



*ISSUE BRIEF*

**THE WIDENING HEALTH CARE GAP BETWEEN  
HIGH- AND LOW-WAGE WORKERS**

Sherry Glied and Bisundev Mahato  
Columbia University

May 2008

**ABSTRACT:** Rising health care costs affect everyone, but pose a particular problem for low-wage workers and their families. Few of these workers are eligible for public insurance programs or can afford to purchase private insurance, and they are less likely than high-wage workers to work for companies offering health coverage. Using data from the Medical Expenditure Panel Survey, this report finds that, between 1996 and 2003, low-wage workers were more likely than high-wage workers to be uninsured and to spend a proportionally higher share of family income on out-of-pocket health costs. They were less likely to have a usual source of care, less likely to have received preventive services, used fewer health care services overall, and were less likely to use the latest generation of medical technologies (e.g., prescription drugs approved within the prior 20 years). They were also more likely to report worse general and mental health than high-wage workers.

Support for this research was provided by The Commonwealth Fund. The views presented here are those of the authors and not necessarily those of The Commonwealth Fund or its directors, officers, or staff. This and other Fund publications are available online at [www.commonwealthfund.org](http://www.commonwealthfund.org). To learn more about new publications when they become available, visit the Fund's Web site and [register to receive e-mail alerts](#). Commonwealth Fund pub. no. 1129.

## THE WIDENING HEALTH CARE GAP BETWEEN HIGH- AND LOW-WAGE WORKERS

### Overview

Between 1996 and 2003, the per capita cost of health care in the United States increased by nearly 28 percent, adjusted for inflation. These rising costs affect everyone, but pose a particular problem for workers who earn low wages. Few of these workers—or their family members—are eligible for public health insurance programs or can afford to purchase private coverage in the non-group market. Like all U.S. families, low-wage workers must rely on the provision of health insurance by their employers. Because low-wage employees are less likely to work for a company that offers coverage, to be eligible for such coverage, or likely to afford it, many go without insurance altogether.<sup>1</sup> Families of low-wage workers constitute a majority of uninsured people in the United States. Using the Medical Expenditure Panel Survey data (MEPS), this study examines how low-wage workers have fared over the 1996–2003 period, in terms of health insurance, out-of-pocket costs, access to care, and health-related outcomes. Throughout this study, low-wage workers are defined as those earning below the 20th percentile of the hourly wage distribution for full-year, full-time, non-self employed civilian workers, or below \$9.80 in 2003. High-wage workers are defined as those with hourly earnings above the 20th percentile (see [Methodology](#) for details).

Low-wage workers have tended to fare worse than high-wage workers, in terms of coverage, health care use, and health outcomes.<sup>2</sup> This report finds that compared with high-wage workers, low-wage workers are more likely to be uninsured, spend a proportionally higher share of family income on out-of-pocket health costs, are less likely to have a usual source of care, are less likely to have received preventive services, use fewer health care services overall, and are less likely to be using the latest generation of medical technologies (e.g., prescription drugs approved within the prior 20 years). They are also more likely to report worse general and mental health than high-wage workers. With the costs of health care increasing, the gap between high-wage and low-wage workers has widened over the 1996–2003 period.

