Contents

From the DEW Line
Editor’s Report 9

Features
The Role of Fee Schedules in Medical Cost Containment 15
Janet Jamieson

Workers’ Compensation Costs and Chiropractic 22
Taking a Position on Center Stage
Anthony Rosner

Observations on Rosner’s Comments on WCRI Studies 50
Richard Victor

Developing a Medical Fee Schedule for Injured Workers Based on the Resource Based Relative Value Scale 55
Alan Colledge
Joyce Sewell

Hearing Rehabilitation Cost Escalation and a Cost Containment Model 69
Michael Kemp

Treatment of Workers’ Compensation Claims Under the Bankruptcy Code 78
Karen Cordry

HIPAA and Workers’ Compensation: One Year Later 96
Debbie DiBenedetto

(continued on back cover)
Research & Safety
Comparing Jurisdictional Data on Work Injuries
   Frank Neuhauser
   107

Medical
The Advantages of Early Return to Work
   The Benefits for Employer and Employee
   J. Mark Melborn
   128

Technology
Medical Reporting to Jurisdictions Using EDI
   Todd Brown
   148

News and Current Interest
A Realistic Look at the Problem of Coordinating Medicare
   and Workers’ Compensation Settlements
   153
Tribal-Based Professional Employer Organizations
   160
Firefighter Presumptions of Covered Injuries in Workers’ Comp
   161

Letters to the Editor
   164
General Information, Subscriptions, and Submissions

The IAIABC Journal is published two times per year by the International Association of Industrial Accident Boards and Commissions, 5610 Medical Circle, Suite 24, Madison, WI 53719. Each IAIABC member receives one hard copy of the Journal for library use, and the Journal is available to all members electronically in PDF format. Subscriptions for additional print copies are $30 for IAIABC members and $70 for non-members. To subscribe, to report difficulties in receiving issues, or for address changes, call the IAIABC office at 608-663-6355 or contact Melissa Wilson, Managing Editor, at mwilson@iaiabc.org.

All advertising inquiries and comments should also be directed to the IAIABC office at 608-663-6355 or mwilson@iaiabc.org.

Specific guidelines for authors who wish to submit manuscripts are available, and are found on the back pages of the Journal. A Microsoft Word style template for documents is available upon request. All of this information is also found on the IAIABC Web site at: http://www.iaiabc.org/Publications/Journal_index.htm

© 2004 IAIABC All rights reserved
Review Board

Terry Bogyo
   Director, Corporate Planning & Development
   Workers’ Compensation Board of British Columbia

Deborah Dawson
   Labor Economist
   Economic Research Bureau
   New Mexico Workers’ Compensation Administration

Lisa Hannusch
   President
   CompPartners Texas

James Jacobsen
   Attorney at Law
   New Mexico Attorney General’s Office

Janet Jamieson
   Executive Director for Health Policy & Research
   Medata, Inc.

Pam Morton
   Business Analyst
   Corporate Systems

Kathryn L. Mueller
   Medical Director
   Colorado Division of Workers’ Compensation

Mary Ann Whiteside
   Director
   Colorado Division of Workers’ Compensation
Mission of the IAIABC Journal

The mission of the IAIABC Journal is to advance understanding and management of workers’ compensation system administration through the availability of data, research, policy analysis, and thoughtful opinion.

The IAIABC is a non-profit, non-partisan association representing most of the United States and Canadian Provinces, and other nations and territories. Its mission is to advance the administration of workers’ compensation systems throughout the world through education, research, and information sharing.

Editorial Staff

Editor
Robert Aurbach
Albuquerque, New Mexico

Managing Editor
Melissa Wilson
Madison, Wisconsin

IAIABC Executive Committee

President
Frank Fennerty, Washington

President-Elect
Glenn Morton, Nebraska

Vice President
Julie Benafield Bowman, Arkansas

Secretary/Treasurer
Dan Sumner, Florida

Immediate Past President
Richard Gannon, California

Members at Large:
Elizabeth Crum, Pennsylvania
Paul Dionne, Maine
Peter Federko, Saskatchewan
Frances Huntley-Cooper, Wisconsin

Executive Director
Gregory Krohm
Contents

From the DEW Line

Editor’s Report

Features

The Role of Fee Schedules in Medical Cost Containment  
Janet Jamieson  
15

Workers’ Compensation Costs and Chiropractic  
Taking a Position on Center Stage  
Anthony Rosner  
22

Observations on Rosner’s Comments on WCRI Studies  
Richard Victor  
50

Developing a Medical Fee Schedule for Injured Workers Based on the Resource Based Relative Value Scale  
Alan Colledge  
Joyce Sewell  
55

Hearing Rehabilitation Cost Escalation and a Cost Containment Model  
Michael Kemp  
69

Treatment of Workers’ Compensation Claims Under the Bankruptcy Code  
Karen Cordry  
78

HIPAA and Workers’ Compensation: One Year Later  
Debbie DiBenedetto  
96
Research & Safety
Comparing Jurisdictional Data on Work Injuries  
Frank Neuhauser  

Medical
The Advantages of Early Return to Work  
The Benefits for Employer and Employee  
J. Mark Melhorn  

Technology
Medical Reporting to Jurisdictions Using EDI  
Todd Brown  

News and Current Interest
A Realistic Look at the Problem of Coordinating Medicare  
and Workers’ Compensation Settlements  
Tribal-Based Professional Employer Organizations  
Firefighter Presumptions of Covered Injuries in Workers’ Comp  

Letters to the Editor
With this issue, the *IAABC Journal* inaugurates a new department devoted to discussion of medical issues in workers’ compensation. There are several reasons why we have chosen to devote the space to a continuing discussion of this subject. Nationally, medical costs have become nearly half of every dollar spent on workers’ compensation benefits.¹ Medical costs have risen at a rate that is many times that of inflation during the last few years,² and the reasons for such increases are not matters on which there is a general consensus, much less any coherent plan for control.

Control over this inflationary environment is hampered by the fact that workers’ compensation medical services make up a small fraction of the overall health care expenditure in the United States. Thus, workers’ compensation can exert relatively little control over systemic cost drivers. Nevertheless, as demonstrated by some of the articles in this issue, significant increases in efficiency in benefit provision can be achieved, through a wide variety of approaches. But more detailed and insightful research is needed to inform the policy choices that the future will present.

---

¹ Estimates differ widely. The National Academy of Social Insurance, covering both insured and self-insured employers, estimates that medical was 43 percent of benefits paid in 2000; the Workers Compensation Research Institute, using the 10 states in the Compscope population, puts the mean medical payment share of benefits paid at nearly 46 percent in accident year 1996.

The IAIABC has not placed a great deal of emphasis on these issues in committee work, convention presentations, and publications recently, to the dismay of those members of the medical community that wish to engage in constructive dialog with workers’ compensation regulators, researchers, and theorists to improve the system for injured workers while minimizing unnecessary costs. The Executive Committee has recognized that deficiency, and programming on medical issues will be significantly expanded for the 90th Annual Convention in New York City. In keeping with this direction, this issue also presents a symposium of articles discussing medical cost drivers in traditional medicine, alternative medicine, and durable medical equipment.

The symposium raises an old, unresolved issue. Does the level of charges per service (unit cost for medical fees) present the greatest opportunity for constructive regulatory control of medical costs in workers’ compensation, or does control of the utilization of medical services present the greatest opportunity? The articles presented advance, but do not resolve, that debate. At the same time, it seems fitting to observe that the research literature contains surprisingly little by way of research into the third category of medical cost drivers: those that arise from sources other than the direct provision of services to workers. On the indemnity side, we talk about “friction costs” or “benefit delivery costs”\(^3\) and refer to such things as the cost of attorney fees as a typical example.

The consideration of this category of cost drivers has important policy ramifications. The term “friction” costs has some appeal, both because it is already in common use and because it invokes the evocative image of two objects rubbing against one another. These costs are significant for two reasons. First, they are significant in magnitude. A recent study\(^4\) suggests that as much as 7 percent of all medical costs may be incurred as medical

---


\(^4\) Workers’ Compensation Research Institute, Bulletin 03-20.
cost containment charges in workers’ compensation (e.g. services designed to review the claim’s outcome, direction, specific fees, or to identify fraud). Second, managing these types of system costs is within our reach. Once identified, these cost drivers are more accessible for control purposes than the overall cost of medical care because they arise from features within the workers’ compensation environment.

But as an image, the picture is incomplete. In the world of medical costs, there are costs that arise from the interaction of the worker, health care provider, payer, and parties hired to control medical costs for the payer. These we will call “friction” costs. They include the costs of bill review, medical case management, utilization of independent medical examinations (IMEs), second medical opinions, and reviews of current medical care and the worker’s condition by prior treating health care providers (in jurisdictions that have provisions for changes of health care provider). To be sure, these activities often result in savings in the fees for services or the utilization of services, despite the fact that the claims often made about the magnitude of those savings are sometimes questionable. These savings come at an undoubted cost in the funds directly expended for these services. The interesting question is always whether the incurring of these “frictional” costs results in net savings.

There are also costs that arise from the interaction between the legal/regulatory environment in which health care is provided and the portion of the health care provider’s practice that doesn’t directly relate to providing the treatment itself. These costs contribute to “business overhead,” but are rarely separately identified. A descriptive term for such costs is “drag” because they represent impediments to peak efficiency that come not from direct contact with another player in the system, but from impediments to the smooth flow of service provision through the environment. Some examples of “drag” in medical care include the paperwork required of health care providers that is unique to workers’ compensation cases, requirements that complete medical records be submitted with every billing, and rules restricting the communications between players in the system due

---

5 These cost drivers occur on the indemnity side of the equation too, but discussion of those issues, particularly with respect to attorney involvement and the structure of the dispute resolution systems, must wait for another day.
to concerns about privacy. These types of systemic costs also affect the payers, and increase their cost of doing business. Examples include the cost of reporting medical billing and other cost information to state regulators for statistical purposes and any regulation of communications between the payer and provider. Recognition of these features of the system as sources of cost is not a condemnation, but merely identification of an opportunity for increased efficiency. Similarly, deposition or testimony costs associated with court proceedings, change of health care provider provisions (where applicable), and the presence of federal law requirements (like those associated with HIPAA and the Medicare set-aside program) are also sources of “drag” in the medical care delivery system.

There is one source of “drag” that is well understood at an intuitive level, yet seemingly ignored at the level of our attempts to improve the efficiency of the workers’ compensation system. Back in the late 1980s and early 1990s, when the states were casting about for an example of a system that worked, a few states were identified as having lower costs than their neighbors. When examining the provisions of their laws, they did not appear to account for lower costs on their own, nor did the specific features of such laws appeal to the various reform-minded lawmakers and consultants. The consistent feature in those systems was stability. The laws in those jurisdictions had not been subject to significant changes over the course of a number of years. The stability of those systems, in itself, resulted in less disputes and litigation for the simple reason that a greater percentage of the issues on which there could be disagreements had been settled through the development of accepted practice in the industry and the creation of a significant body of interpretive case law. Since most of the interesting ambiguities had been resolved, there was less to disagree about and less temptation to take an issue to the appellate courts for decision. Where this was not so, ambiguities and opportunities for interpretation led to increased disputes and more costly litigation (“friction” costs). So systemic instability itself can be regarded as a major source of “drag,” and a cost driver in workers’ compensation that is deserving of study.

Why is the distinction between “friction” and “drag” important? The distinction helps us focus on who is in control of the costs, and therefore who has the opportunity to take the steps necessary to achieve greater
overall systemic efficiency. “Friction” costs are in the hands of the players – the worker, health care provider, the payer, and any associated cost containment professionals. To press the analogy, the image is one of smoothing the interfaces to reduce the friction. The decision to turn a bill over for bill review or request an IME is just that – a decision. In some cases it is a decision that may be required under current law. As such, the decision or the law is subject to a cost-benefit analysis that should be informed by appropriate research. Where permitted by law, payers may achieve greater efficiency through the development of an algorithm to guide the decision process. Utilization of such algorithms has potential for cost savings, but the players need to decide to appropriately inform themselves and take control of that cost driver.

“Drag” costs are beyond the direct reach of system participants. When rules promulgated by the regulatory agency require the production of unique paperwork by the treating health care provider, then time is diverted from the practice of the health care provider’s specialty to work that does not produce fees that help make the practice profitable. Fees may be raised to offset this utilization of the health care provider’s time, or to pay for the additional personnel. Reduced time spent directly with patients may impact the quality of care adversely and the acceptance of workers’ compensation patients may become less satisfying and less attractive. Similar effects occur on the payer’s side. The worker, payer, and provider have little control over this cost driver, but the regulatory authority, or the legislature, does. The image here is of streamlining the system. The defining characteristic of “drag” as a cost driver is that it is subject to the control of the entities that write the laws and the rules. Once again, a cost benefit analysis is necessary to properly assess the impact of changes in the system in which others operate, including the affect of the creation of systemic instability each time the rules or laws guiding the industry change.

Significant research is needed to gain a preliminary understanding of these cost drivers, much less implement a system of control of them that is characterized by good predictability of the results of reform. Most states have come to the conclusion that medical care is unnecessarily expensive and out of control. States often lurch from one quick fix to another without measuring the post-implementation effects of prior changes,
considering the impact of destabilizing successive changes in the law or even establishing a performance indicator of success. Gaining significant control over medical costs in workers’ compensation will take new approaches to research, broader thinking about cost drivers, and serious efforts at achieving consensus on performance indicators. Albert Einstein once said, “We cannot fix the problems of today with the same level of thought that we had when we created them.” The aphorism seems to have good applicability in control of costs in workers’ compensation.
Introduction

In spite of increases in medical cost containment spending by payers, workers’ compensation medical costs have continued to increase nationally. From 1996 to 2002, the annual average rate of increase in workers’ compensation medical costs increased 8.1 percent, which is more than twice the rate of increase in the consumer price index (CPI) over the same time period (National Council on Compensation Insurance, 2003). In some states, such as California and Texas, the increases in medical costs have been even more excessive (Workers’ Compensation Report, 2003; Williams, Reno, & Burton, 2003). This has resulted in considerable interest by state policymakers and payers in identifying and addressing the problem. As a result, there have been a number of state and national cost driver studies that have attempted to identify what is driving the significant increases in medical costs. For the most part these studies have identified “over-utilization,” or a significant increase in the number of medical procedures provided per visit and an increase in the number of visits per claim, as one of the major cost drivers accounting for the increase in medical costs.
The other major cost driver identified in these studies is “abusive” billing practices. In states such as California, cost driver studies have revealed that unregulated service areas present opportunities for providers to engage in abusive billing practices (CWCI, July 2003). There is also a belief underlying the creation of many fee schedules that even in regulated service areas, practitioners will cost shift into the workers’ compensation portion of their practice, absent controls on the maximum allowable payment for unit services. Even where those controls are in place, various mechanisms (such as “unbundling” services, usually charged as one unit of service into multiple separate services with a higher cumulative fee) can be used to defeat the intent of a fee schedule.

The information in this introductory article highlights the role of medical fee schedules in addressing medical cost control and abusive billing practices, and questions what is needed to better define the solutions for medical cost containment. The majority of the information supporting the following discussion is based on studies representing the experience of the larger jurisdictions, since the smaller jurisdictions often do not have the resources to develop the same level of information. However, the issues raised should have some relevance to all states that prescribe medical fee schedules for cost containment purposes.

The Role of Workers’ Compensation Medical Fee Schedules in Containing Medical Costs

Workers’ compensation medical reimbursement is a state-specific system where the payment methodology is prescribed by the state. There is significant variation between states in terms of the approach and degree to which they prescribe how medical services are to be paid. Some states have very minimal regulations to address medical reimbursement while others have very prescriptive, comprehensive reimbursement rules and guidelines. State prescribed payment methodologies are one of the tools that are used to control the cost of medical care.

Medical fee schedules control the “unit price” for medical services and to
some extent, through the inclusion of billing rules and guidelines, may also provide some controls for addressing over-utilization of medical services. They may also include standard billing rules, directly or through reference to a national standard, to address issues such as the unbundling of services. Unbundling of services is a term used to define the billing practice of billing separately for medical services that are provided and paid as a comprehensive service.

Medical fee schedule coverage is important because unregulated services are where we find abusive billing both in the treatment model and in the pricing of medical services. For example, prior to the 2003 reform legislation, California, like several other states, did not have a fee schedule to control reimbursement of ambulatory surgery centers (ASC). As a result, ASC reimbursement was identified as a contributor to the significant increase in medical costs in California.¹ Payers were required to spend significant medical cost containment dollars to attempt to control the cost of ASC services by contracting with negotiation companies to reprice the bills and defend the reimbursement in the courts.

The Workers Compensation Research Institute has conducted a study of state fee schedules which includes the coverage or types of medical services where reimbursement is prescribed by some type of fee schedule, and reported that all jurisdictions that regulate in this area have mandated some type of medical fee schedule that is to be used by payers for reimbursement of medical services. In fact, 70 percent of the jurisdictions regulate medical provider and hospital prices and 42 states have medical fee schedules. However, not all states that have fee schedules have schedules covering all types of services. For example, of the 43 jurisdictions with statutory authority to regulate hospital prices, only 37 do so (Eccleston, Laszlo, Zhao, & Watson, 2002).

¹ Proportion of outpatient costs based on a review of California Office of Statewide Health Planning and Development (OSHPD) data on all workers’ compensation admissions and WCIRB data on all hospital costs. According to the WCIRB, “Unlike other WC medical services, outpatient surgical facilities are not regulated. WC hospital costs, of which outpatient hospital costs compromise about 60%, have increased from $595.1 million in 1998 to $1.1 billion in 2002.” Workers’ Compensation Insurance Rating Bureau (WCIRB), Annual Reports, San Francisco, 1999-2003.
In 2003, the IAIABC conducted a survey of states to identify how states who had fee schedules perceived them to be “effective” in terms of containing medical costs and what states were considering making changes to their fee schedules, either creating new ones to extend coverage, or updating the reimbursement levels of their existing schedules. When asked how effective they would rate their state fee schedules on a scale of 1-5 in keeping payments lower than they otherwise would have been, half of the 16 states that responded to this question indicated their fee schedules were effective or very effective at controlling costs and half indicated that their fee schedules were not effective or only slightly effective in controlling medical costs. When asked if they had plans to modify their rules or statutes regulating medical fees in workers’ compensation within the next year, five states said they had no plans, seven states said they had definite plans to modify their fee schedules, and four states said they were actively considering it.2

States enact medical fee schedules to contain and increase the predictability of medical costs. By standardizing the reimbursement of medical care, they also reduce the friction between providers and payers in the payment process. Fee schedules may also be designed to prevent cost-shifting from other regulated areas of medical care into workers’ compensation, and to a greater or lesser extent, to accomplish other goals specific to the jurisdiction.

Workers’ compensation fee schedules can also play a role in controlling over-utilization. For example, the Oregon fee schedule includes limits on chiropractic treatments, which have helped to control the costs of chiropractic care (Gardner, Telles, & Moss, 1996). In other states such as California and Texas, where the fee schedules have not included treatment limits for chiropractors, chiropractic services have been identified as significant cost drivers in the increase in medical costs (Texas Business Association, 2003; Victor, Halvacian, & Polevoy, 2002; California Workers’ Compensation Institute, March 2003). Additional examples include the use of fee schedule rules indexed to defined outcomes in Utah and rules controlling

2 The survey can be viewed at http://iaiabc.org/Members/Library/Surveys/survey_index.htm
the charges billed for assisting health care providers in New Mexico. Fee schedule rules may also include limits on the type and number of services provided on a single treatment day, and as in New York where there are specific schedules by provider type, they may also restrict the scope of services that will be paid. Most states make it clear that the fee schedule is an instrument that defines what service will be paid and is not intended to define the practice of medicine. The question of how fee schedules impact the treatment model is worthy of discussion but is not within the scope of this article.

Medical fee schedules define the “per unit” pricing of services. There has been significant debate by national and state level researchers and policy makers as to what is a “reasonable” level of reimbursement. Should workers’ compensation medical payment be some percent over Medicare? Should it be benchmarked against the “going market rate” for other private payer systems such as group health? What are the effects of various pricing strategies on accessibility of health care? Workers’ compensation providers argue that the requirements and the “hassle” involved in treating injured workers should justify additional reimbursement. This “hassle” factor may identify a class of cost drivers that has not been previously well studied, and which may have both cost containment and public policy significance.

The public policy implications of the debate over the reasonable level of reimbursement may also be significant. Cost driver studies have not shown that excessive increases in medical costs are directly related to increases in the reimbursement level of fee schedules (Gardner & Swedlow, 2002). At the same time, if fee schedule reimbursement is set too low, it may create incentives for billing more services than are medically necessary, or drive good providers out of the market. Utilization limits set forth in fee schedules can also backfire, and become the floor for the utilization of the service. The wise advisor of public policy must consider more than available cost driver studies to anticipate the effects of changes in the law.

Conclusion

Although this article introduces the role of medical fee schedules in controlling medical costs, developing solutions to control workers’ compen-
sation medical costs is not simple. Enacting a new fee schedule or establishing treatment limits may not result in the desired cost containment outcome and may even present barriers to injured workers receiving appropriate medical care. In spite of over 20 years of cost driver studies and fee schedule analyses, there has been a lack of focus in terms of looking at the interaction of multiple aspects of the workers’ compensation system that contribute to medical cost escalation (e.g. role of lawyers, etc.). Most of the research to date has been high-level analyses that may provide direction to policy makers, but may not be specific enough to develop meaningful, effective reforms. The policies enacted in response to general cost driver information may also have unintended consequences.

What is needed is better information to direct medical cost containment reform. There are a number of system variables that interact to drive or control medical costs other than fee schedules. These include the involvement of attorneys, the standards for distinguishing between temporary and permanent disability, and the lack of defensible treatment standards. A more comprehensive and detailed analysis of medical cost drivers will be presented in a future issue of the *IAIABC Journal*. It is time that policy research to drive workers’ compensation reform in terms of medical cost containment be more responsible and go beyond looking at the specific services, injuries, or providers that appear to be “cost drivers.” Such research needs to look beyond our current thinking about medical cost drivers and include consideration of interaction of other factors, such as frictional costs within the system, to gain a complete and accurate picture that will be useful in predicting the results of reform.

**References**


---

Janet Jamieson has more than 20 years’ experience in research, evaluation, and implementation of information-systems solutions for health care organizations. She has extensive experience working with state and federal jurisdictions in the development and evaluation of health care policy, as well as legislation and regulations. Ms. Jamieson has worked with a broad range of clients in the private and public sectors that include state insurance funds, state workers’ compensation jurisdictions, insurance carriers, third-party administrators, managed-care programs, hospital/physician groups, national employers, and research organizations. During her career she has worked with over 20 states in the development, evaluation, and revision of their medical payment policies for workers’ compensation.
Workers’ Compensation Costs and Chiropractic

Taking a Position on Center Stage

Anthony Rosner*

Background

Calculating workers’ compensation benefits in American society today may appear to some to be an art as it is a science (Bongers, 1993). This lack of objectivity creates the opportunity for artifact, methodological flaws, and even data manipulation that may render seemingly objective studies worthy of a closer look. When this difficulty coincides with the acknowledged competition between alternative health care and conventional Western medicine (Bunk, 1999; Dalen, 1999), the intensity of this debate only increases. Finally, when the “alternative” to conventional Western medicine under discussion is chiropractic,¹ this argument may become tainted with preconceptions, half-truths, and urban mythology that does not advance the debate.

* Anthony Rosner, Ph.D., LL.D. (Hon.), Director of Research and Education, Foundation for Chiropractic Education and Research, Brookline, Massachusetts. E-mail: RosnerFCER@aol.com

¹Chiropractic is more difficult to integrate with (Wardwell, 1992) and regarded as more competitive with traditional Western medicine (Fishbein, 1925; Bealle, 1939).
Back pain, with which chiropractic is most frequently associated, is the most common reason for the filing of workers’ compensation claims in the United States. No less than one fourth of all claims (Klein, 1984; NCCI, 1993) and one third of all compensation costs (Labar, 1992) may be attributed to back pain, resulting in about 40 percent of absences from work (Labar) and costing between $50 billion and $100 billion according to a 1990 estimate (Frymoyer, 1991). From the National Health Interview Survey, in any given one-year period there can be found 22.4 million cases of back pain that last a week or more (17.6 percent of the population), resulting in a total of 149 million lost workdays (Guo, 1995). In this context, the debate surrounding the efficacy and cost of chiropractic care occupies a center stage position in rational planning for workers’ compensation health care in the 21st century.

Into this arena one needs to examine the role of chiropractic in its current state of development, both with an objective approach as well as with a framework that can accommodate new and conflicting data. Before considering the proposed “center stage” position of chiropractic in determining actual costs to the workers’ compensation system, we need to review two essential components of the background—the state of health care within the US and chiropractic research accomplishments. This sets the stage for the remainder of the discussion.

Status of the U.S. health care system

In the ranking of quality health care, the United States has been ranked 37th on a list of 191, in which France, Italy, San Mariano, Andorra, Malta, Singapore, Spain, Oman, Austria, and Japan were ranked 1-10. However, the United States spends an estimated $3,724 per person on health care each year, compared to $2,125 per person in France and $1,759 per person in Japan (ranked first in the length of life lived in good health) (Merrifield, 2000). According to Princeton University’s health economist Uwe Reinhardt, “while good at expensive, heroic care, Americans are very poor at the low-cost preventive care that keeps Europeans healthy” (Merrifield, 2000). And in another ranking of 13 countries for 16 available health indicators, the United States ranked near the bottom in neonatal/postneonatal mortality, years of potential life lost (excluding external causes), and most importantly – in life expectancy (Starfield, 1998).
But that is not all. Two years ago, the Institute of Medicine (IOM) in Washington published an uncompromising assessment of U.S. health care, *Crossing the Quality Chasm: A New Health System for the 21st Century*. This report concluded that “the American health care system is in need of a fundamental change,” especially because “what is perhaps the most disturbing is the absence of real progress toward restructuring health care systems to address both quality and cost concerns” (Institute of Medicine, 2001).

Superficial makeovers will not suffice. The IOM indicated that entirely new patterns of thinking would be necessary to escape this dilemma. “Our present efforts,” suggests Mark Chassin, “resemble a team of engineers trying to break the sound barrier by tinkering with a Model T Ford. We need a new vehicle, or perhaps many new vehicles. The only unacceptable alternative is not to change” (Chassin, 1998).

*Chiropractic research*

Despite the fact that chiropractic care has existed as a formal profession worldwide for over a century, most of what we consider to be rigorous, systematic research in support of this form of health care has emerged in just the past two-and-a-half decades. In 1975, Murray Goldstein of the National Institute of Neurological Diseases and Stroke concluded that there was insufficient research to either support or refute chiropractic intervention for back pain and other musculoskeletal disorders (Goldstein, 1975). Nearly 30 years later, one now can review how back pain management has been assessed by government agencies in the US (Bigos, 1994), Canada (Manga, 1993), Great Britain (Rosen, 1994), Sweden (Commission on Alternative Medicine, 1987), Denmark (Danish Institute for Health Technology Assessment, 1999), Australia (Thompson, 1986), and New Zealand (Hasselberg, 1979). All of these reports could fairly be characterized as positive with respect to spinal manipulation as a viable and efficacious treatment modality for acute and chronic low back pain. More importantly, the cited U.S., British, and Danish studies rank-ordered differing treatment modalities as to the strength of the evidence supporting various treatment options. Medications and chiropractic intervention shared the top ranking for research evidence supporting efficacy in those studies.
In the last 20 years, at least 75 randomized clinical trials involving spinal manipulation have made their appearance in the literature, and the majority of these have been published in general medical and orthopedic journals. These studies address not only back pain, but also headache and neck pain, the extremities, and a surprising variety of non-musculoskeletal conditions. When spinal manipulation is employed, the majority of these trials have shown positive outcomes, with the remainder yielding equivocal results. There are 43 trials addressing acute, subacute, and chronic low back pain, with 30 showing us that manipulation is more effective than control or comparison treatments. The remaining 13 report no significant differences between treatment groups. None of these studies appears to have produced a negative outcome and none indicate that manipulation is any less effective than any comparison intervention (Meeker, 2002; 2002a). Chiropractic services have been recognized as an effective treatment modality by the U.S. military, and by Congress in the recent enactment of Public Law 107-135, mandating the establishment of a permanent chiropractic health benefit within the Department of Veterans Affairs health care system. In addition, the establishment (through funding from the National Institute of Health, National Center for Complementary and Alternative Medicine) of the Center for Excellence at Palmer University creates a national resource for responsible research concerning the efficacy and appropriate use of chiropractic.

