

# Arbitration of Medical Malpractice Claims: is It Cost Effective?

Duane H. Heintz

Follow this and additional works at: <http://digitalcommons.law.umaryland.edu/mlr>



Part of the [Dispute Resolution and Arbitration Commons](#), and the [Medical Jurisprudence Commons](#)

---

### Recommended Citation

Duane H. Heintz, *Arbitration of Medical Malpractice Claims: is It Cost Effective?*, 36 Md. L. Rev. 533 (1977)

Available at: <http://digitalcommons.law.umaryland.edu/mlr/vol36/iss3/4>

This Article is brought to you for free and open access by the Academic Journals at DigitalCommons@UM Carey Law. It has been accepted for inclusion in Maryland Law Review by an authorized administrator of DigitalCommons@UM Carey Law. For more information, please contact [smccarty@law.umaryland.edu](mailto:smccarty@law.umaryland.edu).

# ARBITRATION OF MEDICAL MALPRACTICE CLAIMS: IS IT COST EFFECTIVE?

DUANE H. HEINTZ\*

## INTRODUCTION

The medical malpractice system and its impact upon the future of health care delivery in this country have become issues of grave concern. According to the members of the Secretary's Commission on Medical Malpractice in their HEW report published in January, 1973,

The creation of a Federal Commission to study the problems of medical malpractice is ample evidence of the importance of the subject to society. We are not dealing with a matter of concern only to the relatively few aggrieved patients and the doctors and hospitals they sue. We are dealing with a problem of national concern that vitally affects the ways in which health care is rendered in this country. The malpractice problem is like a proliferation of cancerous cells which have spread throughout the health care system. Its consequences, as noted by the President, are indeed profound.<sup>1</sup>

Recent trends in the insurance industry illustrate the seriousness of the problem; the major casualty companies have systematically filed for unprecedented rate increases ranging from 100 to over 600 percent,<sup>2</sup> and, more drastically, some insurance companies have commenced an exodus from the marketplace, leaving thousands of health care providers without protection against liability.<sup>3</sup> As noted by the HEW Commission, the effects of this problem are not confined to health care providers. Rather, the strain upon the health care delivery

---

\* Vice President of the Iowa Hospital Association. B.S., 1970, Iowa State University; M.H.A., 1975, University of Minnesota.

The study upon which this article is based was conducted under Public Health Service Grant IR 21-HS-01437-01. All the data appearing in this article are taken from the findings as reported by the author in D. HEINTZ, AN ANALYSIS OF THE SOUTHERN CALIFORNIA ARBITRATION PROJECT, JANUARY 1966 THROUGH JUNE 1975 (prepared for the American Arbitration Association and the National Center for Health Services Research, DHEW Pub. No. (HRA) 77-3159, revised Feb. 1977 (on file at the *Maryland Law Review*).

1. U.S. DEP'T OF HEALTH, EDUCATION AND WELFARE, REPORT OF THE SECRETARY'S COMMISSION ON MEDICAL MALPRACTICE 4 (1973) [hereinafter cited as HEW REPORT].

2. American Hospital Association, Survey of Malpractice Insurance Conditions (July 11, 1975).

3. *Id.* (reporting that as of mid-1975 twelve states had experienced at least one major carrier cancelling medical malpractice insurance). *But see* HEW REPORT, *supra* note 1, at 39-40 (concluding that malpractice insurance is generally available).

system from physician strikes, defensive practice of medicine, soaring hospital costs and the like may have a deleterious effect on the health care of the general public beyond our current perceptions.

The primary purpose of this article is to provide some insight into the concept of arbitration, an alternative method of resolving medical malpractice claims that has been frequently espoused by health care professionals and has been the subject of recent legislation in several states.<sup>4</sup> The potential for its application to the hospital segment of the health care industry is perhaps best illustrated by the Southern California Arbitration Project, a program that has attracted a great deal of attention since its inception in July, 1969, and provides the basis upon which this article rests.

#### CONCEPT OF ARBITRATION

According to Dr. Irving Ladimer, Health Services Program Director of the American Arbitration Association,

Arbitration is now actively proposed as one of the more constructive and creative methods to meet needs of patients and providers when medical conflict arises. Essentially, arbitration provides an alternative to litigation. It offers another forum or environment — private, informal and easily accessible in time and place. It achieves final determination through referral of specific issues to an impartial tribunal consisting of one or more knowledgeable persons, mutually selected or accepted by the parties.<sup>5</sup>

Proponents of the arbitration concept, including many state and federal legislators, suggest that arbitration could expedite the resolution of medical malpractice claims; minimize the expenditure of time

---

4. See No. 513, § 8, 1975 Ala. Acts 1148; CAL. CIV. PRO. CODE § 1295 (West Supp. 1976); LA. REV. STAT. ANN. §§ 9.4230-36 (West 1975); MICH. COMP. LAWS ANN. §§ 600.5033, 600.5040-65 (Supp. 1976-1977); OHIO REV. CODE ANN. §§ 2711.21.24 (Page Supp. 1975); S.D. COMPILED LAWS ANN. §§ 21-25B, 58-41-58 (Supp. 1976); VT. STAT. ANN. tit. 12, §§ 7001-08 (Supp. 1976); VA. CODE ANN. §§ 8-911, 8-922 (Supp. 1976).

