

Workers Compensation Research Institute955 Massachusetts AvenueCambridge, Massachusetts 02139617-661-WCRI (9274) • www.wcrinet.org



ANNUAL REPORT

**RESEARCH REVIEW** 

2016

## WORKERS COMPENSATION RESEARCH INSTITUTE



## Board of Directors (as of November, 2015)

VINCENT ARMENTANO, CHAIR The Travelers Companies, Inc. Shelley Boyce, Vice Chair

MedRisk, Inc. Janine M. Kral, Vice Chair

Nordstrom, Inc.

BARBARA SANDELANDS, CORPORATE TREASURER Chubb & Son, a division of Federal Insurance Company

Кеітн Ватемам Property Casualty Insurers Association of America

DARRELL BROWN Sedgwick Claims Management Services, Inc.

CRISTINA D. DOBLEMAN Stanford University

VINCENT DONNELLY THE PMA INSURANCE GROUP

MICHAEL FENLON United Parcel Service

PETER MCCARRON Zurich North America

PETE MCPARTLAND Sentry Insurance Тномаs Nowak AlG

STEVE PERROOTS Marriott International, Inc.

TRACY RYAN Liberty Mutual Insurance

SRIVATSAN SRIDHARAN Gallagher Bassett Services, Inc.

JON STEWART Kentucky Employers' Mutual Insurance

DAVID STILLS Wal-Mart Stores, Inc.

JOE VASEQUEZ, ESIS/ACE USA JOSEPH WELLS The Hartford

DR. JOHN RUSER PRESIDENT AND CEO Workers Compensation Research Institute RAMONA P. TANABE

EXECUTIVE VICE PRESIDENT & COUNSEL Workers Compensation Research Institute

## **Board Members Emeritus**

John A. Antonakes Debra Ballen **Kenneth Bollier** John M. Bowdish James Brakora Emil Bravo Thomas W. Brown Vincent J. Ciccia M. Susan Coble Christopher J. Colavita Stephan Cooper Gale G. Davis Thomas G. DeOrio John D. DiLiberto James Dillon Robert Dinser Karen M. Doolittle \* John L. Eavenson \* **Roger Fries** Erwin F. Fromm C. Wayne Gano, Jr. John Giovaninni † Galt Grant Marie Gwin Jack Hayes † John F. Hayes II lan R. Heap \* Dean Hildebrandt † Bruce R. Hockman \*

Mark Hogle ∻ Sam Holland William H. Huff III Debra Jackson Jeffrey Jensen Charles J. Johnson Jerry Johnson John H. Jones, Jr. \* T. Lawrence Jones Ward Jungers George H. Kasbohm George A. Kime, Jr. Robert King Kathleen Langner \* † Peter Lardner 🔶 Ernest A. Lausier Dr. Rodger S. Lawson ¥ J. David Leslie David A. Lewsley Robert A. Lindemann Jon M. Livers † Mark Lyons H.H. Marr David H. Martin Paul Mattera \* † Thomas J. McCauley **Dennis C. Mealy** Carl Meier Nicholas Miller

John Morrison † Kathleen Muedder 🔶 James W. Newman, Jr. † David A. North Franklin Nutter Ronald O'Neill Steven Ort **Richard Palczynski** James M. Palmer \* David K. Patterson 🗇 Albert W. Pearsall \* Arthur C. Placek John Plis Paul Posey Stephen Pratt Lary K. Rand **Richard Rice** Walker S. Richardson James Royles Robert Rheel † Mike Schimke Richard W. Seelinger Carmen Sharp Dr. Bernard Shorr Michael G. Skinner J. Burns Smith † Albert E. Smorol, Jr. Paul Stasz Robert Steggert \* †

Alan H. Strohmaier † Rami Suleiman C. David Sullivan Maureen Sullivan Joseph G. Tangney Richard L. Thomas \* Joseph Treacy † Andrea Trimble Hart **Brian Turnwall** Paul A. Verhage Ronald Walton, Jr. † William G. Watt Arthur Webster Robert L. Werner Stephen M. Wilder Vernon W. Willis, Jr. Ronald R. Wirsing Paul S. Wise **Ronald Wright** Katrina Zitnik 🗇 Lawrence M. Zippin

\* Former Chair† Former Vice Chair

### WORKERS COMPENSATION RESEARCH INSTITUTE

### **ANNUAL REPORT**

CEO/Pi The Ins The Ne The Im Memb Govern The Re *Co Sys Dis* 

### **RESEARCH REVIEW**

Disabil CompS Other Publica

resident's Letter	3	
stitute	4	
eed	5	
pact	6	
ership	8	
nance	9	
search Program	10	
mpScope™ Benchmarks Research Program	10	
stem Evaluation Research Program	11	
sability and Medical Management Research Program	12	
Web Site	13	

lity and Medical Management	15	
Scope <sup>™</sup> Benchmarks	22	
WCRI Studies	24	
ation List	33	

## To WCRI Members and Friends:



OUR MISSION: TO BE A CATALYST FOR SIGNIFICANT IMPROVEMENTS IN WORKERS' COMPENSATION SYSTEMS, PROVIDING THE PUBLIC WITH OBJECTIVE, CREDIBLE, HIGH-QUALITY RESEARCH ON IMPORTANT PUBLIC POLICY ISSUES.



It is an honor to have taken the helm of such a well-respected organization, whose mission is to be a catalyst for improvements in states' workers' compensation systems. In the short period of time that I have been at WCRI, I have witnessed the tremendous support that the Institute receives from its members and friends, and have been impressed with WCRI's rigorous attention to data analysis and quality.

Looking forward, I am excited about our research agenda, which includes timely issues and topics like worker outcomes, fee schedules, drug formularies, and opioids. As the systems continue to face changes and challenges in states across the country, the need for independent data and research could not be greater. As an objective source of information on the benefit delivery systems across a wide number of states, WCRI fills an important void in providing information to policymakers and other stakeholders regarding the performance of workers' compensation systems.

Before WCRI and other research organizations came into existence, debates regarding workers' compensation system reform were largely based on anecdote. In contrast, the information WCRI provides stakeholders is obtained through research studies and systematic data collection efforts, which conform to recognized scientific methods.

Over the past year, WCRI's work was used often by public officials. Below are some abbreviated examples. More detail on these examples can be found on page 6.

- adopting a drug formulary.
- > In Virginia, Louisiana, and Minnesota, WCRI's research on fee schedules was used in debates as policymakers sought to control the growth of medical costs in their states.
- epidemic among injured workers.

We are proud of the work we have published to date and look forward to addressing the issues of the future. We stand ready to provide impactful research, and to improve upon the comprehensiveness and delivery of our research.

We thank our members and friends for their generous support of our research through their data, funding, and expertise. WCRI would not be where it is today without your help. With it, we are both well prepared and well positioned to inform the public policy debates ahead, and we look forward to continuing to work together towards this end.

Respectfully yours,

′John W. Ruser. Ph.D President and CEO

> In California and North Carolina, WCRI's research was used by policymakers as they contemplated

> In Illinois and Wisconsin, WCRI's CompScope™ Benchmarks were used by legislators to ground debates concerning their workers' compensation systems and help understand the impact of reforms.

> In Nevada and Massachusetts, WCRI's opioid research was used in debates to better understand variation and long-term use across the country as well as to put in place measures to slow the opioid

## The Institute

The Workers Compensation Research Institute is an independent, not-forprofit research organization providing high-quality, objective information about public policy issues involving workers' compensation systems.

The Institute's work helps those interested in improving workers' compensation systems by providing much-needed data and analyses that help answer the following questions:

- $\succ$  How are workers' compensation systems performing?
- > How do various state systems compare?
- > How can systems better meet workers' needs?
- $\succ$  What factors are driving costs?
- > What is the impact of legislative change on system outcomes?
- > What are the possible consequences of proposed system changes? Are there alternative solutions that merit consideration? What are their consequences?

Those who benefit from the Institute's work include public officials, insurers, employers, injured workers, organized labor, and others affected by workers' compensation systems across the United States and around the world.

Organized in late 1983, the Institute is independent, not controlled by any industry or trade group. The Institute does not take positions on the issues it researches; rather, it provides information obtained through studies and data-collection efforts that conform to recognized scientific methods, with objectivity further ensured through rigorous, unbiased quality control procedures.

The Institute's work takes several forms:

- > Original research studies of major issues confronting workers' compensation systems (for example, permanent partial disability, litigiousness, and medical management)
- > Studies of individual state systems where policymakers have shown an interest in change and where there is an unmet need for objective information
- > Studies of states that have undergone major legislative changes to measure the impact of those changes and draw possible lessons for other states
- > Studies to identify those system features that are associated with positive and negative outcomes
- > Presentations on research findings to legislators, workers' compensation administrators, industry groups, and others interested in workers' compensation issues

## The Need

 ${m T}$  he reports and testimony of WCRI act as a catalyst for constructive change in improving workers' compensation systems throughout the U.S. and internationally. Too often, public policies are shaped by anecdote and emotion, not by objective evidence about current system performance or the consequences of proposed changes. As a result of WCRI research, policymakers and stakeholders can make information-based decisions that prove to be more enduring because they are more efficient, more equitable, and better designed to meet the needs of workers and employers.

