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The Urban Health Penalty

New Dimensions and Directions in Inner-City Health Care

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". . .inner cities are the heart of our urban structure. Suffering from benign and not so benign neglect, they are also resilient with the strength and humor of people who live there. If our inner cities survive, we all survive."

—Eve Merriam
The Inner-City Mother Goose
New York, Simon & Schuster, 1996

I. INTRODUCTION

The story of the nation's cities, their culture, history and evolution, is an inseparable part of the rich story of the United States. In recent times, however, to mention the phrase "inner city" is to conjure up any number of negative images—"crime ridden," "drug infested," "rundown" and "impoverished," to name just a few. A core symptom of these conditions is poor health status. And so, in the 1990s, for many, these urban areas have come to represent a sadder chapter in the American story.

These characterizations of the inner city do not do justice to the real world where people live and work. Such a simplistic view does not embrace the shifting population of the United States or the promising community and health care initiatives and achievements that are occurring in some locales.

Indeed, there is no universally accepted definition of the inner city. Koplan (1) suggests the term has come to identify a set of problems, when it more accurately should represent "an urban community as an integrated whole," with subpopulations, diversity, major problems, urban renewal and related initiatives all a part of that whole. I have incorporated these and other views into this document.

Reflecting the lack of consensus regarding what constitutes the "inner city," little research has focused comprehensively on inner cities per se. A reported MEDLINE search corroborated this contention (2). As a result, I have used existing sources on the inner city but have supplemented this information with other statistics I believe are representative of or at least applicable to inner city health and health-related conditions.

Certainly, in health care, it can be said that cities are a study in contrasts: They contain some of the best facilities and brightest physicians yet many of their residents have limited access to medical care. Urban health providers face some of the greatest cost pressures and difficulties in adapting to managed care and

have launched some of the most exciting programs to conquer those problems. Above all, the factors leading to the urban health penalty are complex and interrelated and it will take integrated community/health care provider efforts to address them effectively.

The lessons learned in our cities can be carried to other settings, as many of the trends in demographics accelerate outside the cities. This report adopts a broad view in probing health status and health care in the inner city. It discusses those trends, identifies the challenges to the health care community and proposes policy and program directions. Finally, it identifies models for improving health in the inner city. Key issues include increasing access to health care via better provider supply and distribution, improving providers' ability to respond to the needs of ethnic populations and creating a more effective health care system that involves the community and addresses the structural problems of the inner city. It explores the effects of managed care and challenges local, state and federal governments to redefine their roles in resolving the inner city health care crisis.

More than one in every five people in the US lives in the 100 largest cities, based on the 1990 census. Residents for miles around rely on health care delivered in those cities, which house some of the most prestigious medical facilities and most renowned doctors. So the closing of a trauma center or burn unit in an urban area, for example, can have consequences that reach far beyond city limits.

Furthermore, social changes in urban areas eventually reach less populated areas. One report (3) strongly states the "hyperconcentration" of violence, acquired immunodeficiency syndrome (AIDS) and related conditions is very likely to diffuse out to suburban areas and smaller communities because of outmigration from inner cities and transportation links with outlying areas.

Indeed, certain trends that affect health status already are stronger outside the cities, if the 25 largest cities are compared with the US in general (Table 1). So the health problems and challenges related to the growth and diversity of the population, once considered to be city issues, are spreading. It follows that the lessons learned from the city experience can carry over to other settings.

II. THE URBAN HEALTH PENALTY

Poverty and its impacts, especially as they intercept with high concentrations of specific racial groups and the breakdown of the family unit are primary causes of inner-city health concerns. The following paragraphs describe the consequences of these factors.

Greenberg discussed this "urban health penalty" at a New York Academy of Medicine meeting on the challenges facing health care in the nation's cities: when healthier, wealthier residents exit the city, they leave behind a larger proportion of minorities and sicker aged (32). The tax base shrinks, the physical environment deteriorates, businesses close or move, and abandoned buildings become homes to the homeless and the drug subculture. Police and fire departments neglect such areas, and they eventually burn or are otherwise destroyed. The cycle then begins at another site.

Other manifestations of this penalty are widely evident. Residents of the inner city have access to fewer supermarkets, leading to lower levels of nutrition (5). At the same time, those in poor neighborhoods experience greater pressure to consume unhealthful products (exacerbated by cigarette and alcohol

advertising in such neighborhoods).

Deterioration of housing, a high incidence of fires, and their link with overcrowding have been associated with increased incidence of numerous health conditions, including substance abuse, infant mortality, homicide and various diseases, as well as greater need for hospital and emergency room care (6,7).

Homelessness represents a real health danger. Premature death (in San Francisco, for example, estimated average age of death in the homeless is 41 years), AIDS, complications of alcohol, tuberculosis, pneumonia and suicide all have been identified as health-related consequences of homelessness (8).

Between 650,000 and 3 million people are estimated to be homeless at any one time in the US. A recent estimate indicates over 7% of the population (13.4 million) have been homeless at some time in their lives (9). An estimated 50% suffer from some form of mental illness or substance abuse. And homeless individuals are more likely to live in cities.

Table 2 shows other characteristics of the urban health penalty in that the nation's 25 largest cities have a higher incidence of many adverse health conditions.

Nationally, infectious disease mortality increased 58% between 1980 and 1992, contrary to predictions, reports the Centers for Disease Control (10), with the increase greatest in individuals aged 25 to 44. HIV accounted for most of the increase.

The HIV toll has been great and increasing in the nation's cities: In 1990, HIV became the leading cause of death for men aged 25-44 in 64 of 170 cities with greater than 25 deaths (in the US overall, it is the second leading cause of death for men aged 25-44 and the sixth leading cause of death among women in that age group) (11).

Other adverse consequenses include:

- Hospitalizations for asthma, a major inner-city health problem, increased 145% between 1970 and the mid-1980s (12).
- Alcohol and drug use remains an entrenched problem: In 1991, 26 million people reported using illicit drugs, 1.8 million were addicted to cocaine and 700,000 were addicted to heroin. Five to six million were estimated to require drug treatment (12). Those who inject drugs rose from an estimated 50,000 in 1960 to 500,000 in the 1970s and 1.5 million in the mid-1980s (13). Much of this drug abuse is concentrated in inner cities.
- Another risk city residents face is violence; they fall victim to it twice as often as others, according to a 1993 study of the 100 largest cities (1714/100,000 in cities; 803/100,000 for the US) (4). Furthermore, the rate exceeded 3000/100,000 in seven cities—Atlanta, Miami, St. Louis, Newark, Little Rock, Tampa and Baton Rouge.
- Murder rates in cities in 1993 also were more than twice the US average—21/100,000 in the 100 largest cities versus 10/100,000 in the US (4). And gang-related homicides-most prevalent in large cities but spreading to smaller cities—rose from 18% of the total killings in Los Angeles in 1979 to 43% in 1994 (14).
- City hospitals treating victims of violence face great costs not encountered by their suburban

counterparts. Direct and indirect costs of gunshot trauma are $14.4 billion, with 86% of those costs borne by taxpayers. The hospital at the University of California at Davis (15) reports its mean hospital charge for gun-related trauma during 1990/1992 was over $52,000. Resulting losses have been mainly offset by shifting them to those covered by private insurance.

The challenges of the inner city often are most acute among its younger generation. Forty percent of urban children live below the poverty level (4). On any given night, an estimated 100,000 children have no place to live (16). The National Center for Children in Poverty (17) reports the number of poor children under six years of age increased from 5 million in 1987 to 6 million in 1992. Singer (18) found in his study of 315 households with elementary school children in Hartford that over 41% experienced hunger in the previous 12 months and 35% experienced food shortages, placing them at risk for significant hunger.

