Tracking Health Care Costs

Hospital care surpasses drugs as the key cost driver.

by Bradley C. Strunk, Paul B. Ginsburg, and Jon R. Gabel

Abstract: This paper provides an update on trends in health care costs since 1999. Although the growth rate in overall costs has been stable since 1999, the trend in costs for hospital services rose, while that for prescription drugs declined, although it remains extremely high. Increased growth in hospital costs reflects the retreat from tightly managed care and labor shortages. The discrepancy between premium trends and cost trends has increased, which reflects the health insurance underwriting cycle. If these trends continue, likely responses by employers would lead to consumers' facing higher out-of-pocket costs and an increase in the number of uninsured persons.

Last year in this journal we documented the return in 1999 to higher rates of growth in the health care costs that underlie private health insurance premiums. Growth in these costs largely determines long-run premium trends. It affects decisions on health insurance product types, benefit design, and out-of-pocket costs borne by workers. Moreover, it is an important determinant of employers' decisions to offer any insurance at all and employees' decisions to take up coverage. Also, a high rate of growth could affect consumers' ability to pay for health care and could lead to higher outlays for public programs. In contrast to 1999, the U.S. economy recently has been slowing, which threatens to exacerbate these adverse consequences of high health cost inflation.

We use the most recent data available to update prior analyses of trends in health care costs and private insurance premiums. Although overall growth in health care costs is similar to that in 1999, we document an important shift in its composition. Moreover, evidence from local communities across the country suggests that much of this shift is associated with a retreat from tightly managed care. This has profound implications for future cost trends.

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Data Sources

This analysis draws on a variety of data sources to provide insight into trends in health care costs, as well as their implications for private health insurance premiums and consumers' out-of-pocket spending. Our choices of data were guided by the ability of a given source to provide reliable estimates with a short time lag.

**Cost trend data.** To gain insight into recent cost trends, we used the Milliman USA Health Cost Index (HCI), which measures the health care spending increases underlying changes in private health insurance premiums. This index, based on provider revenues (a proxy for spending on services), is designed to reflect claims expenses experienced by private insurers for a typical policy. The HCI draws its data from surveys of providers, some widely available and some proprietary. The index is limited to measuring health services that tend to be insured: inpatient and outpatient hospital services, physician services, and prescription drugs. Because provider revenue data tend to cover all patients, Medicare payments to providers are removed in an effort to arrive at a series that more closely reflects the population covered by private health insurance. Inability to remove revenues from Medicaid and uninsured patients is a limitation in the HCI's ability to track spending for privately insured patients. When expanded to include Medicare expenditures, the HCI closely tracks the National Health Accounts (NHA) maintained by the Centers for Medicare and Medicaid Services (CMS, formerly HCFA), which is widely considered the "gold standard" for tracking health spending. The HCI, however, is available with a shorter time lag.

We used data on payroll costs for health services establishments collectively, and for hospitals specifically, to gain insight into changes in what amounts to the largest cost factor faced by providers. These data, compiled monthly by the U.S. Department of Labor's Bureau of Labor Statistics (BLS) and known as the Employment, Hours, and Earnings (EHE) series, is useful for its reliability and very short time lag. The sample includes both private and public employers but excludes nonsalaried health professionals. Payroll costs are calculated as the product of total production (that is, nonsupervisory) workers, average weekly hours per worker, and average hourly wage. BLS payroll data are reported on a per capita basis. This is the most relevant measure for policymakers and is directly comparable to the HCI data and to data on premiums, which reflect what is charged to cover an individual or a family.

We drew on data from the 2000-2001 Community Tracking Study (CTS) site visits by the Center for Studying Health System
Change (HSC) to twelve representative communities for additional insights into cost trends. Third-round CTS site visits occurred between June 2000 and March 2001. Researchers conducted forty-five to ninety interviews per site with leaders of local hospitals, health plans, physician organizations, employers, and policymakers.

