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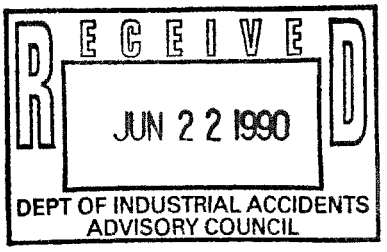
Medical Care Access Study
June 27, 1990

MASSACHUSETTS WORKERS' COMPENSATION ADVISORY COUNCIL



MASSACHUSETTS WORKERS' COMPENSATION ADVISORY COUNCIL

Medical Care Access Study

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Medical Care Access Study

Research Team

PROJECT MANAGER

Peter Rousmaniere, Lynch, Ryan & Associates

PRINICIPAL INVESTIGATORS

James F. Sargent, CLU, The Bolyston Group

Michael J. Shor, MPH, The Bolyston Group

CO-INVESTIGATOR

Robert Bengston, MS, PT

RESEARCH ASSISTANTS

Carol A. Grady, BA
East Stroudsberg University
Graduate School of Public Health
East Stroudsberg, PA

Colleen A. Morrissey, OT
Suffolk University
School of Managment
Boston, MA

Introduction and Executive Summary

The purpose of this study was to examine access to medical care and the quality of the care available to injured employees. We began the study looking for simple answers to what appeared to be two simple questions: Is access to medical care limited for injured workers, as much of the anecdotal evidence suggests? Could we identify any differences in treatment for workplace injuries compared to other injuries, and if differences existed, could one infer a difference in the quality of treatment? We found the answers not to be simple at all. We found that to begin to understand the issues of access and quality, we had to develop a multiple perspective, one that took into account all of the stakeholders in the present system, and addressed their divergent and strongly held opinions of each other.

In simplest terms, in order for the workers' compensation system to operate as its designers conceived it, all the players must be working toward the same objective. As long as the employee wants to go back to work, the employer wants the employee to return, the injury is treated promptly, the payments are prompt and perceived as fair, and gaming is kept to a minimum, things work reasonably well. But the real workers' compensation system is a chain which is in fact only as strong as its weakest link. The system begins to break down when any of the links fails. If the system is to succeed, there must be people willing to act when any of the links appears to weaken. As our study will indicate, it appears that all of the parties involved are convinced that the others represent that weak link.

Executive Summary

From mid-April to mid-June, 1990 Lynch, Ryan & Associates in cooperation with the Boylston Group conducted a study to evaluate the accessibility of medical services for work-injured individuals and to examine the type and quality of medical services work-injured individuals received once they entered the medical delivery system.

To minimize the number of variables involved, the study focused on lower back injury. In Massachusetts, back injuries account for approximately three-fourths of all lost work days.

The research team used several different tools in the effort:

- A survey was mailed to 980 medical care providers, including, orthopedists, occupational health physicians, occupational health centers, and community hospitals.
- A telephone survey of 124 orthopedists across the state was conducted to measure acceptance of workers' compensation back cases.
- A second telephone survey was conducted of the same 124 orthopedists to compare access to care for a non-work related back injury.

Introduction and Executive Summary

- An employee survey was conducted of work injured individuals to determine their perceptions of and satisfaction with the medical delivery system.
- An audit of medical charts was conducted to compare the treatment plans of work and non-work injured individuals against a model standard medical protocol for the treatment of lower back injury.
- Personal interviews were conducted with employers, work injured individuals, attorneys and medical providers including, physicians, nurses, vocational rehabilitation specialists and occupational therapists.
- A review of relevant initiatives in other states was done, to provide insights and comparisons with the Massachusetts experience.

Major Findings

- There appears to be little problem with access to immediate care resulting from an injury. Access difficulty increases as the patient seeks specialist care and rehabilitation therapy services.
- The medical specialist community perceives work related injuries as much more difficult and much less desirable to treat than other cases, as a result of several factors:
  - The number of non-medical interests—lawyers, insurers, and employers—that interfere with treatment
  - The level of motivation of injured workers
  - The level of reimbursement
  - The amount of paperwork
- There is a three-tiered barrier to specialist access: the uneven geographic distribution of specialists; practice specialization, which, in the case of back injuries, reduces the available pool of specialists by 60%; and "economic queueing", which favors non-workers' compensation cases, slowing access to the remaining specialists.
- There is little indication that the new fees have improved access or that further increasing the fees would by itself improve access. Dissatisfaction with other aspects of the system is so intense that higher fees do not represent a simple solution.
- The study compared treatment plans of work and non-work related lower back injuries to the Quebec Guidelines, a standardized set of treatment protocols for lower back injury. Both populations were found to be substantially outside the guidelines in both recommended length of bedrest and speed of referral to

Introduction and Executive Summary

rehabilitation. Treatment of workers' compensation cases showed more reliance on bed rest and analgesics, and slower referral to rehabilitation therapy than treatment of other injuries.

- Our research indicated that a number of employers and managed care companies have begun to take steps to assure successful therapeutic outcomes and faster return to work. Approaches identified include the development of specialized relationships with medical providers to assure both access and availability of service and cooperation with return to work planning. Two Massachusetts HMOs have developed and are offering managed workers compensation programs which use a preferred network and case managers to assure that the links are maintained and all parties work toward a common objective. Several employers have developed programs designed to ensure that their employees are cared for promptly and that return to work efforts are coordinated between all parties.

Summary of Recommendations

A. Access Problems

- Begin the process of developing a prototype coordinated care initiative.
- Promote education of employees, employers, and medical care providers on the types of networks available, how to use them, and their benefits.
- Streamline provider reimbursement procedures.
- Ensure periodic review and revision of reimbursement rates, and educate providers and insurers.

B. Improving quality of care

- Promote the development and use of standard protocols for the treatment of low back injuries and other appropriate diagnoses.
- Develop a database of workers' compensation medical practice.
- Provide financial incentives to employers who develop or whose employees use medical networks.
- Increase the amount of education for employees regarding the workers' compensation systen and treatment options, and get the information to them much earlier than it is now.
- Through the Health Care Services Board, establish a greater recognition of the research that shows the direct application of stress management techniques to workplace injuries.

C. Improving provider perceptions of injured workers

- Either the Health Care Services Board or an appointed subcommittee or task force, in cooperation with medical practice leadership, should begin work to identify the root causes of these perceptions and develop a strategy to address them.

I. Study Design

Purpose of Study

The purpose of this study is to evaluate the accessibility of medical services by injured workers covered under M.G.L. C. 152. To conduct the study, the research team first assessed the availability of medical services to those suffering work-related injury, and then examined the type and quality of care work-injured employees receive once they have entered the medical delivery system.

Study Objectives

The Advisory Council included nine specific study objectives:

- Identify the availability of current medical services to injured employees.
- Identify the incentives and disincentives influencing the provision of services.
- Identify differences in the provision or quality of services.
- Identify the effectiveness and impact of new medical rates.
- Identify rate structures or regulations in other states that may be instructive for Massachusetts.
- Evaluation of Heath Care Services Board of the Department of Industrial Accidents
- Identify and document costs attributable to delays and/or problems.
- Analysis of length of disability by diagnosis, comparing workers compensation to non-compensable injuries.
- Identification of possible methods for improving or enhancing the treatment of medical services.

Study Design

The research team designed the study to obtain both qualitative and quantitative information through personal interviews, mail and telephone surveys, and chart review. The major study components include:

- Provider survey—mail

A survey was sent to 980 medical care providers, who, by virtue of their specialties, could be expected to treat the kinds of injuries that occur in the workplace. The survey was designed to obtain information about medical care accessibility, current rate structures, patient characteristics, and major problem areas.

I. Study Design

- Provider telephone survey 1

A telephone survey of 124 orthopedists was conducted across the state to assess medical accessibility for work injured individuals. The researcher called to get an appointment for her husband, who was described as having injured his back at work.

- Provider telephone survey 2

A telephone survey of 124 of the same orthopedists called in survey 1 was conducted, changing the script from injured at work to injured in the back yard, gardening.

- Employee telephone survey

A telephone survey of 24 work injured individuals with the diagnosis of lower back pain was conducted to assess their perceptions of the availability of care and their satisfaction with the care provided.

- Medical audit

An intake audit of individuals with lower back injury was conducted of new patients being referred to physical therapy. All individuals audited had the diagnosis of non-complicated low back injury.

- Personal interviews with:
  - Work injured individuals with lower back pain
  - Employer representatives with responsibility for workers' compensation
  - Plaintiff and defendant bar
  - Medical providers including physicians, nurses, vocational rehabilitation specialist and occupational specialists.
  - Payors—Insurers and third party administrators

Concentration on Low Back Pain

Due to the limited time period allowed for the study (approximately 10 weeks), the research team made certain design decisions which somewhat focused the scope of the work, without materially reducing the pertinence and reliability of the results.

In order to minimize the number of potential variables in the study, much of the research has been focused on low back pain. Low back pain refers to the following conditions: strains and sprains, which account for over 90% of low back pain resulting from work; back pain from contusions, fractures and dislocations; pain involving disk herniation and other complications; and chronic back pain, a long-lasting condition to which a number of factors contribute.

I. Study Design

Low back pain diagnosis is present in about 28% of work-related injuries. However, among Massachusetts workers, low back pain is present in over half of compensable lost time injuries, and these cases account for an estimated three quarters of total lost work days. Low back pain cases are also noteworthy in that in a work environment in which modified duty is supported by management, labor, and local medical providers, over half of the low back pain cases will return to work by way of modified duty. It is thus a very costly impairment, the resolution of which involves participation of the worksite as well as medical providers.

Other Study Limitations

Out-of-state medical providers, chiropractors, psychologists and social workers were not formally included in the survey of providers, although they appeared in other parts of the study. The provider types included in the survey (see Section II) account for roughly 80% of the parties who could be expected to treat the kinds of injuries that occur in the workplace.

Our review of medical reimbursement rates, legislative and private sector initiatives, and system costs are limited to date by the time and resources made available.

II. Provider Survey

We designed and tested a comprehensive mail survey to capture opinions from orthopedists, occupational health MD's, and a broad range of other providers in specialties known to treat workplace-type injuries. The survey vehicle was tested for content and style with a physician, physical therapist, vocational rehabilitation provider, and an office billing specialist. A sample is attached as Exhibit 1.

Our purpose was to develop an understanding of the issues of availability of services, discrimination in access, and the impact of incentives and disincentives in the new workers' compensation system (including the new rates). The survey was designed to yield both quantitative measures and freely structured opinion.

Because this was a voluntary mail survey, the respondents can be assumed to be those with an interest in the workers' compensation system. Their answers cannot be used to get an accurate picture of the number of providers treating back injuries or accepting workers' compensation patients. (We have made those estimates based on random telephone surveys, reported later.)

In May, the survey, coded by specialty, was mailed first class with a return envelope.

Distribution		Usable Returns
Orthopedists	500	130
Occ Health MDs	165	19
Case Managers	80	8
OT/PT/Voc	85	13
Hospitals	110	3 (19)*
Urgent Care/other	40	11
Other MDs		21
TOTAL	980	205

*Nineteen hospitals returned surveys. Of those, all but three are counted in specific provider categories.

In addition, there were 41 surveys returned with incomplete data, generally with comments only. A small number were sent back noting that the provider was retired or had no clinical practice. Nine were received to late to be tabulated. The total response was 255, or 26% of the original distribution.

We have divided the survey data into four major categories for analysis, following the major sections in the survey instrument : 1. Waiting Period for Appointment; 2. Assessment of Patients; 3. Opinion Regarding the New Rates; 4. Opinion on System Issues.

II. Provider Survey

■ Waiting Period for Appointment

What is the usual time a patient with a work-related, non-emergency lower back injury waits for a first appointment?

We analyzed the waiting period by practice category for those providers that can be readily accessed without a referral.

Practice Category	N	Average Wait, in days
Hospitals	17	16.0
Occ Health Center	15	4.0
MD—solo	45	20.1
MD—group	39	17.6
Urgent Care Center	2	0

Urgent care and occupational health centers, primarily corporate facilities, show the very short wait expected for a first response to an injury. The other settings, including hospitals, where the majority of the respondents were orthopedists, show the waiting time for a first appointment with a specialist for a full assessment and development of a treatment plan.

A typical injured worker with a lower back problem would wait two to three weeks for a specialist evaluation.

We then examined orthopedists separately, as the specialty most likely to be consulted for a comprehensive evaluation. Of the 130 orthopedists who responded, 72 in private practice indicated a waiting period. We split the responses by the volume of workers' compensation business in the practice.

WC as % of total practice	N	Average Wait-days
1-20%	43	22.0
> 20%	29	16.0
> 50%	6	9.2

Although the data show that the practices with a larger workers' compensation caseload see patients more quickly, nothing can be inferred about the quality of care. When we looked at provider satisfaction with the payment rates and other system issues, we found no correlation between volume and satisfaction.

