



United States  
General Accounting Office  
Washington, D.C. 20548

160930

Health, Education and Human Services Division

B-280450

July 7, 1998

The Honorable James M. Jeffords  
Chairman, Committee on Labor  
and Human Resources  
United States Senate

Subject: Private Health Insurance: Impact of Premium Increases on the  
Number of Covered Individuals Is Uncertain

Dear Mr. Chairman:

Almost 150 million individuals obtained health insurance through the workplace in 1996, either through their own employment or the employment of a family member. During the last several years, an increasing number of individuals with employer-sponsored insurance have enrolled in some form of managed care rather than in fee-for-service plans. Recently, concerns have grown regarding the ways in which some managed care plans operate and the adequacy of information shared between each plan, its providers, and its members.

In response to these concerns, several legislative proposals have been made to require health insurance plans to adopt specified operational practices. The proposals apply to all types of plans, but would likely have their greatest impact on health maintenance organizations (HMO). Other types of plans, such as preferred provider organizations (PPO) and indemnity, or fee-for-service, plans, will likely be affected to a lesser degree. Included in various proposals are requirements, for example, to disclose certain information,<sup>1</sup> guarantee patient access to emergency and specialty services, implement internal and external grievance policies, guarantee freedom of communication between providers and patients, and eliminate the Employee Retirement Income Security Act of 1974 (ERISA) restrictions on health plan liability.

---

<sup>1</sup>Legislative proposals would require each plan to disclose, for example, information on appeal procedures, restrictions on reimbursement for care received outside of the plan's network of providers, and the location of plan providers and facilities.

GAO/HEHS-98-203R Impact of Insurance Premium Increases

160930

---

---

### Ordering Information

The first copy of each GAO report and testimony is free. Additional copies are \$2 each. Orders should be sent to the following address, accompanied by a check or money order made out to the Superintendent of Documents, when necessary. VISA and MasterCard credit cards are accepted. Orders for 100 or more copies to be mailed to a single address are discounted 25 percent.

**Orders by mail:**

**U.S. General Accounting Office  
P.O. Box 37050  
Washington, DC 20013**

**or visit:**

**Room 1100  
700 4th St. NW (corner of 4th and G Sts. NW)  
U.S. General Accounting Office  
Washington, DC**

**Orders may also be placed by calling (202) 512-6000  
or by using fax number (202) 512-6061, or TDD (202) 512-6061**

**Each day, GAO issues a list of newly available reports and testimony. To receive facsimile copies of the daily list or a list from the past 30 days, please call (202) 512-6000 on a touchtone phone. A recorded menu will provide information on how to obtain these lists.**

**For information on how to access GAO reports on the Internet, send an e-mail message with "info" in the body to:**

**info@www.gao.gov**

**or visit GAO's World Wide Web Home Page at:**

**http://www.gao.gov**

because employers required employees to pay a larger share of the premiums.<sup>4</sup> In 1988, employees in small firms (fewer than 200 workers) paid an average of 12 percent of single-coverage premiums. Employees in large firms paid about 13 percent.<sup>5</sup> By 1996, the employee share had risen to 33 percent in small firms and 22 percent in large firms. Other factors, such as decreases in some workers' real incomes, Medicaid-eligibility expansions, and changes in benefit generosity, also may have contributed to the fall in the acceptance rate.

In November 1997, the Lewin Group used published studies to estimate that 400,000 fewer individuals would have health insurance coverage for every 1 percent increase in insurance premiums.<sup>6</sup> Several of these studies had sought to quantify the impact of subsidized insurance premiums on the increase in the number of employers offering insurance. The Lewin Group concluded from these studies that a 1-percent decrease in premiums would likely induce an additional 0.4 percent of employers to offer insurance. It then assumed that an increase in premiums might cause a similar percentage of firms to drop health insurance coverage and cause 400,000 individuals to be without coverage. The findings of more recent studies, however, call into question the basis for the Lewin Group's estimate. Although these studies did not quantify the relationship between premium increases and changes in the number of employees with coverage, they clearly show that employers generally continued to offer insurance during a period of rising premiums but that fewer employees decided to purchase coverage. The estimate also assumes equal premium increases for all types of insurance products. If new federal mandates primarily affect HMO premiums, some employees may switch to other types of insurance—especially insurance with different benefit packages—instead of dropping coverage entirely. Thus, the Lewin Group's estimate may not be a good predictor of the coverage loss that might be caused by new federal mandates.