Specifically, WCRI research meets the following important stakeholder needs:

- > Measuring system results to encourage continuous improvement and move the system away from the historic cycle of crisis-reform-crisis that has frequently characterized workers' compensation in the past.
- > Examining disability and medical management by evaluating and measuring the outcomes of medical care. These studies provide regulators with information about managing workplace injuries, what regulatory barriers are unnecessary or counterproductive, and what regulatory protections are needed for injured workers to assure quality outcomes. These studies also help guide business decisions.
- > Identifying system features that improve performance or drive costs and quantifying their impact on system performance. These studies focus attention on system strengths and opportunities for improvement. They also provide lessons from successful states that other states may adopt.

The Workers Compensation Research Institute provides reliable information to legislators, governors, state (provincial) and federal administrators, task forces and study commissions, industry groups, labor organizations, and others interested in improving workers' compensation systems. The Institute's research addresses the major issues confronting these systems today. Its public policy studies are disseminated to all interested parties.

"WCRI's research

in Minnesota to

allows stakeholders

more independently

evaluate our workers'

compensation system. It

leads to more informed

discussion on system

unbiased manner.

Over the years, all

sides-employers and

employees-have made

their case for reforms

using their individual

experiences. WCRI's

the desire to make

research cuts through

decisions based on these

individual experiences.

The Institute's research

independent, easy-to-

logical comparisons

of states, benefits,

payments, medical

costs, and others. The

research allows us to

impact of proposed

understand the potential

reforms as well as those

that have already been

implemented, which

ultimately benefits all

Chief of Staff of the Minnesota AFL-CIO

stakeholders."

Brad Lehto.

understand format with

is presented in an

reforms in a balanced,

# WCRI Annual Report

"Data and workers' compensation issues and policy making go hand in hand and WCRI's studies are invaluable in evaluating trends and cost drivers in our workers' compensation system. Whether it's comparing the price per pill in a hydrocodone prescription dispensed from a physician's office with one dispensed from a pharmacy, or comparing the average indemnity payments per claim with average medical payments per claim, the WCRI data reports are a source of valuable information in setting and evaluating medical fee schedules and guiding rulemaking in our state."

Frank R. McKay, Chairman of the Georgia State Board of Workers' Compensation

## The Impact

mprovement in workers' compensation systems is a product of *many factors. WCRI's research is one important factor. Policymakers* continue to look to the Institute as a source of objective information to help them make informed decisions about legislation and administrative changes.

Below are some examples from the past year.

- > WCRI's study, Impact of a Texas-Like Formulary in Other States, examined how a Texas-like closed drug formulary might affect the prevalence and costs of drugs in 23 other state workers' compensation systems that do not currently have a drug formulary. The following are some recent examples of states that used the study as they contemplated adopting a drug formulary:
  - **California:** Legislation (Assembly Bill No. 1124) requiring the administrative director of the Division of Workers' Compensation to adopt a prescription drug formulary for workers' compensation benefits passed both houses on Sept. 11, 2015. In the bill analysis, WCRI research on prescription costs in California and Washington State was cited.
  - North Carolina: Gov. Pat McCrory signed a drug formulary study bill into law on Sept. 18, 2015. The provision directs the Industrial Commission to study the state's annual prescription drug expenses in workers' compensation claims and assess the savings that would result from implementing a formulary. Previously, WCRI provided a copy of our study, Impact of a Texas-Like Formulary in Other States, to the Industrial Commission chair who recently requested additional assistance.
- > WCRI's opioid and physician-dispensing studies identified substantial issues in many states having to do with usage, abuse, cost, and prescribing methods. These studies had and continue to have impact throughout the country. The following are some recent examples:
  - Nevada: Gov. Brian Sandoval signed into law Senate Bill 231, limiting the amount of Schedule II and Schedule III drugs that physicians can dispense to a 15-day supply. WCRI's physician dispensing research was used in the debate.
  - Massachusetts: WCRI's longer-term use of opioids research was cited in the Fiscal Year 2014 Annual Report, prepared by the Massachusetts Workers' Compensation Advisory Council (WCAC). In the report, the WCAC made seven recommendations; the recommendation that "policymakers and stakeholders continue to focus on [opioids] and seek out innovative ways of addressing the problem" cited WCRI research.

- > WCRI's fee schedule studies highlight some of the most important design choices public officials face in adopting, reforming, and updating a workers' compensation medical fee schedule. They are well used by public officials and system stakeholders to evaluate their own fee regulations. The following are some recent examples:
  - Virginia: In 2015, the legislature passed House Bill 1820, which required the Virginia Workers' Compensation Commission to assemble a stakeholder group to discuss various approaches to determine fees for medical services. The group consisted of payors, providers, employers, and labor representatives. In August 2015, WCRI was invited to share the results of our research for Virginia with the group. Then, in December 2015, the Commission published the 2015 Report on Medical Fee Schedules in Workers' *Compensation*, which cited the WCRI briefing to the stakeholder group as well as other WCRI research.
  - Minnesota: Gov. Mark Dayton recently signed House File 2193/Senate File 2056 into law, which will transition hospital inpatient reimbursement, currently based primarily on "usual and customary charges," to Medicare's Diagnosis Related Groups (or DRGs). WCRI's research was used in the debate.
  - Louisiana: In July, WCRI staff were invited to brief the executive director of the Louisiana Office of Workers' Compensation to inform the process of updating their fee schedule. WCRI staff provided studies (including Designing Workers' Compensation Medical Fee Schedules and Fee Schedules for Hospitals and Ambulatory Surgical Centers: A Guide for Policymakers).
- > CompScope<sup>™</sup> Benchmarks studies, published annually, examine the impact of legislative changes and quantify differences in key metrics among study states. They continue to help policymakers identify key leverage points in their systems. The following are some recent examples:
  - Wisconsin: In response to provisions of Gov. Scott Walker's proposed 2015-2017 budget bill that would potentially impact the administrative organization and functions of the Division of Workers' Compensation, several system stakeholders reached out to WCRI for information as well as copies of WCRI reports. A report issued by the Wisconsin Legislative Finance Bureau to the legislature's Joint Committee on Finance addressing the impact of the change to the administrative organization cited WCRI CompScope™ Benchmarks.
- Illinois: A hearing was convened by the Illinois Senate Committee of the Whole to discuss their workers' compensation system and the effects of the 2011 reforms. In response to a request from the office of the Illinois Senate President, WCRI provided information about our research findings, including CompScope<sup>™</sup> Benchmarks studies, related to several recent policy debates. This information was shared with all the members of the committee and was referenced by others providing testimony to the committee.

industry."

"WCRI's research studies

are a crucial component

of our business planning

process, providing us

and costs in each

with objective analysis

of the many factors that

jurisdiction and helping

and claim strategies.

This made our decision

to become a member

organization an easy

one because we believe

it is incumbent upon us

to commit our financial

support for the valuable

all stakeholders. Equally

valuable to us is the fact

that WCRI membership

provides a forum where

engaged with a diverse

workers' compensation

community who have

research that drives

group of members of the

come together to support

continuous and positive

change in our ever-more

complex and evolving

Suzanne M. Emmet,

**Insurance Group** 

Senior Vice President of

**Claims, Eastern Alliance** 

we can be actively

work they do on behalf of

to guide our underwriting

influence claim outcomes

# WCRI Annual Report

"WCRI is a key resource for our team. Their reports provide insights across multiple jurisdictions, which is important to our organization since we have employees in every state. The information is relevant to current issues, steers our strategy, and guides our prioritization. Most valuable to us is the independent and rigorous analysis that WCRI performs to ensure the reports are objective."

Joan Vincenz, **Corporate Director for** Safety, United Airlines





- Minnesota: Findings from WCRI's CompScope<sup>™</sup> Medical Benchmarks for Minnesota, 16th Edition, were featured in the November 2015 edition of COMPACT, a newsletter distributed by the Minnesota Department of Labor and Industry.

To support our research programs, WCRI has developed the largest, most comprehensive, most representative claims database in use today. The Detailed Benchmark/Evaluation (DBE) database contains over 49.5 million claims from insurers, state funds, and self-insurers and represents nearly 75 percent of the workers' compensation benefits paid nationwide. This resource is a unique asset for WCRI and the workers' compensation community and allows WCRI to respond quickly to requests from public officials and other stakeholder groups with detailed, timely analysis of important issues.

## Membership

**T**o sustain and strengthen its impact, WCRI continues to expand its active and diverse membership, which elects the board of directors and is the source of representatives serving on key governance committees. Over one hundred fifty organizations support the Institute in 2016. (A list of members and associate members appears on the inside back cover of this report.)

Organizations may join the Institute as members or associate members.