For a summary and analysis of these medical malpractice arbitration statutes, see Ladimer, *Statutory Provisions for Binding Arbitration of Medical Malpractice Claims*, 1976 INS. L.J. 405. For a general discussion of various legislative activity in the area of medical malpractice, see Miike, *State Legislatures Address the Medical Malpractice Situation*, J. LEG. MED. vol. 3, Sept. 1975, at 25; Comment, *An Analysis of State Legislative Responses to the Medical Malpractice Crisis*, 1975 DUKE L.J. 1417; Comment, *Recent Medical Malpractice Legislation — A First Checkup*, 50 TUL. L. REV. 655 (1976).

5. I. Ladimer, *Malpractice Arbitration of Medical and Hospital Claims* 4, Aug. 20, 1975 (on file at the *Maryland Law Review*).

by physicians, lawyers, witnesses, and patients; render more realistic and equitable awards than juries; reduce the costs associated with investigation and case preparation; and provide a relatively private forum in which to resolve complex cases.<sup>6</sup>

#### ORIGINAL STUDY OF ARBITRATION PROJECT

The 1973 HEW Commission Study documented the oldest program application of the concept of arbitration in the health care industry in its analysis of the Ross-Loos Medical Group in Southern California.<sup>7</sup> The Commission's conclusions were not specifically addressed to the hospital segment of the health care industry; however, they did suggest, "To the extent that arbitration achieves public acceptance and provides the advantages which are attributed to it of a speedy and inexpensive claims resolution medium, its use must be encouraged."<sup>8</sup> In addition to the analysis of the Ross-Loos Medical Group, the HEW Commission conducted a rather cursory review of the Southern California Arbitration Project. This project initially involved the participation of eight Southern California hospitals in an arbitration experiment jointly sponsored by the California Hospital Association and the California Medical Association. It represented the first effort to apply the concept of arbitration within the hospital environment.<sup>9</sup> James E. Ludlam, Esq., and Howard Hassard, Esq., carefully engineered the program to accommodate some of the contemporary problems of the California medical malpractice situation.<sup>10</sup>

---

6. See, e.g., Ladimer, *Is Arbitration the Answer to Malpractice Disputes?* MEDICAL WORLD NEWS, Jan. 26, 1976, at 38; Schnepfle, *Arbitration: Solution to Malpractice Dilemma?*, 48 HOSPITALS 41 (Dec. 1, 1974).

7. The Ross-Loos Medical Group is a closed-panel group of physicians who provide medical care services to patients on a contractual, pre-paid insurance basis. The arbitration agreement between Ross-Loos and their patients is generally executed well in advance of a patient's need for specific medical care. In contrast, the arbitration agreement between an arbitration-group hospital and its patients is executed during the process of the patients' admission to the hospital. Because a patient's physical condition and mental attitude (and thus his ability knowingly to enter into a binding agreement) may be different in these two circumstances, different legal questions arise that preclude valid comparisons between the Ross-Loos Medical Group and hospitals.

8. HEW REPORT (Appendix), *supra* note 1, at 296.

9. Effective January 1, 1976, there were nine hospitals in Los Angeles County, two hospitals in Orange County, and twenty-two hospitals in San Diego participating in the arbitration project.

10. For a description of the goal of the program as well as some of the factors taken into consideration in its planning, see Ludlam & Hassard, *Arbitration*, 44 HOSPITALS 58 (Oct. 1, 1970) [hereinafter cited as Ludlam & Hassard]. For a discussion of some of the legal problems involved, see Note, *Agreements to Arbitrate in Hospital Admissions Forms: Are They Contracts of Adhesion?*, 2 WESTERN ST. L. REV. 104 (1974).

Unfortunately, the program, which commenced in late 1969, had not fully arbitrated a single claim by the time the HEW Commission conducted its analysis. The Commission therefore determined that it would be impossible to assess the program's success at that time.<sup>11</sup>

Since then, a further study (the first segment of the one upon which this article is based) was undertaken on the assumption that the Southern California Arbitration Project had progressed sufficiently to warrant empirical analysis.<sup>12</sup> It was the intent of that study

to provide a measure of justification for the optimism expressed by the Commission relative to the potential benefits that might be derived from the implementation of the arbitration concept within the hospital environment. The presenting proposition was that the simple existence of an arbitration option in a hospital setting may, in fact, engender significant benefits for the expeditious and inexpensive resolution of malpractice claims. The laudable goals of the arbitration concept may be achievable without the invocation of the final arbitration hearing stage.<sup>13</sup>

To determine the impact of this hospital-based arbitration system on the cost of hospital medical malpractice liability insurance programs, two four-year periods, one prior to the implementation of arbitration (1966-69) and the other immediately following the commencement of arbitration (1970-73), were analyzed. A percentage difference statistical technique was employed to determine the relative impact of the concept on a group of hospitals that had adopted arbitration as compared to a group of hospitals that had not.<sup>14</sup> Although no case had

---

11. See HEW REPORT (Appendix), *supra* note 1, at 425.

12. For a report and analysis of the data of the author's original study, see Heintz, *Arbitration of Malpractice Claims: A Hospital-Based Pilot Project*, 13 INQUIRY 177 (1976) [hereinafter cited as Heintz].

13. *Id.* at 177.

