
by Marc L. Berk, Alan C. Monheit, and Michael M. Hagan

Prologue: The cost of medical care has become an overriding interest of the health sphere, government, and private payers because medicine has demonstrated a capacity to consume an increasing portion of the gross national product at the expense of other goods and services. Based on the estimates of the Health Care Financing Administration (HCFA) that health care will be a $1.4 trillion annual enterprise by the year 2000, there is every indication the interest in costs and their moderation will only increase. One dimension of the cost picture that has received less attention is how America spends its medical care dollar. In this essay, authors Marc Berk, Alun Monheit, and Michael Hagan focus on that subject by looking at spending trends over a fifty-year period ending in 1980. Berk joined Project HOPE’s Center for Health Affairs in early 1988 as a senior policy analyst after spending nine years at the National Center for Health Services Research and Health Care Technology Assessment (NCHSR), where he was one of the principal designers of the National Medical Care Expenditure Survey. Berk, who took much of his graduate training at Brown University, received a doctorate in sociology from New York University in 1980. He joined the National Opinion Research Center soon afterward to work on the National Medical Care Expenditure Survey, which was underwritten by NCHSR. Berk’s research pursuits have included the analysis of the rising costs of medical expenditure surveys and health policy issues relating to access to care (particularly among Hispanics, divorced women, and the elderly), and Medicare and Medicaid. Monheit, who holds a doctorate in economics (from the City University of New York), is a labor economist who has worked at NCHSR for a decade. He is best known in the research community for his work on the relationship between employment and health insurance (see Monheit et al., “Health Insurance for the Unemployed Is Federal Legislation Needed?” Health Affairs, Spring 1984). Hagan, who also is a labor economist, formerly worked at NCHSR as a research analyst.
The rapid growth of health care expenditures in the United States has convinced public and private payers that major initiatives to contain costs are necessary. During the past twenty-five years health care costs have increased fourteenfold. In 1960, national health expenditures totaled $276 billion or 5.3 percent of the gross national product (GNP) compared to $425 billion or 10.7 percent of GNP in 1985. Inflation in the health care sector has consistently outpaced the growth in the general price level.

Although there is general agreement that cost containment is needed, there is major disagreement over the nature and focus of such a policy. Elimination of first-dollar coverage of health care through the use of deductibles and cost sharing has been advocated as one mechanism for controlling use of services. Some have criticized this attempt to discourage “front-end” coverage, arguing that it will reduce access to preventive services. Others have asserted that reform should focus not on reducing expenses incurred by the well, but rather on reducing the high proportion of expenditures targeted for the very sick. Health observers such as Victor Fuchs have warned that society must be willing to make hard choices concerning the provision of health care to the very sick. Policy makers generally have been reluctant to advocate reduced care for those with serious medical conditions, but in recent years politicians such as former Colorado Governor Richard Lamm have openly questioned the level of care that can be made available to the incurable.

The Cost Containment Debate

Two predominant views have emerged in the health policy debate on cost containment. These two orientations are not necessarily mutually exclusive. The most popular paradigm generally assumes that the medical care system is overused because extensive health insurance coverage gives neither patients nor providers incentives to use the system efficiently. Proponents of this view believe that the “nervous well” receive a great deal of care that is of little benefit. Hospitals and physicians are seen as being overly cautious, ordering tests that may not be necessary and encouraging lengths-of-stay that are excessive. Accordingly, additional financial incentives must be introduced that discourage overutilization. These include higher deductibles and copayments to alter consumers’ behavior as well as new reimbursement methods (such as diagnosis-related groups, or DRGs, in the Medicare prospective payment system, or PPS), prepaid health plans, and systems of managed care, which are designed to change providers’ behavior.

