Treated Disease Prevalence And Spending Per Treated Case Drove Most Of The Growth In Health Care Spending In 1987–2009

ABSTRACT Analysis of data from the National Medical Expenditure Survey and the Medical Expenditure Panel Surveys from 1987–2009 reinforces previous observations that increased prevalence of treated disease has become the main driver of increased spending on health care in the United States. Higher treated disease prevalence and higher spending per treated case were associated with 50.8 percent and 39.0 percent, respectively, of the spending increase seen in the population ages eighteen and older, while their joint effect accounts for the remaining 10.2 percent. The proportion of increased spending attributable to increased treated prevalence alone is particularly high in the Medicare population: 77.7 percent, compared to 33.5 percent among the privately insured. Moreover, the current findings reveal a substantial contribution to the increase in total spending (10.4 percent) from a doubling of the share of the population considered to be obese and from increases in treatment intensity, a component of spending per treated case (11.9 percent), in 1987–2009. Constraining the cost of health care will require policy options focused on reducing the incidence of disease, as well as improved understanding of the extent to which more aggressive treatments for chronic conditions do, or do not, result in lower morbidity and mortality.

Developing ways to continue to reduce the rate of growth in health care spending requires a clear understanding of what accounts for the increase. However, there have been relatively few attempts to identify the factors that have been responsible for rising costs since 1990. These factors in all likelihood differ markedly from the main drivers of cost growth during previous decades.

Two papers from the 1990s examined the factors accounting for the growth in spending between 1940 and 1990. These studies focused primarily on the roles of changes in demand-side factors, including income, demographics, and the spread of health insurance. However, changes in these factors explained only a third to a half of the rise in spending. The rest of the growth was hypothesized to be related to technological change.

Indeed, the time period examined in early work on factors responsible for increased health care spending—1940–90—included several important technological innovations. Among these were the proliferation of neonatal intensive care units, the advent of cardiac care units and angioplasty, and the use of beta-blockers for treating patients with heart attacks.

But perhaps more remarkable from a spending perspective were the period’s expansions in insurance coverage, resulting from the introduction of Medicare and Medicaid and a substantial
expansion of private health insurance. In 1940, 90 percent of the population was uninsured—a figure that had fallen to approximately 15 percent in 1990. Rising insurance coverage drove up health care spending, with the introduction of Medicare alone producing a 37 percent increase in inflation-adjusted hospital spending. Previously published estimates indicate that the dramatic expansion of insurance coverage between 1950 and 1990 accounted for fully half of the overall rise in health care spending during that period.

The key factors responsible for rising health care spending since 1990 are understood to differ substantially from the primary drivers identified in studies of previous decades. In stark contrast to the dramatic insurance expansions between 1940 and 1990, the share of the population without insurance changed only slightly between 1990 and 2010, increasing from 13.9 percent to 16.3 percent. Hence, the major cause of rising spending in earlier decades is far less important today.

Other factors identified as major contributors to increased health care spending prior to 1990—such as the growth in real per capita income and rising administrative costs—may also be considered unlikely to account for much of the recent growth in spending. Estimates of the change in spending associated with rising incomes are small, based on the fact that demand for health care does not increase much with a rise in income, and administrative costs have only increased from 4.4 percent to 5.6 percent of total health care spending between 1990 and 2010.

**Current Growth In Health Care Spending**

Recent studies have identified three factors that account for the rise in health care spending in the past twenty or so years: the rising prevalence of treated disease—in other words, the increasing proportion of the population receiving treatment for a specific medical condition; rising spending per case treated; and the interaction between those two factors. These studies have generally attributed most of the increase to the first factor, the rising prevalence of treated disease.

Treated disease prevalence differs from the standard epidemiological definition of disease prevalence in two ways. First, it excludes people who have a disease but do not receive medical treatment. Second, it may include people who do not have a disease but are receiving medical treatment consistent with having it.

**Prevalence of Treated Disease** Several possible changes—some arguably desirable, others not—could explain the observed increase in the prevalence of treated disease. The arguably desirable reasons add to spending but also have the potential to improve the quality of care and care outcomes. Changes in clinical guidelines for treatment tend to fall into this category.