The health consequences are sobering. Consider:

- The infant mortality rate in the 100 largest cities during 1989 was 12/1000, 25% higher than the US average of under 10/1000 (4).
- Infant mortality is 60% greater for women with household incomes below the poverty level and postneonatal mortality is double the rate for women with household incomes above the poverty level (19).
- Infant motality decreased 22% for the US since 1980; only 18% for the cities.
- Over the decade of the 1980s, firearm homicides were the greatest contributor to a child mortality increase that approached 50%.
- Teen birth rates followed a similar pattern, increasing in the 100 largest cities at a rate far exceeding the 9.7% increase since 1980.
- The rate of lead poisoning for poor children (household income under $6000) is twice that in families with higher incomes (20).
- Some 30% to 50% of city children are not immunized on time (21).
- Suicide and homicide rates among children increased 200% to 300% between 1950 and 1993, but especially since 1968. That increase more than offset decreases in conditions such as pneumonia, influenza and cancer (22). These outcomes have been especially noticeable in the inner city. Most adversely affected are males and black, American Indian, and Puerto Rican children.
- Between 1980 and 1988, the mortality rate for children in cities increased almost 50%, with firearms accounting for the increase, especially for young blacks (24).
- Eighty-six percent of gang-related homicides in Los Angeles between 1979 and 1994 were between 15 and 34 years of age (23).
- Gunshot wounds are the leading cause of death among black and white teenage boys in the US (24).
- Minority children are most likely to be affected: A report on urban children (17) noted that over half of US black and Latino children live in cities, versus only 25% of white children. Almost 40% of the children in New York in 1987 were poor and, of them, 86% were African Americans. The American Medical Association's Council on Ethical and Judicial Affairs (25) reports that health care for black Americans has improved since the 1960s; however, their infant mortality rate is twice the rate of the white population, and the decline in their mortality rate is lagging that of

whites (26).

III. UNDERLYING SOCIAL AND COMMUNITY FACTORS

Poverty, race and lack of insurance are related, yet individual, factors that limit access to health care. Problems often attributed to race actually are the result of poverty.

Poverty

Poverty is a cause of poor health in and of itself, through poor nutrition, crowding or homelessness and exposure to violence and substance abuse. It also limits access to both preventive and remedial health care.

For many individuals, poverty means a higher incidence of disease and an earlier death:

A 1991 article in the Washington Post based on a National Cancer Institute study of Atlanta, Detroit and San Francisco highlighted that poverty had a much greater influence on cancer rates than race or culture (27).

Individuals earning less than $9000/year in 1986 had death rates three to seven times higher (depending on race and gender) than those earning $25,000 or more (28).

At a given age, the death rate for people who do not graduate from high school is two to three times greater than those with college degrees (28). Only 23% of black males in the inner city graduate from high school, according to a report on urban violence after the riots related to the Rodney King police verdict in Los Angeles (29). Many are functionally illiterate and unemployment among men 19 to 45 in the south-central area reached 40% to 60% depending on the neighborhood (29).

A comprehensive review of sociodemographic, health and health-behavior characteristics of over 300,000 white and 30,000 black men, using a baseline of 1973/75 and running for 16 years, confirmed a strong correlation between lower income and higher mortality regardless of race (30,31).

Furthermore, it appears the difference in health status because of income level may be increasing over time: recent reviews of British studies (28) found that, in 1932, men in the lowest occupational group were 23% more likely to die prematurely than those in higher occupational groups. By 1970 that mortality difference increased to 61%.

Poverty also makes it more likely a person will encounter violence. Studies in New Orleans and Atlanta found that a six-fold difference between black and white rates of domestic homicide was entirely accounted for by differences in socioeconomic status. Similarly, household crowding but not race was correlated with suicide rates (33).

A report by the Child Welfare League of America (34) identified 880 disadvantaged neighborhoods in 1980 defined by having a high proportion of males over 16 not in the labor force, households headed by females, households on welfare, and high school-age dropouts. Ninety-nine percent of these

neighborhoods were urban. They suffered high rates of child abuse, significant stress in the family, community instability and a loss of social support networks.

These circumstances account, in large part, for a 29% increase in foster care placements across the US between 1986 and 1989. The consequences of such a breakdown in family and community are likely to show up in the health care system as higher rates of illness, greater emergency room use, and hospitalizations for avoidable conditions (34).

Race

Race and the economics and health consequences of poverty have become inimately linked in the cities. Over 40% of the black urban poor and 27% of Hispanic urban poor lived in high poverty areas in 1990 (35). This type of segregation has been identified as a predictor of age-standardized death rates for black urban residents aged 15 to 44 (36). As Freeman (37) points out, because racism and poverty create a strong interdependence that can influence who remains in poverty, providing health care access alone will not lead to improved health.

One in 11 (9%) blacks reported not receiving health care for economic reasons, whereas only 5% of whites reported such barriers. Black residents tend to live in states with the least generous Medicaid programs (the South and Southwest) and they are more likely to rely on hospital clinics, community health centers and related settings for health care (38).

- Certain diseases are more prevalent among blacks than whites:
- Life expectancy of African Americans in general is six years less than whites (25).
- Men in Harlem in 1990 had a lower life expectancy than men in Bangladesh (39).
- Infectious disease rates, which were 13% higher in African Americans than in the general population in 1980, were 36% higher by 1992 (10).
- Blacks have a significantly higher incidence of nine cancers-lung, prostate, breast (under age of 40), colon, pancreas, esophagus, cervix, stomach, and multiple myeloma-and the difference is increasing significantly (40).
- The rate of lung cancer is 45% greater in black men 45 years old or younger than in their white counterparts (40).
- Black men are 10 times more likely to die from hypertension than white men (41).
- The number of asthma-related deaths among blacks rose from less than 2000/year in 1978 to over 4500/year in the late 1980s-almost three times the white death rate for that condition (41).
- Between 1985 and 1991, in Philadelphia, deaths from asthma were significantly higher in census tracts with greater concentrations of blacks, Latinos and persons below the poverty level (41).
- Mortality from cirrhosis related to long-term heavy drinking is also greater for inner city African Americans (19).
- By 1991, HIV had become the leading cause of death among blacks in the 25-44 age group (42).
- Because of their concentration in inner cities, a higher proportion of blacks (37%) report use of illicit drugs at least once in their lifetime than whites (25%) (19).
- Latinos also face health challenges greater than other populations:
- The Latino poverty level, almost 29%, is only slightly less than the black rate (almost 33%) and substantially greater than the 14% for Asian/Pacific Islanders and less than 10% for white non-

Latinos.

- In a 1988 study (43), Latinos' risk of measles was three times greater than black children and only 35% of Latino infants (12% of immigrant Latino children) were immunized by the age of 2, compared with 47% for blacks.
- Hispanic youth have higher rates of cocaine use than other groups.
- Latino women represent almost 24% of reported AIDS cases among all women in the early 1990s but comprise only 9% of the female population (43).
- Twenty-four percent of childhood AIDS cases occur in the Latino population even though they represent only 13% of US children (43).
- Since the 1970s, the homicide rate for Latino males in Los Angeles increased by almost 300% (43).
- By the late 1980s, Latino men were more than 3.5 times as likely to die from homicide than other whites (43).

Different perceptions on the part of both patients and caregivers play a role in access to health care. A mounting body of literature is demonstrating that programs attempting to address health care system inequities may need to recognize a complex interplay among physician practice patterns, institutional roles, patient income levels and belief systems. In communities where people believe they have poor access to medical care, more patients are hospitalized for preventable chronic diseases such as asthma, hypertension, congestive heart failure, chronic obstructive pulmonary disease and diabetes (44). Blacks are less likely to be satisfied with their encounters with physicians, less satisfied with their hospital care and more likely to believe their hospital stay is too short compared with white patients (38). Evidence suggests they may be right:

Kahn and others (45) analyzed the quality of care in poor neighborhoods using duration of stay, instability at discharge, discharge destination, mortality, and medical processes for a multi-year sample of Medicare patients in the early/mid 1980s. They found that in urban hospitals—both nonteaching and teaching—patients who were black or from poor neighborhoods received worse processes of care and had greater instability than other patients.