- **Premiums and out-of-pocket spending.** Data on premiums for employment-based health insurance come from the Kaiser Family Foundation/Health Research and Educational Trust (HRET) Survey of Employer-Sponsored Health Benefits and its predecessor surveys. The 2001 Kaiser/HRET survey is based on a stratified random sample of 1,907 employers with three or more workers selected from Dun and Bradstreet’s listing of private and public businesses that have entered the credit market. The survey collected data through telephone interviews with employee benefit managers from January to May 2001. The survey continues the health benefits survey first conducted by the Health Insurance Association of America (HIAA) from 1987 to 1991 and then by KPMG Peat Marwick from 1991 to 1998. The core questions in these surveys are virtually identical. For the years 1991, 1992, 1994, and 1997 KPMG sampled only firms with 200 or more workers.

To track trends in consumers’ out-of-pocket spending, we used data from the Consumer Expenditure Survey (CES) conducted by the BLS. This national survey is the basis for constructing the market basket of goods that urban households consume. The BLS requests participating households to enter their spending, including medical care expenses, into logs that it provides. These logs also include information on reimbursements from public and private insurance plans, which are netted out from direct out-of-pocket payments for medical care. Data from the CES are available with a longer time lag compared with other data sources discussed here, with the most recent data being for 1999.

**Underlying Health Care Spending Trends**

Health care spending per privately insured person increased 7.2 percent in 2000, which represents the largest year-to-year increase since 1990 and marks the third straight year of significantly high growth (Exhibit 1). This recent acceleration in growth follows the period 1994–1997, when health care spending per capita grew at record-low levels and, in fact, grew more slowly than did gross domestic product (GDP) per capita (Exhibit 1). That trend reversed itself in 1998, and growth in health care spending has since continued to top growth in GDP per capita, outpacing it by 1.6 percentage points in 2000. Although growth in overall spending changed little between 1999 and 2000, early indications from 2001 are that growth
EXHIBIT 1

<table>
<thead>
<tr>
<th>Year</th>
<th>All services</th>
<th>Hospital inpatient</th>
<th>Hospital outpatient</th>
<th>Physician</th>
<th>Prescription drugs</th>
<th>Gross domestic product</th>
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<tr>
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<td>6.9%</td>
<td>3.5%</td>
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<td>7.9</td>
<td>1.9</td>
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<tr>
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<td>3.5</td>
<td>12.5</td>
<td>4.8</td>
<td>15.2</td>
<td>3.7</td>
</tr>
</tbody>
</table>

**SOURCE:** Health care spending data are from the Milliman USA Health Cost Index ($0 deductible). Gross domestic product (GDP) data are from the U.S. Department of Commerce, Bureau of Economic Analysis.
**NOTES:** GDP is in nominal dollars. Milliman USA Health Cost Index (HCI) data reflect the 7 August 2001 revision.

is accelerating once again, as has appeared in recent earnings reports by health plans.

Despite the stability of overall health care spending growth from 1999 to 2000, an examination of the individual components of spending unmask important underlying trends. The Milliman HCI reveals a shift in the composition of health care spending growth: The rate of increase in prescription drug spending decelerated while hospital spending accelerated.

- **Hospital spending.** Hospital inpatient spending increased at a rate of 2.8 percent in 2000—a 1.2 percentage point increase over 1999. More importantly, however, this finding signals a dramatic departure from the trend in 1994–1998, when hospital inpatient spending was actually declining year to year by as much as 5.3 percent. Growth in hospital outpatient spending also accelerated in 2000, increasing 11.2 percent compared with 8.9 percent in 1999 and 7.9 percent in 1998. Although this category has been growing at high rates throughout the 1990s, the 2000 increase represents the largest increase in hospital outpatient spending since 1992. Taken together, spending on inpatient and outpatient hospital services accounted for 43 percent of the growth in overall spending, substantially higher than its share of the 1999 increase. Growth in spending on both types of services is also accelerating further in 2001.