14. See notes 26-27 *infra*. Statistical significance is determined by the size of the differences between two sets of observations. Small differences may be due only to chance, *i.e.*, random factors included in the samples. If the difference is so large that it would rarely occur because of chance, it may be called a *significant* difference. Statistical significance is commonly recorded using three conventions that represent levels of difference:  $\alpha = .05$ ,  $\alpha = .01$ , and  $\alpha = .0001$ . These symbols mean that the chances of obtaining the measured relationship between sets of observations as a result of sampling error are, respectively, 5/100, 1/100, or 1/1,000. Stated another way, one can be 95%, 99%, or 99.9% certain that the difference between the sets of observations is not attributable to chance. In this study, it was decided that the difference between sets of observation had to be at least 95% ( $\alpha = .05$ ) certain, and not attributable to chance, before it could be concluded that there was a statistically significant difference between the experiences of the two sets of hospitals.

been fully arbitrated through the system by the close of 1973, the study revealed rather significant positive trends for the group of hospitals employing the arbitration concept. The study concluded that

the logistical system established by the arbitration group of hospitals has been effective in processing malpractice claims at a more rapid rate, once they are filed, than the comparative group of hospitals. If one assumes the more expeditiously claims are filed, the lower will be the total program costs, then these findings are indeed positive for the arbitration group of hospitals. . . .

. . . Albeit inconclusive at this time, the concept may well be a feasible alternative to litigation in securing an expeditious and inexpensive resolution for malpractice cases.<sup>15</sup>

Since the completion of that study, which used statistics for the period 1966 through 1973, four cases have been fully arbitrated to a decision. In addition, nine cases have entered the internal arbitration process and have been resolved prior to the completion of the hearing itself. Thus, arbitrated cases have become available for analysis, and there is an additional eighteen months of medical malpractice claims experience. Consolidation of this new data with that accumulated in the initial study may provide further justification for the positive findings. These factors coupled with the feverish legislative activity throughout the country addressing the medical malpractice problem prompted the National Center for Health Services Research of the Department of HEW to fund an extension study, carried out under the auspices of the American Arbitration Association. The balance of this article will provide a synopsis of that research.

#### SOUTHERN CALIFORNIA ARBITRATION PROJECT

The Southern California Arbitration Project was a jointly sponsored effort of the California Hospital Association and the California Medical Association.<sup>16</sup> The project commenced officially on July 1, 1969, but did not become fully operational until the beginning of 1970. All of the eight originally participating hospitals were voluntary, non-profit community hospitals located in the Los Angeles area. To launch such a program required not only the endorsement of hospital insurers but also their active participation in the development and implementation of the concept. The Farmers Insurance Group, underwriters of the California Hospital Association Insurance Program, participated extensively in the project from its inception, and their

---

15. Heintz, *supra* note 12, at 185-86.

16. See text accompanying notes 9-10 *supra*.

collective cooperation in providing statistical data permitted the successful accomplishment of this analytical endeavor.<sup>17</sup>

Although participation by patients in the arbitration system was designed to be voluntary, it was binding upon those who chose to participate. Under the plan, a patient, upon admission to a participating hospital, was requested to accede to the arbitration procedure; this involved acceptance of the arbitration option within the "Conditions of Admission" document, which all patients sign. The arbitration option consisted of the following language:

Any legal claim or civil action in connection with this hospitalization, by or against hospital or its employees or any doctor of medicine agreeing in writing to be bound by this provision, shall be settled by arbitration at the option of any party bound by this document in accordance with the Commercial Arbitration Rules of the American Arbitration Association and with the Hospital Arbitration Regulations of the California Hospital Association (copies available at hospital admission office), unless the admitting physician has not agreed in writing to be bound by this provision, or unless patient or undersigned initials below or sends written notification to the contrary to the hospital within thirty (30) days of the date of patient discharge.

If patient, or undersigned, does not agree to the 'Arbitration Option,' then he will initial here. \_\_\_\_\_<sup>18</sup>

Thus, at the time of admission, the patient receives an opportunity to initial the form and avoid arbitration, or he may notify the hospital in writing within thirty days from the date of discharge that he does not wish to be bound. Less than 1,800 of the over 500,000 patients admitted to participating hospitals since the program's inception have refused the agreement at the time of admission or revoked a consent within thirty days after discharge.<sup>19</sup>

Despite the apparent willingness of patients to consent to arbitration, many patients have subsequently contested the legality of the arbitration agreement when they initiated a malpractice claim with the insurer or filed a suit in court.<sup>20</sup> Statistics with which to measure

---

17. Farmers Insurance Group provided the author with access to their computerized historical claim file data base, including defense, settlement, and award costs (discussed at notes 40-41 *infra*) for all consenting hospitals involved in the study.

18. Ludlam & Hassard, *supra* note 10, at 60.

19. Ninety-six percent of the patients who did not participate in the arbitration project refused the agreement at the time of admission, and only four percent revoked their consent within thirty days after discharge.

20. For a discussion of the various legal problems related to arbitration agreements of this sort, see Note, *Agreements to Arbitrate in Hospital Admission Forms: Are They Contracts of Adhesion?*, 2 WESTERN ST. L. REV. 104 (1974).

the magnitude of this problem were not available; however, in the original study<sup>21</sup> this factor may have been a significant reason why no case reached the arbitration hearing stage of the process. Nevertheless, the arbitration group had achieved many of its goals by the close of 1973. The ensuing eighteen months of experience through June, 1975, reflected a substantial increase in the number of claims actually arbitrated or settled during the process. With the enactment of the Keene Bill in the California Legislature in 1975,<sup>22</sup> which supports voluntary and binding arbitration, there may be fewer problems with patients contesting the legality of the agreement to arbitrate.