A national survey of patients diagnosed with anterior myocardial infarction (25) found that black men were only half as likely to undergo angiography and one third as likely to undergo bypass surgery as white men, even though severity of illness was similar.

A study of Massachusetts hospitals that controlled for income and severity also found racial patterns for coronary angiography, bypass and angioplasty. The same is true in studies of dialysis and kidney transplants.

Other reports (46) also corroborate access problems for minorities, especially when compounded by poverty.

Based on these findings, the American Medical Association's Council on Ethical and Judicial Affairs (25) concludes that race plays an important role in medical care, and that income may influence medical decisions via the perception that greater wealth is equated with greater value to society. Other reports (46)

corroborate access problems for minority populations, especially when compounded by poverty.

In addition, minorities are more likely to be uninsured. A recent report on the health of Latino children (43), for example, states that almost 22% of Latinos were uninsured in 1986, an increase of 50% from 1982 and more than double the rate for blacks and whites. In another study, 39% of Latinos under 65 were uninsured for the entire year-a rate three times higher than other whites and twice that of blacks. More than one third of Mexican Americans were uninsured even though the majority were employed.

Lack of insurance

Some 40 million Americans are uninsured. For many, this disposition affects both the care received as well as their health outcomes. In a Boston study of 52 hospitals (47), uninsured patients received 7% fewer procedures and had 7% shorter hospital stays than patients covered by Blue Cross or Medicaid. This implies that uninsured individuals receive less care even after hospitalization. A New York study (48) found that uninsured patients were at greater risk for substandard care associated with medical injury. Virtually all groups lacking insurance in a study by Hadley (49) had a higher probability of death in the hospital.

Furthermore, it has been documented that being uninsured raises the risk of death across all sociodemographic and mortality groups, even after adjusting for gender, race, age, education, income and employment:

Comparing uninsured and privately insured inpatients, Hadley (49) found that virtually all groups lacking insurance had a higher relative probability of death in the hospital.

A study that followed a group of patients over 25 years old for several years found that over 18% of the uninsured died compared with under 10% of the insured (50).

A survey of almost 4000 predominantly minority, disadvantaged patients presenting for ambulatory care during a 7-day period at the major public hospital in Atlanta found that lack of insurance and transportation and having less than a high school education were significant, independent predictors of delays and major obstacles to receiving care (51).

The authors of the Atlanta study just cited (51) concluded that the uninsured poor in urban areas face major problems in attaining medical care that will not be overcome by so-called universal access proposals alone.

Even the presence of public insurance may not improve access. Research assistants posing as Medicaid patients in one study (52) called 953 urban ambulatory care clinics for appointments. The number of denials varied by location but, overall, the study concluded the Medicaid patients had significantly limited access to outpatient care beyond the emergency department.

Because many characteristics of the external environment differentiate the poor and nonpoor (6), health insurance coverage alone is not likely to narrow the gap in health status (53). A number of prominent researchers have stressed that these environmental issues must be addressed; directing reform at medical

services alone is insufficient.

Recommendations and models

Recognizing the profound influence of these social, economic and environmental factors led the recent president of the National Medical Association to note that if health care reform is to significantly affect the life of inner city residents, it must be considered within the context of the economic disparity, educational shortcomings, criminality and racism that pervade these communities (35). These community factors play such prominent roles in health status that some have asserted significant resources would best be redirected to influence the immediate environment rather than be applied to direct medical services (54). In this context, greater success in improving health may be achieved by bringing a supermarket to a low-income area-reducing reliance on fast food and convenience stores—for example, than by merely prescribing medicine for hypertension, especially if nutrition education is stressed as well.

The capacity of the health care system to influence the environment of inner cities is the key to improving the health of their residents. Health care providers must confront social issues in communities and work with residents and their organizations to improve living conditions. The downward spiral of morbidity and mortality must be broken in the context of the complex social and health needs of the inner city. As a recent report on municipal health systems (55) concluded, "addressing fundamental public health and medical priorities such as drug abuse treatment and deterrence should go hand in hand with applying resources toward stress-reducing policies such as increased police visibility, renovation of destroyed buildings, providing quality housing and removing trash."

Coye (56) noted that, in the public sector in particular, health and social services programs suffer from serious fragmentation, are uncoordinated and must negotiate within various delivery systems, each of which has its constituency and funding sources. Any solution to the multifaceted problems in urban settings requires cutting across traditional program lines and must include a common databank shared by health and social services providers.

Coalitions are needed among health, political, academic and community circles (57). Providers should get involved in integrating health care with drug abuse programs, nutrition, housing, employment, violence reduction, language, transportation, education, social, cultural and other factors that influence health so greatly.

Some communities already have alliances underway to address these broader issues:

Over 2000 community development corporations (CDCs) have been created across the country, supported by a variety of sources. They work with residents of low-to-moderate income neighborhoods to address poor housing conditions, unemployment, crime, poor health care and other inner-city challenges. By 1995, they had developed 400,000 new and renovated housing units and created 67,000 new jobs. They have also launched numerous initiatives to integrate health with the community (e.g., revitalizing housing and commercial areas adjacent with a major public hospital in Cleveland) (58).

The city of Chicago; Sears, Roebuck and Company; and Charles Shaw, a Chicago builder, have joined to revitalize the North Lawndale area, the original corporate location for Sears. One hundred-twenty homes

are being built, streets are being renovated, and assistance is being provided to individuals to buy homes. Businesses are partnering with the community and Rush-Presbyterian-St. Luke's Medical Center to reduce teen pregnancy and other health problems. A health and family center has opened on site, providing basic health and family support services (59).

Neighborhoods are organizing civic associations to counteract drug and crime epidemics, to support community policing, and to assist in rebuilding rundown areas. In New York City, alone, these groups have more than doubled in the past 20 years (60). Their voluntary base, low overhead, knowledge of the community and ability to tap local businesses and governments make these groups an excellent resource to health care providers trying to reach populations in need.

Inner-city churches are another valuable resource in the battle to improve inner-city conditions:

- One survey of 635 northern black churches found almost 25% operated at least one program targeting teens from low-income areas. These programs included counseling, group discussions, seminars and workshops (61).
- A 42-church coalition in Brooklyn got a city grant to start an AIDS housing and support program.
- In a Los Angeles project, 24 churches teamed up to improve cervical cancer screening and treatment to underserved minority women (62).
- The Catholic Church Archdiocese of San Francisco recommended that Catholic health care institutions give up their autonomy to more effectively meet the needs of the communities (63).

Schools also play a critical role in inner-city health care and are an important ally to other health providers. One recent review of 33 school health programs in major cities (64) found that many were actively collaborating with local health departments and others in providing and enhancing services:

One school-based initiative, aimed at reducing alcohol consumption among inner-city minority youths, identified the importance of positive role models and stressed prevention programs that recognize the social influences encouraging drinking in schools (65).

Broader school-based programs have identified primary, preventive and mental health services as important for junior high school students. Clinic outreach programs aimed at high-risk students are successful (66).

A joint venture between the New York Academy of Medicine and the New York City public schools developed comprehensive health education programs at several schools. Known as "Growing Healthy," they provide curricula for kindergarten through the sixth grade, including health-behavior education, attitudes, and school performance (67).

IV. CHALLENGES TO THE NATION'S HEALTH SAFETY NET

Problems in health service access and use have chronically plagued the inner city. The 1993 report (68), Lives in the Balance, used information from the US Department of Health and Human Services to document the extent of underservice in urban areas. Five hundred-sixty one metropolitan areas were classified as "medically underserved areas." Those areas accounted for only 26% of all the counties that

were so classified, but 78% of the people who are underserved by the health care system—a total of 33.5 million. The irony is that people in these same urban areas are those most in need of care—plagued by the highest proportions of tuberculosis, low-birth-weight babies, infant mortality and hepatitis.