The Center Stage: Comparative Health Care Costs

General considerations and overarching concerns

No study, including what is presumed to be the most rigorous meta-analysis, appears to be free from bias. The most meticulous scoring criteria, for example, can be shown to deliver diametrically opposing results depending upon whose criteria and values are accepted (Juni, 1999). The broadest perspective on cost analysis is perhaps best begun by considering the arguments of Branson, who provided a descriptive review of cost comparisons between chiropractic and medical treatment of common musculoskeletal disorders in 1999. In his identification of 5 prospective and 19 retrospective studies, Branson concluded that (a) none of the identified
studies included all direct costs of care, and (b) most indirect cost analyses were lacking or sketchy at best.

The most common deficiencies of the cost-effectiveness studies on common musculoskeletal disorders, according to Branson (1999), were the following:

1. Patient characteristics (severity, chronicity) are not factored in.
2. Standardization of patient diagnoses within/between providers was not controlled in retrospective works.
3. The payments actually received were not the same as those billed, due to such anomalies as differential discounting.
4. All direct costs are not accounted for, such as: (a) all visits to the provider, (b) prescription and non-prescription drugs or supplements, (c) laboratory costs, (d) diagnostic imaging, (e) referral to specialists, and (f) hospital costs.
5. There is poor representative of indirect costs, such as: (a) workdays lost by the patient, (b) retraining for replacement labor, (c) caregivers to assist in domestic duties, (d) iatrogenic events, and (e) legal costs, including malpractice.

The prominent question, which should be addressed in the workers’ compensation context, therefore becomes: Which of the preceding considerations need to be factored in? At a minimum the research needs to consider the full breadth of return to work outcomes and not merely appearance at the workplace. While these issues have not previously attracted much research attention, employers’ concerns about the welfare of their employees would be expected to extend at least to the productive capacity of the worker. Even here, considerations are not often developed beyond getting the worker back to the workplace – even at reduced efficiency and satisfaction. Although many aspects of cost effectiveness issues in chiropractic care have been addressed in the literature, the remainder of this discussion needs to focus upon those which answer some of the questions above as they pertain to workers’ compensation studies.
Studies that appear to support the use of chiropractic care

A. Data comparing selected American states

Data from selected states (Utah, Oregon, Iowa, and Florida) comparing costs of chiropractic practice and medical care involving workers’ compensation claims, as reported in the scientific literature, can be viewed in Table A* (Jarvis, 1991; Nyiendo, 1991; Nyiendo, 1991a; Nyiendo, 1991b; Johnson, 1989; Wolk, 1988). Methodological issues concerning the derivation of the data will be deferred until the final section of this report; for current purposes, it is apparent that, with the exception of Oregon (Nyiendo, 1991; Nyiendo 1991a; Nyiendo, 1991b), appropriate utilization of chiropractic care may result in reduced treatment costs and decreased lost time from work.

B. Workers’ compensation benefits in Georgia

Assertions that chiropractic costs are a major cost driver in workers’ compensation medical benefits are called into question by data from the state of Georgia, as shown in Table B (Ganet; Smith, 2000; Hooper, 1994). Here it can be seen that low back pain constitutes 16 percent and 33 percent of all workers’ compensation claims and costs. At the same time, it is apparent that the benefits paid out in 1997 and 1998 in Georgia constituted less than 1 percent of the benefits paid out for physicians alone, about the same percentage of hospital benefits in 1997, and less than 4 percent of the amounts paid to physical therapists in that same year.

C. Utah update: Managed care pre-approval

In the state of Utah, the percentage of individuals suffering from neck and/or back injuries rose from 22 percent in 1972 (Kane, 1974) to 46.5 percent in 1986 (Jarvis, 1989). A pre-approval program for chiropractic care, initiated by the Workers’ Compensation Fund of Utah, was implemented in 1989. The program made it possible to follow subsequent changes in costs and compare these with the expenses of medical treatment, in which there was no pre-approval program and therefore an absence of those price controls. All costs represent claims allowed to age

*Editor’s Note: Because of their large size, Tables 1-4 appear at the end of the article.
two years with a closure rate of 97 percent. From the data shown in Table C it is apparent that:

1. Compensation costs are clearly distinguishable from treatment costs.
2. Chiropractic treatment costs increased 12 percent from 1986-1989 while medical expenses rose by 71 percent within the same time period.
3. Compensation (wage replacement) costs increased 21 percent for the chiropractic group from 1986-1989 and by 114 percent for the medical cohort.
4. The variations observed for medical costs (shown by the SD) are substantially greater than those recorded for the chiropractic group, possibly reflecting the standardizing effect of price controls (Jarvis, 1997).

By the authors’ own admission, this study (as do all retrospective analyses) of workers’ compensation databases continues to struggle with such issues as (a) the measurement of severity, (b) the appropriate identification of the condition, (c) unbiased case selection, and (d) the adequate inclusion of all related costs – as pointed out earlier (Branson, 1999).

D. Other overviews within the United States

An older literature review summarizing 17 studies in 14 American states from 1940-1981 points out that 14 of these studies demonstrated lower health care system costs for chiropractic patients. In all but one of these studies, chiropractic care resulted in less time lost from work (Johnson MR, 1985). In California, health economists Johnson and Baldwin (1996) studied 850 workers who had experienced an episode of back pain from 1991-1993. Here it was evident that the chiropractic management of workers affected with low back pain led to savings of about 20 percent in total claims costs, the majority of these resulting from an earlier return to work and reduced costs of indemnification.

2 The author is aware of a retrospective study of a large number of claims conducted in Utah, subsequent to this study. However, the newer study’s design is sufficiently limiting that its findings cannot be evaluated in this context.
E. Workers’ compensation study in Florida (MGT, 2002; Folsom, 2002)

Echoing the scenario of managed care pre-approval discussed above for Utah (Jarvis, 1997), a national research firm (MGT of America, Inc.)\(^3\) took notice of a change in the Florida Workers’ Compensation statute effective January 1, 1997, mandating that medically necessary remedial treatment, care, and attendance be rendered to claimants solely through managed care arrangements. They sought to (a) trace the trends of musculoskeletal workers’ claims treated by chiropractors before and after January 1, 1997, (b) assess the relative costs of chiropractic and medical treatment, and (c) investigate improvements to health care delivery resulting from expanded access to chiropractic care in various health care settings.

The data shown in Table D indicate substantial savings for musculoskeletal injuries both to the lower back and beyond. Specific findings from this study included the following:

1. The proportion of specific low back and musculoskeletal-related claimants treated by chiropractors has dropped by 75 percent since 1994.
2. As the proportion of professional services provided by chiropractors in specific cases increased, medical and other claims costs substantially decreased.
3. As the proportion of professional services provided by chiropractors in specific cases increased, claimants reached maximal medical improvement in significantly less time.
4. Based upon the estimated savings per claim, significant savings may be possible with increased workers’ compensation claimant access to chiropractic treatment for specific low back and other musculoskeletal conditions (MGT, 2002; Folsom, 2002).

Again as pointed out by Branson (1999), the authors of these reports remain sensitive to the many pitfalls that could compromise the data of cost-effectiveness studies, such as failing to factor in the costs of pharma-

\(^3\) MGT of America is an independent national research and consulting firm without ties to the chiropractic industry. See: http://www.mgtamer.com
ceuticals, hospitalizations, surgeries, referrals to allied health care providers, or other disability costs (MGT, 2002; Folsom, 2002). Baldwin, for instance, emphasizes that no studies to date have recognized appropriate controls for such variables as coverage variation, condition severity, sample size, or patient homogeneity (Baldwin, 2001). More severe cases, for example, may respond particularly well to chiropractic management (Kukurin, 1995).

F. Workers’ compensation study in Texas

As with the state of Florida, MGT of America recently delivered a set of data that were surprisingly similar for Texas (2003). In this circumstance, the authors retrieved over 70 articles, reports, published studies, and treatises on the cost and effectiveness of chiropractic care, analyzing the data on nearly 900,000 Texas Workers’ Compensation Commission claims from 1996-2001. Here it was shown that:

1. Lower back and neck injuries account for 38 percent of all claims costs.
2. Chiropractors treated approximately 30 percent of workers with lower back injuries but accounted for just 9.1 percent of the total costs and 17.5 percent of the medical costs, not even including the highly inflationary costs of pharmaceuticals (Health Care and Financing Administration, 1999; Barents, 1999; DHHS, 2002; Findlay, 2001).
3. The average claim cost was $15,884, decreasing to $12,202 when a worker with a lower back injury received at least 75 percent chiropractic care for this episode and decreasing to $7,632 with at least 90 percent chiropractic care.

G. Workers’ compensation studies overseas

In Australia, two matched samples of nearly 1000 patients each indicated significant cost savings of the group treated by chiropractors as opposed to medical physicians. These included (a) one-fourth the average number of compensation days, (b) average health care costs of $571 versus $738 incurred by medical physicians, (c) average compensation payments of $392 compared to $1,570 for medical patients, and far fewer patients who
progressed to chronic status (1.9 percent) as opposed to the 11.6 percent under medical care. As concluded by Ebrall, “the financial and social savings inherent in the chiropractic approach could be maximized by (i) an increased participation rate by chiropractors in the WorkCare system, and (ii) increased early referral of claimants with MLBP (mechanical low-back pain) by medical practitioners to chiropractors” (Ebrall, 1992).

Similar data and conclusions were obtained from the United Kingdom. Here, two cohorts of 750 employees each complaining of neck/arm or back/leg pain were referred for chiropractic care in 1994 and 1995. With patient ratings of self-improvement and satisfaction extremely high, savings in disability and sickness payments were 18 percent in the first year and 40 percent in the year following (Jay, 1998).

Pran Manga, an economist at the University of Ottawa, has been twice commissioned by the Provincial Government of Ontario to assess the effectiveness and cost-effectiveness of chiropractic management of low-back pain. In his first report, his review of the literature regarding comparative costs of medical and chiropractic care led him to conclude in 1993 that:

There is an overwhelming body of evidence indicating that chiropractic management of low back pain is more cost-effective than medical management. We reviewed numerous studies that range from very persuasive to convincing in support of this conclusion. The lack of any convincing argument or evidence to the contrary must be noted and is significant to us in forming our conclusions and recommendations. (Manga, 1993)

In a more recent calculation, Manga concluded that for an initial estimated outlay of $200 million, the Ontario Health Insurance Plan would be able to double the proportion of the public that visits chiropractors in the province from 10 percent to 20 percent and, in so doing, would result in substantial savings in both direct and indirect costs. The direct savings were estimated to be $548 million ($380 million-$770 million) while the indirect savings (including long and short-term costs of disability) were calculated to be $1.8 billion ($1.3 billion-3.8 billion). The reasons that such savings
would be accrued include the facts that:

1. Ninety-five percent of chiropractic practice in Ontario involves the management of patients with musculoskeletal disorders and injuries.

2. Musculoskeletal disorders and injuries are the second and third most costly categories of health problems in studies involving the economic burden of illness. They are also among the most important causes of activity limitations and short-term disability, ranking first in prevalence in chronic health problems and long-term disability.


H. Saco defense study

A case study involving the Saco Defense Corporation in Maine (Lynch, 1995) documents that recommendations for the prevention of workplace injuries from a chiropractic perspective can have enormous impact upon compensation costs. Known primarily for assembling machine guns, the Saco Defense Corporation had been beset with repetitive tasks resulting in soft tissue injuries that comprised the majority of the 1050 workdays lost in 1989. After a series of programs with chiropractic consultation were implemented in 1992, the following savings were noted: (a) the reduction of workers’ compensation premiums of $2 million in 1992 to $40,000 the following year, (b) an 82 percent improvement in the number of lost time injuries and 73.3 percent reduction in workers’ compensation cost per hours worked from 1990-1994, (c) the contraction of lost time injuries from 44 in 1990 to 2 to 1994; (d) the decline of workdays lost in 1990 from 913 to 31 in 1994, and (e) the abatement in accident severity rates from 6.08 in 1990 to 1.4 in 1994 (Jarvis, 1991).

I. Attempts to increase the rigor in workers’ compensation data

One limitation of previous studies discussed to this point is the fact that the distribution of injured workers among claim types (medical only,
temporary disability only, permanent partial disability) has been ignored. The health economist WG Johnson has attempted to address this shortcoming with the application of a “logit” model among 850 closed claims for episodes of back pain that began between 1991 and 1993. Unlike many other previous studies, health care costs were actual payments made to providers rather than health care charges, which may be differentially discounted, as indicated by Branson (1999) and discussed earlier. An additional model was applied to determine the relative effect of chiropractic treatment on durations of work absence within the temporary and permanent disability groups.

Johnson’s results indicate that the average total costs of back claims treated by chiropractors are lower than the corresponding average for medical physicians. However, this apparent efficiency largely disappears when the probability of returning to work in less than four days is estimated from the multivariate models, which are supposed to control for unobserved heterogeneity in the characteristics of individual workers. In other words, the extent to which these differences in costs reflect (a) differences between chiropractic and medical care or (b) differences in the characteristics of the respective patients, needs to be resolved. When the issue of patient heterogeneity is presumably resolved by the application of appropriate models, what remains is a modest chiropractic advantage for patients with temporary, but not permanent, disability. In that group the sum of health care and indemnity costs for an average work-related claim is lower for chiropractic patients because more chiropractic patients return to work within the three-day “waiting period” before the beginning of indemnity payments. Patients with temporary disability claims return to work more quickly under chiropractic care than under traditional medical care (Johnson, 1999).

What remains is the fact that objective measures for the severity of back pain are still lacking. While the authors assume that at least much of this disparity is dissolved by their models, true assessments of severity must

---

4 A probabilistic model for representing the discrete behavior of a variable when the dependent variable is categorical rather than continuous (which occurs in regression analyses).

5 It should be noted that, for purposes of this study, effects of access to health care were eliminated by the study design.
await future, definitive prospective studies with careful baseline comparisons of competing treatment groups. This shortcoming, as well as others, will be become more apparent in the section to follow.

A study critical of the role of chiropractic care

With health care costs spiraling upward at an annual rate far exceeding the annual inflation rate in the United States, workers’ compensation benefit costs and insurance premiums have seen correspondingly distressing increases. In an effort to further comprehend and assist policymakers in controlling these trends, the Workers Compensation Research Institute (WCRI) of Cambridge, MA has issued a series of highly publicized reports focusing upon elements which it concludes might be identifiable cost drivers within several “representative” states. In the past, eight states (California, Connecticut, Florida, Georgia, Massachusetts, Pennsylvania, Texas and Wisconsin) were chosen for studies (Victor, 2002); that number has now been increased to 12 with the addition of North Carolina, Illinois, Indiana, and Tennessee (Eccleston, 2003).

This more recent report from the WCRI seeks to establish and report the average values of basic criteria per claim (medical payment, services per claim, visits per claim, services per visit, price per service, and payment per visit) within a five-year span (1996-2000). These measures are presented overall and for each of five provider types (medical physician, chiropractor, physical therapy/occupational therapy (PT/OT), hospital, and other medical provider), as well as for 19 groups of services.

By analyzing departures from the median values obtained in all these indices, the report seeks to clarify:

1. Areas in which billing or treatment patterns may be changing over time.
2. Areas in which medical payments per claim and utilization may be atypically high.
3. Areas in which underutilization of medical services might point to restrictions in access to medical care as causative agents.
4. Possible effects of certain regulations on medical costs and utilization.
Secondary goals are to (a) provide a factual basis for policy debate and decision-making, and (b) facilitate the benchmarking of the results of a particular company by providing statewide normative values. It is essential to keep in mind that this report does not and is not intended to explicitly demonstrate the cost-effectiveness of specific providers as such, nor does it provide comparative outcomes data. Finally, there are no means to assess the impact of public policies or medical management strategies on costs, utilization, or other health outcomes.

Even so, when it comes to specifically evaluating chiropractic care, a number of disturbing findings seem to have been pointed out by the authors. Some have used them as justifications for applying restrictions to patient utilization or access to chiropractors. The purpose of this discussion is to point out the apparent limitations and inconsistencies with the current study, keeping in mind that we seek further consultation and research to address these issues and deliver the most definitive and useful data possible regarding the participation of chiropractic health care within workers’ compensation.

Key findings by the authors include the following:

- The distribution of medical payments in recent years (1999) finds 4 percent of the total going to chiropractors.
- The average medical payment per claim is highest for chiropractors for claims with either more than seven days of lost time or equal to or less than that period ($2742 and $923, respectively).
- The price per service per claim ($30) is about the same for chiropractors and PT/OTs, less than half the amount for physicians ($73) and 20 percent of that attributed to hospitals ($149).
- The number of services per claim for chiropractors (61) is substantially above the corresponding numbers for physicians (10), PT/OTs (37), and hospitals (9).
- The number of visits per claim for chiropractors (20 total, 28 for claims with more than 7 days of lost time, 13 for claims with shorter durations of lost time) exceeds by a factor of two or more
the respective values obtained for PT/OTs (8, 14, and 4), medical physicians (4, 9, and 3), and hospitals (3, 5, and 2).

- When broken down into individual states, the number of visits per claim in both Texas and California is more than twice the mean value obtained (17). The number of visits for all remaining states is at or below the mean value.

- The distributions of claims and payments for chiropractors yields substantially higher efficiencies (as calculated by the ratio of percentage of claims to percentage of medical payments) than for either medical physicians or PT/OTs in at least two-thirds of the 12 states reviewed.

- The price per individual service for chiropractors among the 12 states remains in close proximity to the mean value of $28 obtained. The mean for PT/OT services exceeds this value by 28 percent, while that for medical physician services is over 4.5 times this amount.

- All other factors being roughly equal, it appears that the high values obtained for chiropractic services is primarily driven by the number of visits per claim.

At the same time, these are the limitations in the current study that we hope can be rectified in future research with better collaborations:

1. When examining the mean, rather than median, values for costs per claim as the authors have done, chiropractic services now appear equal to those reported for PT/OTs and 60 percent of those found for medical physicians.

2. The authors, by their own admission, do not fully account for differences in severity in the mix of cases state by state, applying only a weighted model from the average of all states to try to normalize the values. The fact remains that in some states, individuals with more or less severe or more or less intractable conditions may be seeing specific providers. None of these variables seem to have been accounted for.

3. By the same token and again by their admission, the authors do not fully account for differences of industries in which these injuries were incurred among the individual states. For the same reasons as
indicated above, the data reported in this study may have been confounded.

4. Without any attention to outcomes (including return to work and productivity), costs per claim in and of themselves can never be equated with the cost-effectiveness of treatment, as the costs simply indicate when the claim was closed and not when the patient got better or returned to the productiveness experienced prior to injury.

5. Because costs are tracked through billing, they may not necessarily be attributable to the actual provider of the health care services rendered. The association of costs and provider as suggested by the authors in this study, therefore, becomes more tentative.

6. The inflated figures for the costs of chiropractic services appear to be directly attributable to mainly the number of visits per claim, that in turn being influenced primarily by just two states (California and Texas) whose values exceed all others and the mean by a factor of two. Reasons as to why the numbers from these two particular states are so far out of line remain unexplained. As such, generalizing to other populations and other states does not seem justified.

7. By the same token, it appears that at least in the State of California, the large number of visits reported overall can be attributed to just 3-5 percent of chiropractors that are responsible for 80 percent or more of all costs. This unfortunate pattern of excess by a tiny minority has appeared in other peer-reviewed studies published in scientific literature. To apply restrictions and caps to the entire population of chiropractors for these reasons is not effective if overall health care costs are to be controlled.

8. The authors speculate that chiropractic costs are lower in states in which the access to chiropractors has been capped. However, the authors do not present any evidence that caps exist in such states as Indiana, in which chiropractic costs are among the lowest of any states presented. Generalizing the effectiveness of caps as a cost-controlling measure nationwide seems unwarranted – both for unjustly penalizing the vast majority of practitioners and due to the fact that, overall, just 4 percent of total workers’ compensation costs are shown to have been distributed to the chiropractor.
Future Directions

Given the current availability of data and the methodological issues that surround them, there is clearly much research that lays ahead and which must be performed. The studies must be prospective in nature, match populations in as many characteristics in their baselines when comparisons of different treatments are made, and attempt to encompass far more elements than have been considered to date which ultimately affect patient productivity. What must not be accepted at face value is simply when claims are closed, as this pays no regard to treatment outcomes (especially in the long term) which will have a major bearing upon labor expenses at the workplace and which ultimately should be reflected in workers’ compensation claims.

A vast body of rigorous cost-effectiveness literature indicates that the majority of data point toward major cost savings when chiropractic services are substituted for the interventions of medical providers, in populations in which both severity and outcomes are matched. The data provided by the WCRI suggest that these issues should be more rigorously explored in future research, rather than being used outright as justifications for restricting the public utilization of and access to chiropractic services within the United States.

At this juncture it appears that the evidence supporting chiropractic management as a treatment alternative is sufficiently strong such that it must be seriously considered as an efficacious alternative to more invasive strategies such as surgery. 6

There is substantial misinformation, lack of information, and urban mythology concerning the use of chiropractic in workers’ compensation cases. More study is required to properly compare traditional medical

---

6 This is particularly important in light of the fact that the Congressional Committee on Interstate and Foreign Commerce has found that 17.6 percent of surgeries in the United States are unnecessary (Leape, 1992). If this is coupled with the findings that the total number of lower back surgeries in the United States each year exceeds 250,000 with a hospital cost of $11,000 per patient (Herman, 1995), this would mean that the total number of unnecessary back surgeries in the United States could approach 44,000 with a total cost of $484 million.
treatments and chiropractic for cost-efficiency. Yet the potential for effective and cost-efficient use of chiropractic care in workers’ compensation cases has been repeatedly demonstrated. In this context, denial of access to chiropractic management without further proper study would be ill advised.

References


Danish Institute for Health Technology Assessment. (1999). Low-back pain, frequency, management, and prevention from an HTA perspective. *Danish Health Technology Assessment*, 1(1).


Ganet Web site. Available at http://www.ganet.org/sbwc/about


Smith, J.C. (2000, August 11). E-mail notice.


*Anthony Rosner has been Director of Research and Education at the Foundation for Chiropractic Education and Research for 11 years. After obtaining his Ph.D. in Medical Sciences at Harvard in 1972, and conducting postdoctoral research at the NIH in Bethesda and at the CNRS in Gif-sur-Yvette, France, in 1973 and 1974, he directed research and clinical chemistry laboratories at Boston’s Beth Israel Hospital, taught chemistry and served as Department Administrator in Chemistry at Brandeis University, and managed research operations in neonatology at Children’s Hospital in Boston. He chaired one of six charter committees at the inception of the National Center for Complementary and Alternative Medicine in 1992 and serves on the editorial board of three peer-reviewed journals, authoring papers reviewing chiropractic research and critiquing many recent publications of questionable research design. He is the recipient of the Humanitarian of the Year Award from the American Chiropractic Association in 2000 and an honorary degree from the National University of Health Sciences in 2002.*
TABLE A
Cost Comparison Analysis from Representative American States: Chiropractic versus Medical Care

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Similar diagnoses in patient populations</td>
<td>ICD9 codes back only</td>
<td>Categories of injury, back only</td>
<td>Strain/sprain back only</td>
<td>DRG/Medical back diagnoses</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>D.C.</th>
<th>M.D.</th>
<th>D.C.</th>
<th>M.D.</th>
<th>D.C.</th>
<th>M.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>#Days lost from work (comp time)</td>
<td>2.4</td>
<td>20.7</td>
<td>11.76</td>
<td>14.08</td>
<td>39</td>
<td>58</td>
</tr>
<tr>
<td>Cost from compensation</td>
<td>$68.38</td>
<td>--</td>
<td>$263</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>$688.39</td>
<td>--</td>
<td>$617</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Cost of health care expenses</td>
<td>$526.80</td>
<td>$1,712</td>
<td>$222.70</td>
<td>$351.90</td>
<td>$1,204</td>
<td>$2,352</td>
</tr>
<tr>
<td></td>
<td>$684.15</td>
<td>$1,112</td>
<td>$351.90</td>
<td>$2,352</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cost per visit</td>
<td>$40</td>
<td>$41.70</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>$133</td>
<td>$111.20</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Length of treatment</td>
<td>34.3 days</td>
<td>53 weeks</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>54.5 days</td>
<td>19 weeks</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Number of visits</td>
<td>12.9</td>
<td>41</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>4.9</td>
<td>10</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
</tbody>
</table>

\(^a\)Jarvis, 1991
\(^b\)Nyiendo, 1991; 1991a, 1991b
\(^c\)Johnson, 1989
\(^d\)Wolk, 1988
\(^e\)Represents average number per episode
TABLE B
Workers’ Compensation Disbursements in Georgia

1. Workers’ Compensation Benefits in Georgia, 1997 (Ganet); 1998 (Smith, 2000):

<table>
<thead>
<tr>
<th>Item</th>
<th>Amount Dispersed, 1997</th>
<th>Amount Dispersed, 1998</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physician Benefits</td>
<td>$70,066,443</td>
<td>$64,307,823</td>
</tr>
<tr>
<td>Hospital</td>
<td>$72,755,936</td>
<td></td>
</tr>
<tr>
<td>Physical Therapy</td>
<td>$13,410,394</td>
<td>$12,498,129</td>
</tr>
<tr>
<td>Chiropractic</td>
<td>$488,027 (0.7%)</td>
<td>$508,572 (0.8%)</td>
</tr>
</tbody>
</table>

2. Low Back Pain and Workers’ Compensation Distribution (Hooper, 1994):
   
   16% of all workers’ compensation claims
   33% of all workers’ compensation costs
### TABLE C
Workers’ Compensation Fund of Utah: Comparison of Treatment, Compensation, and Total Costs for Nonsurgical Back-Injury Codes*

<table>
<thead>
<tr>
<th>Costs</th>
<th>n</th>
<th>Mean ($)</th>
<th>SD</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Treatment Costs:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1986</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chiropractic</td>
<td>365</td>
<td>522.96</td>
<td>614.76</td>
<td>.004</td>
</tr>
<tr>
<td>Medical</td>
<td>844</td>
<td>385.27</td>
<td>1919.69</td>
<td></td>
</tr>
<tr>
<td>1989</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chiropractic</td>
<td>277</td>
<td>619.01</td>
<td>521.76</td>
<td>NS</td>
</tr>
<tr>
<td>Medical</td>
<td>708</td>
<td>659.18</td>
<td>1728.89</td>
<td></td>
</tr>
<tr>
<td><strong>Compensation Costs:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1986</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chiropractic</td>
<td>365</td>
<td>75.77</td>
<td>546.61</td>
<td>.000</td>
</tr>
<tr>
<td>Medical</td>
<td>844</td>
<td>293.81</td>
<td>1207.59</td>
<td></td>
</tr>
<tr>
<td>1989</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chiropractic</td>
<td>277</td>
<td>91.61</td>
<td>268.60</td>
<td>.000</td>
</tr>
<tr>
<td>Medical</td>
<td>714</td>
<td>627.92</td>
<td>3126.25</td>
<td></td>
</tr>
<tr>
<td><strong>Total Costs:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1986</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chiropractic</td>
<td>365</td>
<td>628.73</td>
<td>993.24</td>
<td>NS</td>
</tr>
<tr>
<td>Medical</td>
<td>844</td>
<td>679.07</td>
<td>2052.36</td>
<td></td>
</tr>
<tr>
<td>1989</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chiropractic</td>
<td>277</td>
<td>702.91</td>
<td>651.92</td>
<td>.001</td>
</tr>
<tr>
<td>Medical</td>
<td>715</td>
<td>1281.72</td>
<td>4590.51</td>
<td></td>
</tr>
</tbody>
</table>

*(Jarvis, 1997)*

NS=Not significant.
**TABLE D**  
**Workers’ Compensation Costs in Florida**  
*Estimated Potential Savings through Expanded Use of Chiropractic*  
1994-1999

<table>
<thead>
<tr>
<th>Item</th>
<th>Lower Back$^a$</th>
<th>Other$^b$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Chiropractic Claims$^c$</td>
<td>63,343</td>
<td>224,741</td>
</tr>
<tr>
<td>Nonchiropractic$^c$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tost Costs</td>
<td>$1,076,678,243</td>
<td>$3,450,190,140</td>
</tr>
<tr>
<td>Costs/Claim</td>
<td>$16,998</td>
<td>$15,352</td>
</tr>
<tr>
<td>Chiropractic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Costs$^d$</td>
<td>$462,973,987</td>
<td>$2,139,983,802</td>
</tr>
<tr>
<td>Costs/Claim$^e$</td>
<td>$7,309</td>
<td>$9,522</td>
</tr>
<tr>
<td>Estimated savings/claim</td>
<td>$9,689</td>
<td>$5,830</td>
</tr>
<tr>
<td>Estimated total savings$^d$</td>
<td>$613,704,256</td>
<td>$1,310,206,338</td>
</tr>
</tbody>
</table>

*MGT, 2002; Folsom, 2002

$^a$Includes contusions, sprains, strains, other specific injuries, other cumulative injuries, multiple injuries to lower back.