In recent years, bioethicists such as Daniel Callahan have proposed
another view of the cost-containment problem. New medical technologies have been developed that result in very high expenditures among the very sick, especially among the elderly. Concern has been raised that as our society ages and as technology is increasingly applied to sustain life, the percentage of GNP attributable to medical care will greatly increase. Thus Lamm argues that the cost of ventilators, nuclear magnetic resonance scanners, and renal dialysis for the terminally ill limits our ability to finance both prenatal care and health services for the elderly. Lamm also states his concern over the “choice between spending $100,000 for medical treatments in the last year of life and providing almost 4,000 schoolchildren with lifetime immunizations from polio.”

Such hard and controversial choices have been not only debated but actually implemented. Oregon legislators have decided that the Medicaid program will no longer pay for heart, liver, pancreas, or bone marrow transplants. Funds for such transplants will be used instead to pay for regular prenatal care for 1,500 pregnant women. This is a particularly difficult decision since such technologies do offer the young some possibility of leading a reasonably normal life. Most recently, employers and insurers have recognized that a relatively small proportion of employees who receive expensive technologies (such as liver, heart, and bone marrow transplants, coronary bypass surgery, and hip operations) account for a disproportionately large share of their health care costs. This has prompted a call for guidelines to specify the appropriate use of particular procedures and interest in the use of case-management techniques in place of other cost-containment strategies such as increased deductibles.

While most health services researchers acknowledge these concerns, most private and public cost-containment efforts are based on the first model. Questions such as: “When do you pull the plug?” and “Is effective treatment ever not worth the cost?” still remain the subject of intense debate, but most policy initiatives continue to focus upon various methods of tinkering with incentives to discourage unnecessary care.

The appropriateness of these approaches cannot be adequately explored unless attention is focused on the distribution of health care expenditures. If expenditures for health care are primarily a function of the quantity and mix of services uniformly delivered to a large proportion of the population, then cost-containment strategies based on economic incentives to discourage overuse among “well persons” are likely to be effective. However, if expenditures are primarily a function of technologies designed to care for a small number of sick people, the more difficult issues raised by Fuchs and Lamm cannot be avoided.

In this article, we use national survey data on noninstitutionalized individuals and families to examine the distribution of health care
expenditures in a historical perspective. Our intent is to discern whether the concentration of health care expenditures among the U.S. population has remained stable over time, to identify any factors associated with broad changes in this distribution, and to use such findings to draw lessons for cost-containment policy.

National Health Expenditure Data

We examine the distribution and concentration of health expenditures over time using both unpublished and previously published data sources. The former data consist of the following three major survey data sets: the 1970 CHAS/NORC survey of health services use that was conducted early in 1971 by the Center for Health Administration Studies (CHAS) and National Opinion Research Center (NORC), both of the University of Chicago; the 1977 National Medical Care Expenditure Survey (NMCES) cosponsored by the National Center for Health Services Research (NCHSR) and the National Center for Health Statistics (NCHS); and the 1980 National Medical Care Utilization and Expenditures Survey (NMCUES) cosponsored by NCHS and the Health Care Financing Administration (HCFA). The 1970 CHAS/NORC survey includes data from 3,880 families comprising almost 12,000 individuals and oversamples the poor, the aged, and residents of rural areas. The 1977 NMCES collected detailed health care use and expenditure data from 14,000 households including approximately 40,000 individuals. Each household was interviewed six times over an eighteen-month period during 1977 and 1978. Persons without health insurance were oversampled. The 1980 NMCUES design was similar to that employed in the NMCES but used a smaller sample consisting of 6,000 households interviewed during 1980-1981. Each survey represents the “state of the art” in health survey methods for its time and therefore serves as the best record of health expenditure data available.