As stated earlier, poverty, racial background and lack of insurance limit access. A shortage of physicians in urban neighborhoods and their inability to relate to and communicate with their patients also contribute to the problem. The result is a hospital-dependent, crisis-oriented, episodic and fragmented model of care. This must give way to a true system of care that relies on adequate numbers of primary care providers oriented toward prevention (69).

Physician supply imbalance

Shortage of primary care physicians in the inner city

Cities have always attracted high concentrations of medical professionals. As Fossett and Perloff summarized (5), these areas have three times as many general internists, four times as many pediatricians and five times as many practitioners of obstetrics/gynecology as nonmetropolitan areas. These numbers, however, do not guarantee equability in distribution of these professionals. Rather, distribution of these resources tends to follow higher incomes in the city or metropolitan area, thereby leaving serious shortages in the communities with greatest need. Cited single-city studies (5) provide dramatic evidence of the shortage of doctors in inner city neighborhoods:

- In Chicago, there are 60% more children per pediatrician in the poorest areas than in the wealthiest areas.
- There are 6.4 doctors/1000 population in Manhattan but only 4/1000 in the impoverished Bedford/Stuyvesant area of Brooklyn.
- There is one doctor per 125 residents of Beverly Hills but only 1/2216 in the comparatively poorer El Monte community in the Los Angeles area.
- In Washington, DC, the more affluent northwest and related suburb of Bethesda, Maryland have a pediatrician/child ratio of 1/400, contrasting with the poorer southeastern areas of the city, where the ratio is 1/3700.

A second, more general factor adversely affecting health care in the inner city is the oversupply of specialists and the relative shortage of practitioners in primary care-related disciplines. It is generally accepted that access to and use of primary care services leads to better health. Shi (70), for example, stated that access to a primary care provider was more strongly correlated with improved health than number of hospital beds or specialty physicians.

Nonetheless, the high proportion of specialists has persisted. One projection (71) determined that the number of subspecialists was expected to increase more than 200% between 1978 and 1998, while the growth in general internists was only expected to be 77%. Over the decade of the 1980s, the level of interest in primary care-related specialties dropped from almost 39% to 25%. Family practice fill rates dropped from 85% in 1985 to 70% in 1990.

A number of factors contribute to this situation. One reason for this shortage is salary: In the early 1990s,

for example, the average income for a family practitioner was $87,100. That for an orthopedist was $193,000. Another contributing factor is the fact that medical teaching institutions face financial disincentives to train primary care physicians. The revenue generated by residencies related to primary care services is significantly less than that of residencies oriented toward inpatient procedures. Family practice hospital-based residencies recover only 30% of their costs through patient care, compared with 81% of the costs of residency stipends generated in hospitals. Those differences are critical because institutions are relying more on service income (38% in 1987) than in the past (12.2% in 1970).

On a positive note, the national trend to specialization appears to be reversing. In 1989, only 11% of medical school graduates were planning careers in family practice (72). More recent reports on residency matching for postgraduate medical training indicate sharp shifts toward more primary care-oriented areas. In fact, a majority of recent medical school graduates are choosing primary care programs such as internal medicine, pediatrics and family practice (73).

Within-city distribution problems

Vulnerable populations in the inner city still may not benefit from increasing numbers of primary care specialists. There are many reasons why inner cities are unattractive locations for physicians (5). Major disincentives include lower numbers of individuals with disposable incomes, unpleasant social conditions (drug abuse, violence, poverty), a sicker population, language differences, higher rates of noncompliance and missed appointments, limited ability of the medical care system to affect factors in the patient's environment such as homelessness and crime, and the perception that malpractice suits are more likely to occur in such areas.

Inner-city finances remain an obvious hurdle. The growing number of poor households concentrated in very depressed inner city areas and their reliance on Medicaid make it difficult to offset lower reimbursement with privately insured patients (74). Medicaid pays doctors only 69% of the private insurance rate, according to a Physician Payment Review Commission study. That is a major reason why 44 states have faced difficulties in soliciting doctors to participate in Medicaid.

As noted earlier, even doctors who do practice in cities tend to gravitate to areas with higher incomes while many inner city residents live in areas that are underserved:

- There was a 45% decline in office-based primary care physicians in 10 urban areas between 1963 and 1980 (75).
- The number of Health Professional Shortage Areas designated by the federal government declined 9% from 1985 to 1988, but rose 2% by 1990. According to the Bureau of Primary Health Care, half those populations are in urban areas (76).

In all, although the total number of physicians has increased over the past 25 years, evidence strongly indicates this growth has done little to reduce the shortage of physicians providing care for inner city residents. More recent competitive pressures may alter this situation by making previously less-attractive populations and locations more desirable for health care providers. However, the tempation to be selective in inner city settings may significantly offset the potentially positive impact.

Shortage of minority physicians

A final critical issue is the shortage of black physicians overall and a dearth of doctors in minority communities. Reports on physician availability (77) have documented a connection with race/ethnicity. A 1996 study in California (78) reported the lowest proportion of doctors-to-population in poor urban communities with high proportions of black and Hispanic residents. In contrast, poor urban areas with low proportions of those populations had three times as many primary care physicians. Similar patterns were found for rural areas.

Medical school enrollment of minorities has lagged the growth of those populations: Minority populations grew 18.5% between 1975 and 1990, but minority medical school enrollment rose only 7% (79). As a result of these trends, responsibility for health care services needed by people in the inner city frequently falls to a few providers willing to treat patients with little money and many, often complex problems. These trends also identify why a number of inner city communities are so dependent on international medicine graduates who may be more willing to serve in such health care settings.

Recommendations and models

It is necessary to redress the doctor imbalance and target shortages, especially in primary care disciplines, to provide more care in underserved areas. This would both improve the health of the residents and relieve crowded emergency rooms, at the same time reducing related costs.

One way to improve access to health care for minorities is to increase the number of nonwhite doctors. Black and Hispanic doctors are much more likely to practice in poor areas with people of color, and increasing the number of minority physicians may increase access for similar populations. This is supported by the 1996 California study (78) that found that in areas with high concentrations of black and Hispanic groups, doctors of those races treated six and three times as many patients from their own group as other physicians. Another report based on a survey of about 5000 young physicians conducted between 1987 and 1991 found that minority and women physicians were "much more likely" to care for Medicaid, poor and minority patients (79).

In addition to helping redress shortages of doctors in underserved areas, increasing the proportion of minority health professionals would create greater diversity in the management ranks that may help broaden community representation. It also could provide leadership in communities and mentors for younger minority professionals and those at the high school level who might choose health care careers (81).

Extending the service component of the teaching hospital into the community has been recommended as a way to increase the number of primary care professionals and their experience in local health care settings (82). Such a reorientation in education would link delivery of ambulatory care for the uninsured with clinical training in community settings and would redirect support for such initiatives.

In Philadelphia and Pittsburgh, medical school admissions policies and education programs have been linked to graduates agreeing to serve for a time in underserved areas (83).

In other initiatives, training and education programs that integrate local health department settings into separate practice residencies such as family medicine offer new patient care sources and opportunities to understand the role of public health (84).

A joint venture between the New York City Board of Health and an academic medical center included clinical and nonclinical (i.e., administrative) staff, physician observation of subspecialists treating children, and facilitation of communication between Board of Health physicians and the specialists. The result of substantial involvement by medical staff, increased clinic attendance and patient education was improved continuity of care and increased use of relevant therapies. This suggests lessons for other clinics as well (85).

Nontraditional sources of care givers also bridge the gap in professional care in some areas:

Studies (86) show that, with effective management, nonphysician practitioners such as nurses can be integrated effectively into health care protocols.

Personnel affected by local market changes can be redeployed, and nonmedical staff whose jobs are eliminated could be retrained to educate residents on prevention and use of the changing health care system, monitor community health, establish links between the system and the community, and act as a bridge between those with cultural differences.

Health care organizations in some areas, such as the New York City public hospital system, have relied on graduates of foreign medical schools to fill the professional gap. For the US generally, this group accounted for a substantial segment of medical school training-20% of all positions during 1993 (87). This response, however, may be jeopardized by efforts to reduce drastically the number of these graduates. Moreover, no clear alternative policy has risen to take its place.