$^b$Includes contusions, fractures, lacerations, sprains, strains, and other specific injuries to single and multiple body parts, excluding single body part injuries to the lower back.

$^c$Total injury-specific claims and costs where less than 50 percent of professional services were attributed to D.C.

$^d$Total costs and savings that result when “Non-Chiropractic Costs per Claim” are adjusted to “Chiropractic Costs per Claim.”

$^e$Average injury-specific costs per claims where 50 percent or more of professional fees were attributable to D.C.
Richard Victor

The Rosner article provides a rich review of the literature about the costs, patterns, and impact of chiropractic care. The Editor of the *LALABC Journal* asked us to offer some observations on the section of the Rosner article that discussed studies by WCRI. We found the section to be a fair and accurate representation of the scope and findings of the WCRI benchmark study of medical costs and utilization entitled, “The Anatomy of Medical Costs of Utilization.” Rosner did not discuss a second WCRI study, “Patterns and Costs of Physical Medicine: Comparison of Chiropractic and Physician-Directed Care,” that is highly relevant to his subject matter and which we summarize for the reader below. We also offer some observations about several of Rosner’s comments on the WCRI “Anatomy of Medical Costs and Utilization” study.

**WCRI Study that Compares Chiropractic Care and Physician-Directed Physical Medicine Care**

This study focuses on the two most common provider patterns for delivering physical medicine services in workers’ compensation: (1) chiropractors as the sole treating provider and (2) physicians who provide the physical
medicine services or who refer to other providers, most frequently physical therapists. Other combinations occur and are discussed in the study, but are less common.

The study addresses some important policy questions. Among them are: How do costs of similar cases compare when a chiropractor provides physical medicine care and when a physician directs physical medicine care? Which provider pattern achieves a given outcome at the lowest cost?

This report analyzes similar cases in five states (California, Connecticut, Florida, Massachusetts, and Texas) and focuses on a single outcome – the duration of temporary disability. Clinical efficacy, recovery of health and functioning, speed of return to work, and satisfaction of care are other important outcomes but are not addressed in this study.

Major Findings

- To achieve a similar outcome (duration of temporary disability), total costs per claim for chiropractor-provided physical medicine care are 30 percent higher than physician-directed physical medicine care for non-surgical back sprains and strains in California, Connecticut, and Texas. In Florida, chiropractic-directed cases achieve the same outcome at 10 percent lower costs.

- Medical costs per claim in physician-managed cases are about 25 percent lower than chiropractic-directed cases to achieve a given duration of temporary disability. Indemnity costs per indemnity claim are about 20 percent lower for physician-directed cases in two states (Connecticut and Texas) but not in the others (California, Florida, and Massachusetts). Total medical costs include payments for all medical services delivered in the case – office visits, physical medicine services, radiology, drugs, etc.

- The major driver of the difference in medical costs is payment for physical medicine services. Our analysis found that the higher physical medicine payment in chiropractic-directed care is driven by the higher number of visits per case. On average, chiropractors use 137-158 percent more visits that provide physical medicine services
and 74-90 percent more visits for which office visits are billed than when physical medicine care is physician-directed.

- In Florida, chiropractor-treated cases achieve the same outcome (duration of temporary disability) at a cost that is 10 percent lower than physician-directed care. This result is achieved partly because of regulatory restrictions placed on the number of chiropractic visits or weeks of chiropractic treatment, which must be reimbursed by the payor.

**Rosner’s Comments on WCRI Anatomy Study**

In addition to his summary of the scope and selected findings of the Anatomy study,* Rosner suggests some limitations of the study. Most of these limitations, and others, are listed in the report and explicitly acknowledged by the authors. If any of the limitations were believed to significantly affect the report’s conclusions, the findings would not have been published.

Rosner’s criticisms generally fall into three groups:

1. Rosner and the authors both point out that the empirical results are not fully case mix adjusted. This comment can be applied to all empirical studies on the subject, since no case mix adjustment is perfect, largely because medical severity of back pain cannot be consistently measured with precision. The case mix adjustment in the Anatomy study controls for the primary diagnosis and industry. The case mix adjustment in the WCRI chiropractic study summarized above contains controls that are among the most comprehensive ever done in such a study and controls for more than many different factors that are correlated with severity.

2. The Anatomy study does not address the outcomes of care – also explicitly recognized in the report, and a concern about most studies included in Rosner’s review article. However, the chiropractic study summarized above examines the costs to achieve a given

* Editor’s Note: In Appendix A, Figure 3.21 from the WCRI Anatomy study is provided for the reader’s reference.
level of one important outcome – the duration of temporary disability. More recent WCRI publications address outcomes directly, and we hope to extend these studies to address chiropractic care.

3. Billing data does not always tie directly to specific providers, but sometimes it captures groups of providers. This is correct, but unlikely to be a serious problem for comparisons of chiropractic care across states – as in the Anatomy study. Where chiropractors are part of a group practice, more often than not it involves other chiropractors, rather than multi-specialty groups. Rosner does not present evidence that this is a serious problem.

Rosner also correctly observes that California has a much higher number of visits per claim than the typical state. However, he asserts without presenting any evidence that the high average (mean) number of visits per claim in California (38 compared to 18-21 in the typical state) is due to “3-5 percent of chiropractors are responsible for 80 percent of all costs.” WCRI finds that the median number of visits in CA is 27 compared to 13-17 in the typical state. In order for this unusually high median number of visits to be driven by a small number of “outlier” providers, these few providers would have to be treating more than half of all cases in California – highly unlikely in such a geographically large and diverse state.

Rosner also takes issues with the report’s observation that there is less chiropractic care in states with caps on the number of visits. He cites Indiana which has low chiropractic involvement and no cap. In the WCRI study, the percent of cases with chiropractic care was unusually low in five states. All have either caps on the number of visits (Florida, North Carolina, and Tennessee) or provide for employer control over the initial and ongoing choice of provider (Tennessee, Florida, North Carolina, Indiana, and Georgia) or both.
APPENDIX A
WCRI Anatomy Study Figure

Figure 3.21 Interstate Comparison: Average Number of Visits per Claim and Services per Visit to Chiropractors for Claims with More Than 7 Days of Lost Time

Developing a Medical Fee Schedule for Injured Workers Based on the Resource Based Relative Value Scale

Five Years Experience in the State of Utah

Alan Colledge*
Joyce Sewell**

Overview

This report reviews how Utah converted their existing medical fee schedule to one based on the National Resource Based Relative Value Scale (RBRVS) and the impact this had on controlling workers’ compensation costs.

Summary of Background Data

Each workers’ compensation jurisdiction is mandated to provide medical care for injured workers. Compensation for this care is jurisdiction depen-

* Alan Colledge, MD, Medical Director, Labor Commission of Utah, Salt Lake City, Utah. Email: farmboyac@aol.com
** Joyce Sewell, MS, Director of Industrial Accidents, Labor Commission of Utah, Salt Lake City, Utah. Email: jsewell@utah.gov
dent, labor intensive, and expensive to maintain. As the costs for medical
care increases exponentially, without any foreseeable constraints in sight, it
is imperative that jurisdictions are proactive in developing and maintaining a
dynamic and adequate fee schedule for their injured workers. Currently, 17
states have workers’ compensation medical fee schedules based in some
fashion on the RBRVS (Eccleston et al., 2002). In 1998 the Labor Commiss-
ion of Utah, with the recommendations of providers and payers, began to
develop methodology for adopting an RBRVS-based medical fee schedule.
This fee schedule was completed and adopted in 1999, and is updated
annually.

This report explains the process and methodology utilized in the develop-
ment and adoption of this schedule. The administrative process created a
comprehensive, professional fee schedule with annual updates that are
much less labor intensive to maintain and defend.

**Introduction**

Workers’ compensation is a government-mandated cost for doing busi-
nesses. Workers’ compensation has likewise become a significant cost of
business and paradoxically has been shown to adversely affect recovery
(Hunter, Shaha, Flint et al., 1998; Rainville et al., 1997), increase disability,
(Guest & Drummond, 1992; Jamison, Matt, & Parri, 1988; Levitt, 1992),
and decrease the potential to return to work (Fredrickson et al., 1988; Guck
et al., 1986; Milhous, Haugh, Frymoyer et al., 1989).

Most workers’ compensation systems contain the following four basic
benefits:

1. **Medical Treatment**: This includes full medical care, without a
deductible or out of pocket expense for the injured worker,
including supplies that are necessary to cure or relieve the effects
of an injury sustained on-the-job.

2. **Indemnity Payments**: Payments in lieu of wages, as established by
the jurisdiction while the injured worker is recovering from an
industrial injury and is unable to work, or until it is established that everything medically reasonable has been provided, and it is not expected that the worker will significantly medically improve.

3. Permanent Partial Disability Benefits: Additional compensation is paid to an injured worker for permanent physical loss from a work-related injury (i.e. disability, scars, disfigurement, amputation, etc.), according to a defined compensation schedule. There are significant differences between the states on the dollar settlement amounts and the methodology utilized to calculate these benefits.


Over the past two decades, the cost of treating and compensating injured workers in the United States has risen from $2.1 billion in 1960 to over $171 billion in 1997 (Leigh et al., 1997). Medical cost for workers’ compensation increased only 3.2 percent annually between 1991 and 1995, but increased 7.5 percent annually between 1996 and 2001 (NCCI, 2002).

The average medical cost per lost time claim has also continued to accelerate over the past several years. Over the 1997-2001 period, average cost increases averaged 9 percent. However, for accident year 2002, medical costs increased by 11 percent. In addition to provider prices, utilization rates and pharmaceutical costs are also major cost drivers.¹

Other factors that contribute to these rising workers’ compensation costs are new procedures, the continued use of ineffective treatments, and potential over-utilization of services.

Control of medical cost is essential to facilitate a healthy business climate, while making certain that injured workers have access to the best medical care possible. Since 1966, the Labor Commission of Utah has had the statutory responsibility for the establishment and maintenance of a fee

¹ NCCI news release available in the Newsroom Section at http://www.ncci.com
schedule, along with the development of rules needed to make the workers’ compensation system operate as efficiently as possible. Maintenance of an accurate and defensible fee schedule became extremely labor intensive over time due to the significant evolutionary changes in medical procedures, increasingly complex coding and billing procedures, and variable inflation.

**Special Advisory Committee**

In 1998, the Utah Labor Commission’s Advisory Council created the Medical Fee Advisory Committee to make recommendations for adopting a fee schedule based on the evolving national Medicare reimbursement schedule, also known as the Resource Based Relative Value Service.

The committee was asked to discuss how to best:

1. Incorporate the existing state workers’ compensation rules (developed from over 80 years of experience) into the new fee schedule.
2. Maintain the fairness of the system to workers, payers, and providers.
3. Maintain reimbursement levels so as to continue to provide adequate access for injured workers.
4. Make certain that the new recommended fee schedule was fiscally neutral in relationship to the existing schedule. This was necessary in that a recent 9 percent increase had been incorporated into the prior schedule.

The members of the Medical Fee Committee are appointed for two-year terms by the Labor Commission. Members are selected based on who has interest, knowledge, experience, and employment in the workers’ compensation and medical fields. Its voluntary members are nominated to the committee by their respective state organizations. These members include physicians (occupational, orthopedic, physical medicine, chiropractic) and a physical therapist.

Members of the payer community include a representative from the Utah Workers’ Compensation Fund (the largest insurer in the state), a representa-
tive of the self-insured, and a representative from other insurers in the state. Two individuals from the Salt Lake City area who are experts in the fields of coding, billing, and reimbursement also volunteer their time on the committee. Supervising this committee are two members from the Labor Commission, the director of Industrial Accidents, and the Labor Commission's medical director. The Fee Committee has no budget and no employees, and members serve without pay.

All recommendations of the Medical Fee Advisory Committee are reported to the Workers’ Compensation Advisory Council for approval. The Advisory Council is composed of equal representation of management and labor, who are the only voting members. Non-voting members from the insurance industry and medical community also serve on the council.

**Recommendations by the Medical Fee Committee**

After extensive review and consideration of multiple options, the Medical Fee Committee reported to the Advisory Council that several years’ work had progressed on a federal reimbursement schedule and that it was substantially finalized. The committee believed that adoption of a fee schedule based on this national fee methodology had significant advantages for the Utah Labor Commission. Therefore, it was the consensus of the committee that the Centers for Medicare and Medicaid Services’ (CMS) RBRVS, used for calculating medical procedures, be adopted as the platform for calculating reimbursement for injured workers in conjunction with the 2003 American Medical Association (AMA) CPT-4 coded procedures.

This methodology was recommended for all those providing care for injured workers covered under the Utah Workers’ Compensation Act, with specific adjustments as needed by the Labor Commission. The committee noted that adoption of this new schedule would have several advantages:

- The Labor Commission could take advantage of Medicare’s reimbursement system that has been part of a multimillion-dollar research effort at the Harvard Medical School of Public Health

---

2 At the time, CMS was known as the Health Care Financing Administration (HCFA).
and reflects the results of substantial consensus-building activity among panels of providers in each medical practice area.

- Medicare’s Relative Value Unit (RVU) schedule is automatically adjusted each year according to carefully researched measurements and takes into consideration three variables to derive a single number assigned to each AMA Current Procedural Terminology (CPT) code (referred to as the RVU). The units are based upon:

1. The physician’s time and effort (Work Expense Value)
2. The operating expenses involved in maintaining a physician’s office (Practice Expense Value)
3. Malpractice insurance premiums for the area (Malpractice Expense Value)

- The adoption of this methodology would simplify calculating reimbursement rates by providers and payors, and allow for uniformity for all types of billings by medical providers for one procedure (i.e., Medicare, private health insurance, or workers’ compensation)

- It would eliminate the need for the Labor Commission to publish its own schedule describing each item along with the reimbursement values for the various 7,000 medical procedures. Copies of the most current RBRVS and CPT are available from most major medical publishing companies.

- There are uniform rules for the application of this national fee schedule and they have been simplified.

- By utilizing some form of a national fee schedule as the basis for reimbursement, providers would not be obligated to annually purchase a separate, voluminous Labor Commission reimbursement schedule for injured workers they are treating.

- For outcome purposes, it was impossible to compare Utah industrial medical fees with other jurisdiction schedules because of the
assorted types and varieties of basic fee schedules and the varying conversion factors used to determine the dollar amounts for medical fee procedures. The adoption of a uniform fee schedule would facilitate the use of the latest technology in the exchanging of information electronically for accurate intra- and inter-state comparisons.

- Taking advantage of this methodology would greatly facilitate the Labor Commission’s yearly updates and more accurately allow for projecting future premium costs.

**Calculation methodology**

To set a reimbursement value for any given procedure, the current Relative Value Unit (RVU) assigned to each Current Procedure Terminology (CPT) code is multiplied by a uniquely assigned Utah Labor Commission’s conversion factor to obtain the total reimbursement value.³

The Utah Labor Commission chose not to use RBRVS designated Utah’s Geographic Practice Cost Indexes (GPCI) adjustment, but to use the non-adjusted national RBRVS to calculate reimbursement values. The reason for this exclusion was two-fold:

1. The GPCI adjustment derivation is difficult to explain and very confusing for most payers and physicians. The commission found this confusion created unnecessary provider suspicion and prejudice toward converting to this updated fee schedule methodology.
2. By utilizing the national GPCI index, rather than Utah’s specific GPCI index, Utah medical providers actually get a slightly higher reimbursement, facilitating provider acceptance of this work.

To better clarify this, an example for the reimbursement of a lumbar laminotomy (code 63030) is given. Using the Utah-specific GPCI adjusted RBRVS index facility fee of 21.369, with Utah’s conversion factor of $58, the reimbursement would be $1239. Using the national adjusted RBRVS

³ Example: [AMA’s CPT’s RVU] x [Utah Labor Commission’s designated conversion factor as per specialty (expressed in dollars)] = the Total Reimbursement Value
specific GPCI index of 22.960 with a $58 conversion factor, the reimbursement is $1331. This is an increase of $92, with much simpler methodology.

Wholesale adoption of both the latest RBRVS and the CPT was not recommended. The Labor Commission’s Fee Schedule Guidelines make it clear that neither the establishment of an AMA-CPT code, nor the assignment of an RVU value, is to be considered as acceptance that the procedure is reimbursable by the Labor Commission. After careful review, some procedures were purposely excluded because of doubts about their efficacy and concerns about abuse or overuse of treatment. These procedures include thermograms, muscle testing, computer-based motion analysis, plantar pressure measurements, dynamic surface EMGs, dynamic fine wire EMGs, physician review of comprehensive motion analysis, and athletic training evaluation and re-evaluation. While not quantified to date, it is believed that the editing of billing codes contribute to Utah’s cost medical savings.

Each year in March, the committee meets to review the latest AMA-CPT coding book and the RBRVS. After careful review, the committee recommends to the Advisory Council the needed conversion factor adjustment, clarifications, inclusions, exclusion, or modification for updating the Utah fee schedule. After approval, the fee schedule annually precedes through rule making for formal adoption by July 1 of each year.

Utah Labor Commission’s designated conversion factor per specialty

In order to ensure that injured workers receive the best possible medical care, it is imperative that the fee schedule be established at a level that encourages medical providers to participate. The commission agreed that the prior fee schedule’s level of reimbursement, along with a comparison study of other government and private payers, provided a reimbursement benchmark where most providers, with few exceptions, were willing to see and treat injured workers. The Medical Fee Committee worked with medical participants (who represented specific specialties) to arrive at conversion factors that were acceptable to the specialty based on other payors’ rates, access, and the extra work connected with a workers’ compensation claim.
Establishing Fiscal Neutrality with the New RBRVS Workers’ Compensation Fee Schedule

To establish fiscal neutrality as close to the commission’s previous RVS, the Medical Fee Committee took the largest data source of medical payment data specific for Utah’s injured workers. In order to provide access to quality care and surgical specialties, the commission chose to adopt a higher conversion factor for the more commonly utilized surgery codes. By utilizing different models to maintain fiscal neutrality, the committee agreed upon and adopted the following conversion factors:

- Medicine evaluation in management – $40
- Restorative service – $40
- Surgery – $37
- All codes in the 20000 and 60000 sections, and codes 49505-49525 – $58

Utah specific modifications

Because there are approximately 7000 CPT codes listed in the CPT and RBRVS schedules, a comprehensive annual review of codes is beyond the reach of most jurisdictions. However, an annual selective review is important to maintain the integrity of the system. Each year, consensus reports of the Medical Fee Committee’s review are given to the Advisory Council for adoption.

Historically this committee has found certain codes to be in error or to be logically and objectively inconsistent with other related codes within the RBRVS. For example, the commonly used codes for injured workers needing removal of foreign bodies in the eye with a slit lamp (code 65222) was only given a RVU of 1.25 while removal of a foreign body without a slit lamp (code 65220) was given an RVU of 8.82. These assigned RVUs were obviously in reverse order, so correction was needed in the Utah fee schedule to reflect correct values. In 2004, this needed correction was made by the AMA and RBRVS.
The committee felt that reimbursement for physical therapy codes 97001 (RVU of 1.99) and 97003 (RVU of 2.12) was much higher than accepted by the prior fee schedule, and adoption of a 1.8 RVU was assigned. Likewise, codes 97002 and 97004 were also assigned an RVU of 0.5. The prior fee schedule for anesthesia was based on a 12-minute interval. Medicare’s base unit’s methodology is 1 unit per 15 minutes. This was adopted with the conversion factor of $40. For pathology and laboratory services, the RVU was set at 150 percent of Utah’s Medicare laboratory fee schedule and clarification is provided as to what constitutes the non-facility and facility total RVU.

There are rare situations where procedures have not been assigned a CPT code or Medicare has not assigned an RBRVS, because the procedure is not covered by Medicare. In such cases, providers are asked to contact the Labor Commission to discuss what reimbursement, if any, could be allowed.

The controlling of exorbitant provider costs

It was established that the Labor Commission’s fee schedule would be the maximum fee for procedures billed while treating injured workers. If an employer or carrier has a contract with a provider for discounted services given to an injured worker, then that discount applies. The commission’s fee schedule guidelines facilitate the controlling of unauthorized or unusual medical treatment and define what is considered excessive charges. It establishes that no payment for any service that is considered to be excessive or questionable will be reimbursed, including services that are not listed in the schedule, or services that do not comply with standards or requirements in the fee schedule, services provided by an individual or provider who is prohibited for receiving reimbursement, and services not usual or customary. The guidelines provide direction needed for resolving billing disputes, along with defining those who are authorized to treat injured workers in Utah, and those who are not. Reimbursement is also set for paramedical personnel at 75 percent of the physician reimbursement while working under the direct supervision of a licensed physician. These include physician assistants, nurse practitioners, nurse anesthetists, and psychologists (all at 75 percent) and social workers (at 65 percent).
Restorative services

A significant portion of the overall costs of workers’ compensation stem from treatments in the area of physical medicine. For example, in 1996, medical providers in California billed for over $112 million in the area of physical medicine for work-related injuries. This accounted for over 33 percent of the total dollars billed under their official medical fee schedule. This did not include evaluation and management costs, which accounted for another 30 percent, or $103 million (CWCI, 1997). Since restorative services are an integral part of the healing process for a variety of injured workers, specific care was taken to better define and establish reimbursement parameters.

The medical fee schedule makes it clear that restorative services that are billed must meet the reporting requirements as established by prior workers’ compensation rules. Providers billing under the fee schedule are to use the restorative services authorization form, which mandates documentation of objective improvement every six visits in order to establish whether further treatment is warranted. Ineffective treatments are defined as those that do not improve patient function. The fee schedule does not support the prolonged use of modalities such as traction, acupuncture, laser therapy, diathermy, heat, ultrasound, massage, or electrical stimulation for any purpose other than providing temporary relief of pain. Objective improvement is defined as: (1) Increased work parameters as it relates to the essential job functions, (2) Pain resolution as measured by a visual analog scale, and (3) Hours the worker is able to work. Clarification is given for manual therapy techniques or manipulation treatments for the spine. The medical fee schedule makes it clear that the entire spine from head to pelvis is considered as one region and that the multiple CPT-RVU spine codes are not to be used more than one time per treatment session.

Impairment ratings

Since impairment ratings are an essential portion of many industrial injuries, the fee schedule has established specific time-based codes and

---

4 Readers interested in a copy of the RSA form may contact the authors.
reimbursement criteria in order for compensation to be given based upon the Utah Specific Impairment Guides (Colledge, 2001).

**Summary**

All states require relatively open-ended medical care to restore as much as medically possible the health of injured workers. Medical expenses for injured workers remain a substantial cost to employers. Control of medical cost is essential to facilitate a healthy business climate, while making certain that injured workers have access to the best medical care possible. Utah is now one of the least costly states for an employer to obtain workers’ compensation coverage, while maintaining their fee schedule above national average and wage replacement of $520 per week. Contributing to this cost effective outcome has been a very aggressive approach at adopting and enforcing a RBRVS medical base fee schedule patterned closely after Medicare, with specific workers’ compensation modifications.

Discussed in this article is how the Labor Commission of Utah developed their fee schedule based on the latest RBRVS methodology. Adoption of this fee schedule has greatly facilitated control of medical costs, annual updating, and reduced controversies among payers, agencies, and providers. This paper also demonstrates the significant positive impact that volunteer professionals can make in improving a jurisdiction’s overall workers’ compensation system. The Utah Labor Commission medical fee schedule provides an improved model from which other workers’ compensation systems may give consideration to for controlling utilization and medical expenditures.

**Acknowledgement**

Craig McQueen, MD; John Clayton, MD; Steven Hunter, PT; Jeffrey States, DC; Jeff Wheeler, DC; Leeann Havis, RN; Dean Sanders; Peg Howard, Workers’ Compensation Fund of Utah; Leslie Peterson; Wasatch Crest; Dianne Edwards; IHC Risk Management; Hugh Johnson, Utah Transit Authority; Workers’ Compensation Fund of Utah.
References


---

**Dr. Alan Colledge** is a graduate of the University of Utah School of Physical Therapy and the Medical University of South Carolina. He is Board Certified and specializes in the prevention and non-surgical treatment of spine and occupational injuries. He is currently Medical Director for the Labor Commission of Utah, where he serves as committee chairman for Impairment Ratings, Provider Education, Physician Outcome Assessment, the Medical Fee Schedule, Functional Capacity Assessment, Utilization Review, Treatment Guidelines, Pain Committee and the Restorative Services Committees. He has published extensively and presents nationally and internationally.

**Joyce Sewell** is Director of the Utah Labor Commission’s Industrial Accidents Division. The division sets policy for payment of workers’ compensation benefits and enforces the law’s requirement that all employers provide workers’ compensation coverage. The division also provides mediation services to resolve dispute between injured workers, employer, medical providers and insurance companies.
Hearing Rehabilitation
Cost Escalation and a Cost Containment Model

Michael Kemp*

Editor’s Note: Durable medical equipment (DME) is used to refer to either the hardware provided to an injured worker (a handrail to install in a bathroom, a walker, and a hearing aid are examples) or the combination of the item provided and the professional services that are required to properly create and fit it (examples are the creation and installation of orthotic devices and the fitting of hearing aids). The following article discusses hearing aids in the context of both these usages and provides a model for cost containment of both aspects of hearing aid provision in workers’ compensation - but its applicability may extend to DME in general. To be sure, the cost containment strategies outlined herein come to fullest fruition in the more complicated cases where a professional service component is present - and some of these suggestions may require changes in applicable laws or rules. Still, even where only off-the-shelf hardware is being provided, cost savings may be achievable.

Excessive noise exposure results in permanent sensory neural hearing loss. Currently there is no medical treatment for noise induced sensory neural hearing loss. The only method of rehabilitation available for this injury is the fitting of hearing aids.¹ The hearing aid manufacturing industry has achieved tremendous technological advancements over the last decade. Unfortunately, these technological advancements have resulted in steep escalation of costs at both the wholesale and retail levels. The injured worker expects and demands the most advanced technology available. Usual and customary fees for top-of-the-line hearing aid fittings can now exceed

*Michael Kemp, M.S., Audiologist, Hearing Rehabilitation Solutions, Inc., Sacramento, California. E-mail: Mkempgrace@aol.com
$7000. The average period of time of repurchase is four years. Due to the rapid development of hearing aid technology and the injured worker’s desire to acquire the most advanced instruments, this refitting period is becoming shorter. The cost of initial and subsequent hearing aid fittings required over a 25-year period for an injured worker can reach $45,000 in today’s dollars.

This article will chronicle the advances in technology that have occurred over the past 12 years. Hearing aid cost drivers will be identified. Pricing methods commonly used by the hearing aid industry will be detailed. A cost containment model that can reduce cost by as much as 40 percent without sacrifice of outcomes, quality, or accessibility will be presented.

**Technology Advancement and Wholesale Cost**

Advancements in hearing aid technology have resulted in significantly higher levels of satisfaction among hearing aid users. However, each technological advancement has resulted in a steep cost increase at the wholesale level.

