

## HEALTH POLICY REPORT

## Employer-Sponsored Health Insurance in the United States — Origins and Implications

David Blumenthal, M.D., M.P.P.

Varied as they may be, most U.S. readers of the *Journal* probably share at least one thing: employer-sponsored health insurance is vital to their well-being. For their part, most physicians, regardless of their field of medicine or where they practice, depend heavily on employer-sponsored insurance for their paychecks. Since increasing numbers of physicians today are employees of health care organizations, many acquire their own and their family's health insurance in their workplace.<sup>1</sup> In this regard, they have much in common with their patients. More than 159 million Americans — 62.4 percent of the nonelderly population — had health care coverage through employer-sponsored insurance in 2004.<sup>2</sup>

In other words, employer-sponsored insurance is a cornerstone of the U.S. health care system, as vital in some ways to the health care of Americans as the drugs, devices, and medical services that the insurance covers. Employer-sponsored insurance has been described as the equivalent of "private social security,"<sup>3</sup> and if it were suddenly to disappear, chaos would certainly result: the health of patients throughout the United States would be jeopardized, and physicians' income would plummet.

This development is not, of course, imminent. But neither is the system of employer-sponsored insurance healthy and secure. It faces challenges that are unparalleled in its roughly 70-year history — including apparently unsustainable cost increases — and the ability of the system to cope with these challenges over the long term is far from certain. Understanding employer-sponsored insurance is therefore central to understanding the U.S. health care system and its evolution. In this first part of a two-part report, I attempt to further this understanding by exploring how the United States came to have an employer-based system of health insurance and how reliance on employer-based insurance affects the U.S. health

care system generally. The second part of this report will discuss recent trends in employer-sponsored insurance, approaches that the providers of such insurance are taking to the problems they confront, and the probable future of this vital American institution.

---

### THE HISTORY OF EMPLOYER-SPONSORED HEALTH INSURANCE

---

The heavy reliance on employer-sponsored insurance in the United States is, by many accounts, an accident of history that evolved in an unplanned way and, in the view of some, without the benefit of intelligent design. "If we had to do it over again," says economist Uwe Reinhardt, "no policy analyst would recommend this model." The story of the emergence of employer-sponsored insurance has already been told, but key elements are worth repeating to provide a perspective on the current state of this uniquely American institution.<sup>3-5</sup>

Two historic events prepared the way for the emergence of this system of insurance. The first was the decision by President Franklin D. Roosevelt after his election in 1932 not to pursue universal health care coverage. The second was a series of federal rules enacted in the 1940s and 1950s on how employer-sponsored insurance should be treated with respect to federal taxes and in labor negotiations.

The late Wilbur Cohen, who served in the Roosevelt administration and later wrote the Medicare legislation,<sup>5</sup> thought that President Roosevelt could have enacted a universal health insurance program as part of Social Security during his first term. Because of the extremity of the Great Depression, Cohen said, "Roosevelt in 1933 could have federalized or nationalized anything he wanted . . . at the bottom of the depression if [he] wanted to create all national banks . . . a



national system of Social Security and health insurance, he could have gotten it."<sup>6</sup> Whether Cohen was correct we will never know, but it is clear that President Roosevelt decided he did not want to enact a universal entitlement to health care coverage at that time. The standard explanation for his view is that fierce opposition from the American Medical Association, a much more potent lobby then than it is now, would have doomed the passage of the Social Security Act in 1935 (the vehicle to which the passage of health insurance was linked), and that Roosevelt chose Social Security over health care.<sup>5</sup> It probably did not help that the three physicians to whom Roosevelt was closest, including his son's father-in-law, the renowned neurosurgeon Harvey Cushing, also opposed the enactment of federal health insurance on its merits. Roosevelt discussed health care over lunch with Cushing the day before he signaled his decision not to push for the immediate passage of a health insurance component of Social Security.<sup>7</sup>