---

<sup>4</sup>Private Health Insurance: Continued Erosion of Coverage Linked to Cost Pressures (GAO/HEHS-97-122, July 24, 1997).

<sup>5</sup>J. Gabel, P. Ginsburg, and K. Hunt, "Small Employers and Their Health Benefits, 1988-1996: An Awkward Adolescence," Health Affairs, 16(5) (Sept./Oct. 1997), pp. 103-10.

<sup>6</sup>John F. Sheils, Vice President, The Lewin Group, letter to Richard Smith, American Association of Health Plans, Nov. 17, 1997.

In January 1998, the Lewin Group lowered its estimate of potential coverage losses by about 25 percent.<sup>7</sup> It now estimates that a 1-percent premium increase could result in approximately 300,000 fewer individuals being covered by private insurance. The new estimate is based on the Lewin Group's statistical analysis of the relationship between how much employees pay for insurance and the probability that they, their spouses, and their dependent children have employer-sponsored health insurance. However, it is unclear how accurately the Lewin Group was able to measure the price paid by the individuals in its sample. Moreover, the new estimate applies to situations in which premiums for all insurance types increase, on average, by 1 percent. If premiums increase by 1 percent only for some insurance types (for example, HMOs), then the coverage loss predicted by the Lewin Group would be less than 300,000.

Because many factors can affect the number of individuals covered by private insurance, it is difficult to predict the impact of an increase in insurance premiums. For example, new mandates may increase premiums but may also change individuals' willingness to purchase insurance. Individuals may not mind paying higher premiums if they like the changes brought about by the mandates. The extent to which employers pass on premium increases to employees also can affect coverage by influencing employees' purchasing decisions. Another important determinant is the extent to which employees switch from plans with high premium increases to plans with no or low premium increases, or to less expensive plans with more limited benefits. Finally, changes in other economic factors, such as income, or changes in public insurance program eligibility requirements can affect the number of individuals with private health insurance.

## BACKGROUND

Between 1995 and 1997, real health insurance premiums (adjusted for inflation) remained nearly constant or fell slightly across all plan types. (See table 1.) This represents a sharp decline from the previous 5 years, in which inflation-adjusted growth was as high as 11.6 percent for indemnity plans and 10.6 percent for HMO plans in 1990.

---

<sup>7</sup>J. Sheils, P. Hogan, and N. Manolov, Exploring the Determinants of Employer Health Insurance Coverage, report to the AFL-CIO (Fairfax, Va.: The Lewin Group, Inc., Jan. 20, 1998).

family member, remained essentially constant at about 82 percent. Another study<sup>10</sup> reported that the fraction of small firms (those with fewer than 200 employees) offering insurance coverage grew from 46 percent in 1989 to 49 percent in 1996. The study also found that 99 percent of large firms offered insurance in 1996.

Fewer workers, however, are choosing to accept employer-sponsored coverage for themselves or their dependents. In 1987, 88.3 percent of workers accepted coverage when their employers offered it. In 1996, only 80.1 percent of workers accepted coverage. The fall in the acceptance rate was relatively large for workers under age 25 (from 86.5 percent to 70.1 percent) and those making \$7 per hour or less (from 79.7 percent to 63.2 percent). The fraction of workers who accepted employer-sponsored insurance either through their own job or that of a family member also declined, from 93.2 percent to 89.1 percent. Consequently, even though a greater percentage of employers offered insurance, the acceptance rate fell to such an extent that a smaller proportion of workers was covered by employer-sponsored insurance in 1996 compared with 1987.

The fall in the acceptance rate may be attributable partly to required increases in employees' insurance premium contributions. One study found that employees in small firms paid an average of 12 percent of single coverage premiums in 1988 and employees in large firms paid 13 percent.<sup>11</sup> In 1996, the employee share had risen to 33 percent in small firms and 22 percent in large firms. According to the Lewin Group, the combined effect of the increase in premiums and the increase in the employees' share of those premiums resulted in workers paying 189 percent more in real terms for single coverage and 85 percent more in real terms for family coverage in 1996 compared with 1988.