- **Prescription drug spending.** Growth in per capita spending on prescription drugs decelerated in 2000 compared with 1999 but nonetheless remained very high. This reverses a six-year trend in
which spending growth rose steadily from 5.2 percent to 18.4 percent. Two factors may be behind this reversal: (1) a decline in the number of “blockbuster” drugs being introduced; and (2) the rapid spread of three-tier drug copayment structures in health benefits offerings. However, the trend turned upward again in the first quarter of 2001.

**Spending for physician services** Growth in spending for physician services also decelerated in 2000. Following a period in the mid-1990s when private insurers reduced physician payment rates, physician payments from insurers have risen steadily during the past few years. However, this trend clearly leveled off in 2000, and together with the decreasing spending rate on prescription drugs, it offset the impact of higher hospital spending growth, thus explaining the relative stability of overall spending growth from 1999 to 2000.

**Payroll costs.** Data on payroll costs from the BLS (which, unlike the Milliman HCI, reflect services for patients covered by all payers including Medicare) illustrate that payroll growth is a key driver of both overall health care cost trends and rising trends within the hospital sector (Exhibit 2). For all health services establishments, payroll costs grew at a rate of 4.7 percent in 2000—a 1.6-percentage-point increase over 1999. Hospital payroll growth, specifically, rose from 2.6 percent in 1999 to 3.7 percent in 2000.

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**EXHIBIT 2**
Annual Percentage Change Per Capita in Payroll And Underlying Wage Costs, 1991–2001

<table>
<thead>
<tr>
<th>Year</th>
<th>Payrolla</th>
<th>Average hourly wage</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>All health services establishments</td>
<td>Hospitals</td>
</tr>
<tr>
<td>1991</td>
<td>9.0%</td>
<td>8.2%</td>
</tr>
<tr>
<td>1992</td>
<td>7.3</td>
<td>6.4</td>
</tr>
<tr>
<td>1993</td>
<td>5.5</td>
<td>3.4</td>
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<tr>
<td>2000</td>
<td>4.7</td>
<td>3.7</td>
</tr>
</tbody>
</table>


a Product of average hourly wage and total hours worked per capita (which is not shown). Total hours worked per capita is a product of number of production workers (excludes executives and managers) and average hours per week, adjusted for changes in the U.S. population.

b Data through May 2001, compared with corresponding months in 2000.
"Data suggest that the retreat from tightly managed care has played an important role in rising cost trends."

More significantly, early indications from 2001 data suggest that these trends are accelerating even further to levels not seen since the early 1990s. These trends do not appear for payroll at physicians' offices.

For both health services establishments in general and hospitals in particular, the higher payroll growth rate in 2000 than in 1999 is largely accounted for by increased growth in hours worked rather than an increase in average hourly wages (data on hours worked not shown here). Nonetheless, the increase in the 2000 average hourly wage for all health services establishments—3.8 percent—was somewhat higher than in 1999 and higher than any increase since 1992. The year 2000 marked the first time since 1995 that growth in the wage rate for health services establishments was not below the wage rate growth for all industries combined. This may foreshadow a return to a long-standing earlier pattern in which wage rates rise more rapidly in the health care sector than in other industries. Interestingly, average hourly wage growth for both health services establishments collectively and hospitals specifically rose substantially in the first five months of 2001, perhaps as a result of severe nursing and other staff shortages throughout the system. These trends are strongly supported by another measure of wage costs, the Employer Cost Index (ECI).

**Role Of Looser Managed Care**

Data from the third round of CTS site visits suggest that the retreat from tightly managed care has played an important role in rising cost trends. Most notable has been the strengthening of providers' bargaining power, especially that of hospitals, in relation to that of health plans. With the emphasis on broad choice of providers in managed care, health plans need to keep most hospital systems in their networks. This power has been reinforced by the increased consolidation of hospitals during the 1990s and the reduction in excess capacity since the mid-1990s. The latter has encouraged hospitals to take the risk of not having a managed care contract with a major health plan, something unthinkable only a few years ago. The inability to staff some beds as a result of severe nursing and other staff shortages—and the higher payroll costs needed to address these shortages—has left hospitals more willing to forgo a contract with a managed care plan if the payment rates are unfavorable. This
shift in bargaining power has been reflected in highly public show-
downs in many communities between hospitals or specialty medical
groups and plans over payment rates.14 Facing critical shortages of
workers, employers often have responded to the prospect of insta-
bility of their plan's provider network by pressing the plan to meet
providers' demands. This, in turn, has further strengthened provid-
ers' bargaining position.