Physician educational requirements

The ability of health caregivers to serve the community must be improved. Education needs to better prepare doctors for working with minorities. For example, California will become the first mainland state to have a "majority-minority" around the year 2000. An estimated 120 different languages are spoken in that state alone (57). As such, programs that teach, train, organize and deliver health must incorporate cultural competence into the core of their efforts.

A review of related American and British research (28) highlights the need to educate medical professionals regarding the importance of sociodemographic characteristics of patients. During rounds, the resident typically describes the patient's current illness and details the medical history. Information on occupation, education, housing, social circumstances and other factors likely to greatly influence health care is conspicuously absent in many cases.

Training programs should include placement and rotation of residents and students in community settings whenever possible. Teaching models that incorporate community-based settings and are directed toward addressing quantified community needs should become part of core educational experiences.

Medical schools should integrate cultural competence into their curricula. Students must be exposed to the importance of obtaining information about the circumstances surrounding a patient's condition-culture, housing, income, nutrition and the like-that may directly affect short- and long-term prognosis. Given the diversity of inner city populations, knowledge related to the racial/ethnic characteristics of the population served is essential.

Although greater initiative is needed in these areas, some promising programs are emerging. For example, to address the needs of underserved communities with high rates of cancer, the cancer center at the University of Pennsylvania collaborated with three other schools (social work, nursing and medicine) at the university, a public school, a community hospital, a nonprofit arts group and a number of community-based organizations. The objectives: to identify the health beliefs and practices of the community to develop culturally appropriate educational efforts; identify and train community members as health workers for their neighborhoods and, through these efforts, encourage changes in behavior and promote preventive strategies to reduce the prevalence of cancer. Among other efforts, this program has recruited 264 seventh-grade children as peer educators and community health educators have met with residents in churches, senior centers, block associations and schools (88).

Institutions

Emergency rooms

Emergency departments play a particularly important role in the inner city "safety net," (7). A report on the underserved by Haywood and others (89) summarizes the situation: Large urban centers have the highest proportions of populations with low socioeconomic status and minorities. The preponderance of people with limited means to pay for health care and their lack of access to health care outside the large institutions lead to increased use of hospitals and emergency wards (90).

In many urban areas, city hospitals find themselves acting as screening centers and providing access to specialists to the poor, including mental health practitioners (91). The poor and minorities often have access to few or no adult cardiologists except in large teaching hospitals, according the American Medical Association master file. In Harlem and Brooklyn, public hospitals provide the only specialty services for 100,000 poor in the area. And urban hospital emergency rooms often are the first place minority populations are tested for hypertension (92).

Emergency departments are often used by the poor to gain access to the hospital and for nonurgent care (93,94). Over 50% of the 90 million emergency department visits in 1992 were estimated to be non-urgent cases that could be treated in a less expensive setting (95).

A study of over 20,000 patients admitted to five Massachusetts hospitals (96) found that the emergency departments were serving as primary sources of access to hospital care for those with lower socioeconomic status. Patients admitted through the emergency department used significantly more resources than patients with the same diagnoses admitted through physicians or other avenues. The authors concluded that hospitals allowing broader emergency department access may incur greater financial losses.

And a study of patients at the Regional Medical Center of Memphis (97) found that 85% of the non-urgent emergency department users either had no insurance (53%) or were Medicaid enrollees (32%). More than two thirds of the walk-in patients had no regular source of care.

Inner-city hospitals

Hospitals represent the single largest provider of health services in their communities (4,70). In 1990, 38% of all health care expenditures—$269 billion (twice the amount in 1980)—was related to hospital care (98). Gross patient revenues rose from $36.5 million in 1980 to $208.3 million in 1993. The average urban hospital, by virtue of its volume of care, range and intensity of services, and the extent of its financing, dwarfs its counterparts in other areas.

Public hospitals, in particular, often provide disproportionate amounts of such critical community-wide services as trauma care, emergency care and pediatric and neonatal intensive care that are used by the poor and nonpoor alike (99,100). These services often represent high-cost care for which it is difficult to receive adequate reimbursement. One Dallas hospital (101), for example, was unpaid for 70% of trauma costs and 88% of the costs relating to penetrating trauma from firearms in 1989. Finally, public hospitals, in cities that have them, almost always provide the largest proportion of care to low-income populations (4,71).

Large urban hospitals must adjust to changing demand for services. Inpatient days dropped from an average of 95,427 in 1980 to 89,109 in 1993 (4), and occupancy rates fell from 78% to 69%. Almost half of 19 urban areas have twice the number of beds needed, according to a 1996 summary of bed capacity that uses estimates based on bed-to-population ratios compared to a community with an almost complete HMO penetration as a benchmark (77). If managed care were fully in place, this excess for most cities approaches or exceeds three times the current capacity. Outpatient visits, on the other hand, rose from 48,000 to almost 107,000 and emergency room visits, from 24,300 to over 31,000. Health market estimates suggest that in 1996, 70% of all surgery would occur on an outpatient basis (102). The private nonprofit sector's diminishing presence in caring for the indigent population may also reflect changes in the marketplace (103). That is, increasing costs and difficulty in shifting costs to privately insured patients may cause these systems to reduce their community commitment.

Aggressive cost containment pressures and the emergence and acceleration of managed care place many urban hospitals—particularly teaching hospitals—in a precarious position. They frequently have high costs—in some cases 15% to 35% above charges in community hospitals (104), a tendency to be distant from their communities in planning and decisionmaking, a general lack of community orientation and an inability to adapt to change. These challenges may render them increasingly peripheral in determining the direction of community service, and in particular, in influencing or even participating in managed care.

Already underway is the erosion of historic areas of service and populations served, such as care to pregnant women, young mothers and children on Medicaid. As a result, providers must work with their communities in reconsidering their future. Many may reaffirm most of their traditional responsibilities but realize that management and organization will have to change substantially. Others may need to undergo fundamental reorientation to determine who they should serve and what services they should provide in

their communities.

Community health centers

One response to the inner cities' health care access problems was the establishment by the federal government, in the 1960s of community health centers that targeted poor and underserved populations. Forty percent of the approximately 600 centers, caring for about 6 million people, are in impoverished inner city areas (105). Their objectives are provision of primary care, education, screening and care for high-prevalence conditions such as infant mortality, hypertension and cardiovascular conditions, and redirecting individuals away from more expensive sites such as emergency departments.

Community health centers cared for almost nine million patients in 1994, an increase of over 25% since 1990, according to the National Association of Community Health Centers (NACHC) (106). Approximately 44% of their service population is under 19 years old; 30% are women in childbearing years. An estimated 60% live in poor areas and a similar percent have income below the federal poverty level (107).

According to a General Accounting Office (GAO) report, 500,000 community health center patients already were enrolled in primarily Medicaid managed-care programs in 1993—a 55% increase in only two years (108). Yet fewer than one fourth of the centers had entered contract relationships with managed care providers or been designated as such; 14% provided Medicaid managed care education and referral; and 13% played an active role in monitoring and evaluating managed care systems. Intensified competitive pressure, however, are likely to increase this proportion.

In reviewing the impact of managed care on 10 community health centers, the GAO found all had increased their patient caseload and generally improved their financial bottom line (three reported managed-care-related losses). Seven had been able to increase the resources for uncompensated care. Nonetheless, the report concluded that, because of low capitation rates, assumption of financial risk exceeding their capacity and insufficient information, experience and knowledge about managed care, these programs may be in jeopardy. In fact, the GAO reported one center had to curtail services because it faced insolvency.

Local health departments

Local health departments traditionally have assumed responsibility for providing direct individual health care and monitoring and surveillance services within their communities. General activities include evaluating health status and needs, keeping track of communicable diseases, developing policies to fit their communities and providing immunizations, family planning and well-child care. Seventy-five percent of the resources used to support local health departments were devoted to primary care and communicable disease programs, with environmental health and administrative activities accounting for most of the remaining support (109).