Once the patient accepts the arbitration option on the Conditions of Admissions form, then, according to the California supplement to the rules of the American Arbitration Association, either party may compel arbitration concerning malpractice or fees; parties may intervene or be joined; there is court supervised discovery; lawsuits are stayed (although the statute of limitation is not waived); and a hearing is required within ten days. The arbitration panel decides all questions of fault and degree, and the award is made according to a schedule of comparative negligence.<sup>23</sup> The American Arbitration Association administers the entire process. The AAA maintains a listing of potential arbitrators, which is composed of health care providers, attorneys, and consumers. Malpractice cases with a claim of \$20,000 or less are heard by one member, an attorney. Cases in excess of \$20,000 are heard by a panel of three arbitrators, which consists of an attorney, a health care provider, and a consumer. Regardless of the number of arbitrators scheduled to hear a particular case, their selection must be agreeable to each of the parties to the arbitration.

Interviews were conducted with seven of the twelve arbitrators who had heard a malpractice case under the project and with four defense attorneys and four plaintiffs' attorneys who had litigated an arbitration case. Everyone interviewed expressed general satisfaction with the composition of the four panels convened during the project. Each of the arbitrators apparently made important contributions to the process. A multi-disciplinary panel such as the one used in this project can be contrasted with the three attorney panel used in many

---

21. See note 12 *supra*.

22. See CAL. CIV. PRO. CODE § 1295 (West Supp. 1976).

23. See Lillard, *Arbitration of Medical Malpractice Claims*, 26 ARBITRATION J. 193, 198 (1971). For a thorough discussion of the mechanics of the arbitration process in the study, see Ludlam & Hassard, *supra* note 10.



other programs, notably the Ross-Loos Medical Group and the Kaiser Organization.<sup>24</sup> In these programs each party selects an attorney to serve as an arbitrator and the two partisan attorneys together select a third attorney to act as chairperson of the panel. Predictably this third attorney often casts the deciding vote. The panel thus becomes a decision-making body of one, and the benefits from a mutually selected three-member panel of a multi-disciplinary nature are lost.

The majority of arbitrators and lawyers interviewed felt that the three-member, multi-disciplinary panel provided a more knowledgeable and more equitable forum for resolving medical malpractice claims. The attorney arbitrator was always the chairperson of the panel. In this capacity the attorney not only presided over the hearing so as to maintain an orderly process, but also informed the others on the panel about the medico-legal issues confronting them. Likewise the physician helped the other panel members sift through the maze of medical complications so as to ascertain the pertinent medical issues and facts in question. The consumer arbitrator usually served a stabilizing role on the panel since he was not likely to be unduly influenced by either legal or medical issues.

Interestingly, nearly every panel member and attorney interviewed felt that arbitration panels actually negate the influence of emotional or theatrical appeals on the decision-making body. These influences may well be a problem with judicial resolution of malpractice cases because the cases often exert an emotional impact that can improperly influence a jury's decision. To the extent that arbitration minimizes this potential distortion and fosters equitable resolution of medical malpractice cases, it must be viewed as an improvement.

Physician acceptance of the arbitration concept has been excellent throughout the program, with doctors responsible for over 90 percent of the patient admissions in participating hospitals agreeing to take part in the project. In addition to the perceived fairness of the arbitration system, the physicians interviewed commended the expeditious manner in which cases were resolved and the relative privacy of the process. Most were resigned to the existence of medical malpractice claims; however, they adamantly asserted that both patients and health care providers would be best served by an expeditious, inexpensive, and equitable resolution of claims. Such a procedure would presumably reduce the total cost of medical malpractice. As a result, the injured patient would receive a larger portion of settlements or

---

24. The Kaiser-Permanente Plan is similar to the Ross-Loos Medical Group (discussed at note 7 *supra*). The principal difference is that Kaiser is hospital based.

judgments because less funds would be diverted to members of the legal profession who litigate the extended cases. The physicians were hopeful that the net reduction in processing and resolution costs would enable insurers to limit the rise in professional liability costs.

#### STUDY DESIGN

The original study of the Southern California Arbitration Project was the first documented attempt to quantify the results of an arbitration system applied within a hospital environment.<sup>25</sup> It was therefore necessary to devise a methodology and an analytical technique that would generate reliable and meaningful findings.<sup>26</sup> The eight hospitals participating in the arbitration project were compared analytically with a group of similar hospitals that had not participated. Data accumulated from both groups was segmented into two periods of time, the period prior to the implementation of arbitration (1966–1969) and the period subsequent to the implementation of arbitration (1970–1975). The 1975 data was accumulated for only the first six months of the year, thus providing a base of five and one-half years of post-arbitration experience.

The information collected during the period of 1966–1969 (prior to arbitration) was statistically analyzed to ensure that the two groups of hospitals were roughly comparable in terms of the risk of exposure to malpractice claims. It was not feasible to analyze each institution's patient demographical data, medical staff characteristics, the socio-economic backgrounds of the patient population they served, or other potential intervening variables; however, many of the limitations inherent in a study of this nature were overcome through a series of assumptions that sought to maintain the proportionality of the two groups between the two periods under evaluation. It was assumed that even if there were demographic or some other differences between the two groups during the pre-arbitration period, these differences remained proportional over time. The resultant "percentage difference" statistical technique measured the proportionality of the groups between the two periods under consideration to ascertain the existence of any trends attributable to the arbitration option.<sup>27</sup>

---

25. See text at notes 7–8 *supra*.

26. While the technique utilized in the original study (1970–73) was not optimal, it proved functional in ascertaining the relative degree of success experienced by the project hospitals, and was therefore used in this subsequent study.

