

Access to Care Is the Centerpiece in the Elimination of Socioeconomic Disparities in Health

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Many health care professionals have sustained an almost single-minded conviction that disparities in access to health care across socioeconomic groups are the key reason for the major discrepancies in health status between wealthy persons and poor persons. Others, however, have argued that a host of factors work to create major impediments and that reducing or eliminating financial barriers to health care in particular will do little to reduce discrepancies in health status. This paper, while acknowledging the spectrum of contributing factors, argues that the elimination of financially based differences in access is central to any effort to create equity in outcomes across socioeconomic groups. Through selected review of the many studies on health insurance, access, outcomes, and socioeconomic status, it establishes that a core links affected populations, their difficulty in financing health care, and the threat to their well-being. In so doing, it cites findings that strongly associate lack of insurance (especially for persons who live in poverty), inability to obtain services, and adverse health outcomes. It also uses the example of Medicaid and other coverage for HIV-infected persons in particular as an important positive instance in which leveling the discrepancies in health care across socioeconomic groups can move toward creating quality in access and outcomes. The competitive pressures in today's health care environment threaten to drive socioeconomic groups further apart, especially insured and uninsured persons. However, the recent enactment of state actions, especially the State Child Health Insurance Program, represent powerful examples of health insurance expansion that have lessons for policymakers at all levels for the monitoring and reduction of socioeconomic disparities.

The Institute of Medicine defines access to health care as "... the timely use of personal health services to achieve the best possible outcomes" (1). Achieving the objectives implied in this definition for socioeconomically disadvantaged populations has come to represent a serious, continual, and somewhat time-worn objective in the United States. Without a national health insurance program, society has tacitly accepted a piecemeal, incremental approach to improving the health care circumstances of these populations. Such an approach has shifted the focus of efforts to states, in which substantial variation in the percentage of persons without insurance for at least 12 months (the definition of "long term") belies a concurrent variation in insurance policies; in 1995, this rate ranged from 2.9% in Hawaii to 17.1% in Louisiana (2). At the same time, many continue to believe that if the financial barriers to health care could be lowered or eliminated, we could greatly reduce differences in the quality of health care as well as health care outcomes across socioeconomic groups. But would leveling the differences created by financial inequity really eliminate major disparities, or is this a shibboleth that masks more complex, deep-seated concerns that would continue to perpetuate great inequality in health care access and health status?

This paper supports the contention that action that successfully decreases financial barriers across socioeconomic groups will go a long way toward the substantial reduction of socioeconomic disparities in health. In so doing, it draws on selected reports from the vast literature that lead to these conclusions and puts in context the great health care benefit that could be derived from a leveling of financial differences.

Poverty, Lack of Insurance, and Health Adversity

The literature is replete with studies linking problems with health care access, differences across socioeconomic groups, and health consequences. As we approach the 21st century, reports indicate that

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the consequences of such disparities are increasing. For example, a summary report on children who live in poverty, a population with large numbers of uninsured, profiled the familiar litany of adverse consequences, including greater likelihood of receiving lower-quality care and dying in infancy (3). Moreover, as many as one in four children—the same proportion of children growing up in poverty in the United States—may face these and other adverse circumstances. Between 1979 and 1994, the number of children younger than 6 years living in poverty increased from 3.5 million to 6.1 million.

A 1997 report from the Center for Studying Health Systems Change also shows that disparities remain large and that their adverse impact may be growing (4). This survey-based study of almost 44 000 persons conducted in 1996 and 1997 found a familiar pattern: Families classified as low income were more likely than any other group to report decreased access to health care within the past 3 years. More than twice as many uninsured persons (43%) reported reduced access compared with persons who had private insurance (21%). In contrast, elderly persons, who are eligible for Medicare coverage, were the least likely to report reduced access.