In the early 1990s, electronic component miniaturization made possible the introduction of completely-in-the-canal (CIC) hearing aids. These small instruments were higher in cost and desired by the hearing impaired population because they were virtually unseen (Kochkin, 1994). This miniature style of hearing aid did provide some functional benefits over previous larger styles. These benefits included greater ease of telephone use and less acoustic feedback. However, it is safe to say that the higher cost incurred was largely for the sake of cosmetics. It is not the author’s intent to take a position regarding the wisdom or necessity of providing the smallest instruments based on cosmetic value. It is important to note that the cosmetic appeal of smaller hearing aids remains a cost driver.

---

1 The only surgical intervention for sensory neural hearing loss is cochlear implantation. However, candidacy criteria for cochlear implantation usually require that the patient have no usable residual hearing. The injured worker suffering from noise induced hearing loss is identified before profound hearing loss is sustained. Therefore, surgical intervention is rare in workers’ compensation cases involving noise induced hearing loss.
Throughout the mid 1990s, research audiologists and manufacturers of hearing aids accomplished significant breakthroughs resulting in higher efficacy and increased satisfaction among hearing aid users. Audiologists devised new sophisticated testing and fitting protocols aimed at addressing many of the peculiarities of noise-induced sensory neural hearing loss. Research and development by hearing aid manufacturers made possible the building of circuits capable of utilizing the new fitting algorithms. These new fitting algorithms largely depended on a technology called wide dynamic range compression. Wide dynamic range compression applies high volume boost to soft sounds, medium boost for medium input such as speech, and little or no additional volume for loud, uncomfortable sounds. Depending on the sophistication of the circuit, automatic volume adjustments are made within milliseconds and can be frequency specific. Wide dynamic range compression technology was first introduced in conventional non-programmable circuits and later in programmable hearing aids. The development of these more complex circuits represented a significant research and development expense to the manufacturers.

At the close of the 1990s, digital technology was introduced. Without question, the introduction of digital circuitry has done more to improve hearing rehabilitation outcomes than any previous technology (Kochkin, 2000). With this new technology almost any conceivable fitting algorithm can be implemented. However, once again the research and development costs have been exorbitant and rapid advancements have resulted in ever shortening product cycles. Digital hearing aid technology is now in its third generation product cycle. Hearing aid manufacturing is a relatively small industry. It is likely that all of the digital circuits used to build all of the digital hearing aids ever fitted in North America would not fill the milk carton in your refrigerator. Suffice it to say, the high product development costs have to be recovered through the sale of relatively few hearing aids. This author’s private practice has seen a 400 percent increase in wholesale cost for hearing aids of the most advanced technology class over the past 12 years.

The escalation of wholesale cost coupled with the service providers’ traditional retail pricing methods have resulted in a retail cost range of $5000 to over $7000 to fit both ears of an injured worker with top-of-the-line hearing aids.
Traditional Retail Pricing Methods

A hearing aid fitting consists of durable medical equipment (DME) costs (the hearing aids) and professional services costs (including testing, fitting, follow-up, and ongoing maintenance). Eighty-five percent of providers of hearing aid fittings set prices by bundling the costs of the hearing aids and associated services (Strom, 2003). The retail price is usually set by factoring a multiple of between 2 times and 3.5 times the wholesale cost of the instruments being fitted. This practice has resulted in retail cost escalation mirroring the cost escalation seen at the wholesale level. Furthermore, the practice of fee bundling lowers transparency in the transaction by not separating DME and professional services costs.

A Cost Containment Model

Traditional efforts to contain the cost of a hearing rehabilitation claim usually involve contacting the provider and requesting a lower price for the injured worker’s hearing aid fitting. This approach has pitfalls and typically does not result in the best value for the injured worker and the employer. A request for a lower-priced hearing aid fitting can be construed as a request for a less expensive and possibly less efficacious set of hearing aids. This approach can create a confrontational atmosphere. If the injured worker perceives that their best interests are not being served, litigation may ensue. Furthermore, this approach requires that the provider shoulder the entire burden of cutbacks while the manufacturer of the hearing aids continues to enjoy full profit margins. For this reason best pricing is not achieved.

The author advocates a cost containment model based on the following points:

2 The author is president of Hearing Rehabilitation Solutions Inc., a business which provides cost-containment services to workers’ compensation insurers. The author’s recommendation of this cost containment model is based on his experience in achieving results by utilizing the model. Inclusion of information regarding this cost containment model in the IAIABC Journal does not constitute endorsement by IAIABC.
Negotiate pricing at the wholesale level from all major hearing aid manufacturers.

Utilize a credentialed professional services provider network with geographical coverage at the national level to provide the professional services component of the hearing aid fitting when possible.³

Reimburse providers of the professional services component as service providers and separate the durable medical equipment component of the hearing aid fitting.

Conduct outcomes measurement, with recourse, and monitored at the level of the individual injured worker. (Outcomes measurement and recourse will be discussed more fully later in this article.)

Accomplish the above by utilizing a centralized buying group that negotiates with manufacturers, administers a service provider network, conducts outcomes measurement, ensures quality control, and provides uniform pricing and billing.

At the present time there are six hearing aid manufacturers in the world that research, develop, and design their own digital processors for use in hearing aid manufacturing. As stated earlier, research and development costs are high and must be spread out over the total number of units manufactured. For this reason, manufacturers are willing to extend significant wholesale discounts to large volume accounts. In order to provide manufacturers with the volume required for them to extend large wholesale discounts, hearing aids will need to be purchased directly from the manufacturers through one account. The workers’ compensation industry could be well served by consolidating their buying power and utilizing a private sector buying group. The author has been able to negotiate wholesale discounts ranging from 35 percent to 52 percent from all six major manufacturers.

In order to utilize a buying group and consolidate the wholesale purchasing power of the workers’ compensation industry, it will be necessary to set guidelines specifying that fitters of hearing aids are reimbursed on a fee-for-service basis. Procurement of the durable medical equipment, like

³ There is considerable variation among state workers’ compensation laws regarding who has authority to specify the initial provider and under what circumstances there can be a decision to change providers.
hearing aids, can then be carried out in a more cost efficient manner. Ideally, a service provider network that is managed by the buying group would be utilized to render the professional services component of the fitting. This service provider network would be credentialed and of such size as to provide geographical coverage at the national level. The members of the service provider network would agree to accept a standardized fitting fee, which would cover all professional services relating to the injured worker’s hearing aid fitting and extending to cover all necessary follow-up and office visits for a period of one year. The fitting fee would be the same regardless of what make, model, or style of hearing aid the service provider recommends. Retail motivations would be removed from the DME recommendation.4

Depending on the state of jurisdiction, provider choice laws may prohibit consistent use of the service provider network component of this cost containment model. Fourteen states allow the employee complete choice of the initial provider. Another 12 states authorize the employee to choose the provider unless a managed care agreement exists. In 17 states, the law allows the employer to select the initial provider. Four states have some combination of rules regarding provider choice and are difficult to classify (Victor, 2003). In states where consistent use of a service provider network is not feasible, or could only occur as a result of statutory separation of DME from other forms of health care choice, only use of the buying group to procure hearing aids at discounted cost may be available. Individual service providers of the employees’ choice will then need to be reimbursed on a fee-for-service basis. Appendix A contains a timeline of services typically rendered in a hearing aid fitting and extends through the first year of care.

Outcomes Measurement and Recourse

There are many standardized outcomes measurement instruments designed to evaluate the hearing aid user’s level of satisfaction. Many of these

4 By way of example, the author has been able to recruit a provider network consisting of over 1000 hearing health-care professionals encompassing all 50 states.
instruments were designed by the hearing aid manufacturing industry to evaluate performance derived from proprietary circuit designs and fitting algorithms. One instrument that has emerged as an industry standard is the Abbreviated Profile of Hearing Aid Benefit (APHAB). The APHAB consists of 24 items scored on four 6-item subscales. Other outcomes measurement instruments are available and many are designed to measure the patient’s level of satisfaction with the fitting professional as well as the hearing aids. Patient satisfaction is the product of an amalgam of factors. Some of these factors relate to the quality and reliability of the manufacturers’ product. However, testing, hearing aid selection, fitting and patient orientation, instrument adjustments, and follow-up are the sole responsibility of the fitting professional. Ultimately, the fitting professional is responsible for the patient’s outcome. It would be appropriate that the outcomes measurement instrument utilized provides at minimum information relating to the overall improvement in the patient’s quality of life, physical comfort of the hearing aids, ease of operation, and the presence or absence of acoustic feedback.5

It is standard industry practice and a requirement of virtually all states that a return privilege be extended to purchasers of hearing aids. This provision is in place to protect the consumer should the hearing aid fitting not meet their specific needs. However, this return privilege is rarely exercised in a workers’ compensation case. It is the author’s impression that the injured worker who is dissatisfied with their hearing aid fitting may simply forgo returning the instruments but is likely to make another claim for refitting within a short period of time. A proactive system of outcomes measurement and patient advocacy will allow the workers’ compensation industry to take advantage of this recourse.

5 A good source for further information regarding outcomes measurement instruments is Knowles Electronics, Inc. and Collaborative Marketing Committee (CMC), 1151 Maplewood Dr., Itasca, IL 60143
Conclusion

Utilization of a centralized buying group provides many potential advantages to the workers’ compensation industry. Consolidation of buying power reduces wholesale cost dramatically. Removal of the retail component from the service provider transaction improves transparency and insulates the product recommendation from any profit motive. When feasible, use of a nationwide service provider network managed by the buying group further enhances the results of this cost containment model. Systematic outcome measurement can then help ensure quality of care, facilitate recourse when necessary, and represent advocacy on the part of the workers’ compensation industry for the injured worker. In addition, the workers’ compensation industry could enjoy the advantages of uniform pricing and billing procedures nationwide. This article has dealt with the procurement of hearing aids. However, many of the same potential advantages could be enjoyed in the procurement of other classifications of DME.

References


APPENDIX A
Timeline Sequence and Hearing Aid Fitting Protocols

Day 1: Hearing Test consisting of case history, air conduction, bone conduction, speech reception threshold, word discrimination score, most comfortable loudness levels, and loudness discomfort levels - 1.5 hours

Hearing Aid Evaluation consisting of selection, impressions, and order - 1.0 Hours

Day 14: Hearing Aid Delivery consisting of programming, fitting, soundfield verification or real ear measurement, and patient orientation - 1.0 hours

Day 21: Post Fitting One consisting of checkup for comfort, operational proficiency, and overall patient satisfaction; reprogram and reinstruct as necessary - .5 hours

Day 28: Post Fitting Two consisting of checkup for comfort, operational proficiency, and overall patient satisfaction; reprogram and reinstruct as necessary - .5 hours

Day 42: Post Fitting Three consisting of final fitting checkup and graduation if all reasonable expectations have been met and no further adjustments are necessary - .5 hours

Day 132: Clean and Service - .33 hours

Day 222: Clean and Service - .33 hours

Day 312: Clean and Service - .33 hours
The assumption among modern-day bankruptcy practitioners is that a strong emphasis on supporting reorganizations will benefit all parties because a reorganized debtor will be able to pay more to its creditors than one that has been forced to liquidate and dispose of its assets at “fire sale” prices. There is little empirical evidence to support that assumption, especially in that most Chapter 11 cases do not confirm a plan, and that many confirmed plans do not succeed. Even in those that do, pre-petition creditors usually receive relatively little on their existing claims. One reason is that a great deal of money is spent during any case on post-petition expenses, ranging from day-to-day operational costs to administrative and professional fees, and that these new, post-petition creditors step in front of the creditors who had previously been owed money by the debtor.
The Bankruptcy Code (Title 11 of the United States Code, referred to here as “the Code”) gives priority to administrative expenses because they are viewed as necessary to the reorganization and the presumed greater return to pre-petition creditors. In addition, certain pre-petition expenses are viewed as particularly deserving (taxes, domestic support, consumer deposits, and, most important for purposes of this article – employee wage and benefit claims) and they receive priority as well, in a descending scale of importance. In interpreting these priorities, the courts have generally held that they must be construed narrowly so as to avoid unduly prejudicing the pre-petition creditors who, even though having earlier claims, find their interests subordinated to those who do business with the debtor during the case. Workers’ compensation claims closely resemble employee wage and health care benefit claims that are given priority in the Code. But, because the priorities are given a narrow construction, workers’ compensation claims often appear to fall outside of their literal terms.

The result is that the debtor’s employees who are least able to protect their own interests – those who have been injured or sickened in the debtor’s employ – are often the ones who receive the worst treatment under the Code. The current case law is far from clear, and the results often differ based on very specific aspects of state law – despite the notion that bankruptcy is meant to be a “uniform” federal law. In particular, the workers’ rights may be highly dependent on whether the state allows employers to self-insure and, if so, whether their employer has elected that option. This article will discuss some of the current issues and the difficulty with

1 Figures maintained by the Administrative Office of the Bankruptcy Courts indicate that the confirmation rate from 1992 to 2002 ranged from 24.7 percent to 44.7 percent of all cases filed (with the larger percentages being skewed by a few cases in which large numbers of affiliated debtors were filed under separate cases numbers, but administered collectively). Further, in an article dealing only with large corporate bankruptcies (the ones subject to the most scrutiny and the most likely to succeed), the authors found that only 71 percent of the companies confirming a plan survived for as much as 5 years. The failure figures for Delaware cases (54 percent) and New York cases (31 percent) were even higher – which is particularly problematic in that many of the largest and most significant bankruptcies are filed in those courts. 55 Vand. L. Rev. 1933, 1945 (November, 2002) “Why Are Delaware And New York Bankruptcy Reorganizations Failing?” Lynn M. Lopucki and Joseph W. Doherty.
reaching an equitable result for workers’ compensation claimants under the current state of the law. It will then discuss briefly some possible legislation that could solve the problem, once and for all.

What is a Claim? Why Does it Matter?

The Code revolves around the concept of a “claim.” A claim is defined in Section 101(5) as a “right to payment,” even if the right is unmatured, unliquidated, disputed, or contingent. The basic notion is that if the eventual right to payment can be traced back to pre-petition events that make the debtor liable, then the matter will be a pre-petition claim, even if the right to payment cannot be realized upon until after the petition is filed.

This issue has often been fought out in the context of environmental claims. There were many arguments about whether a claim arose when the contamination actually happened, or later: (1) when the damage was discovered, or (2) when the problems were assessed and a plan determined upon, or (3) not even until the remediation was undertaken and the costs actually incurred and liquidated. Leaving aside due process issues relating to the discovery of the damages, courts generally ended up looking to the earliest date – when the contamination entered the ground. The same questions can arise with respect to workers’ compensation claims, since the initial injury or illness may result in rights to payment for lost wages or for medical costs, months or years later. While employers that pay into a state fund, or buy general insurance, pay premiums that are not directly tied to the costs of claims associated with a particular worker, the issue is different for self-insured employers. In those situations, each cost that is paid is directly and immediately tied to a particular worker and a particular date of injury or illness. As such, under the normal rules of the Code, the employee’s claim - his “right to payment” - plainly looks like a normal pre-petition debt.

The problem with that is, of course, that pre-petition claims are subordinated in terms of priority and timing of payments to the administrative expenses that are incurred in actually running the debtor’s business during the case. A pre-petition claim, by definition, can’t be administrative because
it can’t have occurred in the course of administering the debtor’s operations after the petition is filed. “Ordinary course” administrative expenses (employee wages, rent, utilities, etc.) are paid on an ongoing basis during the case but the Code has no provision for paying any pre-petition claims (even priority claims) while the case is pending. Instead, it assumes that all such claims will be held until a plan is confirmed and then paid pro rata from whatever monies are available. (This makes sense, in light of the high risk that a plan will not be confirmed and that there will not be enough money to pay all administrative claims, much less priority claims or general unsecured claims.) Thus, under a literal reading of the Code, parties with pre-petition claims have no ability to be paid until a Chapter 11 reorganization plan is confirmed, or until a trustee in Chapter 7 liquidates the company’s assets and begins distributions.

The “Doctrine of Necessity”

Despite that fact, the courts often assert that their general powers under Section 105 (which provides that they may issue an order needed to carry out the provisions of the Code) give them the authority to allow payment of claims earlier than what the Code actually provides. Under this “necessity” analysis, if there are parties – either other companies or employees – whose continued interaction with the debtor is critical for its continued operations, but who have no legal obligation to continue to deal with the debtor, the court can authorize payment of their pre-petition claims. This power is often used with so-called “critical vendors,” and is routinely used for the relatively small amounts of unpaid wages, benefits, or vacation pay that may be owing when the case is filed. In some of the recent mega-cases, it has even been extended to the concept of severance pay, and indeed in amounts greatly in excess of what could even be argued to be a priority claim. (In Enron, for instance, the court authorized payments of up to $13,500, rather than the less than $5,000 the Code provides for.) Thus, for working employees who fit into the priority scheme for wages and benefits set out in Section 507(a)(3) and (4), they can often (at least in the larger cases) count on having any shortfalls made up within a short time after the case is filed. Indeed, this is typically one of the (literally) “first day motions” that debtor’s counsel routinely file along with the filing of the petition.
Treatment of Employment-Related Claims

Workers’ compensation versus unemployment compensation

Workers’ compensation is difficult to get a handle on due to the complex nature of the state systems. It can be useful to compare it to a similar, but somewhat simpler, program of employee benefits that used to pay for unemployment compensation. Before any laws were passed in this area, employees could have a direct tort claim against their employer for compensation if they were injured on the job. But, they were also subject to many defenses, so few employees ever actually got paid. Unemployment compensation, if it existed at all, only occurred in the form of a contractual right to severance pay. Although employees had different rights under the two systems, the result was often the same – an employee who lost work through no fault of his own became impoverished, and he and his family became a drain on society.

By the early 1900s, it began to be clear that an industrialized society needed a more formal response to these problems that ensured employee protection, and was not dependent on decisions by individual employers. In such cases, there is the classic “race to the bottom” by which competition penalizes any party that unilaterally pays higher benefits. Statutory mandates, on the other hand, level the playing field, so that competition takes place on some basis other than by lowering wage and benefit costs. Thus, unions and private reformers pushed for state laws mandating protections for all in both categories, rather than only covering those who obtained those protections in a union contract. The laws that developed tended to separate the specific problem – a particular employee’s need for compensation – and the payments the employer was obligated to make. Rather than simply mandating that all employers were obligated to make certain pay-

\[2\] It should be noted that this doctrine actually has very little statutory support and the District Court in the Kmart case recently entered two decisions reversing the granting of such payments. *Capital Factors, Inc. v. Kmart Corp.*, 2003 WL 22282518 (N.D.Ill., Sep 30, 2003) and *Capital Factors, Inc. v. Kmart Corp.*, 291 B.R. 818 (N.D.Ill. 2003). If this decision is upheld on further appeal and courts take a closer look at their ability to afford such relief, this will further underscore the need for statutory changes that codify the protections employees need to receive.
ments to certain persons – which would leave only a single debt/claim and a relatively simple analysis as to when the claim arose – more complex systems were set up to ensure that money would actually be available when the need arose. It takes little thought to see why such schemes were implemented.

A company in such financial distress that it needed to lay off a great many employees would, by the same token, be unlikely to be able to find the funds to pay them unemployment or severance benefits. Thus, it presumably was obvious at an early stage that a more global, insurance-type advance-payment approach to unemployment payments was needed. Workers’ compensation might have seemed less obviously in need of that approach, but it would certainly not be difficult to envision a situation in which a serious accident might overwhelm the employer’s ability to provide health coverage and wage replacement. As a result, third parties were introduced and additional debts/claims arose. Instead of simply mandating a debt between employer and employee that was attributed to the specific injury, the use of state funds, insurance, excess coverage funds, second injury funds, and the like all resulted in a divergence between the facts of a particular injury and the employer’s general obligations to make advance payments to insure coverage for such problems. As a result, the analysis of who holds a claim, when does such a claim arise, and what its status is becomes much more complex.

The Code’s special treatment of employee claims

Even if one tried to apply normal bankruptcy principles, there has always been a strong concern associated with treating employees as “just another creditor.” While trade creditors usually deal with many parties – so a bankruptcy by one is painful, but generally not crippling – the fortunes of employees are normally inextricably linked to the fate of their employer. As a result, the Code has been fine-tuned in a number of ways to provide them with added protection. In N.L.R.B. v. Bildisco and Bildisco, 465 U.S. 513 (1984), for instance, the Supreme Court used a straightforward bankruptcy analysis to determine that a collective bargaining agreement was an executory contract, like any other, and could be rejected by the debtor. Although the Court required a somewhat higher standard of scrutiny of the rejection
request, the decision still provoked an immediate and vociferous reaction and Congress promptly amended the statute to ensure that employee contracts and pension rights could be rejected only after a searching and stringent review process.

The same solicitousness has been shown for most other areas of employee wages and benefits. For instance, bankruptcy law has long provided a priority for employee wage claims. When the Supreme Court held in United States v. Embassy Restaurant, Inc., 359 U.S. 29 (1959) and Joint Industry Board v. United States, 391 U.S. 224 (1968) that the wage priority would not cover payments to union health and welfare funds, Congress added a new priority, Section 507(a)(4), in the 1978 Code to cover these payments. The Code provides several ways in which employment-related claims receive greater priority. They can receive first priority for payment in the case as administrative claims to the extent they are incurred after the bankruptcy case is filed, or third and fourth priority for payment for wage and benefit claims that accrue during the period just prior to the filing of the bankruptcy. And, if the claim is owed to the government, it may qualify as either an administrative expense (for post-petition claims) and receive first priority in payment, or be paid as an eighth priority tax for pre-petition claims.

Strikingly though, workers’ compensation benefits, particularly where the debtor is self-insured, have tended to fall through the cracks. This is particularly striking when one notes that workers’ compensation is essentially a combination of health benefits and wage protection – both of which are separately given great protection under the Code. Yet, when combined, such debts often receive little or no protection.

Why are workers’ compensation claims different?

Workers’ compensation claims have faced difficulties in qualifying under each of these priorities. The primary problem for administrative claims, as noted above, is determining when the claim arose. That requires consideration of just what the “claim” is, and this in turn may depend on the system used. Again, a comparison to unemployment compensation is useful.

In unemployment compensation, generally all employers are subject to a single system that is administered by the state. Employers must, on an
ongoing basis, pay into a state-held and state-run fund amounts that are clearly labeled as taxes (except for nonprofits that may be allowed to pay their obligations on a retroactive, reimbursement basis). If claims against the fund are higher than expected, assessments will be increased prospectively, but the fund will normally pay all filed claims at all times, regardless of the financial health of a particular employer. Because all benefits are paid from a pre-existing global fund, there is no distinction in payments between those laid off before or after an employer files bankruptcy. Other characteristics of the system are that the right to payment is usually clear, can be quickly determined, and is based on a single, easily calculable event – the termination date. In addition, the benefits are time-limited and cover a relatively short period of time.

Workers’ compensation, on the other hand, uses many different systems. In some states, as with unemployment, everyone must pay an advance premium to a state fund. In others, there may be a state fund, but some employers will have the right to merely reimburse the fund, rather than to pay a set premium. In yet others, there may be state payments, private insurance, and a right to self-insure. And, even with self-insurance, there is often an excess insurance layer with either the state or a private insurance carrier providing coverage, on top of the basic obligation to make payments. Where the state does not have total control over the funds used to make payments, it often will require a surety bond, letter of credit, or other security instrument to be posted by the employer to guarantee that it can make the payments it owes. In addition, there may be added complexities, such as Second Injury Funds, to provide supplemental coverage, which may have different payment requirements than those of the primary coverage.3

Then there is always the possibility of employee claims for which the self-insured cannot pay, or the surety bond is not enough, or the required insurance was not obtained. While a private insurer can simply refuse to pay for claims for which it has not received a premium, virtually all states are unwilling to leave injured or ill employees without any remedy. As a result, the state generally becomes the payor of last resort and steps in to provide 3 Even self-insureds may be obligated to contribute to such supplemental funds. See, e.g., In re Sacred Heart Hosp. of Norristown, 212 B.R. 467 (E.D. Pa. 1997) for a discussion of these systems.
immediate coverage to the employee. The state obtains a derivative claim against the employer for reimbursement of amounts that it paid.

As a result, there may be multiple payors and multiple types of payment demands for a single injury. For instance, there is the underlying direct demand of the employee for payment for his losses; second, there are claims by the state or by an insurer or a benefit fund for the debtor to pay prospective contributions, premiums, and financial assurances which are not tied to any particular employee’s claims; and third, the right of the state to demand retroactive reimbursement for costs that it incurred in paying for a loss suffered by a specified employee when the employer was unable or unwilling to meet its payment obligations.

These various obligations are conceptually separate and could be treated differently for purposes of determining when the claim accrues. But this usually doesn’t happen. Instead, most courts just look to the injury date as the relevant date for all of these issues.4

The net result of treating injury date as the “claim” date is that virtually all employees end up having pre-petition claims. (Post-petition injuries would be administrative, but they are a small portion of the total universe of accrued claims.) Not only do the claims become pre-petition, they may not even be a priority claim, depending on how long before the bankruptcy the injury occurred. In Deroche, for instance, the court had no problem with the notion that, because of the quirks of the priority for taxes, a state could lose priority for its claim before there had even been a decision that it actually had any right to payment.

Treatment of various types of workers’ compensation claims

Where an employer is obligated to make a continuing payment during the course of the case to a third party, whether to the state for taxes or premi-

---

4 See, e.g., In re Deroche (Deroche v. Arizona Industrial Commission), 272 F.3d 1289 (9th Cir. 2001) (State’s claim for reimbursement of Workers’ Compensation Fund for costs paid to uninsured worker arose on date of injury, not date when it was determined that state had right to be paid); Bliemeister (Bliemeister v. Industrial Commission of Arizona), 251 B.R. 383 (Bankr. D. Az. 2000), aff’d 296 F.3d 858 (9th Cir. 2002) (Same; claim did not arise anew as later awards of benefits were made).
ums for unemployment or workers’ compensation benefits, or to an insurer for health care benefits, this is treated as an ongoing course of business expense. This is true even though a health care plan, for instance, will keep paying for care for someone who became ill pre-petition or was injured in a non-work related accident. Thus, someone who had a compound fracture of the arm away from work would have health care benefits from the continuing policy. And, if that same employee had the same arm injury on the job, in a state where the employer made continuing payments to a state fund, or had an insurance policy covering workers’ compensation benefits, then he too would be paid without regard for when the injury occurred. But in a state that permits this worker to be self-insured, the answer is much different. Where each claim is separately paid, it is much easier to isolate the costs arising from each person’s injury and attribute some to pre-petition events and others to post-petition events. As a result, if the compound fracture victim worked for a self-insured debtor, he might find that his right to workers’ compensation benefits was in severe jeopardy.

A. Pre-petition premiums as “employee benefit plans”

In any event, post-petition premium payments (whether to the state or to a private insurer) will be administrative expenses. Thus, the only issue becomes whether one can also shoehorn any pre-petition premium arrears into the definition of a benefit plan or a tax. If they are treated as a benefit plan, arrears would be accorded fourth priority for payment under Section 507(a)(4). So, are workers’ compensation premiums treated as being made under a benefit plan? Unfortunately for those holding such claims, the answer is generally not.6

---

5 Theoretically, an employer could self-insure for health care benefits generally but this essentially never occurs since the potential outlay is so much larger and so much more unpredictable. Thus, non-workers’ compensation health care is essentially always provided by means of a global insurance policy.

The courts have used a number of reasons for rejecting the argument. They refuse to apply the Employee Retirement Income Security Act (ERISA) definition of an “employee benefit plan,” because they view it as too broad, although concededly there is no other definition in the Code of what is such a plan. Second, some look at the fact that the section was enacted after priority was denied to union benefit funds, and conclude that it should only apply to plans that are “bargained for” and “voluntary” and hence are asserted as a “substitute” for wages. Since workers’ compensation is statutorily required and cannot be bargained away for higher wages, those cases hold that it is not a wage substitute, and hence not included in the term. A miscellany of other arguments round out the reasons for rejection.

The Sixth Circuit’s opinion rejects most of the reasons cited, but agreed that Congress only meant to cover “wage substitutes,” while workers’ compensation, it says, is merely “an award arising out of a work-related injury.” Yet, that award does serve to provide income that substitutes for the very wages the employee is unable to earn. None of the courts provide a well-reasoned explanation of why Congress would have been uninterested in providing protection for that form of income protection, while giving priority to other employee wage and benefit claims. And certainly, dollars spent by an employer for providing workers’ compensation benefits (or any other form of statutorily mandated benefits) are dollars that are not available for payment of higher wages. Regardless of the merits of such arguments, however, most courts will not accord priority to the pre-petition premium arrearages because of these arguments.