For example, the guidelines for treating high cholesterol changed in 1988, when the low-density lipoprotein threshold level used to identify candidates for treatment was lowered from 160 milligrams to 130 milligrams per deciliter. Target blood pressure levels have gone through a similar evolution. In the mid-1980s an adult with diastolic blood pressure above 95 mmHg was considered a candidate for treatment of hypertension; the threshold was lowered to 80 mmHg in 1988.

Additionally, in 2002 the American Association of Clinical Endocrinologists and the American College of Endocrinology changed the treatment guidelines for diabetes, lowering the target hemoglobin A1c level for blood sugar control, which is also used as a diagnostic criterion for diabetes, from below 7 percent to below 6.5 percent. These changing thresholds for treatment have been associated with clinical evidence that more aggressive management of high blood pressure and abnormal cholesterol reduce cardiovascular mortality.

Changes in treatment guidelines have led to increases in the treated prevalence of and spending on chronic diseases. At the same time, more aggressive management to reduce blood pressure has reduced heart attacks and strokes. These clinical improvements have produced a benefit-to-cost ratio of 6:1 for the additional expenditures associated with treating hypertension.

Additional changes that could produce desirable increases in treated prevalence include new treatments—such as selective serotonin reuptake inhibitors, first introduced as a treatment for depression and other mental health conditions in the 1980s—and improved detection and screening methods for conditions such as breast cancer, prostate cancer, and kidney disease.

In contrast, other changes are known to produce undesirable increases in treated prevalence. The most notable example in recent decades is the rise in obesity since the 1980s. The share of the adult US population considered obese was relatively constant for twenty years, only rising from 13.4 percent to 15 percent between 1960 and 1980. However, between 1980 and 2008 the share of adults considered obese more than doubled, reaching 36 percent. Rising rates of obesity have been associated with increased incidence of chronic health care conditions such as diabetes, hypertension, and...
Since 1990, health care spending has also increased with rising spending per treated case. Again, several changes may explain the increase in spending per treated case since 1990—some arguably desirable and others less so, depending on their potential to produce better outcomes. The desirable drivers of rising spending include changes in the number and type of treatments for managing conditions such as diabetes and hypertension.

For example, clinical guidelines recommending the use of multiple medications, known as combination therapy, instead of a single medication for such conditions as diabetes, high cholesterol, depression, asthma, and hypertension have been phased in during the past two decades, adding to the costs of treating these medical conditions. The more aggressive treatment of hypertension has been associated with reductions in cardiovascular morbidity and mortality, making the additional spending worth the investment.12

In contrast, some increases in spending per treated case may produce small or no additional health benefits, placing their drivers in the possibly undesirable category. Increases in medical tests and imaging, as well as increased rates of treatment for conditions such as lower back pain, may fit this description. Similarly, new treatments that add to costs with little evidence of cost-effectiveness are being employed for conditions such as cognitive decline and brittle bones in later life.

The persistent rise in per capita use of imaging services including radiology, computed tomography, and magnetic resonance imaging has also increased spending per treated case, often with little additional health benefit. Diagnostic radiology examinations in the United States increased tenfold between 1950 and 2006.16

The present analysis focuses on adults ages eighteen and older. It expands in three ways on previous work estimating the contributions of rising treated prevalence of disease and rising spending per treated case to the growth in Medicare spending.14

First, the analysis provides new estimates of the contributions of rising obesity and increasing intensity of treatment—that is, increasing medical interventions when treating a specific medical condition—to the rise in health care spending, both individually and together. Treatment intensity is a component of the rise in spending per treated case. Second, the analysis includes the period between 1987 and 2009; other research has examined spending data only through 2006. Third, it compares the contributions of treated prevalence of disease and rising spending per treated case to growth in private health insurance spending with their contributions to growth in Medicare spending.

The findings suggest that Medicare and other payers need to revisit the main strategies they are pursuing to constrain growth in costs, so that consumers and payers alike can obtain financial relief.

**Study Data And Methods**

**Data** Data for the study came from the 1987 National Medical Expenditure Survey (of the 26,811 observations in the survey, 5,420 were for people with Medicare and 11,926 for people with private insurance)17 and the Medical Expenditure Panel Surveys for 1996 (of 16,036 observations, 2,602 were for people with Medicare and 7,547 for people with private insurance)18 and 2009 (of 26,270 observations, 4,232 were for people with Medicare and 10,137 for people with private insurance).19 The 2009 data were the most recent available.