Published data include results of an early household survey of medical care use and expenditures reported by Falk and colleagues. The survey was commissioned by the Committee on the Cost of Medical Care, an independent group of representatives from organized medicine, the social sciences, the insurance and hospital industries, and government. The committee was organized in 1927 to study the economic aspects of the prevention and care of sickness. Its survey included 8,758 white families (39,183 individuals in seventeen states and the District of Columbia who provided data for twelve consecutive months between 1928 and 1931). The published survey results serve as a baseline from which comparisons of the concentration of expenditures over an extended time period can be
made. Our analyses also draw upon published data from a 1955 CHAS/NORC survey of family medical costs and health insurance coverage reported in Feldman and Anderson and from analyses of the 1963 CHAS/NORC survey conducted by Andersen, Lion, and Anderson.11

The analyses presented here use cumulative percentile distributions of health expenditures ranked by magnitude of expenditures to illustrate differences in the concentration of expenditures over time. Studies of income and asset inequality frequently use such distributions to plot Lorenz curves to illustrate the percentage of income and/or assets held by the top 1 percent, 5 percent, and so forth, of earners or wealthholders in the population. By applying this technique to health expenditures, we can determine what percentage of total health expenditures can be attributed to each incremental percentile in the U.S. population where the population has been ranked according to total health care expenditures (both third-party and out-of-pocket payments). These distributions are examined for each of the data sources mentioned above.

### Distribution Of Expenditures

Selected percentiles from cumulative expenditure distributions derived from the 1970 CHAS/NORC survey, the 1977 NMCES, and the 1980 NMCUES are presented in Exhibit 1. Available data points from the published work by Falk and colleagues and published tabulations from the 1963 CHAS/NORC survey by Andersen and colleagues are

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<tbody>
<tr>
<td>Top 1 percent</td>
<td>–</td>
<td>17%</td>
<td>26%</td>
<td>27%</td>
<td>29%</td>
</tr>
<tr>
<td>Top 2 percent</td>
<td>–</td>
<td>43%</td>
<td>50%</td>
<td>55%</td>
<td>55%</td>
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<tr>
<td>Top 5 percent</td>
<td>52%</td>
<td>59%</td>
<td>66%</td>
<td>70%</td>
<td>70%</td>
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<tr>
<td>Top 10 percent</td>
<td>93%</td>
<td>95%</td>
<td>96%</td>
<td>97%</td>
<td>96%</td>
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<tr>
<td>Top 30 percent</td>
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<td>5%</td>
<td>4%</td>
<td>3%</td>
<td>4%</td>
</tr>
<tr>
<td>Bottom 50 percent</td>
<td>–</td>
<td>5%</td>
<td>4%</td>
<td>3%</td>
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also included. As these data indicate, the distribution of health expenditures is heavily skewed. For example, during 1980 the top 1 percent of persons ranked by health care expenditures accounted for almost 30 percent of total health expenditures, and the top 5 percent incurred 55 percent of all health expenditures. While it is interesting to observe the extent to which high-cost persons account for such a large proportion of total costs, equal attention should be focused on the lower end of the distribution. In 1977 and 1980 we observe that the bottom 50 percent of the population accounted for only 4 percent of all expenditures and the bottom 70 percent accounted for only 10 percent of health care costs. As we will discuss, the extent to which the expenditure distribution is shared has important implications for the targeting of cost-containment efforts.

Stable distribution. Exhibit 1 also reveals that the expenditure distribution has remained relatively stable since 1970 but became more concentrated between 1963 and 1970. Although the growth of health care costs during the postwar era has focused attention on the introduction and diffusion of new and costly technologies, the relative stability of the expenditure distribution since 1970 suggests that diffusion of health care technology during this period had little impact on the concentration of health expenditures. The top 1 percent of the population accounted for 26 percent of expenditures in 1970, 27 percent in 1977, and 29 percent in 1980. The top 2 percent were responsible for 35 percent of health costs in 1970; this increased to 38 percent in 1977 and 39 percent in 1980. The bottom 50 percent of the population was responsible for only 4 percent of health expenditures in 1970, and this remained unchanged in 1980.

The contention that expenditures for high-cost illnesses were escalating faster than other medical expenditures during the 1970s is not supported. These results are also consistent with the findings of Riley and colleagues, who report “remarkable stability” in the distribution of Medicare expenditures among aged enrollees between 1969 and 1982. This stability persisted despite the introduction of new technologies such as computerized axial tomography (CT) scanners and hip replacement, and the continued, albeit slower, rate of diffusion of technologies associated with open-heart surgery and renal dialysis in the 1970s.

