American Medical Association
Physicians dedicated to the health of America

Economic Impacts of Managed Care Reform

Center for Health Policy Research

Economic Impacts of Managed Care Reform

David W. Emmons, PhD
Gregory D. Wozniak, PhD

Contents

List of Exhibits

Executive Summary

This report reviews nine studies of the impact of managed care reform legislation on health insurance premiums and managed care cost savings. A table at the end of the report presents a summary of the various published cost estimates of managed care reform legislation.

The studies examined are:

- a 1997 Milliman and Robertson study of the impact of eight provisions in PARCA on health insurance premiums — the composite effect of these provisions on premium increases is estimated to be 23%, and the "estimate range" of the premium impact ranges from 7% to 39%;

- a 1998 Muse & Associates study of the effects of the PARCA legislation on health insurance premiums — the enactment of PARCA is estimated to increase national premiums between 0.7% and 2.6%;

- a 1997 Lewin Group study of the costs and benefits of the information disclosure and external appeals provisions of the proposed Consumer Bill of Rights and Responsibilities — the information reporting and disclosure provisions are estimated to increase premiums between 0.3% and 1.3%, the external appeals provision is estimated to increase premiums no more than 0.05%;

- a 1997 Price Waterhouse assessment of the impact of expanded insurer liability, direct access to obstetric and gynecologic services, and lengths of stay for mastectomy patients — the impact on premiums of these provisions is fairly minimal, ranging from less than 0.1% to 1.3%;

- a 1997 Barents Group analysis of the impact of seven types of legislation or legislative elements affecting the cost saving from managed care; the analysis is general in nature rather than being carried out with respect to a specific legislative proposal — the estimated reduction in managed care savings relative to fee-for-service varies between 1 and 11 percentage points across the provisions;

- a 1998 Barents Group study of the potential cost of increasing plan exposure to malpractice liability, deeming utilization review to be the practice of medicine, prohibiting health plans from determining medical necessity and requiring plans to accept any willing provider — these types of legislation are estimated to increase managed care plans' costs by 2.2% to 8.6%;

- a 1998 Coopers & Lybrand analysis of the provisions in CBRR and PARCA dealing with information disclosure, access to emergency services, direct access to specialists, external appeals, a required point-of-service option for HMOs, and expanded health plan liability for medical decision making. Coopers & Lybrand present aggregate impact figures (excluding the effects of the expansion in plan liability proposed in PARCA) of 0.61% of premiums for the reforms in CBRR and 0.77% of premiums for the reforms contained in PARCA;

- a Congressional Budget Office analysis of the patient protection standards set out in the PBR — the provisions in the bill are estimated to increase premiums by 4% when all of the bill's provisions are fully phased in; and

- a William M. Mercer study of the cost impact of managed care accountability legislation — after considering a broad range of impact scenarios, premiums are estimated to increase between 0.1% to 1.8%.

Differences in the impact estimates between the studies are heavily dependent upon the interpretation of reform provisions and assumptions as to the extent of savings from managed care. The two studies prepared by the Barents Group for the American Association of Health Plans and the study prepared for Wal-Mart by Milliman & Robertson depict patient protection as very costly. Underlying these analyses, however, are extreme characterizations of proposed protections and exaggerated notions of cost savings.

Review of the estimates prepared by the Lewin Group, Muse & Associates, Price Waterhouse, Coopers & Lybrand, the Congressional Budget Office, and William M. Mercer all suggest that the effect of reasonable patient protection provisions on health insurance premiums is negligible. The Lewin results suggest that the additional costs of what are thought by many to be the most expensive patient protections are on the order of pennies per insured person per month.

The two most recent studies in this literature focused on the cost of expanding managed care plans' liability. The CBO estimated that expanding legal liability for ERISA plans would raise premiums among employer-sponsored plans by 1.2%. The CBO estimate may overstate the actual impact as it fails to account for the ability of managed care organizations to insure against liability claims at significantly reduced rates relative to providers. The estimate is consistent, however, with the range derived by William M. Mercer in an actuarial analysis of the impact of a model managed care accountability law. Mercer concluded that holding plans liable for damages to enrollees would add 0.1% to 1.8% to managed care organization premiums. If ERISA construction were narrow under the law, cost increases were predicted to be in the range of 0.5% to 1.8% of premiums.

Concerns about any cost increases associated with reform include potential losses of insurance coverage and reductions in the number of employed individuals. Several parties have inappropriately generalized an estimate of the impact of other reform legislation to suggest that a 1% increase in health insurance premiums is associated with a loss of insurance coverage for 200,000 individuals. The 1998 Barents study claims that each 1% increase in managed care plans' costs would result in a potential loss of insurance coverage for about 315,000 individuals. Neither of these estimates can be substantiated.

Introduction

This report reviews nine studies of the impact of managed care reform legislation on health insurance premiums and managed care savings. Two of the studies develop impact estimates of the provisions in H.R.1415/S.644, Patient Access to Responsible Care Act of 1997 (PARCA). A third examines the effect on premiums of two provisions from the proposed Consumer Bill of Rights and Responsibilities (CBRR). The fourth study assesses the impact of California managed care reform legislation on HMOs and their enrollees. The fifth analysis looks at general elements of legislative proposals that might alter the cost savings from managed care. The sixth study analyzes the effects of changes in four types of legislation on costs among managed care plans. The seventh report estimates the impact of adopting specific provisions of PARCA and CBRR on health care premiums. The next study presents cost estimates of seven major provisions of the Patients' Bill of Rights Act of 1998 (PBR). The last study assesses the cost impact of managed care accountability legislation.

The remainder of this report details the findings, methodologies, and critical assumptions underlying each of these studies.

Milliman & Robertson

Milliman and Robertson, Inc. (M&R) prepared *Actuarial Analysis of the Patient Access to Responsible Care Act (PARCA)*, (November 7, 1997) for Wal-Mart Stores, Inc. The report estimates the impact of eight provisions of PARCA on the nationwide average health insurance premium for the non-Medicaid, non-Medicare insured population. M&R calculate the composite effect of these provisions on premium increases to be 23%. The M&R report also provides an "estimate range" of the premium impact — 7% to 39%.

Exhibit 1
Milliman & Robertson
Patient Access to Responsible Care Act

Provision	Estimated Premium Impact
No Inducement to Reduce Services	9.5%
Equivalent Reimbursement Rates In and Out-Of-Network	5.5%
Elimination of Limits on Certain Benefits	5.5%
Adverse Selection Against Rate Increases	4.5%
Administrative Requirements	2.0%
Provision of Emergency Room and Urgent Care Services with Limits on Prior Authorization	0.5%
Mandatory Point-Of-Service Option	0.3%
Elimination of Prior Authorization for Specialty Referrals	0.2%

The characterizations of the studied provisions of PARCA and their estimated impacts on premiums are presented in Exhibit 1.

These numbers reflect M&R's "midpoint" estimates. M&R's interpretations of several provisions of PARCA are extreme or even misrepresent actual language in PARCA. Those interpretations drive both the high-end values of the range estimates and the mid-point

estimates of premium increases. The mid-point estimates are affected because M&R's "best estimate mid-points" are merely the mid-point of ranges whose high-end values are essentially capricious.

The estimates themselves are driven by a variety of assumptions about discounts, cost sharing, and use of capitation among HMOs, PPOs, and other plans. Several of the assumptions appear to have no basis in fact, and are undocumented by M&R. The report does not test the sensitivity of the estimates to changes in any of the underlying assumptions.

The four provisions indicated to have the largest potential impacts on premiums illustrate some of the particular problems in the analysis.

M&R characterizes Section 2771(d)(1)(A) of PARCA as **no inducement to reduce services**, which they interpret as not allowing risk sharing arrangements or capitated payments. The language in the bill, however, contains no mention of capitation, capitated payments, per-member per-month (PMPM) payments, or even an implicit reference eliminating or restricting those payment methods.

M&R interpret Sections 2772(b)(3), 2772(c)(2), and 2773(a), as constraining the ability of health insurance issuers to limit the number and scope of providers in their networks. In assessing the impact of these sections, M&R overstate the savings attributable to manage care and, thereby, overstate the impact of the legislation on premiums The average discount for HMOs is taken to be 28%, a magnitude that approaches the Medicare-to-private sector payment gap. In addition, M&R assume that 50% of HMOs use discounts and capitation, when the share of enrollees in such plans (which is clearly a smaller figure) is the relevant variable.

M&R characterizes Section 2772(b)(3) of PARCA as requiring **equivalent in-network and out-of-network reimbursement rate**, suggesting that health plans can not apply different deductibles, coinsurance, and copays to enrollees who use out-of-network providers vs. enrollees using in-network providers. That interpretation is in distinct contradiction to the Section's indication that "Nothing in this paragraph shall be construed as protecting an enrollee against balance billing by a health professional or provider that is not a participating health professional or provider."

M&R characterizes Section 2773(c) of PARCA as the **elimination of limits on certain benefits**. They assert that the provision could be interpreted as requiring health plans to cover services of professionals that currently are excluded from coverage by some plans. They state that such a provision would increase premiums by 1% for plans with rich benefits, and by 10% for plans with significant barriers to accessing such providers. The endpoints of their estimate range of premium increases due to this provision are based on the assumption that all plans are rich (the lower bound) and all plans have significant barriers (the upper bound). Clearly, both assumptions are extreme and fail to reflect the fact that any estimate of the effects of this provision should reflect the actual distribution of plans measured against these characteristics.

The **adverse selection** impact reported by M&R is a secondary effect of their estimated rate increases of the provisions analyzed. The concern that the report sought to address is the fact that increases in premiums caused by PARCA could result in healthier enrollees refusing coverage, which in turn, could cause a further increase in premiums. There is no documented basis for the 4.5% figure used by M&R.

A number of parties have seized on the M&R estimates to argue that PARCA would mean a sizeable increase in the number of **uninsured**. The underlying argument is that every 1% increase in health insurance premiums results in 200,000 people losing their insurance coverage. The latter calculation is based on, but not derived from, a CBO analysis of a mental health provision in a 1996 bill. CBO has indicated that the 1% -to- 200,000 translation should not be used as a rule-of-thumb in gauging the effect of legislation on the number of uninsured in general and is inappropriate for analyzing PARCA in particular.