We tested for physician awareness of the specific modified duty options that might be available to patients they are treating, and the likelihood of referral to work hardening programs, as an indicator that physicians were considering job requirements in the design of their treatment plans. This awareness goes beyond access to one of quality of treatment plan.

II. Provider Survey

Practice	N	% Referring to Back Programs	Awareness of specific modified duty options-average score
Hospital	17	70.6	2.6
Occ Health Center	15	66.7	2.2
MD—solo	45	66.7	2.6
MD—group	39	71.8	3.1
Urgent Care	2	100.0	2.5

Physicians are willing to make referrals to "work hardening", "back strengthening", or "stress management" programs. The question of whether they are doing so often enough is explored in Section VI.

The response to "awareness of modified duty" falls between "sometimes" (3.0) and "frequently" (2.0). This indicates that although a majority of physicians may be taking modified duty options into account, a significant number are not, and opportunities for early return to work are being missed.

(See Technical Note on page 3 of Exhibit 1 for a general explanation of the scoring of this and the following questions.)

■ Assessment of Workers' Compensation Patients

How do respondents categorize patients with work-related conditions compared to patients injured away from work?

We analyzed 187 responses (all respondents who indicated that they treat workers' compensation patients). In addition to looking at the total population, we compared orthopedists, occupational medicine MD's, and PT/OT/case managers. Response were scaled 1-5, with 3 being "same".

In most of the categories, the average score was close to 3.0 (same), with a tendency toward a slightly negative evaluation or workers' compensation patients.

Category	Response and average score
likely to seek prompt treatment	more likely (2.2)
difficulty of initial diagnosis	more difficult (2.6)
likelihood of diagnosis revision	more likely (2.7)
severity of injury	less severe (3.2)
difficulty establishing treatment plan	more difficult (2.3)
patient compliance	worse (3.6)

In other categories, the responses were much more striking. In addition to the average response, we tabulated the responses that fell at the end of the 1-5 scale.

II. Provider Survey

Category	Response/score	% with response at the end of the rating scale
length of treatment	much longer (1.6)	49.2 scored 1
motivation to recover medically	much worse (4.2)	38.0 scored 5
motivation to return to work	much worse (4.3)	42.8 scored 5
likelihood of returning to 100% of pre-injury status	much less likely (4.2)	34.2 scored 5
likelihood of lawyer involvement in the treatment plan	much more likely (1.5)	57.2 scored 1
likelihood of insurer involvemen in the treatment plan	much more likely (1.9)	35.8 scored 1

Results by provider category are shown in Exhibit 7, Table 1.

Providers in all categories view workers' compensation patients as significantly less desirable than other patients in areas apart from the initial diagnosis and treatment. We suspect that as treatment lengthens, workers' compensation patients are viewed as less motivated, less likely to recover, and more likely to bring outside parties, such as lawyers and insurers, into the medical domain.

■ Opinions Regarding the New Rates

We asked providers to do two things—comment on the adequacy of the new rates, and list the fees they currently receive for workers' compensation procedures. The first question was meant to test the anecdotal evidence that suggest that all of the fees are perceived as severely inadequate. The question does not test whether workers' compensation rates are more or less adequate than, say, Blue Cross or HMO rates. The second question was designed to test basic awareness of the new rates.

We examined a range of procedures that included office visits, reports, consultations, and surgical procedures. We separately analyzed orthopedists, occupational medicine MD's, and PT/OT/case managers.

Of the 187 providers responding, approximately two-thirds indicated for any given procedure that they knew what the fee was. However, when asked to write in the fee, many fewer responded; only 43 entered a fee for a standard office visit, and that was the highest tally. We suspect that real knowledge of current fees is low.

Ninety-five percent of the opinions regarding rate adequacy were expressed by providers who claimed to know the fees. The other 5% came from providers who claimed not to know the fees, but expressed an opinion anyway.

II. Provider Survey

With only one exception, across all providers and all procedures, the feeling toward the current fees is extremely negative. With the exception of OT visits, which scored between adequate and somewhat inadequate among OT providers, all procedures scored between somewhat inadequate (4) and severely inadequate (5).

Sample Procedures	Score
9004 standard OV	4.6
9006 OV—unusual	4.6
9152 standard consultation	4.7
9157 initial comprehensive OV	4.2
9158 comprehensive written report	4.4
9159 treatment plan consultation	4.3
176002 PT visit	4.5
176012 OT visit	4.1
1200 arthrotomy, shoulder	4.9
1364 lumbosacral fusion	4.9

We cannot be certain how much of this negative feeling is based on real knowledge of the rates. However, response to the rate fill-in question suggest a limited awareness of the new fees.

Procedure	Fee	Number of Responses	Number Correct	No. High	Range	No. Low	Range
9004	$28	43	20	17	31.50-72.50	6	18.00-27.00
9006	$56	32	15	4	60.00-75.00	13	25.00-54.00
9152	$28	25	13	10	31.50-120.00	2	27.00
9157	$90	40	21	2	125.00	17	40.00-86.00
9158	$16/ 15 min	18	4	Other response in whole dollars, 25.00-95.00			
9159	$16/ 15 min.	8	2	Other responses in whole dollars,45.00-95.00			

II. Provider Survey

Several survey recipients called to ask where to get a copy of the codes and the rates. Many commented on their surveys that the workers' compensation rating scheme should be changed to CPT-4 coding for all billing, to help standardize office procedures with health insurance requirements.

We conclude that the new fees have done nothing to improve access. However, the new rates have not been given a fair test, since provider awareness is far below what it could be. The question of whether rates alone could ever be expected to have an impact is discussed later in this report.

- Opinions on System Issues

If respondents could begin to change the workers' compensation system, how important would it be to focus on the following issues?

Issue	% "Critical"	% "Critical" or "Very Important"
paperwork	25.1	61.5
billing procedures	26.2	50.8
the amount of litigation	48.1	69.5
requests for information	31.6	62.5
time spent in hearings	13.4	28.3
difficulty of ratebook	26.7	43.3
payment rates	57.8	73.8
insurers' speed of payment	41.2	65.2
patients' motivation	44.4	74.3

It is interesting to note that "patients' motivation" got the most attention, and "amount of litigation" the third highest in the combined analysis. This suggests, as did the Patient Assessment results, that there is as much frustration with a system that does not return people to work quickly enough, as there is with payment rates. This idea will be explored in more detail later.

II. Provider Survey

Priorities for Change	% mentioning as 1 of 3 choices
paperwork	23.5
billing procedures	9.1
the amount of litigation	29.4
requests for information	9.1
time spent in hearings	3.7
difficulty of ratebook	9.1
payment rates	52.9
insurers' speed of payment	31.0
patients' motivation	37.4

Here again, patient motivation, which providers generally cannot control, was a high priority, ahead of speed of payment, suggesting a problem that goes beyond payment.

III. Provider Telephone Survey

In May a telephone survey was conducted to determine the availability of orthopedic care for an individual with a lower back injury suffered at work. The surveying was done to model the actual experience a person would have if he or she tried to get an appointment directly. In those instances where the researcher was referred on to another provider, the researcher followed the referral pattern and included those responses in the survey as a secondary call.

The survey instrument was designed to test specialist acceptance of workers' compensation patients, geographic differences in accessibility, and average waiting times for an actual appointment. A sample of the telephone survey 1 is attached as Exhibit 2.

Physician names and numbers were taken from Folio's Medical Directory of Massachusetts, 1990. Localities were selected based on the presence of an industrial base. Cape Cod was included based on anecdotal recommendations. Each of the localities were listed alphabetically by city and physician. For orthopedists located in Boston, every seventh name was called. In Cambridge and Worcester 66% of the orthopedists were contacted. The first name was skipped and the second and third contacted. In all other localities, 100% of the orthopedists listed were contacted. If the first call led to a referral, the referring call was made and then the researcher went back to the call methodology. Twenty-eight calls were made based on these referrals.

Ninety-nine selected telephone calls and 25 referral calls were made to orthopedic surgeons in 11 defined localities throughout Massachusetts: Boston, surrounding communities (Arlington, Cambridge, Dedham, Newton, Waltham, Wellesley, Woburn), Lowell, Lynn, Fall River, Cape Cod, Worcester, Fitchburg, northwest Massachusetts, Springfield, and Pittsfield.

Of the 124 calls, 44% offered to schedule an appointment for the researcher (N=55). Fifty-six percent of the sample would not. Of those that refused to schedule an appointment (N=69):

> **16% or 11 respondents (9% of the total sample) reported they did not see workers' compensation cases.**

Other reasons given by those offices which would not schedule an appointment included:

> specialize in hand surgery
>
> don't treat backs
>
> the doctor only performs surgery

III. Provider Telephone Survey

	the doctor only takes referrals not taking new patients go to an emergency room. Of the 55 physician offices willing to schedule an appointment the waiting time ranged from 6 to 23 days. The average waiting time for an appointments was 13.3 days.
Variances in willingness to treat	Substantial differences were noted throughout the state in both the willingness to treat a work-related back injury and the waiting time for an appointment. Also, in Cape Cod, Lynn, Lowell, Fall River and northwest Massachusetts, the supply of orthopedists willing to treat work-related injuries is extremely limited. On Cape Cod, most orthopedic offices contacted specifically refused to treat workers' compensation injuries. In Lynn 25% of the orthopedic offices called specifically refused to treat workers' compensation injuries. In Lowell 20% of the orthopedic offices contacted refused to treat workers' compensation injuries. In Boston, 12% of the orthopedic offices contacted refused to treat workers' compensation injuries. In communities surrounding Boston, 6% of the orthopedic offices called refused to treat workers' compensation injuries.
Calls to get an appointment	In Boston, it took the researcher 3 phone calls to get an appointment, with an average waiting time of two weeks. In Springfield it took 5 calls to get an appointment date in 11 days.
Anecdotal information	Several comments made by the office staff suggested that workers compensation cases are quite different from others, for example; "We can't see you here in our office. Try (delete), but don't tell them that I told you to call." "No, I can't help you here, and I don't know who you can call." One office asked for a $90.00 deposit before they would set up an appointment. Of the 124 phone calls placed, only two offices asked about the condition of the patient.

IV. Provider Telephone Survey 2

In order to identify whether the nature of the injury or the type of insurance was responsible for orthopedic office responses, a second telephone survey was conducted on June 3 to the same offices contacted in provider telephone survey 1. The researcher was instructed to change the description of the injury from "My husband hurt his back at work" to "My husband hurt his back gardening this weekend."

A total of 124 telephone calls were completed, making the same request for an appointment as in provider telephone survey 1. Of those surveyed, 39%, or 48 orthopedic offices, set up an appointment, and 58%, or 72 offices, refused. When these responses were matched with the original calls for a work related injury, there were no significant differences in the responses. The only differences noted were the result of four physicians going on vacation.

Thirty-two percent of those orthopedic offices which would not make an appointment specifically stated they do not treat back injuries. The balance stated that they were "the wrong doctor" for an appointment, or specialized in other parts of the anatomy.

This first finding is significant, because it strongly suggests that it is not the type of insurance that prevents specialist access, but rather the type of injury.

We then calculated the average waiting time for an appointment and compared work-related injuries to non-work-related injuries. We found that the average waiting time for a work-related injury was 13.3 days compared to 10.3 days for a non-work-related injury.

This second finding is significant, because it suggests that "economic queueing" may be occurring. That is, that physicians are seeing those patients which come with perceived higher reimbursements (through higher fees and faster collections), prior to those on workers' compensation.

Provider telephone surveys 1 and 2 taken together suggest that there are three hurdles an injured worker must jump to get specialist care: the uneven geographic distribution of orthopedists; practice specialization, which, in the case of back injuries, reduces the available pool of specialists by 60%; and "economic queueing", which slows access to the remaining specialists.

See, Exhibit 7, Table 2 for a summary of the telephone survey results.

V. Employee Telephone Survey

To provide input from injured workers that would supplement the personal interviews we conducted early in the study, we contacted a random sample of claimants by phone, drawn from a list supplied by the Advisory Council. All were patients with back injuries. We concentrated on the issue of medical access and the person's progression through a treatment program.

Twenty-three people were contacted; 16, or 70% of them have returned to work. The longest disability of these 16 was 7 weeks. Seven, or 30% have not returned to work. Only one person still out of work has been out for more than three months. The average time out of work was 2 and 1/2 weeks.

Twenty two out of twenty three, or 96% sought medical care immediately. Twelve were assisted by friends or family. The employer assisted in four cases. Their points-of-entry were:

12 to chiropractors
8 to the ER, then to their own family doctors
2 to walk-in clinics
1 to an HMO

Most were able to see their first choice doctor. The average wait was 0 to 1 day. Three were unable because of a long wait. Following their initial care, 5 were referred to specialists. The average waiting time for an appointment was 3.75 weeks, the shortest being 2 days following a hospital admission; the longest being 3 months. The four out of five referred reported difficulty in attaining an appointment.