B. Pre-petition premiums as taxes

States have an additional arrow in their quiver, since they may also argue that payments owed to them are a “tax.” The case most often cited for the

---

7 This may be a mixed blessing, as (often unfunded) ERISA plans were used by employee leasing plans during the early 1990s as a dodge to avoid purchase of workers’ compensation insurance for workers “employed” by the leasing companies, in an effort to create an economic advantage for clients to sign up with such operators. The determination that workers’ compensation was not an “employee benefit” for ERISA purposes was important in the preservation of the mandatory insurance requirement in place in most states.
A definition of a tax is *City of New York v. Feiring*, 313 U.S. 283, 285 (1941) which states that “the priority commanded by §64 [the priority tax section under the prior Bankruptcy Act] extends to those pecuniary burdens laid upon individuals or their property, regardless of their consent, for the purpose of defraying the expenses of government or of undertakings authorized by it.” *In re Lorber Industries of California, Inc.*, 675 F.2d 1062, 1066 (9th Cir. 1982), states a four-part test: “(T)he elements which characterize an exaction of a “tax” within the meaning of said Section 64, sub. a(4) are as follows: (a) An involuntary pecuniary burden, regardless of name, laid upon individuals or property; (b) imposed by, or under authority of the legislature; (c) for public purposes, including the purposes of defraying expenses of government or undertakings authorized by it; (d) under the police or taxing power of the state.”

The court applied the test to the question of whether a charge for a service (sewage disposal) provided by the county was an “excise tax” or a fee. It concluded the amount was a fee, because the payment was “voluntary” since it was not incurred until the employer decided to discharge water into the sewage system. The court held that it was irrelevant that the employer had no legally or financially viable options that would allow it to run its business but avoid using the county system. Thus, since the use of the system was “voluntary,” the court held that the charges could not meet the test for a tax. There are both legal and practical problems with this “voluntariness” test. To begin with, it essentially reads excise taxes out of the Code since such taxes are always assessed as the result of a voluntary transaction. Moreover, one may question whether an act is really “voluntary” when there are no practical, economic alternatives to the state’s “service.” [For that reason, the district court refused to find that a “use tax” imposed on motor carriers for their use of state roads (as opposed to being charged a fuel tax at the pump) was a “fee.” *In re Arrow Trans. Co. of Delaware, 229 B.R. 456 (D. Ore. 1999).*] The carrier could no more avoid the tax by “choosing” not to use the state roads, than a motorist could “choose” not to pay a sales tax by choosing not to buy gas for his car.

The Sixth Circuit issued two decisions, *In re Suburban Motor Freight, Inc.*, 990 F.2d 338 (1993) and 36 F.3d 484 (6th Cir. 1994), in which it tried to further

---

8 This is actually little more than a variant formulation of the original Feiring test.
refine the *Lorber* test in light of some of these questions. The court held that the payment must also be “universally imposed” on all “similarly situated entities,” and that it not “disadvantage private creditors with like claims.” These tests would tend to show that payment was not a voluntary choice to incur a fee, and that the state was acting in a unique role, not merely competing with other private providers of a benefit.

Those tests have not really solved the problem either, since they are not clearly defined. Courts differ, for instance, as to whether the duty to reimburse the state for costs that it expends for uninsured employees is imposed on “all” similar parties. Most courts say yes, but *In re Park*, 212 B.R. 430 (Bankr. D. Mass. 1997) said no, because the state law only required payments by uninsured employers who have injured employees who are paid from the Fund. The fact that this is the only category for which such a reimbursement obligation could possibly exist was irrelevant.9

The courts are struggling to distinguish between when the state is merely acting as a market participant, versus when it is acting in a traditional state role as regulator and/or as universal provider of services in the public interest. Contracts deal with situations where both parties may choose to participate and pay for an activity or not, and may choose with whom to deal. Unless all of those aspects are present, a charge imposed by a state should probably fall on the tax side of the ledger. If one cannot avoid engaging in the activity (breathing for instance), any charge on the activity will surely be a tax. However, no one has to buy cigarettes or liquor, so the charge could be viewed as voluntary, but there is no legal method by which one may buy cigarettes and liquor from someone else in order without being liable for this charge. Thus, since there is no legal market in which the state competes with other parties, some of whom will not impose such a charge, this is a tax.

There are other services (schools, police, fire, and the like) that the state provides that others may also provide as well, but they are so universally important that the state charge must be paid even if one supplements the

9 By the same token, a tax on cigarette purchases would presumably not be universally imposed, since it only applies to people who bought cigarettes in a state that charged a cigarette tax!
state’s services. Even if one hires an alternative service (for private schooling, for instance), one is not exempt from the state charge, and these too are taxes. Finally, there are some services that the government offers that it does not insist be universally available and for which it reasonably and actually competes with private parties. If all of those factors are present, then it is reasonable to think that the charge for such services is not a tax. Once we have determined that the government is not in a regulatory/universal service provider mode, but rather is simply a market participant, there is no reason to favor its charges over those of other providers. While the end result of this approach may often be similar to that in *Suburban* and/or *Lorber*, this approach assumes government payments are taxes, unless one can clearly show that there is an actual and meaningful opportunity for market competition with the government.

Under this analysis, the issue of whether or not a government charge is “involuntary” is far less crucial. After all, apart from that tax on breathing, any tax can always be avoided in some sense. One does not pay income tax unless one works; one does not pay property tax if one does not own property; one does not pay a sales tax unless one buys something. By the same token, in a reimbursement case, what is the voluntary act? The decision to engage in business? To hire employees? To fail to obtain insurance? To fail to cover the employee’s costs? Indeed, in most cases, the real problem is a failure to act. The real issue is whether there is some viable way to carry out the activity and avoid interacting with the government at all.

The bottom line is that in monopolistic systems – where the government requires all to participate by making advance payments and it is the only service provider – these payments are treated as taxes. Whether there could be competitors is irrelevant if the government does not, in fact, allow them to operate and requires all to pay for a public service. Courts have little difficulty with the notion that making sure that laid-off and injured employees have minimal protections is an overall public good, and not just a private benefit.10

Where a system allows self-insurance, and/or payments to private insurers as alternatives to payments to government funds, these are usually not treated as taxes – the payments to private parties can’t be taxes, and the government is just another actor in this actually competitive market.\(^{11}\)

Reimbursement claims in workers’ compensation, regardless of the nature of the underlying system, are generally treated as taxes. Despite the promises of self-insurers and insurers, and even with the assistance of surety bonds and the like, gaps and problems can still exist. Self-insurers can be destitute, obligations to buy insurance may have been ignored, or the insurer or surety itself may have gone bankrupt. Virtually all states step in to assume the role of universal service provider in that restricted universe and require that they be repaid for their expenditures. While the cases are not universally in accord, *In re Camilli*, 94 F.3d 1330 (9th Cir. 1996) seems to be a majority view and is a well-reasoned opinion holding that these are taxes.

C. Paying for pre-petition employee claims in bankruptcies of self-insureds

The previous discussion has dealt with the payments owed to third parties (states or insurers) who have promised to pay the workers’ compensation claims incurred by the debtor’s employees. But what is the status of employees who work for a self-insured party? As noted above, these employees appear to have a simple pre-petition claim, which is not precisely for wages and is clearly not for a contribution to an employee benefit plan. Thus, they do not fall under the literal terms of the pre-petition priorities, and, as a pre-petition claim, are not entitled to be paid as an administrative expense. Thus, even though the employee has an ongoing, post-petition need for medical costs and wage reimbursements, it has no legal right to payment under the Code. And, while some employers may feel that it is a “necessity” to take care of the claims of their working employees, there may be a real temptation to avoid paying for those who are not currently employed or productive.

\(^{11}\) See discussion in Suburban, Park, Saunders, and *In re Sacred Heart Hospital of Norristown*, 212 B.R. 467, 474 (E.D. Penn. 1997).
Even for those who wish to “do the right thing,” they are in a legal bind. There are some bases on which they can make the “necessity” argument, particularly for the company seeking to reorganize and with short-term injured employees whose morale needs to be protected for when they return. But does the argument also work for the long-term and permanently disabled employee? Can one argue that the working employees will be vicariously demoralized by the treatment of their fellow employees? (Keeping in mind that the employer can promise them that post-petition injuries will be covered in full?) Some employers, such as the debtor in the Circle K bankruptcy, have produced masterpieces of pleading, including pointing to the bad publicity that it might suffer should it be viewed as indifferent to the needs of its workers. But, would such arguments work as well with a non-consumer oriented business? And, would they satisfy a judge who is obligated to construe priorities narrowly?

One could argue that 28 U.S.C. 959(b), which requires the debtor to operate pursuant to the valid laws of the state, solves the problem. State law typically says that one cannot operate as a self-insured without fulfilling all the requirements, including paying all claims. But, if those conditions require payment for prior injuries, can a state law require something that the Code forbids? Is it not, to the contrary, preempted by the federal law? And, if one tries to revoke self-insured status, this may run into the limits of the automatic stay in Section 362 and the bar on government discrimination in Section 525. They preclude collection of money judgments and denials of licenses, grants, and similar benefits because of the failure to pay a dischargeable debt (which a pre-petition claim would be). Some courts have already held that denial of self-insurance status does violate Section 525.12

In short, it is less than clear how to rationalize these payments under the current Code. Yet, the courts and the parties, on most occasions, strain to find a way to fix the situation within the confines of existing language. Just as one perhaps knows a tax when one sees it, courts also know there is something deeply questionable about allowing an employer to retain the

---

benefit of self-insurance on a going-forward basis during the case – which was granted upon the promise that the employer would provide coverage for all of his employees – while allowing the employer to break that promise. That sense tends to result in a tacit understanding that the payments need to keep being made, at least while the company is still being reorganized. At the same time, counsel for some debtors (who may have little familiarity or respect for state workers’ compensation laws, and whose primary focus is on the debtor’s reorganization above all other concerns) sometimes lose sight of this imperative. Moreover, although the claims are pre-petition and can be discharged in a Chapter 11 reorganization, employers typically will keep paying them if they successfully emerge. The parties that do this, though, tend to write their motions and orders in spite of the Code, not because of it. But manifest disregard for the words of the law in order to satisfy its “true” objectives is a recipe for judicial anarchy. Plainly, the better solution is to make changes to the Code so that workers’ compensation claims are protected explicitly by its terms, not just by reliance upon the sometimes inconsistent better nature of debtors and courts.

D. A modest proposal for legislative change

After considerable debate, a number of interested parties have arrived at an elegant solution to this issue. The primary change would be to define the time when a workers’ compensation claim accrues to reflect the reality: determination of the employee’s right to payment is a long-term, evolving process with new decisions being made at periodic intervals as the employee’s medical and income needs develop. Thus, the proposal would explicitly provide that a claim by an employee or a governmental unit “for or related to” a claim for payments in lieu of wages or for medical service arises at the time the payment would be due and owing pursuant to the local workers’ compensation law.

This has several beneficial effects – it makes the argument for treating these payments as priority and administrative claims far simpler because they are “arising” at the proper point in time. It also ensures that payments that come due after the bankruptcy is complete cannot be discharged because the claim for them does not “arise” until that later date. In addition, it resolves the problem posed by cases such as DeRoche since the
government’s claim will arise on successive occasions as it becomes due and payable, and will not be inexorably tied to the original injury date. Complementary provisions to this definition would then explicitly make the payments part of the Section 507(a)(3) wage priority and the Section 503(b)(1)(A) administrative expense priority. A final correction is to include a specific exception from the automatic stay for the processing of workers’ compensation claims. Again, most courts are happy to refrain from being involved in this complex area of administrative expertise, but there is no Code section that clearly excepts handling these claims from the automatic stay. Thus, it would be appropriate to make this exception explicit and save all parties from the time and effort of obtaining relief from the stay on a routine basis to handle these matters.

These proposals are currently being circulated among various interested parties for endorsement and lobbying efforts for the next session of Congress are being planned.

13 Section 362(b)(4) – the police and regulatory exception – properly understood, probably only applies to situations where the government is acting as a prosecutor, not where it is a neutral agency adjudicating rights between the private employee and employer parties.

14 The National Counsel of Self-Insurers has announced its support of the changes, and the IAIABC has written in support of a resolution to be considered by the National Association of Attorney’s General at its next meeting. Several other advocacy groups are being approached to support the proposal.

Karen Cordry is the Bankruptcy Counsel for the National Association of Attorneys General. She graduated with Highest Honors from Wayne State University Law School in 1977 and subsequently obtained an L.L.M., again with Highest Honors, from George Washington University in 1987. She worked for the National Labor Relations Board from 1977 until February 1992; since that time, she has been employed at the National Association of Attorneys General (NAAG). Since coming to NAAG, Ms. Cordry has worked to assist state agencies to take a more active and aggressive role in enforcing state regulatory policies during bankruptcy proceedings. In 1995, she published a bankruptcy manual entitled “Bankruptcy Law and the Governmental Regulatory Process,” which explores the interaction between governmental enforcement actions and the Bankruptcy Code. A second edition is now in the works.
The Health Insurance Portability and Accountability Act (HIPAA) has been in effect for almost one year. While it was never intended to disrupt occupational injury and illness management and the workers’ compensation system, there remains great confusion and frustration about HIPAA. Employers, and workers’ compensation and medical professionals, continue to express their concern about HIPAA and their timely access to appropriate medical information to validate or adjudicate workers’ compensation claims and facilitate return-to-work for claimants.

*Deborah V. DiBenedetto, President, DV DiBenedetto & Associates Ltd, New York, New York. E-mail: dvdaltd@aol.com
Medical providers are reluctant to release any medical information or protected health information (PHI) without patient authorization for fear of potential non-compliance with HIPAA and resultant fines. HIPAA excludes short-term disability, long-term disability, occupational (work-related) injury and illness evaluation, OSHA-mandated medical surveillance, public health investigations and reporting, as well as workers’ compensation and case management activities surrounding these plans and benefits. The Department of Transportation (DOT) issued a memo in May 2003 which clarified HIPAA’s exclusion of DOT mandated drug and alcohol testing and driver qualification examination.

While workers’ compensation, occupational injury, or illness evaluation and employment-related medical records are exempt from HIPAA, there continues to be great concern about managing occupational health and related injury since many physicians are refusing to release medical information stating that HIPAA does not allow the release of PHI. There are numerous reports of occupational health nurses and case managers who say they cannot get the necessary medical information from doctors in their community and are spending inordinate amounts of time trying to navigate this issue. It is obvious that while HIPAA excludes workers’ compensation, the ability to obtain medical information in a timely manner to case manage and adjudicate workers’ compensation claims will be compromised in many cases without a strategic approach in this new age of HIPAA.

There are many providers who, as a matter of daily practice, will not release any PHI without a signed HIPAA authorization. PHI required for subrogation and second injury funds must generally be obtained from covered entities – and a HIPAA compliant authorization must be used to secure this data. While professionals have used general release forms or “medical releases,” using a HIPAA compliant authorization will facilitate access to PHI.

The strategic approach will be to anticipate a potential communication barrier at the provider level, i.e., the reluctance to release medical information, without patient approval, by having the injured worker complete a HIPAA compliant authorization. This will allow the release of pertinent medical information, as well as information which can be used for second injury fund or subrogation purposes as appropriate.
Selected Resources for HIPAA’s Impact on Workers’ Compensation

In a random search of 20 state workers’ compensation Web sites,¹ all had current information and/or links regarding the impact of HIPAA and the state workers’ compensation regulation. The sites provided links to the US Department of Health and Human Services (HHS) guidance on HIPAA and workers’ compensation (which was also presented in the Spring 2003 issue of the IAIABC Journal), and some had developed fact sheets or their own state specific questions and answers on HIPAA and workers’ compensation.

HHS has updated their Frequently Asked Questions Web site. The Web site address, plus questions about HIPAA and workers’ compensation, is listed in Appendix A.

The entire Privacy Rule, as well as guidance and additional materials, may be found at the HHS and the Office of Civil Rights Web sites. Another helpful resource is the American Medical Association, which provides several tools and discussion papers on HIPAA for the medical provider. Many associations have also issued position papers and guidance for both their members and the public. The American College of Occupational and Environmental Medicine (ACOEM) published a white paper entitled, “Recommendations for Releasing Protected Health information in the Workers’ Compensation System.” The American Association of Occupational Health Nurses (AAOHN) and the Case Management Society of America have published a joint white paper on privacy in this age of HIPAA, which is available on both association Web sites. Both the ACOEM and AAOHN documents provide a clear interpretation of HIPAA and its impact on employer groups and the role of medical professions managing workers’ compensation and disability. The addresses for these sites are found in Appendix B.

It behooves state agencies to publish current HIPAA information on their Web sites, emphasizing that the privacy regulation excludes workers’ compensation, and to respond to frequently asked questions about HIPAA by various stakeholders – employers, injured workers, providers, and others. Dialogue at the state level will benefit key stakeholders by having state-specific HIPAA information and links to the federal HIPAA Web sites and other resources (such as those discussed in this article).

Workers’ compensation professionals, case managers, and employers should regularly check the HIPAA site and their specific state workers’ compensation sites for updated information on HIPAA, guidance, and other regulatory resources. Having access to relevant information on the state agency level and strategically using a HIPAA compliant authorization

Deborah V. DiBenedetto is President of DVDiBenedetto & Associates, Ltd., New York, and serves as President of the American Association of Occupational Health Nurses (AAOHN) and Workers’ Compensation Facilitator for the Case Management Society of America (CMSA).
APPENDIX A  
Key Questions Related to HIPAA and Workers’ Compensation – HHS Responses  
As accessed on 12/01/203 at http://answers.hhs.gov

Q: Will the Privacy Rule impede the disclosures needed to pay workers’ compensation claims? Will the HIPAA Privacy Rule’s minimum necessary standard impede the ability of workers’ compensation insurers, State administrative agencies, and employers to obtain the health information needed to pay injured or ill workers the benefits guaranteed them under State workers’ compensation systems?

A: No. The Privacy Rule is not intended to impede the flow of health information to those who need it to process or adjudicate claims, or coordinate care, for injured or ill workers under workers’ compensation systems. The minimum necessary standard generally requires covered entities to make reasonable efforts to limit uses and disclosures of, as well as requests for, protected health information to the minimum necessary to accomplish the intended purpose. For disclosures of protected health information made for workers’ compensation purposes under 45 CFR 164.512(l), the minimum necessary standard permits covered entities to disclose information to the full extent authorized by State or other law. In addition, where protected health information is requested by a State workers’ compensation or other public official for such purposes, covered entities are permitted reasonably to rely on the official’s representations that the information requested is the minimum necessary for the intended purpose. See 45 CFR 164.514(d)(3)(iii)(A).

For disclosures of protected health information for payment purposes, covered entities may disclose the type and amount of information necessary to receive payment for any health care provided to an injured or ill worker.

The minimum necessary standard does not apply to disclosures that are required by State or other law or made pursuant to the individual’s authorization.

(continued)
Q: My State law says I may disclose records, relating to the treatment I provided to an injured worker, to a workers’ compensation insurer for purposes of determining the amount of or entitlement to payment under the workers’ compensation system. Am I allowed to share this information under the HIPAA Privacy Rule?

A: Yes. A covered entity is permitted to disclose an individual’s protected health information as necessary to comply with and to the full extent authorized by workers’ compensation law. See 45 CFR 164.512(l).

Q: I am a health care provider and my State law says I have to provide a workers’ compensation insurer, upon request, with injured workers’ records that relate to treatment or hospitalization for which compensation is being sought. Am I permitted to disclose the information required by my State law?

A: Yes. The HIPAA Privacy Rule permits a covered entity to disclose protected health information as necessary to comply with State law. No minimum necessary determination is required. See 45 CFR 164.512(a) and 164.502(b).

Q: Does the HIPAA Privacy Rule permit a health care provider to disclose an injured or ill worker’s protected health information without his or her authorization when requested for purposes of adjudicating the individual’s workers’ compensation claim? May I disclose the information that is needed to adjudicate a workers’ compensation claim?

A: Covered entities are permitted to disclose protected health information for such purposes as authorized by, and to the extent necessary to comply with, workers’ compensation law. See 45 CFR 164.512(l). In addition, the Privacy Rule generally permits covered entities to disclose protected health information in the course of any judicial or administrative proceeding in response to a court order, subpoena, or other lawful process. See 45 CFR 164.512(e).

(continued)
Q: Does an individual have a right under the HIPAA Privacy Rule to restrict the protected health information his or her health care provider discloses for workers’ compensation purposes?

A: Individuals do not have a right under the Privacy Rule at 45 CFR 164.522(a) to request that a covered entity restrict a disclosure of protected health information about them for workers’ compensation purposes when that disclosure is required by law or authorized by, and necessary to comply with, a workers’ compensation or similar law. See 45 CFR 164.522(a) and 164.512(a) and (l).

Q: If my State law permits a disclosure with a worker’s written release, would the Privacy Rule require more? My State law says I may provide information regarding an injured worker’s previous condition, which is not directly related to the claim for compensation, to an employer or insurer if I obtain the worker’s written release. Am I permitted to make this disclosure under the HIPAA Privacy Rule?

A: A covered entity may disclose protected health information where the individual’s written authorization has been obtained, consistent with the Privacy Rule’s requirements at 45 CFR 164.508. Thus, a covered entity would be permitted to make the above disclosure if the individual signed such an authorization.

Q: What types of insurance are NOT covered under HIPAA? Are the following types of insurance covered under HIPAA: long/short term disability; workers’ compensation; automobile liability that includes coverage for medical payments?

A: No, the listed types of policies are not health plans. The HIPAA Administrative Simplification regulations specifically exclude from the definition of a “health plan” any policy, plan, or program to the extent that it provides, or pays for the cost of, excepted benefits, which are listed in section 2791(c)(1) of the Public Health Service Act, 42 U.S.C. 300gg-91(c)(1). See 45 CFR 160.103. As described in the statute, excepted benefits are one or

(continued)
more (or any combination thereof) of the following policies, plans or programs:

- Coverage only for accident, or disability income insurance, or any combination thereof
- Coverage issued as a supplement to liability insurance
- Liability insurance, including general liability insurance and automobile liability insurance
- Workers’ compensation or similar insurance
- Automobile medical payment insurance
- Credit-only insurance
- Coverage for on-site medical clinics
- Other similar insurance coverage, specified in regulations, under which benefits for medical care are secondary or incidental to other insurance benefits

Q: Can I disclose the findings of employee fitness-for-duty exams, and the like, to the employer? Does the HIPAA Privacy Rule’s public health provision permit covered health care providers to disclose protected health information concerning the findings of pre-employment physicals, drug tests, or fitness-for-duty examinations to an individual’s employer?

A: The public health provision permits covered health care providers to disclose an individual’s protected health information to the individual’s employer without authorization in very limited circumstances. First, the covered health care provider must provide the health care service to the individual at the request of the individual’s employer or as a member of the employer’s workforce. Second, the health care service provided must relate to the medical surveillance of the workplace or an evaluation to determine whether the individual has a work-related illness or injury. Third, the employer must have a duty under the Occupational Safety and Health Administration (OSHA), the Mine Safety and Health Administration (MSHA), or the requirements of a similar State law, to keep records on or act on such information. For example, OSHA requires employers to monitor employees’ exposures to certain substances and to take specific actions when an employee’s exposure level exceeds a specified limit. A

(continued)
covered entity which tests an individual for such an exposure level at the request of the individual’s employer may disclose that test result to the employer without authorization.

Generally, pre-placement physicals, drug tests, and fitness-for-duty examinations are not performed for such purposes. However, to the extent such an examination is conducted at the request of the employer for the purpose of such workplace medical surveillance or work-related illness or injury, and the employer needs the information to comply with the requirements of OSHA, MSHA, or similar State law, the protected health information the employer needs to meet such legal obligation may be discussed to the employer without authorization. Covered health care providers who make such disclosures must provide the individual with written notice that the information is to be disclosed to his or her employer (or by posting the notice at the worksite if the service is provided there). When a health care service does not meet the above requirements, covered entities may not disclose an individual’s protected health information to the individual’s employer without an authorization by other provisions of the Rule. However, nothing in the Rule prohibits an employer from conditioning employment on an individual providing an authorization for the disclosure of such information.
APPENDIX B
HIPAA Information: Web site Resources

US Department of Health and Human Services
http://www.hhs.gov

Office of Civil Rights
http://www.hhs.gov/ocr/hipaa

*The entire Privacy Rule, as well as guidance and additional materials, may be found at the HHS and the Office of Civil Rights Web sites.*

American Medical Association
http://www.ama-assn.org/ama/pub/category/4234.html

*The American Medical Association provides several tools and discussion papers on HIPAA for the medical provider.*

American College of Occupational and Environmental Medicine
http://www.acoem.org

American Association of Occupational Health Nurses
http://www.aaohn.org

Case Management Society of America
http://www.cmsa.org

*These associations have issued position papers and guidance for both their members and the public. The documents provide a clear interpretation of HIPAA and its impact on employer groups and the role of medical professions managing workers’ compensation and disability.*
APPENDIX C
ACOEM Recommendations for Releasing Protected Health Information in the Workers’ Compensation System*

1. Contact the responsible state authority and obtain copies of the relevant statute(s), regulations, and any advisory information supplied by the state on release of medical records.

2. Carefully read the information supplied. While a few states clearly require release of all medical records to the employer, many others may allow only a limited release of information. Independent medical reports or responses to parties in the case may also be treated differently from actual medical records. Physicians should carefully clarify whether state law requires or simply permits release of record since this distinction may have a significant impact on the physician’s ability to release records without specific individual authorization.

3. If there is clear direction in the statute, regulations, or written department directives regarding medical record release, you may follow those. Remember, physicians must provide notice to the patient of the release of health information.

4. When the statute or regulations provide a more limited release physicians will need to follow the minimum necessary language in HIPAA. You should only release the minimum necessary health information for the purposes required by the legal authority, unless you obtain an authorization from the patient that meets HIPAA standards. Release of more information than necessary without an authorization may put the physician at risk under HIPAA.

5. Be sure to maintain a full record, meeting HIPAA standards, of all health information released.

ACOEM Recommendations for Releasing Protected Health Information from Independent Medical Exams or Fitness for Duty Evaluations*

Physicians should obtain an authorization meeting HIPAA standards for the release of any health-related information to non-treating providers or other parties, unless a statute specifically requires a full release of the information. If the release is statutorily based the physician will need to provide notice to the examinee of the intended release.

*Adapted from ACOEM’s HIPAA and Workers’ Compensation Guidelines for Occupational Medicine Physicians Position Paper accessed at http://www.acoem.org
Comparing Jurisdictional Data on Work Injuries†

Frank W. Neuhauser*

Introduction

Social insurance programs often differ substantially across jurisdictions. Within nations that have a strong decentralized, federalist structure, many important social programs are nearly completely controlled by states, territories, and provinces. Programs controlled by the federal government, while uniform within nations, will differ substantially across jurisdictions. Innovation and adoption of best practices by legislatures, regulatory agencies, and stakeholders often rely on review of successful programs adopted elsewhere. The structure of workers’ compensation is a prime example of a program that is implemented in very diverse ways – ways that can have an impact on important public policy considerations such as occupational safety and return to work. Cross-jurisdiction comparisons are an important method of evaluating the relative impact of statutory, regulatory, and judicial interventions.

†Gregory Krohm provided research assistance in the preparation of this report. Terry Bogyo provided important comments and reviews. However, all comments, opinions, and errors are the sole responsibility of the author.

*Frank W. Neuhauser, MPP, Project Director/Research Faculty, Survey Research Laboratory, University of California at Berkeley. E-mail: frankn@uclink4.berkeley.edu
Work injury rates are an interesting subject for jurisdictional comparisons because data on injury rates are published in every developed country. Moreover, the data measure issues of first order importance for jurisdictions and policymakers, e.g., death, injury, and numbers of workers. Thus, they are also more comparable than some abstract characteristics of workers’ compensation systems such as injury severity and permanent disability compensation. However, as we will show, the appropriate use of jurisdictional level injury data need to take into consideration the demographics, economy, legal framework, and data collection techniques.

