving CHC's due to workplace stress and burnout from the steep increase in the number of patients seeking care, and the large numbers of patients they are forced to turn away every day.⁴⁶

CHC's and free and mobile clinics have also felt the impact of budget cuts from state and local governments, as well as from private philanthropy, whose investments have declined due to significant stock market losses in 2008. Free clinics often serve members of immigrant communities, who tend to be uninsured and frequently undocumented.⁴⁷

The inability to access care has stark implications for the health and welfare of our population. Vulnerable populations without access to primary care are likely to suffer worse health outcomes than those who have a regular source of primary care, regardless of educational or income level.⁴⁹

The Urban Institute found that children who do not have health insurance are five times more likely to have unmet medical needs than children with health insurance.⁵⁰ About half do not receive an annual well-child check up, including developmental physical and cognitive screenings, vision and hearing screenings, immunizations, parental education about child development, nutrition services, or screening for eligibility for public assistance programs. Nearly 9 million children currently do not have health insurance.⁵¹

Additionally, 18,000 adults, ages 25–64, die prematurely each year because they do not have health insurance and have only minimal access to timely and appropriate medical care.⁵² The uninsured are less likely to have a regular source of care, less likely to receive preventive care, and less

likely to benefit from early detection of a medical problem. The cost to employers and to society of lost productivity due to unnecessary illness, disability, and premature death—and the uncompensated medical costs of treating and managing unnecessary illness—are exorbitant.⁵³

Safety-Net Hospitals

Safety-net hospitals may be public, private, not-for-profit, or academic in nature, but their defining characteristic is that they serve a disproportionate number of poor, underserved, uninsured and underinsured patients.⁵⁴

While most hospitals by law cannot turn patients away without assessing and stabilizing them first,⁵⁵ safety-net hospitals care for poor, underserved, uninsured, and underinsured patients because it is their mission to do so. Many low-income, uninsured, and underinsured patients turn to emergency departments in safety-net hospitals for routine primary care because they are open 24 hours a day, have charity care policies, and represent these patients' only remaining option for health care.

But many other people turn to these hospitals because of their reputation in the community for providing culturally sensitive care and a wide range of wrap-around, enabling, and support services—including social work, interpretation and translation, mental health, and transportation services.

Many safety-net hospitals operate extensive outpatient clinics, providing primary and specialty care in order to avoid unnecessary and intensive acute care. Furthermore, safety-net hospitals often develop expertise needed by the community in which they are located. It is not uncommon to find safety-net hospitals with acclaimed expertise in trauma or neonatal intensive care; they also provide excellent training for the health care workforce.

Hospitals around the country have been experiencing budget shortfalls and closures, particularly in rural regions.⁵⁶ Prior to the current recession, members of the National Association of Public Hospitals and Health Systems (NAPH) represented only 2 percent of the acute care hospitals in the country, but provided 20 percent of the nation's uncompensated hospital care.⁵⁷ This has changed with the current recession. Although there are no firm numbers nationally, safety-net hospitals across the country have been reporting a 10–20 percent increase in the number of uninsured patients since 2007,⁵⁸ resulting in an increase in the proportion of uncompensated care, compared to other hospitals.



The Arlington Free Clinic, Arlington, Virginia

To address the backlog of desperate individuals waiting for medical care, the Arlington Free Clinic, established a lottery system whereby once every two weeks the clinic draws random numbers to award appointments to see a doctor. The unfortunate many who do not get an appointment return home until they are able to try the lottery two weeks later. “Neither rich nor poor, this group does not readily qualify for public programs such as Medicaid, but often cannot afford to buy insurance or pay hospital, doctor and drug bills.”⁴⁸

This is happening at the same time that these hospitals are facing massive budget cuts from state and local governments.⁵⁹ One urban safety-net hospital alone projects an increase in uncompensated care by more than \$75 million from last year. As a result, these hospitals are confronting the prospect of major job and service cuts in their communities at a time when services are most in demand.⁶⁰

Hospital emergency departments serve as a health care safety net for anyone who cannot access health care elsewhere. Even before the most recent economic recession, emergency departments around the country were already overcrowded and over capacity, with precariously long waits for some patients, boarding of others, and frequent diversion of ambulances to other hospitals.⁶² Dr. Angela F. Gardner, the president-elect of the American College of Emergency Physicians, warns of worsening conditions in emergency departments as the recession continues through next year.

*At the same time, hospitals are absorbing increasing amounts in unpaid medical bills due to the swell of uninsured patients, and many are buckling under the weight of the rising number of uninsured.*⁶³ Denver Health, a public hospital system, had a 19 percent increase in emergency visits by uninsured patients in November 2008; they expect that the amount of uncompensated care it delivered in 2008 will exceed \$300 million, compared with \$276 million in 2007.⁶⁴

More emergency departments are seeing non-urgent problems in patients who lack health

insurance and have no other source of care,⁶⁵ and reporting a rise in newly uninsured patients seeking primary care. Providence Hospital in Portland, Ore., recently reported doubling of uninsured patients in its emergency department in the last quarter of 2008.⁶⁶ At the same time, physicians also are reporting that urgent care cases are more severe than in the past, as patients report waiting longer to seek care for fear of the cost.⁶⁷

This increased burden on emergency rooms is not just a fiscal problem. Numerous studies have linked emergency department crowding and the boarding of patients with compromises in clinical care, including:⁶⁸

- Increased mortality in critically ill patients boarded for longer than six hours;
- The discharge of elderly patients boarded for longer than six hours to a nursing home rather than to their own homes;
- Significant delays in the administration of life-saving antibiotics and pain medications; and
- More than 200 emergency physicians who knew of patients that died or suffered a critical life threatening event while waiting for a hospital bed on stretchers lining emergency room corridors.⁶⁹

The American Hospital Association projects that safety-net hospitals will continue to see an increase in Medicaid and uninsured patients as the economic recession worsens, and reports that hospitals are preparing to tighten their belts, limit services and—in some cases—limit care.⁷⁰

Snapshot of the Recession's Impact on Safety-Net Hospitals⁶¹

Boston Medical Center, facing \$114 million in state budget cuts, has laid off or significantly reduced the hours of 250 employees and cut patient services in key areas, including primary care, pediatrics, and geriatrics.