27. It was necessary to develop an analytical technique in order to compare the difference between the two groups in the two time periods while maintaining the

A basic null hypothesis and eleven working hypotheses were formulated and analyzed utilizing the aforementioned technique.<sup>28</sup> The null hypothesis was that there is no difference in hospital malpractice liability program costs between a group of hospitals that offer their patients an arbitration option and a group of hospitals that do not. The eleven working hypotheses, by which the relationship between these groups of hospitals was analyzed, were:

- a. There is no difference in the total number of patient claims filed.
- b. There is no difference in the total number of closed patient claims.
- c. There is no difference in the percentage of total claims closed.
- d. There is a difference in the total paid loss (settlements).
- e. There is a difference in the total paid loss (settlements) per closed claim.
- f. There is a difference in the total paid loss (settlements) per admission.

---

same proportionality of the groups in the second period as existed in the initial period. The following table was used to display the data for analysis:

	1966-69	1970-75*
Group I	A	B
Group II	C	D

\* 1975 includes only the first six months of the year. The test statistic utilized was a T-test formulated as:

$$T = \frac{\left(\frac{A-B}{A}\right) - \left(\frac{C-D}{C}\right)}{\sqrt{pq\left(\frac{1}{N_1} + \frac{1}{N_2}\right)}} = \frac{\Delta}{\sigma} \stackrel{d}{=} N(0, 1)$$

where:

$$p = (B+D)/(A+B+C+D) \text{ and } q = 1-p$$

$N_1$  = Total Admissions 1966-75, Group I Hospitals

$N_2$  = Total Admissions 1966-75, Group II Hospitals

or

$N_1$  = Total Claims 1966-75, Group I Hospitals

$N_2$  = Total Claims 1966-75, Group II Hospitals

28. In order to determine the statistical significance (discussed at footnote 14 *supra*) of the data collected for both groups of hospitals, it was necessary to postulate a principal theory (null hypothesis) and several sub-theories (working hypotheses) related to the principal theory that could be quantified and analytically tested. After individually testing the working hypotheses to determine whether there was a statistically significant difference between the two groups of hospitals, the results were used collectively to either support or refute the null hypothesis.

- g. There is a difference in the total defense costs, including investigation costs.
- h. There is a difference in the total defense costs, including investigation costs, per closed claim.
- i. There is a difference in the total defense costs, including investigation costs, per admission.
- j. There is a difference in the average length of time per claim from the date of incident to the date of final settlement.
- k. There is a difference in the average length of time per claim from the date the claim is filed to the date of final settlement.

The universal sample of malpractice claims analyzed consisted of all claims arising from both groups of hospitals during the period January 1, 1966 through June 30, 1975. The date of the actual incident giving rise to the malpractice claim determined the period into which each claim was placed. 649 claims constituted the sample for the Southern California Arbitration Project hospitals and 701 claims constituted the sample size for the comparative group of hospitals.

Prior to a presentation of the statistical analysis, several cautions should be noted. Because the claims were categorized by incident date, the sample of claims for the second period under evaluation (January 1970-June 1975) will not provide a normal distribution of the net anticipated experience. Claims included within the sample in the last few years may not have had sufficient time to become resolved. The actual number of claims filed for that period may be significantly increased by the "long-tail" effect, which often besets medical malpractice claims; *i.e.*, claims may not be asserted until long after the incident that caused the injury. Nevertheless, the situation should be nearly identical for both groups of hospitals, thereby negating the impact of this factor in their relative relationships. The same phenomenon may cause an understatement in the "absolute" dollar figures associated with defense, investigation, and settlement or paid loss costs; however, the proportional relationships reported in this study should establish meaningful trends for these factors.

#### STATISTICAL ANALYSIS — CLAIMS

The two groups of hospitals in the original study disclosed no statistically significant difference with regard to either the absolute number of malpractice claims filed or closed during the periods under evaluation. Both groups experienced an increase in the total number

of claims; however, the increase in the comparative group was 18 percent higher than that of the arbitration group.<sup>29</sup> Although this increase was not of sufficient magnitude to produce a statistically significant difference between the groups, it did suggest an interesting trend. With the consideration of eighteen additional months of experience, January, 1974 through June, 1975, this trend became more profound. In fact, hypothesis *a*, that there is no difference in the total number of claims filed, may now be rejected at the  $\alpha = .05$  level.<sup>30</sup> Through June, 1975, the number of claims experienced by the comparative group exceeded those filed against the arbitration group by 24 percent. Total claims filed increased from 228 in the 1966-69 period to 473 in the 1970-June, 1975, period for the comparative group — an increase of 107 percent. The same figures for the arbitration group were 229 in the 1966-69 period and 420 in the 1970-June, 1975 period — an increase of 83 percent.

Thus the implementation of the arbitration option has not caused a proliferation of malpractice claims as some critics have predicted. Rather, the arbitration group has experienced 24 percent fewer claims than the comparative group in the five and one-half years under the program.

Furthermore, the data revealed that the arbitration group resolved claims more quickly than the other group. This result reaffirmed the trend established in the original study.<sup>31</sup> Hypothesis *b*, that there is no difference in the number of closed patient claims, accepted in the original study, and hypothesis *c*, that there is no difference between the groups in percentage of claims closed, have both been rejected at the  $\alpha = .05$  level. Figures adjusted for the 1966-69 period to allow consideration of the additional claims closed during January, 1974 through June, 1975 period reflect a closure rate of 92.24 percent for the arbitration group and 94.30 percent for the comparative group. After five and one-half years under the arbitration program, the arbitration group had a closure rate of 57.14 percent while the comparative group had a closure rate of 47.15 percent. Although the percentages are somewhat smaller in the post arbitration period (a reflection of the time lag inherent in malpractice claims that causes a substantial number of claims to remain open for extended periods), the arbitration

---

29. The comparative group experienced an increase from 228 claims in 1966-69 to 350 claims in 1970-73, as contrasted with an increase for the arbitration group from 229 to 310 over the same periods.