Concentrated distribution. As noted, the distribution of health care expenditures did become more concentrated between 1963 and 1970. In 1963, for example, the top 1 percent of the population accounted for 17 percent of health care expenditures, and by 1970, the share of expenditures attributed to this percentile grew to 26 percent. Available data points for the top 5 and 10 percent of the population also reveal growth in their expenditure shares during this period. This increased concentration of the expenditure distribution may reflect a number of competing
influences, including the growth of public insurance coverage through the enactment of Medicare and Medicaid, the expansion of private health insurance—particularly major medical coverage—as an employee fringe benefit, and the diffusion of costly technologies in the hospital sector in the 1960s. The introduction of Medicaid and Medicare may have altered the expenditure distribution by improving access to care by the poor and elderly populations who are generally in worse health than the nonaged, nonpoor U.S. population. Such improved access to health care services by the poor and elderly may have contributed to a disproportionate rise in the amount of health care resources allocated to treatment of the very sick between 1963 and 1970.

It also should be noted that the 1963 expenditure distribution excludes free care. In contrast, payments made on behalf of the poor and elderly through public insurance and other charity care are recorded in the 1970 expenditure distribution. Thus, if the chronically and seriously ill among the poor and elderly were the beneficiaries of relatively more charity care in 1963, the exclusion of such care would make the 1963 expenditure distribution less skewed than that of 1970. Data from Andersen and colleagues indicate that Medicare, Medicaid, and other charity care may explain about 3 percent of the differential for the top 1 percent of the population between 1963 and 1970, 2 percent of the difference for the top 5 percent, and 3 percent of the difference for the top 10 percent between 1963 and 1970.

Increased private insurance. The period between 1963 and 1970 also witnessed a dramatic increase in private health insurance coverage, especially for major medical expenses, and this may have had a pronounced effect on the distribution of health expenditures. Between 1963 and 1970 the number of persons with coverage for hospital expenses increased by 19 percent, those with surgical expense coverage increased by 22 percent, and those with major medical coverage increased by a remarkable 87 percent. Coverage for these expenses increased far less dramatically between 1970 and 1977 (by 10 percent, 13 percent, and 35 percent, respectively). Since major medical coverage provides rather broad and generous levels of protection for large unexpected medical expenses (with few limits and high maximum benefit levels), the growth in this coverage may have played an important role in providing the very sick with improved access to health care services and with more resource-intensive modes of treatment. As a result, the spread of major medical coverage may have contributed to the increased concentration of expenditures between 1963 and 1970. The stability in the expenditure distribution since 1970 is likely to reflect the relatively smaller growth in major medical and other health insurance coverage between 1970 and 1980.
Expensive technology. Finally, Russell observes that the use of a number of expensive "prestige" technologies in the hospital sector grew rapidly during the 1960s. For example, open-heart surgical procedures of all kinds grew from about 14,000 procedures in 1967 to over 38,000 in 1971, and the first programs of long-term renal dialysis also were implemented in the 1960s. Coronary care units were introduced in 1962, and by 1976 most hospitals with 300 or more beds had adopted this service (as had over half of all hospitals with 200 to 299 beds). The use of intensive care units also grew rapidly during this period, and many metropolitan hospitals also adopted technologies such as respiratory therapy, diagnostic radioisotopes, and electroencephalographs (EEGs). Thus the diffusion of these and other technologies in the hospital sector during the 1960s and early 1970s also may have contributed to the increased concentration of expenditures between 1963 and 1970.