*Membership* in the Institute is open to insured and self-insured employers, insurers, reinsurers, national trade and professional associations, national labor organizations, universities, insurance brokers, third-party administrators, managed care organizations, other service providers, and law firms. Members have electronic access to key research findings from WCRI studies on WCRI's web site. They also receive all publications from the Institute, preferred rates for registration to WCRI's acclaimed Annual Issues & Research Conference, and preferential invitations to other WCRI briefings. Member representatives participate in the governance of the Institute.

Associate members have electronic access to key research findings from WCRI studies on WCRI's web site. They also receive all publications from the Institute and preferred rates for registration to WCRI's Annual Issues & Research Conference and to other WCRI briefings. Associate memberships are available in several categories:

- > Associate member—public sector: available to state workers' compensation agencies (except state funds), insurance commissioners, labor departments, and foreign entities
- > Associate member—labor association: available to state labor organizations
- > Associate member—rating organization: available to rating organizations

## Governance

The responsibility for policymaking rests with the Institute's board of directors a representative group of members who are elected by the membership for staggered, three-year terms and meet three times a year. (A list of board members and officers appears on the inside front cover of this report.)

Operating responsibility is vested in the president and CEO by the board, with direction from the board and advice from committees established by the board.

The research committee, composed of representatives of member companies, gives the president and CEO guidance on the Institute's research program.

Project advisory committees assist the research staff in the formulation and conduct of specific studies. These committees are made up of representatives of member companies, public officials, academic researchers, and others knowledgeable about the specific topics before them.

### **RESEARCH COMMITTEE/2016**

**Michele Adams** The Walt Disney World Company

Justin Albert

The Hartford Financial Services Group

Keith T. Bateman Property Casualty Insurers Association of America

**Kevin Brady** The PMA Insurance Group

Suzanne M. Emmet Eastern Alliance Insurance Group

**Ruth Estrich** MedRisk, Inc.

William Gaines, MD Liberty Mutual Insurance

Dan Hunt, DO Accident Fund Holdings, Inc.

Jacob Lazarovic, MD Broadspire

Marla Perper Zurich Services Corporation

**Nick Saeger** Sentry Insurance

John Smolk Southern California Edison

**Ross Wohlert** 

# WCRI Annual Report

The Travelers Companies, Inc.

### Officers of the Board of Directors



Vincent Armentan Chair



Shelley Boyce, Vice Chair



lanine Kra Vice Chair



Barbara Sandelands Corporate Treasurer



John Ruser President and CEO



Ramona P. Tanabe. **Executive Vice President** and Counsel



## The Research Program

THE INSTITUTE'S RESEARCH PROGRAM FOCUSES ON THE MAJOR PUBLIC POLICY ISSUES CONFRONTING WORKERS' COMPENSATION SYSTEMS. OUR RESEARCH MEASURES SYSTEM PERFORMANCE, IDENTIFIES COST DRIVERS, QUANTIFIES OUTCOMES RECEIVED BY INJURED WORKERS, EVALUATES THE IMPACT OF ALTERNATIVE SOLUTIONS, AND HIGHLIGHTS EMERGING TRENDS. THE LESSONS FROM WCRI STUDIES ARE USED TO FACILITATE ACTION-ORIENTED DECISIONS BY PUBLIC OFFICIALS, EMPLOYERS, INSURERS, WORKER REPRESENTATIVES, AND OTHERS AFFECTED BY WORKERS' COMPENSATION, BOTH NATIONALLY AND INTERNATIONALLY.

Our current research programs are:

**CompScope™ Benchmarks Research Program System Evaluation Research Program Disability and Medical Management Research Program** 

<u>COMPSCOPE</u><sup>™</sup> BENCHMARKS RESEARCH PROGRAM

ompScope<sup>™</sup>, WCRI's multistate benchmarking program, measures and benchmarks the performance of a growing number of state workers' compensation systems. Each year, CompScope<sup>™</sup> studies quantify performance trends, benchmark improvement opportunities, and assess the effectiveness of policy changes. Using CompScope<sup>™</sup>, stakeholders and public officials can better manage change and avoid the historic pattern of crisis-reform-crisis that has frequently characterized workers' compensation in the past.

Using special statistical methods, the Institute has created performance measures and interstate comparisons that are comparable across otherwise diverse states. By identifying either incremental or sudden large changes in system performance—trends that may signal either improvement or possible deterioration in system performance goals for system performance can be set, improvements accomplished, and crises avoided.

The CompScope<sup>™</sup> program is funded by employers, state governments, rating organizations, and insurers seeking to help achieve a more cost-efficient, stable, and equitable workers' compensation system. To achieve the ambitious goals outlined above, continued, broad support and expanded funding are needed.

Among the diverse organizations that have provided funding for this important program are the following:

ACE USA	The Hartford Insurance Group	Massachusetts Workers' Compensation Rating and	State Comp
Advocate Health Care	Indiana Compensation	Inspection Board	
AIG	Rating Bureau	Minnesota Workers' Compensation	Targe
Archer Daniels Midland Company	International Truck and Engine Corporation	Insurers' Association, Inc.	Tenne Labor
Ascential Care Partners	Kentucky Association of Counties	Mitsubishi Motors North America, Inc.	Texas
AT&T	Kentucky Department of Workers' Claims	Molloy Consulting, Inc.	The Ti
Chevron Corporation		New Jersey Compensation	Unite
CNA Foundation	Kentucky Employers Mutual Insurance	Rating & Inspection Bureau	Unite
Compensation Advisory Organization of Michigan	Kentucky League of Cities	New York Compensation Insurance Rating Board	Virgin Comp
Costco Wholesale	Kentucky Personnel Cabinet	Nordstrom, Inc.	The V
Country Insurance &	Levi Strauss & Co.	North Carolina Rate Bureau	Wisco
Financial Services	Liberty Mutual Group	Pennsylvania Compensation	Rating
Florida Department of Insurance	Louisiana Department of Insurance	Rating Bureau	Zenitł
Ford Motor Company	Louisiana Department of	Pubic Policy Institute of California	Zurich
Gallagher Bassett Services, Inc.	Labor, Office of Workers' Compensation Administration	Safeway, Inc.	
Georgia State Board of Workers' Compensation	Marriott International, Inc.	Sedgwick Claims Management Services, Inc.	

 $\mathbf{T}$  he System Evaluation Research Program focuses on the major current public policy issues and long-term challenges confronting workers' compensation systems. The breadth and diversity of this research adds significantly to the base of knowledge about workers' compensation systems.

- > The objectives of this program are to
  - evaluate workers' compensation systems and identify best practices;
  - identify leverage points and quantify opportunities for system improvement;
  - measure outcomes experienced by injured workers;
  - provide comprehensive reference books to help understand key system features; and
  - measure the impact of reform.

# WCRI Annual Report

e of Maryland Workers' pensation Commission

et Corporation

nessee Department of or and Workforce Development

s Department of Insurance

Travelers Companies, Inc.

ed Airlines, Inc.

ed Parcel Service

nia Workers' pensation Commission

Walt Disney Company

consin Compensation ng Bureau

ith Insurance Company

ch North America

SYSTEM EVALUATION RESEARCH PROGRAM



- Ambulatory surgical centers
- Benefit adequacy
- Fee schedule benchmarks
- Workers' compensation laws
- $\succ$  Recently published studies include the following:
  - Hospital Outpatient Cost Index for Workers' Compensation, 4th Edition
  - Predictors of Worker Outcomes
  - WCRI Medical Price Index for Workers' Compensation, Seventh Edition (MPI-WC)
  - Workers' Compensation Medical Cost Containment: A National Inventory, 2015

The research in this program is funded by members and associate members of the Institute. Representatives of member organizations serve on the board of directors and on key governance committees. A list of current members and associate members appears on the inside back cover of this report.

Funding for this program comes from organizations committed to improving public policies on disability and medical management to help policymakers and others make more informed decisions about managing work injuries. Research priorities are established by a program advisory board that is composed of leaders in their fields.

Glen Pitruzzello, Cha Artemis Emslie, Vice **Shelley Boyce** Neal Fusco **Kimberly George Kim Haugaard** James Hudak Jeffrey Kuss Arthur J. Lynch Peter Madeja Joanne Moynihan Mary O'Donoghue **Kent Spafford** A. Scott Walton **Thomas Young** 

DISABILITY AND MEDICAL MANAGEMENT RESEARCH PROGRAM

∧ s the cost of medical care continues to rise rapidly, many are asking A how to identify high-cost medical care that may be delivering less than optimal benefits. The innovative Disability and Medical Management Research Program provides funds and establishes priorities for objective research that will improve public policy decisions about the management of work injuries.