Both surveys are nationally representative samples of the US civilian noninstitutionalized population. The surveys include detailed information on self-reported medical conditions, monthly markers of health insurance coverage, patients’ demographic characteristics, spending, and use of service. The 1987 spending data were adjusted from charges to payments using methods developed by the Agency for Healthcare Research and Quality.20

The surveys collect data on respondents’ reports of their medical conditions for each medical event—that is, physician office visits, hospital stays, and other medical care visits. The condition information comes from a specific question that asks respondents directly whether the visit to their provider was related to any specific health condition. Although medical conditions are self-reported, previous research has found a high level of agreement between descriptions of conditions reported by patients and those provided by physicians.21

Information on payments per event is likewise collected via self-report. However, this information is validated and replaced with data from the Medical Provider Component of the Medical Expenditure Panel Surveys, where linkage is feasible. The Medical Provider Component collects data from care providers—hospitals, physicians, home care agencies, pharmacies, and long-term health care facilities—on charges, payments, and sources of payments for specific health care services provided.22 These data were then coded using the International Classification of Diseases, Ninth Revision (ICD-9).

The ICD-9 codes were collapsed into three-
digit codes and grouped into 259 clinically relevant medical conditions using the Clinical Classification System developed by the Agency for Healthcare Research and Quality.\textsuperscript{20} The 259 Clinical Classification System categories were then grouped into 61 broad disease groups.\textsuperscript{20} Additional details about the data are presented in the online Appendix.\textsuperscript{23}

Estimates are provided in this article for the level and change in health care spending for three segments of the adult US civilian noninstitutionalized population in 1987, 1996, and 2009: Medicare beneficiaries, privately insured nonelderly adults (those ages eighteen to sixty-four), and all adults ages eighteen and older regardless of their source of insurance. Medicaid was excluded as a separate category since the data did not capture spending on institutional care, a major component of Medicaid spending.

\textbf{METHODS} To estimate how much of the change in spending was linked to the rise in treated disease prevalence, I began by calculating the dollar change in spending for each medical condition—adjusted for inflation using the gross domestic product implicit price deflator—for two periods, 1987–2009 and 1996–2009. I obtained the share of total spending explained by treated prevalence, the share explained by spending per case, and joint effects of the other two components by computing the sum of the three components across all conditions and weighting it by the share of the total change in spending attributable to a given condition. Thus, the distribution of spending across components was more heavily weighted from conditions that accounted for a greater share of spending growth.

Treated prevalence data were standardized for age and sex to 2002. All reported statistics were weighted and computed using the statistical software Stata, version 11 SE, adjusting for complex survey design. Further details of the methods used are presented in the Appendix.\textsuperscript{23}

\textbf{LIMITATIONS} This portion of the analysis had some notable limitations. The analysis did not include spending on institutional care, such as nursing home care, in the survey data. However, less than 2 percent of private insurance and 6 percent of Medicare spending is spent on institutional care.\textsuperscript{7}

Another limitation was the general lack of understanding of the factors that underlie the rise in treated disease prevalence, other than the rise in obesity. This should be an area for future study.

\textbf{OBESITY ANALYSIS} As a separate analysis, the growth in health care spending between 1987 and 2009 was decomposed into two categories, both focusing on obese adults. The first estimated the share of the growth in spending associated with rising obesity but held treatment intensity at 1987 levels. The second estimated the share of spending increase associated with changes in treatment intensity for obese adults but held obesity at 1987 levels. Additional details on the calculations are provided in the Appendix.\textsuperscript{23}

\textbf{COMPARISONS TO EARLIER WORK} The approach taken in the current analysis differed from that taken in another recent study that also sorted changes in spending into treated prevalence and spending per case treated.\textsuperscript{10} In particular, this analysis estimated the change in total health care spending, whereas earlier estimates examined the change in per capita spending. The major difference between these two approaches is the treatment of population growth. In the current approach, population growth was apportioned to prevalence, whereas the work by Charles Roehrig and David Rousseau held population growth constant.\textsuperscript{10} Key differences in these two approaches are explored further in the Appendix.\textsuperscript{23}