University Medical Center of Southern Nevada has already lost \$8 million from state reductions in Medicaid reimbursements, and anticipates an additional loss of more than \$43 million, resulting in steep cuts to oncology and indigent care.

Since July 1, 2008, Truman Medical Centers in Kansas City has provided close to \$44.5 million in uncompensated care—\$7 million more than in 2007; they are expecting a 19 percent increase in uncompensated care in 2009. When asked how the Medical Center can sustain itself under this kind of pressure, President and CEO John Bluford answered point blank: "It can't."

Gregg Sass, San Francisco General Hospital Medical Center CFO, reported that the governor's proposal to cut \$26.7 million from health care will set public health back 10 years, decimating the city's safety net for the poor, homeless, mentally ill, and drug-addicted.



The implications for the public's health are profound. Safety-net hospitals truly are the last stop for the uninsured. As Dr. Patricia Gabow, Denver Health CEO, stated so succinctly: "Safety-net hospitals are the canary in the mine shaft. When something bad happens in the economy, we see it on our doorstep. When the safety net deteriorates, the poor and uninsured have nowhere to else to go."

It is not just the poor who are affected. Dwindling community options for primary care have led millions to seek care at hospital emergency departments as their last hope. Overcrowding affects everyone in the community. Those with a true medical emergency face longer wait times for emergency transportation and medical attention, lengthy boarding while waiting for a hospital room, delays in lifesaving care, unnecessary infection, disability and potentially, death.

Furthermore, emergency departments are the most expensive and least efficient site for non-urgent care. Local communities pay for the inefficient and ineffective use of emergency medical care with higher costs passed on to state and local governments in the form of requests for increased subsidies for charity care—and to insurance companies, which renegotiate annual reimbursement rates and pass hikes in insurance premiums on to businesses and individuals.

Emergency Medical Services (EMS)

Each of the states and all U.S. territories have established emergency medical services (EMS) systems which share the broad mission of developing and maintaining a system of emergency care and transportation of sick and injured persons.⁷¹ EMS systems have been designed to meet the usual, customary and reasonably predictable volume and mix of patients within discrete localities.⁷² About a third of their funds come from the federal government and two-thirds come from state budgets.

*The economic recession has taken a toll on EMS responders across the nation as states have had to make painful budget cuts to the emergency medical response workforce.*⁷³ More than half of all EMS



departments reported budget cuts in a recent survey by the National Emergency Medical Service Management Association.⁷⁴ Emergency response agencies will operate with "fewer and less trained personnel on older ambulances and fire engines" as a result of recent budget cuts.⁷⁵

Additionally, when asked how budget cuts will impact EMS and fire response in their community, 66 percent of EMS managers said that the public will notice a decrease in non-essential emergency response services; 30 percent said that their departments would have fewer resources on the road during peak demand hours, 23 percent said that 911 callers should anticipate longer response times; and 12 percent said that the public should expect lower levels of patient care as emergency medical technicians replace higher trained paramedics on many calls.⁷⁶

In Oklahoma, 50 ambulance services have closed since 2000, most of which were in rural, underserved parts of the state. These closings have put an additional burden on the remaining ambulance services to respond to calls at even greater financial costs.⁷⁷

The recession has exacerbated an underlying strain on EMS and fire departments, many of which are seeing an increase in call volume because of aging Baby Boomers and uninsured or underinsured Americans who call 911 because they do not have adequate primary healthcare.⁷⁸

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Providers are finding it increasingly difficult to find specialists or community-based services for their patients whose services are intended to prevent, manage, and detect disease, such as mental health counseling, smoking cessation programs, drug and alcohol abuse services, and cancer prevention and screening services. The absence of community-based prevention and early detection programs in economically depressed communities limits critical opportunities to prevent illness or catch it early, increasing the financial cost to individuals and to society.

Limiting ambulance and EMS responders affects all of the public and its access to emergency transport, but it particularly affects poor communities in which emergency responders are often the sole medical personnel within a 50-mile radius—and who often mean the difference between life and death for those living in geographically isolated areas of the country.

State Program Cuts

The Medicaid program is the primary source of financing for safety-net providers. Medicaid anchors a wide range of community-based health services by enabling providers to subsidize a portion of the cost of uncompensated care with Medicaid reimbursements.

Deep cuts to the Medicaid program have affected nursing homes, hospitals, rehabilitation programs, home health aides, and physicians. These cuts reduced or eliminated reimbursements for services, caused late payments, and delayed reimbursement increases.⁷⁹

Families USA, in a recent report, illustrated the range of state cuts:⁸⁰ California, for example, cut provider reimbursement rates by 10 percent. Maryland cut payments to private nurses, home health aides, and nursing homes, and Illinois is paying providers late, resulting in fewer providers willing to see Medicaid patients. Utah lowered provider reimbursement rates for hospitals, skilled nursing facilities, and dentists. And some legislators have even proposed completely eliminating state health departments as a way to reduce the state 2010 budget gap.

