RESEARCH UPDATE

June 1995

Twenty-Four Hour Coverage: Managed Medical Care in Workers' Compensation

Evaluating Potential Sources of Costs and Savings

Significant Findings

Health care reform advocates continue to propose a mandatory merger of workers' compensation medical coverage with other employment-based medical benefits as a means of paying for universal health coverage. Often labeled "24-hour coverage" plans, these proposals tend to assume savings would generate from administrative economies, a reduction of frictional costs in determining work-relatedness of the injury or illness, and lower medical treatment costs through expanded "managed care." This study, the fourth in CWCI's 24-hour coverage research series, sets the parameters for potential medical savings that could result from a mandated expansion of group medical managed care into workers' compensation. The study also discusses the public policy considerations and impediments inherent in meeting savings expectations. Principal conclusions:

- Group medical and workers' compensation systems provide distinct benefits through dissimilar delivery systems. Thus, policymakers cannot accurately predict medical treatment costs in workers' compensation based on results taken directly from the group medical system.
- A merged system could generate frictional cost savings by eliminating the need to determine the cause of an injury or illness, but the savings would be maximized only if medical entitlements were the same regardless of how the medical condition occurred. Even then, work causation may remain an issue in determining eligibility for workers' compensation disability indemnity, in directing loss control efforts, and in monitoring work injuries and illnesses.
- If workers' compensation adopted the same managed care principles common to group medical plans, employers could save $755 million to $1.138 billion per year in workers' compensation medical benefit costs. Actual savings probably would be substantially less, however, because of the many differences in benefit structure and delivery between the two systems.
- Use of medical deductibles and copayments in the California workers' compensation system would shift $250 million to $292 million in annual medical costs to employees.
- A mandatory, merged medical benefit in California could increase employment-based benefit costs $6.6 billion to $15.749 billion per year.
- The challenge to effective "24-hour coverage" medical cost controls is to design programs that will maximize medical savings potential while avoiding unintended cost increases in other benefit areas.

Preface

This is CWCI's third report on "24-hour coverage" and the fourth analysis of potential implications of combining employment-based medical coverages into a single program that would provide benefits regardless of the cause of injury or illness.

The First Report: "Framing the Issues," defined the integrated-benefit concept, and laid the groundwork for further analysis of 24-hour coverage by grouping various proposals into four basic models. The report concluded that the lack of comparable, consistent data on employment-based benefit programs in California made it impossible to analyze 24-hour coverage proposals.

To generate the necessary information, the Institute contracted with William M. Mercer, Inc. to build a comprehensive database encompassing both occupational and nonoccupational health and disability benefits provided to California employees and their dependents. Mercer developed four interactive databases describing: (1) California employers by size, industry and location; (2) the coverage, cost and structure of current group medical benefits provided to California employees and their dependents; (3) the cost of workers' compensation medical benefits, indemnity payments and expenses; and (4) other nonoccupational disability benefit systems providing income and wage replacement benefits to employees in California.

Mercer analysts used the databases to construct a financial model of existing benefit systems, then incorporated alternative proposals into the model to assess the economic and financial impact of specific changes on various stakeholders (e.g., employers, employees and taxpayers).

The Second Report: "Mandating Medical Coverage for California Employees" used the benefit databases and modeling capability to estimate the cost of mandatory nonoccupational medical coverage for all California employees and their dependents. Any mandatory, 24-hour coverage plan must provide nonoccupational medical care to all employees, otherwise there is nothing to "integrate" with workers' compensation.

The second study created a de facto 24-hour coverage program based on mandatory, nonoccupational medical benefits for employees and their nonworking dependents. In this model, uninsured employees and their dependents were covered, costs for workers who now buy their own coverage were paid by employer-sponsored medical plans, and medical coverage provided through public assistance programs shifted to employment-based systems.

The study found that mandating medical coverage for all California employees and their dependents would increase employment-based medical costs $8 billion to $16.9 billion, depending on the assumptions. The high-end estimate assumed there would be no offsetting tax decreases because of savings to publicly provided health programs, and no price reductions in group health coverage to reflect elimination of "bad debt" write-offs. Applying the high-end estimate, the total bill for employment-based medical coverage would jump to $50 billion, more than 50 percent above estimated 1994 costs. The low estimate assumed that all the savings in public health programs and "bad debt" writeoffs would be reflected in reductions from 1994 costs.

The analysis showed the cost impact would not be distributed uniformly among California employers. Small businesses and employers in industries that rely on part-time and seasonal workers — those less likely to provide coverage currently — would bear the greatest increases.

In addition, some small business employees and workers in less mature industries often receive medical benefits as dependents through family coverage provided by an employer other than their own. This dependent-coverage option produces cross-subsidies — large employers subsidizing small firms, and mature industries such as manufacturing and transportation subsidizing retail trade and agriculture, where employment is less stable.

This model eliminated the subsidies by requiring each employer to provide health coverage for its own employees. The study estimated that without the subsidy, medical costs for employers that are less likely to provide coverage would be two to three times current levels. Small businesses (those with less than 100 employees) would incur almost two-thirds of the $16.9 billion increase — nearly $12 billion.

The Third Report: "Medical Benefit Delivery — Group Medical Versus Workers' Compensation in California" technically was not part of the 24-hour coverage series. However, the study contributed empirical data to help policymakers estimate the likely effect of nonoccupational managed care techniques on workers' compensation medical and disability costs.

Work injuries and illnesses involve more frequent treatment and more intensive care than nonoccupational injuries and illnesses, so medical payments for treating similar conditions average 21 percent more in workers' compensation than in group medical. On the other hand, group medical treatments extend 78 percent longer than workers' compensation treatments — an apparent tradeoff between time and intensity of care. These results raise the issue of whether introducing traditional group medical managed care techniques into workers' compensation would extend duration of medical care, as well as disability payments. A final answer can only come with more research.