Other developments related to the retreat from tightly managed
care also may have contributed to higher cost trends, but the evi-
dence is softer. For example, reductions in required authorizations
for services and more direct access to specialists may be leading to
more hospitalizations and procedures. Fewer providers are willing
to accept capitated payment for their services, which also is leading
to less control over service use. Furthermore, when providers did not
succeed in controlling costs under capitation, the fee-for-service con-
tracts that replaced capitated ones increased payments substantially.15

The retreat from tightly managed care is vividly illustrated by
enrollment trends by product type. Data from the Kaiser/HRET
annual survey show that enrollment in health maintenance organi-
sations (HMOs)—the most tightly managed product type in the
managed care arsenal—experienced a sharp and unprecedented de-
cline between 2000 and 2001, falling from 29 percent to 23 percent
of enrollment. In contrast, enrollment in preferred provider organi-
sations (PPOs)—a more loosely managed product type—increased
from 41 percent to 48 percent of total enrollment.16

Insurance Premium Trends
Premiums for employment-based insurance policies increased 11.0
percent from 2000 to 2001, the highest rate of increase since 1993
(Exhibit 3).17 This was the fifth consecutive year of accelerating
premium increases since 1996, a year when they reached a record
low of 0.8 percent. The pattern of small firms facing larger increases
than large firms continued, with firms of 200 or fewer employees
experiencing a 12.5 percent increase. Increases by plan type were
similar in magnitude.

In addition to the trend in underlying health care costs, the health
insurance underwriting cycle contributed to premium increases. In
2000 Blue Cross Blue Shield plans realized underwriting profits
(preinvestment income) of 0.6 percent of revenue, up from 0.1 per-
cent in 1999. Throughout much of the 1990s health plans' prevail-
ing strategy was to increase their local market share by underpricing
their competitors; this strategy ultimately resulted in insurers' suf-
ferring underwriting losses during 1995–1998. Responding to these
financial losses, many insurers pulled out of selected markets and
EXHIBIT 3

<table>
<thead>
<tr>
<th>Year</th>
<th>Premium increases</th>
<th>Underlying health care spending</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Large firms</td>
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</tr>
<tr>
<td>1991</td>
<td>11.5%</td>
<td>_b</td>
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<tr>
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<td>10.9</td>
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<td>1996</td>
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</tr>
<tr>
<td>2001</td>
<td>10.2</td>
<td>11.0</td>
</tr>
</tbody>
</table>


NOTE: Milliman USA Health Cost Index (HCI) data reflect the 7 August 2001 revision.

<sup>a</sup> Firms with 200 or more workers.
<sup>b</sup> Survey only covered firms with 200 or more workers in this year.
<sup>c</sup> Data through March 2001, compared with corresponding months in 2000.

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were willing to risk loss of market share to restore profitability through larger premium increases. The particularly large difference between premium increases for 2001 and underlying cost increases for 2000 (Exhibit 3) reflects both an expectation that cost increases will accelerate further in 2001 and a stronger effort by health plans to increase their profit margins. The 0.6 percent underwriting profits earned in 2000 may well have been lower than insurers had planned on. HSC site visits continue to record instances of health plan exits from local markets but few, if any, instances of new entry. This suggests that the “hard” phase of the underwriting cycle, characterized by rising premiums for employers and rising profitability for insurers, is likely to continue.

One proxy measure for underlying trends in claims expenses is annual changes in premium equivalents for self-insured firms. Employers set premium-equivalent increases at projected increases in expenses. According to the Kaiser/HRET data, overall premium increases for self-insured plans surged from 3.7 percent in 1999 to 7.1 percent in 2000 to 9.5 percent in 2001. Yet in 2001 premiums for fully insured plans increased 12.3 percent—a difference of 2.8 percentage points compared with self-insured plans.