Investigations of avoidable hospitalizations and emergency department use among uninsured persons and across socioeconomic groups show how this situation plays out in our health care system. An examination of California hospital discharge data found that, among other factors, poverty was correlated with higher rates of preventable hospitalization. The report also concluded that uninsured persons are likely to have greater difficulty than privately insured patients in accessing inpatient care (5). A 1997 report using National Hospital Discharge Survey data found that the number of potentially avoidable hospitalizations was far greater in middle-income and low-income populations than in the wealthiest populations; children were also affected by socioeconomic disparities in access. These findings led the authors to comment on the "... striking class and racial differences in rates of potentially avoidable hospitalization. . ." (6). Using National Medical Care Utilization and Expenditure Survey data, Spillman (7) found that the rate of nonemergency care for uninsured children was only 70% of the rate for those who were insured and that much less money was being spent on the uninsured population for inpatient and ambulatory care. According to the National Center for Health Statistics, nonurgent cases accounted for more than 50% of the 90 000 000 visits to U.S. hospital emergency departments in 1992 (8). Emergency departments are a well-established source of access to persons of lower socioeconomic status, who most often have no other recourse for care (9, 10).

This aspect of our health care system sets us apart from other countries as well, with the related consequences falling squarely on those who have difficulty meeting their health care costs. A survey-based comparison of perceived access to health care among residents in the United States, Canada, and Germany conducted in 1994 and 1995 found that persons in the United States were most likely to report difficulties in obtaining and paying for their health services (11). In particular, the U.S. group reported greater likelihood of financially based access problems. In all, 20% of the U.S. group reported "serious" problems in paying medical bills in the past year. In addition, an estimated one third of the uninsured U.S. group reported financially based access problems, and almost two thirds reported delaying care because of such problems. Significant differences were found for access to specialists, diagnostic tests, and overall medical care.

Breaking the Link between Poverty and Lack of Access To Improve Health Outcomes

Obviously, many factors influence the health of individual persons, regardless of whether they are poor. Nonetheless, the ability to substantially improve access for low-income populations through elimination of financial barriers is probably a *sine qua non* when it comes to eliminating disparities in health status. The health care literature provides important evidence of the financial leveling effect—or the lack thereof—by two measures: health care utilization and health care outcomes. For example, in an international study of children and health care utilization, Casanova and Starfield (12) found that when access to primary care is leveled across income strata, no significant differences by income appeared for rates of ambulatory care-sensitive conditions, such as asthma. The implication drawn from this finding is that the ability to use a primary care practitioner may obviate worsening of a treatable condition that if left unaddressed, would probably require more urgent care. A survey-based examination of the link between access and insurance in the Seattle-King County area found that being insured was the strongest predictor for having a regular source of care and was strongly correlated with ease of access to care. Moreover, when uninsured persons became eligible for Medicaid, their health care access improved (although it never reached the levels seen with private insurance) (13).

An examination of patterns of inpatient, outpatient, and related health care status among 346 persons who were previously uninsured and became enrolled in a Kaiser managed care program found

patterns of utilization similar to those seen in a commercially enrolled group (14). In addition, the costs of care for this previously uninsured group were not substantially greater than those in the commercially enrolled group. A review of 1987 data from the National Medical Expenditures Survey and the Survey of Income and Program Participation from 1984 to 1988 found that persons receiving Aid to Families with Dependent Children who received Medicaid coverage were significantly more likely to use both inpatient and outpatient services than they would if they had been uninsured (15). Other evidence of the value of access comes from research examining health-related quality-of-life outcomes for HIV-infected low-income and medically indigent persons (16). Using interviews on access from 196 public hospital clinic patients participating in the HIV Outcomes Study, the authors found significantly better quality-of-life outcomes (such as freedom from pain and improved social and cognitive function) among persons who were in moderate physical and mental health and had greater access to services than those of similar health but with poorer access (access measures were based on Medical Outcomes Study responses).

Several studies have documented the adverse effect of lack of health insurance on outcomes and quality of care. A 1991 report by Hadley and colleagues (17) comparing privately insured and uninsured hospital patients according to admission, use of resources, and discharge outcome found that with few exceptions, persons without insurance had a greater likelihood of dying in the hospital. A 1993 study by Franks and associates (18) found lack of health insurance to be more highly correlated with death among adults who were followed over several years.