Bed rest was recommended in ten cases; the longest rest recommended was one week. Common treatment practices included prescribing pain and/or anti-inflammatory medications, as well as x-rays, CT scans or MRI's in 56% of the cases. Nine, or 39% were referred to physical therapy.

Compared to other medical experiences, 9 or 39%, described their care about the same, 35% said better, 13% felt much better, and 13% described this experience as being worse.

We believe that the reported lack of access trouble and general satisfaction with the medical care received was a function of both entering the system at the primary care level, and exiting before the treatment became complex enough to involve specialists, insurers, and attorneys. The experience of this group should be compared to the reports of the personal interviews, where the patients were more severely injured, had been in the system longer, and had begun to experience what they perceived to be access problems and inadequate treatment.

VI. Medical Chart Audit

Purpose

The purpose of this component of the study was to determine if an individual with a work-related back injury in Massachusetts is cared for differently than patients with non-work related lower back injury. Secondly, to determine if the care is different, does it differ in terms of treatment intervention or duration.

Background

The research team wanted to compare the treatment of workers' compensation back injuries to a currently accepted standard of treatment. The epidemiology and natural history of lower back pain is well described in several medical journals (1,2) (Please refer to reference in Section X). Experts state that lower back pain should by definition be both a benign and self-limiting condition. It is readily apparent that in the area of workers' compensation it is neither.

The back pain patient must be considered in two ways, the acute phase and the chronic phase. In the acute phase medical intervention should be minimized with the negative effects of any treatment avoided (3). This is particularly true in regards to diagnostic testing and bedrest as a treatment. In the past, these approaches have been favored. However, eight controlled studies, reported on by Waddell, have demonstrated little relationship between clinical symptoms and radiologic changes in degeneration (4). A study by Frymoyer showed that 30%-40% of CT scans, mylograms and diskograms revealed abnormalities in asymptomatic subjects (5). Another study demonstrated that over 1/3 of asymptomatic females tested showed abnormal discs when examined by MRI (6). A study by Gilbert found no statistical difference between bedrest, exercise, and no treatment (7). Yet another study showed that 2 days of bedrest was better then 7. Furthermore, there is no evidence that suggests that early activity is detrimental to recovery or that early return to work increases the likelihood of recurrences (8). Most importantly, it has been determined that bedrest has significant deconditioning and degenerative affects on the human body.

Current standards of practice for a patient with an acute episode of back pain include instruction on the management of symptoms and the prevention of further aggravation. Back schools with the objectives of increasing knowledge, have shown to be helpful in reducing fear, improving the patients ability to cope with the injury and expediting the return to work (9).

A large review of selected literature on spinal disorders (769 articles) was undertaken in September of 1983 by the Quebec Task Force on Spinal disorders. The formation of the Quebec Task Force on Spinal Disorders followed a request from the Quebec Workers' Health and Safety Commission. The Commission asked the Institute to undertake clinical research on the problem of spinal disorders occurring in the work place. In June, 1983, the Institute for Workers' Health and Safety charged the Quebec Task Force on Spinal Disorders with the following specific instructions.

VI. Medical Chart Audit

- To develop and test a typology for the various treatments utilized in a variety of morbid conditions of the spinal column found in injured workers (developed matrices for the evaluation of both diagnostic and therapeutic measures).

- To evaluate the effectiveness of physiotherapy on the course of different stages of these disorders. (Are the results of these treatments effective? If not, it is because of inaccurate diagnosis? If the diagnosis is accurate, is the selected therapy appropriate?)

- To determine the causes of the differences in duration of treatment from one institution to another for identical morbid conditions.

- To make recommendations designed to improve the quality of treatment for injured workers with these morbid conditions of the spine.

In summary, the mandate of the Quebec Task Force on Spinal Disorders was to address the burden on workers, employees, employers, and society imposed by disorders of the spinal column as they occur in the workplace.

The Quebec Task Force on Back Care has recommended the following protocol for the treatment of spine dysfunction from the point of injury:

> **The initial medical visit must include a complete physical examination and thorough medical history. Approximately 1% of the patients will be under age 20 or over 50 and have a history and/or signs of trauma, recurring problem, neoplasm, fever, or neurologic deficit. These patients are given X-rays, appropriate laboratory tests, and referred to a specialist.**
>
> **For the remaining 99% of the patients, treatment consists of analgesics and/or nonsteroidal anti-inflammatory agents. If the pain and/or spasm is intense, 2 days of bed rest are prescribed. If the pain or spasm remains intense, another 2 days of bedrest are prescribed. If the second period of bedrest does not alter the pain, other therapeutic modalities are considered, including physical therapy and education. X-rays and laboratory tests are generally useless at this stage.**
>
> **If the patient has not resumed work after four weeks, a complete reevaluation is performed, including X-rays, and sedimentation rate. Occupational therapy is added to the treatment.**

VI. Medical Chart Audit

If the patient has not resumed work after six weeks, a specialist is consulted for examination and recommendations.

If the patient has not resumed work after three months, a multidisciplinary team is consulted, including specialists for the spine, psyche, and functional and occupational rehabilitation. Only 2%-3% of all patients require specialist or multidisciplinary consultation.

In work-related injuries it is critical that the employer be involved early in directing the process and working closely with the medical community. 5,300 employees at the Potomac Electric Power Company and 14,000 United States Postal Service workers were studied. An "active" system in which patients were evaluated weekly was implemented at the power company, and a "passive" system in which patients were seen only once was instituted at the U.S. Postal Service. The number of low-back pain patients at Potomac Electric Power Company decreased 29% the first year and 44% the second; days lost from work decreased 51% the first year and 89% the second; low-back surgery dropped 88% the first year and 76% the second year. Results for the U.S. Postal Service demonstrated a decrease in the number of low-back pain patients (41%), in days lost from work (60%) and in financial costs (55%).

Results led to the following conclusions: (1) Good medicine leads to cost savings in treating industrial low-back pain. (2) Use of a standardized medical approach and nomenclature is necessary and practical, for consistent care. (3) A good record keeping system is essential to perform useful medical analysis for identifying scientific problems. (4) Unbiased medical surveillance leads to changes in behavior of both treating physicians and patients. (5) The outcome for most low-back pain patients in industry is not as grim as previously perceived if their medical management is approached in an organized manner (11). Wood increased communications between the patient, employer, practitioner and insurer at the Juan de Fuca Hospitals, and significantly reduced the proportion of long-term disability claims (12). The supervisor should be trained to show concern for the needs of the worker, avoid making judgments and setting up adversary relationships, encourage the worker to seek immediate in-house medical treatment, and consider the possibility of adapting the workplace (or modifying the work) so the worker may continue working on the job. With this approach, American Biltrite reduced low back workers' compensation from over $200,000/year to less than $20,000/year (13).

Chronic back syndrome, should be determined more by the addition of psycho-social-economic factors than by duration of symptoms. Chronic pain and chronic illness behavior become increasingly dissociated from their original physical basis (14). Programs including a high level of objective assessment and; a conditioning approach to therapy combined with psycho-social support appears to be the most effective treatment intervention in the chronic population.

VI. Medical Chart Audit

This approach is documented in a study reported in the Journal of the American Medical Association in 1987. A two year follow up survey demonstrated an 87% return to work rate of a group of patients following a physical, and job conditioning and behavioral support program. This is compared with a 41% return to work rate in a non-treatment comparison group. More importantly, about twice as many of the comparison group patients had additional spinal surgery relative to the treatment group. The comparison group continued with an approximately five times higher rate of patient visits to medical professionals in the second year when compared to the treatment group. Also, the treatment group re-injury rates were no higher than those expected in a general population, while the non-treatment group population had a reinjury rate higher than the general population (15). A similar study completed in 1989 showed similar results (16).

Study Design

Information was gathered from two retrospective chart audits. The charts were obtained from out-patient private practice physical therapy clinics located in Massachusetts. Charts were divided into a workers' compensation group and non workers compensation.

The first chart audit looked at the documentation of events which took place between the onset of injury or symptoms and the initiation of physical therapy and/or rehabilitation. Thirty-one non-workers' compensation charts and 17 workers compensation charts were reviewed. The second chart audit dealt with the amount of time between injury or onset of symptoms and referral to rehabilitation, the evaluation carried out, the treatment programs implemented and duration of treatment. Seventeen non-workers compensation charts and 29 workers compensation charts were reviewed.

Discussion

In the first retrospective chart audit, the average number of days from when a patient is injured or the onset of symptoms to a physician visit is 1.4 days for the non-workers' compensation patients and 2.9 days for the workers' compensation patients. Although extensive intervention is not indicated, a complete physical examination should be carried out by a physician, nurse or therapist within a day of the injury. Under the Quebec Guidelines, this would insure that the 1% of the patient population at significant risk would be identified promptly. Bed rest was also relatively high in both groups with 9 days for the non-workers' compensation population and 12.2 days for the workers' compensation population. The study did not identify whether the bedrest was continuous or intermittent. In any event, bed rest has been shown to be of little value and for the most part has significant deconditioning affects on the patient. The Quebec Guidelines model recommends a maximum of 4 days if necessary before implementing active therapies.

VI. Medical Chart Audit

The length of time off work is significantly higher in the workers' compensation population (8.3 months vs 1.25 months). This difference may be due to the severity of injury, physical demands of re-employment or the psycho-social-economic factors associated with work-related injuries. According to the Quebec Guidelines, after 3 months additional interdisciplinary intervention should be considered to address the above issues.

Anti-inflammatory and muscle relaxant medications appear to be similarly prescribed in both patient populations. Analgesics, however, are more frequently prescribed in the workers' compensation population (55.2% vs 17.6%). This finding may again be due to more severe injury or the longer duration of disability and therefore to the interest and opportunity to try alternative interventions in the workers' compensation.

X-ray studies were performed in 58.8% of the non-workers' compensation population and 58.6% in the workers' compensation population. As reported in multiple controlled studies, x-ray testing is of little value in determining the cause or in affecting clinical decisions in the acute patient population. It appears that in both the non-workers' compensation and workers' compensation populations, x-rays are over-prescribed. This study did not determine at what point in the course of treatment x-ray studies were prescribed. In addition, CT-scans, MRI's and electromylograms are prescribed in a larger percentage of the workers' compensation population (44.8%, 62.07%, 20.6%). Again, it is probable that additional testing has been ordered due to the longer duration of symptoms in the workers' compensation population.

The second retrospective chart audit related to the rehabilitation process. The Quebec Guidelines recommend beginning physical therapy and education if the patient has not improved within 2-4 days of rest. The audit revealed that individuals with work-related injuries begin rehab later then the non-work related population. Only 5.8% of the workers' compensation population was referred to rehab within 1 week of injury compared to 16.1% of the non-workers' compensation population. 64.7% of the workers' compensation population waited at least 6 weeks prior to rehabilitation compared to 35.4% of the non-workers' compensation population. The rehabilitation process including evaluation, progress notes, specific plans, and treatment programs including modalities, flexibility, strength and aerobic conditioning and home treatments were essentially identical between populations.

A significant variation was evident in the duration of treatment. In the workers' compensation population 76.4% of the population was treated for greater then 9 months compared to 16.1% of the non-workers' compensation population. Again, this may in part be due to a greater severity of injury in the workers' compensation population, a more physically demanding job to return to, and the psycho-social-economic factors which are concomitant with work related injuries.

VI. Medical Chart Audit

Assessment

The chart audits revealed variations between the type of treatment provided, the length of disability and the amount of time to commence rehabilitation, physical therapy was essentially the same. Most importantly, the initial treatments audited consistently fell outside the recommendations of the Quebec Guidelines. As the length of disability increases the likelihood of testing and treatment also increases. The Quebec study found that 74.2% of workers with activity related spine disorders returned to work within one month, however, 7.4% of workers with activity related spinal disorders who are not back to work within six months account for 75.6% of compensation and medical costs. McGill, reporting on the probability of returning spine injured employees back to work, found that only 50% of employees who were out 6 months returned, 25% of employees who were out over a year, and essentially nobody returned who was out for longer than 2 years. Accordingly, the Quebec study recommends a strategy directed at maximizing the number of workers returning to work before 1 month and minimizing the number whose spinal disorder keeps them idle for longer than 6 months. Thus returning to work as a management objective is both sound clinically and economically. This study also does not match individuals by job type. The reader is cautioned not to over-interpret the results. Given the time constraints of the study a controlled, matched group of workers' compensation and non-workers' compensation patients could not be developed. The length of disability in the workers' compensation population may be driven by the nature of the position the employee needs to return to, rather then the medical outcome.