\textbf{Study Results}

\textbf{ROLE OF TREATMENT PREVALENCE AND SPENDING PER TREATED CASE} Rising treated disease prevalence accounted for most of the observed rise in health care spending. Between 1987 and 2009, 50.8 percent of the rise in health care spending among adults ages eighteen and older was associated with rising rates of treated disease prevalence, while 39.0 percent of that rise was associated with rising spending per treated case (Exhibit 1). Similar results were found for the period 1996–2009, when 47 percent of the growth in spending was associated with the rise in treated prevalence, and 47 percent with rising spending per treated case (data not shown).

These results are broken down further by examining trends in treated prevalence for the ten medical conditions for which spending grew the fastest between 1987 and 2009 (Exhibit 1). Among all adults, these ten conditions collectively accounted for more than half of the rise in health care spending in the period (tabulation not shown). The rise in treated prevalence in this period accounted for most of the growth in spending for eight of the ten conditions. However, treated prevalence for two conditions—trauma and normal live births—decreased.

\textbf{EFFECTS OF SOURCE OF INSURANCE} The extent to which changes in treated prevalence and spending per treated case accounted for the rise in health care spending differed sharply by source of insurance. Of the increased spending on Medicare patients between 1987 and 2009,
treated prevalence accounted for 77.7 percent of the increase and spending per treated case accounted for 14.1 percent (Exhibit 2).

In contrast, for patients with private insurance, treated prevalence accounted for 33.5 percent and spending per treated case accounted for 53.6 percent of the rise in spending during the same time period (Exhibit 3). The additional contribution of spending on treated prevalence and spending per treated case in concert was relatively modest for both groups of patients (8.2 percent and 12.9 percent, respectively).

There were notable similarities and differences in the roles played by treated prevalence and spending per treated case among the medical conditions accounting for most of the growth in Medicare and private insurance spending. For Medicare, treated prevalence accounted for most of the condition-specific growth in spending for nine of the top ten medical conditions (Exhibit 2). For private insurers, treated prevalence accounted for most of the condition-specific increase in spending for six of the top ten conditions (Exhibit 3).

The following seven conditions were in the top ten conditions for both Medicare and private insurers: cancer, diabetes, mental disorders, hyperlipidemia, trauma, arthritis, and pulmonary disease.

**Impact of Obesity** Tabulations from the surveys show that between 1987 and 2009 the share of adult respondents considered obese according to self-reported height and weight data increased from 13.4 percent to 29.2 percent (results not shown). Using the approach described earlier, I found that the rise in obesity and treatment intensity accounted for 22.3 percent of the rise in health care spending between 1987 and 2009 (Exhibit 4). The rise in obesity alone was associated with 10.4 percent of the rise in health care spending. This is roughly a fifth of the overall role of treated disease prevalence in the rise in spending.

Increased treatment intensity of obese adults accounted for 11.9 percent of the overall rise in spending. This figure is nearly 30 percent of the overall role in spending growth accounted for by spending per treated case.

The role of rising obesity accounted for roughly the same proportion of overall spending growth in each of the time periods examined (Exhibit 4). However, the share of spending growth linked to the rise in treatment intensity varied widely over time.

**Discussion**
The analysis was designed to investigate the roles that the rise in treated disease prevalence, spending per treated case, obesity, and increased treatment intensity have played in the growth in health care spending. There were three major findings.

First, the rise in treated prevalence accounted for 50.8 percent of the growth in overall spending among adults and for 77.7 percent in

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**EXHIBIT 1**

<table>
<thead>
<tr>
<th>Condition</th>
<th>Percent of growth due to:</th>
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<tbody>
<tr>
<td></td>
<td>Treated prevalence</td>
</tr>
<tr>
<td>Mental disorders</td>
<td>65.2</td>
</tr>
<tr>
<td>Cancer</td>
<td>90.4</td>
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<tr>
<td>Heart conditions</td>
<td>87.7</td>
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<tr>
<td>Trauma</td>
<td>-10.7</td>
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<tr>
<td>Osteoarthritis</td>
<td>52.8</td>
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<tr>
<td>Hyperlipidemia</td>
<td>57.7</td>
</tr>
<tr>
<td>Pulmonary disease</td>
<td>36.1</td>
</tr>
<tr>
<td>Normal live birth</td>
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<tr>
<td>Hypertension</td>
<td>71.7</td>
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<tr>
<td>Diabetes</td>
<td>111.2</td>
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<tr>
<td>Total across all conditions</td>
<td>50.8</td>
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</tbody>
</table>