This Report evaluates the potential cost and savings of imposing managed care techniques and benefit design and delivery mechanisms from group medical on statewide workers' compensation medical costs. The report also reviews the pros and cons of attributing savings to other sources (e.g., reduced administrative expenses and elimination of the frictional costs of determining the cause of injury or illness) and highlights policy implications of merging occupational and nonoccupational medical coverages into a 24-hour medical benefit model.

Background

The Context — For more than 50 years, public policymakers have debated the means, wisdom, effectiveness and feasibility of merging various employment-based medical benefit systems into a single program, providing medical treatment for an injury or illness regardless of cause.

Originally, some observers saw combined coverage as an attractive, voluntary product that would allow a single source to deliver benefits. A single administrator providing all medical benefits eliminates double-dipping by providers or claimants and creates operational efficiencies by consolidating an employee's medical records and treatment in one place. Other savings could result from issuance of a single policy — or package of policies — providing treatment through the same network for greater economies of scale; the elimination of subrogation and cross-collection of repayments from the ultimate payer; and enhanced competitiveness and marketing capabilities. Advocates of a merged system also anticipated reduced medical costs, premised on greater leverage with medical providers and the ability to coordinate all medical services to emphasize health, wellness and prevention programs.

Legal Impediments — Despite marketing efforts by some insurers, voluntary coordinated programs never matured into an established insurance product. Customer acceptance lagged because of the legal roadblocks facing voluntary merger. Absent explicit statutory sanction, voluntary coverage coordination struggled to cope with different medical and cash entitlements and benefits. Some benefits were defined by statute, others were not, depending on the cause of the injury or illness — a distinction that had to be maintained in any voluntary program.

Coordinating workers' compensation with group medical coverages and attempting to construct a common delivery mechanism for the two systems faced many hurdles. Different entitlement requirements, use of different providers and provider types, Employee Retirement Income Security Act (ERISA) requirements of separate workers' compensation administration to avoid federal preemption, conflicting reimbursement schedules, limited data processing and retrieval technology, various copayment requirements and differing dispute resolution systems virtually demanded separate administration of the two systems.

Recent Interest — Despite past difficulties, 24-hour medical coverage has emerged as a key public policy issue as policymakers search for ways to reduce medical costs and extend health coverage to more of the population. Several recent proposals —the Clinton Administration's national health care reforms, the California single-payer initiative and former California Insurance Commissioner John Garamendi's 24-hour merged-medical plan — included mandatory universal health coverage provisions. But each proposal incorporated unique approaches to coordinating or integrating medical coverages with workers' compensation, and a variety of financing and benefit delivery options.

What Is "24-Hour Coverage?" — Workers' compensation was the original social insurance program enacted in the United States. It provided medical and disability indemnity benefits for work-related accidents, injuries and illness. As additional statutory and contractual benefit programs emerged over succeeding decades, they focused principally on areas not covered by workers' compensation. Generally such benefits were not coordinated, letting workers' compensation stand alone.

As a result, attempts to bring workers' compensation into closer harmony with other benefit programs under the general rubric of 24-hour coverage

have tried to incorporate many different benefit schemes, often leading to massive confusion. Some of the dichotomous options only uncomfortably embraced within the phrase "24-hour coverage" include whether the anticipated merger is statutory or contractual; whether the benefits are identical or vary depending upon cause; whether merged programs encompass the entire population or only employees and dependents; and whether the proposal contemplates merging all disability and medical benefits into a single program or whether it should focus on medical benefits alone.

To understand the context and relevance of this study, definitions need to be explicit. This study deals only with the cost and savings effects of *mandating* merged coverage of group medical and workers' compensation medical for workers and dependents — a concept we call "integration" of medical benefits. The savings analysis is not focused on merger of medical benefits under voluntary or contractual programs, a concept we call "coordination" of benefits. The coordinated benefit concept is being actively pursued without legislation, not only in California but in many other states.

However, in designing integration plans, policymakers still face many key issues. Should the proposal cover dependents? Will benefits differ depending upon cause? Should the plan merge only medical coverages or all benefits? This study examines the practical and public policy effects of including different options within an integrated benefit scenario — including the impact on costs, savings and the predictability of result.

View From The Platform

Proponents of merging workers' compensation and group medical cite three primary sources of savings from the merger:

- ❑ Administrative efficiencies and economies of scale gained from providing all medical treatment through one network;
- ❑ Reduction of frictional costs in determining the work-relatedness of the injury or illness; and
- ❑ Lower medical treatment costs through the adoption of group medical "managed care" principles — deductibles, copayments, and provider restrictions — in workers' compensation.

Administrative Efficiencies: Advocates of 24-hour coverage base some of the anticipated savings on the economies of scale and more efficient benefit delivery because all treatment would funnel through a single medical network. Expected efficiencies include retention of all medical records at a single location, greater bargaining leverage for provider discounts, and savings in sales and service expense per unit through increased volume. Integration proponents also believe additional savings will result as employees gain confidence in the fairness of their workers' compensation treatment because they would use the same physician for all injuries or illnesses, regardless of cause.

In contrast, under the current system the physician who treats a work injury also coordinates the disability determination with a claims administrator. Both have the information and records necessary to furnish optimal medical treatment to reduce disability and to make well-informed disability eligibility determinations. But, integration of medical treatment in a single network, regardless of the cause of injury, could separate the medical treatment of work injuries from the determination and payment of disability.

If the administrator who manages the disability does not also manage medical care, the new system must develop new channels for exchanging information and records, and for decision-making. Worse, medical providers and those who pay the bills could ignore the effect of treatment decisions on disability. (See "Medical Benefit Delivery — Group Medical versus Workers' Compensation in California," California Workers' Compensation Institute, 1994.)

Frictional Cost Reduction: 24-hour coverage advocates believe eliminating the need to determine causation when providing workers' compensation medical treatment would reduce frictional costs (including litigation), simplify procedures, and trim administrative expense. They argue that currently, the two medical delivery systems do the same thing in the same way (i.e., provide medical treatment for injury and illness through hospitals, doctors and utilization of medical technology).