Discussion

Using the Quebec Guidelines as a model, this study suggests that individuals in the study population are not referred for evaluation and rehabilitation as aggressively as the model recommends; that therapeutic intervention is consistent in the workers' compensation and non-workers' compensation; and that there is a longer duration of disability in the workers' compensation population. The exception to the consistency of care in the workers' compensation and non-workers' compensation population, additional tests and medication appear to be prescribed. Quebec Guidelines recommend interdisciplinary intervention at 3 months. Interdisciplinary programs with objective assessment, documentation, conditioning, and psychological support in a time limited frame work appear to be most effective. It is essential that the employer be significantly involved as a partner in directing the rehabilitation process.

VII. Personal Interviews

■ Work Injured Individuals with Lower Back Pain

The research team met with thirteen employees from a wide variety of industrial settings to hear their descriptions of both their injury and treatment. The format of the interviews was open-ended in order to focus attention on those issues that were important to the individual. Most had significant impairments, with duration of disability up to fourteen months.

Several significant themes developed from the interviewing.

First, all described a great deal of fear created by the experience. That fear seemed to come from not knowing the extent or cause of injury and the potential loss of income. All described a feeling of not knowing what to do or where to turn for help.

Second, they did not encounter much difficulty in accessing initial treatment. Their primary access was through their own doctors (3), chiropractors (3), walk-in clinics (3), company doctors (2), and the emergency room (2). They had more trouble as treatment progressed, as they started to have contact with a range of specialists, and began to experience insurance company pressure and IME's. We were told that at the specialist level these patients had trouble accessing their physician of choice, because that doctor did not treat workers' compensation cases. As treatment progressed, those who were most successful in accessing care had it arranged by their employer, personal physician, or lawyer.

Third, all described similar evaluations: "Bend over, touch your toes, etc." The process was described as impersonal and superficial. One particular interviewee described a physician encounter where surgery was recommended without a diagnostic workup or review of chart information and CT scans.

Anecdotes from the interviews included:

"No one seemed to care about me."

"You feel jerked around by everybody."

"They give you pills and tell you to go home to bed."

"My company doesn't seem to care."

"You feel like you're in a squeeze play between the insurance company, the doctor and your employer. You have to protect yourself."

"They force you to get a lawyer."

"From the time I was injured, my boss treated me differently."

"Hey, you get a check every week. Who wants to go back to work?"

"I went back on light duty, only it wasn't light duty."

"When you're out on comp, everyone has a snicker."

VII. Personal Interviews

"What's your problem, you're on workers' comp."

"What do you expect, if you pay welfare rates, you get welfare medicine."

"It took three months for me to get an appointment."

"I was out of work for 28 months. Most of that time was spent waiting for appointments."

"You feel like just another file."

■ Employer representatives with responsibility for workers' compensation

We met with seven employers representing companies located in Boston, Cambridge, central Massachusetts, the Springfield area, Pittsfield, Westfield and Lawrence.

All of the employers stated that their employees had difficulty getting appointments with specialists. Several mentioned that they felt that reimbursement rates were the issue. One employer has made special arrangements with their insurance company to pay higher rates. Others have established specialized relationships with providers, to assure that their employees can be seen in a timely fashion. One employer who recently went into the assigned risk pool stated that the level of service had dropped off dramatically, and that when an employee gets injured, the insurer is much less responsive than they were when the company was not in the pool.

A large Boston employer stated that things were so bad, they formed their own provider network. When an employee uses that network, they are seen the same day. If they use their own resources, it takes about a month to be seen.

A complaint raised by all employers was that most doctors do not understand the nature of specific jobs and tend to use subjective rather than objective information in determining return to work.

Every employer described specific physicians and chiropractors in their community that were known as "comp docs". When these particular providers were being used, they knew that the employee would be out for a long time or that an attorney would be involved. One employer described a husband-wife, doctor-lawyer team.

The employers were asked what improvements they would make in the medical system. The general feeling was that there should be much better communication between the employer, physician, insurer and employee. In addition, there should be greater focus on objective medical findings, rather than employee descriptions. An approach much more like an HMO was also recommended.

VII. Personal Interviews

Quotables

"Physicians are moving their practices over the border to get better rates."

"One of our employees was refused surgery because of the rates. Our TPA ended up finding someone for him."

"The system is so bad that we just try to minimize our losses."

"We can't get the physicians we want for our employees because of the rates."

"It seems like the medical system just ping-pongs them around."

"We send our employees to Pawtucket, Rhode Island. We can get them seen in 24 hours." (This employer is located in Leominster, MA.)

"If someone needs a neurologist or neurosurgeon, they have to travel to Springfield, Hartford or Albany." (This from an employer in Pittsfield.)

- Attorneys

In our discussions with a small sample of attorneys, we focused on three issues: perceptions of differences in access to care or the quality of care; their views on why, according to physicians, injured workers stay out longer than medically necessary; and their views on why injured workers seek attorneys.

The lawyers interviewed saw no difference in the quality of care, but did note some difficulty in getting specialist referrals. One noted that quality may suffer for some patients as they reach a medical endpoint and "shop" for another physician who will continue their disability.

Regarding the second issue, the consensus was that workers stay out because their job may have disappeared, they fear a layoff, the job is undesirable, or they fear reinjury. Access to medical care was cited as a factor.

In the opinion of the lawyers they are consulted because of fear and lack of understanding of the system, because of insurer denials or termination of benefits, because of concern over employer actions, and because the injured workers believe they are entitled to a settlement.

- Medical providers

The research team interviewed twenty-five medical professionals including physicians, a representative of the Massachusetts Orthopedic Association, a policy analyst for the Massachusetts Medical Association, vocational rehabilitation therapists, and occupational health nurses.

VII. Personal Interviews

Because of the volatility of the physician fee issue we have discussed the responses from physicians and representatives of the physician community separately from the others.

- Physicians

The responses of the physician community and their spokespersons must be understood within the overall context of medical practice within the Commonwealth. The key issues revolve around reimbursement and typical supply and demand curves. The Massachusetts Orthopedic Association reports shrinkage in the supply of orthopedic services based upon:

- subspecialization within specialties
- migration out of state
- aging up of practitioners

As a result, overall clinical time is reduced, while demand for services remains constant or increases.

A 1988 study conducted by the Massachusetts Health Data Consortium demonstrates dramatic regional differences in the per capita number of orthopedists available. The statewide rate is 8.4/100,000, Boston has a rate of 22/100,000, while the lowest rates are concentrated in areas north and south of Worcester and north and west of Boston. By definition, this suggests that all else being equal, accessibility will vary by region based on specialty availability.

The workers' compensation system is described as one item on the list of woes in the practice of medicine in Massachusetts. It goes along with the restrictions on balance billing, malpractice insurance and the general economic climate of the state.

Rates are perceived as being tied to medicaid reimbursement. To quote one commentator. "I don't have a problem with Medicaid rates for the indigent: that's part of my social responsibility; but why should I have to accept medicaid reimbursement from a program funded by employers, just like regular insurance."

Another commentator has suggested that physicians don't refuse to see work injured individuals, they simply triage them with their other patients. That is, they will care for their current patients first, then referrals from colleagues, and then queue based on reimbursement.

Another commentator suggested that orthopedists do not like back injuries, because of an ill-defined therapeutic end point. Simply put, a broken bone can be easily detected, set, and in approximately six weeks the patient should be cured. Lower back injuries are more difficult to diagnose, and the therapeutic endpoint is less well defined.

VII. Personal Interviews

A nationally known medical researcher states that patients with work-related injuries are often not accepted for therapeutic studies, because their lawyers and payments interfere with their recovery.

Quotables from personal interviews

"Workers compensation is not a social welfare program. Why do we get welfare rates."

"When I do a workers comp case, I get some person from the insurance company telling me what to do."

"I tell them they can go back to work, and they go get another doctor."

"In this area, it's easy to see an orthopedist; we have lots of them."

Following the mail survey, the researchers conducted telephone interviews with a small sample of physicians who had responded, to ask followup questions.

We first asked for an opinion about why treatment for workers' compensation cases was longer, according to the majority of physicians surveyed. The consensus was that the longer treatment was due both to the need to have the patient back to 100% function, to meet the physical demands of their job, and the patient's perception that anything less than full, pain-free function will lead to either reinjury or layoff.

We probed for differences in the speed of claim processing between workers' compensation insurers and health insurers, to see if complaints about speed of reimbursement were general or localized. The universal opinion was that workers' compensation insurers pay much more slowly and are significantly more difficult to contact regarding billing delays, compared to health insurers.

We asked what impact, if any, the fee increases in February 1986, July 1988, and September 1989 had had on the doctor's practice. The responses were generally neutral; that is, the increase had no impact on their likelihood of accepting a new patient; However, we did receive some pointed comments on the rates:

"Even with the increases, our cash flow hasn't improved, because of all the non-billable time we spend."

"There haven't been any increases. Even when we bill a $90 first visit fee, we receive a $28 payment instead."

We asked where the physicians felt the rates ought to be set. They responded, not surprisingly, "At usual and customary."

VII. Personal Interviews

■ Allied professionals

We interviewed twelve vocational rehabilitation providers and case managers to get the perspective of people who deal with the more serious injured workers and cases of longer duration.

In the opinion of this group of providers, there was no perceived difference in the quality of care, once the patient was in treatment. They did note both regional differences in the difficulty of obtaining appointments, and a general difference between finding a consulting physician (relatively easy) and a treating physician (occasionally difficult). They noted that by the time a person approaches the vocational rehab process, they are "carrying a lot of baggage", a lot of resentment directed at insurers and employers.

On the issue of medical care possibly being longer for workers' compensation patients than for others, they stated that while treatment is frequently longer, the cause is not access to care. They suggested several common issues, including having no job to return to, fear of layoff, fear of employer retribution, and the fear of possible reinjury. They also suggested that employers are not making adequate accommodation for modified duty programs: the consensus was that 85% will not or cannot make a reasonable accommodation.

It was the opinion of this group that increasing specialist fees would probably increase the number of choices available to patients, but, because of the broader issues they mentioned, would have little impact on the timing of return to work.

■ Payors—insurers and a third party administrator

In order to make the best use of limited research time, the researchers decided to interview two traditional workers' compensation insurers, one that is likely to fairly represent the large carriers and the other the smaller companies, and a relatively new, non-traditional third party administrator with a focus on coordinating care for all claimants from the first day of injury. While all are in the business of paying claims, their perceptions of the workers' compensation system, providers, and patients are quite different, and instructive.

A. Perception of differences in the availability or the quality of the medical care received by injured workers and other patients.

The insurers see little difference, aside from noting that doctors keep up treatment "longer than is necessary". However, the large company respondent also said the company pays no attention to the medical treatment for the first ten weeks of a claim, preferring to concentrate review resources on cases that are likely to become eligible for rehab.

VII. Personal Interviews

The TPA also reports no difference in access to either initial treatment or followup care, although they have noted some difficulty in arranging appointments with orthopedists. With regard to quality, no differences were reported. The respondent did note that there are wide variances in acceptable treatment protocols for back injuries, with a substantial number of providers favoring an extended course of rest and analgesics, followed by ultrasound, electrical stimulation, and heat packs—a course the therapists refer to as "shake and bake". Other providers, particularly those specializing in occupational medicine, are more aggressive, prescribing shorter rest and earlier therapy.

B. Extent of involvement in treatment plans

Neither insurer is ever involved in the treatment plan during the first ten weeks. After that time, there is some likelihood at the large company that a rehab nurse will become involved, and the likelihood increases with the length of the claim.

The TPA is involved in the treatment plan as soon as they are notified by the employer, generally on the first or second day. Involvement takes two forms. First, they become advocates for both primary care and early therapy. If a patient was first seen in the emergency room, the TPA schedules followup care with a primary physician. In cases where the employee has selected an orthopedist, the TPA asks the person to consider a second opinion with a primary care provider, and is generally successful in obtaining consent. Second, the TPA "takes the doctor off the hook", as they describe it, by providing complete information about the injured worker's job functions and modified duty options, freeing the doctor to concentrate on the physical complaint.

C. Opinion regarding workers' readiness for work from a medical perspective, versus actual return to work date

The respondent for the large insurer was quite firm that in many instances an employee is physically able to return to work, but is "allowed by the doctor to remain disabled". It is the respondent's opinion that the doctors are being too sympathetic to patients' subjective perception of disability, and that the doctors lack the "intestinal fortitude" to send the person back to work. The smaller company responded that most of the blame rests with employers—that many employees are ready to go back to work, but their employers have made no provision for them, have "written them off", or will not provide modified duty. The respondent commented that, too often, the employer expects the insurer to take all of the initiative in finding alternative employment.