Other factors also may have contributed to the drop in the acceptance rate. A decline in real wages for some workers may have made coverage less affordable. Expansions in Medicaid eligibility provided a coverage alternative for some families and may have decreased workers' willingness to accept employer-sponsored insurance. Furthermore, possible changes in benefit packages may have made coverage less desirable.

---

<sup>10</sup>See P. Ginsburg, J. Gabel, and K. Hunt, "Tracking Small-Firm Coverage, 1989-1996," p. 168.

<sup>11</sup>J. Gabel, P. Ginsburg, and K. Hunt, "Small Employers and Their Health Benefits, 1988-1996: An Awkward Adolescence," p.107.

LEWIN ESTIMATE OF 400,000 COVERAGE LOSS  
BASED ON OUTDATED STUDIES

In November 1997,<sup>12</sup> the Lewin Group estimated that 400,000 fewer people might be covered by health insurance if new legislation caused premiums to rise by 1 percent. Its estimate was largely based on studies of the effects of insurance premium subsidies on employers' decisions to offer insurance. However, recent research casts doubt on the applicability of these findings to other situations. Furthermore, according to the Barents Group, a research and consulting firm, the Lewin Group's coverage loss estimate may be too high because some individuals may switch to other types of health plans if new legislation causes HMO premiums to rise.

Few studies have analyzed the relationship between the cost of insurance and the number of individuals covered. The studies available to Lewin in November 1997 primarily focused on employers' decisions to offer insurance. These studies varied widely both in their research questions and their findings. Several studies<sup>13</sup> examined the effects of programs designed to increase coverage by subsidizing the premiums paid by employers—particularly small ones. The estimates from this group of studies varied, with one suggesting that between 0.07 percent and 0.33 percent of small firms might begin to offer insurance if premiums were reduced by about 1 percent. Some older studies, using data from 1971 and before, found that between 0.6 percent and 2 percent of firms might stop offering health insurance coverage if premiums increased by 1-percent.

---

<sup>12</sup>John F. Sheils letter to Richard Smith, Nov. 17, 1997.

<sup>13</sup>See K. Thorpe, and others, "Reducing the Number of Uninsured by Subsidizing Employment-Based Health Insurance: Results From a Pilot Study," The Journal of the American Medical Association, 267(7) (1992), pp. 945-48; Statement of Nancy L. Barrand and W. David Helms for the Robert Wood Johnson Foundation, before the Subcommittee on Health, Committee on Ways and Means, House of Representatives, Health Insurance Options: Reform of Private Health Insurance (Washington, D.C.: May 23, 1991), pp. 125-61. W. Helms, A. Gauthier, and D. Campion, "Mending the Flaws in the Small-Group Market," Health Affairs (Summer 1992), pp. 7-27; C. McLaughlin and W. Zellers, "The Shortcomings of Voluntarism in the Small-Group Insurance Market," Health Affairs (Summer 1992), pp. 28-40; J. Gruber and J. Poterba, "Tax Subsidies to Employer-Provided Health Insurance," Working Paper No. 5147, Cambridge, Mass.: National Bureau of Economic Research, June 1995.

Table 1: Percentage of Real Annual Growth in Premiums, by Type of Health Plan, 1990-97

Plan type	1990	1991	1992	1993	1994	1995	1996	1997
Indemnity	11.6	7.8	8.0	5.5	2.5	-0.1	-1.8	0.3
PPO	9.6	5.9	7.6	5.2	0.6	0.7	-2.4	-0.2
HMO	10.6	7.9	6.8	5.3	2.7	-2.4	-3.4	-0.3