These services have been a mainstay for the working poor and indigent; in Kentucky, in 1993, for example, 65% of respondents on a telephone survey used health departments for childhood

immunizations because of their financial circumstances (110).

This thrust is changing with the advent of managed care, however. In a recent survey of 176 local health departments in areas with over 100,000 population (111), only 56% reported they continue to provide direct primary and preventive health care services, including immunizations and family planning. A number were questioning whether their departments should continue to provide such services or whether their role might be better focused on prevention, education and health promotion. Indeed, many are switching to nonclinical activities, especially outreach and health education and strengthening provider linkages.

But local health departments expressed concerns about managed care. These include substantial or even drastic reduction in services, clients and related revenues (up to an 80% decrease in child health visits due to erosion of patients); fear they would have insufficient capitation rates; inability to provide services to high-risk populations (in some cases, clients were turned away from immunization and lead screening due to lack of reimbursement); a focus on only "medically necessary" care, reducing nutrition, prevention and related services; the virtual elimination of early and periodic screening, diagnosis and treatment programs in many locales; and need for staff retraining to adapt to managed care and downsizing. Recognizing the increased competition and cost reductions, several noted concern that the burden on cities and counties to care for low income, uninsured and undocumented persons could increase as private sector managed care programs severely restrict the ability to shift costs to other sources.

Recommendations and models

A 1992 urban hospital environmental assessment by the American Hospital Association (112) concluded that although many inner city institutions face "life threatening" problems, they are also poised to extend access to underserved communities—an assessment applicable to much of the urban provider universe. First and foremost, traditional care providers should take the lead in breaking the urban-health-penalty cycle by addressing a spectrum of basic needs as part of their direct responsibilities, they should also collaborate with municipal organizations, businesses, residents and other providers to redress the adverse community factors.

Successful role models for both hospitals and community centers exist:

1. Initiatives that emphasize community-responsive medicine, such as the Parkland Health and Hospital System in Dallas (113), blend traditional primary care with public health services and continuity of care, while incorporating direct measures of the community's health and community involvement.

Clinics are placed in strategic locations within neighborhoods and become critical primary care practice sites that act as extensions of the central hospital campus. They also provide after-hour and weekend clinics, especially for the insured working poor. After these clinics are well established, they become training sites for the medical school.

Intended outcomes include both improved health of the community and reduction of inappropriate

use of the emergency departments.

Based in large part on the success of its community clinics, the Parkland System has created a managed care system for Medicaid enrollees and employees and plans to expand it to county assistance clients as well.

2. The Denver Health Medical Center (formerly Denver Health and Hospitals) has developed an extensive program of neighborhood clinics and a community health network that emphasizes care in neighborhoods and de-emphasizes services at the central hospital. This system, recently awarded a major Medicaid managed care contract, is also creating a hospital authority. The new governance structure will distance it from direct government oversight and obligations while maintaining a community mission and freeing the system to build additional joint ventures.

3. Other communities have shifted from a public system to a public-private partnership. Since the 1960s, when San Diego chose to contract with the University of California at San Diego Medical Center for indigent and emergency care, the county has opted to decentralize and privatize many of its traditional public sector functions (114).

A clinic network—the central priority for the health system—was established throughout the county through contracts with nonprofit, primarily community-based organizations. While the county has divested these responsibilities, it still plays an important role. It has put in place strict eligibility and so-called "medical severity" requirements, as well as copayment obligations. It also shifted the costs associated with undocumented patients to the medical center. As currently supported, this effort has resulted in a well-developed community clinic system, but seems to have created gaps in delivery of more costly care, some financial problems for the hospital, and some doubt about how well the system provides preventive services to patients who are not ill.

Finally, traditional public hospitals are being sold (Milwaukee) or are integrating with private providers (Boston). These efforts are intended to reduce excess capacity as well as government support, and may also work to strengthen market position in the case of Boston.

4. Rochester, New York, does not have a public hospital. Instead, the city has traditionally relied on the private nonprofit sector to provide care to low-income populations in the city. The success to date of the Rochester model is attributed to at least five factors-reliance on community-based planning since the 1930s; a single insurer, Blue Cross-Blue Shield, with over 70% of the market; strong support from and involvement of influential businesses such as Eastman Kodak and Xerox; the popularity of using community rating for insurance; and a history among the hospitals of cooperating to share services and control costs (115).

At this time, the increasing influence of managed care and additional cost-control pressures are leading some of the institutions in Rochester to form subgroups to share information, reduce duplication and simplify billing. Some are expanding their activities into affiliations with nursing homes, senior housing, mental health and day care centers. The outcomes of these new arrangements are unclear, however, given the major market changes and shifting alliances in the city.

Community health centers also have been seeking partnerships with other institutions to form cooperative managed-care organizations. Community health centers are finding managed care brings both opportunities and challenges: Proximity to the community and their role in providing primary and ambulatory care services make them attractive candidates for joint ventures and for contracts with state Medicaid initiatives.

Centers responding to the GAO survey mentioned earlier identified improvements associated with Medicaid managed care programs; redirecting support from clinical to nonclinical activities, especially outreach and health education; and strengthening of service/provider linkages. In all, there was agreement that these new programs provided clients with identifiable primary care providers; allowed access to 24-hour care; increased control over inpatient, specialty and emergency department use; improved continuity of care; and provided a more effective way to monitor costs.

In summary, safety net providers bring a wealth of experience and expertise in caring for inner city residents. But to confront the new forces they face, they must reduce costs, optimize efficiency and live within more limited budgets. Many will require time and assistance in making that transition (upgrading information systems, for example) if they are to remain viable.

V. THE IMPORTANCE OF MEDICAID

Medicaid plays a most critical role in care for the vulnerable populations of the inner city by directly financing health care providers and by indirectly influencing other revenue sources by what it does and does not support.

Medicaid expenditures increased sharply between 1988 and 1993, from $51 billion to $125 billion. In 1993, Medicaid represented almost 35% of the average gross patient revenues to institutions in the 100 largest cities, while self pay (mainly bad debt and charity care) represented over 22%. Using those figures as an approximation of hospital care provided to low-income populations results in $40 billion during 1993—over five times the level provided in 1980.

A 1995 report by the Kaiser Commission on the future of Medicaid (116) details the vastness of the joint federal-state program's commitment to financing health care for low-income populations, especially women and children, the disabled and poor elderly. The program covers an estimated 60% of people living in poverty, including 13% of the nonelderly population; provides health care financing for 25% of all children (16 million); and pays for 33% of all births. It is responsible for 7 million adults in low-income families, 4 million poor elderly and 5 million low-income persons with disabilities. Expansion of coverage for pregnant women and children accounted for the largest increases in covered populations from 22 million in 1988 to 32 million in 1993. The expanded coverage plus a decline in insurance coverage through employers added 9 million to the Medicaid rolls. Three million children lost private insurance coverage between 1988 and 1992; the number of children in poverty increased two million (116). As a result, Medicaid was estimated to serve about 36 million people in 1995 (117). It pays 13% of all health care expenditures in the US (116).

Medicaid support varies greatly among states (119) and those variations have major implications for health care coverage in the inner city. All states participate in Medicaid; only eight have noninclusive

programs with 600 Medicaid beneficiaries per 1000 poor as of 1993; 12 states have proportions of fewer than 400/1000 poor persons. New England states generally provide the most expansive coverage; some of the mountain states (e.g., Nevada and Utah) provide the least. Expenditures per beneficiary also vary greatly: New Hampshire and New York spend over $7000 each; many states in the South and Southwest spend less than $3500. California has one of the lowest rates-$2801 in 1993.

In areas where Medicaid offers relatively generous support, it is the predominant source of funding for care for the poor. In areas with more restrictive coverage, local governments and other groups may have to provide more assistance. With increasing pressures to reduce spending at all levels of government, health care providers in the inner city will find it increasingly difficult to expand coverage or increase services.