(In the researchers' opinion, these statements of attitude complete a circle of finger-pointing, with the insurer blaming the doctors and employers, the doctors blaming the motivation of the patients and ineptness of the insurers, and the patients blaming the insensitivity of the doctors and the chaos of the insurance system.)

VII. Personal Interviews

The TPA responded that by dealing with the whole system—the worker, the providers, the family, and the financing—almost all lost time due to the issues raised by the insurers can be eliminated. The researchers caution that the TPA's client base has been carefully selected to subscribe, in advance, to the total system approach.

D. What causes some employees to seek attorneys and others not?

This was the only question on which responses were uniform. The major incentives cited for attorney involvement were:

—not understanding the benefits and how the system works

—a disparity between expectations ("I am going to be cared for and can go back to work in a few weeks") and actual experience with the workers' compensation system ("I'm being jerked around by the insurance company")

—a strong union presence, recommending an attorney

—disability exceeding six months

—discontinuance of benefits

—friends' recommendations

VIII. Review of Other Sources

Statistical analysis of lost-time injuries and initial medical treatment

The researchers obtained and analyzed employer OSHA logs covering 1,116 lost-time injuries. The distribution of events by major industrial category was:

570 (51%) from manufacturing (textiles, clothing, paper)

354 (32%) from health care providers (hospitals, nursing homes)

192 (17%) from education (colleges)

Distribution of lost-time injuries:

	Total	Over 4 days
Back pain	18%	24%
Strain	34%	35%
Contusion	21%	20%
Laceration	7%	9%
Other	20%	12%

Note: 24% of back pain injuries in the "over 4 days" category is consistent with other research that shows 28% of compensable injuries being backs, due to variances in determining compensability, diagnosis information, etc.

Duration of lost time:

Back injuries—52% recovered within ten working days
Non-backs—55% recovered within ten working days

At some worksites, over half of all lost time cases were closed within five days.

Distribution of lost time injuries by lost days:

	1-4	5-10	11-20	21-59	60-119	120+
Backs	23%	29%	15%	13%	9%	11%
Non-backs	30%	25%	13%	17%	9%	5%

VIII. Review of Other Sources

Back injuries comprised 18% of total lost-time injuries, 24% of injuries over 4 working days and 35% of injuries over 119 work days.

Paths of entry into medical care:

Approximately 95% of injured workers seek initial care at an emergency room or walk in clinic. Between 10% and 15% of these obtain additional treatment from a second doctor. For injuries lasting over four days, the percentage of workers seeking followup treatment increases to 50%.

Observations:

In the first week after the first lost work day, back cases are closed about as rapidly as other cases, and at all but the longest duration category, back cases parallel other injuries in duration. ER's and walk-in clinics are the primary intake route. If the impairment persists, the employee pursues their own treatment plan by contacting their own doctor or attempting self-referral to a specialist. There appears to be little link between the initial contact and the followup treatment.

Observations from a Boston University Study

The Boston University Health Policy Institute has published return to work guidelines for a variety of medical and surgical conditions. These norms parallel the recommendations of the Quebec Guidelines referred to earlier. Their suggested norms are presented below:

	Medical Minimum	Routine "Normal"
Low back syndrome, backache, back pain (excluding disc syndrome) (from date of hosp discharge)		
a) desk or light work	1 week	2 weeks
b) heavy work	2 weeks	4 weeks
Low back syndrome, backache, back pain (excluding disc syndrome) (no hosp) counted from onset of injury		
a) desk or light work	1 week	2 weeks
b) heavy work	2 weeks	4 weeks

IX. Conclusions and Recommendations

Meeting Study Objectives

■ IDENTIFY THE AVAILABILITY OF CURRENT MEDICAL SERVICES TO INJURED EMPLOYEES

None of the data indicates any significant problem with access to primary care. Throughout the personal and telephone interviews with employees, they reported little trouble getting initial treatment through their own doctors, walk-in clinics, ER's, and chiropractors. The small number of occupational medicine clinics that responded to the written survey reported the same pattern. The medical chart audit, although showing a difference of 1.5 days in the time to receive first treatment, comparing workers' compensation and other patients, does not indicate a problem with primary care access.

B. Access to specialists

All of the data indicates that there are barriers to access to specialists. We have described the problem as three-tiered, made up of geographic, sub-specialization, and "economic queueing".

C. Access to therapies

The data from the medical chart audits clearly indicated that workers' compensation patients are referred to rehabilitation therapy much more slowly than other patients.

In general, we noted that despite the apparent lack of barriers to primary care, and in addition to the impediments to receiving specialist care and rehabilitation therapy, there is a profound lack of any coordination of care. Aside from the small number of employers that are experimenting with their own medical care networks, and the relatively limited experience of the third party administrator we interviewed, little is being done on behalf of injured workers to facilitate their progress through the medical care system and back to active employment.

■ IDENTIFY THE INCENTIVES AND DISINCENTIVES INFLUENCING THE PROVISION OF SERVICES

The mail and telephone surveys revealed few identifiable incentives to provide care to work-related back injuries.

The mailed survey demonstrated universal dissatisfaction with the existing fee schedule. The authors point out that the question asked only for the respondents' opinion of the current workers' compensation rates and did not ask for comparisons.

There is a tremendous amount of confusion about the current rate structure and a palpable dissatisfaction with having an employer-paid program tied to fees for the indigent.

IX. Conclusions and Recommendations

There is great dissatisfaction with the structure and availability of the current rate book. Respondents describe the current book as confusing and grossly outdated. Respondents requested that the system be based on CPT codes, which is the standard for the medical insurance industry. Several respondents were not aware that a rate book actually existed.

Several respondents indicated that although they were now billing for their written reports, insurers were refusing to pay for them.

One of the most significant findings in the research is the perception the medical community has of a work injured person. There appears to be almost universal agreement that they have less motivation to recover, are less compliant with treatment and require longer treatment plans. This is significant, because the medical provider is, by training, attempting to cure the injury or illness. In all other instances, this is an objective that is shared by the patient. The perception of the provider community as reported in the mailed survey suggests that back injured workers' compensation patients behave differently. The reader is cautioned in assuming that this is in fact correct. It doesn't matter what the patient's objectives are. The provider views the patient based on what he or she "thinks" the patient's objectives are.

■ IDENTIFY DIFFERENCES IN THE PROVISION OR QUALITY OF SERVICES

In the absence of standard protocols, it is difficult to measure the quality of medical treatment received by injured workers compared to other patients.

In primary care, there is little evidence that people perceive any difference in quality. With regard to specialist care, although the waiting time for care is longer and some patients perceived their treatment as "superficial", there is no clear evidence of lack of quality treatment.

In general, workers' compensation patients appear to be receiving more conservative treatment than other patients, but the researchers cannot conclude that the quality of treatment is necessarily lower. Other factors, difficult to measure, but reported in many of the personal interviews, also influence treatment. Failure by the patient to comply with prescribed treatment, and the employer's failure to accommodate return to work planning were mentioned frequently.

All of the evidence suggests that patients would be well-served if care were better coordinated. We believe that such coordination would speed the delivery of appropriate medical care, relieve the anxiety of patients anticipating return to work, and reduce the tendency to treat workers' compensation cases more conservatively than other cases. There is no doubt that patients would perceive such coordination as an improvement in quality, and, in fact, it might represent a significant advancement in the treatment of workplace injuries.

IX. Conclusions and Recommendations

■ **INDENTIFY THE EFFECTIVENESS AND INPACT OF NEW MEDICAL RATES**

The mail provider study demonstrated that few providers actually know what the current rates are. Both the mail survey and the interviews demonstrated difficulty in understanding the current rate structure and universal dissatisfaction with current coding system.

Physicians report that although they are now submitting bills for written reports, insurers are not reimbursing them or reimbursing them below published rates. Although not a specific focus of the study, surgical rates were identified as being most out of line.

■ **IDENTIFY RATE STRUCTURES OR REGULATIONS IN OTHER STATES THAT MAY BE INSTRUCTIVE FOR MASSACHUSETTS**

The research team reviewed information developed by the Workers' Compensation Research Institute on the experience of other states. In 1965 twelve states utilized fee schedules for workers compensation reimbursement. In 1985, that number was 17. In 1989 the number has grown to 23 with two states in the process of developing fee schedules.

Both New York and Massachusetts have been identified as states with the lowest growth in medical costs and both currently utilize fee schedules.

WCRI states that their research is not conclusive on two major variables believed to be important in medical cost management. The first is fee schedules, and the second is employer choice of physician. WCRI research indicates that both high and low cost states have fee schedules in place. What is not known is the nature of the fee schedules and the rigor of their enforcement. The same is true for employer choice of physician. It is instructive to note that with the exception of Illinois, none of the states (8) which changed its laws regarding physician choice saw major changes in medical costs. Two states changed to employer choice and six changed to employee choice. Illinois moved from an employer to employee choice and saw its costs increase. It would be helpful as a follow up to study the Illinois experience more closely.

One lesson from the entire body of WCRI's research is that economic downturns (such as Massachusetts is experiencing) adversely affect medical costs more than regulatory changes may affect them. They report a strong correlation between workers' compensation medical cost and unemployment. To quote the report, "During recessions, less experienced workers— those with more, but generally less severe injuries— are laid off first. With the declining incidence of less severe injuries, average severity increases. During periods of high unemployment, the duration of indemnity benefits increase because injured workers have greater difficulty finding jobs. With increased

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utilization, average medical costs per claim go up. Another product of increased duration is more litigation about the timing of return to work which itself increases medical costs." Although the research team neither agrees or disagrees with the above, it presents a bothersome prospect as the Massachusetts economy realigns itself.

The State of New Hampshire is piloting a managed care program for workers' compensation which models the system developed by HMOs. Employee participants may select providers from a preapproved list developed by the plan. Providers may contract with the plan after agreement is reached on:

- Fees for out-patient and inpatient care
- Practice guidelines for diagnosis and treatment of specific illness and injuries.
- Guidelines for frequency and duration of care.
- Time guidelines for duration of disability.

At this time the program is elective for both employee and employer. It is significant that all the vested parties are agreeing ahead of time on the process. The research team believes that organized initiatives based on managed care models present excellent opportunities for high quality medical care and optimum therapeutic and return to work endpoints. They should be monitored closely for both cost, quality and consumer satisfaction.

■ EVALUATION OF HEALTH CARE SERVICES BOARD OF THE DEPARTMENT OF INDUSTRIAL ACCIDENTS

The research team interviewed four members of the Health Care Services Board. It is our understanding that the board is charged with advising the Commissioners Office on medically related issues. The Board's composition is a cross-section of the provider community as well as representatives of both employers and employees. Three areas of importance were raised by board members. The first is the examination of the development of standards. The second, is to look at, and make recommendations of issues of access and the third is to examine the issue of medical reimbursement. From our discussions, it appears that the board is in the early stages of focusing its attention in the area of medical abuses.

One member stated that they have never been to a meeting and, therefore, did not feel competent to discuss the mission of the board. Others interviewed felt that the board's infrequent meeting schedule made it difficult to focus on specific issues. For whatever reason, our interviews suggest that the board is not functioning as originally envisioned. Members state that their role is undefined and the

IX. Conclusions and Recommendations

governance process is unclear. Our experience as both members of, and participants in voluntary boards indicate that the board needs a clearly defined mission with specific, achievable objectives. Without a specific charge, its membership will loose interest and continuity will be lost.

■ IDENTIFY AND DOCUMENT COSTS ATTRIBUTABLE TO DELAYS AND/OR PROBLEMS

All of the data suggests that there are many sources of increased cost that are directly related to the way medical care is delivered. The more conservative treatment that most injured workers receive, the slow access to specialists, and physicians' lack of awareness of modified duty opportunities, all contribute to longer disabilities and higher costs. Related problems—employee concern with employer reaction, labor agreements, actions of plaintiff attorneys, and insurer behavior—all have been shown to contribute to costs.

What is less clear is the magnitude of the costs. The employers who are forming their own networks of medical care providers, and the third party administrator which is relying on coordinated care to reduce costs over time, all believe that the potential savings are very large, perhaps in the range of 15% to 20% of indemnity costs. The true savings will be discovered only as those experiments unfold, but the researchers agree that the potential savings are substantial.

■ ANALYSIS OF LENGTH OF DISABILITY BY DIAGNOSIS, COMPARING WORKERS COMPENSATION TO NON COMPENSABLE INJURY

See Section VIII for an analysis of lengths of disability.

In the medical chart audit, work-injured individuals were found to be out of work for an average of 8.3 months compared to the non-workers' compensation population at 1.25 months. Compared to the Boston University guidelines, the non-workers' compensation population appears quite close to the norm, while the workers compensation population is dramatically outside.