At least 28 states have proposed or implemented cuts that will affect the eligibility of low-income children or families for health insurance, or reduce their access to health care services. For example, Rhode Island eliminated health coverage for 1,000 low-income parents; South Carolina limited coverage for services such as psychological counseling, physician visits, and routine physicals; and Washington scaled back a health program for low-income adults—cutting enrollment by an estimated 12,000 people. The governor of California has proposed cuts that, once fully phased in, would cause more than 429,000 adults to lose health coverage.⁸¹

States also have sought to limit eligibility for publicly funded safety-net programs by adding co-payments, and increasing paperwork requirements to reduce the number of beneficiaries. Arizona increased the frequency with which some adults must reapply for benefits, resulting in cumbersome paperwork and a drop-off of eligible persons applying for Medicaid. Maine added a \$25 enrollment fee for low-income

parents. And at least 24 states, plus the District of Columbia, have cut medical, rehabilitative, home care, and other services—or are making it more expensive or difficult to participate.⁸²

At least 22 states, plus the District of Columbia, have cut or are proposing cuts to medical, rehabilitative, home-care, or other services for low-income elderly and disabled individuals, or significantly increasing the cost of these services. Florida froze reimbursements to nursing homes and relaxed staffing standards. Nevada is making it harder for beneficiaries to qualify for nursing home care, and Rhode Island is requiring low-income elderly people to pay more for adult daycare. Arizona eliminated temporary health insurance for people with serious medical problems.

Faced with a growing proportion of uninsured to insured patients—and further cuts to Medicaid reimbursement rates—some providers are barely able to cover the costs of providing care, and have had to cut staff, services, hours, and access to prescription drugs, supplies, and diagnostic testing. Providers are finding it increasingly difficult to find specialists or community-based services for their patients whose services are intended to prevent, manage, and detect disease, such as mental health counseling, smoking cessation programs, drug and alcohol abuse services, and cancer prevention and screening services. The absence of community-based prevention and early detection programs in economically depressed communities limits critical opportunities to prevent illness or catch it early, increasing the financial cost to individuals and to society.

The inability to access Medicaid, the insurer of last resort for some categories of low-income and disabled individuals—including the elderly, women, children and the disabled—restricts options for receiving and for providing health care. Without Medicaid, low-income individuals—and in some cases, entire communities—cannot pay for their care and as a result, have no regular source of care, which is the single most important factor associated with receiving preventive services.⁸³

ARRA: Using Stimulus Funds to Shore Up The Safety Net

The American Recovery and Reinvestment Act (ARRA), the economic stimulus package signed into law on Feb. 17, 2009, is an effort to address the risks to the health and well-being of millions of Americans as a result of the recession. The Act's intent is to stimulate the economy through

While it is our nation's most vulnerable individuals—the poor and near poor, the elderly, disabled and chronically ill members of society—who face the greatest risk of premature and unnecessary illness and death due to state and local government budget cuts, we are all affected by the deep erosion of the health care safety net and the public health infrastructure.

spending, job growth, and investment in the nation's infrastructure. These activities likely will go a long way toward addressing many of the *short-term issues* affecting safety-net providers described in this paper.

The stimulus package features substantial health spending, including:

- **\$87 billion in additional Medicaid funding to the states.** Funding will be distributed over the next two years through a temporary increase in the Federal Medicaid Assistance Percentage. All states and territories will receive an across-the-board increase of 6.2 percent; states with high unemployment rates will receive additional funds. In return, states are required to protect Medicaid eligibility standards and mandatory services. The infusion of funds will allow states to qualify more enrollees for Medicaid benefits, and temporarily hold off on cutting services and provider reimbursements. However, states will be allowed to cut “optional” benefits such as home- and community-based services, respite care, personal care, and rehabilitation and hospice care, among other optional benefits.⁸⁴
- **\$2 billion for health centers funded under Section 330 of the Public Health Service Act.** This includes \$1.5 billion for construction, renovation, equipment, and acquisition of Health Information Technology (HIT), and \$500 million to support the spike in uninsured patients during the economic recession, fund new sites and add new services at existing sites. The stimulus package also will provide significant Medicaid incentive payments to health centers.
- **\$500 million for investments in primary-care workforce training and loan repayment.** \$300 million is set aside for the National Health Service Corps, an essential source of primary-care clinicians for medically underserved communities; and \$200 million for Title VII health professions and Title VIII nurse training programs.
- **\$1.1 billion for comparative effectiveness research (CER).** The Agency for Healthcare Research and Quality will receive \$700 million for CER. The National Institutes of Health (NIH) will receive \$400 million to

conduct or support CER to accelerate the development and dissemination of research assessing the comparative effectiveness of health care treatments and strategies.

- **\$24.7 billion for temporary COBRA subsidies.** These funds will help people to temporarily continue their employer-sponsored health coverage after leaving a job. The package includes a 65 percent subsidy for COBRA premiums for up to nine months for workers who were terminated between Sept. 1, 2008, and Dec. 31, 2009.
- **\$1 billion to create a Prevention and Wellness Fund.** To be administered by the Health and Human Services Secretary, \$650 million will address chronic disease rates through evidence-based, clinical, community-based prevention and wellness strategies; \$300 million is slated for the Section 317 immunization program; and \$50 million will go to state health-associated infections reduction strategies.
- **\$19.2 billion for Health Information Technology (HIT).** The federal government is required to develop standards around the uses and exchange of electronic health data, strengthen privacy laws to protect health information, and provide Medicare and Medicaid fiscal incentives (\$17 billion) to encourage doctors, hospitals, and other providers to use electronic health records. Specifically, 100 percent of



Decreases in state and local funding for safety net providers, reimbursement under public insurance that has failed to approximate the cost of care, and the growing demand for safety net services has left the safety net and public health systems in tatters.

federal funding (phased-down over time) is available to help providers that serve a high volume of Medicaid and needy patients.