Disproportionate share (DSH) payments—adjustments to Medicare and Medicaid for hospitals caring for large numbers of low-income people represent critical and sizable sources of support—reaching $17.5 billion in 1993 under Medicaid alone—14% of total Medicaid expenditures. And most recent information from the Prospective Payment Assessment Commission indicates total Medicare DSH payments of $4.3 billion in fiscal year 1996. This represents 6.2% of total prospective payments (119). As such, DSH payments have been critical sources of support, especially for state or local governmentally controlled teaching hospitals and large, urban hospitals. Such payments led to disproportionate share hospitals having the smallest Medicare and Medicaid losses in the country. In fact, the DSH payments allowed urban public hospitals to report a positive Medicaid bottom line for the first time (120). Major public teaching hospitals, for example, witnessed a change from a 3.4% loss in 1991 to a 1.5% positive balance in 1992.

A diametrically opposite effect occurred from uncompensated care. Major public teaching hospitals had the largest losses from bad debt and charity care of all hospital groups—7.3% of total costs—even taking into account that 60% of related costs were offset by governmental and other subsidies. These hospitals also had the least ability to offset those costs by charging private payers because they represent a small proportion of total revenues. In all, governmentally controlled institutions in urban areas report uncompensated care costs of over 14%, far exceeding the 5% reported by the nonprofit and 4% by the proprietary sectors.

The role of managed care

Managed care—particularly tied to Medicare and Medicaid—is calling the future of safety-net organizations into question. In 1983, only 3% of the Medicaid population (750,000 individuals) were enrolled in managed care. In 1994, that number had increased to 23% of enrollees (nearly 8 million) (116). Much of this expansion is occurring through Section 1115 of the Social Security Act, which allows federal approval of research and demonstration projects at the state level to try alternative approaches to servicing a Medicaid-eligible population and still receive payments. By early 1996, 10 states had implemented such programs; five received approval; and 13 had applied (117). The 15 states that have already implemented or been approved for programs represent 4 million Medicaid enrollees.

At this writing, the future of Medicaid managed care is unclear, however. Certain attributes of managed care may conflict with characteristics of the Medicaid population in the inner city and elsewhere. These

tensions must be resolved or they could undermine the success of the programs (118):

Managed care works most effectively with stable enrolled populations. Medicaid eligibility is subject to substantial fluctuation due to changes in employment and income. A 1988 study (122) found that only 43% of Medicaid enrollees were in their managed care program for 32 months. High turnover rates could create gaps in service and leave patient-provider relationships unstable.

Payment rates in public programs are subject to budget changes and pressures. That may set provider amounts at inadequate levels or even lower them over time. That may cause providers to drop out or deliver inferior service (123).

Provider shortages could be exacerbated by lack of physician participation in the managed care plans.

Sociocultural barriers and unfamiliarity with special needs of inner-city populations may be heightened by plan administrators not familiar with the diversity of inner-city populations.

Inner-city participants may require greater education on how to negotiate the system, and lack of language skills and telephone access may lead to frustration and ineffective use.

Review of Medicaid managed care initiatives to date does not provide a clear profile of program outcomes. In an ongoing Arizona Health Care Cost Containment System review, a 1995 study based on a random cross-section of adult and child enrollees (124) found that adult enrollees tended to be sicker than private sector patients, as measured by percent with medical emergencies in the past 12 months, number hospitalized in that period and percent who view their health as fair or poor. These enrollees also visited their doctor twice as often as those with other types of insurance (17 vs. 8 visits). Satisfaction rates were comparable with private sector managed care health plans. In addition, enrollees generally reported satisfactory accessibility to their doctors. Only 8% of adults and 2% of children depended on the emergency room as their usual source of care.

Physician office visits have increased only at certain sites, and a review of access to preventive services also is inconclusive. Reports examined by the Kaiser Commission (125) found that, during 1994, immunization rates were lower among children enrolled in Medicaid managed care programs than in other low-income programs. On the other hand, a number of sites indicated substantial declines in specialist referrals and in emergency department use.

A Rand Health Insurance study (123) extended beyond Medicaid and focused on prepaid care delivery group practice in Seattle for the poor. It found that low-income people who had health problems prior to enrollment in the plan had more serious symptoms and a greater risk of dying than low-income patients who remained in fee-for-service programs.

Furthermore, major Medicaid savings through capitating and managing care of low-income families may not occur. In keeping with the Arizona program, studies to date have indicated some level of financial tradeoff. Decreased hospital and emergency department use is offset by increased primary care, for example. In addition, the current initiatives do not target the elderly and disabled, populations that

account for an estimated 60% of all Medicaid expenditures.

Efforts to reduce emergency room visits on the part of insurers and, in particular, managed care, are creating a "new source of charity cases," according to information from the American Hospital Association and Washington, DC, hospitals. Greater Southeast Hospital, for example, experienced a 2% decrease in emergency department visits in 1995 but their uncompensated care rose $500,000 to $25.5 million because of payment denials by managed care organizations and substantially reduced ability to shift charity costs for the poor and uninsured due to constrictions placed on hospitals by managed care organizations (126).

Finally, managed care programs that do not address the core problems in the community—consequences related to unemployment, poor nutrition and housing, crime and other circumstances—may meet their "Waterloo," finding themselves repeatedly treating the same patients due to those circumstances. Such patient "recycling" will boost costs, while the health status of those covered lives deteriorates further.

Ultimately, as one report (127) concluded, "efforts to reduce costs (especially if managed care savings are linked with capping Medicaid contributions) may require rationing through longer waiting times for service and by restricting scope and duration of services."

The recent increase in Medicaid managed care has raised many uncertainties about its efficacy and effect on traditional providers of care to this population. The issues raised do not paint the full picture of managed care outcomes, however. That is, assessments, perceptions and reality to date have identified important opportunities as well as major areas of concern. Certain segments of the health care community already are taking positive steps and directions that potentially offer benefits to all involved.

Recommendations and models

Reports from several states suggest some promise and guidance for Medicaid managed care programs and health care organizations, given sufficient time for implementation. Managed care programs targeting low-income populations have emerged in several settings:

California's Contra Costa County near San Francisco has developed a county-wide managed care plan for county employees as well as Medi-Cal beneficiaries. Over 20,000 members are enrolled in a program that uses a public hospital and clinics in the community.

Hennepin County (Minneapolis), which already has a health maintenance organization for 32,000 employees operated in conjunction with its public hospital, has initiated a new community-wide program. Its purpose is to integrate health, public assistance and social services into broader programs with increased flexibility. It focuses on involving and supporting communities and their residents rather than narrowly directing resources toward a "client" need. Case management is a core component, but it approaches enrollees from a more systemic perspective, linking health with socioeconomic and environmental concerns such as housing, employment and, in some circumstances, basic living needs.

A 1996 report on managed care in Minnesota concluded that the state's safety net providers can compete successfully in managed care for Medicaid populations and, in some cases, be leaders in providing care.

At the same time, the report concluded that longer implementation may be beneficial to allow for adaptation to the needs of Medicaid enrollees in the managed care system.

These initiatives offer promising directions and insights into services for the inner city. Such approaches by hospitals, health centers and health departments share several common characteristics and concerns that affect their future viability (105): establishing and maintaining a stable source of funding; reaching and keeping a critical mass of service, staff and patients within the organization/provider group or through networking; community involvement in planning, implementing and monitoring programs and services; attracting and retaining primary care providers; ensuring leadership and management who adapt to community needs and the marketplace; and recognizing that managed care is changing providers' traditional roles and alliances.

The American College of Physicians (ACP) identifies five emerging challenges to academic health centers as a result of managed care: (1) decreases in service payments, clinical service volume and market share; (2) adverse selection; (3) loss of special funding for capital needs; (4) graduate medical education; (5) DSH adjustments. ACP recommendations for future medical education support include an all-payer system that would require purchasers of health care to share in related costs (128). Meeting these challenges should also lead to more community and primary care orientation.