Recurring trends. Comparisons of the expenditure distribution in 1970, 1977, and 1980 to available data from very early health expenditure surveys suggest that the stability of the expenditure distribution since 1970 may mark a return to a long-run historical trend. For example, Falk and colleagues examined the distribution of health costs between 1928 and 1931 and reported that 5 percent of the population incurred 52 percent of all health care costs, a figure remarkably close to the 50 percent reported in 1970 and 55 percent in both the 1977 and 1980 surveys. Data from their study also show that the lowest 70 percent of users were responsible for only 7 percent of total health costs, consistent with the 10 percent figure obtained for 1977 and 1980. In 1955 another major national expenditure survey was conducted by CHAVNORC and analyzed by Feldman and Anderson. They concluded that the primary cost problem was the "uneven distribution" and noted that their results were "amazingly close" to those reported in the 1928-1931 survey (comparisons were made for the distribution of family expenditures). Finally, the distribution of expenditures observed since 1970 is not unique to the United States. A study of health expenditures in France revealed that in 1970 the top 39 percent of all health care expenditures in that country were attributable to 2 percent of the population. The bottom half of the population accounted for less than 1 percent of total expenditures.

Demographic Characteristics

Although the overall concentration of health expenditures remains stable, there have been some noticeable changes in the demographic characteristics of those in the top 1 percent and 5 percent of high health care expenses as well as corresponding statistics for the entire U.S.
The most noticeable difference in the high-user population is that it is getting older. In 1970, 32.1 percent of the highest 1 percent of users were elderly; this increased to 40.1 percent in 1977 and 43.4 percent in 1980. Blacks also made up a somewhat higher percentage of the high-expenditure population in 1980 than they did in 1970. Persons with high medical expenditures also were more likely to have fifteen or more disability days in 1977 and 1980 than were persons with high expenditures in 1970. Note also that compared to the general population in 1970, 1977, and 1980, the poor were disproportionately represented among persons with high medical expenditures.

### Exhibit 2

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<tbody>
<tr>
<td><strong>Female</strong></td>
<td>55.4%</td>
<td>47.8%</td>
<td>50.4%</td>
<td>60.1%</td>
<td>58.1%</td>
<td>50.8%</td>
<td>51.6%</td>
<td>51.7%</td>
<td></td>
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<tr>
<td><strong>Black</strong></td>
<td>8.2%</td>
<td>8.8%</td>
<td>9.4%</td>
<td>6.7%</td>
<td>9.4%</td>
<td>1.0%</td>
<td>11.5%</td>
<td>9.2%</td>
<td>11.7%</td>
</tr>
<tr>
<td><strong>Over sixty-five</strong></td>
<td>32.1%</td>
<td>40.1%</td>
<td>43.4%</td>
<td>31.0%</td>
<td>27.8%</td>
<td>31.0%</td>
<td>10.1%</td>
<td>10.5%</td>
<td>10.6%</td>
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<tr>
<td><strong>On Medicaid or public assistance</strong></td>
<td>36.8%</td>
<td>20.6%</td>
<td>36.5%</td>
<td>19.1%</td>
<td>16.4%</td>
<td>25.2%</td>
<td>9.2%</td>
<td>9.5%</td>
<td>15.6%</td>
</tr>
<tr>
<td><strong>Fair or poor perceived health</strong></td>
<td>47.0%</td>
<td>45.3%</td>
<td>50.8%</td>
<td>39.9%</td>
<td>41.4%</td>
<td>39.9%</td>
<td>16.2%</td>
<td>13.7%</td>
<td>13.0%</td>
</tr>
<tr>
<td><strong>Fifteen or more disability days</strong></td>
<td>84.9%</td>
<td>95.6%</td>
<td>94.9%</td>
<td>68.7%</td>
<td>81.9%</td>
<td>83.2%</td>
<td>11.9%</td>
<td>19.4%</td>
<td>20.0%</td>
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*Sources: 1970 CHAWNORC survey; 1977 National Medical Care Expenditure Survey; and 1980 National Medical Care Utilization and Expenditure Survey.*