The following are among the current topics for evaluation:

- $\succ$  Impact of a closed drug formulary
- > Impact of mental health interventions on costs and patient outcomes
- > Impact of physician dispensing
- > Treatment guidelines and utilization review

Examples of studies published in the program include the following:

- > Are Physician Dispensing Reforms Sustainable?
- > Will the Affordable Care Act Shift Claims to Workers' Compensation Payors?
- $\succ$  Why Surgery Rates Vary

*isit us at www.wcrinet.org to learn more about the work of the Institute* and to quickly access over 500 WCRI studies. WCRI's website is one of the most content-rich workers' compensation research websites. The following are among the things you will find on our site:

- > Abstracts and executive summaries of over 500 research studies
- Conference and webinar information
- Online ordering of books and recorded webinars
- $\succ$  Press releases
- > WCRI benchmarks of system performance and utilization

WCRI Annual Report

### PROGRAM ADVISORY BOARD / 2016

ir	The Hartford Financial Services Group, Inc.
Chair	myMatrixx
	MedRisk, Inc.
	Zurich Services Corporation
	Sedgwick Claims Management Services, Inc.
	Texas Mutual Insurance Company
	Paradigm Outcomes
	AIG
	Coventry Workers' Comp Services
	GENEX Services, Inc.
	The Travelers Companies, Inc.
	Liberty Mutual Group
	One Call Care Management
	Ameritox
	Helios

### VISIT OUR WEBSITE: www.wcrinet.org



*n* its 32nd year, the Institute published 41 major studies on a broad range of topics. This brings the Institute's total to over 500 books on a wide variety of important workers' compensation issues affecting a growing number of states.

### WILL THE AFFORDABLE CARE ACT SHIFT CLAIMS TO WORKERS' COMPENSATION PAYORS?

According to this study, hundreds of millions of dollars could shift from group health to workers' compensation as Accountable Care Organizations (ACOs) expand under the Affordable Care Act (ACA).

Although many have written about "cost shifting" to workers' compensation, a significant underappreciated effect of the ACA is "case-shifting" from group health to workers' compensation. The ACA seeks to greatly expand the use of ACOs—where providers are rewarded for meeting cost and quality goals. This will expand the use of "capitated" health insurance plans. Under these plans, providers are paid a fixed insurance premium per insured regardless of the amount of care provided to a given patient during the year. Under traditional fee-for-service insurance plans, providers are plans, plans,

The question the study addresses is to what extent do the financial incentives facing providers and their health care organizations that arise out of capitation (given that workers' compensation pays fee for service) influence whether or not a case is deemed to be work-related.

The study found that a back injury was as much as 30 percent more likely to be called "work-related" (and paid by workers' compensation) if the patient's group health insurance was capitated rather than fee for service. The study can be extrapolated to different states—for example, the study predicts about a \$100 million increase in workers' compensation costs in a state like Illinois if the share of capitated patients rises from 12 to 42 percent.

When a patient is covered by a capitated group health insurance plan, the doctor and the health care organization to which that doctor belongs have very different financial incentives about key decisions, compared with treating a patient covered by a fee-forservice plan. For example, when the capitated patient has back pain, the provider and his or her health organization generally do not get paid for additional care since they were paid a fixed amount for that patient at the outset of the policy year. By contrast, if a group health fee-for-service patient has back pain, the provider and health care organization are paid for each new service rendered.

Case-shifting was more likely in states where a higher percentage of workers were covered by capitated group health plans. In a state where at least 22 percent of workers had capitated group health plans, the odds of a soft tissue case being called work-related were 31 percent higher if the patient was covered by such a plan compared with similar workers covered by fee-for-service group health plans. By contrast, in states where capitation was less common, there was no case-shifting seen.

## Research Review

DISABILITY AND MEDICAL MANAGEMENT

This is more than just the result of having fewer capitated patients seeking care. It also appears that when capitation was infrequent, the providers were less aware of the financial incentives.

This study relies on workers' compensation and group health medical data coming from a large commercial database. This database is based on a large sample of health insurers and self-insured employers. It includes individuals employed by mostly large employers and insured or administered by a variety of health plans. The database is unique in that, for a given employee, it contains information on both the group health services used and the workers' compensation services used.

Will the Affordable Care Act Shift Claims to Workers' Compensation Payors? Richard A. Victor, Olesya Fomenko, and Jonathan Gruber. September 2015. WC-15-26.

### **ARE PHYSICIAN DISPENSING REFORMS SUSTAINABLE?**

After 18 states enacted reforms to limit the prices paid to doctors for prescriptions they write and dispense, this WCRI study finds that physician-dispensers in Illinois and California discovered a new way to continue charging and to get paid two to three times the price of a drug when compared with pharmacies.

According to the authors, when prices are reduced by regulation, the regulated parties in this case physician-dispensers—sometimes find new ways to retain the higher revenues they had prior to the reforms. Although this study provides data from two large states, it raises questions for all states where physician-dispensing prices are regulated.

The study identifies the mechanism that allows doctors in Illinois and California to dispense drugs from their offices at much higher prices when compared with pharmacies. It involves the creation of an opportunity to, once again, assign a much higher average wholesale price (AWP) to a physician-dispensed drug—a practice targeted by the earlier reforms enacted in many states using language limiting reimbursement to a price based on the AWP assigned by the manufacturer of the original drug.

The study answers the question of how a new and higher AWP can be set for physiciandispensed drugs by asking the reader to consider a drug where the most common strengths are 5 milligrams and 10 milligrams. If a new strength, say 7.5 milligrams, comes to market, the manufacturer of that new strength can assign a new AWP that is much higher than the 5-milligram and 10-milligram AWPs set by their original manufacturers.

In Illinois, the average prices paid for cyclobenzaprine HCL of 5 and 10 milligrams ranged from \$0.99 to \$1.74 per pill. Prior to 2012, 7.5-milligram cyclobenzaprine HCL was rarely seen in the market. The 7.5-milligram product was introduced in 2012 and almost all prescriptions for the product were dispensed by physicians at an average price of \$3.79 per pill in post-reform Illinois. The market share of physician-dispensed cyclobenzaprine HCL of 7.5 milligrams increased from o percent in the third quarter of 2012 to 21 percent in the first quarter of 2013.

Similarly in California, prior to 2012, 7.5-milligram cyclobenzaprine HCL was rarely seen in the market. The average prices paid for 5- and 10-milligram cyclobenzaprine HCL, the two common strengths, ranged from \$0.35 to \$0.70 per pill. Since the introduction of the 7.5-milligram product in 2012, the market share of physician-dispensed cyclobenzaprine HCL of 7.5 milligrams increased from o percent in the fourth quarter of 2011 to 47 percent in the first quarter of 2013, when it became the strength of the drug most commonly dispensed by physicians. The average price paid for the new strength was \$2.90 to \$3.45 per pill.

From these patterns, the study's authors infer that the shift in strength was unlikely to be driven by new evidence about superior medical practices. Rather, it is likely that financial incentives drove some physicians to choose the strength for their patients. The study cites several reports that provide evidence of behavioral changes in response to price regulations.

The data used for this report came from payors that represented 46 and 51 percent of all medical claims, respectively, for California and Illinois. The detailed prescription transaction data were organized by calendar quarter so that for each quarter, all prescriptions filled for claims with dates of injury within 24 months of the observation quarter were included. On average for each of the quarters reported, WCRI included 219,572 prescriptions paid for 60,448 claims in California. The same figures were 43,034 prescriptions paid for 12,714 claims in Illinois. The detailed prescription data cover calendar quarters from the first quarter of 2010 though the first quarter of 2013.

Are Physician Dispensing Reforms Sustainable? Dongchun Wang, Vennela Thumula, and Te-Chun Liu. January 2015. WC-15-01.

### HOSPITAL OUTPATIENT COST INDEX FOR WORKERS' COMPENSATION, 4TH EDITION

Rising hospital costs have been a concern and focus of recent public policy debates in many states. To assist policymakers and business decision makers in managing this growth, WCRI has created this unique study, which is updated regularly, to compare hospital outpatient costs across states, identify key cost drivers, and measure the impact of reforms.

The hospital outpatient cost indices compare payments per surgical episode for common outpatient surgeries under workers' compensation from state to state in each study year and the trends within each state from 2005 to 2013. To capture only payments for services provided and billed by hospitals, the indices exclude professional services billed by nonhospital medical providers (such as physicians, physical therapists, and chiropractors) and transactions for durable medical equipment and pharmaceuticals billed by providers other than hospitals. This study also excludes payments made to ambulatory surgery centers.

### The following are some sample findings from the study:

> States with percent-of-charge-based fee regulations or no fee schedules had the highest payments to hospitals for outpatient surgical episodes for knee and

shoulder surgeries. In particular, states with no hospital outpatient fee schedules had 60 to 141 percent higher hospital outpatient payments per episode compared with the typical state with fixed-amount fee schedules.

- > There was tremendous variation in the rates of change in hospital payments per surgical episode across states. From 2006 to 2013, South Carolina saw a reduction of 31 percent in this metric while in Alabama the average hospital payment per surgical episode grew by 81 percent. States with percent-of-charge-based fee regulations or no fee schedules had more rapid growth in hospital outpatient payments per episode than states with other regulatory approaches. In particular, most percent-of-charge-based fee regulation states that did not have updates to the reimbursable percentage of charges experienced growth in hospital payments per surgical episode that was 157–286 percent faster than the median of states with fixed-amount fee schedules.
- > States with cost-to-charge ratio fee regulations had similar levels and growth rates in hospital outpatient payments per episode to states with fixed-amount fee schedules. Hospital outpatient payments per episode in states with cost-to-charge ratio regulations grew 10–25 percent from 2006 to 2013.