- **\$10 billion for NIH to undertake new construction, and expand medical research.**
- **\$500 million for renovation, HIT, and contract health services for the Indian Health Service.**
- **\$338 million in Medicare spending to block payment reductions for teaching hospitals and hospice providers.** These funds also will be used to make technical corrections for long-term care hospital payments.
- **\$460 million increases in Disproportionate Share Hospital allotments to safety-net hospitals.** This represents a 2.5 percent increase in 2009, and an increase of 2.5 percent in 2010 over 2009 payment levels.
- **\$20 billion increase to the Supplemental Nutrition Assistance Program (SNAP/food stamps) and a \$500 million increase to the Supplemental Program for Women, Infants and Children (WIC).** The increase to food stamps comes by increasing SNAP benefits by 13.6 percent, beginning in April of Fiscal Year 2009.

ARRA also provides substantial funds for state fiscal relief. It represents a significant investment in shoring up safety-net providers and laying the foundation for health reform. Many community health centers, safety-net hospitals, nursing homes, health departments and other safety-net providers will receive needed financial support,

as will individuals who now will be eligible for publicly funded health insurance. Investments in the primary-care workforce will facilitate the training and participation of more primary-care providers within the safety-net system.

A Temporary Fix

However, the unprecedented demand for health care from low-income, uninsured, and newly uninsured individuals has so severely strained the capacity of overextended and underfunded safety-net providers that even funding of the magnitude of the stimulus package will offer only a temporary reprieve for these providers.⁸⁵ States still must resolve huge budget deficits across many sectors of their economy, and health care is only one of those sectors suffering from both short- and long-term loss of funding.

In Massachusetts, universal health insurance was supposed to ensure that safety net hospitals would not need additional financial support, since all patients would carry insurance. However, because state insurance reimburses significantly below the cost of care, and safety net hospitals no longer receive extra funds for serving a disproportionate share of the region's poor, critically important services will have to be cut. Although Massachusetts proposes to dedicate some of their stimulus funds to aid these hospitals, the proposed funds fall short of what is needed to make these safety net hospitals whole.⁸⁶

In Nevada, the University Medical Center (UMC) in Las Vegas, has been under so much fiscal pressure they recently closed their outpatient chemotherapy clinic. For cancer patients with no health insurance, this county hospital was the only place to go for chemotherapy.⁸⁷ The combination of a loss in Medicaid funds and other cuts from state and local sources has left many public hospitals with no choice but to make painful cuts to medical services. The financial shortfall runs deep, cuts across many departments, and has consequently, adversely affected patient care and patient outcomes. In the face of no further options, some of the cancer patients of UMC in Nevada are preparing to die.⁸⁸

Safety-net hospitals have been meeting the increased demand from uninsured patients for more inpatient, outpatient and emergency department services, however, as the Massachusetts



and Nevada examples so poignantly reveal, these hospitals are operating at a pace that is no longer sustainable, even with the prospect of significant stimulus funds.

While it is our nation's most vulnerable individuals—the poor and near poor, the elderly, disabled and chronically ill members of society—who face the greatest risk of premature and unnecessary illness and death due to state and local government budget cuts, we are all affected by the deep erosion of the health care safety net and the public health infrastructure. The newly uninsured—those who have recently lost jobs and health insurance in the last year—have turned to safety-net providers, such as community health centers, health department services and programs, and even hospitals, and have found themselves shut out due to a reduction in services, staff, equipment, and supplies.

The decades-long effort to build disease prevention and health protection expertise and programs across the nation is coming unglued. Years of decreases in funding for the public health infrastructure, combined with the unabated demand for medical care from millions of uninsured Americans, has meant *less* money for preventing obesity, diabetes, hypertension, cancer, and cardiovascular disease—and the cost of treating these conditions once they are diagnosed, often in hospital emergency rooms, continues to rise.

Gains in tobacco cessation, substance abuse, and teen pregnancy have been threatened due to the termination of public health efforts in these areas. Significant advances in emergency preparedness and detection of food- and water-borne disease outbreaks have been rolled back as

health departments have cut back staff, services, and programming. And advancements in the detection and prevention of infectious agents such as Hepatitis C, tuberculosis, and HIV and other sexually transmitted diseases are in jeopardy, with diminished funding for prevention, detection, and education programs, as well as for public health laboratories.

The reduction in access to vaccinations for both children and adults has been alarming. In some states, children no longer have access to the full complement of vaccines routinely recommended for children, despite a record number of measles cases in more than a decade, and growing outbreaks of vaccine-preventable illnesses.⁸⁹ Pneumococcal vaccine for the elderly and medically at risk has been terminated in many health department sites, as has the pertussis vaccine given to pregnant and postpartum women to protect their newborns.

For millions of Americans, eligibility for publicly funded health insurance—through either Medicaid, SCHIP, or another public insurance program—facilitates access to health care, *provided* they live in communities where the safety net and public health systems function.