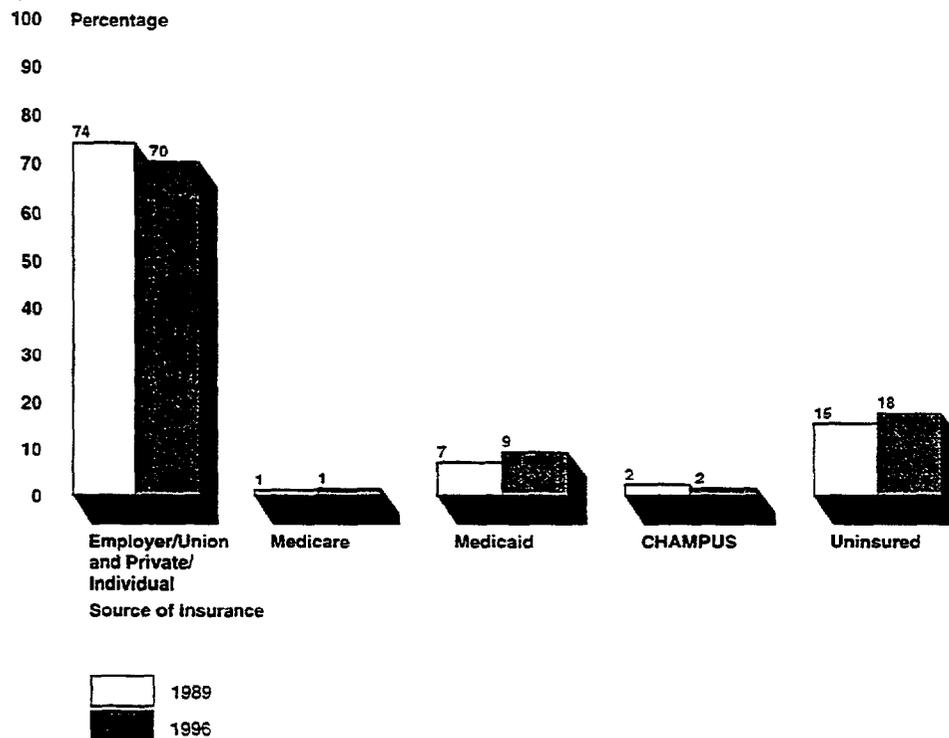
Sources: GAO calculations based on data from KPMG Peat Marwick (1991-97); Health Insurance Association of America (1990), and Bureau of Labor Statistics Consumer Price Index. Includes employer and employee shares of premiums for workers in private firms with at least 200 employees.

About 70 percent of the population under age 65 was covered by health insurance purchased through an employer or union, or purchased privately as an individual in 1996, according to Current Population Survey (CPS) data. About 12 percent was covered by Medicare, Medicaid, or the Civilian Health and Medical Program of the Uniformed Services (CHAMPUS), and about 18 percent was uninsured. From 1989 to 1996, the percentage of the population covered by employer-sponsored, union-sponsored, or individual insurance<sup>8</sup> decreased slightly, but these options still remained a dominant source of coverage for people under age 65. (See fig. 1.) During the same period, the proportion of the population covered by Medicaid and the proportion without insurance both increased.

---

<sup>8</sup>Individual insurance is coverage that an individual purchases directly from an insurer or through a broker.

Figure 1: Sources of Health Insurance for People Under Age 65, 1989 and 1996



Sources: U.S. Bureau of the Census, CPSs (Mar. 1989-Mar. 1997).

MORE WORKERS WERE OFFERED INSURANCE,  
BUT FEWER ACCEPTED COVERAGE  
AS PREMIUMS INCREASED

Recent studies suggest that employers typically do not stop offering health insurance when premiums increase. Between 1988 and 1996, health insurance premiums—unadjusted for inflation—increased by about 8 percent per year, on average. During approximately the same time period, one study<sup>9</sup> found that the fraction of workers offered insurance by their employers grew slightly, from 72.4 percent to 75.4 percent. The proportion of workers who had access to employer-sponsored insurance, either through their own job or the job of a

<sup>9</sup>See P. Cooper and B. Schone, "More Offers, Fewer Takers for Employment-Based Health Insurance: 1987 and 1996," p. 144.

The Lewin Group selected a range of estimates, from what it judged to be the best available, to predict that between 0.2 percent and 0.6 percent of firms would stop offering coverage if insurance premiums increased by 1 percent. It then selected the midpoint of this range (0.4 percent) as its best estimate. To calculate the potential impact on coverage, the Lewin Group multiplied 150 million—the number of workers and their dependents covered by employer-sponsored health plans in 1996—by 0.004—the percentage of firms expected to drop coverage.<sup>14</sup> This calculation suggested that 600,000 individuals would lose employer-sponsored health insurance if premiums increased by 1-percent. However, on the basis of its analysis of CPS data, the Lewin Group assumed that about one-third (or 200,000) of these 600,000 workers would obtain insurance either through the policies of working family members, the individual insurance market, or public insurance programs.<sup>15</sup> Consequently, it estimated that a 1-percent premium increase might result in a drop in coverage of about 400,000 individuals.