This study covers 33 large states that represent 86 percent of the workers' compensation benefits paid in the United States. They are geographically diverse and represent a wide range of industries and a variety of regulation choices for hospital payments under workers' compensation. These states are Alabama, Arizona, California, Colorado, Connecticut, Florida, Georgia, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Nebraska, Nevada, New Jersey, New York, North Carolina, Oklahoma, Oregon, Pennsylvania, South Carolina, Tennessee, Texas, Virginia, West Virginia, and Wisconsin.

Hospital Outpatient Cost Index for Workers' Compensation, 4th Edition. Olesya Fomenko and Rui Yang. February 2015. WC-15-23.

### WORKERS' COMPENSATION MEDICAL COST CONTAINMENT: A NATIONAL INVENTORY, 2015

This study provides policymakers and system stakeholders with an inventory of the cost containment initiatives employed by 51 jurisdictions. This study updates the tables from the previous edition with the statutory provisions, administrative rules, and administrative procedures as of January 1, 2015. However, it does not provide written explanations of the initiatives in use by each state.

### The report contains key features of each state's cost containment initiatives, including

- $\succ$  medical fee schedules;
- $\succ$  regulation of hospital charges;
- $\succ$  choice of provider;
- $\succ$  treatment guidelines;

- $\succ$  utilization review/management;
- $\succ$  managed care;
- $\succ$  pharmaceutical regulations;
- > urgent care and ambulatory surgical center fee schedules; and
- $\succ$  medical dispute regulations.

These initiatives aim to curb the cost of a particular service or to reduce the amount of services provided. Cost containment regulatory initiatives entail a balancing act of limiting the cost of services and inappropriate or unnecessary treatment without negatively affecting the quality of treatment or access to care for injured workers.

Workers' Compensation Medical Cost Containment: A National Inventory, 2015. Ramona P. Tanabe. April 2015. WC-15-27.

### **IMPACT OF A TEXAS-LIKE FORMULARY IN OTHER STATES**

As policymakers and other system stakeholders seek to contain medical costs, part of the focus is on prescription drug costs. This study examines how a Texas-like closed drug formulary might affect the prevalence and costs of drugs in 23 other state workers' compensation systems that do not currently have a drug formulary. With an evidence-based closed formulary, states have the potential to contain pharmaceutical costs while encouraging evidence-based care.

According to the study, physicians in the other 23 states may have similar or different responses to the closed formulary from Texas physicians. A Texas-like closed formulary limits access to some drugs by requiring prior-authorization for drugs not included in the formulary. The study provides multiple scenarios to the readers to illustrate the impact of the formulary based on how physicians respond.

One of the scenarios finds if physicians in the 23 other study states were to change their prescribing patterns like physicians in Texas, they could reduce their total prescription costs by an estimated 14–29 percent. Non-formulary drug prevalence is estimated to drop from 10–17 percent to 3–5 percent of all prescriptions. Larger effects can be expected in Connecticut, Maryland, Massachusetts, New Jersey, New York, Pennsylvania, and Virginia.

The study found non-formulary drugs were as prevalent in the 23 study states as they were in pre-reform Texas. They accounted for 10–17 percent of all prescriptions and 18–37 percent of total prescription costs. The comparable numbers for pre-reform Texas were 11 percent and 22 percent, respectively. Non-formulary drugs were most common in New York (17 percent) and Louisiana (16 percent). The most commonly prescribed non-formulary drugs in the majority of study states were Lidoderm<sup>®</sup>, OxyContin<sup>®</sup>, Soma<sup>®</sup>, Valium<sup>®</sup>, and Voltaren<sup>®</sup>.

The data for the study are based on utilization and costs of non-formulary drugs among newly injured workers in Texas and 23 other states that represent over 70

DISABILITY AND MEDICAL MANAGEMENT, CONT. percent of workers' compensation benefits in the United States. The study looks at prescription utilization for injuries arising from October 1, 2010, to September 30, 2011, with prescriptions filled through March 31, 2012, and paid for by a workers' compensation payor. The data reflect an average 12 months of experience for claims included in the analysis.

The 23 states included in this study are Arkansas, California, Connecticut, Florida, Georgia, Illinois, Indiana, Iowa, Kansas, Louisiana, Maryland, Massachusetts, Michigan, Minnesota, Missouri, New Jersey, New York, North Carolina, Pennsylvania, South Carolina, Tennessee, Virginia, and Wisconsin.

*Impact of a Texas-Like Formulary in Other States*. Vennela Thumula and Te-Chun Liu. June 2014. WC-14-31.

### INTERSTATE VARIATIONS IN USE OF NARCOTICS, 2ND EDITION

The dangers of narcotic misuse resulting in death and addiction constitute a top priority public health problem in the United States and are shared by the workers' compensation community. This study gives public officials, employers, worker advocates, and other stakeholders the ability to see how the use and prescribing of narcotics in their state compares with others.

The study examines interstate variations and trends in the use of narcotics and prescribing patterns of pain medications in the workers' compensation system across 25 states. The study found that the amount of narcotics used by an average injured worker in Louisiana and New York was striking.



According to the study, the average injured worker in New York and Louisiana received over 3,600 milligrams of morphine equivalent narcotics per claim (double the number in the typical state). To illustrate, this amount is equivalent to an injured worker taking a 5-milligram Vicodin® tablet every four hours for four months continuously, or a 120-milligram morphine equivalent daily dose for an entire month.

Besides New York and

Louisiana, the amount of narcotics per claim was also higher in Pennsylvania and Oklahoma (32–48 percent higher than the typical state). Michigan had the highest

amount of narcotics per claim among the Midwest states included in this study. It is worth noting that Michigan was among the states with lower use of narcotics per claim compared with the typical state in 2008/2010.

The study found that narcotics are frequently used in the workers' compensation system. In 2010/2012, about 65 to 85 percent of injured workers with pain medications received narcotics for pain relief in most states. A slightly higher proportion of injured workers with pain medications in Arkansas (88 percent) and Louisiana (87 percent) received narcotics. The study also reported a small reduction in the percentage of claims with pain medications that received narcotics in several study states, between 2008/2010 and 2010/2012.

The study is based on approximately 264,000 workers' compensation claims and 1.5 million prescriptions associated with those claims from 25 states. The claims represent injuries arising from October 1, 2007, to September 30, 2010, with prescriptions filled up to March 31, 2012. The underlying data reflect an average of 24 months of experience.

The following states are included in this study: Arkansas, California, Connecticut, Florida, Georgia, Illinois, Indiana, Iowa, Kansas, Louisiana, Maryland, Massachusetts, Michigan, Minnesota, Missouri, New Jersey, New York, North Carolina, Oklahoma, Pennsylvania, South Carolina, Tennessee, Texas, Virginia, and Wisconsin.

*Interstate Variations in Use of Narcotics, 2nd Edition.* Vennela Thumula, Dongchun Wang, and Te-Chun Liu. May 2014. WC-14-18.

### LONGER-TERM USE OF OPIOIDS, 2ND EDITION

The issue this study addresses is very serious, which is how often doctors followed recommended treatment guidelines for monitoring injured workers who are longer-term users of opioids. It helps public officials, employers, and other stakeholders understand as well as balance providing appropriate care to injured workers while reducing unnecessary risks to patients and costs to employers.

According to the study, there has been little reduction in the prevalence of longer-term opioid use in most states studied. In most states, the percentage of claims with opioids that received opioids on a longer-term basis changed little, within 2 percentage points, between 2008/2010 and 2010/2012.

The study examined the prevalence of longer-term use of opioids in 25 states and how often the services recommended by medical treatment guidelines were used for monitoring and managing chronic opioid therapy. The recommended services include drug testing and psychological evaluations and treatment, which may help prevent opioid misuse resulting in addiction and even overdose deaths.

The study found a sizable increase across states in the use of drug testing over the study period. However, in some states, the percentage of longer-term opioid users who received these services was still low. The study also reported low use of psychological evaluations, which remained low over the study period.

## Research Review

DISABILITY AND MEDICAL MANAGEMENT, CONT.

The study found longer-term opioid use was most prevalent in Louisiana, where 1 in 6 injured workers with opioids were identified as having longer-term use of opioids in 2010/2012. The numbers were 1 in 8 or 9 in New York, Pennsylvania, and pre-reform Texas. By contrast, fewer than 1 in 20 injured workers with opioids received opioids on a longerterm basis in several Midwest states (Indiana, Missouri, and Wisconsin) and New Jersey.

The study is based on approximately 264,000 workers' compensation claims and 1.5 million prescriptions associated with those claims from 25 states. The claims represent injuries arising from October 1, 2007, to September 30, 2010, with prescriptions filled up to March 31, 2012. The underlying data reflect an average of 24 months of experience.