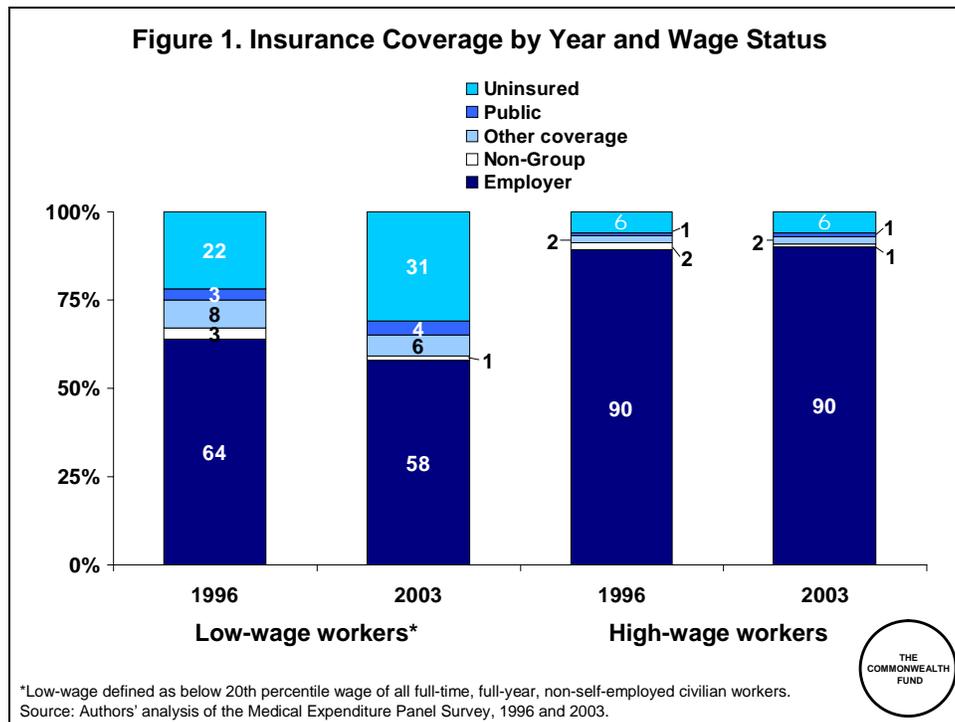
### Socioeconomic Characteristics of Low-Wage workers

The demographics of the low-wage, full-time, full-year working population changed substantially between 1996 and 2003. By 2003, the population included fewer women (although women continue to constitute a majority of low-wage workers), substantially fewer whites, and many more Hispanics (Table 1). The share of Hispanic, high-wage

workers also increased over this period, but the increase was only one-third that of the low-wage group. In addition, the entire workforce aged over this period. A larger share of both the low-wage and high-wage groups were over 45 and over 55 in 2003 than in 1996, and fewer fell into the 35–44 age range. The low-wage work force was more poorly educated in 2003 than in 1996. In 2003, one-quarter of low-wage, full-time, full-year workers had not completed high school, compared with 18 percent in 1996 (Table 1).

### Health Insurance Coverage and Out-of-Pocket Expenses

Between 1996 and 2003, health insurance coverage among low-wage workers deteriorated considerably, with most of the decline occurring after 2000. (Figure 1, Table 2). Between 2000 and 2003, the full-year uninsured rate for low-wage workers rose by 9 percentage points, climbing from 22 percent to 31 percent.



In contrast, coverage patterns for higher-wage workers were nearly identical in 2003 and in 1996. For full-time workers with wages above the 20th percentile, only 5 percent were uninsured in 1999 (Table 2). By 2003, the rate was one percentage point higher, at 6 percent. Full-year employer-sponsored insurance coverage for this group fluctuated by only one percentage point over this period. The difference in the uninsured rates between high- and low-wage workers in 2003 was 25 percentage points (6% vs. 31%), compared with only 16 percentage points in 1996 (8% vs. 22%).<sup>3</sup> The widening gap primarily reflects a substantial decline (4 percentage points) in the share of low-wage workers with full-year employer-sponsored coverage (Table 2).

The financial burden for low-wage workers rose concurrently with the decline in health insurance coverage. Family out-of-pocket costs rose for all workers over this period, but the rate increased slightly more for low-wage than for higher-wage workers (Table 2). By 2003, about 16 percent of low-wage workers had family out-of-pocket costs exceeding 5 percent of their family income, compared with 10 percent in 1996. In contrast, by 2003, about 9 percent of high-wage workers had such costs, up from 6 percent in 1996.