The Lewin Group's estimated potential coverage loss does not consider the possibility that employers or employees might switch to different types of insurance products if one type becomes relatively more expensive. This is important in the current context because many of the proposed federal mandates are expected primarily to affect HMOs and have little or no impact on PPOs and indemnity plans. The Barents Group, a private research and consulting organization, recently reported on the potential coverage loss that proposed mandates could cause.<sup>16</sup> The Barents Group used the Lewin coverage loss estimate but reduced it by 25 percent to allow for the possibility that some employees might switch from HMOs to other types of insurance plans instead of dropping coverage altogether.

---

<sup>14</sup>The studies' findings applied to the percentage of firms that might change their behavior. The Lewin Group, however, applied this percentage to individuals. This implicitly assumes that all sizes of firms would react similarly. If large firms are less responsive to premium increases than small firms, then the percentage of workers affected by a 1-percent increase in premiums could be less than 0.4 percent.

<sup>15</sup>Lewin's November 1997 letter did not discuss how many of the 200,000 individuals might enroll in public insurance programs and how many might obtain other private coverage.

<sup>16</sup>Impact of Legislation Affecting Managed Care Consumers: 1999-2003, report for the American Association of Health Plans (Washington, D.C.: The Barents Group, LLC, Apr. 21, 1998).

CURRENT LEWIN GROUP COVERAGE LOSS ESTIMATE  
LOWER BY 25 PERCENT

Recent data analysis by the Lewin Group led it to revise its estimate of potential coverage loss. The Lewin Group now projects a loss of employer-sponsored coverage of approximately 300,000 people for every one percent increase in premiums. This estimate, reported in January 1998, is approximately 25 percent lower than its November 1997 estimate. The new estimate is based on the Lewin Group's statistical analysis of the relationship between what employees pay for insurance and the probability that they, their spouses, and their dependent children have employer-sponsored health insurance.<sup>17</sup>

A key variable in the January 1998 Lewin Group study is the price of insurance, but because of data limitations, this was measured imperfectly. The study primarily used CPS data from 1989 to 1996. CPS data, however, do not contain information on health insurance premium amounts. Lewin, therefore, used three data sources to impute the amount employees paid for insurance:<sup>18</sup> the 1987 National Medical Expenditure Surveys (NMES), the KPMG Peat Marwick employer surveys for 1991 through 1996, and the Health Insurance Association of America (HIAA) employer surveys for 1988 through 1990. The authors of the Lewin report acknowledged that these surveys were not strictly comparable, and that the information used to measure the employee share of health insurance may have been different for 1988 through 1990 than for 1991 through 1996. Another potential shortcoming related to premium amounts is that the analysis did not allow for the possibility that some workers may decline coverage from their own employers when they can obtain it through a family members' employer-based coverage.

The Lewin Group's estimate is of the coverage decline that would result from an overall average premium increase of 1 percent. Yet, the proposed federal mandates are expected primarily to affect HMOs. If HMOs' premiums rise by 1

---

<sup>17</sup>Lewin used complex statistical models to estimate the proportion of the population covered by employer-sponsored insurance grouped by a number of demographic characteristics, including race, age, income, full-time/part-time status, occupation, industry, firm size, and the imputed employee share of the premium costs, among others.

<sup>18</sup>Lewin focused on the employee share of the insurance premium as the most appropriate cost affecting the employee decision to participate in employer-sponsored health plans.

percent, then premiums for other types of insurance would probably not increase as much. HMO enrollees, therefore, would be affected most by the premium increases. Under these circumstances, the Lewin Group's estimate could overstate the coverage decline.

The Lewin Group explicitly assumed that all observed coverage changes were due to employees' decisions.<sup>19</sup> Consequently, it used the imputed employee contribution as the relevant cost of insurance. This assumption is broadly supported by the recent literature. However, if some employees lost access to insurance because of their employers' decisions to no longer offer it, the Lewin Group's estimate may incorrectly predict employees' reactions to changes in premiums.

POTENTIAL COVERAGE LOSS UNCERTAIN.  
DEPENDS ON MANY FACTORS

Insufficient information is currently available to predict accurately the coverage loss that may result from health insurance premium increases associated with new federal mandates. One problem is that the potential cost of the mandates and their impact on premiums is not yet known. However, even if the premium increase was known with certainty, previous research and economic theory suggest that the impact on coverage depends on a number of conditions. Coverage changes will depend on the extent to which premiums rise for employees and whether they can switch to insurance plans less affected by the mandates. The specific policy adopted also can affect how employees respond to resulting premium increases. Finally, changes in many economic and other factors can cause coverage changes that mask or exaggerate the impact of premium increases. The following list describes several conditions that could affect observed changes in health insurance coverage if new federal mandates increase insurance costs.