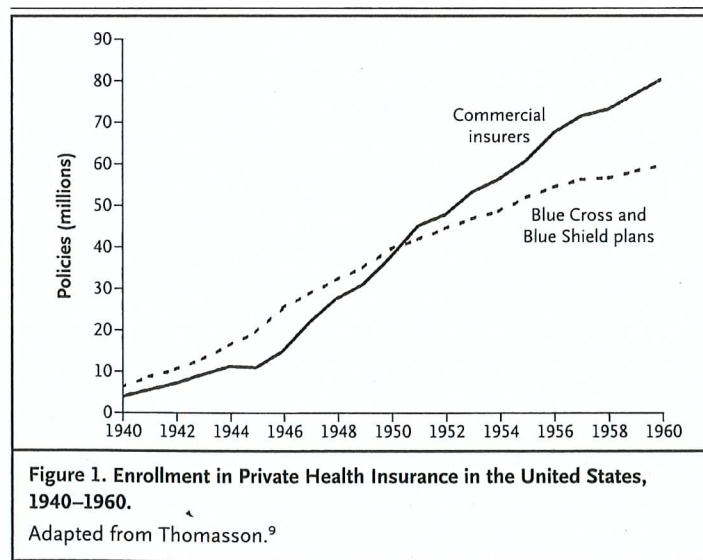
President Roosevelt's decision left a pressing need for alternative forms of protection against the growing costs of illness. Private insurance emerged to fill this gap in the early 1930s in the form of the nonprofit Blue Cross and Blue Shield plans. Commercial insurers subsequently entered the business, once they saw that the Blues were successful.<sup>4</sup> The resultant private insurance industry was therefore ready to sell insurance to employers when the opportunity to do so emerged during World War II.

This opportunity arose because, to control inflation in the overheated wartime economy, the federal government in 1942 limited employers' freedom to raise wages and thus to compete on the basis of pay for scarce workers.<sup>4</sup> However, the federal government allowed employers to expand benefits for workers, such as health insurance, which resulted in a rapid increase in employer-sponsored insurance. Several additional federal rulings followed that increased the attractiveness of the provision of employer-sponsored insurance to workers and their unions. In 1945, the government said that employers could not unilaterally change benefits programs until the expiration of a labor contract, and in 1949, it ruled that benefits should be considered part of the wage package of employees so that unions could negotiate health insurance as part of contract talks. Finally, in 1954, the Internal Revenue Service de-

cidated that the contributions that employers made to the purchase of health insurance for their employees were not taxable as income to workers.<sup>4</sup> By 2004, the tax benefit for employees had grown to \$188.5 billion annually,<sup>8</sup> or about \$1,180 for each American with employer-sponsored insurance.

Thus, the federal government, having decided not to provide health insurance to most of its citizens, privatized the job by default, delegating it to private employers and insurance companies. With hindsight, this development can be seen as an early triumph of a vision championed by modern conservatives, in which the private sector in the United States fulfills essential social responsibilities assumed by governments in most other industrialized nations. Between 1940 and 1950, the number of persons enrolled in private health plans increased from 20.6 million to 142.3 million<sup>4,9</sup> (Fig. 1). By 1948, when President Harry S. Truman decided to advocate again for national health insurance,<sup>5</sup> private health insurance was an established fact of life that not only had diminished the apparent need for government action but also had spawned a strong, new insurance industry with a stake in the status quo.

At its peak in 2000, employer-sponsored insurance covered 66.8 percent of nonelderly Americans.<sup>2</sup> Over the years, such insurance, like private health insurance generally, became steadily more generous. Out-of-pocket spending by consumers of health care in the United States fell from 48 percent of all health care costs in 1960





to 15 percent in 2000,<sup>10,11</sup> despite the rising expense of health care (Fig. 2).