But as the evidence gathered for this paper reveals, many communities around the country have seen their already limited access to primary care and public health services further diminished over the last several years. Decreases in state and local funding for safety net providers, reimbursement under public insurance that has failed to approximate the cost of care, and the growing demand for safety net services has left the safety net and public health systems in tatters. This has



The current economic recession has provided a painfully poignant view of just how difficult it is for safety-net providers to fulfill their mission of caring for the most vulnerable members of our communities. Today, we have an opportunity to rethink and reshape the framework for America's health delivery system. In so doing, we can ensure that health services for vulnerable populations are not an afterthought, intended to fill in the gaps. Rather, the health care safety net, along with a well-funded public health infrastructure, must be part of an integrated and strategic solution to ensure that all Americans have the opportunities, incentives, and tools to prevent disease and disability, and to access comprehensive and high-quality health services.



worsened with the economic recession. Safety net providers have always existed on the edge—but the economic downturn has forced many to the brink of closure, jeopardizing their ability to serve those most in need, even with the stimulus funds.

Rebuilding Our Public Health Infrastructure

The public health infrastructure is the backbone of the health care safety net. It is also integral to the health of every community. The expertise and resources required to protect the public's health begins with investment in the communities in which we live, work, play, pray, and go to school. When fully funded and functional, the public health infrastructure serves to *prevent* disease and disability long before Americans fall ill and seek access to medical care.

Reframing the allocation of federal, state, and local resources to support disease prevention and health protection in all areas of community life—and to ensure a financially secure, viable and far-reaching safety net—means rethinking the factors that determine and sustain healthy communities. This need to reexamine and reinvest in our ailing public health infrastructure is even more evident in this time of economic recession. We are witnessing the erosion of our national capacity for environmental surveillance, laboratory testing, support during natural disasters, provision of preventive services, and mobilization of community resources to ensure that all residents have access to critical health care.

With an administration and a Congress committed to health reform, we have an opportunity to ensure that adequate resources are dedicated to improving the health and the health delivery system for all Americans. We have the opportunity to invest in prevention of disease and disability; and to provide the technology, legal authority, and resources to enable the nation's diverse health providers to provide *coordinated, comprehensive, and high-quality medical care to all Americans*, not just to those who have private health insurance. And we have the opportunity to ensure that we are fully prepared to protect the health of the nation in a state of emergency. The following recommendations are aimed at accomplishing these goals.

1. ***Strengthen the public health infrastructure*** to be able to strategically plan for and carry out population-based health initiatives; mobilize community partners to achieve these goals; monitor and conduct environmental surveillance for risks, hazards, and infectious agents; track disease trends in the community; and coordinate, fund, and execute community-based prevention efforts. To accomplish this, we must:
 - *Restore funding to state and local health departments* to support adequate staffing and programs to meet the needs of their communities;
 - *Ensure legal authority to state and local health departments* to direct, coordinate and collaborate with health providers, non-profit organizations, businesses, and other community organizations during times of natural disasters, emergencies, or national prevention initiatives to improve health;
 - *Restore funding to public health laboratories* to ensure adequate staffing, up-to-date equipment and supplies to carry out routine and emergency testing; and
 - *Adequately fund health agencies to collect and analyze data* to track community demographic characteristics, community health status and community access to health services.
2. ***Enhance and maintain a financially viable health care safety net***, including public hospitals, academic health centers, community health centers, free and mobile clinics, and public health programs to ensure that vulnerable patients have access to culturally sensitive, high-quality, timely, and affordable round-the-clock health care. We must:
 - *Ensure adequate funding for capital and operating needs* to adequately compensate providers for the costs of care for vulnerable populations,

including enabling and wrap-around services;

- Support the development and of standardized and interoperable health information technology and the authority to use it among different providers; and
 - Develop financial, statutory, and regulatory mechanisms and incentives to ensure full integration of the safety net with the privately funded health care delivery system.
3. **Develop substantial financial and other incentives to strengthen the health and public health workforce.** To do this, we must:
- Attract and retain providers, including dental and mental health practitioners, into the practice of primary care, particularly as safety-net providers in medically underserved communities;
 - Attract, train, and retain professionals to work in public health, including epidemiologists, veterinarians, laboratorians, sanitarians, nurses, physicians, health planners, analysts, administrators, environmental public health engineers, health educators, biostatisticians, and others, through a variety of financial and other incentives including loan repayment, scholarships, and National Health Service Corps; and
 - Develop financial and other incentives to facilitate routine crossover, coordination and collaboration among safety-net and private health system providers
4. **Create countercyclical funding structures** to support state Medicaid programs, and allow states to rapidly respond to economic downturns, natural disasters, and other public health emergencies.

The current economic recession has provided a painfully poignant view of just how difficult it is for safety-net providers to fulfill their mission of caring for the most vulnerable members of our communities. Today, we have an opportunity to rethink and reshape the framework for America's health delivery system. In so doing, we can ensure that health services for vulnerable populations are not an afterthought, intended to fill in the gaps. Rather, the health care safety net, along with a well-funded public health infrastructure, must be part of an integrated and strategic solution to ensure that all Americans have the opportunities, incentives, and tools to prevent disease and disability, and to access comprehensive and high-quality health services.