### **Access to Care and Routine Health Service Utilization**

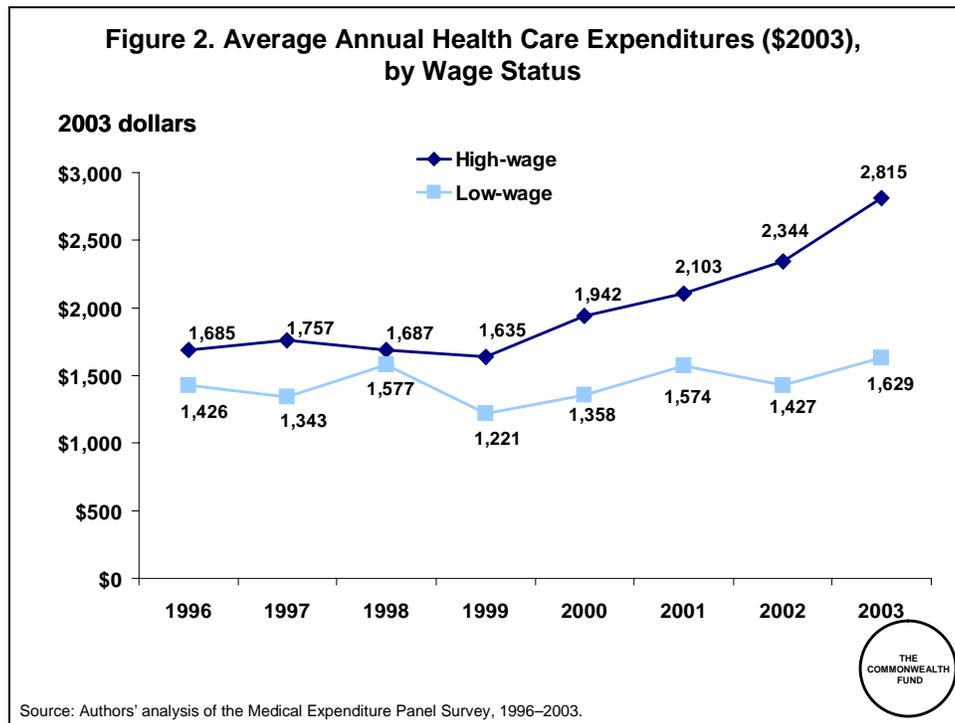
Higher-wage workers used more health care services at the end of this period than at the beginning, but for low-wage workers, access to services declined. Fewer low-wage workers visited a physician in 2003 than in earlier years, fewer used three or more prescription medications, and fewer reported having a usual source of care (Table 3). These changes do not simply reflect changes in the composition of the populations, such as age, sex, and race. Controlling for demographic characteristics, we find that the gap between high-wage and low-wage workers in terms of the likelihood of visiting a physician and having a usual source of care increased between 1996 and 2003.

In the period between 1996 (when these questions were first asked) and 2003, high-wage workers saw substantial improvements in receipt of preventive health care services, but low-wage workers experienced only small improvements or deteriorations. The percentage of high-wage workers who had their blood pressure checked increased by from 77 percent to 81 percent, the share reporting a cholesterol check increased from 42 percent to 52 percent, and the percentage reporting a routine check-up increased from 43 percent to 58 percent. (Table 4). In contrast, a smaller share of low-wage workers received preventive services in 1996 and this group saw much smaller improvements over the period. The share of low-wage workers who had their blood pressure checked fell from 70 percent to 66 percent, the share reporting a cholesterol check rose from 33 to 36 percent, and the percentage reporting a routine check-up increased from 38 to 43 percent. The gap between high-wage and low-wage workers regarding the likelihood of receiving a blood pressure check increased over this period, after controlling for changes in demographic characteristics. By 2003, a high-wage worker was about 35 percent more likely to have had a routine check-up than was a low-wage worker, up from a 13 percent disparity in 1996 (calculated from Table 4).