Proponents of a merged system say a more "logical" approach is to provide treatment regardless of the cause of the injury or illness. Assuming seamless medical benefits for work and nonwork injuries and illnesses, claims could be paid upon verification of employment. Employers still would pay the costs, but could save money now spent making the work/non-work determination.

This argument may have merit for the two-thirds of all workers' compensation cases that involve no indemnity payments. (Table 1.)

Table 1: Workers' Compensation Claims by Injury Type

Injury Type	Number of Claims	As % of Medical Losses	As % of Total # of Claims
Death	360	0	0
Permanent Total Disability	132	5	0
Permanent Partial Disability	112,230	71	15
Temporary Total Disability	142,462	14	19
Medical-Only	495,677	10	66

(Source: WCIRB 1992 Policy Year 1st Reports)

However, there are at least two key issues in predicting the administrative savings actually available from an integration of medical benefits.

First, medical-only claims in California account for only about 10 percent of workers' compensation medical losses and about 5 percent of total benefits.[1] Medical-only claims represent proportionally even less in expense because they rarely (if ever) are litigated and are the simplest type of claim to adjust. Thus, savings from these claims would be minimal.

On the other hand, 34 percent of California workers' compensation claims involve indemnity payment for temporary and permanent disability or death benefits.[2] These claims account for 95 percent of total benefit costs. Even if a merged system provided medical benefits without considering cause, entitlement to indemnity payments would remain a powerful incentive to allege — and subsequently litigate — the issue of work-relatedness. In some cases, the decision to allege job injury could depend upon the level of nonoccupational disability benefits and sick leave available (or not available) to the employee.

Indemnity claims require proportionately more expense because of the complexity surrounding benefit determination and payment. Unlike medical-only claims, more than half the indemnity claims in California are litigated — usually over such issues as extent of permanent disability or work causation. Litigation is expensive. For example, Institute research estimates that for cases resolved in 1992, litigation costs reached $2.2 billion, nearly $8,600 per contested case.[3]

Although entitlement to medical treatment regardless of cause may decrease litigation in some cases, any administrative savings must be offset against the new cost of requiring employment-based nonoccupational medical coverage where it is not now provided. For example, in the current system a worker with no group medical coverage may allege a workers' compensation injury to secure treatment for a condition only marginally connected to work (e.g., a congenital back condition where some bending and lifting is required on the job). Typically in California, if an employer contests such an injury, the worker hires an attorney who also will assert permanent disability so that the attorney's fee will be paid out of the workers' compensation award. In a merged medical system, the worker could receive treatment automatically, eliminating the need for attorney involvement and the permanent disability allegation, but with savings offset by any new premium cost for group medical coverage.

There is a second critical issue for policymakers to consider in assessing the potential for administrative savings. Eliminating the work causation test (even for medical-only claims) will generate administrative savings only if there is no difference in medical benefits, entitlements or cost sharing in the workers' compensation and group medical systems. Otherwise, establishing work causation still would be necessary to provide appropriate medical care, physician choice, and co-payment or deductible options.

The Institute's August 1994 report "Medical Benefit Delivery — Group Medical Versus Workers' Compensation in California" discussed differences in medical benefit delivery in the workers' compensation and group medical systems. The report noted that the group medical system tends to utilize relatively low-intensity, longer-duration treatment managed by a primary care physican/gatekeeper, in contrast to relatively frequent, high intensity, short-duration treatment managed by medical specialists in workers' compensation.

Entitlement to identical medical benefits may not eliminate the need to determine the cause of injury. For example, employers still would need to report work injuries for safety enforcement purposes. Eliminating work injury reports or removing medical-only claims from the workers' compensation reporting system and experience rating

1 WCIRB 1992 Policy Year 1st Reports

2 Ibid.

3 "Litigation in California Workers' Compensation - The Redistribution of Costs and Benefits," California Workers' Compensation Institute, November 1993.

could diminish work safety incentives, loss prevention, and work-injury monitoring efforts.

These offsetting considerations limit the potential administrative cost reductions that could be gained by eliminating the need to determine work-relatedness. Work causation would remain an issue in most indemnity cases — claims that account for 95 percent of the workers' compensation loss dollar and an even greater share of expenses. Without real-world examples or experience on which to base a merged medical model, it is difficult to quantify potential frictional cost savings more precisely. The assumptions required to create such a model would become much more important than the data.

Reducing Medical Costs: Discussions about 24-hour coverage generally assume the introduction of managed care principles currently applied in the group health system would reduce workers' compensation medical costs. Empirical studies from Florida[4] and Minnesota[5] found some treatment costs are 20 to 40 percent higher in workers' compensation, and many observers believe recent slowdowns in the growth rate of group medical costs are a direct result of managed care initiatives.

The integrated health care database developed by Mercer allows the Institute to create any number of medical treatment models by plugging in specific assumptions. The Institute can use these models to evaluate and compare the economic impact of various 24-hour proposals. The ultimate value of constructing the databases is the variety of proposals that can be tested using different hypotheses and assumptions. To estimate the impact of group medical-style managed care delivery on workers' compensation treatment costs, Mercer and the Institute assumed the managed care techniques and delivery system found in the existing California fee-for-service and preferred provider organization group medical system would be used to treat work injuries. Mercer analysts recalculated workers' compensation medical payments to show how much would have been paid if the claims had been subject to deductibles, co-payments, group-medical patterns of choice of provider plans, and limitations on access to various specialties.

Mandating Group Medical Managed Care in Workers' Compensation

Table 2 summarizes the significant differences between group medical and workers' compensation medical benefits. To develop a model of an integrated system the Institute used characteristics from each system (underscored on Table 2).