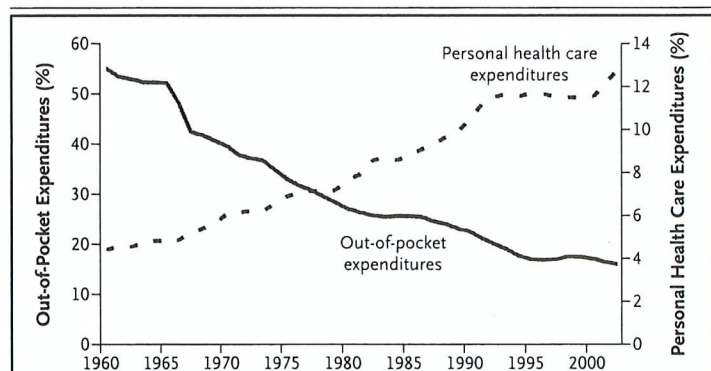
In other words, employer-sponsored insurance has done its job in many respects. It has provided the essential underpinning of an insurance system by creating work-based risk pools, in which healthy, low-risk participants subsidize the health costs of sick, high-risk participants. With the help of generous federal tax subsidies, employer-sponsored insurance has provided this service at a price that until recently, working Americans and companies found affordable. To be sure, employer-sponsored insurance has left many Americans uninsured, including millions of working citizens. But this is only partly the responsibility of employer-sponsored insurance. Had the political will ever existed, government could have developed ways to cover the uninsured while also preserving employer-sponsored insurance.

#### NOTABLE RECENT DEVELOPMENTS

Like U.S. society generally and the health care system within it, employer-sponsored insurance has continued to evolve in response to external developments. One such development was the 1974 enactment of the Employee Retirement Income Security Act (ERISA). Its purpose was to protect employees against abuses on the part of those investing their pension funds and other benefits. Although not intended specifically to affect employer-sponsored insurance or the health care sector, ERISA nevertheless had a profound influence

on health insurance in the United States. The law conferred important advantages on employers who covered their own employees' health care costs (that is, insured themselves), since they were thereby exempted from state regulation of their health care coverage.<sup>12,13</sup> This exemption permitted self-insuring employers to avoid cost-enhancing state mandates to cover particular services (such as *in vitro* fertilization or mandated minimal mental health coverage) and made it easier for them to design new coverage packages, since they did not have to obtain regulatory approval for insurance redesign. These effects of ERISA may have reduced the costs of health insurance for employees of self-insured companies. However, ERISA also became one of the most vexing issues confronting states wishing to enact universal health care coverage by mandating employer coverage. The law has also contributed to destabilizing the employer-sponsored insurance system overall. When the self-insured, large employers that could afford to do so removed their relatively healthy and better-paid employees from the risk pools maintained by private insurance companies,<sup>12</sup> premiums for small employers became less affordable, making it increasingly difficult for them to participate in the employer-sponsored insurance system.

A second event that seems highly technical but has had an enormous effect on employer-sponsored insurance was a 1990 ruling by the Financial Accounting Standards Board (FASB), a little-known group that sets rules for the accounting industry. The ruling required that as of 1992, companies that covered the health care expenses of retired employees had to carry the associated future liabilities on their balance sheets.<sup>14</sup> The huge health care expenses projected for aging retired persons had the immediate effect of reducing the estimated assets of many companies and thus threatening the value of their stock, causing great concern on Wall Street.<sup>15</sup> Between 1980 and 2000, the proportion of mid-sized and large firms offering any health care coverage for retirees dropped from 85.6 percent to 37.1 percent,<sup>11</sup> and the proportion of all firms offering health benefits to Medicare-eligible retired persons fell from 20 percent in 1997 to 13 percent in 2002.<sup>11,14</sup> Recently, a slew of large employers, including General Motors, Sears, Lucent, and several airlines, have reduced or eliminated benefits for the retired.<sup>16</sup> A ruling by a public-sector ac-



**Figure 2. Percentage of Total Personal Health Care Expenditures Paid Out of Pocket and the Percentage of the Gross Domestic Product (GDP) Spent on Personal Health Care, 1960–2002.**

Out-of-pocket expenditures do not include personal premium contributions for insurance coverage. From the Office of the Actuary, Centers for Medicare and Medicaid Services.



counting-standards board recently enacted similar standards for government accounting, sending shock waves through public agencies and possibly threatening their ability to honor health care commitments to their retirees going forward.<sup>17</sup>

Still another development with profound implications for employer-sponsored insurance has been the often-described rise in health care costs since employer-sponsored insurance came into existence.<sup>18</sup> Expenditures for health care increased from \$27 billion annually (5.1 percent of the gross domestic product [GDP]) in 1960 to \$888 billion (13.4 percent of the GDP) by 1993. The rate of increase leveled off during the mid-1990s, in association with the advent of managed care, but the increase resumed at a double-digit pace in the late 1990s until total expenditures reached \$1.9 trillion and 16 percent of the GDP in 2004.<sup>19</sup> The United States's dependence on employer-sponsored insurance means that the protection of its citizens against the costs of illness depends directly on the ability of private businesses to manage and absorb health care expenses that have defied all efforts to contain them.