Muse & Associates

Muse & Associates (M&A) was commissioned by the Patient Access to Responsible Care Alliance to evaluate the private sector health care premium impact of H.R. 1415/S. 644, the Patient Access to Responsible Care Act (PARCA). The report, *The Health Premium Impact of H.R. 1415/S. 644, the Patient Access to Responsible Care Act (PARCA)*, (January 29, 1998), contains estimates of the impacts of sections of the legislation. M&A calculate the enactment of PARCA would result in a national premium increase in the managed care health insurance market between 0.7% and 2.6%. Using the example of a $160 premium, PARCA would be expected to increase the premium to between $161.12 and $164.16.

The M&A study presents the estimated premium increases for provisions in PARCA likely to impact health costs and the secondary impact of adverse selection resulting from premium increases. The descriptions of the ten sections used by M&A and the magnitude or range of their impact on premiums are presented in Exhibit 2.

Exhibit 2
Patient Access to Responsible Care Act
Muse & Associates

Section	Provision	Premium Impact
2771a	Enrollee Access to Care in Rural and Underserved Areas	<0.05%
2771b	Provision of Emergency Room and Urgent Care Services with Limits on Prior Authorization	<0.0%
2771c	Access to Medically Necessary Specialized Treatment	0.0%-0.2%
2771d	No Inducement to Reduce Medically Necessary Services	0.0%
2772b1	Choice of Point-Of-Service Option	0.3%
2772b3	Equal Reimbursement for Providers Outside of Network	<0.05%
2773	Nondiscrimination Against Enrollees/Health Professionals	0.0%
2777	Due Process for Health Professionals/Providers	<0.5%-0.1%
2778	Information Reporting & Disclosure	0.3%-1.3%
4	Non-Preemption of State Law Respecting Liability of Group Health Plans	0.0%-0.2%
	Adverse Selection Against Rate Increases	0.1%-0.5%

The M&A estimates differ from the Milliman and Robertson estimates, in part, because the M&R analysis was based on draft language. The M&A analysis was developed using clarifying language for Section(s) 2771d, 2772b, 2773a, and 2773c.

The M&A analysis concludes that PARCA has only a minimal impact on utilization, and is unlikely to impact fees. Consequently, few of the provisions are expected to have substantial impacts on premiums. The M&A study also briefly discusses who will likely bear the increased premium costs due to PARCA. Based on a review of the employee benefits literature, the authors conclude that the majority of premium increases associated with PARCA would be borne by the workers — in the form of reduced wages, reduced fringe benefits, or higher health plan cost-sharing — and that employer labor costs are unlikely to increase significantly.

Because the majority of provisions are interpreted as having no effect on utilization or prices, the M&A analysis predicts a much smaller impact on premiums. The M&A impact estimates are driven by two key factors:

- Interpretation of the legislation as providing for no inducement to reduce medically necessary services, equal reimbursement for providers outside of network, and nondiscrimination against enrollees/health professionals; and

- Most provisions relating to options and services already widely available or accessible to enrollees. M&A assume that PARCA mandates no new benefits.

For those provisions estimated to have an increase on premiums, there is little description of the methods used to produce the estimates or discussion of the rationale for the assumptions used in those calculations. Much like the criticism of the M&R analysis of PARCA, it is impossible to assess the sensitivity of the M&A estimates to changes in the assumptions.

The key factor determining the M&A impact estimates, and consequently explaining a large share of the difference between their estimates and those presented by M&R, is the interpretation of three sections of the PARCA legislation. The three sections (provisions) — **no inducement to reduce medically necessary services, equal reimbursement for providers outside of**

network, and nondiscrimination against enrollees/health professionals — in the M&R analysis account for most of the estimated 23% increase in premiums. M&A assert that the M&R interpretation of these provisions as eliminating risk sharing, capitation, and provider discounts is unwarranted and assume that managed care organizations will continue to receive discounts. Consequently, the legislation is expected to have little or no effect on health care prices. M&A estimate those three provisions have a minimal (<0.05%) effect on premiums.

A second factor, in the form of either "almost all" or "most" managed care plans already provide the mandated services or plan options to enrollees, or restriction are not "...a widespread practice," is used to explain why **the provision of emergency room and urgent care services with limits on prior authorization, access to medically necessary specialized treatment**, and several other sections are found to have "minimal premium increase effect." There are generally no documented measures of the proportion of plans, accompanied with the number of enrollees in those plans, which would comply with the provisions in PARCA.

The **adverse selection** impact reported by M&A (0.1% - 0.5%) is derived from the M&R estimate. This impact captures the effect of increased premiums caused by PARCA resulting in healthier enrollees refusing coverage, which in turn could cause a further increase in premiums. The estimated range, 0.1% to 0.5%, for the impact of adverse selection on premiums is derived as a proportion of the total impact based on the midpoint estimate of M&R, 4.5%/23%. There is no documented basis for the 4.5% impact assumed by M&R.

M&A rely on the M&R estimate for the effect on premiums of the **point-of-service** option provision (0.3%) and argue that M&R's use of actual claims data are a valid data source for estimating the impact on premiums of this section of the legislation.

The M&A estimated impacts of the **information reporting and disclosure provisions** (0.3% - 1.3%) are taken from the Lewin Group study "Consumer Bill of Rights and Responsibilities Costs and Benefits: Information Disclosure and External Appeals," Presidential Advisory Commission on Consumer Protection and Quality in Health Care Industry, Final Report, November 1997.

The estimated costs of information disclosure ranges between $0.59 and $2.17 per insured person per month. Based on a $170 per month managed care premium, M&A estimate that information reporting and disclosure provisions would increase the premium between 0.3% and 1.3% ($0.59/$170 or 0.3%, and $2.17/$170 or 1.3%). (In other parts of report, M&A uses a $160 premium.) In the Lewin Group study, the low-end estimate represents a three to five year phase-in period, which assumes that the cost of information acquisition and distribution will fall substantially over time.

Finally, M&A estimate the impact on premiums of **the non-preemption of state law respecting liability of group health plans** section of PARCA (0.0% - 0.2%). The authors of the study derive the impact estimate using a 1992 Congressional Budget Office estimate of 1998 national medical injury and litigation costs ($36 billion); an unspecified estimated ratio of the managed care sector of the health insurance market; and an assumed four percent increase in medical injury premiums.

Lewin Group

The Lewin Group report *Consumer Bill of Rights and Responsibilities Costs and Benefits: Information Disclosure and External Appeals, Final Report* (November 18, 1997) was commissioned by the Presidential Advisory Commission on Consumer Protection and Quality in the Health Care Industry. The report contains estimates of the impact of the information disclosure and external appeals provisions of the proposed Consumer Bill of Rights and Responsibilities. These are two of the seven areas of consumer rights under consideration by the Commission. The analysis was limited to administrative costs and did not examine the effects of information and external appeals on utilization. The Lewin study also describes the nature of possible benefits of those provisions, but does not quantify the dollar value of the benefits.

The per-person, per-month cost of information disclosure is estimated to range between $0.80 and $2.17 for one year, and between $0.59 and $1.10 for a three to five year phase-in period. Based on a $170 per month managed care premium, the information reporting and disclosure provisions would increase premiums between 0.3% and 1.3%. The cost estimates for external appeals (excluding states with mandated external appeals systems) ranged from $0.003 to $0.07 per person per month. Based on the $170 per month managed care premium, the effect of the external appeals provisions on premiums would be less than 0.05%.

The information disclosure provisions of the Consumer Bill of Rights Responsibilities (CBRR) recommend that consumers have access to a broad range of information on the characteristics, policies, procedures, experience, and performance of physicians, facilities, and plans. This information should include:

- Health plans: Covered benefits, cost-sharing, and procedures for resolving complaints; licensure, certification, and accreditation status; comparable measures of quality and consumer satisfaction; provider network composition; the procedures that govern access to specialists and emergency services; and care management information.

- Health professionals: Education and board certification and recertification; years of practice; experience performing certain procedures; and comparable measures of quality and consumer satisfaction.

- Health care facilities: Experience in performing certain procedures and services; accreditation status; comparable measures of quality and worker and consumer satisfaction; procedures for resolving complaints; and community benefits provided.

The provisions related to appeals recommend that consumers have the right to a fair and efficient process for resolving differences with their health plan, health care providers, and institutions that serve them; and that consumers have access to a rigorous system of internal review and an independent system of external review of plan decisions. The CBRR posits that an external appeals systems should:

- Be available only after consumers have exhausted all internal processes (except in cases of urgently needed care).

- Apply to any decision by a health plan to deny, reduce, or terminate coverage or deny payment for services based on a determination that the treatment is either experimental or investigational in nature; apply when such a decision is based on a determination that such services are not medically necessary and the amount exceeds a significant threshold or the patient's life or health is jeopardized.

- Be conducted by health care professionals who are appropriately credentialed with respect to the treatment involved and subject to conflict-of-interest prohibitions. Reviews should be conducted by individuals who were not involved in the initial decision.

- Follow a standard of review that promotes evidence-based decisionmaking and relies on objective evidence.

- Resolve all appeals in a timely manner with expedited consideration for decisions involving emergency or urgent care consistent with time frames consistent with those required by Medicare (ie, 72 hours).

The Lewin report noted that no definitive studies have been conducted in these areas because information disclosure and external

appeals processes are just now being developed. Consequently, the authors relied on a literature review for context and a series of interviews to provide cost information as it relates to current and on-going information and appeals efforts.

Actual cost data from a variety of projects are used to estimate the costs of several aspects of information disclosure and external appeals. While the estimates are derived from cost figures of ongoing activities, the end-points of the range of these "estimates" are still based on sample sizes of one. The report does, however, provide detailed information on the sources of data, the specific calculations, assumptions, and other elements which would allow for testing the sensitivity of the estimates.

The cost estimates for the **information disclosure** provisions constructed by Lewin are intended to be incremental; they measure costs of efforts beyond the current state and private activities. See Exhibit 3. The low-end estimate assumes a three to five year phase-in implementation period and that as information becomes more widely available and information technology advances, the cost of information will fall substantially.