Table 2: Group Medical vs. Workers' Compensation Medical

Group Medical	Workers' Compensation Medical
Voluntary, contractual system	Mandatory, statutory system
Deductibles, coinsurance, copayments, premium costs may be shared by employers and employees	First-dollar coverage, paid 100% by employer
Limits on some benefits	Unlimited benefits
Restricted provider choice	Unrestricted provider choice after a limited initial period
Rates based on treatment expected to be received during the year; rates quoted as a monthly amount per covered life	Rates based on all treatment associated with an injury or illness which occurs during the year (i.e. covers treatment in future years); rates quoted as a percentage of payroll
Numerous benefit designs	One state-mandated benefit design

Because group medical is about ten times as large as the workers' compensation medical system, the Institute resolved other significant differences between the two systems by making workers' compensation medical delivery conform to the group medical characteristics.

The Institute model made several other assumptions:

- To reduce incentives to shift from one system to another, the merged system mandates group medical coverage for nonoccupational injuries and illnesses for all employees and their dependents.
- If a deductible applies to medical benefits, any unused portion of the deductible would apply to workers' compensation medical claims.
- The worker would choose the same health plan for workers' compensation medical and group medical benefits.
- Liability for workers' compensation medical-legal benefits — forensic medical testimony to resolve disputed medical issues — would remain the responsibility of the workers' compensation insurer.

4 "Workers' Compensation Managed Care Pilot Project, The Team Program," Milliman & Robertson, Inc., under the direction of the Florida Department of Insurance, April 1993.

5 "Industrial Strength Medicine, A Comparison of Workers' Compensation and Blue Cross Health Care in Minnesota," Brian Zaidman, Minnesota Department of Labor & Industry, 1990.

Paying Workers' Compensation Under Group Medical Managed Care

Model results are based partially on an ongoing Institute study and research methodology, reported in the Institute's August 1994 report on medical benefit delivery. That study compared patterns of treatment for workers' compensation injuries to patterns of treatment for the same injuries in the group medical system on a number of dimensions: medical prices, utilization patterns, types of services and provider categories. The study also compared medical treatment patterns in the two systems during a 21-month period of 1990 and 1991. The sample included only claims that opened and closed during the period.

Mercer and Institute analysts developed average costs per case for workers' compensation and group medical for each injury or illness type in the study, then used the group medical cost averages to "re-pay" the workers' compensation medical treatment costs. Under the common deductible assumption, if an employee fulfilled the deductible under the group medical plan, no further deductibles would be required under the recomputed workers' compensation medical payments.

If workers' compensation cases had precisely the same characteristics as group medical cases after adjusting for diagnostic type — including injury severity — the 1994 study estimated overall workers' compensation medical treatment costs would decline 17 percent. Because the savings are based on closed claims, if more serious, long-term medical cases show different costs in the two systems, that difference is not reflected in this analysis. One premise examined in this analysis is that bringing group medical managed care techniques and principles into workers' compensation would net a similar reduction in workers' compensation medical costs if all other aspects of workers' compensation are similar.

Apparent Similarities Mask Differences — Comparing costs under the two systems masks many of the differences between workers' compensation and group medical delivery discussed in the Institute study. The group medical system in a fee-for-service (FFS) or preferred provider organization (PPO) setting delivers a different medical care product than workers' compensation:

- The mix of injuries and illnesses treated in group medical is different than in workers' compensation, so a different treatment network expertise is needed. For example, musculoskeletal conditions account for two-thirds of workers' compensation injuries compared to only 10 percent in group medical. Likewise, 20 percent of workers' compensation treatment expense is for minor wounds and injuries, versus only 1 percent in group medical.
- Treatment management differs. Many group medical networks rely on "primary care" providers to manage treatment, while workers' compensation uses more specialists. For non-hospital treatment, 44 percent of group medical physician payments go to primary care physicians, while specialists receive only 7 percent. In workers' compensation, primary care physicians receive one third of non-hospital treatment payments and specialists get 19 percent. On the other hand, non-treatment consultations comprise only 2 percent of non-hospital procedure payments in group medical, compared to 11 percent in workers' compensation.
- Chiropractors in group medical account for 17 percent of medical payments versus 9 percent in workers' compensation.
- In cases where the patient is hospitalized for at least one day, the two systems pay about the same amount, but costs are distributed differently. Hospital costs are 19 percent higher in group medical than in workers' compensation —primarily due to greater length of stay — but outpatient and physician costs are 40 percent lower. This suggests workers' compensation substitutes outpatient care for hospitalization, perhaps because insurers believe it is easier to manage disability and return-to-work outside a hospital setting or, alternatively, because physicians prefer an outpatient setting where there are fewer utilization controls.
- Price per medical service averaged 25 percent less in workers' compensation than in group medical. Much of this difference may stem from the workers' compensation treatment fee schedule, which was unchanged from 1987 to 1994. Recent fee schedule revisions allow a higher average payment for most procedures listed in the old schedule, but also bring newer procedures under the fee schedule for the first time.

- Workers' compensation utilization is significantly greater by every measure of intensity of medical services.
- 41 percent of group medical cases involve only one visit to the physician, compared to 30 percent of workers' compensation cases. Group medical's co-payment and deductibles may discourage effective medical use and instead substitute time for treatment. On the other hand, it may be that copayments and deductibles would discourage over-utilization of medical services by employees with work-related injuries.
- Duration of treatment is 78 percent longer in group medical than in workers' compensation. This may be a result of managed care techniques that substitute time for intensity of medical treatment. Does duration of treatment extend the period of disability? If so, any savings generated by managed care could be offset by higher indemnity costs. Future Institute research will examine the relationship between medical care and disability.

Contractual Versus Statutory — The voluntary, contractual nature of group medical benefits also contrasts with the statutorily mandated workers' compensation system. Workers' compensation is designed to protect the rights and interests of individual workers and employers through due process and the California Constitutional mandate of "substantial justice." In group medical, however, benefits are contractual — adopted and changed by agreement of the parties — and enforcement is limited to action on and under the contract. Generally, contracts are designed to protect group rights through efficient mechanisms such as binding peer review and binding dispute resolution, though the focus on group rights is tempered by fiduciary responsibilities that require group plans to protect the individual member's rights.