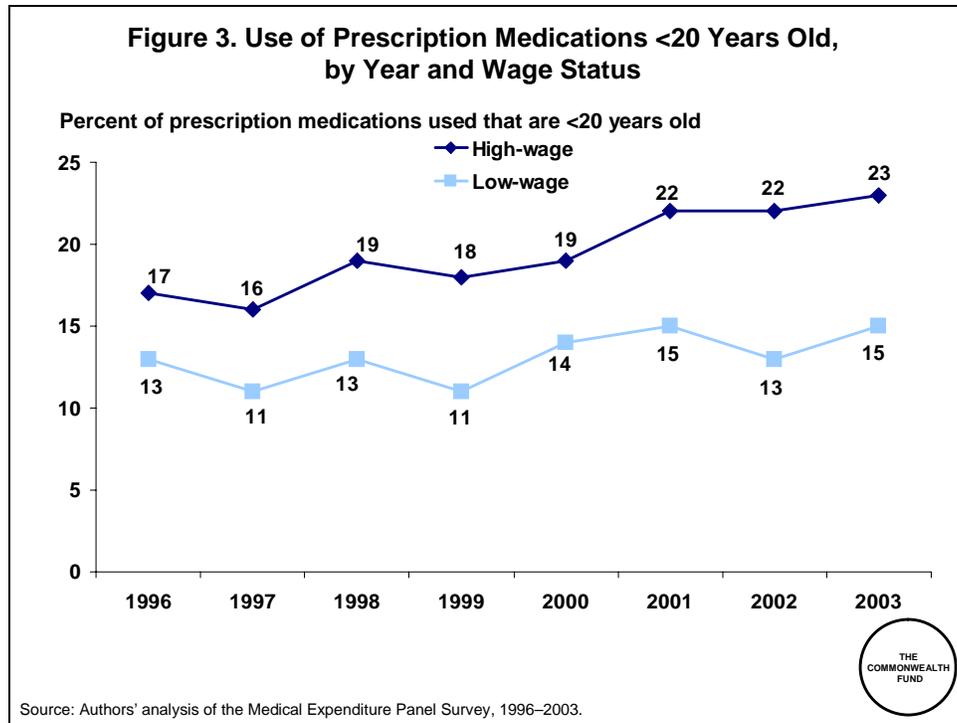
### **Use of High-Cost Health Services and Recently Introduced Medications**

Another way to measure access to care is to consider the total level of health care expenditures and the use of new medical technologies. Low-wage workers consistently

spend less than high-wage workers do (Figure 2). In the late 1990s, health care spending for both groups stabilized at about \$1,700 per year for high-wage workers and \$1,450 for low-wage workers. Since 1999, however, spending by high-wage workers has grown rapidly. By 2003, it had nearly doubled, reaching more than \$2,800 per year. In contrast, spending for low-wage workers increased by only about \$200 over this period, rising to \$1,629. The gap in annual spending between low- and high-wage workers increased by more than tenfold—from \$110 in 1998 to almost \$1200 in 2003. In multivariate analyses, the increase in the spending gap between high and low wage workers between 1996 and 2003 is significant at  $p < 0.01$ .