Endnotes

- 1 Neil I, Shin A. Job losses could drown stimulus. *The Washington Post*. March 7, 2009:A1.
- 2 The Employment Situation: March 2009. US Department of Labor, Bureau of Labor Statistics. <http://www.bls.gov/news.release/empst.nr0.htm>. Accessed March 7, 2009.
- 3 *The economic downturn and its impact on hospitals*. Washington, DC: American Hospital Association. January, 2009. <http://www.aha.org/aha/trendwatch/2009/twjan2009-econimpact.pdf>. Accessed January 16, 2009.
- 4 Parrot, S. Recession could cause large increases in poverty and push millions into deep poverty. Center for Budget & Policy Priorities. November 24, 2008. <http://www.cbpp.org/11-24-08pov.htm>. Accessed: January 29, 2009.
- 5 Neil I, Shin A. Job losses could drown stimulus. *The Washington Post*. March 7, 2009:A1
- 6 Smith S. The ailing economy is making people sicker. *Boston Globe*. January 27, 2009.
- 7 Ku L. "Examining the Health Consequences of the 2008-2009 Recession." George Washington School of Public Health and Health Services. January 2009.
- 8 Abelson, R. Uninsured put a strain on hospitals. *New York Times*. December 8, 2008; Smith S. The ailing economy is making people sicker: Doctors see rise in stress, drop in healthy habits. *Boston Globe*. January 27, 2009.
- 9 Smith S. The ailing economy is making people sicker: Doctors see rise in stress, drop in healthy habits. *Boston Globe*. January 27, 2009.
- 10 Selected Community Health Centers Directors. Written correspondence; January 2009.
- 11 Selected staff of local hospitals, CHCs and free clinics. Written correspondence; December 2008—February 2009.
- 12 Tracy Gratto, Director of the Coalition of Community Clinics, Portland Oregon. Written correspondence; January 2009.
- 13 Reena Koshy, MD, Seattle, Washington. Written correspondence; February 2009.
- 14 *America's Health Care Safety Net: Intact but Endangered*. Institute of Medicine. Washington, DC National Academies Press; 2000; Baxter RJ, Mechanic RE. The status of local health care safety nets. *Health Aff*. 1997;16(4):7-23.
- 15 Baxter RJ, Mechanic RE. The status of local health care safety nets. *Health Aff*. 1997;16(4):7-23.
- 16 "America's Health Care Safety Net: Intact But Endangered" Institute of Medicine, 2000.
- 17 Lewin M, Baxter RJ. America's health care safety net: revisiting the 2000 Institute of Medicine report. *Health Aff*. 2007;26(5):1490-1494.
- 18 Lewin M, Baxter RJ. America's health care safety net: revisiting the 2000 Institute of Medicine report. *Health Aff*. 2007;26(5):1490-1494.; *America's Health Care Safety Net: Intact but Endangered*. Institute of Medicine. Washington, DC. National Academies Press; 2000.
- 19 Sepulveda MJ, Bodenheimer T, Grundy P. Primary care: can it solve employers health care dilemma? *Health Aff*. 2008;27(1): 151-158.
- 20 Hauer KE et al. Factors associated with medical students' career choices regarding internal medicine." *JAMA*. 2008;300(10):1154-1164.
- 21 *Nursing Shortage Fact Sheet*. American Association of Colleges of Nursing. September 2008. <http://www.aacn.nche.edu/Media/FactSheets/NursingShortage.htm>. Accessed April 1, 2009.
- 22 Reena Koshy, MD, Seattle, Washington. Written correspondence. February 2009.
- 23 *Hidden Costs, Value Lost: Uninsurance in America*. Institute of Medicine. Washington , DC. National Academies Press; 2003.
- 24 *Hidden Costs, Value Lost: Uninsurance in America*. Institute of Medicine. Washington , DC. National Academies Press; 2003; States face shortages of primary care doctors. The NewsHour with Jim Lehrer. New York, Public Broadcasting Services. Broadcast January 5, 2009. http://www.pbs.org/newshour/bb/health/jan-june09/doctors_01-06.html. Accessed April 3, 2009.
- 25 Starfield B, Shi L. Policy relevant determinants of health : an international perspective. *Health Policy*. 2002;60(3):201-218.
- 26 Parchman ML, Culler SD. Preventable hospitalizations in primary care shortage areas: an analysis of vulnerable Medicare beneficiaries. *Arch Fam Med*. 1999;8(6)487-491.
- 27 Shi, L. Primary care, specialty care and life chances. *Int J Health Serv*. 1994;24(3):431-458.
- 28 Shi L, Starfield B, Kennedy B, Kawachi I. Income inequality, primary care and health indicators." *J Fam Pract*. 1999;48(4):275-284.
- 29 Shi L, Macinko J, Starfield B, Politzer R, Xu J. Primary care, race and mortality in the US. *Soc Sci Med*. 2005;61(1)65-75.
- 30 Survey of local health departments' budget cuts and workforce reductions. Washington, DC: National Association of City and County Health Officials; January 2009. http://www.naccho.org/advocacy/upload/report_lhd-budgets.pdf Accessed January 16, 2009.
- 31 Survey of local health departments' budget cuts and workforce reductions. Washington, DC: National Association of City and County Health Officials; January 2009. http://www.naccho.org/advocacy/upload/report_lhd-budgets.pdf Accessed January 16, 2009.
- 32 Johnson N, Hudgins E, Koulis J. Facing deficits, most states are imposing cuts that hurt vulnerable residents. Center on Budget and Policy Priorities, updated December 23, 2008.
- 33 State budget cuts survey. Arlington, VA: Association of State and Territorial Health Officials. December 2008. <http://www.astho.org>. Accessed March 15, 2009.
- 34 Parrot, S. Recession could cause large increases in poverty and push millions into deep poverty. Washington, DC: Center for Budget and Policy Priorities. November 24, 2008. <http://www.cbpp.org/11-24-08pov.htm> Accessed: January 29, 2009.
- 35 Survey of local health departments' budget cuts and workforce reductions. Washington, DC: National Association of City and County Health Officials; January 2009. http://www.naccho.org/advocacy/upload/report_lhd-budgets.pdf Accessed January 16, 2009.
- 36 Governmental health laboratories slammed by recession. Silver Spring, MD: Association of Public Health Laboratories; 2009. <http://www.aphl.org/policy/Pages/recession.aspx>. Accessed April 4, 2009.
- 37 Governmental health laboratories slammed by recession. Silver Spring, MD: Association of Public Health Laboratories; 2009. <http://www.aphl.org/policy/Pages/recession.aspx>. Accessed April 4, 2009.
- 38 *America's Health Centers Fact Sheet*. Bethesda, MD: National Association of Community Health Centers; August 2008. http://www.nachc.com/client/documents/America's_Health_Centers_updated_8.13.08.pdf ; Accessed April 1, 2009.
- 39 Iglehart, J. Spreading the safety net – obstacles to the expansion of community health centers. *N Engl J Med*, 2008; 358;13:1321-1323.
- 40 "Access Capital" National Association of Community Health Centers and Capital Link, March 2008.
- 41 *America's Health Centers Fact Sheet*. Bethesda, MD: National Association of Community Health Centers; August 2008. http://www.nachc.com/client/documents/America's_Health_Centers_updated_8.13.08.pdf ; Accessed April 1, 2009.
- 42 Sack, K. Expansion of clinics shapes bush legacy. *The New York Times*. December 26, 2008.
- 43 Selected primary care and public health association directors across the country. Written and oral communication; December 2008–March 2009.
- 44 Felland LE, Hurley RE, Kemper NM. Safety-net hospital emergency departments: creating safety valves for non-urgent care" Washington, DC: Center for Studying Health System Change. Issue Brief No.120, May 2008. <http://hschange.org/CONTENT/983/>. Accessed January 16, 2009.
- 45 Selected executive directors and staff of Community Health Centers. Written and oral communication; December 2008–March 2009.
- 46 Personal correspondence with Executive Director of the Arlandria Community Health Center, Alexandria, VA. Oral communication, January 16, 2009.
- 47 Lewin M, Baxter RJ. America's health care safety net: revisiting the 2000 Institute of Medicine report. *Health Aff*. 2007;26(5):1490-1494.