The fact that group medical and workers' compensation benefit delivery are premised on two radically different foundations —contract versus statute — may account for some of the difference in system cost. As a result, several factors could limit the savings that might be generated by imposing group medical cost containment techniques in workers' compensation:

- The "liberal construction" doctrine of California workers' compensation requires the law be liberally construed to extend workers' compensation benefits. Savings might be lower than estimated because cost containment in a workers' compensation setting is likely to be judicially restrained.
- Litigation is higher in workers' compensation because of legal, due-process considerations. The introduction of group medical cost containment techniques might increase friction and generate more burdensome litigation.
- California law requires that workers' compensation must provide medical treatment "reasonably required to cure or relieve from the effects of the injury." By contract, group medical coverage provides only "medically necessary" treatment. These disparate standards could result in different levels of medical treatment, depending upon which system is responsible for the care.
- In a voluntary system, insurers/providers control the patient population and refuse coverage for those with preexisting conditions or who are poorer health risks. Because workers' compensation is mandatory, employers take workers as they find them, including all known and unknown infirmities. The only restriction on workers' compensation coverage is that the beneficiary must be working.
- In a contractual system, the benefit package can be designed to control costs and be modified to reflect new cost concerns. Statutory benefits are more difficult to change, since change would require legislative action.
- The statutory workers' compensation system is regulated by administrative audits, numerous sanctions, judicial review, and mandatory employer agreement on how a claim is resolved. As a contractual system, group medical is largely unregulated, and the network's decisions often are binding and usually go unchallenged in court. Where statutory "rights" are involved, administrative and judicial oversight will increase administrative costs, impair efficiency and increase disputes.
- If medical entitlements in workers' compensation are curtailed by managed care, regulators and the courts could respond by

awarding additional disability payments to compensate injured workers for what is viewed as an inadequate medical benefit.

Such a different medical care product inserted into workers' compensation claims management would likely produce unexpected results. Differences in both the nature of the medical services and the delivery systems make it less likely group medical managed care principles would yield equivalent savings in workers' compensation.

Range of Results — The data on group medical claim costs analyzed for this model came only from FFS and PPO plans. To derive the "low estimate" of maximum cost savings that managed care could generate (Table 3), the researchers used the cost difference between workers' compensation medical and the FFS/PPO plans, along with assumptions about reduced chiropractic and physical medicine utilization resulting from use of health maintanence organizations (HMOs) and point-of-service (POS) plans.

Preliminary data indicate HMO and POS plans would net the greatest savings if workers chose these highly-managed treatment settings to provide workers' compensation medical care. There are no reliable data on cost differences between HMO and FFS plans in workers' compensation, so Mercer assumed lower costs generated by POS and HMO plans in group medical would be the same in workers' compensation, then used the greater savings assumptions to derive the "high" estimates in Table 3.

For example, current HMO hospital rates are 52 percent of FFS hospital rates, so if workers' compensation hospital costs increase 4 percent when merged into an FFS group plan, the model projected these costs would decrease 46 percent [1 - (1.04 x .52)] when merged into an HMO plan.

Table 3: Expected Changes To Workers' Compensation Medical Costs By Plan Type

Type of Medical Service	Low Estimate	High Estimate
Inpatient & Outpatient Hospital	4% increase in costs for all plan types	FFS/PPO 4% increase POS 30% decrease HMO 46% decrease
Physician	37% decrease in costs for all plan types	FFS/PPO 37% decrease POS 42% decrease HMO 49% decrease
Chiropractic and Physical Therapy	FFS/PPO 17% decrease POS 33% decrease HMO 40% decrease	FFS/PPO 17% decrease POS 47% decrease HMO 60% decrease

For purposes of the model, the Institute estimated California's workers' compensation medical losses at $3.389 billion in 1994 (excluding medical-legal costs). According to the Institute model, applying medical managed care principles in determining workers' compensation medical payments would reduce employers' costs between $755 million and $1.138 billion in 1994 due to changing patterns of treatment and utilization differences (including a significant reduction in chiropractic coverage when HMOs are used).

Individuals who pay a portion of their medical costs consume fewer medical services than individuals who pay nothing, so some of the cost difference between workers' compensation and group medical is due to the impact of deductibles, coinsurance, and copayments on utilization. Although a few states are testing mandatory employee copayments in limited circumstances, outside of this handful of pilot programs, no state requires employees to pay deductibles or copayments for workers' compensation medical treatment. In California, recent legislative enactments authorizing experiments with 24-hour pilot programs, workers' compensation health care organizations or negotiated alternatives to workers' compensation specifically prohibit worker copayments and deductibles.

Cost Shifts To Employees — In addition to the utilization effects of managed care, applying deductibles, coinsurance, and copayments to workers' compensation medical costs would shift some of the cost burden from employers to employees.

To estimate the extent of cost shifts to employees under a "managed care" workers' compensation system, the Institute used projected cost data from an earlier Mercer study on the financial impact of applying deductibles and coinsurance to workers' compensation claims.[6] In that study, Mercer combined 1991 group medical and workers' compensation claims for two large employers, then recalculated payments to reflect the reimbursements that would have been made if all the claims were paid under the group medical policy, using a common deductible.

The study estimated merging workers' compensation medical into a group medical HMO would shift 10 percent of employer costs to employees, compared to 11 percent if the merged plan is a

6 "The Impact of Cost Sharing on Medical Payments for Workers' Compensation Claimants, Including Integration With Employer-Sponsored Group Medical Plans," Taylor Dennen, William M. Mercer, Incorporated, The Journal of Workers' Compensation, Spring 1993.

PPO, 12 percent if it is a POS plan and 16 percent if it is an FFS plan.