30. For an explanation of these statistical data see discussion at note 14 *supra*.

31. See Heintz, *supra* note 12.

group has reversed the relative ratios and established a better closure rate than the comparative group. These figures suggest that the arbitration group has been more effective in expediting the process of closing claims.

Statistical results for the initial three hypotheses have disclosed the positive achievements of the arbitration group in both reducing the total number of malpractice claims filed and in expeditiously resolving those that enter the claims process. Consideration of the last two hypotheses, *j* and *k*, which deal with the length of time required to close claims, may provide further information. In order to undertake a detailed analysis of these two hypotheses, it was necessary to reduce the sample size of claims for both groups. Hence, the statistical analysis considered only 148 of the 649 claims in the arbitration group and 139 of the 701 claims in the comparative group.<sup>32</sup> The analysis, which tested the relative difference between the two groups, focused on the amount of time required to resolve a claim from the date of incident to final resolution. As in the original study, the arbitration group continued to resolve claims more rapidly than the comparative group but not at a level sufficient to establish a statistically significant difference. In the 1966-69 period, the arbitration group consumed 37.57 months in resolving an average claim while the comparative group took 34.73 months. During the five and one-half year period following the adoption of arbitration, the arbitration group required only 22.51 months to resolve an average claim while the comparative group's period was 25.17 months.<sup>33</sup>

The data revealed that the arbitration group resolved 80.40 percent of its closed claims within the first thirty-five months from the date

---

32. The total universe of claims closed during 1974 through the first six months of 1975 was combined with 60 randomly selected claims from each group during the 1970-73 period. It was not possible to secure sufficient data on the closed claims of the 1970-73 period for an analysis of the entire universe. Thus the samples for the arbitration group consisted of 60 randomly selected claims from the 1970-73 period plus 88 claims closed between January 1974 and June 1975; the samples for the comparative group consisted of 60 randomly selected claims from the 1970-73 period plus 79 claims closed between January 1974 and June 1975.

33. Note that during the five and one-half year period following adoption of arbitration both groups of hospitals appeared to experience a decline in the length of time required to resolve claims. This was of course partially attributable to the nature of the sample data and the inherent time lag in resolving malpractice cases. A number of the highly complex, time-consuming cases were still unresolved at the end of the study and would raise the overall averages; however, the averages would be expected to increase in a manner proportionate to the study's findings as of June 1975.

of incident as contrasted with the figure of 73.38 percent for the comparative group.<sup>34</sup> It should also be noted, however, that after fifty-nine months the arbitration group had not yet resolved 2.03 percent of its claims (3 out of 148 claims) while the comparative group had fully resolved every claim by that time.

Hypothesis *h*<sup>35</sup> eliminates the period between the occurrence of an incident giving rise to a claim and the time that the claim is filed. Arbitration could not be expected to reduce length of this period because it is wholly dependent upon the patient's promptness in filing the malpractice claim. The findings indicate that once the insurer received notice of a claim, the arbitration group of hospitals resolved claims more rapidly. Figures for 1966-69 showed that the arbitration group required 27.13 months to resolve a claim as compared with

34. The following table summarizes the time required to resolve claims for both the arbitration and comparative groups during the periods under evaluation.

Time, Incident to Closing	ARBITRATION GROUP				COMPARATIVE GROUP			
	1966-1969		1970-1975(1)		1966-1969		1970-1975(1)	
	% Claims (2)	% Cumulative	% Claims (3)	% Cumulative	% Claims (2)	% Cumulative	% Claims (3)	% Cumulative
Less than 12 mos.	13.4	13.4	29.05	29.05	13.3	13.3	20.86	20.86
12-23 mos.	13.3	26.7	29.73	58.78	16.7	30.0	26.62	47.48
24-35 mos.	13.3	40.0	21.62	80.40	16.7	46.7	25.90	73.38
36-47 mos.	20.0	60.0	10.14	90.54	16.7	63.4	19.43	92.81
48-59 mos.	20.0	80.0	7.43	97.97	23.3	86.7	7.19	100.00
60-71 mos.	10.0	90.0	2.03	100.00	3.3	90.0		
72-83 mos.	3.3	93.3			6.7	96.7		
84-95 mos.	3.3	96.6			3.3	100.0		
96 mos. or more	3.4	100.0						

(1) 1975 figures include only first six months of experience.

(2) Includes 60 claims in sample.

(3) Includes 148 claims in sample for arbitration group.  
Includes 139 claims in sample for comparative group.

35. See text accompanying note 28 *supra*.

21.73 months for the comparative group. By the conclusion of June, 1975, these statistics were proportionately reversed, revealing that the arbitration group on the average took 13.17 months to resolve a claim as compared with 16.56 months for the comparative group. This difference of 3.39 months between the two groups at the close of June, 1975, represented an actual decrease from a 4.13 months difference found at the termination of the original study period in 1973. This change may be attributable to the increased effort to invoke the arbitration option during the last eighteen months which has required defense attorneys to consume more time in seeking court orders to compel arbitration.