---

#### IMPLICATIONS FOR THE AVAILABILITY OF COVERAGE

---

The United States's reliance on employer-sponsored insurance has important implications for the nature, efficiency, and evolution of the system of health insurance. These implications flow from a few simple but often underappreciated facts.

The first fact is that employer-sponsored insurance is provided by private firms to their employees as part of the employees' compensation package. Economists argue with conviction that wages and benefits together constitute a single expense for employers: the cost of acquiring the labor they need to produce their products and services.<sup>11,20</sup> Over the long term, the total compensation (wages and benefits combined) that employers pay their employees will be determined by market forces. If the cost of health insurance goes up faster than the employers' ability to increase overall compensation, then the employers will eventually reduce cash wages or other benefits accordingly or go out of business. This dynamic leads economists to argue that ultimately employers pass the costs of health care on to workers who pay for their own health insurance in the form of wages or other benefits foregone.

In 2005, the average premium for family coverage of health care in the United States equaled \$10,880,<sup>21,22</sup> which, for the first time, was the equivalent of the wages paid annually to a minimum-wage worker, about \$11,000. Thus, nested within the compensation package of each American worker with family coverage is the equivalent of another worker paid the minimum wage.

One way that employers have coped with rapidly rising health care costs has been to reduce the generosity of their health care benefits and increase cost-sharing with their employees.<sup>23</sup> As the employees come to recognize the trade-off between take-home pay and health care expenses, they are coming grudgingly to accept these changes.<sup>24,25</sup> This result will probably reduce employees' resistance to further erosion of employer-sponsored insurance over time.

The second fact regarding employer-sponsored insurance is that it links the availability of health insurance for most Americans to the fortunes and capabilities of U.S. businesses. For this reason, the health care coverage for many Americans is profoundly affected by developments that have nothing to do with the health care system itself. Some of these developments are legal and regulatory, such as the passage of ERISA and changes in accounting rules, neither of which was meant to influence employer-sponsored insurance yet had major, unanticipated effects.

Other developments are economic. The availability and generosity of health care coverage for Americans depend on the economic fortunes of private companies, which in turn, depend on trends in global markets for computers, automobiles, agricultural products, and many other goods and services. The ripple effects for health insurance are profound. When the U.S. economy is strong, coverage expands (or at least, ceases to contract). When the economy weakens, companies cut their workforce and their employees' compensation and health insurance. The effect of globalization on the availability of workplace-based health insurance remains to be fully understood, but to the extent that it reduces overall compensation in the United States, it will hasten the reduction of health care benefits.<sup>26</sup> Furthermore, the likelihood that workers will get employer-sponsored insurance depends profoundly on characteristics of the companies for which they work. Large companies are much more likely to insure their employees than small companies. Business-



es in certain economic sectors — agriculture, retailing, and restaurants — are less likely to provide employer-sponsored insurance to their workers than those in other sectors.<sup>2</sup> These patterns have nothing to do with the intrinsic health or value of the workforce involved and everything to do with the market power, profitability, and business strategy of the employers. The result is a raft of arbitrary inequities in the availability of health insurance to working Americans.

Regardless of how health insurance and health care are provided to a nation's citizens, there will always be a link between the availability and generosity of coverage and the fortunes of that nation's business community. In government-run insurance programs, such as those in many industrialized countries, the link between the strength of the business communities and the availability of health care coverage takes the form of tax revenues, which usually grow when businesses are strong and decline when they are weak. The smaller the tax revenues governments receive, the less generous they can be in funding health care and other state-funded services. In these other health care systems, however, various social mechanisms pool the funds available for health care and then distribute them to citizens without regard to the type of work they do. Only in the United States, with its "private social security system" for health care, does employer-sponsored insurance link access to health care directly and immutably to the fortunes of the specific enterprises in which citizens are employed.