### Impact Of Catastrophic Health Insurance

Since recent policy initiatives have focused upon the provision of catastrophic coverage, it is instructive to speculate how the imposition of such coverage might affect the concentration of health care expenditures. To do this, we compare the concentration of expenditures from NMCES data with that from a study of catastrophic medical expenses by the Congressional Budget Office (CBO). The CBO study is not based upon a nationally representative sample, but rather a sample of individuals enrolled in the Federal Employees Health Benefits Program (FEHBP) who were covered by Blue Cross/Blue Shield (hereafter noted as Blue Cross) high-option health insurance in 1974 and 1978. Such insurance provides very comprehensive coverage for noninstitutional care. By comparing the expenditure distribution of FEHBP enrollees in high-
option Blue Cross to NMCES data (which includes uninsured as well as insured persons) we can get some sense of how the imposition of more complete coverage would affect the expenditure distribution. Since the CBO study reports the distribution of family expenditures, we have derived a similar distribution from NMCES data. We use NMCES data rather than the 1980 NMCUES because the NMCES sample was twice as large.

Exhibit 3 provides the cumulative frequency distribution of expenditures for health care for families ranked in the first quartile of expenditures. The results indicate that between 1974 and 1978 there appears to be increased concentration in the distribution of expenditures. The CBO study concluded that, although this increase is small, “if the trends found in this study continued, a marked increase in the proportion of resources devoted to high cost care would result over the long term.”

We believe, however, that caution must be used in forecasting trends based on data from only two points in time, four years apart. Analysis of 1970, 1977, and 1980 data shows expenditure distributions that are remarkably similar to those reported in studies based on data from 1928–1931 and those discussed by Feldman and Anderson based on 1955 data. Hence, the policy implications of the minor differences in the 1974 data and those collected in 1978 are probably of minimal consequence.

**Adverse selection.** Differences between the distribution of family health expenditures in the 1977 NMCES data and the 1978 CBO study, however, offer some important insights to policymakers, particularly with regard to catastrophic health insurance. As noted above, the FEHBP sample used by CBO was not a nationally representative sample like the NMCES, but rather a sample of persons who were covered under the Blue Cross high-option insurance plan. Since persons with medical problems and those anticipating large medical expenses may be more inclined to enroll in comprehensive insurance plans, the CBO sample

<table>
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<tr>
<th>Exhibit 3</th>
<th>Percentage Of Total Medical Expenditures Attributed To Families With High Expenses</th>
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<tr>
<td>Families ranked by expenditures</td>
<td>1977</td>
</tr>
<tr>
<td>Top 1 percent</td>
<td>15%</td>
</tr>
<tr>
<td>Top 5 percent</td>
<td>34</td>
</tr>
<tr>
<td>Top 10 percent</td>
<td>53</td>
</tr>
<tr>
<td>Top 20 percent</td>
<td>70</td>
</tr>
<tr>
<td>Top 25 percent</td>
<td>76</td>
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may include a number of adverse risks and therefore be subject to “selection bias.” In recent years the problem of biased selection in health insurance has been documented, especially with regard to Blue Cross high-option coverage in the FEHBP. We cannot completely dismiss the possibility that adverse selection has contributed to shaping the expenditure distribution of FEHBP enrollees in Blue Cross high-option insurance in 1974 and 1978, especially since FEHBP plans are generally prohibited from excluding preexisting conditions. However, two points regarding adverse selection should be noted.

First, the characteristics of persons entering the Blue Cross high-option plan during this period suggest that adverse selection is not likely to dominate. Analysis of the CBO data indicates that families who joined the plan in 1978 tended to be younger and to have fewer expenses than those enrolled earlier. The group switching to Blue Cross high-option coverage from other plans had expenses 20 percent less than those already enrolled in the plan. After adjustment for demographic characteristics, persons who switched plans had expenses that were 3 percent higher than those already in the plan. New enrollees into the FEHBP who elected Blue Cross high option had lower expenses than those already in the plan. Unfortunately, we cannot fully assess the extent of adverse selection since we do not know the characteristics of persons selecting other plans in the FEHBP at this time.