This paper will present the most comparable statistics on lost time injuries and fatalities related to work published at the jurisdictional level (state, provinces, and territories). Then it will dissect the definitional, sampling, and collection differences in these data. Some adjustments are offered for more accurately standardizing the data, at least on a definitional basis. Other reasons will be offered for why these gross comparisons may be misleading as a basis for judging system performance or success in promoting occupational safety.

Covered Employment

In this paper we compare rates of injury and death per a fixed number of workers. For lost time injuries the denominator is “100 full time equivalent workers” and for fatalities it is “100,000 employed persons.” Valid comparisons require consistent measurement of both injury data (the numerator) and workers’ exposure to injury (the denominator).

In the US employment data, employed persons are those who did any work at all for pay or profit in the survey reference week, or worked 15 hours or more without pay in a family business or farm, plus those not working who have a job from which they were temporarily absent. Data exclude proprietors, the self-employed, unpaid family or volunteer workers, farm workers, and domestic workers. According to the U.S. Census Bureau in 1999, self-employed and unpaid family business workers represented 6.7 percent of the non-agricultural labor force. Agriculture represented an additional 3.9 percent of the labor force. Data on employment is collected through the
Current Employment Survey (CES), a quarterly survey of employers that counts employment at each employer during a specific week of the quarter. A worker with two or more jobs during the target week would be counted multiple times, once for each employer, if more than one employer is included in the survey wave.

In Canada, employed persons fall into the following categories: (a) persons who worked mainly for wages, salaries, commissions, tips, piece-rates, or payments “in kind” (payments in goods or services rather than money), (b) persons who worked mainly for themselves, with or without paid help, operating a business, farm or professional practice, alone or in partnership, and (c) persons who worked without pay in a family business, farm, or professional practice owned or operated by a related household member. (Unpaid family work does not include unpaid housework, unpaid childcare, unpaid care to seniors and volunteer work.) Data is collected through a survey of households.

These definitions of employed persons differ from each other and also differ from the denominator used by most jurisdictions for injury rate calculations. Consequently, we will make several adjustments to the data to make measures of employment more comparable and then use them to construct injury rate calculations for a number of jurisdictions. For example, because Canadian incidence data is based on claims reported for workers covered by workers’ compensation, we reduce the employment estimates by applying the percentage of covered employment published by the Association of Workers’ Compensation Boards of Canada (AWCBC), which excludes self-employed but includes federal workers. This may cause the data to somewhat overstate the Canadian incidence because a fraction of self-employed workers may be covered under optional protection offered by Canadian provinces. Consequently, covered self-employed workers would be counted in the incidence (numerator) but not counted in the sample population (denominator).
Fatalities

The AWCBC publishes fatality indicators. For the AWCBC, “A fatality is recorded during the year when the claim was accepted by a Board, not the year when the incident causing the death occurred.” The U.S. Bureau of Labor Statistics (BLS) collects data on fatalities through the Census of Fatal Occupational Injuries (CFOI). These counts are all new work injury-related deaths. CFOI also reports deaths in the year of occurrence. On the surface, these statistical definitions are similar, but in practice they differ in important ways that make comparisons challenging.¹

The most important distinction between the two reporting methods is in the difference between the Canadian term “incidence” and the CFOI term “injury.” Canadian statistics include deaths that result from occupational illness, even if the death is years after the exposure or stressors that resulted in death. Asbestosis is a good example. CFOI data is specifically a census of injury-related fatalities. Interestingly, when initially developed, the BLS program was anticipated as a census of injury and illness-related fatalities, but there was concern about the ability to develop an accurate census of illness-related deaths. Consequently, the focus of CFOI is on what are typically traumatic, fatal injuries. Consequently, the AWCBC statistics will overstate fatality rates relative to the BLS statistics.

The size of this correction is unknown. However, while most occupational fatalities are the result of traumatic events, there is a growing body of literature highlighting the importance of occupational disease with long onset periods. A good example is asbestos. The onset of symptoms and death can take 40 years or more. An estimate of the size of the correction can be made from evaluating data from British Columbia.² In British

¹ Discussions with California’s CFOI head indicate that BLS uses a similar approach to AWCBC in assigning the fatality to the year of death rather than the year of incident or exposure. This will limit bias problems except that illnesses, as described below, are an especially important bias, increasing Canadian statistics in current years, and these are not reported by CFOI.

² The author thanks Terry Bogyo and the Workers’ Compensation Board of British Columbia for insight into the extent of the impact of illnesses on the fatality rate calculations and distribution across groups.
Columbia, almost a third of reported fatalities for the period 1993-2002 were the result of asbestos exposure and other occupational disease claims. During 1999 in the US, there were 2,500 mesothelioma and 1,250 asbestos-related deaths (Department of Health and Human Services, 2003). These would nearly all be occupationally-related and exclude additional asbestos-related lung cancer fatalities. In 2002, there were a total of 5,524 fatal work injuries recorded by CFOI. Asbestos-related deaths in British Columbia account for 67 percent of occupational illness fatalities (WCB, 2002). This suggests that U.S. statistics would be as much as 50-100 percent higher if the exposure to occupational disease causes was reported in a way similar to Canadian jurisdictions. If anything, this effect is likely to increase over time as our understanding of the impact of work on long-term health expands.

Several additional differences arise in comparisons of rates. First, what is counted as a work fatality? BLS, through the CFOI, aggressively seeks information on occupational deaths, not just those reported as occupational through the workers’ compensation system or state reporting mechanisms. The Canadian definition hinges on whether the fatality is accepted as compensable. Compensability of fatalities in most provinces follows a broad rule that appears to be generous in interpreting fatalities as connected to work. The acceptance is likely comparable for the majority of common sources of fatality, such as motor vehicle accidents. An example of a common problem is heart attacks, which may or may not be accepted depending on how broadly the definition of causation is drawn in a jurisdiction. Occupational fatalities are relatively rare. Consequently, affects can be large for jurisdictions that have liberal clauses that presume a range of illnesses are occupational for a specific, high-risk group of occupations. For example, police and firefighters will have higher occupational fatality rates. The issue of presumption for disease is an important issue for jurisdictions. Work is being done on public policy considerations in this area at RAND (Seabury and Reville, 2004).

Second, the U.S. definition of occupational fatalities is broader in that the CFOI defines deaths at work as occupational, in most cases, even if the cause does not arise out of work. Heart attacks and strokes are the most obvious example. CFOI defines as occupational any heart attack that occurs
at work and any heart attack that occurs outside of work but where causation is attributed to work. The Canadian definition is narrower; only those heart attacks where causation is attributable to work are occupational. On the other hand, referring to the first point above, heart attacks tend to be a small portion of occupational fatalities, even under the U. S. definition, and compensation of heart attack-related fatalities in Canada is not uncommon.

On balance, the broad exclusion of illness-related fatalities by BLS should present a much more important bias than the impact of any AWCBC exclusions because of workers’ compensation compensability rules. As another measure of the biases, about 22 percent fatalities recorded in British Columbia in 2002 were for workers over the age of 65. This is more than twice the rate for the same year in California, which had 8 percent of recorded fatalities in the 65+ age group. The effect of illness-related fatalities would likely be larger in the older population. Even so, this suggests that US statistics might need to be increased by 30-50 percent or more to be comparable to Canadian rates.

Third, and possibly of similar importance to the illness issue, the distribution of industries and employers covered are different between the jurisdictions. The Canadian population is narrower; a small proportion of the workforce is covered. BLS data from CFOI cover fatalities by employers not generally covered by workers’ compensation. The largest and most significant example of this is farming. The BLS data contains farm-related fatalities while the Canadian data generally does not because traditional family farming is excluded as a covered employment by most Canadian boards. Because agriculture is a relatively dangerous occupation, the impact of this adjustment is to bias upward the U.S. data on fatality rates. On the other hand, covered employment in Canada may be concentrated in industries that are, on average, substantially more dangerous than the distribution of employment in the US. The potential impacts of the industry and employer mix are explored in more detail under the section on lost time claims.
### TABLE A
Comparison of Occupational Fatality Incidence and Population Definitions

<table>
<thead>
<tr>
<th>Incidence Measure (numerator)</th>
<th>Canadian</th>
<th>US</th>
</tr>
</thead>
<tbody>
<tr>
<td>Injury or rapid onset exposure related fatality</td>
<td>Narrower definition: Claims accepted under workers’ compensation. Heart attack at work, not attributed to work causation, is not counted.</td>
<td>Broader definition, deaths occurring at work regardless of causation and deaths occurring away from work that arose out of work. Example, heart attack at work counts regardless, heart attack away from work counts if attributed to work.</td>
</tr>
<tr>
<td>Illness or long-latency exposure related fatality</td>
<td>Reported in year of death.</td>
<td>Generally excluded from reporting.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Exposure Measure (denominator)</th>
<th>Households survey</th>
<th>Survey of employers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Source</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>Impacts on comparisons</td>
<td>Broader than US, includes all workers except unpaid household labor.</td>
<td>Narrower than Canadian definition, excludes agricultural workers on farms with &lt;10 workers, self-employed, and unpaid family workers in family business.</td>
</tr>
<tr>
<td></td>
<td>Workers only counted once.</td>
<td>Double counts anyone with two jobs.</td>
</tr>
<tr>
<td>Jurisdiction</td>
<td>Employed Work Force(1000)</td>
<td>Percent Covered*</td>
</tr>
<tr>
<td>-------------------</td>
<td>---------------------------</td>
<td>------------------</td>
</tr>
<tr>
<td>Alberta</td>
<td>1,674</td>
<td>79.8</td>
</tr>
<tr>
<td>British Columbia</td>
<td>1,973</td>
<td>94.0</td>
</tr>
<tr>
<td>Manitoba</td>
<td>567</td>
<td>66.5</td>
</tr>
<tr>
<td>New Brunswick</td>
<td>345</td>
<td>94.8</td>
</tr>
<tr>
<td>NI</td>
<td>214</td>
<td>96.7</td>
</tr>
<tr>
<td>NWTT</td>
<td>na</td>
<td>100</td>
</tr>
<tr>
<td>Nova Scotia</td>
<td>428</td>
<td>67.6</td>
</tr>
<tr>
<td>Ontario</td>
<td>6,068</td>
<td>68.4</td>
</tr>
<tr>
<td>Prince Edward Is.</td>
<td>68</td>
<td>89.5</td>
</tr>
<tr>
<td>Quebec</td>
<td>3,593</td>
<td>94.5</td>
</tr>
<tr>
<td>Saskatchewan</td>
<td>482</td>
<td>72.6</td>
</tr>
<tr>
<td>Yukon</td>
<td>na</td>
<td>na</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Jurisdiction</th>
<th>Employed Work Force(1000)</th>
<th>Percent Covered*</th>
<th>Work Injury Fatalities</th>
<th>Fatality Rate/100,000 Workers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alabama</td>
<td>2,033</td>
<td>138</td>
<td>6.3</td>
<td></td>
</tr>
<tr>
<td>Alaska</td>
<td>302</td>
<td>64</td>
<td>19.7</td>
<td></td>
</tr>
<tr>
<td>Arizona</td>
<td>2,307</td>
<td>87</td>
<td>3.5</td>
<td></td>
</tr>
<tr>
<td>Arkansas</td>
<td>1,164</td>
<td>68</td>
<td>5.4</td>
<td></td>
</tr>
<tr>
<td>California</td>
<td>16,435</td>
<td>510</td>
<td>2.9</td>
<td></td>
</tr>
<tr>
<td>Colorado</td>
<td>2,210</td>
<td>139</td>
<td>5.9</td>
<td></td>
</tr>
<tr>
<td>Connecticut</td>
<td>1,662</td>
<td>40</td>
<td>2.2</td>
<td></td>
</tr>
<tr>
<td>Delaware</td>
<td>404</td>
<td>10</td>
<td>2.3</td>
<td></td>
</tr>
<tr>
<td>Dist. Of Columbia</td>
<td>260</td>
<td>11</td>
<td>3.9</td>
<td></td>
</tr>
<tr>
<td>Florida</td>
<td>7,309</td>
<td>368</td>
<td>4.7</td>
<td></td>
</tr>
<tr>
<td>Georgia</td>
<td>3,966</td>
<td>235</td>
<td>5.5</td>
<td></td>
</tr>
<tr>
<td>Hawai’i</td>
<td>577</td>
<td>41</td>
<td>6.6</td>
<td></td>
</tr>
<tr>
<td>Ida</td>
<td>648</td>
<td>45</td>
<td>6.5</td>
<td></td>
</tr>
<tr>
<td>Illinois</td>
<td>6,006</td>
<td>231</td>
<td>3.6</td>
<td></td>
</tr>
<tr>
<td>Indiana</td>
<td>2,970</td>
<td>152</td>
<td>4.8</td>
<td></td>
</tr>
<tr>
<td>Iowa</td>
<td>1,535</td>
<td>62</td>
<td>3.8</td>
<td></td>
</tr>
<tr>
<td>Kansas</td>
<td>1,322</td>
<td>93</td>
<td>6.5</td>
<td></td>
</tr>
<tr>
<td>Kentucky</td>
<td>1,860</td>
<td>105</td>
<td>5.3</td>
<td></td>
</tr>
<tr>
<td>Louisiana</td>
<td>1,928</td>
<td>117</td>
<td>5.6</td>
<td></td>
</tr>
</tbody>
</table>

(cont.)
### Work Injury Fatalities

<table>
<thead>
<tr>
<th>State</th>
<th>Employed Work Force (1000)</th>
<th>Work Injury Fatalities</th>
<th>Fatality Rate/100,000 Workers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maine</td>
<td>657</td>
<td>23</td>
<td>3.3</td>
</tr>
<tr>
<td>Maryland</td>
<td>2,722</td>
<td>64</td>
<td>2.2</td>
</tr>
<tr>
<td>Massachusetts</td>
<td>3,163</td>
<td>53</td>
<td>1.6</td>
</tr>
<tr>
<td>Michigan</td>
<td>4,901</td>
<td>175</td>
<td>3.3</td>
</tr>
<tr>
<td>Minnesota</td>
<td>2,710</td>
<td>76</td>
<td>2.6</td>
</tr>
<tr>
<td>Mississippi</td>
<td>1,225</td>
<td>111</td>
<td>8.4</td>
</tr>
<tr>
<td>Missouri</td>
<td>2,830</td>
<td>143</td>
<td>4.7</td>
</tr>
<tr>
<td>Montana</td>
<td>444</td>
<td>58</td>
<td>12.2</td>
</tr>
<tr>
<td>Nebraska</td>
<td>899</td>
<td>57</td>
<td>5.9</td>
</tr>
<tr>
<td>Nevada</td>
<td>969</td>
<td>40</td>
<td>3.8</td>
</tr>
<tr>
<td>New Hampshire</td>
<td>664</td>
<td>9</td>
<td>1.3</td>
</tr>
<tr>
<td>New Jersey</td>
<td>4,004</td>
<td>129</td>
<td>3.0</td>
</tr>
<tr>
<td>New Mexico</td>
<td>798</td>
<td>59</td>
<td>6.9</td>
</tr>
<tr>
<td>New York</td>
<td>8,402</td>
<td>220</td>
<td>2.4</td>
</tr>
<tr>
<td>North Carolina</td>
<td>3,773</td>
<td>203</td>
<td>5.0</td>
</tr>
<tr>
<td>North Dakota</td>
<td>329</td>
<td>25</td>
<td>7.1</td>
</tr>
<tr>
<td>Ohio</td>
<td>5,606</td>
<td>209</td>
<td>3.5</td>
</tr>
<tr>
<td>Oklahoma</td>
<td>1,602</td>
<td>115</td>
<td>6.7</td>
</tr>
<tr>
<td>Oregon</td>
<td>1,680</td>
<td>44</td>
<td>2.4</td>
</tr>
<tr>
<td>Penn</td>
<td>5,786</td>
<td>225</td>
<td>3.6</td>
</tr>
<tr>
<td>Rhode Island</td>
<td>480</td>
<td>17</td>
<td>3.3</td>
</tr>
<tr>
<td>South Carolina</td>
<td>1,843</td>
<td>89</td>
<td>4.5</td>
</tr>
<tr>
<td>South Dakota</td>
<td>392</td>
<td>35</td>
<td>8.3</td>
</tr>
<tr>
<td>Tennessee</td>
<td>2,692</td>
<td>136</td>
<td>4.7</td>
</tr>
<tr>
<td>Texas</td>
<td>9,955</td>
<td>534</td>
<td>5.0</td>
</tr>
<tr>
<td>Utah</td>
<td>1,068</td>
<td>65</td>
<td>5.7</td>
</tr>
<tr>
<td>Vermont</td>
<td>323</td>
<td>6</td>
<td>1.7</td>
</tr>
<tr>
<td>Virginia</td>
<td>3,548</td>
<td>146</td>
<td>3.8</td>
</tr>
<tr>
<td>Washington</td>
<td>2,804</td>
<td>102</td>
<td>3.4</td>
</tr>
<tr>
<td>West Virginia</td>
<td>792</td>
<td>63</td>
<td>7.4</td>
</tr>
<tr>
<td>Wisconsin</td>
<td>2,854</td>
<td>110</td>
<td>3.6</td>
</tr>
<tr>
<td>Wyoming</td>
<td>255</td>
<td>40</td>
<td>14.6</td>
</tr>
</tbody>
</table>

* Percentage covered in Canada is: (assessable employers + voluntarily covered self employed + self insured + Government of Canada workers)/ “employed labour force” The denominator includes self-insured and farm workers.

+ The Canadian data includes self-employed and non-paid family workers. In the US, the employed workforce includes state specific survey estimates for wage and salary employment. The US data were inflated by a constant multiplier in each state for the percentage of self-employed and unpaid family workers, estimated to be 7.7 percent of the US labor force in 1999, to make them more comparable to the Canadian basis.
Lost Time Injuries

For Canada, the number of lost workday injuries is identified through workers’ compensation data. The Association of Workers’ Compensation Boards of Canada (AWCBC) defines a time-loss injury as “an injury for which a worker is compensated for a loss of wages following a work-related accident (or exposure to a noxious chemical) or receives compensation for a permanent disability with or without time lost in his or her employment.” An example of the latter kind of time-loss injury is a worker who receives compensation for a loss of hearing caused by excessive workplace noise even though the worker may have not missed any time from work because of this injury. To be included in the statistical report, a workers’ compensation board or commission must have accepted the injury. The denominator, in this case the number of workers, is the same as for fatal injuries. It is based on the total number of workers as collected by a household survey.

The US data does not derive from workers’ compensation data or rules of coverage. Rather, lost time injury data is collected through the Bureau of Labor Statistics (BLS) Survey of Occupational Injuries and Illnesses (SOII), an annual survey of a sample of employers (approximately 175,000). The SOII counts as lost time injuries those recorded on employers’ OSHA 300 logs for which time was lost from work, excluding those with only restricted duty. This is somewhat narrower than the Canadian definition, especially because Canadian statistics include claims receiving indemnity payments but experiencing no lost time. As an example, these claims would constitute about 4 percent of lost time claims in California.3

The SOII does not develop rates for public sector employers, self-employed persons, or agricultural establishments with less than 10 workers.

The denominator used with SOII data is 100 full time equivalent workers (FTEs). FTEs are calculated from the total hours reported by employers divided by 2000 hours (40 hours/week × 50 weeks/year).

3 California might be exceptionally high among U.S. jurisdictions. Approximately 45 percent of California indemnity claims receive permanent partial disability (PPD) payments and 5-10 percent of these do not experience lost time. However, the rate is 30-80 percent higher than most other states.
### TABLE C
Comparison of Lost Work Day Incidence and Exposure Definitions

<table>
<thead>
<tr>
<th></th>
<th>Canadian</th>
<th>US</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Incidence Measure</strong></td>
<td>Workers’ Comp Data</td>
<td>OSHA Logs</td>
</tr>
<tr>
<td>(numerator)</td>
<td>Broader definition: 1. Two provinces include as lost-time claims those with partial day lost on date of injury. 2. Counts claims with no lost-time but permanent disability indemnity.</td>
<td>1. Requires full lost workday. 2. Does not count claims with other indemnity payments but no lost-time. 3. Does not include public sector incidence. 4. Does not include self-employed incidence. 5. Excludes incidence in agricultural establishments &lt; 10 employees.</td>
</tr>
</tbody>
</table>

| **Exposure Measure**     | Household Survey | Survey of Employers’ OSHA Logs |
| (denominator)            | Denominator is total employment adjusted to reflect portion of workers covered under workers’ compensation. | 1. Denominator is 100 full time equivalent workers (FTEs) calculated as 2,000 hours. This may increase or decrease rates to the extent that workers average less than 40 hrs/wk for 50 wks/yr. 2. Excludes public sector employers. |
### TABLE D
Lost Time Injuries per 100 Full Time Equivalent Workers 2001

<table>
<thead>
<tr>
<th>Jurisdiction</th>
<th>LT Injury Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alberta</td>
<td>3.0</td>
</tr>
<tr>
<td>British Columbia</td>
<td>3.6</td>
</tr>
<tr>
<td>Manitoba</td>
<td>5.3</td>
</tr>
<tr>
<td>New Brunswick</td>
<td>1.8</td>
</tr>
<tr>
<td>NI</td>
<td>3.3</td>
</tr>
<tr>
<td>NWTT</td>
<td>3.1</td>
</tr>
<tr>
<td>Nova Scotia</td>
<td>3.4</td>
</tr>
<tr>
<td>Ontario</td>
<td>2.2</td>
</tr>
<tr>
<td>Prince Edward Is.</td>
<td>3.3</td>
</tr>
<tr>
<td>Quebec</td>
<td>3.5</td>
</tr>
<tr>
<td>Saskatchewan</td>
<td>4.4</td>
</tr>
<tr>
<td>Yukon</td>
<td>3.8</td>
</tr>
<tr>
<td>Alabama</td>
<td>1.4</td>
</tr>
<tr>
<td>Alaska</td>
<td>3.5</td>
</tr>
<tr>
<td>Arizona</td>
<td>1.6</td>
</tr>
<tr>
<td>Arkansas</td>
<td>1.5</td>
</tr>
<tr>
<td>California</td>
<td>1.8</td>
</tr>
<tr>
<td>Connecticut</td>
<td>2.0</td>
</tr>
<tr>
<td>Delaware</td>
<td>1.6</td>
</tr>
<tr>
<td>Florida</td>
<td>1.5</td>
</tr>
<tr>
<td>Georgia</td>
<td>1.2</td>
</tr>
<tr>
<td>Guam</td>
<td>2.5</td>
</tr>
<tr>
<td>Hawaii</td>
<td>2.9</td>
</tr>
<tr>
<td>Illinois</td>
<td>1.6</td>
</tr>
<tr>
<td>Indiana</td>
<td>1.6</td>
</tr>
<tr>
<td>Iowa</td>
<td>1.8</td>
</tr>
<tr>
<td>Kansas</td>
<td>1.6</td>
</tr>
<tr>
<td>Kentucky</td>
<td>2.1</td>
</tr>
<tr>
<td>Louisiana</td>
<td>1.3</td>
</tr>
<tr>
<td>Maine</td>
<td>2.2</td>
</tr>
<tr>
<td>Maryland</td>
<td>1.6</td>
</tr>
<tr>
<td>Massachusetts</td>
<td>1.9</td>
</tr>
</tbody>
</table>

(cont.)
<table>
<thead>
<tr>
<th>Jurisdiction</th>
<th>LT Injury Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Michigan</td>
<td>1.6</td>
</tr>
<tr>
<td>Minnesota</td>
<td>1.7</td>
</tr>
<tr>
<td>Missouri</td>
<td>1.4</td>
</tr>
<tr>
<td>Montana</td>
<td>2.4</td>
</tr>
<tr>
<td>Nebraska</td>
<td>1.8</td>
</tr>
<tr>
<td>Nevada</td>
<td>1.6</td>
</tr>
<tr>
<td>New Jersey</td>
<td>1.6</td>
</tr>
<tr>
<td>New Mexico</td>
<td>1.8</td>
</tr>
<tr>
<td>New York</td>
<td>1.7</td>
</tr>
<tr>
<td>North Carolina</td>
<td>1.2</td>
</tr>
<tr>
<td>Oklahoma</td>
<td>1.8</td>
</tr>
<tr>
<td>Oregon</td>
<td>1.9</td>
</tr>
<tr>
<td>Puerto Rico</td>
<td>3.3</td>
</tr>
<tr>
<td>Rhode Island</td>
<td>2.7</td>
</tr>
<tr>
<td>South Carolina</td>
<td>1.2</td>
</tr>
<tr>
<td>Tennessee</td>
<td>1.6</td>
</tr>
<tr>
<td>Texas</td>
<td>1.5</td>
</tr>
<tr>
<td>Utah</td>
<td>1.5</td>
</tr>
<tr>
<td>Vermont</td>
<td>1.9</td>
</tr>
<tr>
<td>Virginia</td>
<td>1.5</td>
</tr>
<tr>
<td>Virgin Islands</td>
<td>1.3</td>
</tr>
<tr>
<td>Washington</td>
<td>2.5</td>
</tr>
<tr>
<td>West Virginia</td>
<td>3.4</td>
</tr>
<tr>
<td>Wisconsin</td>
<td>2.3</td>
</tr>
</tbody>
</table>

**Canadian notes:**
Number of new lost-time claims for assessable employers per 100 workers of assessable employers.

**Calculation:**
Injury frequency = \( \frac{N}{C_1} \times 100 \)
\( N \) = total number of new lost-time claims for assessable employers (KSM # 2a).
\( C_1 \) = number of workers of assessable employers or self-employed workers opting for coverage.
This is the first component of the numerator of the percentage of workforce covered (KSM #22).
Researchers have made use of occupational safety data in analysis of issues with important public policy implications. Incidence rates are used both as dependent variables (e.g., Thomason et al., 1999) and independent variables (e.g., Smitha et al., 2001). In fact, Thomason et al (1999) use the injury incidence data both ways, first as an independent variable to control for hazard in analysis of insurance structures and employer cost, then as the dependent variable in analysis of the impact of insurance structures on safety.

A limiting factor in these analyses has been that cross-jurisdictional, and to a lesser extent cross-time comparisons, are performed with a variable that includes substantial amount of error in measurement and possibly systematic bias. Researchers have had only a limited ability to correct for the differences across jurisdictions and across time that are the result of “unobserved” differences in the incidence rates. Note that to a substantial extent, the “unobserved” differences are known. For example, differences in definitions of reportable injuries or differences in the enforcement of reporting are recognized, but the size and direction of the effect may be unknown. As another important example, OSHA has a slightly different definition of reportable injuries than most state workers’ compensation agencies. However, there has been very little systematic research about the direction and size of this effect. Les Bodin of Boston University School of Public Health is comparing reporting between the two systems and the initial impression is that there is a surprising large portion in injuries reported in each system that are not reported in the other. The ability to control for such cross-jurisdictional and cross-system differences has not been available.

Differences in the distribution of industries are likely the most important variable driving differences in incidence rates between jurisdictions. The range of adjustments attempted varies substantially among studies. Carroll and Kaestner (1995) analyze the impact of insurance price regulation and deregulation on employer cost. In their analysis, incidence rates are used as the denominator in a dependent variable that is a ratio of premium/incidence. They find important effects related to the level of regulation and suggest an impact on safety following the approach proposed by Ruser (1991). They attempt no adjustment for differences in the mix of industries
across states in the incidence rates. The implication of these industry differences is indicated by Table E. The table shows the relative variance in incidence rates across U.S. states, across industries, and within industries.