**SOURCE** Author’s analysis of data from the 1987 National Medical Expenditure Survey (Note 17 in text) and the 1996 and 2009 Medical Expenditure Panel Surveys (Notes 18 and 19 in text) **NOTES** The number of observations of adults ages eighteen and older were 26,811 for 1987 and 26,270 for 2009. The ten conditions shown are those for which spending grew the fastest in this period. A negative percentage indicates that either treated prevalence or spending per case treated declined for the medical condition between the two periods.

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**EXHIBIT 2**

<table>
<thead>
<tr>
<th>Condition</th>
<th>Percent of growth due to:</th>
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<td>Treated prevalence</td>
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<td>Heart disease</td>
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<tr>
<td>Cancer</td>
<td>100.7</td>
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<tr>
<td>Mental disorders</td>
<td>55.7</td>
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<tr>
<td>Hyperlipidemia</td>
<td>77.2</td>
</tr>
<tr>
<td>Trauma</td>
<td>23.8</td>
</tr>
<tr>
<td>Hypertension</td>
<td>55.2</td>
</tr>
<tr>
<td>Arthritis</td>
<td>77.0</td>
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<tr>
<td>Diabetes</td>
<td>72.8</td>
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<tr>
<td>Pulmonary disease</td>
<td>76.6</td>
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<tr>
<td>Kidney disease</td>
<td>65.4</td>
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<tr>
<td>Total across all conditions</td>
<td>77.7</td>
</tr>
</tbody>
</table>

**SOURCE** Author’s analysis of data from the 1987 National Medical Expenditure Survey (Note 17 in text) and the 2009 Medical Expenditure Panel Survey (Note 19 in text) **NOTES** The numbers of observations of Medicare beneficiaries were 5,420 for 1987 and 4,232 for 2009. A negative percentage indicates that either treated prevalence or spending per case treated declined for the medical condition between the two periods. "Percent of total spending growth" is the percentage of the total increase in Medicare spending associated with each medical condition.
Increased Treatment Intensity During Three Time Periods, 1987 and 1996 and 2009 Medical Expenditure Panel Surveys (Notes 18 and 19 in text).

Percentage Of Per Capita Health Care Spending Increase Associated With Obesity And Increased Treatment Intensity During Three Time Periods, 1987–2009

<table>
<thead>
<tr>
<th>Condition</th>
<th>Susan R. Mitchell et al.</th>
<th>Joint effect</th>
<th>Percent of total spending growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cancer</td>
<td>42.6</td>
<td>26.7</td>
<td>8.3</td>
</tr>
<tr>
<td>Mental disorders</td>
<td>66.9</td>
<td>22.9</td>
<td>6.9</td>
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<tr>
<td>Arthritis</td>
<td>29.4</td>
<td>43.8</td>
<td>6.7</td>
</tr>
<tr>
<td>Trauma</td>
<td>-38.0</td>
<td>-28.0</td>
<td>6.4</td>
</tr>
<tr>
<td>Pulmonary disease</td>
<td>16.0</td>
<td>36.0</td>
<td>6.0</td>
</tr>
<tr>
<td>Hyperlipidemia</td>
<td>46.1</td>
<td>49.4</td>
<td>5.0</td>
</tr>
<tr>
<td>Back problems</td>
<td>61.4</td>
<td>19.7</td>
<td>4.0</td>
</tr>
<tr>
<td>Skin problems</td>
<td>12.6</td>
<td>25.4</td>
<td>3.4</td>
</tr>
<tr>
<td>Diabetes</td>
<td>90.8</td>
<td>5.8</td>
<td>3.0</td>
</tr>
<tr>
<td>Endocrine system disorders</td>
<td>29.6</td>
<td>27.8</td>
<td>2.6</td>
</tr>
<tr>
<td>Total across all conditions</td>
<td>33.5</td>
<td>12.9</td>
<td>54.7</td>
</tr>
</tbody>
</table>

Source: Author’s analysis of data from the 1987 National Medical Expenditure Survey (Note 17 in text) and the 2009 Medical Expenditure Panel Survey (Note 19 in text). Notes: The numbers of observations of adults ages 18–64 were 11,926 for 1987 and 10,137 for 2009. A negative percentage indicates that either treated prevalence or spending per case treated declined for the medical condition between the two periods. “Percent of total spending growth” is the percentage of the total increase in private insurance spending associated with each medical condition.