Second, any adverse selection present in the CBO expenditure distribution is also relevant in assessing the impact of catastrophic coverage, since such coverage often is proposed to address the problems of such high-risk individuals as the elderly and the poor. Thus, while the distribution of expenditures in the CBO sample captures the effect of comprehensive coverage on health care expenditures and is also likely to contain an element of adverse selection, both factors are important in assessing the impact of extending catastrophic-type health care coverage to particular population groups containing high-risk individuals.

If the CBO sample is to be used to illustrate the effect of comprehensive coverage on the distribution of health care expenditures, it is likely to understate the number of high-expenditure persons since it excludes the poor and the elderly. Tabulations of 1977 NMCES data indicate that the poor are twice as likely as the general population to be represented in the high-cost population, while the elderly are four times as likely to be in the high-expense group. Their exclusion from the CBO sample therefore should lead to a major underestimate of the concentration of expenditures. The findings, however, indicate that a much greater concentration is found in the CBO sample. The top 1 percent of families in the nationally representative NMCES survey accounted for 15 percent of
total expenditures. However, in the 1978 CBO study of persons with high-option coverage, the top 1 percent of families accounts for 22 percent of expenditures. The difference is even more striking when we compare estimates for the highest-spending 5 percent of families. NMCES reports they account for 34 percent of expenditures, while CBO indicates 49 percent. We believe this difference in estimates can be explained by the difference between the two samples. The NMCES sample is nationally representative, while CBO estimates are based on a sample of persons with comprehensive health coverage. It would therefore appear that there is a much greater concentration of expenditures in a well insured population than there is in the nation as a whole.

**Policy Limitations**

Tabulations of the distribution of health care expenditures for the general population indicate that a small proportion of the population accounts for the overwhelming majority of health care costs. While the expenditure distribution has remained relatively stable since 1970, consistent with available data from the first half of this century, it became more concentrated between 1963 and 1970. As noted, the shift in the expenditure distribution during the latter period coincided with a large increase in the number of persons with major medical coverage, the implementation of Medicare and Medicaid, and the diffusion of a number of expensive technologies in the hospital sector. Although inequality in the distribution of health care expenditures is not a new phenomenon, an increase in the concentration of health expenditures poses a policy dilemma. Such a shift is likely to reflect an increase in resources allocated to the care of the seriously or terminally ill so that concern over cost must confront a number of difficult ethical and moral issues related to questions of access to care. This dilemma was implicitly recognized by Falk and colleagues, who noted over fifty years ago that: “The costs of medical care are as much (if not more) concerned with the uneven distribution of the costs as with their absolute magnitude.”

The catastrophic insurance debate. The findings from our comparisons of aggregate expenditure distributions, coupled with the observation of increased skewed distribution for a fairly complete insured population when compared to that of the general population, have important implications for the current debate concerning catastrophic health insurance. When catastrophic health insurance is discussed, there is a tendency to think of nondiscretionary care for life-threatening illness. The discrepancy between NMCES and CBO estimates, however, suggests that, even in the highest group of users, some expense may be discretionary when...
there is an enhanced ability to pay. We observe that, in a population with
good catastrophic coverage, health care expenditures are even more con-
centrated than in a national sample. This is true even though the poor
and elderly are excluded from the well-covered population. Providing
such coverage to these groups, which include many adverse health risks,
is also likely to increase the concentration of health expenditures.

Initiatives for the provision of catastrophic insurance are currently
politically popular. However, early in the debate over catastrophic
coverage, Zook and colleagues warned us from assuming that high-cost
illness accounts for a small share of total resources and urged that
proposals for such coverage include incentives to contain medical care
costs. Their concern may be well founded. Our tabulations suggest that
generous or automatic coverage of all charges above a certain threshold
could increase this concentration dramatically and further insulate
health care expenditures from efforts to control costs. Implementing such
coverage might result in a shift in the national expenditure distribution
pattern similar to what was observed in the CBO estimates and in the
national expenditure distribution during the 1960s. This would result in
a health care system in which an even smaller proportion of the popula-
tion may account for the majority of total national expenditures.