**TABLE E**

Relative Degrees in Variance of Injury and Fatality Rates

<table>
<thead>
<tr>
<th>Measures</th>
<th>Across States</th>
<th>Across 1-digit Industry (SIC)a</th>
<th>Across 2-digit Industry (SIC)b</th>
</tr>
</thead>
<tbody>
<tr>
<td>Injury &amp; Illness Rate (1996)a</td>
<td>19.9</td>
<td>37.0</td>
<td>52.3</td>
</tr>
<tr>
<td>Lost Workday Rate (1996)a</td>
<td>18.5</td>
<td>40.5</td>
<td>59.7</td>
</tr>
<tr>
<td>Fatality Rate (1992-1996)c</td>
<td>54.4</td>
<td>92.6</td>
<td>54.5</td>
</tr>
</tbody>
</table>

*a Source: Calculated from Conway and Svenson, Monthly Labor Review, Nov 1998

*b Until recently, the U.S. Census classified industry according to Standard Industrial Classification (SIC) codes. There are nine industries coded at the 1-digit level: agriculture/forestry/fisheries/mining, construction, manufacturing, transportation/communications/public utilities, wholesale trade, retail trade, finance/insurance/real estate, personal services, entertainment/recreation, professional services, and public administration. SIC is hierarchical so that the second digit in a code defines subsets of the first digit. For example, at the second digit level, agriculture is divided into crop production, livestock production, agricultural services, and horticultural services. SIC codes define industry up to a level of four digits. More recently, the US, Canada, and Mexico have jointly adopted the North American Industrial Classification System (NAICS), which is similar to SIC but updated to improve usefulness.

*c Source: Calculated from Windau, Jack, and Toscano, Compensation and Working Conditions, Summer 1998
It is clear that the differences between states are dominated by the differences between industries. It is also the case, though, that the distribution of industries across jurisdictions may somewhat mute these effects since at the 1-digit level all states and provinces have some employment within each industry. In past studies, different levels of disaggregation for industries have resulted in different results. For example, testing the hypothesis of the relationship of benefits, firm size, and non-fatal injury rates, Chelius and Smith (1983) and Ruser (1985) find different results that may be driven by the greater precision of Ruser’s approach (3-digit vs. 2-digit SIC).

It has also long been held that employer size correlates with safety (Thomason, 1999). To an even greater degree, mean time off work is expected to correlate with employer size as smaller employers have less opportunity to offer modified or alternative light duty employment in lieu of time off. Carroll and Kaestner (1995) attempt to control for differences in the impact of employer size on the “…types and severity of injuries. Economies of scale in the provision of safety and differences in the ability and incentives to monitor employee recovery may vary with employer size…” However, the approach used is to include the percentage of large (>1000 employees) and small (<50 employees) without discriminating by industry. As seen below, the direction of the impact employer size on incidence rates varies substantially across industries even at the 1-digit level.

The data on employer size versus safety is inconsistent in the BLS data, at least at the 1-digit industry level of aggregation (see Figure 1). Some industry groups exhibit rising rates of injury with size (agriculture and transportation & utilities), rising then flat rates with size (services), while most exhibit rates that increase through establishment sizes of 249 or 999 and then decline. Mining exhibits the only steady decline in rates as size increases. These results may reflect a relationship between size and industry, optimal plant size within industry, or an improvement in reporting effect that dominates the safety effect up to an establishment size where safety effects dominate. The implication of any explanation is that controlling for size should be done within industry and may have important effects on cross-state comparisons. Weighting individual industries for their composition based on employer size distribution will produce even better information for industry-specific targeting.
FIGURE 1

Incidence rates of nonfatal occupational injuries and illnesses by industry and employment size, 1999

Source: Compensation and Working Conditions, Spring 2001
Other adjustments are suggested by Tables A and C. First, U.S. rates will be higher for lost workdays to the extent that the average worker, weighted by the risk of the industry and occupation, does not work 2000 hours/year. This adjustment could be made by evaluating the average hours worked in Canada and the US for a selected set of industries.

U.S. rates will be lower for fatal injury rates as shown in Table B to the extent that the CES double counts a substantial fraction of workers that have more than one job during the reference week of the survey, either concurrently or because they change jobs. The adjustment for this effect may be substantial and could be determined from the Current Population Survey (CPS), which has detail on multiple jobholders.

Canadian lost workday rates will be much higher in the provinces that define lost time injuries to include partial lost workdays on the day of injury. An adjustment for the impact could probably be developed from workers’ compensation data in jurisdictions that collect partial lost workday information.

**Conclusion**

What do these data tell us about safety across national boundaries or types of workers’ compensation systems? Unfortunately, not much, at least so far. That is because much more work needs to be done to adjusted jurisdictions for variation in risk basis. For example, the overall fatality rate for Canada in these data is 7.4/100,000 workers, 80 percent higher than the U.S. rate of 4.1/100,000 workers. However, much of this difference will disappear if illnesses-related fatalities were included in U.S. data. Moreover, while we have not estimated the direction or size of the industry and employer size mix impact, this likely works to make Canadian rates appear higher. Note that Alaska and Wyoming are much more similar to the provinces in lost time injury and fatality rates. This is due to the similarity of employment in these jurisdictions. In particular, a heavy concentration of ranching, forestry, extractive industries, and fishing has especially large effects on fatality rates.
After the adjustment for fatal illnesses, the industry risk adjustment is the most important improvement that could be made in these data. The author is currently working on a detailed research project using BLS survey data at the incident level to create cross-state adjustments that factor out the impact of the distribution of industry and employer size.

The percentage of workforce covered should also be more carefully considered. Canadian laws in some jurisdictions allow more employers to opt out of workers’ compensation coverage or remove coverage for certain classes of employment, which affects the reporting of injuries and fatalities. As in all comparisons of workers’ compensation systems, there is a wide variation. Five of the Canadian provinces are much like the states in the high proportion of their employment covered by workers’ compensation. For those provinces with large sections of the workforce outside the workers’ compensation system, the important question is: do these employers reflect relatively high risk or low risk industries relative to covered employers? The best guess is that excluded industries represent lower risk employers like banking and other service/professional/clerical related industries. This would artificially inflate the Canadian incidence rates relative to the US.

Much more research is needed in order to advance jurisdictional comparisons in scope and utility. First, we would like to refine the analyses as indicated above and additionally, on input we hope to receive from readers. For example, one reviewer suggested defining a subset of industries common to all jurisdictions (e.g., hospitals, residential home construction) and injuries similarly reported in all jurisdictions (e.g., traumatic, lost-time), and then calculate an industry weighted injury rate. Second, we would like to extend the comparisons to more jurisdictions. Third, we would like to expand the number of dimensions across which we make comparisons. For example, an area of high interest is the average length of lost time from work and restricted workdays and how these differ across jurisdictions.
References


*Frank Neuhauser is on the research faculty at the University of California at Berkeley’s Survey Research Center. There his work has focused on social insurance, judicial processes, and medical delivery. Since receiving his Masters in Public Policy from the Goldman School of Public Policy in 1993, Mr. Neuhauser has also worked extensively on issues related to workers’ compensation, occupational injuries, and the cost of occupational medical treatment. His models and analyses are used extensively in legislative and policy debates on reforms to the workers’ compensation system.*
The Advantages of Early Return to Work

The Benefits for Employer and Employee

J. Mark Melhorn

Introduction & Summary

Musculoskeletal workplace injuries and illnesses which result in lost time from work have considerable financial consequences for employer and employee. In 1997, private industry reported 6.1 million injuries and illnesses with a case rate of 7.1 cases per 100 equivalent full-time workers. Some employers have started offering modified work to their injured employees in an effort to lessen workers’ compensation costs and to facilitate rehabilitation. Although modified work programs are regarded by many as a cornerstone in job rehabilitation, the research concerning the structure, effectiveness, and benefits of such programs has not been previously collected and considered as a whole. This study was designed to summarize current evidence-based medicine regarding the benefits of return to work. A review of available literature was undertaken to create such a perspective. The review was designed to assess unnecessary lost

*J. Mark Melhorn, MD FAAOS FAADEP FACS, Clinical Assistant Professor, Section of Orthopedics, Department of Surgery, University of Kansas School of Medicine - Wichita. Email: Melhorn@CtdMAP.com
workdays, predictors for return to work, and benefits of early return to work. Online libraries were searched using keywords for articles published since 1985. The 2,452 articles were considered and evaluated for methodological quality. The conclusions are: (1) Modified work programs facilitate early return to work for the temporarily and permanently disabled worker, (2) The likelihood of continued employment is increased for workers after an early return to work, (3) Individual physical impairments and costs for the employer are often decreased with early return to work, and (4) The quality of life for the employee is improved with early return to work.

Background

Musculoskeletal pain (MSP) or musculoskeletal disorders (MSDs) are often separated into two categories: work-related and nonwork-related. This legal distinction is not required by the physician for treatment of the condition but has importance for the patient. Therefore, as a patient advocate, the physician should discuss the causation relationship with the patient as part of the treatment plan. This approach often improves the outcomes to treatment, increases the likelihood of the patient (employee) returning to work, and reduces the associated disability for work-related musculoskeletal disorders. Musculoskeletal pain in the workplace can be caused by injuries or illnesses. An occupational injury, by definition, is one that results from a work-related event or from a single discernable exposure in the work environment. An occupational illness is any abnormal condition or disorder (other than one resulting from an occupational injury) caused by exposure to a factor(s) associated with employment over time. Included are acute and chronic illnesses or diseases which may be caused by inhalation, absorption, ingestion, or direct contact (United States Bureau of Labor Statistics, 1997). In the musculoskeletal category, injuries are often defined as traditional traumatic injuries such as fractures, sprains, strains, dislocations, or lacerations. Musculoskeletal illnesses are commonly called cumulative trauma disorders (CTDs), repetitive motion injuries (RMI) or musculoskeletal disorders (MSD). States vary in their treatment of these conditions as occupational injuries or occupational illnesses, and in the extent that they legally recognize the conditions in the workers’ compensation system (Melhorn, 2003).
Work-related musculoskeletal disorders are very costly to the economy. In 1997, direct health costs for both injuries and illnesses for the nation’s workforce were over $418 billion with estimated indirect costs of $837 billion (Brady et al., 1997). Private industry reported 4.7 million injuries and illnesses with a case rate of 5.3 cases per 100 equivalent full-time workers (Bureau of Labor and Statistics, 2003). Reducing the total costs of on-the-job injury and illness, estimated at over $1.25 trillion, has clearly become a priority for the American public and the American business community.

**Unnecessary Lost Work Days**

Return to work is only one part of the life history of an accident, from injury to restoration to gainful employment as envisioned by workers’ compensation systems. The injured worker must move through five steps that include: (1) Injury and the determination of a relationship to the workplace, (2) Diagnosis and treatment, (3) Time off work, if any, and return-to-work, (4) Determination of impairment and disability, and (5) Resolution of disputes and settlement of the claim. Within the current workers’ compensation system, the physician can improve the quality of life for the injured worker through (1) medical care, (2) facilitation of return to work, and (3) assistance with accident prevention.

Employers, patients, lawyers, and the courts often assume that time away from work after an illness or injury is necessary. Often, they neglect to inquire whether the patient is actually unable to do any productive work safely. Therefore, lost workdays can be medically necessary or medically unnecessary. Certain injuries/illnesses will require that the employee/patient be off work. Other injuries/illnesses may allow the employee/patient back to work with restrictions, accommodations, or modifications. These lost workdays would be considered medically necessary days. Lost workdays that occur because of poor or slow communication between the physician and the employer, inadequate information, litigation over benefits, disputes over other matters, lack of cooperation by any party, administrative delays, or lack of desire on the part of the individual/employee are medically unnecessary.
Unnecessary lost workdays result in unnecessary lost dollars in workers’ compensation benefits. The national average lost time claim costs more than $19,000 in medical and indemnity payments, compared with the average medical-only claim that costs less than $400 (Macher, 1998). Christian (2000) surveyed occupational health physicians about their clinical experience regarding medically necessary days off work after injury. The majority said that less than 10 percent of the employees/patients would require a few days off work. Almost half the doctors surveyed placed the percentage at 5 percent. The actual national average for lost time accidents is 24 percent. Using this range of 5-10 percent would suggest that 60-80 percent of the lost workdays involve medically unnecessary time off from work. More than two-thirds of the physicians surveyed gave the following reasons for the medically unnecessary time off work:

1. The treating physician is unwilling to force a reluctant patient back to work (the most common reason cited).
2. The treating physician is not equipped to determine the right restriction and limitations on work activity.
3. The employer has a policy against light-duty work.
4. The employer can’t find a way to temporarily modify a job.
5. The treating physician feels caught between the employer’s and the employee’s version of events.
6. The treating physician has been given too little information about the physical demands of the job to issue a work release for the patient.
7. A conflict exists between the opinions of two physicians.

This study clearly suggests that there are factors in the medical/legal environment in workers’ compensation cases that could be addressed if a reduction in unnecessary days off after injury were made a systemic priority.
Predictive Factors for Return to Work

Individual risk factors

Individual risk factors include: age, gender, and psychosocial elements as seen in Table A (Melhorn, 1998b). Older workers and females are less likely to return to work, as are those with a predictive psychosocial factor. The psychosocial elements include personality traits, psychological dysfunction (depression), coping ability, attitude toward life, attitude toward one’s own health, overall poor health, lower socioeconomic status, lower intelligence, marital problems, living alone, financial problems, child rearing problems, interpersonal conflicts, and/or job dissatisfaction (Hales & Bernard, 1996).

Hurrell et al (1992) developed a model to help describe the complex manner in which these factors interact. This model includes individual factors, job stressors, nonwork factors, buffers, acute reactions, and illness. Three mechanisms have been suggested to account for associations between psychosocial factors and musculoskeletal disorders (Bernard, Sauter, & Fine, 1993; Bongers, de Winter, Kompier, & Hildebrandt, 1993; Sauter & Swanson, 1995; Ursin, Edresen, & Ursin, 1988):

1. Psychosocial demands may overwhelm the individual’s coping mechanism and produce a stress response. This stress response may increase muscle tension or static loading of muscles (Waersted, Bjorklund, & Westgaard, 1986; Waersted et al., 1986).

TABLE A
Predictive Factors for Return to Work

<table>
<thead>
<tr>
<th>Individual Risk</th>
<th>Job Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>Job or task demands</td>
</tr>
<tr>
<td>Gender</td>
<td>Organizational structure</td>
</tr>
<tr>
<td>Psychosocial elements</td>
<td>Physical work environment</td>
</tr>
</tbody>
</table>
2. Psychosocial demands may affect MSD awareness and reporting or increase its attribution to the work environment (Melhorn, 1998a).
3. In some work situations, psychosocial demands may be highly correlated with increased physical demands. Therefore, any association between psychosocial factors and MSDs may actually reflect an association but not a cause between physical factors and MSDs (Hales et al., 1996).

**Age and gender studies**

Ahlgren and Hammarstrom (1999) found that men showed a higher level of return to work than women, although women often completed a higher level of education. Crook et al (1998) concluded that the negative effect of psychological distress and functional disability on return to work rates must be considered in the design and delivery of rehabilitation programming for workers with musculoskeletal soft tissue injuries. Their study found that the employer’s provision of a modified job is important in the prevention of continued disability time-dependent covariates, such as personal suffering, medical care, work absenteeism, and compensation benefits. They found that the rate of return to work for men was 1.5 times that for women, and 20 percent less for every 10 year increase in age. Controlling for sex and age, psychological distress and functional disability were associated with a slower rate of return to work. The rate of return to work for workers who were provided with modified jobs was two times higher than for those with no such accommodation in employment. Muller (1992) reported that injured workers who were young and had a high level of education were more likely to attempt return to work while those with a high Social Security benefit amount were less likely to make a return to work attempt.

**Studies involving psychosocial factors**

Greenough and Fraser (1989) described the negative influence of receipt of workers’ compensation benefits on recovery from low-back pain in a retrospective controlled cohort study. Rohling et al (1995) concluded in a meta-analysis that receipt of workers’ compensation benefits is related to increased reports of pain and decreased treatment efficacy.
Gard and Sandberg (1998) reviewed motivation and return to work. The primary factor was the injured worker’s opinion that he or she could do as much work as their colleagues, quantitatively and qualitatively. Their relationship with co-workers was key to their self-confidence and their feeling that their work was done in a manner satisfactory to themselves and acceptable to others in the group. Everyday responsibility, feedback, and support in daily work tasks were important. Murphy (1994) found that the job satisfaction scores of 107 work-injured employees were correlated with return to work status at 20 weeks post-injury. There was a slight tendency for the more satisfied employees to be back at work. Abramson et al (1994) found similar importance for employee satisfaction with their job and that improved general health predicts an increased likelihood of returning to work.

Khan & Birch (2001) found that in general, those who were employed or remained employed, had a greater reduction in symptom severity over time, and were significantly more likely to report improvement in their problem than those who were unemployed.

Tan et al (1997) found that goal setting improved the individual’s motivation and provided a more favorable opportunity for early return to work.

Carmona et al (1998) reported that patients receiving workers’ compensation benefits, those exposed to higher levels of bending and twisting of their hands and wrists, and women were slower to return to work after carpal tunnel release surgery.

Studies involving surgical interventions

The impact of workers’ compensation on surgical outcomes has also been reviewed. Filan (1996) found that receipt of workers’ compensation benefits encourages a slower return to work after surgery. Bednar et al (1998) also described the negative effect of workers’ compensation benefits on the results of surgical treatment: a significant increase in the number of postoperative visits, amount of therapy, time off from work, and number of patients who remained out of work in the workers’ compensation versus the non-compensation group. Lawrence et al (1996) found that the time...
back to normal activity postoperatively was influenced more by psychosocial factors than health status.

Shin et al (2000) reviewed patients with occupational carpal tunnel syndrome, nerve conduction velocity studies, and a closed workers’ compensation case. Early return to work and surgical release of the carpal tunnel was performed in 57 percent of patients and the other 43 percent were treated conservatively with continuation of work. Overall, 82 percent of patients returned to full work status, whereas 18 percent had duty modifications. Surgical treatment decreased the rate of duty modifications and disability ratings compared with non-surgical treatment and reduced the odds of incurring disability. Despite the generally held belief that the outcome of treatment of occupational carpal tunnel syndrome is poor, the present study shows that both surgical and non-surgical treatment is effective. However, patients treated with surgery had decreased disability when compared with those who were treated conservatively.

Studies concerning the effects of early return to work

Oleinick et al (1996) found in a study of 8,628 Michigan workers with compensable back injuries that after eight weeks off work, the chances of returning the employee to gainful employment were very low. Once financial support ended, significant quality of life issues developed for the injured worker. Similarly, Gilbert et al (2000) found that individuals who returned to work earlier usually were more compliant with their medical treatment and usually had a better outcome with less impairment.

Finally, the existence of prior complaints of symptoms is predictive of a failure to achieve an early return to work. Burdorf et al (1998) reported that workers with complaints of the neck or shoulder and upper extremities in the previous 12 months before an injury are more likely to be off work or more difficult to return to work after a work-related injury.

Job risk factors

Workplace or employer risk factors are constantly in the environment into which the employee may be returned to work. They can be placed into
three broad categories: (1) Job or task demands, (2) Organizational structure, and (3) Physical work environment (see Table A). As discussed below, the individual risk factors become contributors, moderators, and buffers as to how the workplace may affect the individual’s likelihood for early return to work.

A. Job or task demands

The job or task demands may have physical stressors. Physical stressors are described as:

1. Frequent or prolonged repetitive movements
2. Forceful exertions
3. Awkward postures
4. Static muscle loads
5. Cold temperatures
6. Local or segmental vibration
7. Combinations of above

This list has been developed from epidemiological associations (Hales et al., 1996). Most epidemiological studies are of working populations with the focus often restricted to repetitive and high physical loads, certain wrist and hand postures, and vibration associated with work tasks. Non-occupational (non-work environment) physical factors (those associated with sports and previous traumas) have not been thoroughly investigated for their potential impacts on these results. The effects of inactivity or lack of job conditioning, whether caused by a sedentary lifestyle or lack of time at the specific job, have not been addressed. Some older studies suggest unaccustomed work to be a major cause for tendon disorders, but the magnitude of this risk has not been evaluated in recent studies. The recognition of physical load factors has remained mostly at a qualitative level, and little information on the exposure-effect relationship has been developed. The epidemiological studies that have put an emphasis on the assessment of physical work loads often have not included psychosocial factors or vice versa (despite evidence that they may be linked elements).
B. Organizational structure

The process of manufacturing is a blending of the input (raw materials) by the processing system into the output (finished product) using the people, materials, methods, machines, and environment (Melhorn, 2002). The “people” factor has been the most difficult to evaluate and quantify. There are studies linking corporate policy regarding workplace injuries and return to work policies with workers’ compensation costs (Liberty Mutual, 2001; Bureau of National Affairs, 1991; Liberty Mutual, 2003). Management should also consider the concept that institutional cultures may create conditions that are predictive of injury and/or return to work options (Melhorn & Wilkinson, 1996). Examples of this include modified work programs that facilitate early return to work for the temporarily and permanently disabled worker (Gice & Tompkins, 1988; Lutz & Hansford, 1987; Shrey, 1996), early appropriate return to work after surgery (Melhorn, 1997b), limiting disability by continuing modified work (Melhorn, 1999), and corporate health management programs to reduce injuries (Lutz et al., 1987).

C. Physical work environment

The physical work environment consists of the physical location where the work is performed and the capital investment in equipment. This is the most difficult risk factor to change. An understanding of the impact of methods, materials, and people can allow for the changes to be made at the time of retooling or building a new facility.

Examples of Benefits of Early Return to Work

There is considerable evidence that early return to work has both economic and non-economic benefits for workers and employers. In a study by Melhorn (1996) of 109 employees, a new term, “work survivability,” is suggested for measuring treatment outcomes for work-related injuries. Work survivability was defined as the ability to still be employed two years after an OSHA 200 event. The effects of continuation of employment (no lost workdays) and early return to work (no more than 15 lost workdays) on
work survivability and treatment outcomes were reviewed. Work survivability did not increase the risk of recurrence of cumulative trauma disorders. This study suggests that continued employment or early return to work is the most important element of work survivability.

Mayer et al (1986) reviewed the benefits of return to work programs, emphasized that many companies sponsor early return to work programs, and that the employees who return to work are better off financially than workers who choose other options, such as alternative vocational rehabilitation or job retraining.

Roehl (1998) reported early return to work results in the happiest employees after a work injury. When work injuries occur, the employee’s quality of life may quickly deteriorate. Their steady income may be interrupted resulting in financial and social changes. Family dynamics may become strained, adding stress to the worker. Return to a modified work environment decreases the impact of these non-workplace issues for the injured employee.

Gerdtham and Johannesson (2003) found that unemployment significantly increases the risk of suicides and the risk of dying from other diseases.

Many other authors have determined that early return to work is in the patient’s best interest (Melhorn, 1996; Cook, Birkholz, King, & Szabo, 1995; Melhorn et al., 1996; Melhorn, 1997a; Melhorn, 1997c; Melhorn, 1997d; Ballard, Baxter, Bruening, & Fried, 1986; Bruce & Bruce, 1996; Burke, Harms-Constas, & Aden, 1994; Centineo, 1986; Day, McCabe, & Alexander, 1993; Devlin, O’Neill, & MacBride, 1994; Gice et al., 1988; Goodman, 1989; Groves & Gallagher, 1993; Grunet et al., 1992; Kasdan & June, 1993; Nathan, Meadows, & Keniston, 1993). Examples of early return to work benefits include better self image (Bernacki & Tsai, 1996), improved ability to cope (Bigos et al., 1986), improved work survivability (Melhorn, 1996), and improved ability to be self-sufficient (Burke et al., 1994). These benefits result in a win-win for employee and employer (Devlin et al., 1994; Bruce et al., 1996; Dworkin, Handlin, Richlin, Rrand, & Vannucci, 1985; Hall, McIntosh, Melles, Holowachuk, & Wai, 1994). Conversely, prolonged time away from work makes recovery and return to work progressively less likely (Strang, 1985).
Studies Demonstrating Physician Roles in Return to Work and Accident Prevention

Garcy et al (1996) found that work-injured patients with chronic disabling spinal disorder who complete a tertiary functional restoration program are at relatively low risk for either recurrent spinal disorders or a new musculoskeletal injury claim (with or without disability) after returning to work. No major physical or psychological risk factors for recurrent injury could be identified in this large study group. These findings argue powerfully against employer bias to not rehire employees with previous chronic disabling spinal disorder or to discriminate in pre- or re-employment on the basis of putative re-injury risk factors after an appropriate rehabilitation program.

Welch et al (1999) reported that acute musculoskeletal injuries in construction workers frequently resulted in chronic symptoms, which had substantial effects on the worker’s quality of life. Job accommodations were helpful, but difficult to do for construction work. They concluded that these findings point to the need for heightened efforts for injury prevention in this industry.

Guirguis (1999) examined the relationships between unemployment and the worker’s mental, physical, and social well being. When unemployment or being out of work is due to injury or sickness, the effects are compounded by mental and social factors. In an effort to prevent prolonged unemployment due to injury or sickness, changes were made to existing disability income supplement plans to redirect their focus from basic income support to active employment measures. This was intended to reduce individual’s dependency on financial assistance and encourage individuals to take personal responsibility for getting back to work. The various disability insurance plans require primary care physicians to provide opinions and participate in the recovery and safe return to work of injured or sick persons. The physician approach to medical care of the injured/sick person with employment problems should focus on return to work as a goal of treatment. The patient should be seen as part of a social or environmental system and not as an isolated individual. The physician has a significant role to play in the diagnosis, determination of functional abilities, and participa-
tion in the return to work plan. This study demonstrated that the physician’s positive participation not only provides an intrinsic cost saving value in insurance costs, but more importantly, helps patients maintain gainful employment and often helps in regaining health.

Summary

Although the incidence of work-related musculoskeletal injuries and illnesses can be reduced, some individuals will continue to have work-related musculoskeletal pain. When patients are disabled (unable to work), everyone loses. The insurer, employer, and society suffer the economic losses while the employee suffers the individual loss. The opportunity to change the current lose-lose situation to win-win lies in prompt treatment and early return to work. Examples of the benefits for the individual include better self-image, improved ability to cope, improved work survivability, and improved ability to be self-sufficient. Conversely, prolonged time away from work makes recovery and return to work progressively less likely. Benefits for the employer and insurer are financial, while the workers’ compensation system lives up to its goal of intended fairness.

Returning the individual to work requires a balance between the demands of the job and the capability of the patient. Communication and education are key. The workplace guides must be safe and allow for a speedy return to work with the interests of the patient being the primary responsibility. Physicians must be the patient advocate and help end any antagonism. The treating physician can improve the quality of life for the injured worker by using the science of medicine to treat the anatomical injury, thereby decreasing the physical impairment, and using the art of medicine to treat the biosocial issues, thereby decreasing the disability from the injury resulting in less handicap for the individual and improved treatment outcomes at a lower financial cost. This approach provides treating physicians with a unique opportunity and obligation to provide reasonable work guides in an effort to reduce work disability, improve the outcome for work-related injuries, and advance the quality of life for their patients, which results in a win-win for employee and employer. Therefore, the current compensation system could save millions of dollars each year by
incorporating incentives to return to work without sacrificing outcomes for the individual.

All photographs, drawings, figures, and tables remain the property of the first author. The first author grants the use of these materials for this specific publication and all future publications based on this specific article in paper or electronic or other format.

References


Dr. J. Mark Melhorn is an occupational orthopaedic physician that specializes in the hands and upper extremities. He has authored publications about his research of workplace injuries and illnesses, return to work options, impairment and disability, and prevention of musculoskeletal pain in the workplace. He is currently the Chairman for the American Academy of Orthopaedic Surgeons continuing education course on “Occupational Orthopaedics and Workers’ Compensation: A Multidisciplinary Perspective,” serves on the Board of Directors American Academy of Disability Evaluating Physicians, the Committee for Occupational Health and for Continuing Medical Education for the American Academy of Orthopaedic Surgeons, Industrial Injuries, and Prevention Committee for the American Society for Surgery of the Hand. He also serves on the Return to Work Committee for the American College of Occupational and Environmental Medicine, and is a Musculoskeletal Chapter Reviewer for the American Medical Associations 5th Edition of Guides to the Evaluation of Permanent Impairment. Dr. Melborn is a previous member of the Ergonomic Committee for the American College of Occupational and Environmental Medicine, faculty and 2004 co chairperson for the American Academy of Disability Evaluating Physician’s Annual Continuing Education Meeting, and is past president of the Kansas Orthopedic Society.
For state workers’ compensation agencies, the idea of receiving detailed electronic reports on injured workers’ medical claims would have been unthinkable a dozen years ago. Providers primarily filed their medical claims with payers by using paper forms. Both computer storage and data transmission by wire were expensive. Today, though, it is not only practical but also economically prudent for state workers’ compensation agencies to monitor and control the performance of their medical benefit delivery system through detailed electronic medical reporting.