---

#### IMPLICATIONS FOR THE QUALITY AND EFFICIENCY OF HEALTH CARE

---

The United States's reliance on employer-sponsored insurance has profound implications for the efficiency and quality of health care. This situation reflects the truism that "he who pays the piper calls the tune." Since businesses pay for a large portion of U.S. health care, their ability and willingness to sponsor and direct reform play a decisive role in how the health care system functions.

In this respect, employer-sponsored insurance has certain clear benefits. The existence of a market for health insurance, in which private insurers compete for the business of private employers, facilitates innovation in the development of insurance products.<sup>27</sup> Pressed by rising costs,

private employers have pushed insurance companies to develop new approaches to organizing and financing care that they hope will limit expenses without alienating their employees.<sup>27</sup> The result has been an almost dizzying series of new approaches to coverage. Among these is the managed care revolution itself, which insurers proposed and implemented in the early 1990s in response to employers' rebellion against cost increases. With the waning of formal managed care,<sup>28</sup> reforms have included paying for performance,<sup>29</sup> disease-management initiatives,<sup>30</sup> health savings accounts,<sup>31</sup> consumer-directed health plans,<sup>32</sup> tiered-payments systems, and other innovations. Some of these new products have had sufficient promise to be adopted on a national basis by other countries (such as the new pay-for-performance program for general practitioners in the United Kingdom)<sup>33</sup> and on an experimental basis by the public payers in the United States. Medicare, for example, has begun to use a number of approaches developed by private insurers.<sup>34</sup> In fact, it is fair to say that employer-sponsored insurance, which has been an engine for experimentation and innovation in the U.S. health care system, has affected the organization of health care throughout the world.

Sophisticated private employers have also played the role of opinion leaders in expediting health care reforms unrelated to their immediate needs for coverage. Perhaps the best example of this development is the Leapfrog Group, an alliance of businesses and insurers that has advocated strongly for increasing patient safety and the measurement of the quality of health care.<sup>35</sup> Although the Leapfrog Group's initiative has not enjoyed all the success its founders and leaders hoped for, there is no question that it has helped focus attention on approaches to improving patient safety and the quality of health care, including computerized physician order entry.<sup>36</sup> Similar leadership has been demonstrated by regional coalitions of business leaders such as the Pacific Business Group on Health in the San Francisco Bay Area and the Buyer's Health Care Action Group in Minneapolis-St. Paul.<sup>37</sup>

The innovations that employer-sponsored insurance has sparked, however, have not proved to be sufficient to ameliorate our nation's fundamental health care problems of cost, quality, and access to services. The reason for this may be that as Galvin and Delbanco recently pointed



out,<sup>35</sup> employers may pay the piper but they have been unable to call a consistent tune, for many reasons. First, with rare exceptions, individual employers lack sufficient numbers of employees in any one market to impress providers with the need to follow their leadership in changing how health care is organized and provided. Innovative employers tend to be large, and large firms tend to be national, so that their employees are scattered around the country.

Second, local business coalitions, which may have sufficient market power, have proved difficult to form and sustain for reasons that speak to underlying weaknesses of employer-sponsored insurance in promoting health care reform. Creating a strong and enduring coalition of local purchasers requires that business leaders take a collective, long-term approach to reducing costs, improving the quality of local health care services, or both. Except in a few locales, this effort has proved difficult for business leaders.<sup>35,37</sup> They are reluctant to give up the freedom to negotiate directly with health plans for individually tailored health insurance packages. They tend to enter and drop out of coalitions in response to developments within their own companies — changes in leadership, decisions to become self-insured, and sales of local entities to outside companies that no longer see collaboration in that locale as a key business objective.<sup>37</sup>

Third, small and mid-sized employers, and even many large employers, often lack the internal expertise to provide leadership in health care reform activities.<sup>35</sup> This fact probably explains why so many employers have shown so little interest over time in the quality of health care provided to their employees, focusing disproportionately on costs in their purchasing decisions,<sup>35</sup> which are easier to understand.

Finally, as the health care system has grown, so have the number and size of companies with a stake in the continued growth of this system. These industries — suppliers of everything from bedpans to beds, surgical equipment, and health care-related software — are now major members of national and local business coalitions. They may not always share a strong commitment to taming the beast of health care costs in the United States or may favor less aggressive approaches to doing so than would nonhealth companies.