Implications For Consumers

Despite the rapid rise in the cost of health care, a robust economy
has insulated consumers from much of that increase. Data from the CES indicate that in 1999 households spent 4.5 percent of their income on health care expenses out of pocket, down from 4.6 percent in 1998 and 5.1 percent in 1993 and equal to the 4.5 percent in 1985. Facing a shortage of qualified workers, employers have competed for scarce workers by keeping increases in employee contributions for health insurance down and, to a lesser extent, increases in deductibles, coinsurance, and copayments down as well.

Data from the Kaiser/HRET annual survey show little change in the share of workers' contributions for health insurance premiums between 2000 and 2001. Employees pay 15 percent of the cost of single coverage and 27 percent of the cost of family coverage, figures that are statistically unchanged from 2000. The fact that workers contribute less (in nominal dollars) for single coverage in 2001 than they did in 1993 is a vivid illustration of how they have been spared the consequences of rising premiums so far.

Workers are, however, bearing greater financial risk for the cost of prescription drugs. From 2000 to 2001 employers continued to adopt three-tier cost-sharing arrangements. Under these arrangements, workers face one copayment (or coinsurance) level when using generic drugs, a higher one when using brand-name drugs on a preferred list, and the highest payment level for use of other brand-name drugs. The Kaiser/HRET survey reports that 36 percent of workers with job-based insurance are enrolled in a plan using such arrangements, up from 33 percent in 2000.

Discussion And Forecasts

Data presented here add empirical credence to what has been heralded as "the end of managed care" as we knew it in the 1990s. As the third round of CTS site visits makes clear, hospitals are enjoying new bargaining power vis-à-vis health plans as enrollment shifts to less restrictive and more loosely managed products and hospitals become "must-have" providers in plans' networks. Meanwhile, health plans, in an effort to quell the managed care backlash, are reducing their reliance on other cost-control mechanisms such as gatekeepers, preauthorization requirements, and capitation. As these developments unfold, their combined effect on costs is appearing as a major shift in the composition of underlying spending growth, as growth in spending on hospital services is increasingly responsible for overall spending growth.

- Health care affordability. In light of these trends and early indications from 2001, health care affordability will likely deteriorate further in the near future. Health plan-provider showdowns over payment rates continue across the country and make it likely
that sharp increases in provider payment rates will continue. Although the rate of growth in spending on prescription drugs fell in 2000 compared with 1999, the unrelenting pace of technological innovation and promotion of drugs all but assure a rate of drug spending growth that will stress those who pay for care.\textsuperscript{19} Also, early indications from 2001 payroll data suggest that labor shortages in the hospital industry are causing an acceleration in wage increases. In contrast to the last time cost trends were this high—in the early 1990s—the cost containment strategies of managed care are now in retreat, and there are no longer alternative approaches to address these pressures.

\textbf{Out-of-pocket spending} Although the most recent consumer spending data (for 1999) suggest that consumers have remained protected from the growth in health care costs and insurance premiums, the changes under way in the health care system and the softening of labor markets due to a slowing economy will likely lead to greater out-of-pocket spending in the future. This development is already under way for prescription drugs, as three-tier cost-sharing strategies become more prevalent and as average copayments rise. As managed care companies continue to contend with demand for broad choice and rising payments to providers, higher costs may increasingly be passed on to consumers in the form of higher deductibles, coinsurance, and copayments. Meanwhile, employers may be driven to reduce their contribution rates and leave consumers to pick up more of the rising premium bill.