- 48 Fairhall J, Stedman K. Neither rich nor poor, many people who have lost their jobs in the deepening recession find getting health care is something of a lottery. *The Washington Post*. February 3, 2009. <http://www.washingtonpost.com/wp-dyn/content/article/2009/02/02/AR2009020202211.html>. Accessed April 4, 2009.
- 49 *Access Denied: A Look at America's Medically Disenfranchised*. Washington, DC: National Association of Community Health Centers, 2007. http://www.nachc.org/client/documents/research/Access_Denied42407.pdf. Accessed April 4 2008.
- 50 Key findings from the 2002 National Health Interview Survey: access to care among insured and uninsured children. Washington, DC: Urban Institute, August 2004.
- 51 Schwartz K. et al. Health insurance coverage of America's children. Washington, DC: Kaiser Family Foundation, January 2009. http://www.kff.org/uninsured/upload/7609_02.pdf. Accessed January 29, 2009.
- 52 Estimates of excess mortality among uninsured adults. In: *Care Without Coverage: Too Little, Too Late*. Washington, DC: Institute of Medicine; May 2002.
- 53 Davis K. The costs and consequences of being uninsured. Publication #663. New York: The Commonwealth Fund; 2003.
- 54 Werner R et al. Comparison of change in quality of care between safety-net and non-safety-net hospitals. *JAMA* 2008, 299;18:2180-2187.
- 55 Emergency Medical Treatment and Active Labor Act (EMTALA). 42 USC 1395 dd42 USC 1395dd. <http://www.medlaw.com/healthlaw/EMTALA/statute/emergency-medical-treatme.shtml>. Accessed February 18, 2009.
- 56 APHA Policy # 20014. Hospital Emergency Department Closures. Accessed January 8, 2009 at: www.apha.org
- 57 "Safety Net Solutions: Ensuring Health Care Access and Jobs: OurView. National Association of Public Hospitals and Health Systems, December 2008.
- 58 "Safety Net Solutions: Ensuring Health Care Access and Jobs: OurView. National Association of Public Hospitals and Health Systems, December 2008.
- 59 "Safety Net Solutions: Ensuring Health Care Access and Jobs: OurView. National Association of Public Hospitals and Health Systems, December 2008.
- 60 "Safety Net Solutions: Ensuring Health Care Access and Jobs: OurView. National Association of Public Hospitals and Health Systems, December 2008.
- 61 "Economic Crisis: The Impact On Safety Net Hospitals." National Association of Public Hospitals and Health Systems, January 2009
- 62 "The National Report Card on the State of Emergency Medicine: Evaluating the State of Emergency Medicine"; American College of Emergency Physicians, 2009; <http://www.emreportcard.org/uploadedFiles/ACEP-ReportCard-10-22-08.pdf>
- 63 Abelson, R. Uninsured put a strain on hospitals. *New York Times*. December 8, 2008.
- 64 Abelson, R. Uninsured put a strain on hospitals. *New York Times*. December 8, 2008.
- 65 Felland LE, Hurlley RE, Kemper NM. Safety-net hospital emergency departments: creating safety valves for non-urgent care" Washington, DC; Center for Studying Health System Change. Issue Brief No.120, May 2008. <http://hschange.org/CONTENT/983/>. Accessed January 16, 2009.
- 66 Tracy Gratto, executive director of Coalition of Community Clinics, Portland Oregon. Oral communication; January 2009.
- 67 Abelson, R. Uninsured put a strain on hospitals. *New York Times*. December 8, 2008.
- 68 The national report card on the state of emergency medicine. Irving, TX: American College of Emergency Physicians; 2009. <http://www.emreportcard.org/uploadedFiles/ACEP-ReportCard-10-22-08.pdf>. Accessed April 4, 2009.
- 69 The national report card on the state of emergency medicine. Irving, TX: American College of Emergency Physicians; 2009. <http://www.emreportcard.org/uploadedFiles/ACEP-ReportCard-10-22-08.pdf>. Accessed April 4, 2009; Ostrom CM. Wait for hospital bed a life or death matter? *The Seattle Times*; October 10, 2007. http://seattletimes.nsource.com/html/localnews/2003938138_emergency10m.html. Accessed April 4, 2009.
- 70 *The economic downturn and its impact on hospitals*. Washington, DC: American Hospital Association. January, 2009. <http://www.aha.org/aha/trendwatch/2009/twjan2009-econimpact.pdf>. Accessed January 16, 2009.