---

EMPLOYER-SPONSORED INSURANCE  
AND THE FUTURE OF THE HEALTH  
CARE SYSTEM

---

Employers comprise not one tune-caller but a throng of them — increasingly diverse, lacking any legitimate conductor, and favoring a multitude of scores. They are, in other words, an intrinsically American collection of actors, just as employer-sponsored insurance is a uniquely and typically American approach to managing the fundamental social problem of insuring citizens against the cost of illness. Although employer-sponsored insurance has provided important social benefits in the past and continues to generate an array of creative ideas for solving particular problems of health care, it has proved unable to contain the ferocious forces driving cost increases in the United States and seems to be ill-constructed to do so in the future. The question now confronting all health care stakeholders is whether this complex, evolving, and unstable institution, buffeted by seemingly random forces unrelated to health care, can provide the leadership required to preserve its own viability, the viability of our health care system, and the health of the American people. The future welfare of physicians and their patients now depends vitally on an apparent accident of history that emerged 70 years ago from the throes of depression and war.

No potential conflict of interest relevant to this article was reported.

I am indebted to Dr. Mandy Krauthamer for research assistance, and to Dr. Joseph Newhouse and Helen Darling for reviewing the manuscript.

From the Institute for Health Policy, Massachusetts General Hospital-Partners Health Care System, Boston.

1. Kletke PR, Emmons DW, Gillis KD. Current trends in physicians' practice arrangements: from owners to employees. *JAMA* 1996;276:555-60.
2. Fronstin P. Sources of health insurance and characteristics of the uninsured: analysis of the March 2005 current population survey. Issue brief. No. 287. Washington, D.C.: Employee Benefits Research Institute, 2005. (Available at [http://www.ebri.org/pdf/briefspdf/EBRI\\_IB\\_11-20051.pdf](http://www.ebri.org/pdf/briefspdf/EBRI_IB_11-20051.pdf).)
3. Starr P. *The social transformation of American medicine*. New York: Basic Books, 1982.
4. Thomasson M. From sickness to health: the twentieth century development of U.S. health insurance. *Explor Econ Hist* 2002;32:233-53.
5. Harris RO. *A sacred trust*. New York: New American Library, 1966.
6. Cohen WJ. Oral history, tape 1. McComb DG, interviewer. Austin, Tex.: Lyndon Baines Johnson Library, December 8, 1968:22.