**Makeup of health expenditures.** Apart from the potential effect of
catastrophic coverage on the concentration of health care expenditures,
attention must also be directed to how such coverage will affect the
composition of health care expenditures. Unless society is willing to
devote more resources to health care or can markedly improve the
efficiency of health care delivery, increased access to both preventive and
catastrophic care will not be achieved. Those who favor a health system
with greater emphasis on preventive care must recognize that this is not
consistent with an increased focus on caring for catastrophic illness.
Policymakers therefore face the difficult task of comparing the merits of
initiatives that would increase primary care to the disadvantaged against
the benefits from increased resources devoted to catastrophic illness.

Our review of available data indicates that for over fifty years the
American health care system has provided significant levels of resources
to a small proportion of the population, while conversely almost half of
all Americans account for less than 5 percent of total expenditures. Cost-
containment efforts that try to get “average” people to use services more
prudently will not have a large impact on total national expenditures.
Expenditures for service by low and moderate users do not appear to be
the force behind the problem of rising health care costs.

In sum, although the concentration of health expenditures has re-
mained relatively stable since 1970, it can be changed by new initiatives.
Our tabulations have revealed an association between the growth of major medical coverage and the increased concentration of expenditures between 1963 and 1970. We have also seen that in a population of persons with good catastrophic coverage the distribution of health care expenses is even more skewed than in the national population as a whole. Consideration of catastrophic coverage initiatives should be accompanied by a discussion of their redistributive effects on national health spending patterns, including an assessment of what proportion of health resources currently go to catastrophic care and who will be adversely affected if this concentration increases. The full implications of altering an already highly skewed system of expenditures should be clarified as the policy debate proceeds.

The views expressed in this paper are those of the authors. No official endorsement of the Center for Health Affairs, the National Center for Health Services Research and Health Care Technology Assessment, or the Department of Health and Human Services is intended or should be inferred.

NOTES

10. Falk and colleagues were responsible for designing the first national expenditure survey.
conducted in the United States. The results are reported in I.S. Falk, M.C. Klem, and N. Sinai, The Incidence of Illness and Receipt of Medical Care Among Representative Families (Chicago: The University of Chicago Press, 1933).


14. Russell observes that the period of rapid diffusion of renal dialysis and open-heart surgery ended by the late 1960s. Russell, Technology in Hospitals, 100.

15. Comparisons of the expenditure distribution for nonfree care in 1963 to that for nonfree care in 1970 (reported in Andersen et al., Two Decades of Health Service, 96, Table 3-11) still show disparities in the concentration of expenditures. For example, a 6 percent differential is observed between the top 1 percent of the population in both years, a 5 percent differential is observed between the top 5 percent, and a 4 percent differential is found between the top 10 percent.

16. Andersen et al., Two Decades of Health Service, 96, Table 3-11.


18. Russell, Technology in Hospitals.

19. Falk et al., The Incidence of Illness and Receipt of Medical Care.

20. Feldman and Anderson, Family Medical Costs and Voluntary Health Insurance.


23. For example, the 1978 Blue Cross high-option policy covered 100 percent of inpatient costs and 100 percent of “usual, customary, and reasonable” surgical and medical charges. Eighty percent of physicians’ charges were covered after a $100 deductible. After the patient incurred out-of-pocket costs of $4,000, all remaining expenses were covered up to a limit of $500,000. By comparison, the standard Blue Cross policy had a maximum benefit of only $150,000. We are indebted to Steven Sieverts of the Blue Cross/Blue Shield Association of the National Capital Area for providing this information.

24. CBO, Catastrophic Medical Expenses.


26. CBO, Catastrophic Medical Expenses.

27. Falk et al., The Incidence of Illness and Receipt of Medical Care, 15.


30. Spector, “Rising Costs of Medical Treatment.”