- 71 The status of state EMS funding. Falls Church, VA: National Association of State Emergency Medical Services Officials; December 2006.
- 72 The status of state EMS funding. Falls Church, VA: National Association of State Emergency Medical Services Officials; December 2006.
- 73 Ferrarri, M. Fire department cuts 'gut wrenching'. *The Arizona Republic*, October 10, 2008. : <http://www.azcentral.com/community/phoenix/articles/2008/10/10/20081010phx-firechief1011.html> Accessed January 8, 2009.
- 74 EMS and fire budget cuts put public at risk, national survey finds. San Diego: National EMS Management Association; January 5, 2009. <http://www.nemsma.org/LinkClick.aspx?fileticket=FYTA6kR4M2o%3d&tabid=37&mid=372>. Accessed January 16, 2009.
- 75 EMS and fire budget cuts put public at risk, national survey finds. San Diego: National EMS Management Association; January 5, 2009. <http://www.nemsma.org/LinkClick.aspx?fileticket=FYTA6kR4M2o%3d&tabid=37&mid=372>. Accessed January 16, 2009.
- 76 EMS and fire budget cuts put public at risk, national survey finds. San Diego: National EMS Management Association; January 5, 2009. <http://www.nemsma.org/LinkClick.aspx?fileticket=FYTA6kR4M2o%3d&tabid=37&mid=372>. Accessed January 16, 2009.
- 77 Brown, V. Ambulance services hurting in Oklahoma's rural areas. *The Oklahoman*, December 15, 2008. <http://newsok.com/ambulance-services-hurting-in-rural-areas/article/3330337> Accessed January 26, 2009.
- 78 "EMS & Fire Budget Cuts May Put Public At Risk, National Survey Finds". National EMS Management Association, January 5, 2009.
- 79 *A Painful Recession: States Cut Health Care Safety Net Programs*. Washington, DC; Families USA. December 2008. <http://www.familiesusa.org/assets/pdfs/a-painful-recession.pdf> Accessed December 31, 2008.
- 80 *A Painful Recession: States Cut Health Care Safety Net Programs*. Washington, DC; Families USA. December 2008. <http://www.familiesusa.org/assets/pdfs/a-painful-recession.pdf> Accessed December 31, 2008.
- 81 Johnson N, Hudgins E, Koulish J. Facing deficits, most states are imposing cuts that hurt vulnerable residents. Center on Budget and Policy Priorities, updated December 23, 2008.
- 82 *A Painful Recession: States Cut Health Care Safety Net Programs*. Washington, DC; Families USA. December 2008. <http://www.familiesusa.org/assets/pdfs/a-painful-recession.pdf> Accessed December 31, 2008.
- 83 Bindman AB, Grumbach K, Osmond D, Vranizan K, Stewart AL. Primary care and receipt of preventive services. *J Gen Intern Med*, 1996;11(5):269-276.
- 84 Novelli B. States in crisis. *AARP Bulletin*. March 2009; *A Painful Recession: States Cut Health Care Safety Net Programs*. Washington, DC; Families USA. December 2008. <http://www.familiesusa.org/assets/pdfs/a-painful-recession.pdf> Accessed December 31, 2008.
- 85 *A Painful Recession: States Cut Health Care Safety Net Programs*. Washington, DC; Families USA. December 2008. <http://www.familiesusa.org/assets/pdfs/a-painful-recession.pdf> Accessed December 31, 2008.
- 86 Editorial. As the Safety Net Frays. *The Boston Globe*, April 3, 2009.
- 87 Nevada Public Hospital Closes Outpatient Chemotherapy Clinic Leaving Cancer Patients Searching for Treatment. CBS News , 60 Minutes, Sunday April 5, 2009. http://www.cbspressexpress.com/div.php/cbs_news/release?id=21443 . Accessed April 6, 2009.
- 88 Ibid.
- 89 State budget cuts survey. Arlington, VA; Association of State and Territorial Health Officials. December 2008. <http://www.astro.org>. Accessed March 15, 2009.

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A total of 126 lbs of paper containing 25% post consumer recycled fiber was used to print this brochure saving:

- 109 lbs wood – A total of 1 tree that supplies enough oxygen for 1 individual annually.
- 138 gal water – Enough water to take 8 eight-minute showers.
- 1 mln BTUs energy – Enough energy to power an average American household for 1 day.
- 33 lbs emissions – Carbon sequestered by 1 tree seedling grown for 10 years.
- 18 lbs solid waste – A total of 1 thirty-two gallon garbage can of waste.



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