Exhibit 3
Lewin Group Information Disclosure Cost per Insured Person per Month

	Implementation Timeframe	
	1 Year	3-5 Year Phase-In
Low Estimate	$0.80	$0.59
Mid-Point Estimate	$1.49	$0.84
High Estimate	$2.17	$1.10

Estimates are also presented on a category by category basis for physicians, hospitals, and plans separately. The categories include characteristics, experience, customer satisfaction, and quality. See Exhibit 4.

Exhibit 4
Lewin Group Midpoint Estimates for Information Disclosure 3-5 Year Phase-in

	Characteristics	Experience	Satisfaction	Quality	Total Dollars	Percent of Total
Physicians	$ 0.002	$ 0.05	$ 0.20	$ 0.11	$ 0.36	43%
Hospitals	$ 0.12	$ -	$ 0.01	$ 0.04	$ 0.16	19%
Plans	$ 0.14	$ -	$ 0.01	$ 0.03	$ 0.18	21%
Sub-total	$ 0.26	$ 0.05	$ 0.22		$ 0.70	
			Dissemination		$ 0.15	17%
			Total Dollars		$ 0.84	100%

The incremental cost of providing the information required by CBRR is estimated to be relatively small. Behind these calculations, however, several assumptions are questionable:

- the average survey cost per enrollee for plan customer (patient) satisfaction information, between $0.045 and $0.14 — which is less than a first-class stamp, and

- the costs to physicians to collect quality data based on medical records, $160 per physicians per year provisions.

Consequently, the Lewin estimates may be low-end estimates of the costs of implementing CBRR information disclosure.

The estimated costs of external appeals presented range between $0.003 to $0.07 per person per month. The range of estimates was driven by assumptions concerning appeals rates per 1000 persons and how external appeals are processed. In Florida, the appeals rate is 0.000093 per enrollee. Whereas for the Medicare population, the rate is 0.001 per enrollee. The actual costs of appeal also vary considerably across states. In Florida, the state panel has an average cost of $867 per appeal. The cost among appeals in Texas, Rhode Island, and New Jersey, which use independent review contractors, ranges from $288 to $600 per appeal. Lewin uses an “average” cost from those states of $450 per appeal, the $867 per appeal from Florida, and the appeals rates from Florida and Medicare to construct their range of estimates. If these figures are not representative of national ranges of costs and appeal rate, however, external appeal costs could be outside of the range presented by Lewin.

Price Waterhouse

Price Waterhouse (PW) was commissioned by the Henry J. Kaiser Family Foundation to assess the impact of managed care reform legislation on HMOs and their enrollees. The report, *The Impact of Managed Care Legislation: An Analysis of Five Legislative Proposals in California*, analyzes insurer liability, use of drug formularies, mental health parity, direct access to obstetric and gynecologic services, and lengths of stay for mastectomy patients. The impact estimates of the first and last two legislative areas are reviewed in this report.

PW examines the specifics of the legislative bills in California, the likely impact of the legislation on HMOs by organizational type, and the corresponding effects for consumers. The estimated impacts are broken out by type of HMO plan, i.e., staff model, group model, network model, and independent practice/physician association (IPA) model. Other forms of managed care plans — preferred provider organizations (PPOs) and point-of-service plans (POSs)— are excluded from the analysis.

The authors of the PW study present a relatively detailed description of the methodology utilized to derive the impact estimates. In places, the methodology relies upon unsubstantiated assumptions and national (rather than California-specific) utilization and spending data. The data used are taken from aggregated categories of services, rather than the specific services targeted in the legislation. Of particular concern is the failure to account for differences between the structure of the national health care delivery and financing system and the structure of that system in California. National data will be partially driven by the nationwide mix of plans — indemnity, staff model HMO, group model HMO, network model HMO, independent practice/physician association (IPA) model, preferred provider organizations (PPOs) and point-of-service plans (POSs) — and hence, may not be appropriate for constructing state-level estimates. Finally, the authors of the PW study base their expectations regarding service utilization differentials across plans on relative “incentives” across plans. But the specific incentives and payment mechanisms are unspecified.

Expanded liability is expected to have a minimal impact on premiums. Theoretically, the non-preemption of state law regarding liability of group health plans mandate should not change the amount of liability or risk in the system. The burden of risk, however, would be redistributed from providers to plans. As risk is shifted to plans, and away from providers, the part of the health insurance premium paid to providers and others to compensate them to bear risk (the "risk premium" in economic terms) would also be shifted to plans to cover their cost of increased liability. Overall, the change in the premium would be minimal. Price Waterhouse estimates the impact on IPA model HMO premiums to be between 0.1% to 0.4%.

The effect of California legislation, AB 1354, providing women **direct access to obstetricians and gynecologist services**, on premiums is expected to be minimal. This is partially due to the fact that in 1994 California enacted legislation enabling women to choose an obstetrician and gynecologist (OB/GYN) as their primary care physician. The legislation, AB 1354, expands upon the 1994 legislation by requiring health plans to provide women with direct access to obstetrical and gynecological services. PW estimate that direct access would increase premiums and out-of-pocket costs 0.35% for (staff model) HMO, IPA model, and group model HMO enrollees.

The PW estimate of the cost of those provisions is problematic because the data on spending, utilization, and physician fees used in developing the estimates are national measures, not California specific. Since women in California could already choose a specialist in OB/GYN as their primary care physician, some measure of the extent to which women nationwide have that choice and how it impacts the number of visits per year should be accounted for in constructing the estimates. This effect may have caused PW to overstate the costs of AB 1354. In addition, a measure of the relative cost of OB/GYN versus FP/GP services comes from AMA data on the average fee for an office visit of an established patient. In addition to being a national average, the data refer to a series of CPT codes which have a fairly wide variation in the level of complexity. Consequently, differences in fees across specialties are at least partially determined by differences in the mix of services provided by those specialties.

The enactment of a **48-hour minimum stay for mastectomies** is estimated to result in a 0.01% increase in premiums, for both IPA

model and group model HMOs. That estimate is based on national data and assumptions which are not substantiated. For example, while no source is given, the average per day cost for hospital stays ($1,025) appears to be a national average, over all inpatient procedures. National measures of the relative utilization rates across plan types are drawn from MEDSTAT data. Yet plan type on the MEDSTAT files are often missing or recoded to “other.”

Finally, there is no stated basis for the assumption that between 25% and 30% of short-stay patients (those who would have previously stayed less than 48 hours) would elect to stay the full 48 hours. Nonetheless, even if that share of patients were to double, the low-end estimate of the premium impact of mandating minimum LOS for mastectomies would still be less than a 0.05%.

Barents Group (1997)

Barents Group, LLC has published two reports that discuss cost implications of managed care reform legislation. *The Effects of Legislation Affecting Managed Care on Health Plan Costs* (May 5, 1997), was prepared for the American Association of Health Plans. The report identifies seven types of legislation or legislative elements that would alter the way managed care firms do business. The analysis is general in nature rather than being carried out with respect to a specific legislative proposal.

The legislative provisions analyzed in the report and their estimated reduction on savings from managed care relative to fee-for-service are as follows:

- **Mandated Point-of-Service Option (MPOS)**, characterized as requiring either that health care plans that offer a closed-panel option also offer a point-of-service (POS) option or that employers that offer employees a closed-panel health plan also offer a POS option. Barents estimates that this type of act could reduce premium savings by 4 to 11 percentage points for those employers who do not currently offer a point-of-service option.

- **Direct Access and Freedom of Choice**, characterized as giving plan members the opportunity to obtain services without referral from their primary care provider. Direct access is used to refer to legislative provisions that cover treatment within the plan's provider network while freedom of choice is used to refer to provisions that would allow plan enrollees to seek treatment outside of plans' provider networks. Barents estimates that direct access provisions would reduce cost savings to group and staff model HMOs by 9 percentage points and that freedom of choice provisions would reduce savings for HMOs by 16 percentage points and by 9 percentage points for IPAs.

- **Establishment and Maintenance of Health Care Provider Networks**, often characterized as due process provisions, would require appeal mechanisms for denied medical treatment and would regulate the nature of contracts between plans and providers by requiring, for example, written processes for termi-

nation of a provider's contract. Barents suggests that HMO savings would be reduced by 8 percentage points; PPO/POS savings by 5 percentage points.

- **Prohibition of Physician Incentive Payments**, eliminating the use of financial incentives such as bonuses and withholds by managed care plans, is estimated to reduce HMO savings by 3 to 5 percentage points.

- **Restrictions on Utilization Review (UR)**, imposing restrictions on how managed care organizations design and implement utilization review, such as requiring that only a health care professional of the same specialty as the practitioner and who resides in the same state could refuse to certify payment for a service. Barents estimates that such restrictions would reduce HMO savings by 3 to 5 percentage points.

- **Care Delivered in Emergency Rooms**, characterized as requiring that plans cover and reimburse expenses for any emergency room or urgent care obtained, without prior authorization and without limits on the provision of these services. Barents estimates that costs in managed care plans would rise by 1 - 3%, excluding post-stabilization care.

- **Expanded Health Plan Liability** legislation would make managed care plans liable for failure to provide a covered service and for the actions of providers and other agents of the plan. Barents estimates a 4 - 5% increase in costs for IPA and PPO/POS plans.

The estimates in the Barents Group (1997) report are driven by assumptions as to the savings in managed care plans that accrue through utilization review, utilization management and price discounting. Barents assumes that these tools enable staff and group model HMOs, IPAs, and POS/PPO plans to reduce costs by 30, 23, and 14%, respectively, relative to traditional indemnity.

Understanding the composition of each of these three managed care savings assumptions provides a critical perspective on the Barents estimates. Exhibit 5 contains the managed care health plan savings relative to fee-for-service plans used in the Barents (1997) study.