7. Corning PA. The history of Medicare. 1969. (Accessed June 15, 2006, at <http://www.ssa.gov/history/corning.html>.)
8. Sheils J, Haught R. The cost of tax-exempt health benefits in 2004. *Health Aff (Millwood)* 2004;Suppl Web Exclusives:W4-106-W4-112.
9. Thomasson MA. Early evidence of an adverse selection death spiral? The case of Blue Cross and Blue Shield. *Explor Econ Hist* 2004;41:313-28.
10. Igelhart JK. Changing health insurance trends. *N Engl J Med* 2002;347:956-62.
11. Schieber SS. The future of retiree health benefits in higher education in the United States. March 15, 2004. (Accessed June 15, 2006, at <http://www.watsonwyatt.com>.)
12. Moran DW. Whence and whither health insurance? A revisionist history. *Health Aff (Millwood)* 2005;24:1415-25.
13. Chirba-Martin MA, Brennan TA. The critical role of ERISA in state health reform. *Health Aff (Millwood)* 1994;13(2):142-56.
14. The impact of the erosion of retiree health benefits on workers and retirees. Issue brief. No. 279. Washington, D.C.: Employee Benefits Research Institute, March 2005. (Accessed June 15, 2006, at [http://www.ebri.org/publications/ib/index.cfm?fa=ibDisp&content\\_id=3497](http://www.ebri.org/publications/ib/index.cfm?fa=ibDisp&content_id=3497).)
15. Freudenheim M. A new worry for investors: retirees' medical benefits. *New York Times*. July 25, 2005:C3.
16. Schultz EE. How safe are your retiree health benefits? *Wall Street Journal*. October 19, 2005:D1.
17. Solomon D. State, local officials face looming health-care tab. *The Wall Street Journal*. New York, November 23, 2005:A1.
18. Bodenheimer T. High and rising health care costs. 1. Seeking an explanation. *Ann Intern Med* 2005;142:847-54.
19. Health care spending growth rate continues to decline in 2004. Press release of the Centers for Medicare and Medicaid Services, Baltimore, January 10, 2006. (Accessed June 15, 2006, at <http://www.cms.hhs.gov/apps/media/press/release.asp?counter=1750>.)
20. Newhouse J. The wage effect. *Boston Globe*. November 11, 2005:A23.
21. Gabel J, Claxton G, Gil I, et al. Health benefits in 2005: premium increases slow down, coverage continues to erode: the average cost of family coverage now exceeds the average yearly income of minimum-wage Americans. *Health Aff (Millwood)* 2005;24:1273-80.
22. Employer health benefits: 2005 summary of findings. Washington, D.C.: Kaiser Family Foundation, 2005. (Accessed June 15, 2006, at <http://www.kff.org/insurance/7315/sections/upload/7316.pdf>.)
23. Health benefit cost slows for a third year, rising just 6.1% in 2005, United States. Press release of Mercer Human Resource Consulting, New York, November 21, 2005. (Accessed June 15, 2006, at <http://mercerhr.com/pressrelease/details.jhtml/dynamic/idContent/1202305>.)
24. Peters JW, Freudenheim M. G.M. retirees confront co-pays and deductibles. *New York Times*. October 18, 2005. (Accessed June 19, 2006, at <http://www.nytimes.com/2005/10/18/business/18retiree.html?ex=1150603200&en=a516783cfd20f3b0&ei=5070>.)
25. Bloomberg News. Ford to save \$850 million in new health care pact. *New York Times*. December 15, 2005:C4.
26. Krugman P. The big squeeze. *New York Times*. October 17, 2005:A23.
27. Robinson JC. Renewed emphasis on consumer cost sharing in health insurance benefit design. *Health Aff (Millwood)* 2002; Suppl Web Exclusives:W139-W154.
28. Enthoven AC. Employment-based health insurance is failing: Now what? *Health Aff (Millwood)* 2003;Suppl Web Exclusives:W3-237-W3-249.
29. Rosenthal MB, Fernandopulle R, Song HR, Landon B. Paying for quality: providers' incentive for quality improvement. *Health Aff (Millwood)* 2004;23(2):127-41.
30. Goetzl RZ, Ozminkowski RJ, Villagra VG, Duffy J. Return on investment in disease management: a review. *Health Care Financ Rev* 2005;26(4):1-19.
31. Robinson JC. Health savings accounts — the ownership society in health care. *N Engl J Med* 2005;353:1199-202.
32. Claxton G, Gabel J, Gil I, et al. What high-deductible plans look like: findings from a national survey of employers, 2005. *Health Aff (Millwood)* 2005;24:Suppl 3 Web Exclusives:W5-434-W5-441.
33. Roland M. Linking physicians' pay to quality of care — a major experiment in the United Kingdom. *N Engl J Med* 2004;351:1448-54.
34. Foote SM. Population-based disease management under fee-for-service Medicare. *Health Aff (Millwood)* 2003;Suppl Web Exclusives:W3-342-W3-356.
35. Galvin RS, Delbanco S. Why employers need to rethink how they buy health care. *Health Aff (Millwood)* 2005;24:1549-54.
36. Bates DW, Gawande AA. Improving safety with information technology. *N Engl J Med* 2003;348:2526-34.
37. Christianson JB, Feldman R. Exporting the Buyers Health Care Action Group purchasing model: lessons from other communities. *Milbank Q* 2005;83:149-76.

Copyright © 2006 Massachusetts Medical Society.

ELECTRONIC ACCESS TO THE JOURNAL'S CUMULATIVE INDEX

At the *Journal's* site on the World Wide Web ([www.nejm.org](http://www.nejm.org)), you can search an index of all articles published since January 1975 (abstracts 1975–1992, full text 1993–present). You can search by author, key word, title, type of article, and date. The results will include the citations for the articles plus links to the full text of articles published since 1993. For nonsubscribers, time-limited access to single articles and 24-hour site access can also be ordered for a fee through the Internet ([www.nejm.org](http://www.nejm.org)).