An average size jurisdictional workers’ compensation system can expect to process or collect over 250,000 medical bills each year. Why bother to have all the payers report these claims to the state? The information found within these claims is a key element that allows legislators to design effective and efficient workers’ compensation systems for their respective states. Medical cost escalation and effectiveness of managed care are at the top of most jurisdictions’ list of concerns. Without a detailed and accurate base of

†Gregory Krohm, IAIABC Executive Director, and Faith Howe, IAIABC EDI Manager, both provided valuable input and time into the preparation of this article.

*Todd Brown, Senior Regulatory Consultant, Corporate Systems, Amarillo, Texas. Email: tbrown@cedge.com
knowledge about the uses and costs of medical care incurred by injured workers, state policymakers and system administrators cannot diagnose problems within their workers’ compensation systems and enact effective reforms.

Medical reports now arrive to state workers’ compensation agencies in two forms: (1) IAIABC EDI transaction protocol, based on the ANSI 837 format, and (2) Unique state standards.

We contend that the first option is not only better for the overall workers’ compensation system, but it also benefits conforming state and carrier participants. Each state that deviates with a unique format can add hundreds or thousands to millions of dollars of cost per insurer that reports electronically, a cost that is passed on to policyholders. Also, when a state customizes its own electronic transmission protocol, it bears the initial development costs itself, and is on its own to resolve testing and debugging problems. By using an established standard, the state can benefit from the experience of those who had already developed and implemented the standard.

Through careful planning and active participation in standard-setting organizations, the IAIABC medical report and acknowledgment report are also part of the standard reports for general health and property and casualty insurance. These standards, known as the ANSI 837 and 824 transactions, are universally accepted as the standard medical reports from medical providers to payers. The ANSI 837 report accommodates data that currently resides on the CMS–1500 Health Insurance Claim Form (formerly the HCFA 1500) and the HCFA-1469 Hospital Uniform Bill/UB 92 forms, and includes the capability to submit dental and pharmacy billing information.

In general health care, the harmonization of reporting medical billing information using one umbrella standard is a triumph for the EDI system; it creates efficiency and speed of reporting without the tremendous overhead expense of having to program and run many different protocols for reporting and receiving medical claims.
For workers’ compensation, unfortunately, multiple protocols are still in use. The table below shows the various formats now in use for EDI medical reporting to workers’ compensation agencies.

### TABLE A
**Workers’ Compensation Medical Cost Reporting**

<table>
<thead>
<tr>
<th>State</th>
<th>Frequency</th>
<th>Error Correction Required</th>
<th>Correction Manual/Automatic</th>
<th>Format</th>
<th>Coverage</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Florida</td>
<td>Monthly</td>
<td>Y</td>
<td>Manual</td>
<td>Flat File</td>
<td>Physician, hospital bills</td>
<td>Cost, Paid, Diagnostic, CPT, Treating Physician etc.</td>
</tr>
<tr>
<td>Kansas</td>
<td>Quarterly</td>
<td></td>
<td>Flat File</td>
<td>Flat File</td>
<td>Physician, hospital, pharmacy bills</td>
<td>Cost, Paid, Diagnostic, CPT, Treating Physician etc.</td>
</tr>
<tr>
<td>Kentucky</td>
<td></td>
<td></td>
<td>ANSI 837</td>
<td></td>
<td>Physician, hospital bills</td>
<td>Cost, Paid, Diagnostic, CPT, Treating Physician etc.</td>
</tr>
<tr>
<td>Mass.</td>
<td>Quarterly</td>
<td></td>
<td>Flat File</td>
<td>Flat File</td>
<td>Certain diagnoses only physician bills</td>
<td>Cost, Paid, Diagnostic, CPT, Treating Physician etc.</td>
</tr>
<tr>
<td>Mississippi</td>
<td></td>
<td></td>
<td>Flat File</td>
<td>Flat File</td>
<td>Physician, hospital bills</td>
<td>Cost, Paid, % Savings</td>
</tr>
<tr>
<td>Oregon</td>
<td>Quarterly</td>
<td></td>
<td>Flat File</td>
<td>Flat File</td>
<td>Physician, hospital bills</td>
<td>Cost, Paid, Diagnostic, CPT, Treating Physician etc.</td>
</tr>
<tr>
<td>Texas</td>
<td>Weekly</td>
<td>Y</td>
<td>Manual</td>
<td>Flat File</td>
<td>Physician, hospital bills</td>
<td>Cost, Paid, Diagnostic, CPT, Treating Physician etc.</td>
</tr>
</tbody>
</table>

Source: Corporate Systems, Inc., 2003
Since the vast majority of the information on medical claims is submitted to payers using the ANSI 837 transaction, it would be most efficient if states would accept a pass-through of this claim report to satisfy its needs. Otherwise, the payer must translate the data into yet another format for the state report, adding cost and complexity to what could otherwise be a simple transaction.

**Challenges Ahead for EDI Medical Reporting**

Other initiatives in EDI for medical reporting are still on the horizon. To capture the full benefits of EDI, the IAIABC is involved in two related initiatives:

1. The uniform application of the 837 transaction for claims reporting to states that ask for medical reports, and
2. The development of a standard protocol, logically linked to the 837, for carrying attachments that document details of the medical transaction.

We have stated above why uniform application of EDI standards is efficient for both the sender and the state agency. The attachment issue is a related piece of the EDI process, which needs special attention by the workers’ compensation community.

Typically, workers’ compensation adjusters require full medical notes to support payment of claims that involve large dollars of medicals or more than a few days of lost time. At a minimum, the provider’s entire office notes for the treatment episode following the injury or disease are necessary for the adjuster to consider payment of the claim. Without a record of the injured worker’s history, diagnosis, and prognosis, the adjuster may doubt the validity of the bill, the nature of the claim, and the appropriate treatment. In addition, any notes from the provider for treatment given before the date of injury are also considered fair and necessary for adjusters to demand in some cases, in order to determine the compensability of the workers’ compensation claim. This is a key difference between workers’ compensation and other health insurance payers.
An injured worker’s complete medical record may involve hundreds of words of text. It may be transcribed in a machine-readable file, or it may be captured as an image file. Either way, the adjuster must see the text of the provider’s notes. A workable and uniform means of electronically sending provider treatment notes, logically connected to the 837 medical report, is essential for adjusting workers’ compensation claims.

The IAIABC must engage in dialogue and cooperate fully with other standard-setting organizations seeking to develop electronic attachments to the ANSI 837 transaction.

Another initiative for the IAIABC is to work with the groups that develop coding systems, so that those systems can incorporate codes that are specific to workers’ compensation medical procedures. Jurisdictions also assign and implement their own local codes; consolidating and harmonizing those codes will benefit those who electronically transmit and receive medical information. By adhering to standard code sets, jurisdictional workers’ compensation agencies can access the new, accurate, and (most importantly) standardized source of data for studying claim patterns.

Summary and Conclusion

State workers’ compensation agencies are increasingly interested in receiving detailed information at the individual claim level for system analysis, and in some instances, for enforcement of procedures. This reporting is best done through a uniform national standard shared with all other health and disability insurance.

The IAIABC EDI Medical/Bill Payment report is an important first step in reporting information on the medical aspects of workers’ compensation claims to jurisdictions. The IAIABC must participate with other standard-setting organizations to develop a national protocol for sending medical attachments, particularly office notes, to facilitate the rapid and efficient handling of workers’ compensation claims. As these standards are established, and implemented, we can then turn our attention to other initiatives to help to strengthen workers’ compensation systems.
A Realistic Look at the Problem of Coordinating Medicare and Workers’ Compensation Settlements

Gregory Krohm*

Many workers’ compensation claims adjusters and attorneys do not know what to make of the alarms being raised over the “new” requirements demanded by the Centers for Medicaid and Medicare Services (CMS) for reviews of workers’ compensation settlements. In particular, concerns have been raised over the difficulty and delay in securing a CMS approval. In the opinion of the author, many of these apprehensions were exaggerated. In other cases, substantiated problems have been abated by improvements in the review process or by better education of practitioners.

This note attempts to clarify the steps that are required in preparing a request for settlement approval. If followed with reasonable care, a formal review and approval of the majority of settlement cases should be expected in 30 days, with a minimum of follow up or additional requests for information.

†Learn more about the issues surrounding Medicare and workers’ compensation settlements at www.iaiabc.org. The IAIABC has worked closely with CMS to develop new educational tools, including online training courses, papers, and compact discs. See the Web site for more information.

*Gregory Krohm, Executive Director, IAIABC, Madison, Wisconsin. E-mail: gkrohm@iaiabc.org

†Regulations have been in place since 2000.
To begin, CMS specifies the following items to be considered or documented in applications for review:

- Projected date of entitlement to Medicare.
- Basis for Medicare entitlement.
- Type and severity of injury or illness.
- Age of beneficiary (and discussion of whether the medical condition would decrease the expected life span of the individual).
- The workers’ compensation classification of the petitioner, i.e., permanent partial, permanent total, or a combination of both.
- Prior medical expenses paid by workers’ compensation, and whether or not any of those payments must be recovered by Medicare.
- The amount of lump sum payment, or the amount of structured settlement, allocated for medical expenses.
- Whether the commutation (or compromise) was for the beneficiary’s lifetime or a specific period of time.
- Where the beneficiary is resident — home, nursing home, or receiving assisted living care.

Much of the above information is factual material that attorneys and claims adjusters would normally work with in preparing a settlement for review by an agency Administrative Law Judge (ALJ). The allocation of costs between indemnity and medical should be precisely and clearly spelled out in any settlement agreement.

Quantifying medical costs is generally the biggest chore for parties preparing a settlement for review by CMS. The costs are clouded to the extent that:

- The injury has not fully healed.
- Future treatment needs are in doubt or their timing is unclear.
- Complications from the injury can be anticipated.
- The life expectancy of the claimant is in doubt.

All of these issues should be discussed in a thorough medical report, giving a diagnosis, prognosis, and a projection of future medical treatments that will be needed. Leave nothing to doubt. If the CMS reviewer has reason to believe that there will be future treatments that are not addressed in the
medical report, the application will be sent back for further explanation and/or documentation.

Providing this information can be a daunting task for attorneys that are not familiar with the medical treatments required by a claimant. For example, suppose a person is being treated for a severe cranial injury in which future psychological and medical complications may or may not occur (e.g., epilepsy can manifest itself a dozen years after such an injury). The medical evidence must clearly identify likely treatments.

At times, life expectancy is a major consideration in these cost estimates. The precise basis for this life care cost estimate should be spelled out. Absent an explanation, CMS will impose its own formula estimate. There should not be a distinction between payment of Medicare covered and non-covered services without a reasonable and supportable basis. Home care or assisted living expenses or prescription pain medications are good examples of non-covered expenses. Where there will be ongoing Medicare-covered and also non-Medicare-covered expenses, the projections for these two should be isolated and separate allocations developed.

Any amount allocated for future medical care or devoted to a set-aside allocation must simply be sufficient to demonstrate that Medicare’s interest was reasonably considered. This means that estimates of the cost of the covered procedures must be realistic—or even cautious in protecting Medicare. The CMS reviewer may take the position that funds should be set aside even for future treatments that are possible, even if medical evidence suggests only the contingency, or possibility, of need.

CMS will look closely to determine if a settlement is a commutation or a compromise. Factors distinguishing a commutation from a compromise settlement are:

- The absence of controversy over liability.
- The stated intention of the parties to compensate for future medical expenses.

2 Amazingly, CMS reviewers report that many attorneys still send requests for review with no medical report, or outdated reports from the initial treatment of injury.
The most troublesome cases to settle are those in which the employer and injured worker are locked in disagreement over the compensability of the claimed injury by workers’ compensation. If the injury involves substantial future medical costs and lifetime impairments that the worker demands to be compensated for, the allocation of dollars between medical and indemnification for wage loss is fraught with emotion and complexity. If the dispute is simply between the claimant and the payer, a lump sum settlement without specifying any medical-indemnity allocation makes negotiations easier.

However, if Medicare is a party, or potentially a party, to the decision because of future medical costs related to the alleged injury, the settlement is messy indeed. In years past, it was considered to be in the claimant’s best financial interests to shift the bulk of any lump sum settlement amount to indemnity payments, leaving only a token amount to cover future medicals. The worker and his/her advocates might rationalize this shift on the grounds that Medicare was a deep pocket and the injured worker could suffer serious future wage losses that were only partially compensated by the lump sum.

In any compromise settlement where there is an agreement to pay all, part, or none of past or future medical expenses, the intent of the parties, their rationale, and the supporting evidence should be clearly documented. CMS reviewers are likely to take a strong stand that if medical treatments are likely and they are likely to be covered by Medicare, then any compromise should allocate enough funds to protect Medicare. If the amount of the settlement is less than the projected or reasonably anticipated Medicare services, then the entire settlement must be allocated to medical costs.

This is a stern position that militates against compromising cases outside of a hearing. It potentially wipes out the indemnity component of a small settlement that does not go to a full hearing with an ALJ order on cost allocation. Voluntary settlement is even less likely if there are significant medical bills from the injury already paid by Medicare.

The settlement must make a reasonable provision for payment under workers’ compensation of all work-related medical expenses. To simply
state that an allocation is for Medicare non-covered services does not
demonstrate or ensure that Medicare’s interests have been reasonably
considered. However, if a compromise settlement allocates a reasonable
portion of the payment for medical expenses, properly supported by
evidence of medical need or lack thereof, and also makes a reasonable
allocation of funds for income replacement, that apportionment may be
accepted as a basis for determining Medicare payments even if it does not
cover all future medical expenses.

What additional guidelines, if any, will CMS follow in determining if a
settlement is valid, enforceable, and reasonable? The Medicare Fiscal
Intermediary Manual recommends that CMS generally accept a decision by a
state workers’ compensation agency on a contested claim that went to a full
hearing with a decision.

Negotiated compromises that only go to an ALJ for pro forma approval will
not be given deference by CMS on cost allocations. Again, if a compromise
settlement does not give reasonable recognition to both elements of a
workers’ compensation award or does not apportion the sum granted,
Medicare will impose its own apportionment between income replacement
benefits and future medical expenses.

The surest and best way to avoid unpleasant legal and financial conse-
quences for the worker-claimant is to submit the proposed settlement to the
Medicare regional office for review and approval. This may entail referring
your request from the regional office to headquarters counsel, especially if
Medicare is being asked to compromise past or future payments.

Medicare acknowledges the impracticality of reviewing every workers’
compensation settlement. In 2003, they issued the following guidance on
when to seek a review:

In the case of a claimant who is not yet a Medicare beneficiary, the parties
need only consider Medicare’s future interests when:

1. The claimant has a reasonable expectation of Medicare enrollment
   within 30 months of the settlement date.
2. The anticipated total settlement amount for future medical expenses and disability/lost wages over the life or duration of the settlement agreement is expected to be greater than $250,000. (This threshold amount applies to the sum of indemnity and medical benefits only, not attorney’s fees, costs, etc.)

CMS expects to review cases where there is a “reasonable expectation” that the claimant may become eligible for Medicare in the next 30 months. Some triggers for this expectation include a claimant that:

- Has applied for Social Security Disability Benefits.
- Has been denied Social Security Disability Benefits but anticipates appealing that decision.
- Is in the process of appealing and/or re-filing for Social Security Disability Benefits.
- Is 62 years and 6 months old (i.e., may be entitled to Medicare based upon his/her age within 30 months); has an End Stage Renal Disease (ESRD) condition but does not yet qualify for Medicare based upon ESRD.
- In cases where the claimant is already on Medicare, there is no minimum dollar threshold for review. All cases should be referred to Medicare for review.

Once the regional office (RO) has rendered a written opinion, the parties to the settlement can rely on that opinion for a proper allocation of funds to protect Medicare interests and forestall recoupement efforts by Medicare against any of the parties to the settlement. Absent an approval by the RO, Medicare benefits may be withheld in the future until the entire amount of the unapproved settlement is paid in medical benefits for which Medicare is responsible. This would be a terrible outcome for the worker-claimant and should be avoided with the greatest care by attorneys handling settlements.

Concerns have been raised over the length of the review process. The current target for completing reviews is 30 days from date of receipt of a full and complete application. In a few regions CMS is already within this review period. Some regions report average review times to be up to 90 days. CMS headquarters has taken the proactive step of hiring a third party
contractor to speed the review of completed applications over 30 days in waiting for a decision.

Unnecessary delays in settlement review are caused by careless preparation of the review materials. The single biggest complaint of the CMS review specialists is applications without an adequate medical report. Attaching a medical report describing the injury and a prognosis for recovery and future treatment would appear to be a very reasonable and practical component of an application for review. This is particularly so because such reports are typically required for Administrative Law Judges to approve settlements.

In conclusion, the law giving Medicare secondary payer status relative to workers’ compensation is clear and has been in place since Medicare was passed in 1965. However, the new review procedures and enforcement tools available to CMS have upset many practitioners who must now go through additional steps to have a settlement approved. Furthermore, consciously or unconsciously ignoring Medicare’s interests made for better indemnification to injured workers, at the expense of cost shifting to Medicare.

Undoubtedly, the transition to the new regime of CMS requires learning and adjustment. However, the rules have become clearer to those involved in settling claims. CMS is better-organized and equipped to offer speedy and more consistent reviews.

If there is a fault, the regional offices still show a great deal of latitude in procedures and criteria. Even within a region the criteria and review standards of individual reviewers seems to vary. For example, some offices insist on original doctors reports; others accept detailed abstracts of medical opinions. Some use their own checklists developed in the local office; others do not. Most of all, the evidentiary standard and the precision of the estimates required seems to be highly variable.

Staff appears to be trying to respond to policy, but the clarity of the specifics in the review process appears to be lacking. One uniform set of procedure, with standard forms, checklists, and common definitions of terms would be a benefit to all parties.
Tribal-Based Professional Employer Organizations

Editor’s Note: Thank you to Keith Bateman, Property Casual Insurers Association of America, for contributing the idea for this news piece.

The California mandatory workers’ compensation requirement has been challenged recently by a professional employment organization (PEO) offered by Mainstay Business Solutions – a company that claims in its literature to be chartered by unnamed Tribal Sovereign Nations.

Under the plan, PEO services are handled by Mainstay and the employees are deemed Mainstay’s employees. Workers’ compensation “coverage” is supplied, but with different benefits and dispute resolution mechanisms than provided under state law. Mainstay maintains that they are exempt from state workers’ compensation regulation due to their relationship with an unnamed tribal entity.

The California Insurance Department disagrees and is investigating both civil and criminal charges. The Industrial Relations Department has taken enforcement action against at least one of the company’s clients. At issue is a complex set of interrelated legal principles. First, is the PEO an economic entity of the tribal sovereign (unnamed) to which it is allegedly affiliated? As noted in the Spring 2003 IAIABC Journal (“Indian Sovereignty and Workers’ Compensation”), the sovereignty of the tribal entity only extends to the economic entities of the tribe and not businesses that are merely authorized or chartered by the tribal sovereign. Second, the concept of co-employment appears to be involved, as the Mainstay’s clients transfer employment of their employees to the PEO and then lease them back. This circumstance has been held to create a co-employment situation requiring both entities to comply with mandatory workers’ compensation insurance requirements in many jurisdictions. Third, can Mainstay as a co-employer extend its alleged sovereign status to its non–Indian client companies, such that they do not have to participate in the state workers’ compensation system? Finally, does Mainstay’s alleged sovereignty extend off Indian lands and follow its clients throughout the state?

Mainstay has filed a lawsuit, currently pending in California, alleging that California authorities are acting beyond their jurisdiction in enforcing
regulations against a tribal entity. At issue are the questions set forth above and the more general issue of whether mandatory workers’ compensation insurance and mandatory participation in state workers’ compensation continue to be viable in the present economic environment.

Firefighter Presumptions of Covered Injuries in Workers’ Compensation

Editor’s Note: Below is an overview of the issue of special presumptions of coverage for injuries or diseases sustained by firefighters. Questions to the IAIABC staff about these presumptions arise frequently. This is intended to be a brief orientation and limited review of such laws, and complements an active online survey that questions jurisdictions on such presumptions.

Many jurisdictions have presumptions of injury for firefighters and other public safety workers, including police officers and ambulance drivers. At least a dozen states have such presumptions. The statutory language is often vague. The meaning of “presumed” and the scope of defenses that can be raised by employers varies from jurisdiction to jurisdiction. Originally intended to cover the prima facie case of smoke inhalation causing lung disease, in the past few years there seems to be a tendency to broaden the presumptions to other non-smoke related conditions.

Many states have some sort of presumption language for heart, lung, and other conditions. There are typically many court cases to define what “presumption” means. Some examples:

Oregon

The phrase “and resulting from their employment as firefighters” has been a part of ORS 656.802(1)(b) since the court decisions in Wright v. SAIF, 289 Or 323 (1980), and Johnson v. The City of Roseburg, 86 Or App 344 (1987) which had interpreted the “firefighter’s presumption” statute. The Board further observed that the same phrase was retained in ORS 656.802(4), which defines an occupational disease for purposes of triggering the “firefighter’s presumption.” Similarly, the Board reasoned that subsection (4) [like subsection (2)] of the former statute that was applicable when
Wright and Johnson issued forth the “firefighter’s presumption” itself (i.e., “[a]ny condition or impairment of health arising under this subsection shall be presumed to result from a firefighter’s employment.”

**Michigan**
Sec. 405(2) creates a presumption for heart and lung conditions for police and firefighters. The presumption according to the Michigan courts only removes “the initial burden of claiming work-relationship.” The employer still has broad scope to rebut the claim.

**New Hampshire**
The workers’ compensation - firefighter statutory presumption is in RSA 281-A:17, I.

**North Dakota**
The presumption in N.D.C.C. § 65-01-02(18)(d) (1995) creates the presumption that firefighters lung condition or disease is suffered in the line of duty. The legislature narrowed the presumption in N.D.C.C. § 65-01-15 to confine the occupational-lung disease presumption to nonsmokers.

The presumption shifts the burden of going forward with evidence and the burden of persuasion from the claimant to the North Dakota Bureau. *Sunderland v. North Dakota Workmen’s Comp. Bureau*, 370 N.W.2d 549, 552 (N.D. 1985). Therefore, under the North Dakota view of presumptions, the Bureau is required to prove the nonexistence of the presumed fact is more probable than its existence.

**Nevada**
Below is a recent Attorney General’s opinion on firefighter presumption:

“The Nevada statute that creates a conclusive presumption of occupational heart disease for firefighters and police officers is NRS 617.457, which provides in pertinent part: Notwithstanding any other provision of this chapter, diseases of the heart of a person who, for 5 years or more, has been employed in a full-time continuous, uninterrupted and salaried occupation as a fireman or police officer in this state before the date of disablement are conclusively presumed to have arisen out of and in the course of the employment. . . .
Initially, we note that the Nevada Supreme Court has held that the conclusive presumption of occupational heart disease set forth in NRS 617.457(1) applies to any firefighter [or police officer] who was once employed in such occupation on a full-time continuous, uninterrupted and salaried basis for five years or more, but who was not so employed at the time the heart disease was diagnosed, despite the intervening length of time since separation from public service as a firefighter or police officer.”

**Virginia**
The Virginia statute establishes that respiratory diseases and other ailments “shall be presumed to be occupational diseases suffered in the line of duty . . . unless such presumption is overcome by a preponderance of competent evidence to the contrary.” VA Code § 65.2-402(A).


[T]he purpose of the statutory presumption is to establish by law, in the absence of evidence, a causal connection between certain occupations and death or disability resulting from specified diseases. . . .

“To overcome the statutory presumption the employer must show, by a preponderance of the evidence, both that (1) the claimant’s disease was not caused by his employment, and (2) there was a non-work-related cause of the disease. Thus, if the employer does not prove by a preponderance of the evidence both parts of this two-part test, the employer has failed to overcome the statutory presumption.”

**Other Jurisdictions**
Among the other states that are believed to have firefighter presumptions of injury are Texas, New Jersey, Maryland, and Wisconsin. This is merely a partial listing.

Such presumptions are also common in Canada. In Canada the presumptions are often extended to forest firefighters as well as traditional urban personnel. Look to the next issue of the *IALABC Journal* for an expanded version of this brief.
Correction to previously published TRIA article

Dear Editor:

When I wrote “Workers’ Compensation and the Terrorist Risk Act of 2002” (IAIABC Journal, Vol 40(2), Fall 2003), I was using a copy of TRIA with wording somewhat different than that of the actual law. Consequently, I need to amend the description of TRIA coverage. With the correct wording, the U.S. Treasury does not need prior approval of Congress to make payments under TRIA. In addition, the Treasury may request Congress to provide coverage for amounts in excess of $100 billion. In other words, potential cash flow problems faced by insurers in settling claims arising from certified acts of terrorism are not as severe as described in the article.

Fortunately, we have completed the first program year of TRIA without loss. Hopefully our success in the war on terrorism will continue so that the above correction is only of academic interest.

Sincerely,

Alfred O. Weller
Muetterties, Bennett, & Associates, Inc.
Mark your calendars!

Loss Reserving for Workers’ Compensation: Mechanics and Important Applications
August 6, 2004
New York, NY

For more info, email: mwilson@iaiabc.org

This training session is for financial officers, risk managers, and other decision makers from self-insured companies who wish to increase their knowledge and understanding of self-insurance regulation and administration.

*

90th Annual Convention
August 7-11, 2004
New York, NY

www.iaiabc.org/Conferences/2004_convention/
2004_convention_index.htm

The IAIABC Convention has been held annually since the organization’s inception in 1914, and this year we celebrate turning 90 in New York City! The Convention is a symposium for workers’ compensation professionals to share and discuss issues and events that have affected workers’ compensation in the United States, Canada, and throughout the world.

(continued)
2005 IAIABC All Committee Conference  
April 8-11, 2005  
Omaha, NE

www.iaiabc.org/Conferences/acc_index.htm

The ACC is a three-day event where the IAIABC Committees meet and discuss current projects and set goals and initiatives for the next year. Anyone who has an interest in attending the committee meetings can!

*

IAIABC Workers’ Compensation College  
May 22-27, 2005  
Madison, WI

www.iaiabc.org/Conferences/college_index.htm

The College began in 1979 as an intensive weeklong course for workers’ compensation professionals. It now has a long history of providing an in-depth and meaningful educational experience. The Executive Course is designed for workers’ compensation administrators and managers and offers a wide variety of programs from beginning to advanced. The Judicial Course is designed for judges and lawyers, focusing on legal writing and medical topics.

*

IAIABC 91st Annual Convention  
September 6-10, 2005  
Philadelphia, PA

Check out the complete conference listing of work comp events at www.iaiabc.org/Conferences/conference_index.htm
Celebrate the IAIABC’s 90th Annual Convention

August 7-11, 2004
New York, NY

www.iaiabc.org/90years.htm

Want to advertise your organization’s next big event? Contact mwilson@iaiabc.org for Journal advertising details.
Guidelines for Authors

Manuscripts should be submitted electronically (via e-mail attachment) to:

Melissa Wilson, Managing Editor, IAIABC Journal at:
mwilson@iaiabc.org

There is no mandatory format for documents submitted for review, but if accepted, Journal style guides will be applied to wording, headings, and text layout. A Microsoft Word style template is available upon request. Most unsolicited manuscripts must pass a “blind peer review” process by subject experts.

The IAIABC will not endorse commercial products or organizations. Opinions or policy recommendations expressed must clearly represent the authors’ or their sponsoring organizations’ viewpoints.

All material must be the original work of the author(s) not published in a similar form elsewhere. Authors are solely responsible for the fair use of copyrighted materials. All published papers must become the copyrighted property of the IAIABC.

The ideal feature article would be 3000-5000 words, not including charts and graphs. Charts, graphs, and exhibits should directly support key points made in the text.

Key factual assertions in the text should be documented with parenthetical references. References should follow the standard American Psychological Association (APA), format for the Social Sciences: only the author and year of publication are inserted in the text, which point to the full citation in the list of references at the end of the article. For example, “This policy was described in the Guidelines to Authors (Wilson, 2003).”

The last section of the article should contain a list of references in alphabetical order of the last name of the lead author or organization authoring the referenced work. For example:


A more complete list of style and formatting guides is available upon request and is located on the Journal section of the IAIABC Web site at: http://www.iaiabc.org/Publications/Journal_index.htm