Exhibit 5
Barents (1997) Percent Savings Relative to Traditional Indemnity

	POS/PPO	IPAs	Group/Staff HMOs	All HMOs
Utilization Review	4	4	4	4
Utilization Mgmt.	4	4	18	8
Price Discounts	6	15	8	13

The fourth column of numbers (All HMOs) reflects the current mix of HMOs in the market and is calculated as the market share weighted average of the IPA (70%) and Group/Staff model HMO (30%) figures. All of the plan types considered in the Barents report, including managed fee for service, achieve a 4% savings relative to traditional indemnity. Traditional indemnity, of course, is a bit of a strawman in the Barents analysis since currently such coverage is the rare exception, not the rule.

The figures used for utilization management savings are high relative to careful review of the literature. Barents notes that the February 1995 CBO report generally credited forms of managed care other than group and staff model HMOs with very low utilization effects. The Barents report cites two works (which had been reviewed as part of the CBO analysis) and suggests that those works provide a sense of the true effects of utilization management in such plans. It ignores the broader range of studies reviewed by CBO and rejects the conclusion by CBO that IPAs reduce utilization by less than one percent.

The Barents report also suggests that IPA efficiency has improved over time. It attempts to support the notion by appealing to a March 1997 CBO study, Predicting How Changes in Medicare's Payment Rates Would Affect Risk-Sector Enrollment and Costs, which found greater IPA utilization impacts for the Medicare population than past CBO analyses. However, as that CBO report noted, improved IPA efficiency is only one explanation for the expenditure differentials in that report. Another explanation offered by the CBO is increased favorable selection and statistical models that inadequately identify the selection.

In the CBO's March 1994 report, it was noted that PPOs have a mixed score card on utilization reduction because of generally

low cost sharing. CBO estimated that PPOs achieve a 2% savings relative to unmanaged fee for service arrangements. Finally, although the Barents report based its utilization savings figure for group and staff model HMOs on the 1995 CBO report estimate, the latter likely overstates the true effect due to an econometric error in the treatment of self-selection in the CBO analysis. Sensitivity tests reported by CBO suggest that the utilization savings attributable to all HMOs is probably on the order of the 3.9% found in their March 1994 analysis. The latter analysis also contains errors, but they partially offset one another.

The savings estimates used for price discounts accruing to HMOs have no scientific basis. The Barents report indicates that there is no available evidence of the extent of discounting realized by staff/group model HMOs, and that it arbitrarily uses half the IPA savings figure. The 15% figure for IPAs is derived from an analysis by Lewin-VHI that was based exclusively on data (for a small number of markets) provided by Aetna. It's unlikely that typical IPAs can extract provider discounts as large as a major insurer such as Aetna. In any event, the data used in the analysis were actuarial projections, not actual claims or premium data. The 13% figure for the all HMO category is the weighted average of the other two figures.

Finally, it should be noted that the design of the Barents analysis prohibits its usefulness in examining particular pieces of legislation. That is because many of the effects analyzed would be overlapping and aggregating the individual estimates would constitute double counting.

Barents Group (1998)

The second report by the Barents Group, *Impacts of Four Legislative Provisions On Managed Care Consumers: 1999 - 2003* (April 22, 1998), was also prepared for the American Association of Health Plans. The report estimates the potential costs of four types of legislation that are either under consideration or have been adopted into law at some level. Estimated changes in health insurance costs are calculated in terms of percent increases in plan premiums and are used to project changes in spending on coverage for the 1999 to 2003 period. Baseline estimates of spending on managed care premiums by employers, households, and governments from 1999 through 2003 were developed in a separate Barents Group report.

The four types of provisions examined in the Barents Group (1998) study and their estimated impacts are as follows:

- **Increasing exposure of health plans to malpractice liability** - H.R. 1415 proposed by Representative Norwood (R-GA) and H.R. 3605 proposed by Representative Dingell (D-MI) are identified as examples of legislation that would eliminate Employee Retirement Income Security Act (ERISA) preemption of state law causes of action against health plans sponsored by private employers. Barents estimates that this type of legislation would increase managed care plans' costs by between 2.7% and 8.6%.

- **Deeming utilization review to be part of the practice of medicine** - Barents cites New Mexico Senate Bill (SB 862; enacted in 1994) as an example of this type of legislation. This provision is estimated to increase managed care plans' costs by between 2.2% and 6.9%.

- **Prohibiting health plans from playing any role in making medical necessity determinations when making coverage decisions** - The medical necessity law contained in the proposed Federal Health Insurance Bill of Rights Act of 1997 (S. 373), sponsored by Senator Kennedy (D-MA) was analyzed by Barents. Restricting plans from making medical necessity determinations for purpose of coverage decisions is estimated to increase managed care plans' costs by between 4.1% and 6.1%.

- **Requiring plans to allow any willing provider (AWP) in their network if the provider meets certain qualifications and is willing to abide by plan requirements** – Barents examines the AWP provisions of Tennessee's "Patient Advocacy Act of 1997" (SB 1767). The adoption of any willing provider laws is estimated to increase managed care costs by between 6.6% and 8.6%.

The managed care savings assumptions employed in the Barents (1998) analysis are presented in Exhibit 6. Those assumptions, which are central to the Barents analysis, are based on the managed care savings estimates used in the Barents (1997) analysis and an assumed 4 percentage point increase in savings attributable to IPAs. Our discussion of the Barents (1997) savings estimates indicates that there is substantial upward bias in those numbers and a report from the Medicare Payment Advisory Commission (Greene 1998) indicates that new IPA cost savings may be attributable to increases in favorable selection experienced by Medicare HMOs. That report found that disabled and chronically ill Medicare beneficiaries have lower rates of enrollment in Medicare managed care than other groups of beneficiaries.

Exhibit 6
Barents (1998)
Percent Savings Relative to Traditional Indemnity

	POS/PPO	IPAs	Group/Staff HMOs	All HMOs
Utilization Review	4	4	4	4
Utilization Mgmt.	4	8	18	11
Price Discounts	6	15	8	13

As with the initial Barents analysis, many of the effects analyzed in the 1998 Barents study overlap. In other instances, the report aggregates the cost of mutually exclusive outcomes. For example, adding the cost impact of an expansion in plan liability absent any change in utilization review to the cost of a change in utilization as a result of plan "defensive medicine" constitutes clear exaggeration of the true cost impacts of expanded liability.

The legislative proposals cited in the Barents (1998) study remove the ERISA preemption provision by varying degrees. The analysis presumes, however, that in expanding managed care organizations' malpractice liability, the ERISA preemption would be eliminated.

Obviously, some reform bills (e.g., H.R. 3605) have more limited or targeted removal of ERISA preemptions. A broader ERISA preemption of actions against managed care organizations would generate small increases in the direct cost of liability insurance.

The Barents (1998) study classifies the effects of **legislation that expands managed care organizations' exposure to malpractice liability** as direct costs (malpractice insurance premiums, contributions to liability self-insurance funds, and uninsured losses from malpractice claims) and indirect costs (defensive medicine). Direct effects are estimated to range between 0.9% and 1.4%. Indirect effects are estimated to range from 1.8% to 7.2%. These figures combine to a total cost estimate of between 2.7% and 8.6% of premiums.

Direct effects are based on the costs of health plan liability insurance, the number of plans that will have to obtain liability insurance, and the average increase in premium costs because of the increased probability of being subject to malpractice suits. The study uses two baseline scenarios and two different assumptions about the number of managed care plans that would need to purchase medical liability coverage if such legislation were passed. The analysis assumes that the number of claims filed will increase due to the presence of new (and deep) pockets, that the number of successful malpractice suits will increase, and that the average value of awards will increase.

For the low-end estimate, all plans are assumed to have liability insurance and the baseline liability costs are assumed to be 0.5% of plan premiums. The latter figure is based on a small sample of insurers' liability premium costs. Total direct effects for the low-end estimate are driven entirely by the assumption that plan liability costs expressed as a percentage of plan premiums increase to the level of hospital liability costs expressed as a percentage of revenues, after the expansion in plan liability. For the high-end estimate, Barents assumes that 34% of plans will need to obtain liability coverage that they do not already have and that baseline liability costs are 2.0% of plan premiums. The baseline figure of 2.0% was chosen to be greater than the level of hospital liability expenses, yet below the level of physician liability expenses. The analysis then assumes that liability increase to a "weighted average of physician and hospital premium costs," or 2.5%. The resulting estimated range of direct cost increases is between 0.9% and 1.4%.

The use of hospital and physician liability costs as baseline for Barents's high-end estimate scenario and the use of such costs, in both scenarios, in gauging the increase in direct liability costs clearly introduces significant upward bias into the analysis. The only plan specific information on liability costs as percent of plan premiums presented by Barents was 0.5%. Yet the high-end estimate baseline, 2.0% of plan premiums, is 4 times that figure and factors into Barents's estimate of a 0.9% addition to costs due to plans obtaining coverage that they are presumed to currently be without. The only other figure in the high-end scenario estimate of direct costs, the 0.5% increase in liability insurance premiums, is driven by Barents use of hospital and physician liability costs. Managed care organizations, however, enjoy an obvious advantage relative to providers in obtaining liability coverage - they deal with insured populations large enough to take full advantage of the law of large numbers. In other words, and as the data presented by Barents suggest, managed care organizations should be able to insure against malpractice liability at significantly reduced rates relative to providers.

The Barents report proposes that managed care liability provisions create incentives for plans to loosen utilization review restraints, i.e., to practice defensive medicine. Considerable care needs to be taken in analyzing this potential effect. In the Barents analysis, any resultant increase in services delivered should be measured in lieu of, rather than in addition to, the direct effects of increased exposure to malpractice liability. The Barents analysis fails to account for the reduction in liability exposure which defensive medicine is intended to offset. Consequently, a form of double counting exists in the Barents cost estimates.

The double counting aside, the Barents estimate of the indirect effects is overstated because of its assumption that defensive medicine currently comprises 9% of fee-for-service spending and, at least in the case of its high-end estimate scenario, an unrealistically high assumption as to the potential extent of defensive medicine in the U.S. absent utilization management by plans. The estimate that 9% of fee-for-service spending is defensive medicine is drawn from a study of defensive medicine associated with hospital expenditures in treating serious heart disease among elderly Medicare beneficiaries. It is used in both the high-end estimate and low-end estimate scenarios. Under the low-end scenario, Barents assumes that current UR/UM activities have eliminated 20%

of defensive medicine. In the high-end scenario, Barents assumes that current utilization review and management activities have eliminated 80% of defensive medicine. The indirect effects are assumed to be an expansion in defensive medicine by plans, to the full extent practiced by physicians, and are thus estimated to be 1.8% (9% x 20%) to 7.2% (9% x 80%), respectively.