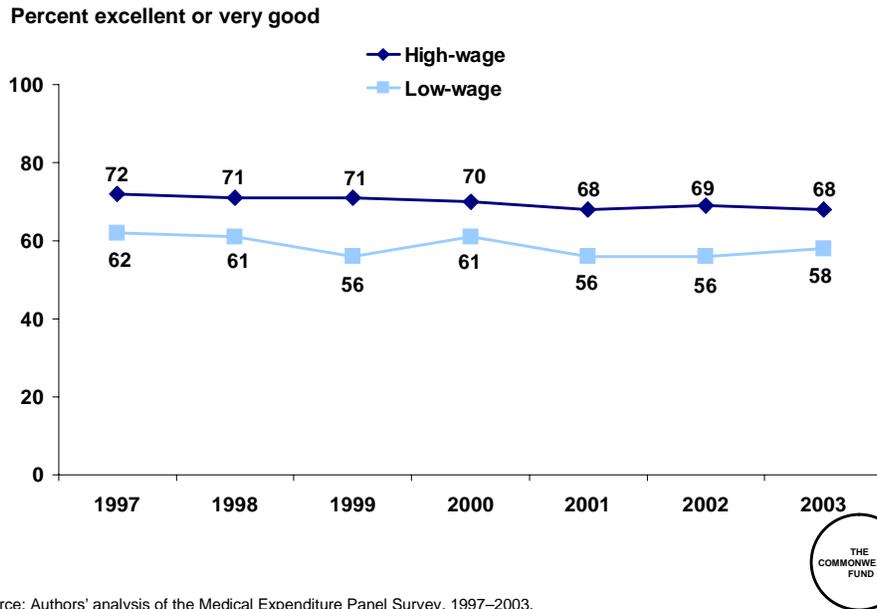
Health care analysts largely agree that the main force driving up health care costs is the introduction of new medical technologies.<sup>4</sup> One source of the gap in overall health care spending is the difference between high and low-wage workers' use of new prescription pharmaceuticals, which is one measure of medical technology. Prior research has documented that the use of newer drugs is associated with higher rates of survival.<sup>5</sup> Figure 3 illustrates the use of prescription medications introduced within the past 20 years by low-wage and high-wage workers.<sup>6</sup> High-wage workers tend to use newer drugs at higher rates than do low-wage workers, with the gap widening considerably over the 1996–2003 period. By 2003, 23 percent of prescription drugs used by high-wage workers were less than 20 years old compared with 15 percent of those used by low-wage workers.



### Health Status

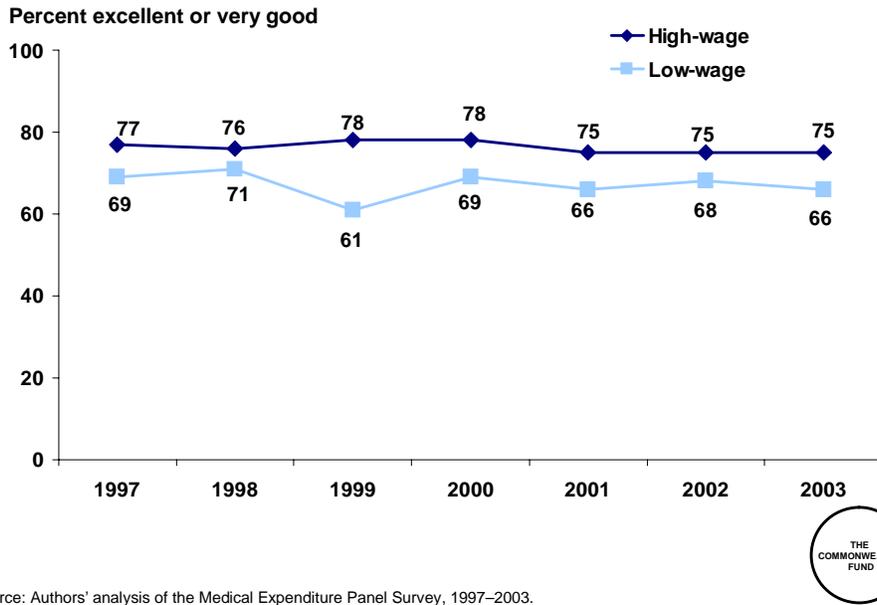
Figures 4 and 5 illustrate patterns in self-reported general health and mental health status. Low-wage workers are consistently less likely to report excellent general or mental health than are high-wage workers. Over the 1997–2003 period, the health status of both groups of workers declined, likely due to the aging of both populations. However, the decline in health and mental health status among low-wage workers has been slightly, but not significantly, greater than for high-wage workers.