IX. Conclusions and Recommendations

Most worker injuries are medically easy to treat and do not impose a burden on the medical community, employer, or employee. However, this study's results profile a medical provider system which the average injured worker can experience as elusive and incomplete, despite the best intentions of the vast majority of providers, who are trained and motivated to provide technically sound treatment. Simply put, the specialty medical provider community is not organized to serve the unique need of the work injured individual: intense coordination between employee, employer, insurer and provider.

Although to date we have not specifically identified any similar study of the response of an entire state's medical community to injured workers, our experience suggests the results of this study are generally consistent with the state of medical care of injured workers in other New England states. New Hampshire is making a serious effort to improve medical care; its pilot program is described earlier in this section.

Solutions to Access Problems

Access to medical care is impeded by inconsistent response times and difficulty in obtaining specialist care. The research team reviewed the efforts of individual employers to establish their own preferred provider networks, and the efforts of some medical providers (in Massachusetts and elsewhere) to assemble and market these networks. The research team also reviewed the experience of health maintenance organizations in improving access to primary and specialty care for non-work-related illnesses and injuries.

The State of New Hampshire is launching in late 1990 a pilot project on coordinating medical care to injured workers. One of the objectives of the pilot is to improve the responsiveness of medical providers to injured workers. Care for injured employees will be provided by a closed network of medical providers, under the supervision of "care managers."

A similar effort has been undertaken by two HMOs serving Central and Eastern Massachusetts. Several large public and private sector employers have organized informal networks of providers.

Medical provider networks are organizations (formal or informal) which provide urgent care, specialist care, and various types of rehabilitative treatment in an integrated, coordinated and objectively driven manner. They provide to the injured worker and his or her employer a fully voluntary yet coordinated form of care. A provider network can substantially reduce wait times for initial visits, and, through careful use and selection of specialists, improve access.

The concept of legislatively-mandated closed networks of providers is frequently discussed in workers' compensation circles. These networks are expected to squeeze out medical providers who deliver inappropriate or unnecessary care, squeeze out lawyers, and also instill greater coordination of care among providers.

IX. Conclusions and Recommendations

We do not believe that the current conditions in Massachusetts warrant legislatively mandated restrictions on employee choice of providers to improve employee access. If closed networks were to be mandated, legal questions of employer liability as a result of provider behavior will likely arise.

In contrast, what is needed is substantially more education and selective financial incentives to induce greater demand for and supply of provider networks.

Experience in the medical insurance industry has demonstrated that when an attractive voluntary provider network is established, approximately 75-80% of the population will take advantage of it. At the same time the patients right to use the provider of their choice is preserved.

We recommend that the Advisory Council consider the following voluntary steps to improve access:

- Begin developing a voluntary prototype coordinated care initiative. As a first step, quantify the results of current Massachusetts initiatives of employers and managed care companies.
- Promote education of employees, employers and medical providers on the types of provider networks, how to use them, and their benefits.

Such an education program costs relatively little but requires a sustained effort over several years to yield success. The Department of Industrial Accidents can sponsor seminars and other educational vehicles at relatively little expense. Insurance companies can provide financial incentives (in the form of premium discounts) to insureds who make a practice of using provider networks.

- Streamline provider reimbursement procedures.

We recommend that reimbursement procedures adopt the health care community's standard billing code system, CPT-4. This change alone will simplify the billing for care of work-related injuries. This relatively painless change will, at a minimum, relieve a major provider irritant and may encourage more medical providers to expand their occupational medicine practices. At the same time, there should be an effort made by the insurers to develop uniform billing procedures, as health insurers did with the adoption of a standard billing form (the "UB-82"). In addition, the revised workers' compensation rate book should be made available for distribution through traditional medical channels such as their professional associations or societies. The Department of Industrial Accidents should assume the responsibility for assuring that current rate books are in the possession of insurers operating within the state and conduct periodic audits for compliance. This approach will provide some relief to the medical community.

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■ Ensure periodic review and revision of reimbursement rates, and educate providers and insurers.

The results of the study indicated that rates are viewed as too low. However, across-the-board changes are not necessarily indicated; selective increases, and assured periodic review of rates, are more appropriate. In addition, providers and insurers need to be educated on rate changes. The Department of Industrial Accidents could sponsor training sessions funded out of registration fees. A more innovative approach could include a modem link between provider offices and insurers with a master reimbursement rate database.

Our research suggests that the priority for adjustment is in the area of surgical fees. Establishing competitive rates will eliminate delays in providing necessary surgical care and eliminate a major friction between employee, employer, provider and the workers' compensation system in general. It should be understood that adjusting rates is not enough. The provider community must be made aware of the changes through their societies and associations. The research team believes that the overall impact of surgical rate changes on the entire cost of workers' compensation may, in fact, be minimal because of the potential indemnity savings and the relatively small number of surgical interventions required.

A potential concern about surgical fee adjustments may be a consequent increase in surgical utilization. The research team recommends the development of a diagnostically selective second surgical opinion program, either operated by the DIA or contracted through a private vendor. Such programs are in common use by medical insurance providers and managed care firms and have demonstrated success. Simply having a second surgical opinion program in place creates a "sentinel effect" on provider behavior.

Improving Quality of Care

According to our survey results, medical providers believe that employee, employer, attorney and insurer practices complicate care delivery. We are inclined to concur. Our interviews with physicians, review of medical records and other research indicate to us that, in the main, the technical content of medical care is adequate, but does not comply with the current standards suggested by the Quebec Guidelines. More importantly, all too often there is no coordination between the involved parties to bring the worker back to full earning status.

We believe that the study results strongly point to the employer and the employee as the parties most capable of coordinating the return to work process with the medical provider, because the employer has virtually complete control over the decision to provide modified duty and define specific job requirements. Most employers can establish modified duty programs for their injured workforces.

IX. Conclusions and Recommendations

■ We suggest that the Department of Industrial Accidents, in consultation with the medical community, promote the development and use of standard protocols for the treatment of low back injuries. The protocols should be designed to focus on both medical and return to work end points. They should clearly define both physiologic and chronologic triggers for referrals to physical/job conditioning programs and modified duty. The Health Care Services Board is uniquely positioned to assume this responsibility.

■ We suggest the Department of Industrial Accidents develop a database of workers' compensation medical practice. Such data is widely used in both the managed care and insurance industry as an effective means of inducing changes in practice patterns. In order to minimize the time and money involved this approach, it can be limited to the most prevalent diagnoses. Numerous commentators identified "comp docs", that is, physicians and chiropractors whose practice patterns seem to fall well outside the norm. The Health Care Services Board has targeted the identification of provider abusers as being a priority. Any legislative sanctions to punish abusive practitioners will be ineffective without benchmark practice patterns for comparison. Most importantly, it can provide an excellent ongoing research tool.

We suspect that much of the information necessary is currently available from the workers' compensation insurers and estimate the cost of such an effort, with the cooperation of insurers, may be less than $250,000. This is the only recommendation in the study which entails a major new state budget expenditure .

The work currently being done by The Health Planning Council of Greater Boston on regional medical practice patterns can serve as an instructive guide in this effort.

Again, this information is only useful if it is shared with the parties vested in the workers' compensation process.

■ We would encourage employer/employee utilization of specialized provider networks through insurance premium incentive discounts.

■ Quality of care can be dramatically improved through employee education. If a standard protocol for back injury can be adopted, this information can distributed through the work place to the employee at time of injury, or during ergonomic training. The employee will then have an appropriate treatment expectation, rather then one established through word of mouth or by default.

■ There is an increasing body of scientific knowledge identifying stress as a major contributing cause of lower back injury and chronic pain. While this study did not probe for stress factors, such research is being performed in other laboratories and universities in the Commonwealth. We suggest that the Advisory Council or the Health Care Services Board formalize relationships with those clinicians and academic settings doing research with direct application to the workers' compensation environment.

IX. Conclusions and Recommendations

Improving provider perceptions of the work-injured

The issue of provider perceptions of work injured individuals is perhaps one of the most troublesome aspects of this research. We think that the perceptions result from experiences with a few employees who may in fact be "abusing the benefit", coupled with the overriding systems issues providers have with workers' compensation.

Unfortunately the research team does not have a specific recommendation on this issue. However, we feel that the issue important enough to suggest that either the Health Care Services Board or a an appointed subcommittee or task force, in cooperation with medical practice leadership, begin work to identify the root causes of these perceptions and develop a strategy to address them. As a starting point, we suggest initial discussions with practitioners who may not have as strongly developed negative biases. We would include occupational health physicians, physiatrists, chiropractors, occupational health nurses, and occupational and physical therapists in this effort.

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XI. Glossary of Terms Used in the Report

Case Manager	As used in this study, an individual with the specific responsibility of assuring coordination and cooperation between medical provider, insurer, employer, and employee to reach a successful therapeutic and return to work endpoint.
Compensable Injury	A personal injury which prevents the employee from returning to work within five days. A loss of four to eight hours constitutes a full day of loss.
CPT-4 Codes	Current Procedural Terminology, 4th edition. A standardized set of medical procedure codes and definitions used by the medical insurance and managed care industry to track and reimburse medical claims.
CT Scan	Computer Augmented Tomography. A noninvasive diagnostic tool using X-ray technology to demonstrate a visual picture of an organ or tissue at a particular depth.
Discogram	An invasive radiologic diagnostic test to study the internal structure of a vertebral disc.
Electromyography	A graphic record of the contraction of a muscle as result of electrical stimulation.
Modified Duty	Modification of a particular job or the development of a new job, prescribed for a limited amount of time, designed to meet the temporary physiologic abilities of a work injured individual and facilitate their return to productivity.
MRI	Magnetic Resonance Imaging. A non-invasive diagnostic test to image specific body parts using the body's own electro-magnetic fields.
Mylogram	An invasive radiologic diagnostic test to study the structure of the spinal column and its parts.
Occupational Medicine	The branch of medicine that deals with the prevention and/or treatment of injuries, illnesses or exposures related to the work environment.
Occupational Therapist	A specially trained individual who evaluates the self-care, work and leisure skills of well and disabled clients of all age ranges; plans and implements programs and social and interpersonal activities designed to restore, develop and/or maintain the client's ability to accomplish those daily living tasks required by specific age or occupational role.
Orthopedist	A physician with a specialty in the branch of medicine that deals with the prevention and correction of disorders involving locomotor structures of the body, esp. the skeleton, joints, muscles and fascia.
Orthopedic Surgeon	The same as an orthopedist, including the practice of surgery. The terms orthopedist and orthopedic surgeon are often used interchangably.

XI. Glossary of Terms Used in the Report

Vocational Rehabilitation Therapist	A specially trained individual who assists a client in returning to a suitable employment within the the parameters of their physical abilities, transferable skills, employment history, and historical income.
Work Hardening	A rehabilitation process which includes the simulation of the work environment, including physical activity, specific job tasks, and psycho-social interactions.

XII. Firm/ Researcher Profiles

Lynch, Ryan & Associates, Inc. is a professional consulting firm specializing in workers' compensation cost control. Since its founding in 1984, the firm has provided services to 200 worksites in numerous states. Clients include manufacturers, hospitals, public agencies and universities. The firm's staff are experienced in insurance, plant operations, safety, medical care delivery, and labor relations. Lynch Ryan is headquartered in Westborough, MA.

The Boylston Group is a consulting firm in the area of medical research and management. The firm specializes in assisting private and public organizations in the development, application and evaluation of state of the art medical cost containment programs. Principals of the firm have expertise in medical cost management, managed care, epidemiology, public health, employee communications and insurance plan design. Current clients include national corporations, municipal governments, employer associations and hospitals. The firm is headquartered in Boston, MA.

Research Team Profiles

PETER F. ROUSMANIERE, PROJECT MANAGER

Mr. Rousmaniere is vice president and chief financial officer of Lynch, Ryan & Associates. He has consulted to employers, associations, insurers and medical providers on workers' compensation cost control. Prior to joining Lynch Ryan in 1987, he worked for New England Medical Center and Price Waterhouse. Mr. Rousmaniere holds a BA and an MBA from Harvard University.

JAMES F. SARGENT, CLU, PRINCIPAL INVESTIGATOR

Mr. Sargent is a principal of the Bolyston Group. He has consulted to Massachusetts employers on health benefit plan design and health care cost containment. Prior to joining the Bolyston group, Mr. Sargent directed product development at Tufts Associated Health Plan and developed managed care networks for The New England. He earned his Chartered Life Underwriter certficate in 1978. Mr. Sargent holds a BA from Harvard University.

MICHAEL J. SHOR, MPH, PRINCIPAL INVESTIGATOR

Mr. Shor is founder and president of the Boylston Group. He has consulted on health care delivery and health care cost containment to numerous New England employers. He serves on the Advisory Board of Massachusetts Health Decision, a public policy group dedicated to the development of public consensus on state-wide health care issues. Mr. Shor holds a BS from Syracuse University and a Masters in Public Health from Boston University.