The assumption that 9% of health care spending is defensive medicine constitutes a clear and upward bias in the analysis. The Barents report applies the 9% figure for fee-for-service utilization to managed care spending broadly - ignoring capitation and withhold arrangements. Moreover, the treatment of serious heart disease among the elderly population can not be construed as being representative of variations in treatment levels in medical services generally and the analysis should be objected to on that basis alone. The level of defensive medicine assumed by Barents exceeds even high-end published estimates of the extent of defensive medicine (taken as a share of national health spending) by a factor of almost 5 (Lewin-ICF 1992). Secondly, there is no basis for the assumption that 80% (or even 20%) of defensive is eliminated by current UR/UM practices. The assumptions that current UR/UM activities have eliminated all but 20% of defensive medicine and that defensive medicine comprises 9% of current total health care spending logically indicate that 45% (5 x 9%) of total health care expenditures would be defensive medicine absent current utilization controls. Even the most extreme findings from the utilization variations literature fail to support such a number.

The failings identified in connection with the Barents analysis of indirect costs of an expansion in plan liability are damaging to claims that such legislation would be costly. Indirect costs in the Barents report comprise 67% of their low-end estimate and 84% of their high-end estimate. Their indirect cost estimates additionally feed into the cost estimates of other managed care reforms.

The estimated cost of legislation **defining UR as a practice of medicine** is based on the assumption that this type of legislation would impose medical malpractice liability on plans. The impacts of such legislation would be comparable to those identified in the discussion of more general liability provisions. The Barents study indicate that defining UR as the practice of medicine would result in slightly lower direct costs for liability insurance increases (about one percent at the high end) and that indirect costs would be

reduced by about 20%. Applying this formula would generate an estimated range of 2.3% (0.09 + 0.8 x 0.027) to 6.2% (0.01 + 0.8 x 7.2). The estimated range of costs presented in the report is actually calculated by taking 80% of the low-end and high-end values from the cost of extended managed care liability laws: 2.2% (0.8 x 0.027) to 6.9% (0.8 x 0.086). In either case, the approach taken by Barents results in estimates that are substantially biased upward. This is because the estimates depend critically on the exaggerated estimates of the costs of expanded liability.

The estimated increase in cost resulting from **medical necessity** law is based on the exaggerated figures used for UM savings. The Barents study suggests that in an extreme case, plans could lose all ability to control utilization and costs through UM activities. The study suggests that between 60% and 90% of utilization management savings would be lost if such a provision were enacted. The two scenarios considered employ additional extreme assumptions — at the high-end, slightly less than the absolute maximum savings is lost, and at the low-end, the majority of savings is lost. Such assumptions clearly rule out a broad range of potential adjustments by plans.

The cost estimates of **any willing provider** legislation are based on extreme interpretations of laws that eliminate plans' ability to reduce utilization of services and to obtain price discounts from providers. Barents refers to adopting the conservative estimate that the "due process" provision would reduce IPAs' ability to control costs to those levels currently attributable to PPOs and POS plans — a 13 percentage point loss of savings for IPAs - and that group and staff model HMOs' ability to reduce costs would also decline to the levels for PPO and POS plans — a 16 percentage point loss of savings for group and staff HMOs. It is also assumed that POS and PPO plans still receive some price discounts from providers, allowing them to maintain a five-percent cost difference from managed fee-for-service.

A review of a small number of studies is used to estimate the costs of AWP laws. The authors present no review or critique of any study cited. Two of the studies (Wyatt 1991; Atkinson & Company 1994), however, have significant shortcomings. The cost estimates from the first study are imprecise because the data used to construct the estimates are derived from a very small, unrepresentative sample of firms. Moreover, both studies assume administrative

costs per physician rise with the size of the physician network. With a large portion of those costs being fixed over a wide range of providers, economies of scale may reduce average administrative cost per provider. The Atkinson & Company cost estimates are additionally based on undocumented assumptions about physician excess capacity and changes in HMO participation brought about by AWP laws that render the estimates meaningless.

Finally, the Barents study states, without justification, that every 1% increase in managed care costs at the national level has the potential to increase the uninsured by about 315,000 individuals in 1999. This exceeds even the 1% -to- 200,000 translation that the CBO dismissed in connection with the M&R estimates.

Coopers & Lybrand

The Coopers & Lybrand (C&L) report, *Estimated Costs of Selected Consumer Protection Proposals: A Cost of the President's Advisory Commission's Consumer Bill of Rights and Responsibilities and the Patient Access to Responsible Care Act* (April 1998), was prepared for the Henry J. Kaiser Family Foundation. The C&L report focuses on the provisions of those two bills deemed to have the greatest potential effect on costs and to be reasonably precise in interpretation. On a PMPM basis, C&L report an aggregate impact of 0.61% of premium for the four provisions of the Consumer Bill of Rights and Responsibilities examined and 0.77% for the five provisions of Patient Access to Responsible Care Act costed out.

The C&L report points out that its cost estimates relate specifically to expected changes in costs for HMOs and that the cost impacts of the analyzed consumer protections, examined in the context of the entire health insurance market, would be lower than the values contained in the report.

Exhibit 7
Coopers & Lybrand Consumer Bill of Rights & Responsibilities and Patient Access to Responsible Care

Provision	Estimated Premium Impact
CBRR	
Information disclosure	0.40%
Emergency service access	0.11%
Access to specialists	0.02%
External appeals	0.08%
PARCA	
Information disclosure	0.08%
Emergency service access	0.11%
Access to specialists	0.02%
External appeals	0.08%
Point of service option	0.48%

The studied provisions of the two proposals, and their estimated impact on premiums, are presented in Exhibit 7.

The report discusses, but does not attempt to measure, the cost impact of changes in medical liability that would occur under PARCA.

The C&L estimates were developed using a combination of actuarial data, estimates of savings from managed care relative to fee-for-service, and key assumptions based on C&L's review of the literature. The estimates of managed care savings, which are central to the analysis, are not identified in the report. In general, however, the report appears to be solid.

The C&L report notes that the **information disclosure** requirements of the two proposals are a mix of currently collected information and new information. The CBRR report recommends extensive data collection and disclosure for health plans, facilities, and professional providers such as physicians. PARCA limits reporting requirements to health plans. C&L note that many of the information collection and dissemination requirements reflect standards already evolving in the managed care market. New information disclosure requirements in the two proposals examined relate to satisfaction, quality, quantity of services, and certain participating provider characteristics.

The cost analysis of this set of provisions is based on the Lewin Group analysis of CBRR. The C&L estimate differs from the Lewin estimate, however, because it assumes lower labor costs in collecting health plan and hospital data. In addition, it does not assume that some information would necessarily be distributed in hard copy form to all insured lives. Rather it envisions that information would be distributed on request and that centralized distribution through the Internet would emerge.

The C&L report notes that the information disclosure is likely to spur competition at all levels of the health care system and that just a 1% decrease in average HMO premiums would offset the costs of such requirements. Plans stand to benefit from the new data collection requirements as well. Analyses of enrollee satisfaction data (required under the CBRR) would enable plans to improve both individual and employer retention rates.

Both CBRR and PARCA would require that health plans use a prudent layperson standard for **access to emergency services**. C&L

indicate that the standard is generally construed to mean that plans must pay for the initial costs of emergency care of any individual who believes that emergency treatment is necessary due to potentially long term damage or to excessive pain. Neither proposal extends plans' responsibility to the coverage of ongoing treatment in an emergency facility. The CBRR would require plans to educate enrollees as to the location and appropriate use of emergency services, and would require emergency departments to contact primary care providers to discuss follow-up and post-stabilization care.

C&L use actuarial data on the rate of denials of emergency room visits by HMOs relative to the HMO utilization rate. This approach is more direct than the alternative approach of comparing HMO and fee-for-service emergency room utilization rates. Based on an average cost of $120 per visit, an average HMO utilization of emergency room services of 0.26 visits per member per year, and a 5% denial rate by HMOs, C&L calculate that the cost of this provision to be $0.10 PMPM. The report notes that most plans already comply with the prudent layperson standard.

Provisions in CBRR and PARCA also indicate specific standards for **access to specialists**. Both would require plans to use standing referrals to specialists for individuals with complex or serious medical conditions who need frequent specialty care. The Federal Employee Health Benefits Program has adopted a similar standard. Such a change is likely to significantly increase member satisfaction — especially among members with chronic, ongoing conditions. C&L note that standing referrals would entail an initial screening visit with the covered individual's primary care provider and thus the standard is distinct from direct access to all specialty care. The CBRR would additionally require plans to allow women to choose among qualified providers offered by the plan for the provision of covered routine and preventative women's health care services.

The C&L report indicates that most plans already comply with the standards considered. Actuarial data analyzed by C&L suggest that the provisions in CBRR would add 0.02% of premiums to plan costs. The provisions in PARCA, which are less extensive in scope but less specific as well, are similarly projected to add 0.02% of premiums to plan costs.

The C&L report notes a number of large health plans have recently

implemented **external appeals** processes. Plans holding Medicare or Medicaid contracts already are required to have such processes. Plans holding contracts with the Office of Personnel Management to cover federal employees are subject to external review requirements. Finally, at least fourteen states have passed legislation requiring an external appeal process.

The cost estimate for this provision is developed using the number of appeals per 1000 in Florida (reported in the Lewin Group analysis of the CBRR) as their low-end approach and a 500% increase in that number for their high-end estimate. They assume that all external appeals would be conducted by physicians, at an average cost per hour of $250 to $300, and that the average appeal would take 4 hours. They also assumed that plans have internal appeals processes sufficient to ensure that only 15% of appeals are overturned externally, at an average claims cost of $5,000 to $15,000. These figures suggest that costs from external appeals would not exceed 0.08% of premium.