The following states are included in this study: Arkansas, California, Connecticut, Florida, Georgia, Illinois, Indiana, Iowa, Kansas, Louisiana, Maryland, Massachusetts, Michigan, Minnesota, Missouri, New Jersey, New York, North Carolina, Oklahoma, Pennsylvania, South Carolina, Tennessee, Texas, Virginia, and Wisconsin.

Longer-Term Use of Opioids, 2nd Edition. Dongchun Wang. May 2014. WC-14-19.

### COMPSCOPE<sup>™</sup> **BENCHMARKS**



### COMPSCOPE™ MEDICAL BENCHMARKS, 16TH EDITION

The factors behind trends of medical payments per claim in 17 state workers' compensation systems and the impact of legislative and regulatory changes on those costs are examined in this edition of CompScope<sup>™</sup> Medical Benchmarks.

The studies examine trends in payments, prices, and utilization of medical care for injured workers. They provide a baseline of current costs and trends for policymakers and other system stakeholders, reporting how medical payments per claim and cost components vary over time and from state to state.

The reports are useful to identify where medical cost and care patterns may be changing. They also help identify where medical payments per claim or utilization may differ from other states. In addition, where there may be concerns about restrictions on access to care, the studies can help identify potential underutilization of medical services.

### The following are among some of the findings:

- > California: Medical payments per claim decreased 5 percent in 2013, likely reflecting the early impact of the 2012 workers' compensation reform legislation, including reduced reimbursement rates for ambulatory surgery centers and elimination of separate reimbursement for implantables.
- > Illinois: Medical payments per claim rose 4.1 percent in 2013, following decreases between 2010 and 2012 due to a 30 percent reduction in the fee schedule rates. Part of the 2013 growth in medical payments per claim was related to annual

updates in the fee schedule rates, which are tied to the changes in the Consumer Price Index.

- > Indiana: Medical payments per claim were higher than in most states studied and rising faster, mainly driven by higher and growing prices.
- > Louisiana: Growth in medical payments per workers' compensation claim slowed from 2011 to 2013, in part due to a decrease in utilization of hospital and nonhospital care.
- > New Jersey: Medical payments per workers' compensation claim were stable from 2010 to 2013, in contrast to rapid growth in the prior two years, due to a number of factors including increased use of networks, stable utilization of services by nonhospital providers, and decreased percentage of inpatient episodes.
- > Texas: Medical payments per workers' compensation claim rose 7 percent in 2013, largely driven by an increase in payments for hospital inpatient episodes. The trend in Texas was about twice the average annual increase from 2008 to 2012.
- > Virginia: Driven primarily by prices, medical payments per claim were among the highest of the study states.

The studies cover the period from 2008 through 2013, with claims experience through March 2014. The 17 states in the study—Arkansas, California, Florida, Georgia, Illinois, Indiana, Iowa, Louisiana, Massachusetts, Michigan, Minnesota, New Jersey, North Carolina, Pennsylvania, Texas, Virginia, and Wisconsin—represent more than 60 percent of the nation's workers' compensation benefit payments. There are individual reports for every state except Arkansas and Iowa.

*CompScope™ Medical Benchmarks, 16th Edition.* Sharon E. Belton, Roman Dolinschi, Evelina Radeva, Karen Rothkin, Bogdan Savych, Carol A. Telles, and Rui Yang. October 2015. WC-15-31 to 45.

### COMPSCOPE<sup>™</sup> BENCHMARKS, 15TH EDITION

The factors behind changing costs in state workers' compensation systems, including the impact of legislative and regulatory reform on those costs, are examined in this study. This comprehensive reference report measures the performance of 17 different state workers' compensation systems, how they compare with each other, and how they have changed over time.

The report is designed to help policymakers and others benchmark state system performance or a company's workers' compensation program. The benchmarks provide an excellent baseline for tracking the effectiveness of policy changes and identifying important trends. They examine how income benefits, overall medical payments, costs, use of benefits, duration of disability, litigiousness, benefit delivery expenses, timeliness of payment, and other metrics of system performance have changed from 2008 to 2013, for claims with experience through March 2014.

## COMPSCOPE<sup>™</sup>

### The following is a sample of the key findings across the 17 states:

- > Provisions from California Senate Bill 863 may have helped decrease medical payments per claim by 5 percent—an early impact of the reforms that was seen in 2013.
- > Louisiana total costs per claim changed little from 2011 to 2013, following three years of 5 percent annual growth.
- $\succ$  The cost of Texas claims grew more slowly than the typical state.
- $\succ$  The average cost per claim was relatively stable in Michigan between 2009 and 2012, keeping total costs per claim among the lowest of the 17 states studied.
- > Both medical and indemnity costs per claim in North Carolina changed little since 2009, and both had grown 8 percent annually between 2003 and 2009.

The 17 states in the study—Arkansas, California, Florida, Georgia, Illinois, Indiana, Iowa, Louisiana, Massachusetts, Michigan, Minnesota, New Jersey, North Carolina, Pennsylvania, Texas, Virginia, and Wisconsin—represent nearly 60 percent of the nation's workers' compensation benefit payments. Separate state reports are available for 15 of the 17 study states.

CompScope<sup>™</sup> Benchmarks, 15th Edition. Sharon E. Belton, Roman Dolinschi, Evelina Radeva, Karen Rothkin, Bogdan Savych, Carol A. Telles, and Rui Yang. April 2015. WC-15-07 to 21.

### OTHER STUDIES BY WCRI



### WCRI MEDICAL PRICE INDEX FOR WORKERS' COMPENSATION, SEVENTH EDITION (MPI-WC)

Increasing costs for medical care for treating injured workers have been a focus of public policymakers and system stakeholders. This 31-state study will help them understand how prices paid for medical professional services for injured workers in their states compare with other states and know if prices in their state are rising rapidly or relatively slowly. They can also learn if the reason for price growth in their state is part of a national phenomenon or whether the causes are unique to their state and, hence, subject to local management or reform.

### The following are among the study's findings:

- > Prices paid for a similar set of professional services varied significantly across states, ranging from 33 percent below the 31-state median in Florida to 124 percent above the 31-state median in Wisconsin in 2013.
- > Medical professional prices in states with fee schedules were relatively lower—the prices paid in states with no fee schedules were 27 to 139 percent higher than the median of the study states with fee schedules.
- > Growth in prices paid for professional services exhibited tremendous variation across states, spanning between negative 20 percent in Illinois and positive 28 percent in Wisconsin over the time period from 2008 to 2014.

> States with fee schedules experienced slower growth in prices paid for professional services compared with most states with no fee schedules-the median growth rate among the fee schedule states was 6 percent from 2008 to 2014 compared with the median growth rate of 17 percent among the non-fee schedule states.

The MPI-WC tracked medical prices paid for professional services billed by physicians, physical therapists, and chiropractors. The medical services fall into eight major groups: evaluation and management, physical medicine, surgery, major radiology, minor radiology, neurological and neuromuscular testing, pain management injections, and emergency care.

The 31 states included in the MPI-WC, which represent nearly 85 percent of the workers' compensation benefits paid in the United States, are Arizona, Arkansas, California, Colorado, Connecticut, Florida, Georgia, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Nebraska, New Jersey, New York, North Carolina, Oklahoma, Oregon, Pennsylvania, South Carolina, Tennessee, Texas, Virginia, and Wisconsin.



WCRI Medical Price Index for Workers' Compensation, Seventh Edition (MPI-WC). Rui Yang and Olesya Fomenko. November 2015. WC-15-47.

### COMPARING WORKERS' COMPENSATION AND GROUP HEALTH HOSPITAL **OUTPATIENT PAYMENTS**

This study compares hospital payments for the same surgical procedure when paid for by group health versus workers' compensation in 16 states. According to this study, in a majority of the study states, workers' compensation incurred substantially higher hospital payments than group health for the same surgical procedure. Some speculate that there is an additional burden associated with taking care of a worker injured on their job, such as uncertainty or delay in payments. If so, the question for policymakers and other stakeholders is, what additional reimbursement is necessary to get quality care for injured workers?

Rising hospital payments have been a focus of recent policy debates in many states.

### **OTHER STUDIES**

Policymakers and stakeholders have considered various means of cost containment, with special attention devoted to implementation of and updates to workers' compensation fee schedules. To set fee schedule levels, policymakers often seek a reference point or benchmark to which they can tie the state's reimbursement rates.

Increasingly, states rely on Medicare rates as a benchmark, while other states use some form of usual and customary charges in the area. This study uses group health reimbursement levels as an alternative benchmark. Group health has some important advantages as a benchmark for workers' compensation fee schedules, including being the largest provider of health insurance with the most widely accepted reimbursement rates by medical providers.