**Figure 4. Excellent or Very Good Health Status, by Year and Wage Status in Prior Year**



Source: Authors' analysis of the Medical Expenditure Panel Survey, 1997–2003.

**Figure 5. Mental Health Status, by Year and Wage Status in Prior Year**



Source: Authors' analysis of the Medical Expenditure Panel Survey, 1997–2003.

## **Discussion**

Since the mid-1990s, the gap in insurance coverage between low-wage and high-wage workers has been growing, accompanied by a reduction in access to the health care system. Low-wage workers became less likely to have coverage through their jobs and more likely to be uninsured. Today, low-wage workers are less likely to visit physicians and less likely to have a regular source of care. They have made only small improvements in terms of receiving basic preventive services (i.e., cholesterol screenings and routine check-ups), and in some cases, their receipt of services (i.e., blood pressure checks) has deteriorated.

These lower rates of access have translated into a widening disparity in spending rates. By 2003, high-wage workers spent about \$1200 more annually on health care services than did low-wage workers. The lower spending rate reflected a decreased rate of use of innovative medical technologies. Low-wage workers were increasingly less likely to use a prescription medication approved in the past 20 years than were high-wage workers. They were also substantially more likely to report poor mental or physical health than were high-wage workers.

An important reason for differences in out-of-pocket costs and access to services between high and low wage workers is the difference in their rates of health insurance coverage. Indeed, many (though not all) of the growing gaps we describe above disappear once we control for the growing gap in health insurance coverage. The availability of publicly funded coverage and safety net services has not been enough to eliminate the effect of access to and use of care due to the decline in private health insurance.

Socioeconomic disparities in health and health care have increased over the past century.<sup>7</sup> Because of reverse causality between health and income, most researchers focus on disparity in education and its impact on health. In the United States, individuals with high educational attainment benefited from the increases in life expectancy achieved in the 1980s and 1990s. During the same periods, the gap between better-educated and less-educated people increased by 30 percent.<sup>8</sup> The results from this report are consistent with these findings. Low-wage workers, who typically have low educational attainment, have not benefited as much as have high-wage workers from improvements in access and in medical technologies since 1996. In addition, this report shows that these income-related disparities in access and utilization are increasing, even within the last decade. While the quality and effectiveness of our health care system have advanced along many dimensions, low-wage workers—particularly the lowest quintile of the full-time working population—have benefited little or not at all from these improvements.

## **Methodology**

To examine the health insurance and health care experiences of full-time, full-year low-wage workers over time, this report uses data from the 1996–2003 Medical Expenditure Panel Survey (MEPS). MEPS provides consistent longitudinal data on the insurance status, service utilization, and health-related outcomes of the U.S. population. This report focuses on full-time, full-year workers. Low-wage workers are defined as those who earn less than the 20th percentile hourly wage of all full-time, full-year, non-self-employed civilian workers.<sup>9</sup> The cut-off wages range from \$7.45 in 1996 to \$8.38 in 2003 (in 1996 dollars). In 2003 dollars, the wage cut-off in 2003 was \$9.80. Any worker who is not a low-wage worker is defined as a high-wage worker. In 2003, the average wage of low-wage workers was \$6.03 and the average wage of high-wage workers was \$16.84 (in 1996 dollars).

This report examines the sample of workers who participate in the survey for two years. Our descriptive analyses of health insurance and service use examine the sample of workers who have just entered the MEPS survey and are in their first sample year. In the outcomes analyses, this report examines how low-wage status in the first sample year affects outcomes in the second sample year. For the health status analysis, we assign individuals to wage status based on their earnings in the year prior to the health status measure. We do this to avoid identifying changes in wages that are caused by health status (rather than the reverse).