PARCA would require all network-model HMOs to offer an **optional Point-of-Service** (POS) plan to all members. The C&L report indicates that POS plans typically enable members to obtain out-of-network benefits at a cost (to the member) of 20% to 30% over in-network costs. The administrative systems of such plans are potentially complex and pose the greatest challenge to staff and group model HMOs that reimburse physicians on a salary or capitated basis. Regulation of POS plans varies substantially by state. Self-funded plans are governed by ERISA.

For plans that do not offer a POS option (assumed by C&L to be half of HMOs), new administrative systems will be required. The cost to those HMOs is expected to add 0.5% to 1.0% of premiums to plan costs. Those figures translate into a best estimate of the average HMO premium increase due to new administrative requirements of 0.25%. Enrollees choosing POS will likely bear the greatest portion of the cost. Data on POS premiums relative to HMO premiums (POS premiums are indicated to be 5% to 10% higher) and an assumed 33% enrollment increase drive additional claims cost estimate of 0.23% of premium. C&L assume that out-of-network services will continue to have higher cost sharing requirements than in-network services and that members who obtain out-of-network benefits will bear those costs. Consequently, out-of-network reimbursement is estimated to have no measurable impact on plan cost.

Congressional Budget Office

The Congressional Budget Office (CBO) prepared a cost estimate of the Patients' Bill of Rights Act of 1998 (PBR). The estimate is based on the introduced bill, the technical changes contained in Senate amendment 3063 introduced on July 7, 1998 (excluding the revenue provisions), and a change in the effective date of section 302(b) to July 1, 1999. The patient protection standards set out in the bill generally apply to group health plans, group health insurance coverage, and individual health insurance coverage. CBO estimates that the PBR would cause premiums to rise by 4.0% in the 10 years following enactment. The impact is "expressed as the expected ultimate percentage change in average health insurance premiums—that is, the change when all of the bill's provisions are fully phased in."

The report, *Cost Estimate, H.R. 3605/S. 1890, Patients' Bill of Rights Act of 1998* (July 16, 1998), contains estimates of the impact on premiums for employer-sponsored health plans of seven major provisions in the PBR covering 30 sections of the bill. The provisions, the corresponding sections of the PBR, and their estimated increase in premiums are shown in Exhibit 8.

The CBO report states that because of the extent and complexity of the changes to the health insurance system resulting from the provisions in the PBR, the estimates of their effects are subject to more than the usual amount of uncertainty. To derive the estimates, CBO consulted with a variety of experts, including representatives of managed care plans, health insurers, providers, and private industry; state regulators; practicing and academic health and ERISA lawyers; and health policy researchers. The report warns, however, that in some areas, only limited data are available to determine a cost estimate.

For several of the provisions in the PBR the report discusses potential (qualitative) sources of cost increases, but contains no methodology or empirical evidence for constructing the actual impact estimate. The report also indicates that the cost impacts may differ

Exhibit 8
Congressional Budget Office
Patients' Bill of Rights Act of 1998

Section	Provision	Estimated Impact
Access to Care		
101	Access to Emergency Care	0.2%
102	Offering of Choice of Coverage Options	0.1%
104a	Obstetrical and Gynecological Care	0.1%
105	Continuity of Care	0.2%
106	Coverage of Clinical Trials	0.4%
107	Access to Needed Drugs	< 0.05%
108	Adequacy of Provider Network	0.1%
103	Choice of Providers	
104b	Specialty Care	
109	Nondiscrimination in Delivery of Services	< 0.05%
Quality Assurance		
111	Internal Quality Assurance Program	0.2%
112	Collection of Standardized Data	0.3%
113	Process for Selection of Providers (included in the estimate of section 143)	
114	Drug Utilization Program	0.05%
115	Standards for Utilization Review Activities	< 0.05%
116	Health Care Quality Advisory Board	0%
Patient Information		
121	Patient Information.	< 0.05%
122	Protection of Patient Confidentiality	< 0.05%
123	Health Insurance Ombudsmen	0%
Grievance and Appeals Procedures		
131	Establishment of Grievance Process	0.3%
132	Internal Appeals of Adverse Determinations	
133	External Appeals of Adverse Determinations	
Protecting the Doctor-Patient Relationship		
141	Prohibition of Interference	< 0.05%
142	Prohibition of Improper Incentive Arrangements	< 0.05%
143	Participation of Health Care Professionals	0.1%
144	Protection for Patient Advocacy	
Promoting Good Medical Practice		
151	Promoting Good Medical Practice	0.8%
152	Standards for Breast Cancer Treatment	<0.05%
153	Standards for Reconstructive Breast Surgery	
Changes to the Employee Retirement Income Security Act		
302	ERISA Preemption	1.2%

among traditional indemnity plans, indemnity plans with utilization review components, PPOs, IPAs and group- or staff-model HMOs.

Of the 30 provisions in the PBR for which CBO estimated premium impacts, eight are estimated to increase premiums at least 0.2%, and of those, three are estimated to increase premiums 0.4% or more. The provisions in the PBR indicated to have the largest estimated effects on premiums are discussed in detail in the next section of this report.

The **access to emergency care** component of the PBR would require plans to pay for emergency care in any licensed hospital emergency department if the condition is serious enough to meet the "prudent layperson" standard. The bill also requires plans to pay for post-stabilization care rendered at nonparticipating institutions. Provisions requiring payments for care provided beyond the initial cost of emergency care, and for emergency care provided in any licensed hospital emergency department generally have not been part of other proposed legislation. For example, neither CBRR nor PARCA extends plans' responsibility to the coverage of ongoing treatment in an emergency facility. Consequently, other premium impact estimates of access to emergency care provisions typically have not included the costs of those requirements.

CBO assumes "that roughly half of current denials of payment for emergency room visits would meet the prudent layperson standard." The number of denials CBO used in deriving their estimate is not presented in the report. The cost estimate is also based on the assumption that payments for treating patients in nonparticipating emergency departments would be 50% higher than payments in participating hospitals. This would represent a 33% discount from out-of-plan hospital emergency departments. There is no available evidence of discounts of this magnitude.

CBO also assumes that once the prudent layperson standard became widely understood, emergency visits and the use of nonparticipating hospital emergency departments would rise, and hospitals would be encouraged to raise their charges for emergency departments. These incentives would at least be partially offset by the increase in plans' incentives to encourage and educate members to seek care in non-emergency department settings, and to provide adequate access to in-plan emergency and ambulatory care. There are generally no documented measures of the proportion of plans, accompanied with the number of

enrollees in those plans, which would comply with these provisions.

The **continuity of care** provisions in the PBR require health plans to notify enrollees on a timely basis of the termination of provider contracts, and permit the individual to continue or be covered with respect to the course of treatment with the provider during a transitional period, generally of 90 days, except for pregnant or terminally ill patients. Termination includes the expiration or non-renewal of the contract. The provider would agree to accept reimbursement from the plan or issuer and individual involved (with respect to cost-sharing) at the rates applicable prior to the start of the transitional period as payment in full.

CBO argues that the major cost of this provision would be the cost of developing systems and procedures to notifying enrollees of provider contract terminations. Where such systems and procedures are already in place, however, the cost impact may be minimal. The CBO estimates are based on the assumption that plans generally gain or lose fewer than 10% of contracting physicians a year. (Data from the AMA's 1997 SMS survey indicated that in 1995, 6% of physicians were dropped from managed care contracts.)

The provisions for **coverage of clinical trials** would require plans to pay for routine patient care associated with certain clinical trials sponsored by the National Institutes of Health (NIH), Department of Veterans Affairs, Department of Defense, or NIH-sponsored cooperative groups. Trials covered by the provisions are trials for life-threatening or serious illnesses for which no standard treatment is effective. Routine patient costs do not include the cost of the tests or measurements conducted primarily for the purpose of the clinical trial involved. Other proposed managed care reform legislation, and other economic impact estimates of proposed legislation generally do not contain this requirement.

In estimating impact of coverage of clinical trials, CBO assumed that patients in an NIH-sponsored trial generate cost of care 25% higher than the costs of similar patients who do not enter trials. The CBO indicates that the estimate is based on preliminary unpublished results of several small studies that found smaller incremental costs. The CBO expects the cost differential to grow because new trials will involve more expensive therapies and the number of individuals enrolled in clinical trials is predicted to triple over the next 10 years.

The number of patients, the cost of care, and whether or not the provisions of the bill cover the trial are expected to differ among phases of clinical trials. The CBO estimate however, fails to account for the phases of clinical trials, and the share of trials that would be categorized as trials for life-threatening or serious illnesses for which no standard treatment is effective. Phase I trials are considered research and generally are not paid for by insurers. Thus, the provisions in the PBR should result in little if any impact on premiums regarding Phase I trials. In Phase II and Phase III trials patient care and research are carried out jointly. But the Phase III trials which compare new therapies to existing standard treatments may not be covered by the provisions of the PBR.

The cost estimate of implementing an **internal quality assurance program** is based on assumption that all health plans except those that are federally qualified HMOs or currently accredited by the National Committee on Quality Assurance would have to develop a new quality assurance unit, or upgrade an existing one. The report does not indicate the percentage of plans that currently meet these conditions, nor does it indicate the costs of developing or upgrading quality assurance units.

Provisions in the PBR require the **collection and analysis of standardized data** on the utilization of health care services, the demographics of enrollees, disease-specific mortality and (if feasible) morbidity, satisfaction with the plan, health outcomes, and indicators of quality. The impact estimate is based on plans being required to review medical records of 2,000 patients each year. The estimate also takes into account the software development costs resulting from expected changes in the minimal dataset. Development costs and expected cost per record or per site are not presented in the report.

CBO expects the cost of this exercise to be higher for health plans with larger and more diffuse networks. Many health plans may already have information systems in place including the Health Plan Employer Data and Information Set (HEDIS) measures currently required under Medicare contracts, as well as results from consumer access and satisfaction surveys, and general health status surveys. Those plans would incur little additional costs in meeting the requirements of the PBR. Therefore, the CBO estimate that the provision would increase premiums by 0.3% on average may be overstated.