Introducing group medical managed care into workers' compensation would shift $251 million to $292 million in treatment costs to employees. These cost shifts would narrow if utilization declines as employee costs increase. However, because the estimates represent simply a reallocation of the financial burden from one party to another, the analysis did not treat the cost shifts as reductions in treatment expense.

Table 4: Impact of Group Medical Managed Care Principles In California Workers' Compensation

(Millions)	Low Savings Estimate	High Savings Estimate
Projected 1994 workers' compensation medical losses under the current system	$3,389	$3,389
Projected cost after applying managed care techniques	$2,634	$2,251
Estimated costs shifted directly to employees (e.g. introducing deductibles)	($292)	($251)

The projected cost reductions depend upon the willingness of policymakers to impose deductibles and copayments for workers' compensation medical services, and to restrict the employee's choice of provider and other services available under workers' compensation (e.g. chiropractic care). This scenario may not be politically feasible. Employees are likely to resist a shift away from first-dollar coverage, arguing that a transfer of full liability for medical treatment to the employer is an essential part of the compensation bargain. Cost-sharing by employees would be a step back to the 1970s when a number of states limited medical benefits by imposing dollar or duration caps.

Pay-As-You-Go Versus Full Funding — Workers' compensation and group medical coverages are financed on completely different bases. State law requires workers' compensation insurers to charge a premium that is adequate to pay all medical expenses to cure or relieve from the effects of a work-related injury or illness incurred during the year the policy is in effect — regardless of when in the future treatment is rendered. In contrast, group medical premiums only cover medical costs incurred while the policy is in effect.

The group medical contract makes it far easier for insurers to predict medical losses that must be covered by the annual premium. Group medical insurers maintain reserves against future liabilities only for the policy period, and they usually need only concern themselves with one year's obligations in assuring solvency and rate adequacy.

On the other hand, the workers' compensation insurer is financially responsible for all payments, even if the insurer no longer insures the employer or if the employee is no longer working. Workers' compensation insurers also must maintain adequate reserves for all anticipated future treatment costs resulting from injuries that occurred during the policy period. Medical costs in recent years have increased at hefty annual rates, so loss reserves also must include inflationary costs for all future medical treatment.

After recalculating California workers' compensation medical payments to test the impact of group medical managed care principles, Mercer analyzed the effect of funding the resulting medical portion of workers' compensation in the same manner as group medical. The transition from a fully-funded system to a pay-as-you-go program would produce a substantial one-time difference in annual costs (Table 5).

Table 5: Impact of Converting to a Pay-As-You-Go Treatment-Based System

(Millions)	Low Savings Estimate	High Savings Estimate
Projected 1994 workers' compensation medical losses under the current system	$3,389	$3,389
Projected costs after managed care and cost-shifting to employees	$2,342	$2,000
Converting the workers' compensation medical costs (as paid under group medical principles) to a treatment-based rating system (i.e. pay only for treatment received during the year)	($892)	($762)

However, converting incurred workers' compensation medical costs to a treatment-based financing system would not reduce medical treatment costs. Instead, 1994 injury and illness costs would merely shift to future years as the need for medical treatment arises. Because the ultimate cost of medical treatment would be the same in both systems, the Institute analysis did not consider transient financial impacts such as cost shifting to be reductions in the cost of medical treatment.

Financing workers' compensation through a treatment-based system such as group health would avoid the administrative cost of establishing and maintaining accurate, long-term loss reserves. However, changing from an occurrence-based financing system to a treatment-based system cre-

ates additional obstacles in the Institute model. Under the pay-as-you-go, treatment-based scenario, if an injured worker leaves California or is no longer employed, there would be no continuing, mandatory medical benefits available. Instead of the employer or insurer bearing the financial risk for future medical care necessary to treat the current year's injuries, liability for future benefits would shift to future employers, or to the employee or government if the worker is no longer employed.

Thus, unlike today's workers' compensation system, a worker needing on-going or future treatment for an existing work-related injury or illness would not be guaranteed treatment under the model's medical coverage provisions. Legislators could provide for payment under special fund arrangements, but creating and evaluating such a structure is beyond the scope of this research.

Plans mandating universal coverage — not just employment-based medical coverage — would not encounter this obstacle, but would incur the higher aggregate cost of mandatory, nonoccupational medical coverage.

Another issue associated with changing to a treatment-based financing system is the potential erosion of financial incentives for employers to maintain a safe workplace. Generally speaking, in workers' compensation the cost of industrial injuries and illnesses is charged back, both to the specific industry and to the individual employer, through the rate-making mechanism — including experience rating of larger individual risks. Employers with favorable loss experience compared to others in their industry enjoy lower insurance rates and premiums. Employers with higher accident rates and less favorable loss experience pay higher premiums.

This charge-back mechanism in workers' compensation is a powerful financial incentive to encourage employers to engage in loss-prevention activities and create a safe working environment. The safety benefits from experience modification would be seriously impaired if policymakers opt for a treatment-based financing system that disregards whether the injury or illness is work-related — such as community rating — and that charges only part of the treatment cost to the employer at the time of injury.

Duplicate Payments — Merging medical delivery into a single system could eliminate duplicate payments which sometimes occur when a provider bills two different payers for the same treatment. According to a corresponding Mercer study, about 0.5 percent of group medical costs also are reimbursed under workers' compensation.[7] Eliminating duplicate payments would save the group medical system an estimated $185 million a year.

Summary

Institute publications on potential cost effects of 24-hour coverage in California have quantified — at least to the extent empirical data are available — several issues that arise when considering a merger of employment-based medical benefits. The first study in the Institute's series on 24-hour coverage defined and categorized various proposals. The second report built the platform — mandatory, universal group medical coverage — from which policymakers could construct and analyze a merged benefit program.

The Institute's August 1994 publication, "Medical Benefit Delivery — Group Medical Versus Workers' Compensation in California," contributed detailed information on how workers' compensation medical differs both in type and purpose from group medical benefits.

