

Injured Worker Satisfaction with Care in a 24-Hour Pilot Program

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Division of Workers' Compensation
California Department of Industrial Relations

Background: In 1992, the California legislature directed the state Division of Workers' Compensation to conduct a 3-year 24-hour health care pilot program (Labor Code 4612). In 24-hour care, workers receive all their medical care from a single source, regardless of the causation of the injury or illness. The pilot program was intended to determine whether or not 24-hour care could reduce costs (through administrative efficiencies and reduced cost-shifting) and improve quality of care (through better access and continuity). In the 24-hour pilot, employers could contract with a state-licensed HMO to be the exclusive provider of medical treatment for occupational and non-occupational injuries and illnesses for enrolled employees. Employers choosing to participate in pilot programs were required to make group health coverage available to employees and their dependents. Employees who chose to enroll in the 24-hour program would receive all medical care for work injury from the 24-hour provider for one year after the date of injury.

In 1993, amended legislation mandated the Division of Workers' Compensation to conduct a comprehensive evaluation of the 24-hour health care pilot, including assessment of medical, indemnity and administrative costs, enrollment patterns, work and litigation outcomes, and employee satisfaction. This study was conducted to fulfill the legislative requirement to assess patient satisfaction with care in the 24-hour pilot; other researchers are analyzing the impact of the 24-hour pilot on medical and indemnity costs. The study was funded through a grant from the Robert Wood Johnson Foundation Workers' Compensation Health Initiative.

The pilot program was initiated in 1994; four pilot plans were approved. At its peak, the pilot program included 65 employers and nearly 8,000 enrolled employees, of which nearly all were enrolled in two 24-hour programs (northern and southern California) offered by Kaiser-Permanente, the state's largest health maintenance organization. Only Kaiser group health plan members were able to participate in the pilot. Self-insured employers and insurance carriers paid a monthly capitated rate for each participating employee. Kaiser provided both occupational and non-occupational medical services to enrollees, but through separate treatment facilities. Workers' compensation medical services were provided through Kaiser's Occupational Medicine programs - Kaiser On-The-Job. This evaluation of patient satisfaction was limited to Kaiser 24-hour enrollees.

Methods: The Division of Workers' Compensation (DWC) contracted with the University of California, Berkeley, Survey Research Center (SRC) to develop and pilot-test a standardized questionnaire (see DWC Technical Report: "What do Injured Workers Think About Their Medical Care?" at: <http://www.dir.ca.gov/DWC/survrpt.pdf>); SRC revised and re-formatted the questionnaire, and administered the survey by telephone. Monolingual Spanish-speaking respondents were referred for Spanish-language interview; other non-English speaking respondents were excluded.

The survey sample included injured workers who received medical care through Kaiser's 24-hour pilot program; the comparison group sample included injured workers who received care through a certified workers' compensation Health Care Organization, several large self-insured employers, or two large managed care organizations who provide care on contract to workers' compensation claims administrators.

Samples from each organization were selected at random. Although the initial intent was to only survey workers whose injury had occurred 6-8 months prior to the interview, the small number of cases in the 24-hour pilot and HCOs required that cases injured earlier be included for those groups. The comparison group also included Kaiser patients who were not 24-hour enrollees. These non-24 hour Kaiser patients differed from 24-hour Kaiser patients in the length of employer control over medical treatment (30 vs. 365 days), and the mechanism of reimbursement for medical services (fee-for-service vs. capitation).

Results:

The overall response rate for the survey was 61.3%, with 813 respondents. There was a significantly higher response rate (65%) in the 24-hour patients compared to all others (58%). Based on limited administrative data, respondents were more likely to be slightly older than non-respondents (41.2 vs. 38.6 years old, respectively).

The 24-hour and non-24-hour patient populations were significantly different. 24-hour patients were more likely to be older, female, white, more educated, and in clerical occupations. 24-

hour patients were also significantly more likely to have upper extremity injuries with nerve damage, to have a longer interval between date of injury and date of survey (time to survey), to have had health insurance for non-occupational illness at the time of injury, and to have conducted the interview in English rather than Spanish.

Table One: 24-hour pilot respondents versus all other respondents

		All other	24 hour pilot
N		575	237
Respondent's age (mean)		39.0	47.4*
Percent female	%	58.4	75.5*
White/Caucasian	%	42.5	63.6*
Hispanic/Latino	%	33.5	12.3*
Some college	%	55.5	74.7*
Income > \$35K	%	47.8	57.9*
Occupation			
Prof, tech, sales, manage	%	25.4	24.5*
Clerical	%	23.7	50.2*
Occup: Service	%	16.7	11.8*
Occup: Farm, crafts, laborer	%	34.3	13.5*
Back sprain/strain	%	24.9	28.3*
Upper ext nerve damage	%	9.6	27.0*
Other injury	%	65.6	44.7*
Spanish-speaking interview	%	15.0	2.5*
Covered by ins when injured	%	74.0	93.6*

* indicates finding significant at $P < 0.05$

Simple descriptive analyses compared the percent satisfied among injured workers in the Kaiser 24-hour program with those in the non-24 hour group. Because of the significant differences between 24-hour enrollees and the comparison group, multivariate analyses of satisfaction were carried out using logistic regression.