#### STATISTICAL ANALYSIS — SETTLEMENT COSTS

A troubling possibility, however, is that the more expeditious closure of claims might have been caused by compromises (i.e., increases) in settlement or paid loss costs. To resolve this query, the three hypotheses *d*, *e*, and *f* were statistically analyzed.<sup>36</sup> The original study<sup>37</sup> revealed that the proportional difference between the two groups in the total dollar amount of paid claims was statistically insignificant. Although the dollar value of the claims closed during the additional period of eighteen months, January, 1974 through June, 1975, substantially increased the total for the entire five and one-half year post-arbitration period, the proportional difference remained insufficient to warrant any alteration of the initial study's findings. The total cost for settlements and paid losses for the arbitration group increased 74.56 percent, from \$533,736 in 1966-69 to \$931,678 in 1970-75. An increase of 77.29 percent, from \$747,276 in 1966-69 to \$1,324,881 in 1970-75 was incurred by the comparative group. These statistics become more valuable, however, when considered on a per closed claim basis. Under that approach the proportional difference between the two groups was large enough to warrant acceptance of hypothesis *e* that there is a statistical difference on a per closed claim basis even at the  $\alpha = .0001$  level. This finding is consistent with the results in the original study. The arbitration group experienced a 55.65 percent increase per closed claim from \$2,494 in 1966-69 to \$3,882 in 1970-75, while the comparative group increased 70.96 percent from \$3,475

---

36. *Id.*

37. See Heintz, *supra* note 12.



per closed claim in 1966-69 to \$5,941 per closed claim in 1970-75, yielding a net difference between the two groups of 15.31 percent.

This finding and similar statistical results computed on a per admission basis hypothesis <sup>38</sup> indicate that the arbitration group's more rapid rate of claim resolution has not increased settlement or paid loss costs. In fact, not only did the arbitration group close filed claims more rapidly than the comparative group, but it accomplished this improvement at a significantly lower cost. Findings of this nature tend to support the theory that if a patient quickly obtains a satisfactory resolution of his claim, the resolution costs will be reduced.

Since only four cases in the arbitration process have actually reached a judgment, smaller awards by arbitration panels obviously have not contributed to the overall finding of lower costs. Discussions with numerous defense and plaintiff attorneys as well as insurance representatives have suggested some reasons why there have been so few arbitration awards. These professionals generally agree that most actively pursued malpractice claims are resolved on the "court-house steps." Both parties tend to be extremely hesitant to resolve a complex claim prior to the commencement of the trial date; however, once it becomes apparent that there will be a costly trial, the parties are more likely to settle. The "demand" to arbitrate, invoked by either party, and the scheduling of a hearing date have effectively replaced the "courthouse steps." At least nine documented cases have been resolved during the past eighteen months in this manner. The advantage of the arbitration system is therefore its speed; arbitration tribunals can be convened and claims can be heard by the arbitration panel much more quickly than by a court of law, thereby inducing prompt settlements.

Another aspect of the positive influence on the cost of claims settlement that may be attributable to the length of time required to resolve a claim is the dollar distribution experience. Generally speaking, if a claim file is open and unresolved for a long time, a monetary payment becomes more expensive. Insurance experts interviewed suggested that in addition to increased administrative and legal costs, the passage of time makes claimants more adamant about receiving a maximum award or settlement. The study revealed that over 78 percent of the claims in which the settlement involved a cash outlay by the arbitration group of hospitals were resolved for less than

---

38. Although the average settlement per admission increased for both groups after arbitration was initiated, the amounts for the arbitration group increased less than those for the comparative group.

\$5,000.<sup>39</sup> The comparative group of hospitals resolved only slightly less than 70 percent of its claims for less than \$5,000. A similar difference appeared throughout the entire spectrum of dollars paid per claim, from \$100 to \$40,000 and more. The arbitration group resolved 5.66 percent more of its claims for less than \$20,000 than did the comparative group. This trend had been established in the initial study, and hence its continuation in the additional eighteen months experience is indeed noteworthy. These results indicate that even as the claims currently open are resolved, this proportionality will be maintained.

#### STATISTICAL ANALYSIS — DEFENSE COSTS

The costs of investigation and defense were extremely difficult to ascertain for both groups of hospitals. It proved impossible to determine the absolute total costs associated with the provision of a defense; however, the statistics on defense costs provided by the Farmers Insurance Group reflect a substantial amount of these expenses.<sup>40</sup> One

39. The following table summarizes the percentage dollar distribution of claim settlements.

Total Dollar Amount Paid Per Claim (1)	ARBITRATION GROUP				COMPARATIVE GROUP			
	1966-1969(3)		1970-1975(2)(5)		1966-1969(4)		1970-1975(2)(6)	
	% Claims	% Cumulative	% Claims	% Cumulative	% Claims	% Cumulative	% Claims	% Cumulative
1-999	40.65	40.65	42.39	42.39	36.03	36.03	34.93	34.93
1,000-4,999	38.21	78.86	35.76	78.15	39.71	75.74	34.93	69.86
5,000-9,999	10.57	89.43	9.27	87.42	13.24	88.98	10.96	80.82
10,000-14,999	3.25	92.68	6.62	94.04	3.68	92.66	6.17	86.99
15,000-19,999	4.07	96.75	.66	94.70	3.68	96.34	2.05	89.04
20,000-39,999	3.25	100.00	2.65	97.35	1.46	97.80	4.11	93.15
40,000 & over	---	---	2.65	100.00	2.20	100.00	6.85	100.00

(1) Calculations do not include claims for which no dollar settlement was made.