### Among the study's findings are the following:

- > In two-thirds of the study states, workers' compensation hospital outpatient payments related to common surgeries were higher than those paid by group health, and, in half of the study states, the workers' compensation and group health difference for shoulder surgeries exceeded \$2,000 (or at least 43 percent).
- > The workers' compensation payment premiums over group health were highest in the study states with percent-of-charge-based fee regulation or no fee schedule.
- > States with high workers' compensation hospital outpatient payments were rarely states with above-typical group health hospital payments.
- > The hospital outpatient payments per surgical episode demonstrated substantially greater interstate variation in workers' compensation than in group health.



This study compares hospital outpatient payments incurred by workers' compensation and group health for treatment of similar common surgical cases in 16 large states, which represented 60 percent of the workers' compensation benefits paid in the United States, and covers hospital outpatient services delivered in 2008. Given that most study states, except Illinois, North Carolina, and Texas, did not have substantial changes in their fee schedule regulations after 2008, the interstate comparisons should provide a reasonable approximation for current state rankings in workers'

compensation/group health payment differences.

Comparing Workers' Compensation and Group Health Hospital Outpatient Payments. Olesya Fomenko. June 2013. WC-13-18.

### PREDICTORS OF WORKER OUTCOMES

Four state-specific studies identified new predictors of worker outcomes that can help public officials, payors, and health care providers improve the treatment and communication an injured worker receives after an injury–leading to better outcomes. The states examined were Arkansas, Connecticut, Iowa, and Tennessee. The studies represent Phase 2 of a multi-phase study to examine worker outcomes.

All four studies found trust in the workplace to be one of the more important predictors that has not been examined before. To describe the level of trust or mistrust in the work relationship, the study asked workers if they were concerned about being fired as a result of the injury. Between 39 and 45 percent of injured workers reported that they were somewhat or very concerned that they would be fired or laid off after they were injured. The rest reported no such concern.

The studies also identified workers with specific comorbid medical conditions (existing simultaneously with but usually independent of the work injury) by asking whether the worker had received treatment for hypertension, diabetes, lung conditions, and heart problems in the year prior to the injury. A sample of the findings for this predictor is as follows:

### Arkansas:

- > Hypertension was the most common comorbid medical condition reported (28 percent).
- > Diabetes and lung conditions were reported by 8 and 6 percent of workers, respectively.
- > Sixty-three percent of injured Arkansas workers reported having at least one comorbid medical condition or having smoked for 10 years or more; 22 percent of workers reported having more than one significant comorbid medical condition.

### **Connecticut:**

- > Hypertension was the most common comorbid medical condition reported (27 percent).
- > Diabetes and lung conditions were reported by 11 and 10 percent of workers, respectively.
- > Fifty-eight percent of injured Connecticut workers reported having at least one comorbid medical condition or having smoked for 10 years or more; 20 percent of workers reported having more than one significant comorbid medical condition.

### lowa:

> Hypertension was the most common comorbid medical condition reported (24 percent).

## **OTHER STUDIES**

- > Diabetes and lung conditions were reported by 9 and 7 percent of workers, respectively.
- > Sixty-six percent of injured Iowa workers reported having at least one comorbid medical condition or having smoked for 10 years or more; 22 percent of workers reported having more than one significant comorbid medical condition.

### Tennessee:

- $\succ$  Hypertension was the most common comorbid medical condition reported (36 percent).
- > Diabetes and lung conditions were reported by 13 and 8 percent of workers, respectively.
- > Sixty-six percent of injured Tennessee workers reported having at least one comorbid medical condition or having smoked for 10 years or more; 29 percent of workers reported having more than one significant comorbid medical condition.

The studies are based on telephone interviews with 4,915 injured workers across the following 12 states: Arkansas, Connecticut, Indiana, Iowa, Massachusetts, Michigan, Minnesota, North Carolina, Pennsylvania, Tennessee, Virginia, and Wisconsin. The surveys were conducted in 2013 and 2014 for injuries in 2010 and 2011. All workers who were interviewed had received workers' compensation benefits and experienced more than seven days of lost time from work. On average, the injuries for the workers surveyed had occurred between 2.8 and 3.3 years prior to the interviews.

Predictors of Worker Outcomes. Bogdan Savych, Vennela Thumula, and Richard A. Victor. January 2015. WC-15-02 to 05.

### AVOIDING LITIGATION: WHAT CAN EMPLOYERS, INSURERS, AND STATE WORKERS' **COMPENSATION AGENCIES DO?**

One goal of a workers' compensation program is to deliver necessary medical care and income benefits to workers injured on the job without the uncertainty, delay, and expense of litigation. In many states, however, disputes and attorney involvement in the benefit delivery process are common.

Policy debates about attorney involvement have common themes from state to state. Workers' attorneys argue that they help workers receive benefits that these workers would not be able to obtain themselves, help workers navigate a sometimes complex system, and protect workers from retaliation by the employer or insurer. Advocates for employers and insurers contend that attorneys are involved more often than necessary, that workers can often receive the benefits they are entitled to without representation, and that attorneys may even reduce the total amount of benefits that workers take home.

Some of the existing attorney involvement is inevitably unnecessary, such as cases where the worker would have received the statutory entitlement without resorting to hiring an attorney. If unnecessary attorney involvement can be avoided, this would be a win-win-win scenario. Workers would receive benefits without the expense of paying an attorney and the delays of dispute resolution; employers and insurers would save the costs of defending the case; and increasingly resource-short state workers' compensation agencies would have smaller caseloads to manage and would have to provide fewer dispute-resolution services.

This study identifies and quantifies some of the more important factors that lead injured workers to seek representation by an attorney, providing some key elements for employers, claims organizations, and state agencies to take away.

### Major findings:

The study found that workers were more likely to seek attorneys when they felt threatened. Sources of perceived threats were found in two areas:

- > The employment relationship. Workers believed they would be fired as a result of the injury, and/or workers perceived that the supervisor did not think the injury was legitimate.
- > The claims process. The worker perceived that his or her claim had been denied, although it was later paid. This perception may have stemmed from a formal denial, delays in payment, or communications that the worker deemed to be a denial.

### Potential implications for employers, claims organizations, and state agencies:

It is possible that attorney involvement can be decreased if employers, claims organizations, and state agencies reduce or eliminate *unnecessary actions* that workers interpret as threats. The suggested actions below, while logical implications of this study, are not themselves the findings of the empirical research:

- > Train supervisors. Help supervisors create timely communications that focus on trust, job security, and entitlement to medical care and income benefits.
- > Create state agency education materials and help lines. Provide written materials and an accessible help line that answers workers' questions to help ease feelings of vulnerability and uncertainty.
- > Communicate in a clear and timely fashion about the status of the claim. Prevent misunderstandings through unambiguous, timely communication from the claims manager so the worker does not mistakenly conclude that the claim has been denied.
- > Eliminate system features that encourage denials or payment delays. Eliminating system features that discourage timely payments may help prevent a worker's misconstruing a delay as a denial.

Avoiding Litigation: What Can Employers, Insurers, and State Workers' Compensation Agencies Do? Richard A. Victor and Bogdan Savych. July 2010. WC-10-18.

### OTHER STUDIES

### MONITORING TRENDS IN THE NEW YORK WORKERS' COMPENSATION SYSTEM

This is the seventh annual report to regularly track key metrics of the performance of the state's workers' compensation system following the implementation of the 2007 reforms. The study helps policymakers and system stakeholders focus on objectives that are being met, objectives that are not being met, and any unintended consequences that have emerged.

The key reform measures increased maximum statutory benefits, limited the number of weeks of permanent partial disability (PPD), created medical treatment guidelines, adopted a fee schedule for pharmaceuticals, established networks for diagnostic services and thresholds for preauthorization, and enacted administrative changes to increase speed of case resolution.

The report noted that the changes have various effective dates and have been instituted over time. As a result, it will be several more years before the full impact of the reforms will be realized.

### The following are among the study's key findings:

- > In 2011 claims evaluated in 2012 (reflecting 16 months of experience under the treatment guidelines), the number of visits per indemnity claim decreased notably for chiropractors and physical/occupational therapists compared with the prior year. There was a smaller decrease for physicians.
- > From 2007 to 2010, for PPD/lump-sum cases at an average 24 months of experience, there was a nearly 15 percentage point decrease in cases that received PPD payments only (with no lump-sum payment) and a nearly 12 percentage point increase in cases with a lump-sum settlement only (with no PPD payments).
- > From 2007 to 2011 (for claims at an average 12 months of experience), there was a 4 percent increase in the number of visits for major radiology services by nonhospital providers. The percentage of indemnity claims with major radiology services also grew over that same period, from 45 percent to 52 percent.
- > There was little change in the average defense attorney payment per claim from 2009 to 2010, but an increase of nearly 9 percent in 2011.

The study uses open and closed indemnity and medical-only claims with dates of injury from October 2005 through September 2011, with experience as of March 2012. The data are representative of the New York system.

Monitoring Trends in the New York Workers' Compensation System. Carol A. Telles and Ramona P. Tanabe. September 2014. WC-14-33.