\textbf{Insurance coverage}. Ultimately, the combination of higher growth in health care costs, through its effect on premiums, and a slowing economy threaten a major increase in the number of people who are uninsured.\textsuperscript{20} Evidence is already appearing that small employers are dropping coverage in response to sharp premium increases. When employers shield workers less from premium increases, rates of employee take-up will continue to fall. At a time when national policymakers are giving renewed attention to the problem of the uninsured—debating the merits of tax credits versus expansions of public programs—rising costs and premiums could undercut their efforts greatly. Indeed, health care cost containment will begin to permeate the health policy agenda again.

The authors are grateful to John Cookson of Milliman USA for permission to use the Health Cost Index and for his valuable comments. They gratefully acknowledge the Robert Wood Johnson Foundation (Strunk and Ginsburg) and the Henry J. Kaiser Family Foundation (Gabel) for their financial support.
NOTES


2. Often the terms costs and spending are used interchangeably. Conceptually, the primary interest is in costs, which reflect the resources devoted to health care that are not available to produce other goods and services. Practically, most available data, including the HCI, reflect spending, or what is paid for health services by those who purchase them (or received by providers of health services). Costs and spending differ when the payment is greater or less than the resources that go into providing the services.

3. The index that Milliman USA provides to its clients is intended to assist insurers in forecasting their claims payments and comparing them with those of others. It simulates trends in claims for a "standard" private health insurance policy with a $250 deductible. The trend in such an index would slightly overstate the trend in spending underlying private insurance because the standard policy would pay for a slightly higher proportion of expenditures each year. Milliman has provided us with a version of the index that reflects a hypothetical policy with no deductible.


5. Health services establishments include offices and clinics of medical doctors, dentists, and other health practitioners; nursing and personal care facilities; intermediate care facilities; and home health care services.

6. For additional discussion of this point, see Ginsburg and Pickreign, "Tracking Health Care Costs."


8. BLS analysts indicate that payments from Internal Revenue Service (IRS) Section 125 accounts, commonly referred to as cafeteria plans or reimbursement accounts, are not treated consistently in the study. In the majority of cases, these payments are regarded as insurance payments, but in some cases, households may not report these payments in their logs.

9. In contrast, a recent study by the National Institute for Health Care Management (NIHCM) reported that prescription drug spending grew by 18.8 percent in 2000, a difference of 4.3 percentage points with the Milliman USA data. However, the NIHCM data were not adjusted for growth in population and therefore are not directly comparable to the data presented here. An adjustment of this nature would result in a slightly lower rate of growth. Furthermore, a recent study by Merck-Medco Managed Care reported that growth in drug spending among its clients grew by 14 percent in 2000, which is more in line with the Milliman data. The Merck-Medco report was based on the spending habits of sixty-five million insured persons. See "Spending on Drugs Seen Doubling by '06," *New York Times*, 7 June 2001.

10. F. Teitelbaum et al., *Express Scripts 2000 Drug Trend Report* (St. Louis: Express Scripts, June 2001), 21–24. Because the HCI focuses on aggregate spending per person rather than costs borne by insurers or employers only, three-tier copayment structures would be expected to affect the growth rate of prescription drug spending only if they induce less use of drugs, switching to cheaper drugs, or lower prices based on purchasers' greater ability to shift demand to

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preferred drugs. Cost shifting to consumers alone would not be expected to affect the HCl.


12. The ECI, a series compiled quarterly by the U.S. Department of Labor, measures the average cost of an employee per hour worked. Federal employees are excluded from the index. Although trends in the ECI and the BLS average hourly wage data did not match up exactly—because the ECI holds skill-mix constant and includes all workers, not just nonsupervisory workers—both measures grew in similar patterns.


17. Ibid.


19. See “Spending on Drugs Seen Doubling by '06.”

20. See R. Kronick and T. Gilmer, “Explaining the Decline in Health Insurance Coverage, 1979–1995,” Health Affairs (Mar/Apr 1999): 30–47. Also, in a letter to Greg Crist, House Committee on Ways and Means, John Shils described research that calculated the price elasticity for health coverage to be -0.203 (Falls Church, Va.: Lewin Group, 7 October 1999). This means that a 1 percent real increase in premiums would be associated with a net coverage loss of approximately 293,000 persons, according to these results.