76.5% of all respondents reported that they were somewhat or very satisfied with the care they received for their work injury, while 23.5% indicated they were somewhat or very dissatisfied. After adjusting for demographic and occupational characteristics, injury type, and time to survey,

there were no statistically significant differences in overall levels of satisfaction with care between 24-hour and other care.

Table Two: Patient Satisfaction Among 24 hour and Non 24-Hour Subjects *

	Total n=746	24 Hour n=224	Non 24- Hour n=522	Odds Ratio**
Satisfaction	%	%	%	OR _{adj} (IC ₉₅) ^Y
Overall	77.0	73.9	78.3	0.66 (0.30, 1.45)
Choice of provider	72.2	68.0	74.0	0.68 (0.33, 1.41)
Doctor-patient relationship	59.3	64.6	57.0	0.88 (0.45, 1.73)
Occupational medicine orientation	39.7	46.4	36.8	0.94 (0.49, 1.81)

* includes only cases with non-missing data on all covariates

** OR, odds ratio; OR <1 indicates 24 hour participants are less satisfied than non-24 hour participants; the Confidence Interval shows that these apparent differences are not statistically significant.

^Y Adjusted for age, sex, marital status, education, occupation, injury type, race/ethnicity, language of interview, and income

Patient reported functional and emotional outcomes after injury were also evaluated. Again, after adjusting for age, gender, and time to survey, there were no statistically significant differences between 24-hour and other patients in patient-reported emotional outcomes, nor in functional outcomes.

Patients receiving care in the Kaiser 24-hour program were compared to all other (non-24-hour) Kaiser patients. After adjusting for age, sex, injury type, and time to survey, there were no significant differences between these groups with regard to overall satisfaction with care.

Table Three: Patient Satisfaction Among Kaiser 24 hour and Kaiser Non 24-Hour Subjects*

	Tot n=3	24 H n=2	Othe Kaiser n=9	Odds Ratio*
Satisfaction				OR _{adj} (IC ₉₅) ^Y
Overall	75.	73.	78.9	0.45 (0.10, 2.1)
Choice of provider	71.	68.	78.9	0.45 (0.10, 2.0)

* includes only cases with non-missing data on all covariates

** OR, odds ratio; OR <1 indicates Kaiser 24 hour participants are less satisfied than other Kaiser participants; the Confidence Interval shows that these apparent differences are not statistically significant.

† Adjusted for age, sex, injury type, lag to interview

Discussion: The main findings are that there were no statistically significant differences in satisfaction or patient-reported functional and emotional outcomes between 24-hour and non-24 hour comparison subjects. Nor were there significant differences between Kaiser patients enrolled in the 24-hour program, compared to Kaiser non-24 hour patients.

Study limitations: Low numbers in the sample required that the eligibility criteria were relaxed for the 24-hour group (and one of the comparison groups), with resultant differences between the study and control groups with respect to lag time from date of injury to date of survey. The impact of these differences on degree of healing post-injury or satisfaction are not clear. There were also very significant differences in the patient populations of the 24-hour pilot group compared to all other respondents with respect to age, occupation, nature of injury, and health insurance status. Statistical techniques may not completely or adequately address this possible confounding. The analyses also did not adjust for other factors that could have an impact on satisfaction with care, such as workers' compensation litigation or overall satisfaction with how the workers' compensation claim was handled. Although the sample size was large enough to detect differences of at least 10% (for example, 78% versus 68%) in satisfaction levels between 2 groups, the ability to detect differences as small as 5% was limited.

There may also have been differences between the employers who chose to participate in the 24-hour program and those who did not, as well as between workers who enrolled in 24 hour and those who did not. These possible selection bias issues are being evaluated by other researchers in forthcoming studies, but were not addressed in this study of patient satisfaction. In this study, 24-hour patients, by definition, were those who were both familiar with the Kaiser system of care, and sufficiently comfortable with it to decide to enroll in the 24-hour program. Thus, these findings may not be generalizable to other patient populations with respect to assessing the impact of extended medical control or more limited choice of treating physician on injured worker satisfaction with care.

Other studies: Several studies have suggested that patient satisfaction is diminished in workers' compensation managed care versus usual care. A study in Washington State found that managed care patients were less satisfied with their medical care than patients in usual fee-for-service arrangements; limited access to and lack of choice of providers were particular contributors to lower levels of satisfaction; there were, however, no differences in outcomes. Similarly, claimants enrolled in Florida's workers' compensation managed care pilot reported significantly lower satisfaction with medical care than controls, although response rates in the study were very low. Outside of workers' compensation, studies of the impact of various managed care systems on patient satisfaction have varied, depending on the measure used and the enrollee population. There have been no published evaluations of 24-hour coverage programs, nor of the overall levels of satisfaction of injured workers with occupational medical care.

In conclusion, this study demonstrated no significant differences in patient satisfaction with care or outcomes in injured workers receiving usual care versus 24 hour care. However, the many limitations of the study suggest that the findings should not be over-interpreted. Further studies of patient satisfaction and patient-reported outcomes in the workers compensation system are necessary to understand the components of satisfaction and the impact of worker, provider, and system characteristics on satisfaction with care and outcomes after injury.

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