By quantifying the potential savings of paying workers' compensation medical benefits under group medical managed care principles, this report takes a major step in assessing the viability of merging employment-based coverages into a single program.

Taken together, the four reports outline many of the key issues and policy concerns decisionmakers must resolve in crafting a merged, coordinated or integrated 24-hour medical coverage proposal. The analysis shows the various merger proposals would increase employment-based benefit costs between $6.639 billion and $15.749 billion per year, depending on the specific assumptions used (Table 6 on the following page).

7 "Can Integration of Workers' Compensation and Health Benefit Programs Save Money?," Taylor Dennen, William M. Mercer, Incorporated, Risk Management, September 1992.

Table 6: Quantifiable Reductions In Medical Treatment Costs from Merging Workers' Compensation and Group Health (In Billions)		
Type of Change	**Low-End Estimate**	**High-End Estimate**
Group Medical Mandate	$7.962	$16.689
Group Medical Managed Care in Workers' Compensation	($1.138)	($0.755)
Eliminate Duplicate Payments	($0.185)	($0.185)
Total Costs	**$6.639**	**$15.749**

The first hurdle to cost-neutral expansion of medical coverage would be the cost of extending group medical benefits to all employees and dependents in California. If mandated 24-hour coverage is to be politically feasible, the costs to society must be minimized — which will require substantially greater savings than those identified thus far.

The second major challenge would be to select managed care techniques that would produce appropriate savings in whatever delivery system is chosen as the integrated-benefit vehicle without jeopardizing quality of medical care and return-to-work objectives. Assuming that savings generated in the delivery of group medical services would be similar in workers' compensation probably is not appropriate — and actual results may be very different.

The purpose of the Institute's 24-hour coverage research is to offer a tool to quantify the costs and test the feasibility of various proposals. Future Institute research will analyze the costs and other public policy considerations of combining existing disability benefits into a single program, consider the potential administrative costs and savings of merging group medical and workers' compensation coverages, and quantify the effects of separating medical treatment from the disability management function of workers' compensation. ❑

Bibliography

Employee and Payroll Data

Office of Statewide Health Planning and Development, definition of Health Service Area.

"California Unemployment Insurance Reporting Units by Size, Industry, and County," July-September 1989, 1990, 1991, and 1992; State of California Employment Development Department, Labor Market Information Division.

"California Employment, 1988," U.S. Small Business Administration, USELM Longitudinal data.

"The State of Small Business: A Report to the President, 1992," U.S. Small Business Administration, Office of Advocacy, Small Business Database, 1988-1990 ESEEM files, version 7.

Mercer's marketing database of California employers which includes data for all employers who have at least 200 employees in California.

"The UCLA Business Forecast for California," UCLA Business Forecasting Project, John E. Anderson Graduate School of Management at UCLA, March, 1993.

"California, A Statistical Abstract of Small Business," California Department of Commerce, Office of Economic Research, June 1991.

"Study 13: Expanding the Employer Provided Health Insurance System, Effects on Workers and Their Employers," Rand report on the Urban Institute's Transfer Income Model (TRIM2).

Analysis of the Current Population Survey, U.S. Department of Labor, Bureau of Labor Statistics, 1992.

Workers' Compensation Data

"Industrial Strength Medicine, A Comparison of Workers' Compensation and Blue Cross Health Care in Minnesota," Brian Zaidman, Minnesota Department of Labor and Industry, 1990.

"Workers' Compensation Managed Care Pilot Project, The Team Program," Milliman & Robertson, Inc., under the direction of the Florida Department of Insurance, April 1993.

"The Impact of Cost Sharing on Medical Payments for Workers' Compensation Claimants, Including Integration With Employer-Sponsored Group Medical Plans," Taylor Dennen, William M. Mercer, Incorporated, The Journal of Workers' Compensation, Spring 1993.

"Can Integration of Workers' Compensation and Health Benefits Programs Save Money?" Taylor Dennen, William M. Mercer, Incorporated, Risk Management, September 1992.

"Pure Premium Review Sheet," California Workers' Compensation Insurance Rating Bureau, January 1993.

"1984 Classification Description," updated to reflect the revisions in the workers' compensation class codes since 1984, unpublished.

"Occupational Employment in the State of California, All Industries, 1983 to 1985," Employment Development Department, January 1987.

"Occupational Employment Statistics, Survey Estimates 1986 and 1987, California," Employment Development Department, January 1989.

"Projections of Employment by Industry and Occupation, California, 1987-2000," Employment Development Department, January 1990.

"California Workers' Compensation Insurance Manual Revision - January 1, 1994," Workers' Compensation Insurance Rating Bureau of California, September 17, 1993.

"1992 Premiums Earned and Losses Incurred by All Property and Casualty Insurers," Insurance Journal, 1993 California Statistical Review, Volume One.

"California Workers' Compensation Insurance Manual Revision-January 1, 1993," Workers' Compensation Insurance Rating Bureau of California, September 14, 1992.

"California Workers' Compensation Insurance Manual - July 1, 1992," Workers' Compensation Insurance Rating Bureau of California, April 13, 1992.

"California Workers' Compensation Insurance Manual - January 1, 1993," Workers' Compensation Insurance Rating Bureau of California, January 1993.

"California Department of Insurance Proposed Changes to the Workers' Compensation Insurance Minimum Premium Rates - August 1, 1993," Workers' Compensation Insurance Rating Bureau of California, July 6, 1993.

"1991 California Work Injuries and Illnesses," California Department of Industrial Relations, Division of Labor Statistics and Research, 1992.

Individual Case Report Summaries - Policy Year 1988 Third Reports, Policy Year 1989 Second Reports, 1990 First Reports, Workers' Compensation Insurance Rating Bureau of California, March 1993.

Payroll data segregated by Standard Industry Classification Codes was provided by the California Office of Self-Insurance Plans for 1991 and 1992.

"Bureau Bulletin - California Workers' Compensation Policy Year Statistics," Workers' Compensation Insurance Rating Bureau of California, March 30, 1993, March 26, 1992, and March 18, 1991.