In this context, hospitals must assume increased responsibility for the well-being of their communities that extends far beyond high-technology, specialty-dependent care. Most importantly, institutions with existing community-oriented, off-campus initiatives should consider increasing the resources devoted to and intensifying the organization's focus on those programs. Such initiatives may integrate the organization successfully into the community and could actually elicit support that increases local government and business funding.

For hospitals with teaching programs but without substantial community efforts, it may be too late to develop such programs due to the financial commitment, time and approval often required. Such institutions should focus on creating equal partnerships with existing community-based programs such as community health centers, schools and clinics. Such collaborations would provide placements for primary care-oriented students and the experiences could be used for feedback to the institution about community need and care.

VI. OPPORTUNITIES FOR GOVERNMENTS

Governments at all levels must actively address the fundamental changes occurring in health care. These changes are brought on by market forces and competition, and are being driven by managed care. As a result, the health-service-delivery model based on community hospitals, community clinics and community physicians is being replaced by segmentation of communities based on market share and covered lives.

Overlaid on the health care environment is the great uncertainty that exists regarding the effect of welfare reform block grants on Medicaid and health care access for low-income populations. A recent article in the Washington Post, citing estimates from an Urban Institute report to Congress on the potential effects of changes in welfare (129), noted that more than one million additional children could fall below the

federal poverty level. It summarized the legislation as a ". . .bill that would cut only programs for the poor, and programs on which people who are black and brown particularly depend." Also left unclear is whether these reorientations will lead to an unintended decoupling of Medicaid benefits from individuals otherwise entitled due to loss of welfare eligibility. Although it is too soon to suggest whether these forecasts will come true, the fact that 50 states will now directly control welfare under more restrictive financing has created an environment of great concern.

Such fundamental changes leave open to question how the broader context of health care needs for the community at large will be addressed, much less met. It also leaves unresolved the future role of the public sector in the inner city and elsewhere. Should the public sector be fully engaged and compete with other providers, adapting as needed to obtain the best market position? Should the public sector be relegated to a residual role, providing services to populations that the private sector doesn't cover? Or should communities divest themselves of public responsibility as much as possible, leaving it in the hands of the private sector? Moreover, what role will the public sector play in the context of welfare reform and indigent populations?

As a first step, education is needed: State, county and local policy makers should be educated regarding the inner-city health penalty. This education should not consist merely of a laundry list of problems. Rather, they should be exposed to the health and health-related similarities and differences among inner cities, surrounding counties, and the US.

National policymakers also should be informed and kept up to date on the scope of inner city issues in the context of national trends so those issues have relevance to the broadest audience—stressing the migration of populations beyond the cities, for example. Providers and communities, with these policymakers, could work to develop a national agenda, integrating health and related concerns. Finally, a national commission or task force on inner cities would provide the opportunity to focus on strengths, resources and challenges.

Local governments

Local governments need to work with their communities to rethink the role of the public sector, including public health, public hospitals and public clinics.

In this era of managed care, private sector involvement is increasing in areas traditionally dominated by the public sector. Local governments can bring public and private sector health care providers, business, community representatives and private resources such as foundations together to address the needs of inner cities.

The ability of governments to organize and assist in directing resources that integrate health, social, environmental and geographic needs is pivotal to any successful policy for the inner city. Governments are also in an ifluential position to organize the strengths of the community.

Questions to consider in this role include: How much involvement should public sector services have in the transition? What are essential functions for the public and private sectors? Where public services are directly controlled by city or county government, are there other structures that could allow local public

providers opportunities to become more efficient and take advantage of innovations and joint ventures while preserving the "community needs first" mission? To what extent should the public sector provide direct service or, alternatively, contract with private providers?

Segmentation based on covered lives, as well as aggressive attempts to draw more profitable Medicaid populations into private sector managed care could lead to fragmentation of essential but high cost/low profit community services such as trauma and neonatal and pediatric intensive care. Gaps may result in geographic areas with high proportions of uninsured populations. In those circumstances, local governments should strongly consider strengthening community-wide planning for health care services. Finally, along with the state, they can use their regulatory and purchasing powers to guide and influence the dynamics of health care in their communities.

State governments

State governments have always represented a major source of financial and other support for municipalities. The increased power and flexibility that comes with 1115 Medicaid waivers and political efforts to divest more federal control provide both opportunities and a threat to inner cities. For example, states can support providers in the inner city through application of DSH funds for urban priorities and through working with local governments to develop more integrated approaches to inner-city issues. Alternatively, states could drain resources from the cities and use them for other areas.

A number of more positive steps can be taken. State governments can encourage placement of health professionals in urban areas of need and promote development of additional community-based primary care capacity. A 1996 report (130) indicated a number of states have been using their financing and regulatory influence to redirect medical training programs toward primary care and have been developing data systems to monitor geographic distribution as well as education policies to address related need. These efforts can be broadened. Finally, states should monitor managed care costs, impacts and the needs of cities. Indigent care should be a part of this monitoring and information capacity.

Federal government

The federal government can play at least three key roles. Through Medicaid and managed care efforts (and use of support related to the Mediciaid disproportionate share adjustment), it can work with states to help major traditional providers of care to low-income populations (131). Such efforts should tie assistance to reducing excess capacity in public institutions and redirecting resources to community-based care. They could target populations in need—in particular, the large uninsured populations not covered by Medicaid—and create more effective integrated systems that capitalize on the strengths of public and private providers.

The federal government should work with states to create more effective monitoring systems for assessing the effects of managed care on inner-city populations. In particular, the federal government should take the lead in developing more comprehensive information on the inner city, including additional disease data and the correlation between social circumstances and health. It should also play a role in disseminating information and encouraging integrated public-private models to address the social,

environmental and health needs of inner city residents.

Finally, the federal government can expand the use of domestic and international experiences to identify promising models that have been developed through the US Agency for International Development (AID), Peace Corps and other programs, and encourage that they be copied through demonstrations in inner cities. With AID's extensive efforts in developing countries, its accumulated knowledge in improving health care could be transferable to inner cities. In Baltimore, an AID-type program, "Lessons Without Borders," attempts to do just that (132). Program activities include training residents as health educators, starting environmental awareness programs, and developing an immunization program that includes neighborhood volunteers "canvassing" door-to-door in Baltimore.

Another AID-sponsored program established partnerships between hospitals in the US and Central/Eastern European countries. Through this initiative, American hospital personnel meet with their overseas counterparts and learn about the cultural characteristics in their countries. A partnership between Coney Island Hospital and a Ukrainian hospital, for example, has helped workers understand their largely Ukrainian immigrant population.

VII. CONCLUSION

Inner-city communities may be facing the greatest health care challenges of all the areas of the country. The circumstances of poverty are exacerbated by racial/ethnic segregation and discrimination. Health care status of residents is significantly lower than that of the rest of the country; health access, a longstanding problem among the poor in cites, shows no sign of significant improvement.

One of the most important characteristics is the interrelationships among health and social and environmental problems. The so-called "urban health penalty"—the confluence of circumstances such as poor nutrition, poverty and unemployment with deteriorating housing, violence and loss of services-has created a deepening health crisis in the inner city.

No longer do "health only" models of intervention provide adequate results. As a 1996 editorial by Link and Phelan (133) concluded, "...if we truly wish to reduce inequalities in health, we must address the social inequalities that so reliably produce them."

Even if the problems of the inner city seem to stand apart in degree and kind, other areas of the country should not be complacent. As documented in this report, health and health-related changes previously attributed to large cities have followed populations moving to smaller communities.

Ultimately, the residents of inner cities, their health care providers and their governments must seek to correct the current inequities and misdirections inherent in the US health care system. This will require a major reorientation of resources and "mind set," toward stressing the community's social and health systems, coordination and collaboration, and assisting individuals in helping themselves. Through such a reorientation, we will be successful in assuring the health of these communities in the truest sense.

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