The results highlight the importance of weighing the health benefits of more aggressive and intensive treatment and the additional health care spending associated with it.

Comparisons To Earlier Work: The results provide new information on the roles that obesity and treatment intensity played in rising health care spending. Although both are important contributors to rising spending over time, their roles raise different issues. In particular, understanding the factors accounting for rising treatment intensity and the costs and benefits associated with it should be an important focus for future work.

The results are consistent with earlier work regarding the key role of the rise in treated prevalence in the growth in total health care spending. However, the results differ from work examining the role of treated prevalence and rising cost per case treated in accounting for the rise in per capita spending. These differences can be traced to the different methods used—examining total spending versus examining per capita spending—and to the different time periods analyzed.

For instance, the results of this analysis show the widely different role assumed by the rise in treatment intensity during different time periods on the growth in total health care spending. Depending on the period examined, rising treatment intensity accounted for 5.3 percent to 28.2 percent of the rise in total health care spending (Exhibit 4).

Similarly, the roles of treated prevalence and cost per treated case in accounting for the growth in total health care spending varied over time. The analysis showed that the rise in treated prevalence accounted for 47 percent, cost per treated case accounted for 47 percent, and their joint effect accounted for 6 percent of the growth in total spending between 1996 and 2009 (results not shown).

Treated Prevalence and Rising Spending: The analysis also provides new information on the key roles of rising prevalence and spending per treated case in the growth in Medicare and private insurance spending, respectively. The different effects of treated prevalence and spending per treated case in Medicare and private insurance spending may be associated with the fact that Medicare has payment controls throughout the program. Indeed, Medicare paid about 90 percent of the private insurance rate for hospital payments in the mid-1990s, compared to 67 percent in 2009.

Medicare appears to be able to control unit payments, but it may provide incentives for broader use of services. The fee-for-service payment formula, based on diagnosis-related groups, that Medicare uses to pay hospitals for inpatient care is thought to result in high rates of preventable hospital readmissions, resulting in recent changes in some payment methods. Similarly, Medicare’s physician payment rates under the sustainable growth rate formula have...
been relatively constant since 2000. Incentives built into that formula have probably increased the intensity and volume of services provided to Medicare patients. The actuaries at the Centers for Medicare and Medicaid Services have traditionally assumed that half of any reductions in Medicare payments that reduce provider revenues are offset through higher volume and intensity. Thus, although Medicare has comprehensive payment controls, the results suggest that future policy proposals should target the factors—such as rising rates of obesity—that underlie the rise in treated prevalence. Moreover, additional research would be helpful in understanding the factors that underlie the substantial rise in spending per treated case among people with private insurance.

The findings highlight the need for additional examinations of the factors that account for the rise in treated prevalence over time, particularly among Medicare beneficiaries. Understanding the relative contribution of changes in treatment guidelines, obesity, rates of screening, and disease detection would provide critical information on where best to invest in slowing the rise in treated prevalence.

**Conclusion**

The current findings strongly suggest that much of the recent discussion about how to control continuing increases in health care spending, particularly among Medicare beneficiaries, may be focused on the wrong set of issues. Reducing payments to providers, increasing cost sharing to Medicare patients, or increasing the age of Medicare eligibility would certainly reduce the growth of federal spending on health care. However, these strategies are unlikely to reduce total health care spending by and for Medicare patients.

These policies would cut Medicare payments to providers but not necessarily costs, because none of them address the factors responsible for the rising prevalence of treated disease among US adults in general and Medicare patients in particular. What is needed is a broader set of policy options focused on reducing the incidence of disease, as well as a better understanding of how much of the rise in treated prevalence is the result of more aggressive treatment of chronic conditions and whether the more intensive treatments are yielding improvements in morbidity and mortality.