XII. Firm/ Researcher Profiles

ROBERT BENGSTON, MS, PT, CO-INVESTIGATOR

Mr. Bengston is registered physical therapist and partner in Bengston-Cannon Physical Therapy of Haverhill, MA. From 1980 to 1990 he was director of physical therapy at Beth Israel Hospital, Boston. He has conducted research and has published and lectured on back pain and pain management. Mr. Bengston holds a BS from Northeastern University and a MS from Boston University. He is currently in doctoral candidate in rehabilitation administration at Northeastern University.

EXHIBIT 1

MASSACHUSETTS WORKERS' COMPENSATION
ADVISORY COUNCIL
600 WASHINGTON STREET
BOSTON, MASSACHUSETTS 02111
(617) 727-4900 EXT. 378

LINDA L. RUTHARDT
CHAIRMAN
ARTHUR R. OSBORN
VICE-CHAIRMAN

STEVENS M. DAY
EXECUTIVE DIRECTOR

April 30, 1990

Dear Doctor:

The Workers' Compensation Advisory Council is an appointed body charged with the responsibility of overseeing the operations of the workers' compensation system of the Commonwealth.

The Council is very concerned about both the availability and quality of medical services available to work injured individuals. As a result, we have asked an independent research firm to assess the current availability of medical services and identify factors that may affect medical accessibility.

We need your help. Please take a few moments to complete the enclosed survey. Please be assured that your responses are confidential. The research firm will report its findings to the Council. The Council will then work to make changes to improve the current system.

For your convenience, a return envelope is enclosed. If you have specific questions or comments about the survey, please feel free to contact Michael Shor (617) 327-7735.

Again, thank you for your assistance.

Sincerely,

Linda L. Ruthardt
Chair

Arthur R. Osborn
Vice-Chair

Massachusetts Workers' Compensation Advisory Council Medical Opinion Survey

Spring, 1990

MAIL RESPONSES TO:
18 Lyman Street P.O. Box 1244
Westborough, MA 01581
508-366-7516

FOR INFORMATION, CALL:
Jim Sargent or Mike Shor
617-327-7735

Optional Data: (This information is optional. We will use it only for mailing list verification. It will not be published with survey results.)

Name of Practice or Organization: _____
Address: _____
Contact & Phone: _____

Questions 1-10 apply to your practice as a whole.

SECTION I: PRACTICE INFORMATION

1. Principal Practice Mode—How would you characterize the practice receiving this questionnaire?

__Hospital
__Physical Therapist—solo
__Chiropractor—solo
__Solo MD or DO
__MD or DO group practice
__Ambulatory Care Center
__Occupational Therapist—solo
__Case Management
__PT/OT Clinic
__Chiropractic clinic
__Occupational Health Center
__Rehab. Hospital
__Other _____

If you checked MD or DO, what is your specialty, or if a group which specialties are represented in your group practice?:

__Family Practice
__Internal Medicine
__Neurology
__Plastic Surgery
__Ophthalmology
__Sports Medicine
__General Practice
__Occupational Medicine
__Orthopedics
__Dermatology
__Physiatry
__Other_____

2. What percent of the practice's patient encounters are people with work-related illnesses or injuries? ____%
(If you answered "0%", please skip to Questions 15 - 16.)

3. What are your office hours?
M___to___ TU___to___ W___to___ TH___to___ F___to___ SA___to___ SU___to___

4. What is the usual time a patient with a work-related non-emergency lower back injury waits for a first appointment? _____

5. Staff	#Full-time	#Part-time
MD's or DO's		
Physiatrists		
Nurses		
Physical Therapists		
Occupational Therapists		
Chiropractors		
Medical Director		
Other		

6. Office/Facility Resources

__Emergency Treatment
__Examining Rooms #_____
__PT Equipment
__Back Clinic
__CT Scan
__Work Harding
__OT Equipment
__Xray
__MRI
__Lab
__Pain Clinic
__Other_____
_____

7. Referrals

If the resources are not available on site, where are you most likely to refer?

__Xray Name: _____ Town: _____ Phone: _____
__PT Name: _____ Town: _____ Phone: _____
__OT Name: _____ Town: _____ Phone: _____
__CT Scan Name: _____ Town: _____ Phone: _____
__MRI Name: _____ Town: _____ Phone: _____
__Lab Name: _____ Town: _____ Phone: _____
__MRI Name: _____ Town: _____ Phone: _____
__Other Name: _____ Town: _____ Phone: _____

Massachusetts Workers' Compensation Advisory Council Medical Opinion Survey

What is the approximate distribution of the sources of referrals you receive?

__Other practitioners _____%
__Hospitals _____%
__Urgent care centers _____%
__Attorneys _____%
__Insurance carriers _____%
__Current Patients _____%
__Employers _____%
__Other _____%

8. Do you ever refer patients to special programs, such as "work hardening", "back strengthening", or "stress management" programs? __No __Yes If Yes:

Name:_____ Town:_____ Phone:_____
Name:_____ Town:_____ Phone:_____
Name:_____ Town:_____ Phone:_____

9. When are you *most likely* to become aware that a new patient's condition is work-related, and who in your practice is *most likely* to make that initial determination?

__Over the phone, when the appointment is set up. By whom? _____
__During the intake process. By whom? _____
__During the initial medical history. By whom? _____
__ _____ By whom? _____

* 10. How often are you made aware of early return to work or light duty options that are available to your workers' compensation patients?

[] almost always [] frequently [] sometimes [] seldom [] never

How do you find out?_____
_____

*Technical Note: From this point on in the survey, when the researchers evaluated responses, we scored them 1 to 5, from the left. In this question 1 means "almost always" and 5 means "never".

The only exception was the ratebook question on page 7, which we scored 1,2, or 3.

Massachusetts Workers' Compensation Advisory Council Medical Opinion Survey

Questions 11-16 are your personal opinion. If you are in a group, clinic, or hospital setting, please indicate your specialty here._____

Feel free to photocopy questions 11-16, distribute them to others in your practice, and return all of the responses together.

SECTION II: YOUR ASSESSMENT OF WORKERS' COMPENSATION INSURED PATIENTS

11. How would you categorize patients with work-related conditions compared to patients injured away from work?

Likely to seek prompt treatment

[ ]	[ ]	[ ]	[ ]	[ ]
much more	more	same	less	much less

Difficulty of initial dx

[ ]	[ ]	[ ]	[ ]	[ ]
much more	more	same	less	much less

Likelihood of dx revision

[ ]	[ ]	[ ]	[ ]	[ ]
much more	more	same	less	much less

Severity of injury

[ ]	[ ]	[ ]	[ ]	[ ]
much more	more	same	less	much less

Difficulty in establishing treatment plan

[ ]	[ ]	[ ]	[ ]	[ ]
much more	more	same	less	much less

Patient compliance

[ ]	[ ]	[ ]	[ ]	[ ]
much better	better	same	worse	much worse

Length of treatment

[ ]	[ ]	[ ]	[ ]	[ ]
much longer	longer	same	shorter	much shorter

Motivation to recover medically

[ ]	[ ]	[ ]	[ ]	[ ]
much better	better	same	worse	much worse

Motivation to return to work

[ ]	[ ]	[ ]	[ ]	[ ]
much better	better	same	worse	much worse

Likelihood of returning to 100% of pre-injury status

[ ]	[ ]	[ ]	[ ]	[ ]
much more likely	more likely	same	less likely	much less likely

Likelihood of lawyer involvement in the treatment plan

[ ]	[ ]	[ ]	[ ]	[ ]
much more likely	more likely	same	less likely	much less likely

Likelihood of insurer involvement in the treatment plan

[ ]	[ ]	[ ]	[ ]	[ ]
much more likely	more likely	same	less likely	much less likely

Likelihood of employer involvement in the treatment plan

[ ]	[ ]	[ ]	[ ]	[ ]
much more likely	more likely	same	less likely	much less likely

12. In your opinion, how often is a workers' compensation patient *physically* able to return *to the same job,* but does not return, because:

Employer does not want the person back

[ ]	[ ]	[ ]	[ ]	[ ]
very often	often	sometimes	rarely	never

Employee does not want to return

[ ]	[ ]	[ ]	[ ]	[ ]
very often	often	sometimes	rarely	never

Lawyer prevents return

[ ]	[ ]	[ ]	[ ]	[ ]
very often	often	sometimes	rarely	never

Compensation hearing/settlement process prevents return

[ ]	[ ]	[ ]	[ ]	[ ]
very often	often	sometimes	rarely	never

Other reasons why the employee does not go back to work _____

_____

13. If you were considering the same worker as in Question 12, with the option to return to *light or modified duty,* how would you perceive the possible barriers?

Employer does not want the person back

[ ]	[ ]	[ ]	[ ]	[ ]
very often	often	sometimes	rarely	never

Employee does not want to return

[ ]	[ ]	[ ]	[ ]	[ ]
very often	often	sometimes	rarely	never

Lawyer prevents return

[] very often [] often [] sometimes [] rarely [] never

Compensation hearing/settlement process prevents return

[] very often [] often [] sometimes [] rarely [] never

Other reasons why the employee does not return to light duty:

_____

_____

_____

SECTION III: PAYMENT RATES FOR WORKERS' COMPENSATION PROCEDURES

14. Please describe the fees established by the Rate Setting Commission for the following procedures, and enter the fee you currently receive for Workers' Compensation procedures in the second column. If you do not know what the current Workers' Compensation reimbursement is, check "Don't Know Fee". Check all procedures that apply to your practice.

Procedure	Workers' Compensation Fee	Excessive	More than Adequate	Adequate	Somewhat Inadequate	Severely Inadequate	Don't Know Fee
9004 Std. OV	_____	[]	[]	[]	[]	[]	[]
9006 OV-Unusual	_____	[]	[]	[]	[]	[]	[]
9152 Std. Consult	_____	[]	[]	[]	[]	[]	[]
9157 Initial Comprehensive OV	_____	[]	[]	[]	[]	[]	[]
9158 Comp. Written Report	_____	[]	[]	[]	[]	[]	[]
9159 Treatment Plan Consult	_____	[]	[]	[]	[]	[]	[]
159631 Chiro. Manipulation	_____	[]	[]	[]	[]	[]	[]
176002 Routine OV Physical Therapy	_____	[]	[]	[]	[]	[]	[]
176012 Routine OV Occupational Therapy	_____	[]	[]	[]	[]	[]	[]
0001 First Aid	_____	[]	[]	[]	[]	[]	[]

Massachusetts Workers' Compensation Advisory Council Medical Opinion Survey

Procedure	Workers' Compensation Fee	Excessive	More than Adequate	Adequate	Somewhat Inadequate	Severely Inadequate	Don't Know Fee
0180 Repairs, simple	_____	[]	[]	[]	[]	[]	[]
0189 Repairs, comp.	_____	[]	[]	[]	[]	[]	[]
1200 Arthrotomy-Shoulder	_____	[]	[]	[]	[]	[]	[]
1207 Arthrotomy-Knee	_____	[]	[]	[]	[]	[]	[]
1364 Lumbosacral Fusion	_____	[]	[]	[]	[]	[]	[]
3740 Hernia repair, inguinal unilateral	_____	[]	[]	[]	[]	[]	[]

We have listed only the more common procedures that you might perform. For your practice as a whole, how would you categorize the fees established by the Rate Setting Commission?

Excessive	More than Adequate	Adequate	Somewhat Inadequate	Severely Inadequate
[]	[]	[]	[]	[]

Are there particular procedure codes that should be increased?

__No __Yes Procedure Code #_____ to $_____
Procedure Code #_____ to $_____
Procedure Code #_____ to $_____

Compared to other rate books that you utilize, how would you describe the workers' compensation rate book?

Easy to use	About the same	Difficult to use
[]	[]	[]

SECTION IV. WORKERS' COMPENSATION SYSTEM ISSUES

15. Commentators on the Workers' Compensation system have suggested several factors that may make workers' compensation patients less attractive than other individuals to treat. If you could begin to change the system, how important would it be to focus on:

	Critical	Very Important	Important	Not very Important	Neutral
The amount of paperwork?	[]	[]	[]	[]	[]
The billing procedures?	[]	[]	[]	[]	[]
The amount of litigation?	[]	[]	[]	[]	[]
The number of requests for additional information?	[]	[]	[]	[]	[]
The amount of time spent in hearings?	[]	[]	[]	[]	[]
Workers' compensation rate book?	[]	[]	[]	[]	[]
The payment rates?	[]	[]	[]	[]	[]
Insurers' speed of payment?	[]	[]	[]	[]	[]
Patients' level of motivation?	[]	[]	[]	[]	[]

Please circle your top three priorities for change.

FINAL THOUGHTS

16. If there were one thing you could do to make the Massachusetts Workers Compensation system better, what would it be?_____

Thank you for participating in this important survey. Your responses will help shape the future of the Workers' Compensation system in Massachusetts.