A report on birth outcomes in ethnic minority women suggests the positive outcome that can be derived from reducing financial access barriers (19). For eligible Medicaid recipients, a New Jersey initiative increased the number of prenatal visits available; increased provider reimbursement; and enhanced other service support, including follow-up after pregnancy, case coordination, and health education. Program evaluation found an increase of almost 56 g in mean birth weight and a 3.7% reduction in the likelihood of having a low-birth-weight infant. Because low birth weight is associated with more problems in children, the ability to increase perinatal weight through improved access to health care implies healthier outcomes for a population of concern.

A 1997 cross-national health care comparison quantified how limited health financing adversely affects the ability to improve access and outcomes for U.S. residents (20). As of 1960, only 4 of the 29

Organization of Economic Development and Cooperation nations—the United States, Turkey, Portugal, and Greece—had fewer than 50% of their citizens eligible for inpatient hospital care within a public system. By 1995, only the United States remained below the 50% level. These statistics are linked with the finding that the U.S. ranking in infant mortality worsened to 12th from 23rd of 27 countries in 1960. A change in rank for the worse was also seen with life expectancy, which moved from 20th to 13th in this time period.

Other reports have documented the adverse effect of decreased financial access on health care quality, with implications for health outcomes. A New York study examining the relation between socioeconomic status and quality of care found that uninsured persons were more likely to receive substandard health services for medical injury (21). A Boston-based hospital study found that uninsured persons received fewer procedures and had shorter inpatient stays than privately or publicly insured patients (22). Such results may be an indicator of substandard health care.

A study of hypertension among more than 200 ethnic minority patients in New York found that greater severity of condition was significantly related to absence of a relationship with a primary care provider (23). Moreover, those without health insurance had a greater tendency to use emergency departments for hypertension testing. The authors concluded that primary care access that is improved through health insurance can increase effectiveness in controlling hypertension among ethnic minority patients. Because hypertension has been linked to adverse outcomes, control of this condition suggests better health for these persons.

Leveling Health Insurance Inequality: Efforts, Effects, and a Glimpse of the Future

The historical failure of national proposals to equalize financial access does not mean that no major examples of promising initiatives can be found. Rather, targeted interventions, as well as strategies intended to have a broader effect, provide some success stories or actions worth watching.

Recent breakthroughs in HIV treatment and related coverage expansions through Medicaid and other venues present one of the most dramatic examples of how action to reduce financial disparities in access can have a leveling effect on health care quality and outcomes across socioeconomic strata. The introduction of multidrug treatment regimens and, in particular, protease inhibitors greatly increased the ability to restore a high level of functioning in HIV-infected persons. For many, it not

only means a better quality of life but also may literally be life-saving. The Centers for Disease Control and Prevention confirmed this dramatic change in its 1997 update on AIDS in the United States (24). The agency reported registering the first decrease in AIDS-related opportunistic infections, crediting prevention strategies and the application of antiretroviral therapies. The Centers for Disease Control and Prevention noted in particular that in one of their Adult/Adolescent Spectrum of Disease projects, the proportion of patients receiving combination antiretroviral therapy, including protease inhibitors, increased from 24% in the second part of 1995 to 65% in 1996.

The response of government and the private sector to date has led to the broad application of this regimen and notable success, thus graphically demonstrating a direct link between leveling the financial differences across socioeconomic groups and positive impact. In fact, the conclusion reached by one report bluntly stated, "The expense of these agents (protease inhibitors) may be offset by forestalling disease progression and death and returning people to productive life" (25). However, the situation remains precarious as the need among poor and nonpoor persons with HIV infection remains great and growing, and a more permanent solution to the financing of HIV care, which costs as much as \$10 000 per patient per year, is still unclear.