CBO estimates that the provisions **establishing a grievance process**, and **establishing the rights to internal and external appeals of adverse determinations** would jointly raise premiums by 0.3%. Clinical peers who had not previously been involved in the decision under appeal would conduct internal reviews. Only physicians would be considered clinical peers of other physicians. The bill would provide much stronger incentives for internal appeals than the Department of Labor regulations affecting internal claims procedures for ERISA health plans that will be released in response to a Presidential memorandum. Although the rate external appeals is tied to the rate of internal appeals, separate cost estimates for internal and external appeals procedures would provide useful information.

CBO assumes that although most health plans have functioning internal review systems, appeals rate will rise under the PBR because of increased consumer knowledge of the appeals process and the availability of external review. The CBO report cites a study by the General Accounting Office that indicates that data on internal appeals rates are highly unreliable and rates vary widely among HMOs — self-reported appeal rates range from 0.07 to 69.4 per 1,000 enrollees annually, with a median of 3.5. Making an adjustment for appeals related to denials of emergency services, which should be reduced under the "prudent layperson" provisions of the bill, CBO assumed a current average appeal rate of 2.5 per 1,000 enrollees. The report does not detail the adjustment methodology.

Costs per internal appeal are expected to rise due to the clinical peer review requirement and overturning a larger share of appeals in favor of enrollees to avoid cost of external review. For certain appeals, plans might apply less stringent utilization review and reduce the overall expected costs. The costs associated with overturned decisions resulting from appeals, and administrative costs are expected to increase more for health plans and issuers that do not have established systems for internal review of grievances. While the report indicates that this would be a small minority, the proportions of plans currently having and not having grievance processes in place, nor the administrative and other costs associated with having appeals overturned are presented in the CBO report.

A group health plan, and a health insurance issuer offering group health insurance coverage, must also provide for an external

appeals process for appealable decisions if the amount involved exceeds a significant threshold (undefined in the bill), or if the patient's life or health is jeopardized as a consequence of the decision. No information on the number or the share of appeals which meet these conditions is presented, however, even though that data at least partially determine the rate of external appeals.

The report indicates that 16 states require external appeals processes, but few claims reach the external appeals stage. Florida is the only state where the appeals rate is significant, about 1 per 10,000 enrollees. CBO assumes that the PBR would increase external appeals rates in all states, and that the rates would also increase through time — to about 4 per 10,000 enrollees after 5 years — as enrollees became more aware of their rights under this provision. This would represent a four-fold increase over current annual rates of external appeals in Florida, and 40% of the rate in the Medicare program where every denial is subject to appeal, and all denied appeals are automatically referred to external review. This suggests that the CBO cost impact estimate of the provisions establishing the rights to external appeals in the PBR might be overstated.

The provisions in the section **promoting good medical practice** prohibits arbitrary interference with medical practices and establish a right of appeal of plans' decisions. These provisions are expected to generate a higher volume of internal and external reviews and a higher probability of decisions that would be unfavorable to plans. CBO considered plans might avoid appeals under this provision by reducing the frequency with which they challenged physicians' decisions, and the likelihood that plans would adopt defensive UR policies when those costs are lower than the expected costs of the reviews when defending those policies.

The CBO report differentiated between managed indemnity plans (fee-for-service plans with utilization review components or utilization management features), preferred provider organizations, and independent practice associations and group- or staff-model health maintenance organizations in assessing the burden of these provisions. No other cost estimates analyzed include managed fee-for-service plans in the estimates of costs of managed care reform legislation. CBO estimates that these provisions would raise premiums by 0.8%, but provides no quantitative basis for the estimate.

The provisions concerning **expanding legal liability for ERISA**

plans are estimated to increase premiums by 1.4% for ERISA plans, and by 1.2% of the premiums of all employer-sponsored plans. Section 302 of the PBR states that the bill does not authorize (i) any cause of action against an employer or other plan sponsor maintaining the group health plan, or (ii) a right of recovery or indemnity by a person against an employer or other plan sponsor for damages assessed against the person pursuant to a cause of action. This does not preclude any cause of action against an employer or other plan sponsor if (i) such action is based on the employer's or other plan sponsor's exercise of discretionary authority to make a decision on a claim for benefits covered under the plan or health insurance coverage in the case at issue; and (ii) the exercise by such employer or other plan sponsor of such authority resulted in personal injury or wrongful death.

The impact estimates are driven by two assumptions, which CBO states are "estimates," but are unsubstantiated. The first is that health plans' liability costs average about 2% of their premiums (not counting defensive medicine by providers). No plan specific information on liability costs as percent of plan premiums is presented by CBO. Barents Group (1998) presents a figure of 0.5% for liability premium costs based on a small sample of insurers, but uses 2.0% as their high end estimate baseline which reflects the cost liability premiums to providers. The Barents Group cost estimate of expanded liability is generally recognized as being biased upward because of the failure to account for the ability of managed care organizations to insure against malpractice liability at significantly reduced rates relative to providers. It follows that the CBO estimates represent a high-end estimate. The second CBO assumption driving their cost estimates is that ending the ERISA preemption increase liability costs by 60% to 75%, in the case of PPOs, POS plans, and HMOs, and by a lesser percentage in the case of indemnity plans.

CBO indicates the premium increase from expanding legal liability for ERISA plans is determined by two primary sources. More than half of the increase comes about from potential suits associated with decisions on medical necessity and coverage, and unintended lawsuits involving providers and plan fiduciaries. Most of the remainder would result from more medical negligence suits against plans, reflecting the financial resources of plans and the effects of the new legal environment. No data are presented, however, to substantiate the number of additional suits or the size of the awards health plans might expect to experience due to the provisions in the PBR.

William M. Mercer

William M. Mercer, Incorporated (Mercer) was commissioned by the American Medical Association to develop an actuarial model to assess the cost impact of **managed care accountability** legislation. The report, *Malpractice Liability Assessment Model: Estimates of the Cost Impact of Managed Care Accountability Legislation* (August 1, 1998), presents impact estimates based on expected medical services distributions by physician subspecialty for various types of managed care organizations (MCOs), and expected MCO malpractice claim incidence and average cost of malpractice claims.

The Mercer analysis derives estimates of increases in health insurance premiums from model managed care accountability legislation which contains the following three components:

- A direct cause of action against health insurance carriers, HMOs, and managed care entities for damages caused by their failure to exercise ordinary care in making health care treatment decisions;
- A prohibition on hold harmless and indemnification clauses in provider contracts; and
- A prohibition on the use of the corporate practice of medicine defense.

The estimates also take into consideration three levels of legislative impact related to existing differences across states in use of the corporate practice of medicine defense; two constructions of ERISA preemption to capture the extent to which the actions brought by enrollees of ERISA plans could be preempted by ERISA; alternative enrollment mixes; and three types of caps on malpractice awards to account for different state tort reform laws. After considering a broad range of impact scenarios, Mercer estimates that managed care accountability legislation would increase premiums between 0.1% to 1.8%.

Exhibit 9 shows estimates for the three levels of legislative impact for broad and narrow ERISA construction presented in the Mercer report.

Exhibit 9
William M. Mercer
Increase as a Percent of MCO Premium, No Cap on Awards

	ERISA Preemption	
Legislative Impact	Broadly Construed	Narrowly Construed
Significant	0.5%	1.8%
Moderate	0.3%	1.2%
Least	0.2%	0.9%

The actuarial model was constructed using a general logic flow that begins with a population enrolled in an IPA or network model HMO that contracts with physicians or physician networks. The enrollment is distributed among commercial, Medicare and Medicaid managed care programs. Mercer cost models produce medical service projections by physician subspecialties. Managed care organization (MCO) malpractice claim incidence is derived from the MCO medical services by physician subspecialty. Applying an average MCO malpractice award and legal expense to the malpractice claim incidence yields the change in MCO cost per member per month.

Under the managed care accountability provisions, an MCO is liable for damages caused to an enrollee by the MCO's failure to exercise ordinary care in making health care treatment decisions. Health care treatment decisions are defined as a determination made when medical services are provided by the plan and a decision that affects the quality of the diagnosis, care or treatment provided to the enrollees. As in other negligence actions, a plaintiff must demonstrate that the MCO breached its duty to exercise ordinary care, and that such breach was the proximate cause of the plaintiff's injury. The provisions also allow for a vicarious liability cause of action, under which an MCO is liable for damages caused by the health care treatment decisions made by its employees, agents, and representatives.

The legislative impact scenarios are designed to reflect the impact of the prohibition of the corporate practice of medicine defense. States are assumed to generally fall within one of three scenarios

with respect to how the corporate practice of medicine doctrine is enforced as follows:

- The state actively enforces a complete bar against the corporate practice of medicine.

- The state actively enforces a bar against the corporate practice of medicine, but exempts from the bar certain providers, such as hospitals, HMOs, and professional corporations.

- The state has no bar against the corporate practice of medicine or has a bar that is not enforced.

The constructions of the ERISA preemption defense allow for two possible impacts. If ERISA preemption is narrowly construed to allow vicarious liability and direct negligence actions against MCOs by ERISA enrollees, the MCO liability exposure from ERISA enrollees is expanded. Alternatively, if the ERISA preemption is broadly construed, the MCO liability exposure from ERISA enrollees remains limited. The estimates are based on the assumption that 90% of the MCO enrollees are covered under an ERISA employee benefit plan. This percentage varies significantly for different states. Thus, the extent to which ERISA enrollees may bring a state law cause of action against MCOs will have a significant impact on estimates.

To account for the different mix of plan types found across the states alternative types of MCOs are considered. Managed care accountability legislation is expected to have the least impact on staff model HMOs, because they have already been subject to vicarious liability malpractice claims, based on their direct employment of physicians. IPA/network model HMOs (which include risk-bearing PPOs) are expected to experience a greater impact. It is assumed that a staff model HMO will incur 30% of the additional liability incurred by IPA/network model HMOs. The estimates are based on an enrollment mix of 96% in IPA/network model HMOs and 4% in staff model HMOs. The estimates are based on an enrollment mix by payer 90% commercial, 5% Medicaid and 5% Medicare. Mercer claim cost models are used to construct medical services distributions by physician subspecialty for each of these populations.