## NOTES

<sup>1</sup> G. Claxton, B. DiJulio, B. Finder et al., *Employer Health Benefits, 2007 Annual Survey* (Menlo Park, Calif. and Chicago: Kaiser Family Foundation and Health Research and Educational Trust, Sept. 2007); S. R. Collins, C. Schoen, D. Colasanto et al., [\*On the Edge: Low-Wage Workers and Their Health Insurance Coverage\*](#) (New York: The Commonwealth Fund, Mar. 2003).

<sup>2</sup> S. R. Collins, K. Davis, M. M. Doty, and A. Ho, [\*Wages, Health Benefits, and Workers' Health\*](#) (New York: The Commonwealth Fund, Oct. 2004).

<sup>3</sup> All reported differences are statistically significant at  $p \leq 0.1$  or better, unless otherwise noted.

<sup>4</sup> A. A. Okunade and V. N. R. Murthy, "Technology as a 'Major Driver' of Health Care Costs: A Cointegration Analysis of the Newhouse Conjecture," *Journal of Health Economics* 2002 21(1):147–59.

<sup>5</sup> F. R. Lichtenberg, "The Effect of Drug Vintage on Survival: Micro Evidence from Puerto Rico's Medicaid Program," 2004 National Bureau of Economic Research Working Paper 10884; F. R. Lichtenberg, "Pharmaceutical Innovation, Mortality Reduction, and Economic Growth," 1998 National Bureau of Economic Research Working Paper 6569; K. M. Murphy and R. H. Topel, *Measuring the Gains from Medical Research: An Economic Approach* (Chicago, University of Chicago Press, 2003), 74–109.

<sup>6</sup> We are indebted to Frank Lichtenberg for providing the coding for this analysis.

<sup>7</sup> G. Pappas, S. Queen, W. Hadden et al., "The Increasing Disparity in Mortality Between Socioeconomic Groups in the United States, 1960 and 1986," *New England Journal of Medicine*, July 1993 329(2):103–09.

<sup>8</sup> E. R. Meara, S. Richards, and M. Cutler, "The Gap Gets Bigger: Changes in Mortality and Life Expectancy, by Education, 1981–2000," *Health Affairs*, Mar./Apr. 2008 27(2):350–60.

<sup>9</sup> Note that we have also repeated our analyses by redefining high- and low-wage workers using \$10 (in 1996 dollars) as the cut-off point, and the results do not differ systematically from those reported here.

## APPENDIX

**Table 1. Characteristics of Full-Time Full-Year Workers by Year and Wage Status**

	1996	1997	1998	1999	2000	2001	2002	2003
<b>LOW-WAGE</b>								
<b>Gender</b>								
Men	44%	45%	43%	50%	47%	45%	49%	46%
Women	56	55	57	50	53	55	51	54
<b>Race</b>								
White	62	60	60	61	56	52	53	52
Black	15	15	17	15	18	17	15	15
Hispanic	18	21	20	21	23	25	25	26
Other	5	3	4	4	4	6	7	7
<b>Age</b>								
18–24	23	22	27	24	23	20	23	22
25–34	29	27	22	28	26	26	27	26
35–44	25	22	24	26	24	28	21	21
45–54	16	19	18	13	18	20	18	20
55–64	7	9	10	9	8	7	11	10
<b>Education</b>								
<HS	18	22	19	25	26	25	24	25
HS/GED	49	49	52	48	46	49	48	46
Some college	23	20	21	19	19	18	20	21
College+	10	9	9	9	9	8	9	9
<b>HIGH-WAGE</b>								
<b>Gender</b>								
Men	59%	59%	59%	56%	57%	60%	59%	57%
Women	41	41	41	44	43	40	41	43
<b>Race</b>								
White	78	78	77	77	77	73	73	73
Black	10	11	12	11	10	11	10	10
Hispanic	8	8	8	8	9	11	10	10
Other	4	4	4	4	4	5	6	6
<b>Age</b>								
18–24	6	7	8	7	6	7	6	6
25–34	29	28	27	25	26	26	25	26
35–44	33	33	32	31	31	30	30	28
45–54	24	23	24	26	27	26	27	26
55–64	8	9	10	11	10	11	12	14
<b>Education</b>								
<HS	6	5	5	6	5	7	5	5
HS/GED	35	32	35	32	35	34	34	30
Some college	25	28	24	25	23	23	23	25
College+	35	35	36	37	37	36	37	40

Note: Low-wage is defined as below 20th percentile wage.