1. The percentage of premiums paid by employees and the amount of any premium increase that employers pass on to employees. If, as recent evidence suggests, employees' decisions largely affect the extent of coverage, then the relevant price increase is the percentage increase in their contribution. For example, about two-thirds of employees in small firms had to contribute toward premium costs in 1996. Those employees paid about 50 percent of the

---

<sup>19</sup>The data used in the Lewin study do not indicate whether observed coverage losses are the result of employers' decisions not to offer insurance or employees' decisions not to accept it.

total premium. If total premiums rise by 1 percent and employers pass on the full increase to employees, then the employees' contribution would rise by 2 percent.

2. The extent to which additional benefits are valued by consumers. If higher insurance premiums are the result of additional benefits that consumers value, then any coverage loss will be less than the coverage loss that might occur if premiums increased but benefits stayed the same (or the additional benefits had little consumer value). In its November 1997 letter, the Lewin Group notes that its "estimates of the number of persons losing coverage will differ depending upon the health policy being analyzed." The Lewin Group goes on to suggest that "some proposals that increase premium costs are often associated with other provisions that may either lessen or intensify incentives for individuals to drop coverage."

3. The extent to which some types of plans have no or low premium increases and employees can switch to them. Proposed new federal mandates are expected primarily to increase costs of HMOs. Faced with a rise in HMO premiums, some employees may switch to PPOs or indemnity insurance rather than drop coverage entirely. The Barents Group assumed this switching behavior might lower the Lewin Group's coverage loss estimate by 25 percent.

4. Changes in other insurance benefits. Instead of raising premiums in response to new mandated benefits, insurance companies and employers may find ways to reduce other parts of the insurance package to keep premiums constant. It is unknown how employees might respond to such changes in their insurance plans.

5. Changes in real wages and other factors. Changes in economic conditions or eligibility for public insurance programs can also affect private insurance coverage. For example, the Lewin Group estimated that a 1-percent rise in real incomes could increase private insurance coverage by nearly 0.37 percent (about 550,000 workers and dependents). Likewise, expansions in Medicaid eligibility could cause some workers to substitute public insurance for employer-sponsored family coverage.

#### COMMENTS FROM THE LEWIN GROUP

In commenting on a draft of this correspondence, a representative of the Lewin Group said that we had accurately characterized its analysis and findings. The

B-280450

representative suggested one technical clarification in our report's characterization of the Lewin Group study that we adopted.

-----

As agreed with your office, unless you publicly announce its contents earlier, we plan no further distribution until 30 days from the date of this letter. We will then make copies available to others who are interested.