The lessons from AIDS and the new therapies should not be lost for other conditions. For example, a California study of prenatal care found that uninsured women were at the greatest risk for late visit initiation for prenatal care and inadequate numbers of visits compared with women with Medicaid coverage and privately insured women. The authors concluded that attention should be directed in large part toward overcoming financial access barriers (26). A report on breast cancer according to insurance coverage reached similar conclusions on the consequences of lack of insurance—in this case, leading to a higher frequency of adverse outcomes, including lower survival rates. In this case, the authors concluded that a lack of insurance may have created barriers to critical primary care that are much less likely to occur among the privately insured (27). Implicit in these studies is the role that insurance coverage could play in providing access to care and improving outcomes for an array of conditions. In fact, on the progress evidenced by AIDS coverage by Medicaid and the lack of such coverage (and, thus, remaining barriers) for so many other conditions, bioethicist Arthur Caplan noted, "This disease-by-disease strategy is not fair and equitable" (28).

The advent of state Medicaid waivers, including the Oregon plan and the major eligibility expansion

occurring in Tennessee and elsewhere, creates opportunities and living laboratories to observe the effect of reducing financial access barriers. A 1997 report noted that in Oregon and Minnesota, more than 100 000 previously uninsured persons are enrolled in Medicaid; in Tennessee, Medicaid coverage has expanded to 400 000 enrollees (29). Far from perfect in their application, these attempts may provide critical evidence on whether such broader efforts specifically aimed at incorporating uninsured persons into health care can improve health status on a large scale.

Although federally administered national insurance strategies have not come to fruition, one 1997 initiative offers an important case study of federal-state partnership. The recently enacted State Child Health Insurance Program is intended to increase access for low-income populations by extending insurance to persons not otherwise covered by public or private programs. Each state has the authority to develop its own approach, but the overall objectives of the program are to provide financial and provider access, especially through managed care. This new Title XXI includes a large federal contribution—\$48 billion over 10 years (30). This substantial financial support and a required state match will target children of working poor families and their parents. The initiative may also add critical outcome information to the discussion of the impact of reducing financial disparities in health care because many states are likely to closely scrutinize the value of eligibility expansion to underserved populations.

Current deliberations on insurance, access, and outcomes continue a long-standing tradition in the United States. Managed care and greatly intensified competitive pressures have raised the stakes in the debate, threatening to drive an even deeper wedge between the more than 40 000 000 uninsured persons and those with insurance. In particular, the increasing emphasis on market advantage and financially covered lives and increasing intolerance of cost shifting among payers—one of the historical methods of covering the costs of care for uninsured persons—is creating potentially insurmountable disincentives for many providers to treat persons without insurance. Moreover, inadequate capitation rates could expand the number of uninsured persons. The consequence may be a large segment of U.S. residents relegated to sustained or worsening inequality in access and outcomes.

Any truly successful, long-term solution to the health problems of the nation will require attention at many points, especially for low-income populations who have suffered from chronic underservice if not outright neglect. But as for a single change that can have the greatest impact, our state governments, the federal government, and the U.S. Con-

gress could not choose a better place to leave their mark than elimination of disparities in health care access between rich and poor.