Source: Medical Expenditure Panel Survey, 1996–2003; first-year sample only.

**Table 2. Health Insurance Coverage and Out-of-Pocket Costs of Full-Time Full-Year Workers by Year and Wage Status**

	1996	1997	1998	1999	2000	2001	2002	2003
<b>LOW-WAGE</b>								
ESI-own full year	37%	32%	32%	33%	39%	35%	34%	33%
ESI-own part year	16	15	16	15	15	15	14	14
ESI-other full-year	11	10	13	11	10	11	8	12
Other private full-year	3	4	1	3	2	2	4	1
Public full-year	3	4	6	3	5	4	5	4
Uninsured full year	22	29	25	25	23	26	26	31
Other insurance	8	5	7	9	6	7	9	6
Family OOP >5% family income	10%	14%	9%	11%	13%	15%	15%	16%
<b>HIGH-WAGE</b>								
ESI-own full year	71%	70%	69%	72%	70%	70%	71%	72%
ESI-own part year	10	11	11	10	11	10	10	9
ESI-other full-year	9	9	10	9	9	9	9	10
Other private full-year	2	1	1	1	1	1	1	1
Public full-year	1	1	1	1	1	1	1	1
Uninsured full year	6	6	6	5	6	7	6	6
Other insurance	2	2	2	1	2	2	1	2
Family OOP >5% family income	6%	8%	6%	7%	7%	8%	9%	9%

Note: Low-wage is defined as below 20th percentile wage.

ESI-own = own employer-sponsored insurance; ESI-other = family member's employer-sponsored insurance.

Source: Medical Expenditure Panel Survey, 1996–2003; first-year sample only.

**Table 3. Access to Services for Full-Time Full-Year Workers by Year and Wage Status**

	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>
<b>LOW-WAGE</b>								
One or more MD visits	57	53	56	54	55	57	53	53
Three or more prescriptions	37	36	36	33	38	41	38	36
Primary usual source of care	62	N/A	N/A	59	63	61	58	58
<b>HIGH-WAGE</b>								
One or more MD visits	67	66	65	68	67	67	68	69
Three or more prescriptions	43	41	42	46	45	48	48	49
Primary usual source of care	73	N/A	N/A	75	74	74	72	75

Note: Low-wage is defined as below 20th percentile wage.

Source: Medical Expenditure Panel Survey, 1996–2003; first-year sample only.

**Table 4. Use of Preventive Health Services for Full-Time Full-Year Workers  
by Year and Wage Status**

	1996	1997	1998	1999	2000	2001	2002	2003
<b>LOW-WAGE</b>		N/A		N/A				
<b>Blood Pressure Check</b>								
Within past year	70%		67%		70%	71%	69%	66%
Never	4		4		5	4	5	4
<b>Cholesterol Check</b>								
Within past year	33		30		33	38	35	36
Never	42		45		37	36	37	38
<b>Routine Check</b>								
Within past year	38		42		46	51	48	43
Never	13		12		12	13	12	15
<b>HIGH-WAGE</b>		N/A		N/A				
<b>Blood Pressure Check</b>								
Within past year	77%		78%		79%	79%	81%	81%
Never	1		1		1	2	1	1
<b>Cholesterol Check</b>								
Within past year	42		44		49	49	49	52
Never	24		25		19	21	18	18
<b>Routine Check</b>								
Within past year	43		43		57	56	55	58
Never	6		7		7	6	6	6

Note: Low-wage is defined as below 20th percentile wage.

Source: Medical Expenditure Panel Survey, 1996–2003; first-year sample only.