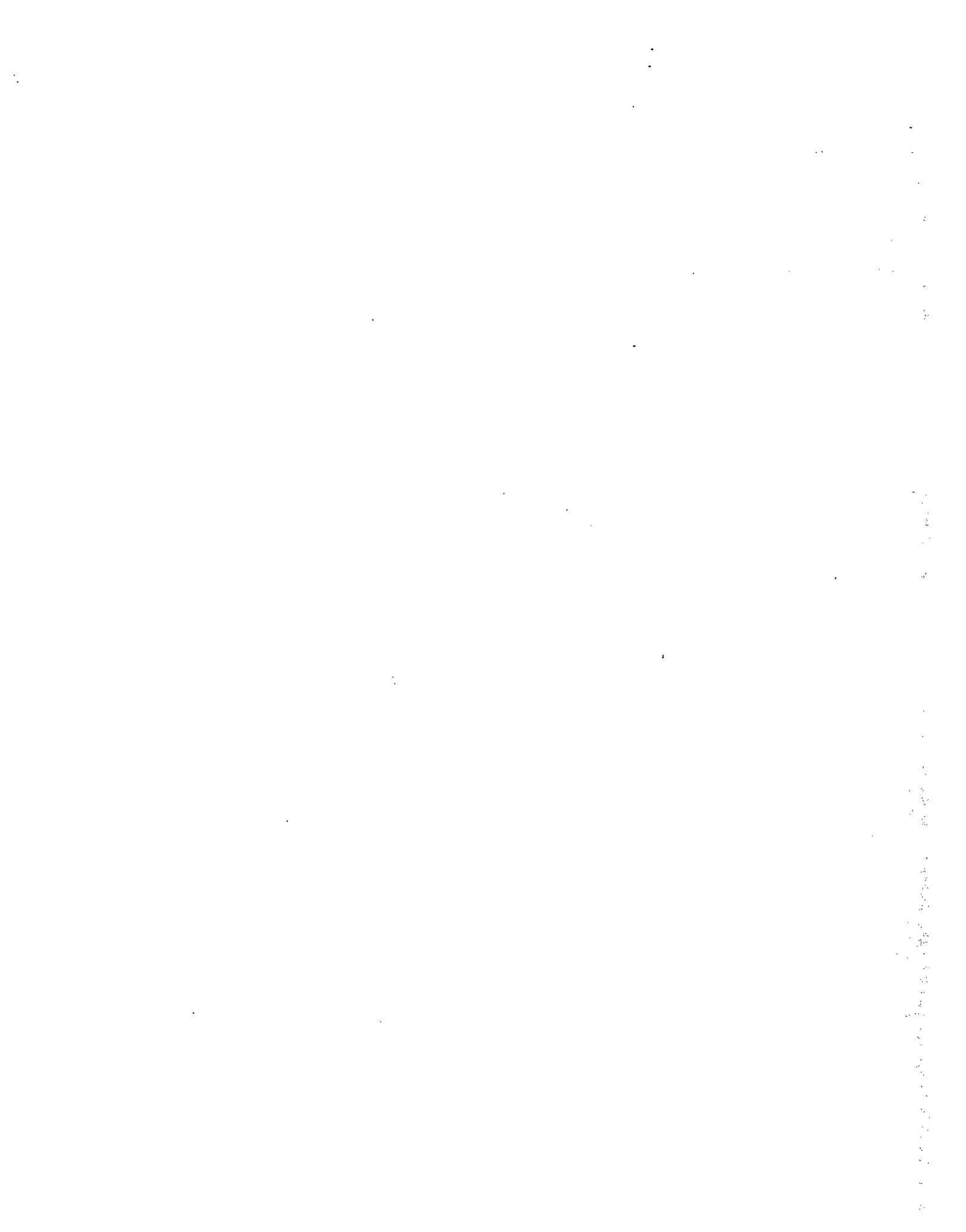
Please call me at (202) 512-7114 or James Cosgrove, Assistant Director, at (202) 512-7029 if you or your staff have any questions. Susanne Seagrave also contributed to this letter.

Sincerely yours,

A handwritten signature in black ink that reads "William J. Scanlon". The signature is written in a cursive, flowing style.

William J. Scanlon  
Director, Health Financing  
and Systems Issues

(101743)



---

---

### Ordering Information

The first copy of each GAO report and testimony is free. Additional copies are \$2 each. Orders should be sent to the following address, accompanied by a check or money order made out to the Superintendent of Documents, when necessary. VISA and MasterCard credit cards are accepted, also. Orders for 100 or more copies to be mailed to a single address are discounted 25 percent.

**Orders by mail:**

U.S. General Accounting Office  
P.O. Box 37050  
Washington, DC 20013

**or visit:**

Room 1100  
700 4th St. NW (corner of 4th and G Sts. NW)  
U.S. General Accounting Office  
Washington, DC

Orders may also be placed by calling (202) 512-6000  
or by using fax number (202) 512-6061, or TDD (202) 512-2537.

Each day, GAO issues a list of newly available reports and testimony. To receive facsimile copies of the daily list or any list from the past 30 days, please call (202) 512-6000 using a touchtone phone. A recorded menu will provide information on how to obtain these lists.

For information on how to access GAO reports on the INTERNET, send an e-mail message with "info" in the body to:

[info@www.gao.gov](mailto:info@www.gao.gov)

or visit GAO's World Wide Web Home Page at:

<http://www.gao.gov>

**United States  
General Accounting Office  
Washington, D.C. 20548-0001**

**Bulk Mail  
Postage & Fees Paid  
GAO  
Permit No. G100**

**Official Business  
Penalty for Private Use \$300**

**Address Correction Requested**

---