(2) 1975 figures include only first six months of experience.

(3) Calculations include 123 claims.

(4) Calculations include 136 claims.

(5) Calculations include 151 claims.

(6) Calculations include 146 claims.

40. These defense figures included allocated expenses for resolving claims but not the unallocated expenses, which are administrative and legal items that cannot

must be cautious in applying the results of this element of the study, for the dollar expenditures that purport to give investigation and defense costs do not represent total figures. Nevertheless, the representative ratios and the proportionality between the two groups should provide a reliable measure of the relative differential between the two groups.

Consolidation of the data from identical sources for both groups produced highly significant findings. At the  $\alpha = .0001$  level, hypothesis *g*, that there is a difference in defense costs between the two groups, was accepted. Similar results were obtained in testing hypothesis *h*, that there is a difference in total defense costs on a cost per closed claim basis; while the arbitration group experienced a cost of \$508 per closed claim, the comparative group's cost per claim figure was 18 percent higher at \$601. This difference was indeed significant, contributing a substantial savings to this cost factor.<sup>41</sup>

Interviews with numerous key representatives of participating hospitals and insurers revealed that the documented reduction in the defense cost differential was primarily attributable to the manner in which the agreement to arbitrate had been enforced by the insurers. A substantial proportion of malpractice claims are initiated by the filing of legal action without providing the insurer advance notification of the existence of a dispute. Hence, it becomes necessary for the insurer to file a motion with the court seeking to compel arbitration. A legal contest to ascertain the validity of the arbitration agreement ensues at the expense of both parties. Thus arbitration hospitals have not only felt the impact of costs associated with investigation and defense of the arbitration process, but have also suffered the additional expense of seeking judicial action to compel the plaintiff to arbitrate.

---

be easily attributed to a specific claim. The insurer assigns these unallocated expenses on an equal basis to all claims managed during an annual period. Since the hospitals in both groups were insured with Farmers during the study period, it was assumed that these expenses would be similar, if not identical, for both groups. Thus, even though the absolute figures do not reflect the total costs, the comparison between the two groups should be valid.

41. The cumulative differential between the two groups was not so great at the close of June 1975 as had been documented in the original study, which considered only data through December 1973.

As for hypothesis *i*, that there is a difference in total defense costs per admission, the large sample size of over 800,000 admissions made the defense costs per admission relatively small. Consequently, the results were not very helpful in identifying the experience of the two groups. Figures for the 1966-69 period were 64 cents for the arbitration group and 57 cents for the comparative group, as compared with 24 cents for the arbitration group and 28 cents for the comparative group for 1970-75. The fact remains, however, that the two groups have reversed their relative positions during the post-arbitration period to the advantage of the arbitration group.

Legislation that requires plaintiffs to notify defendants of their intent to seek legal action prior to the filing of a suit<sup>42</sup> may alleviate this problem, but an evaluation of future experience will be necessary to ascertain the actual impact of such legislation. Still, even though the arbitration group experienced some delays from securing orders to compel arbitration, they were able to achieve a faster turn-over of claims than the comparative group, which meant lower costs.

### CONCLUSIONS

The original study found that the group of hospitals participating in the Southern California Arbitration Project exhibited certain positive trends when compared to the experience of a comparable group of hospitals not participating in arbitration. After four years under the program, most of the representative ratios measuring the relationship between the two groups were reversed. At the close of 1973, the arbitration hospitals were resolving claims more expeditiously, once they were filed, and at less cost than the comparable group of hospitals. This change occurred even though at that time no case had actually been processed through the arbitration system. Evaluation of eighteen additional months of experience in the program has not only validated these positive trends, but has found them to be of greater statistical significance. For the most part the differential between the two groups of hospitals has continued to diverge.<sup>43</sup>

A detailed analysis of each arbitrated case is currently being undertaken. Unfortunately, the results of that analysis are still incomplete. Nevertheless, the study described in this article documents a significant difference between the two groups with respect to settlement costs and paid losses. This difference may be attributable to a significant reduction in the length of time required to resolve a claim. Such a conclusion is consistent with generally accepted insurance industry theory; however, it may not completely explain the findings. Other factors such as the apparent fairness of arbitration panel decision making may have contributed. Future analysis of arbitrated cases may enhance our understanding of these issues.

In summary, the implementation and utilization of the arbitration concept within the Southern California Arbitration Project over a five and one-half year period has apparently provided significant benefits

---

42. See, e.g., CAL. CIV. PRO. CODE § 364 (West Supp. 1976).

43. The only area in which the difference between the two groups has not continued to widen is that of investigation and defense costs. While the arbitration group maintained a differential sufficient to warrant a statistically significant difference, it was not of the magnitude that existed at the close of 1973.

in the reduction of costs associated with the resolution of medical malpractice claims. In comparison with a group of similar Southern California hospitals that have not employed an arbitration option, the participating arbitration hospitals resolved a proportionately larger number of claims in a more expeditious manner. This improvement was accomplished without compromising the costs of paid losses and settlements or the costs of investigation and defense.

Despite these positive trends, the hospitals participating in the arbitration program have continued to experience critical medical malpractice problems similar to those of their institutional peers throughout the state of California. This predicament serves to emphasize that arbitration alone is no panacea for the problems that infest the medical malpractice situation. The evidence from the Southern California Arbitration Project shows that its contribution resides in the potential for resolving claims in a manner that may be more expeditious and less expensive than the process of litigation. This potential should provide sufficient impetus for extensive future experimentation with the concept of arbitration throughout the health care industry.