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References

1. **Millman ML, ed.** Access to Health Care in America. Institute of Medicine. Washington, DC: National Academy Pr; 1993.
2. State-specific prevalences of lapses in health-care-insurance coverage—United States, 1995. *MMWR Morb Mortal Wkly Rep.* 1998;47:73-7.
3. **National Academy on Aging.** One in four: child poverty in America. The Public Policy and Aging Report. 1997;8.
4. Center for Studying Health Systems Change Data Bulletin. 1997;1.
5. **Bindman AB, Grumbach K, Osmond D, Komaromy M, Vranizan K, Lurie N, et al.** Preventable hospitalizations and access to health care. *JAMA.* 1995;274:305-11.
6. **Pappas G, Hadden WC, Kozak LJ, Fisher GF.** Potentially avoidable hospitalizations: inequalities in rates between US socioeconomic groups. *Am J Public Health.* 1997;87:811-6.
7. **Spillman B.** The impact of being uninsured on utilization of basic health care services. *Inquiry.* 1992;29:457-66.
8. **National Center for Health Statistics.** National Hospital Ambulatory Medical Care Survey: 1992 Emergency Data Summary. *Advance Data from Vital and Health Statistics of the National Center for Health Statistics.* Rockville, MD: U.S. Dept of Health, Education, and Welfare, Public Health Service, Health Resources Administration; 1994. DHHS publication no. 94-1250.
9. **Stern RS, Weissman JS, Epstein AM.** The emergency department as a pathway to admission for poor and high-cost patients. *JAMA.* 1991;266:2238-43.
10. **Ahern A, McCoy H.** Emergency room admissions: changes during the financial tightening of the 1980s. *Inquiry.* 1992;29:67-79.
11. **Donelan K, Blendon R, Benson J, Leitman R, Taylor H.** All payer, single payer, managed care, no payer: patients' perspectives in three nations. *Health Aff (Millwood).* 1996;15:254-65.
12. **Casanova C, Starfield B.** Hospitalizations of children and access to primary care: a cross-national comparison. *Int J Health Serv.* 1995;25:283-94.
13. **Saver B, Peterfreund N.** Insurance, income, and access to ambulatory care in King County, Washington. *Am J Public Health.* 1993;83:1583-8.
14. **Bograd H, Ritzwoller DP, Calonge N, Shields K, Hanrahan M.** Extending health maintenance organizations to the uninsured. A controlled measure of health care utilization. *JAMA.* 1997;277:1067-72.
15. **Marquis MS, Long SH.** Reconsidering the effect of Medicaid on health care services use. *Health Serv Res.* 1996;30:791-808.
16. **Cunningham WE, Hays RE, Ettl M, Dixon WJ, Liu RC, Beck CK, et al.** The prospective effect of access to medical care on health-related quality-of-life outcomes in patients with symptomatic HIV disease. *Med Care.* 1998;36:295-306.
17. **Hadley J, Steinberg EP, Feder J.** Comparison of uninsured and privately insured hospital patients. Condition on admission, resource use, and outcome. *JAMA.* 1991;265:374-9.
18. **Franks P, Clancy C, Gold M.** Health insurance and mortality. Evidence from a national cohort. *JAMA.* 1993;270:737-41.
19. **Reichman NE, Florio MJ.** The effects of enriched prenatal care services on Medicaid birth outcomes in New Jersey. *J Health Econ.* 1996;15:455-76.
20. **Anderson G.** In search of value: an international comparison of cost, access, and outcomes. *Health Aff (Millwood).* 1997;16:163-71.
21. **Burstin HR, Lipsitz SR, Brennan TA.** Socioeconomic status and risk for substandard medical care. *JAMA.* 1992;268:2383-7.
22. **Weissman J, Epstein AM.** Case mix and resource utilization by uninsured hospital patients in the Boston metropolitan area. *JAMA.* 1989;261:3572-6.
23. **Shea S, Misra D, Ehrlich MH, Field L, Francis CK.** Predisposing factors for severe, uncontrolled hypertension in an inner-city minority population. *N Engl J Med.* 1992;327:776-81.
24. Update: trends in AIDS incidence—United States, 1996. *MMWR Morb Mortal Wkly Rep.* 1997;46:861-7.
25. **Deeks SG, Smith M, Holodniy M, Kahn JO.** HIV-1 protease inhibitors. *JAMA.* 1997;277:145-53.
26. **Braveman P, Bennett T, Lewis C, Egarter S, Showstack J.** Access to prenatal care following major Medicaid eligibility expansions. *JAMA.* 1993;269:1285-9.
27. **Ayanian JZ, Kohler BA, Abe T, Epstein AM.** The relation between health insurance coverage and clinical outcomes among women with breast cancer. *N Engl J Med.* 1993;329:326-31.
28. Gore Urges Expanding Medicaid to Include Not Just AIDS, but HIV Patients. *The Washington Post.* 11 April 1997:1.
29. **Bodenheimer T.** The Oregon Health Plan—lessons for the nation. First of two parts. *N Engl J Med.* 1997;337:651-5.
30. **The Childrens Defense Fund.** Fourteen things you should know about the new Child Health Program. September 4, 1997, Washington, DC.