"Bureau Bulletin - Vocational Rehabilitation Benefits in California Workers' Compensation," Workers' Compensation Insurance Rating Bureau of California, March 31, 1993, March 27, 1992, and March 19, 1991.

"Workers' Compensation Litigation Costs, 1990," California Workers' Compensation Institute Research Notes, September 1991.

"Workers' Compensation Litigation Costs, 1992," California Workers' Compensation Institute, November 1993.

"California Labor Market Bulletin - Statistical Supplement," California Employment Development Department, January 1992 through December 1992.

"Physician Costs Under the Official Medical Fee Schedule," California Workers' Compensation Institute Research Update, September 1992.

"Hospital Utilization in Workers' Compensation," California Workers' Compensation Institute Research Update, April 1992.

Group and Non-Group Medical Data

"An Analysis of the Garamendi Plan for Health Reform in California," Institute for Health Policy Solutions, Conducted for the Henry J. Kaiser Family Foundation, October 1992.

"1990 California Health Care Survey," William M. Mercer, Incorporated.

"National Medical Expenditure Survey: Health Insurance, Use of Health Services, and Health Care Expenditure," U.S. Department of Health and Human Services, Agency for Health Care Policy and Research, Center for General Health Services Intramural Research, December 1991.

"Medi-CAL Services and Expenditures Month-of-Payment Report for January 1992 Through December 1992," Department of Health Services, Medical Care Statistics Section, February 1993.

"Marion Merrell Dow Managed Care Digest, HMO Edition," 1991 and 1992.

Sample individual and small group health rates provided by Blue Shield, Blue Cross, Home Life, Guarantee Mutual Life and John Alden Life.

The Foster Higgins annual survey of health care costs, 1990, 1991 and 1992.

"1989 HIAA Employer Survey"

Claim data provided by Aetna Life and Casualty for California employers with 10-49 employees for the year ending March 31, 1993.

Claim data provided by Blue Shield for California employers for the year ending June 30, 1992.

"Study 13: Expanding the Employer Provided Health Insurance System, Effects on Workers and Their Employers," The Rand Corporation report on the Urban Institute's Transfer Income Model (TRIM2).

"Group Comprehensive Major Medical Net Claim Cost Relationships by Area," Milliman & Robertson, 1991 survey of 16 national group health insurers.

Informal survey of 1993 health care rates for Mercer's California clients to verify the reasonableness of the rates used in the model, unpublished.

1992 Annual Insurance Filings for Aetna, AIG, Connecticut General, Hartford, John Alden, MET, Mass Mutual, Northwestern National Life, Prudential and Travelers.

"Employer-Based Health Insurance: High Costs, Wide Variation Threaten the System," Congressional Research Service, GAO Report, September 1992.

"Marion Merrell Dow Managed Care Digest, PPO Edition," 1989-1992.

Annual Summary Report from the Group Health Association of America, 1990, 1991, and 1992.

"An Evolving Tax Trap: HMOs and Self-Funded Plans," David J. Thomsen, Compensation and Benefits Management, Vol. 8, No. 1, Winter 1991.

"Enrollment in Alternative Delivery Systems," Employee Benefit Research Institute Issue Brief, 1989.

"Employee Benefits in Small Private Establishments," U.S. Department of Labor Statistics, 1990.

"1988 Group Benefits Survey," The Wyatt Company.

"Californians Without Health Insurance, A Report to the Legislature," E. Richard Brown, et. al., School of Public Health, University of California, Los Angeles, September 1987.

"Sources of Health Insurance and Characteristics of the Uninsured; Analysis of the 1991 Current Population Survey," Employee Benefit Research Institute.

Client Comparative Summary," William M. Mercer, Incorporated, 1990 and 1991 CHAMP(trademark) data reports, unpublished.

"Features of Employer-Sponsored Health Plans," Employee Benefit Research Institute Issue Brief, August 1992.

"Enrollment in Alternative Delivery Systems," Employee Benefit Research Institute Issue Brief, August 1989.

"HMO Market Penetration in the 54 Largest Metropolitan Statistical Areas, 1991," Group Health Association of America.

"Sources of Health Insurance and Characteristics of the Uninsured, Analysis of the March 1991 Current Population Survey," Employee Benefits Research Institute Special Report, February 1992.

"The Impact of Medicaid and Medicare On National Health Care Expenditures," Council for Affordable Health Insurance, April 1993.

List of enrollees for the top 25 HMOs and the top 25 PPO/POS plans in California, California Association of HMOs, California Department of Corporations, California Business, October 1992.

Group Disability Data

"Employee Benefits Survey Data From Benefit Year 1989," U.S. Chamber Research Center.

"Employee Benefits Survey Data From Benefit Year 1991," U.S. Chamber Research Center.

"Employer Costs for Employee Compensation - March 1992," U.S. Department of Labor, Bureau of Labor Statistics.

"Group Insurance," William F. Bluhm, 1992.

"California Statistical Abstract, 1992." California Department of Finance, Financial and Economic Research Unit, November 1992.

"Employer Costs for Employee Compensation - March 1992," U.S. Department of Labor, Bureau of Labor Statistics, June 29, 1992.

"Employer Costs for Employee Compensation - March, 1993," U.S. Department of Labor, Bureau of Labor Statistics, June 18, 1993.

Workers' Compensation Insurance Rating Bureau model for determining a distribution of payroll.

About CWCI

The California Workers' Compensation Institute was incorporated in 1964 as a private, nonprofit organization working to improve the California workers' compensation system through four primary functions: research, education, information and representation.

Institute members include workers' compensation insurers and self-insured employers. Most CWCI research is based on operating data collected from member companies specifically for the Institute.

CWCI Research Updates are published by the California Workers' Compensation Institute, 120 Montgomery Street, Suite 1300, San Francisco, CA 94104 (415) 981-2107.