The author thanks Katya Galactionova and Peter Joski for research and programming assistance with the article. Any errors remain the responsibility of the author.

**NOTES**

Spending Trends

Reinforcing Thorpe's care in the United States.

A doubling of the population, while their joint effect accounted for 11.9 percent. Thorpe concludes that constraining health care costs will require policy options focused on reducing the incidence of disease as well as improved understanding of the extent to which more aggressive treatments for chronic conditions do, or do not, result in lower morbidity and mortality.

Thorpe previously served as deputy assistant secretary for health policy at the Department of Health and Human Services, where he coordinated all financial estimates and program effects of President Bill Clinton's health care reform proposals for the White House. Thorpe is a member of the Health Affairs editorial board. He holds a master's degree in public policy from Duke University and a doctorate in public policy from the Pardee RAND Graduate School.

He also serves as chair of the Partnership to Fight Chronic Disease, where he works with a coalition of more than 120 national and state-based organizations—consisting of patients, providers, community organizations, business and labor groups, and health policy experts—to raise awareness of the impact that chronic disease has on the nation's health and economy.

In this month's Health Affairs, Kenneth Thorpe reports on his analysis of data from the National Medical Expenditure Survey and the Medical Expenditure Panel Surveys from the period 1987–2009, and his conclusion that increased prevalence of treated disease has become the main driver of increased spending on health care in the United States. Reinforcing Thorpe's earlier analyses, higher treated disease prevalence and higher spending per treated case were associated with 50.8 percent and 39.0 percent, respectively, of the spending increase seen in the adult population, while their joint effect accounts for the remaining 10.2 percent. A doubling of the share of the population considered to be obese contributed 10.4 percent of the increase, while increases in treatment intensity accounted for 11.9 percent.

Spending increase seen in the adult population is driven by increased spending on health care as a result of increased prevalence of treated disease, higher treated disease prevalence, and higher spending per treated case. Thorpe previously served as deputy assistant secretary for health policy at the Department of Health and Human Services, where he coordinated all financial estimates and program effects of President Bill Clinton’s health care reform proposals for the White House. Thorpe is a member of the Health Affairs editorial board. He holds a master’s degree in public policy from Duke University and a doctorate in public policy from the Pardee RAND Graduate School.

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Kenneth E. Thorpe is chair of the Department of Health Policy and Management, Rollins School of Public Health, Emory University. In this month's Health Affairs, Kenneth Thorpe reports on his analysis of data from the National Medical Expenditure Survey and the Medical Expenditure Panel Surveys from the period 1987–2009, and his conclusion that increased prevalence of treated disease has become the main driver of increased spending on health care in the United States. Reinforcing Thorpe's earlier analyses, higher treated disease prevalence and higher spending per treated case were associated with 50.8 percent and 39.0 percent, respectively, of the spending increase seen in the adult population, while their joint effect accounts for the remaining 10.2 percent. A doubling of the share of the population considered to be obese contributed 10.4 percent of the increase, while increases in treatment intensity accounted for 11.9 percent.

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In this month’s Health Affairs, Kenneth Thorpe reports on his analysis of data from the National Medical Expenditure Survey and the Medical Expenditure Panel Surveys from the period 1987–2009, and his conclusion that increased prevalence of treated disease has become the main driver of increased spending on health care in the United States. Reinforcing Thorpe’s earlier analyses, higher treated disease prevalence and higher spending per treated case were associated with 50.8 percent and 39.0 percent, respectively, of the spending increase seen in the adult population, while their joint effect accounts for the remaining 10.2 percent. A doubling of the share of the population considered to be obese contributed 10.4 percent of the increase, while increases in treatment intensity accounted for 11.9 percent.

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Spending increase seen in the adult population is driven by increased spending on health care as a result of increased prevalence of treated disease, higher treated disease prevalence, and higher spending per treated case. Thorpe previously served as deputy assistant secretary for health policy at the Department of Health and Human Services, where he coordinated all financial estimates and program effects of President Bill Clinton’s health care reform proposals for the White House. Thorpe is a member of the Health Affairs editorial board. He holds a master’s degree in public policy from Duke University and a doctorate in public policy from the Pardee RAND Graduate School.

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