Three types of caps on malpractice awards are incorporated in the Mercer analysis to account for different state tort reform laws. Impact estimates are presented for (i) no cap, (ii) a cap of $250,000 on non-economic damages with no cap on economic or punitive damages, and (iii) a cap of $500,000 on non-economic damages with no cap on economic or punitive damages.

The share of a physician's practice dedicated to providing health services to MCO members are constructed for each of the three categories of enrollees. Another adjustment is made to assign hospital malpractice claims to MCO members. The estimated ratio of the total physician and hospital malpractice claims to physician malpractice claims is 1.14. Applying this factor to the annual incidence of physician malpractice claims per 1,000 members produces an estimate of the incidence of claims that includes both physician and hospital malpractice claims.

The authors of the Mercer study assume that existing claims against physicians and hospitals will remain the same. Given the relationship between existing bars to the corporate practice of medicine and the incidence of vicarious liability claims against MCOs, additional vicarious liability claims are assumed to vary with the legislative impact — 5% for low impact, 10% for moderate impact, and 20% for significant impact. Direct negligence claims are assumed to rise by 10% for all legislative impact scenarios

The average cost of an MCO malpractice claim was derived from statistics in "Civil Jury Cases and Verdicts in Large Counties," Bureau of Justice Statistics, July 1995. The malpractice awards data from the Bureau of Justice Statistics, for plaintiff awards, indicated that the median award was $201,000, the average awards was $1,484,000, 47.1% of awards were over $250,000 and the 24.8% of awards for over $1,000,000. The awards distribution was adjusted for the inclusion of hospital awards, the influence of damage caps, the recent increasing number of awards over $1 million, and the expectation that MCOs will be subject to higher malpractice awards than physicians. Because the awards distributions are based only on plaintiff awards, the average award is also adjusted to reflect the assumption that plaintiffs are successful in 25% of the cases. Average cost per MCO award is estimated to be $429,651, plus legal expenses assumed to average $125,000 over all suits.

Exhibit 10
Summary Comparison of Managed Care Legislation Costs[a/]

Proposals	Barents for AAHP	Muse & Associates for PARC Alliance	Milliman & Robertson for Walmart	Lewin for President's Commission	Price Waterhouse for Kaiser Family Foundation	Coopers & Lybrand for Kaiser Family Foundation	CBO	Mercer
Expanded Liability	4%-5% (among IPAs, PPOs, and POS plans) 2.7%-8.6%b/		0.0%-0.2%		0.1% to 0.4% (among IPAs)	uncertain	1.2%	0.5%-1.8%
Establishment and Maintenance of Health Care Provider Networks/ Due Process Provisions	5%-8% (depending on plan type)	less than 0.05%-0.1%						
Restrictions on Utilization Review	3%-5% (among HMOs)						0.1%	
Deeming Utilization Review to be Part of Practices of Medicine	2.2%-6.9%[b/]							
Prohibition of Physician Incentive Payments/No Inducement to Reduce Services (among HMOs)	3%-5%	0.0%	9.5%				less than 0.05%	
Freedom of Choice Acts	9%-16% (depending on plan type)							

Elimination of Prior Authorization for Specialty Referrals/Direct Access within Network	9%	0.0%-0.2%	0.2%			
Medical Necessity Determination	4.1%-6.1%[b/]					
Continuity of Care		minimal increase				0.2%
Mandatory Point-of-Service Option	4%-11% (among closed panel plans)	0.3%	0.3%		0.48% (assumes plan members incur higher cost sharing out of network)	0.1%
Any Willing Provider		6.6%-8.6%[b/]				
Equivalent Reimbursement Rates In and Out of Network		less than 0.5%	5.5%			
Provision of Emergency Room and Urgent Care Services with Limits on Prior Authorization	1%-3% (among managed care plans)	less than 0.05%	0.5%	less than 1%	0.11%	0.2%
Administrative Requirements			2.0%			
Elimination of Limits on Certain Benefits			5.5%			
Adverse Selection Against Rate Increases	0.1% to 0.5%	4.5%				
Access to Specialists and Standing Referrals to Specialists				0.35% choice of (OBGYNs as primary care providers)	0.02%	0.1%

Exhibit 10 (continued)
Summary Comparison of Managed Care Legislation Costs[a/]

Proposals	Barents for AAHP	Muse & Associates for PARC Alliance	Milliman & Robertson for Walmart	Lewin for President's Commission	Price Waterhouse for Kaiser Family Foundation	Coopers & Lybrand for Kaiser Family Foundation	CBO	Mercer
Minimum Stays for Mastectomies					0.01% (48-hour stays)		less than 0.05%	
Expanding Drug Formularies					less than 0.6% (among HMOs)		less than 0.05%	
External Appeals				less than 0.05% (excludes administrative costs)		0.08% (includes administrative costs charged back to plans)	0.3%	
Information Reporting & Disclosure		0.3%-1.3%		0.3%-1.3%		.08%-.4% (under PARCA and CBRR, respectively)	0.3%	

Sources: Barents Group, LLC, *The Effects of Legislation Affecting Managed Care on Health Plan Costs*, (May 1997); Barents Group, LLC, *Impact of Legislation Affecting Managed Care Consumers: 1999- 2003*, (April 1998); Muse & Associates, *The Health Premium Impact of H. R. 1415/S.644, the Patient Access to Responsible Care Act (PARCA)*, (January 1998); Milliman & Robertson, Inc., *Actuarial Analysis of the Patient Access to Responsible Care Act (PARCA)*, (November 1997); The Lewin Group, *Consumer Bill of Rights and Responsibilities Costs and Benefits: Information Disclosure and External Appeals*, (November 1997); Price Waterhouse, *The Impact of Managed Care Legislation: An Analysis of Five Legislative Proposals in California*, (November 1997); Coopers & Lybrand, LLP, *Estimated Costs of Selected Consumer Protection Proposals*, (April 1998); Congressional Budget Office, *Cost Estimate, H.R. 3605/S. 1890, Patients' Bill of Rights Act of 1998*, (July 1998); and William M. Mercer, Inc. and the American Medical Association, *Malpractice Liability Assessment Model: Estimates of the Cost Impact of Managed Care Accountability Legislation* (August 1998).

a/ Estimates of increased costs or reductions in savings rather than premium increases have been specified.
b/ Figures from Barents (1998), all other figures in the column are from Barents (1997).

References

Barents Group, LLC, Impact of Legislation Affecting Managed Care Consumers: 1999-2003, (Washington DC: Barents Group, LLC), April 1998.

Barents Group, LLC, The Effects of Legislation Affecting Managed Care on Health Plan Costs, (Washington DC: Barents Group, LLC), May 5, 1997

Chassin, Mark R., et al. "Does Inappropriate Use Explain Geographic Variations in the Use of Health Care Services? A Study of Three Procedures," Journal of the American Medical Association, November 12, 1987.

Congressional Budget Office. Cost Estimate, H.R. 3605/S. 1890, Patients' Bill of Rights Act of 1998, July 16, 1998.

Congressional Budget Office. Predicting How Changes in Medicare's Payment Rates Would Affect Risk-Sector Enrollment and Costs, March 1997.

Congressional Budget Office. CBO's Estimates of the Impact on Employers of the Mental Health Parity Amendment in H.R. 3103, May 1996.

Congressional Budget Office. The Effects of Managed Care and Managed Competition, February 1995.

Congressional Budget Office. Effects of Managed Care: An Update, March 1994.

Coopers & Lybrand, LLP. Estimated Costs of Selected Consumer Protection Proposals, (San Francisco: Coopers & Lybrand, LLP), April 1998.

Emmons, David W. The Impact of Managed Care on National Health Spending: A Critical Review of the Literature, Discussion Paper 95-2, Center for Health Policy Research, American Medical Association, June 1995.

Emmons, David W. and Gregory D. Wozniak. “Physicians’ Contractual Arrangements with Managed Care Organizations,” Socioeconomic Characteristics of Medical Practice 1997. (Chicago: American Medical Association), 1997.

Greene, Timothy, “Vulnerable Populations and Medicare Managed Care,” Report to Congress: Context for a Changing Medicare Program, Medicare Payment Advisory Commission, (Washington, DC: June 1998).

Healthcare Trends Report. Volume 11, No. 1, January 1997.

Kessler, D. and M. McClellan, “Do Doctors Practice Defensive Medicine?” Quarterly Journal of Economics, May 1996.

Lewin Group, Consumer Bill of Rights and Responsibilities Costs and Benefits: Information Disclosure and External Appeals, Presidential Advisory Commission on Consumer Protection and Quality in Health Care Industry, Final Report, November 1997.

Lewin-ICF, Estimating the Costs of Defensive Medicine, October 21, 1992.

William M. Mercer, Inc. and the American Medical Association. Malpractice Liability Assessment Model: Estimates of the Cost Impact of Managed Care Accountability Legislation, August 1, 1998.

Milliman and Robertson, Inc. Actuarial Analysis of the Patient Access to Responsible Care Act (PARCA), November 7, 1997.

Muse & Associates. The Health Premium Impact of HR. 1415/S. 644, the Patient Access to Responsible Care Act (PARCA), (Washington DC: Muse & Associates), January 28, 1998.

Norwood, Charles. Cost Study of PARCA, http://www.house.gov/norwood/Cost.html, February 28, 1998.

Physician Payment Review Commission. Monitoring Access and Financial Liability for Medicare Beneficiaries, Annual Report to Congress, 1996, 1996.

Policy Research Perspectives. "The Medicare-to-Private Payment Gap: Is Medicare the "High" Payer?" (Chicago: American Medical Association), November 1996.

Price Waterhouse LLP. The Impact of Managed Care Legislation: An Analysis of Five Legislative Proposals From California, November 1997.

Stapleton, David C. New Evidence of Savings from Network Models of Managed Care, (Washington DC: Lewin-VHI), May 1994.

Wozniak, Gregory. Review of Milliman & Robertson Analysis of the Patient Access to Responsible Care Act of 1997, (Chicago: American Medical Association), February 1998.

Wyatt Company, Cost Analysis of State Legislative Mandates on Six Health Care Practices, 1991.