PLEASE RETURN YOUR SURVEY IN THE ENCLOSED ENVELOPE BY MAY 15. RESPONSES AFTER THAT DATE MAY NOT BE INCLUDED IN SURVEY TABULATIONS. PLEASE INCLUDE ANY BROCHURES OR OTHER LITERATURE THAT YOU HAVE THAT DESCRIBES YOUR PRACTICE.

Workers Compensation Advisory Council EXHIBIT 2
PROVIDER ACCESSIBILITY SURVEY--PART I

Contact: Control #_____

City:

Phone:
==========
"Hello. I'm calling for my husband. He hurt his back at work yesterday and needs a doctor. How soon could the doctor see him?"

Your name: **Beth Winter**
Husband's name: **Bob Winter**
Age: 42
Occupation: assembler for BGI Corporation, in Brighton, Worcester, Westfield, or Pittsfield, depending on the area surveyed.
Injury: He was moving boxes, and he hurt his lower back.
Has it **happened before**?: no
Is he in **pain**?: Yes, He's taking Advil and resting.
Who is his **regular doctor**?: He doesn't have one.
What is the **insurance company**?: I don't know. It's workman's comp.

If they suggest a date, say, "All right, let me check that with my husband, and I'll get right back to you.

If no dates are available, ask, "Do I have the wrong kind of doctor?" and "Can you suggest someone else?" and record the responses.
==========
Response:

YES____ 1st available appointment_____

NO_____ Comments:

Workers Compensation Advisory Council EXHIBIT 3
PROVIDER ACCESSIBILITY SURVEY--PART II

Contact: Control #_____

City:

Phone:
==========
"Hello. I'm calling for my husband. He hurt his back gardening over the weekend and needs a doctor. How soon could the doctor see him?"

Your name: **Jo Grady**
Husband's name: **Art Grady**
Age: 42
Occupation: assembler for BGI Corporation, in Brighton, Worcester, Westfield, or Pittsfield, depending on the area surveyed.
Injury: He was pulling out shrubs, and he hurt his lower back.
Has it **happened before**?: no
Is he in **pain**?: Yes, He's taking Advil and resting.
Who is his **regular doctor**?: He doesn't have one.
What is the **insurance company**?: Blue Cross.

If they suggest a date, say, "All right, let me check that with my husband, and I'll get right back to you.

If no dates are available, ask, "Do I have the wrong kind of doctor?" and "Can you suggest someone else?" and record the responses.
==========
Response:

YES_____ 1st available appointment_____

NO_____ Comments:

Control #_____ (Do not enter name)

EXHIBIT 4

Hello, I'm _____, calling on behalf of the Massachusetts Workers' Compensation Advisory Council. We're doing a confidential survey of the availability and quality of medical care for people who are injured at work. Could you help us by answereing a few questions about the care you've been receiving?

First, let me confirm the date you were injured._____

How were you injured?

Have you returned to work? [ ]no [ ]yes Date_____

After your injury did you seek medical care Yes[ ]
No[ ]
If Yes, Where did you go for medical care

[ ]emergency room [ ] own doctor [ ] HMO [ ] urgent care center
[ ]specialist [ ] occupational health center
[ ]chiropracter [ ] other please specify_____

Were you assisted or did someone recommend someone for medical care
[ ] yes [ ] no

if yes [ ] friend [ ] employer [ ] family member [ ]lawyer

Were you able to get an appointment with the first doctor you chose
[ ]yes [ ]no

if no, why_____

_____

How long did it take you to get an appointment?

please enter number of days [ ]

How difficult was it to get that first appointment?

[ ] easy [ ] fairly easy [ ] difficult [ ] very difficult

If difficult or very difficult ask why?_____
_____

What kind of treatment was recommended?

[ ] bedrest..how long[ ] days
[ ] medications
[ ] exercise
[ ] labs

Where you referred to a specialist

[ ]yes [ ]no

If yes, how long did it take to get an appointment?

[ ] days

Did you have any difficulty getting an appointment with the specialist?

[ ]yes [ ]no

If yes please explain_____
_____
_____

Compared to other experiences you may have had with the medical system
how would you describe your care?

[ ] much better [ ]better [ ]about the same [ ]worse [ ]much worse

If worse or much worse please explain_____

_____

_____

RESULTS
MASSACHUSETTS WORKERS' COMPENSATION
ADVISORY COUNCIL
REHABILITATION CHART AUDIT #1

PATIENT POPULATION: Patients with low back symptoms referred to outpatient private practice physical therapy in Massachusetts.

	NON-W/C PATIENTS %	W/C PATIENTS %
1ST. SEEN BY:		
MD	76.4	86.21
DC	23.5	13.79
REFERRED BY:		
SELF	47.1	44.9
FRIEND	5.88	6.89
FAMILY	5.88	3.4
MD	11.76	13.8
WORK	0	24.14
EMT	11.76	3.45
ER	5.88	3.45
ONSET OF SYMPTOMS TO 1ST. PHYSICIANS VISIT	1.05 days	2.10 days
TIME OFF WORK	1.25 mos.	8.3 mos.
HOSPITALIZATION	.06 days	.82 days
BED REST	9.00 days	12.24 days
MEDICATIONS:		
ANALGESICS	17.6	55.2
ANTI-INFLAMATORIES	52.9	48.2
MUSCLE RELAXANTS	29.4	34.5
COMBINATION	23.5	51.7

	NON-W/C PATIENTS %	W/C PATIENTS %
TESTING:		
CAT SCAN	17.6	44.8
X-RAY	58.8	58.6
MRI	29.4	62.07
EPIDURAL INJECTION	29.4	0
BONE SCAN	5.88	17.2
MYLEOGRAM	0.0	13.7
B-200 BACK TESTING	0.0	10.3
ELECTRO MYLEOGRAM	11.76	20.6

MASSACHUSETTS WORKERS'
COMPENSATION ADVISORY COUNCIL
REHABILITATION CHART AUDIT #2

Patient population: Patients with low back symptoms of greater than 3 months duration.

	W/C %	NON W/C %
1. Length of time elapsed between injury and referral to rehabilitation.		
A. 0 - 1 week	5.8	16.1
B. 1 - 3 weeks	11.7	25.8
C. 3 - 6 weeks	17.6	16.1
D. greater than 6 weeks	64.7	35.4
2. Written evaluation completed?	94.1	93.5
A.) Objective deficits identified?	94.1	93.5
B.) Specific goals identified?	88.2	90.3
C.) Specific plan changed if indicated?	82.3	87.0
3. Are there progress notes written for each visit?	100	93.5
4. Are plans written specifically so that another therapist could independently carry out the treatment program?	100	100
5. Is there specific information relative to return to work?	17.6	12.9
A.) Previous job requirements documented?	35.2	3.2
B.) Specific functional status documented?	5.8	3.2
C.) Previous job availability documented?	17.6	6.45
6. Are modalities utilitized in the treatment?	94.1	96.7
7. Is TENS utilized in the treatment?	23.5	9.67
8. Is a flexibility program instructed?	100	93.5
9. Is a strength training program instructed?	100	96.7
10. Is an aerobic conditioning program instructed?	92.0	85.0
11. Is a home program documented?	70.5	67.7

	W/C %	NON W/C %
12. Is manual therapy used in the treatment?	70.5	54.8
13. Duration of treatment:		
A.) Less than 1 week	0	0
B.) 1- 3 weeks	0	0
C.) 3 - 6 weeks	5.8	9.67
D.) 6 weeks - 3 months	0	29.0
E.) 3 months - 6 months	11.6	35.4
F.) 6 months - 9 months	0	64.5
G.) 9 months - 1 year	23.5	3.2
H.) Greater than 1 year	52.9	12.9

TABLE 1A

	Seek Prompt Treatment	Difficult Diagnosis	Diagnosis Revisions	Severity	Difficult Treatment Plan	Patient Compliance
AVERAGES all orthopods	2.1	2.4	2.6	3.3	2.3	3.7
AVERAGES all OccMed MDs	2.3	2.8	2.6	2.9	2.3	3.3
AVERAGES all PT/OT/case mgr	2.8	2.6	2.5	2.8	2.4	3.5
AVERAGES total responses	2.2	2.6	2.7	3.2	2.3	3.6

TABLE 1B

	Treatment Length	Patient's Motivation to Recover	Patient's Motivation to Return to Work	Likely to Return to Full Function	Likely Lawyer Involvement	Likely Insurer Involvement
AVERAGES all orthopods	1.5	4.4	4.5	4.3	1.4	1.7
AVERAGES all OccMed MDs	1.8	4.0	4.0	3.8	2.1	2.3
AVERAGES all PT/OT/case mgr	2.1	3.6	3.6	3.7	1.9	2.1
AVERAGES total responses	1.6	4.2	4.3	4.2	1.5	1.9

TABLE 2
RESULTS OF PROVIDER TELEPHONE SURVEYS 1 & 2

PROVIDER TELEPHONE SURVEY 1

Category	Primary	Secondary	Total
Calls	99	25	124
Yes	44	11	55
Yes %	44%	44%	44%
No	55	14	69
No %	56%	56%	56%
Wait			13
No WC	8	3	11
No WC %	8%	12%	9%

PROVIDER TELEPHONE SURVEY 2

Category	Totals
Calls	124
Yes	48
Yes %	39%
No	72
No %	58%
Vacation	4
Vacation	3%
Wait	10

RESULTS OF SURVEY 1 BY LOCALITY

BOSTON

Category	Primary	Secondary	Total
Calls	28	17	44
Yes	9	5	14
Yes %	32%	29%	32%
No	19	12	31
No %	68%	71%	70%
Wait	15	8	11
No WC	3	3	6
No WC %	11%	18%	14%

SURROUNDING COMMUNITIES

Category	Primary	Secondary	Total
Calls	18	2	20
Yes	10	2	12
Yes %	56%	100%	60%
No	8	0	8
No %	44%	0%	40%
Wait	14	0	11
No WC	1	0	1
No WC %	6%	0%	5%

LYNN

Category	Primary	Secondary	Total
Calls	4	0	4
Yes	3	0	3
Yes %	75%	0%	75%
No	1	0	1
No %	25%	0%	25%
Wait	14	0	14
No WC	1	0	1
No WC %	25%	0%	25%

LOWELL

Category	Primary	Secondary	Total
Calls	5	0	5
Yes	2	0	2
Yes %	40%	0%	40%
No	3	0	3
No %	60%	0%	60%
Wait	6	0	6
No WC	1	0	0
No WC %	20%	0%	0%

CAPE COD

Category	Primary	Secondary	Total
Calls	2	0	2
Yes	0	0	0
Yes %	0%	0%	0%
No	2	0	2
No %	100%	0%	100%
Wait	0	0	0
No WC	2	0	0
No WC %	100%	0%	0%

FALL RIVER

Category	Primary	Secondary	Total
Calls	3	1	4
Yes	2	1	3
Yes %	67%	100%	75%
No	1	0	1
No %	33%	0%	25%
Wait	23	0	21
No WC	0	0	0
No WC %	0%	0%	0%

WORCESTER

Category	Primary	Secondary	Total
Calls	18	4	22
Yes	9	2	11
Yes %	50%	50%	50%
No	9	2	11
No %	50%	50%	50%
Wait	15	22	15
No WC	0	0	0
No WC %	0%	0%	0%

FITCHBURG

Category	Primary	Secondary	Total
Calls	5	1	6
Yes	2	1	3
Yes %	40%	00%	50%
No	3	0	3
No %	60%	0%	50%
Wait	22	0	22
No WC	0	0	0
No WC %	0%	0%	0%

SPRINGFIELD

Category	Primary	Secondary	Total
Calls	10	1	11
Yes	2	1	3
Yes %	20%	100%	27%
No	8	0	8
No %	80%	0%	73%
Wait	11	1	8
No WC	0	0	0
No WC %	0%	0%	0%

NORTHWEST MASSACHUSETTS

Category	Primary	Secondary	Total
Calls	1	0	1
Yes	0	0	0
Yes %	0%	0%	0%
No	1	0	1
No %	100%	0%	100%
Wait	0	0	0
No WC	0	0	0
No WC %	0%	0%	0%

PITTSFIELD

Category	Primary	Secondary	Total
Calls	5	0	5
Yes	5	0	5
Yes %	100%	0%	100%
No	0	0	0
No %	0%	0%	0%
Wait	14	0	14
No WC	0	0	0
No WC %	0%	0%	0%

DAYS WAITING, WC vs NON-WC

Days	WC	No WC
0–3	14.0%	42.0%
4–7	18.0%	12.5%
8–15	34.0%	23.0%
16–23	21.0%	12.5%
24–31	11.0%	4.0%
32>	2.0%	6.0%