### A NEW BENCHMARK FOR WORKERS' COMPENSATION FEE SCHEDULES: PRICES PAID BY **COMMERCIAL INSURERS?**

In a typical year, 5 to 10 states have significant public policy debates about enacting new fee schedules or making major revisions to existing ones to regulate prices paid in workers' compensation. Often, the central question debated is what price level is too low—that is, at which point good health care providers will not provide timely treatment to injured workers. In making such decisions, providers consider what they are paid by other payors. Prices paid by Medicare and commercial insurers are plausible benchmarks for policymakers to use since they are usually the largest payors in a given state.

This study provides the basic comparative data that policymakers can use to ground the debate. For example, if the maximum prices proposed were double those paid by commercial insurers, policymakers might be skeptical of testimony by providers that they would stop treating injured workers if the maximum fees were lowered by a modest amount. Similarly, if the maximum workers' compensation fees were lower than what commercial



insurers are paying, policymakers might be skeptical of testimony of payor representatives that the prices are too high and can be lowered without adversely affecting access to care for injured workers.

### The following is a sample of major findings:

- > Workers' compensation prices are very much shaped by the state fee schedules or their absence. In states with higher (lower) fee schedules, workers' compensation prices paid were typically higher (lower). In states without fee schedules, prices paid were generally higher. States without fee schedules in this study include Indiana, Iowa, New Jersey, Virginia, and Wisconsin.
- For common surgeries performed on injured workers, the prices paid under workers' compensation were higher than the prices paid by group health insurers for the same surgery in almost all study states. In some states, the workers' compensation prices paid were 2-4 times higher than the prices paid by group health insurers in the same state.

## Research Review

Workers' Compensation and Group Health Median Prices Paid, Common Knee Arthroscopy, 2009

OTHER STUDIES

> For office visits, the prices paid under workers' compensation were typically within 30 percent of the prices paid by group health insurers. In nearly half of the states studied, the prices paid under workers' compensation were within 15 percent of the group health price.

This study focuses on the median nonhospital price paid for five common surgeries and four common established patient office visits in 22 large states for services delivered in 2009. These are the prices actually paid for professional services billed under a specific Current Procedural Terminology (CPT) code. This study also discusses how to generalize these results to later years.

The 22 states included in this study are Arizona, Arkansas, California, Connecticut, Florida, Georgia, Illinois, Indiana, Iowa, Louisiana, Maryland, Massachusetts, Michigan, New Jersey, New York, North Carolina, Oklahoma, Pennsylvania, Tennessee, Texas, Virginia, and Wisconsin.

A New Benchmark for Workers' Compensation Fee Schedules: Prices Paid by Commercial Insurers? Olesya Fomenko and Richard A. Victor. June 2013. WC-13-17.

### WORKERS' COMPENSATION LAWS AS OF JANUARY 1, 2014

An essential tool for researching and understanding the distinctions among workers' compensation laws in all U.S. states and certain Canadian provinces is done as a joint venture of the International Association of Industrial Accident Boards and Commissions (IAIABC) and the Workers Compensation Research Institute (WCRI).

This report is a key resource for policymakers and other stakeholders to identify the similarities and distinctions between workers' compensation regulations and benefit levels in multiple jurisdictions in effect as of January 1, 2014.

### The publication is best used to understand macro-level differences and general tendencies across jurisdictions:

- > How many states/provinces allow individual or group self insurance?
- > How do the maximum and minimum payments for temporary and permanent total disability benefits vary?
- > How many states cover mental stress claims, hearing loss, and cumulative trauma?
- > How many jurisdictions allow the worker to choose the treating physician and how many allow the employer to do so?

In Canada and the United States, workers' compensation is entirely under the control of sub-national legislative bodies and administrative agencies. As a result, it is easy to misunderstand subtle differences between jurisdictional laws and regulations. This survey gives you the ability to understand those differences.

Workers' Compensation Laws as of January 1, 2014. April 2014. WC-14-28.

## **Publication List**

### **COMPSCOPE™ BENCHMARKS**

*CompScope*<sup>™</sup> *Benchmarks*: *Multistate Comparisons, 15th Edition* (April 2015) WC-15-07 to WC-15-21

CompScope<sup>™</sup> Benchmarks: Multistate *Comparisons, 14th Edition* (October 2013) WC-13-25 to WC-13-38, WC-13-41

*CompScope*<sup>™</sup> *Benchmarks*: *Multistate Comparisons, 13th Edition* (October 2012) WC-12-25 to WC-12-38

*CompScope™ Benchmarks: Multistate Comparisons, 12th Edition* (December 2011) WC-11-41 to WC-11-54

*CompScope™ Benchmarks: Multistate Comparisons, 11th Edition* (January 2011) WC-11-02 to WC-11-16

*CompScope*<sup>™</sup> *Benchmarks: Multistate* Comparisons, 10th Edition (December 2009) WC-09-32 to WC-09-44

*CompScope*<sup>™</sup> *Benchmarks: Multistate Comparisons, 9th Edition* (January 2009) WC-09-01 to WC-09-12

*CompScope*<sup>™</sup> *Benchmarks: Multistate Comparisons, 8th Edition* (January 2008) WC-08-01 to WC-08-11

*CompScope*<sup>™</sup> *Benchmarks: Multistate* Comparisons, 7th Edition (February/March 2007) WC-07-15 to WC-07-25

*CompScope*<sup>™</sup> *Benchmarks: Multistate* Comparisons, 6th Edition (February 2006) WC-06-02 to WC-06-11

*CompScope*<sup>™</sup> *Benchmarks*: *Multistate* Comparisons, 5th Edition (February 2005) WC-05-01 to WC-05-09

*CompScope*<sup>™</sup> *Benchmarks: Multistate Comparisons, 4th Edition* (February 2004) WC-04-1

WC-03-2

CS-02-2

Benchmarking the Performance of Workers' Compensation Systems: CompScope™ *Multistate Comparisons* (July 2000) CS-00-1

Benchmarking the Performance of Workers' Compensation Systems: *CompScope™Measures for Minnesota* (June 2000) CS-00-2

Benchmarking the Performance of Workers' Compensation Systems: *CompScope*<sup>™</sup> *Measures for Massachusetts* (December 1999) CS-99-3

Benchmarking the Performance of Workers' Compensation Systems: *CompScope*<sup>™</sup> *Measures for California* (December 1999) CS-99-2

Benchmarking the Performance of Workers' Compensation Systems: CompScope<sup>™</sup> Measures for Pennsylvania (November 1999) CS-99-1

### **DISABILITY AND MEDICAL MANAGEMENT**

WCRI Medical Price Index for Workers' *Compensation, Seventh Edition (MPI-WC)* (November 2015) WC-15-47

Evaluation of the 2015 Professional Fee Schedule Updates for Florida—A WCRI FLASHREPORT (November 2015) FR-15-01

## Research Review

*CompScope*<sup>™</sup> *Benchmarks*: *Multistate Comparisons, 1994–2000* (April 2003)

CompScope<sup>™</sup> Benchmarks: Massachusetts, 1994–1999 (January 2002) CS-01-3

CompScope<sup>™</sup> Benchmarks: Florida, 1994– 1999 (September 2001) CS-01-1

*CompScope*<sup>™</sup> *Benchmarks*: *Multistate Comparisons, 1994–1999* (August 2001)

*CompScope™ Medical Benchmarks*, 16th Edition (October 2015) WC-15-31 to WC-15-45

Will the Affordable Care Act Shift Claims to Workers' Compensation Payors? (September 2015) WC-15-26

Why Surgery Rates Vary (June 2015) WC-15-24

Workers' Compensation Medical Cost Containment: A National Inventory, 2015 (April 2015) WC-15-27

Hospital Outpatient Cost Index for Workers' *Compensation*, *4th Edition* (February 2015) WC-15-23

Are Physician Dispensing Reforms Sustainable? (January 2015) WC-15-01

The Impact of Physician Dispensing on Opioid Use (December 2014) WC-14-56

Hospital Outpatient Cost Index for Workers' *Compensation, 3rd Edition* (December 2014) WC-14-66

Early Impact of Tennessee Reforms on *Physician Dispensing* (December 2014) WC-14-55

Early Impact of South Carolina Reforms *on Physician Dispensing* (November 2014) WC-14-54

Early Impact of Connecticut Reforms on *Physician Dispensing* (November 2014) WC-14-53

Estimating the Effect of California's Fee Schedule Changes: Lessons from WCRI Studies (October 2014) WC-14-19

*CompScope™ Medical Benchmarks*, 15th Edition (October 2014) WC-14-35 to WC-14-48

Impact of Physician Dispensing Reform in Georgia, 2nd Edition (September 2014) WC-14-50

*Physician Dispensing in Pennsylvania, 2nd* Edition (September 2014) WC-14-51

WCRI Medical Price Index for Workers' *Compensation, Sixth Edition (MPI-WC)* (July 2014) WC-14-34

Impact of a Texas-Like Formulary in Other States (June 2014) WC-14-31

*Comparing Payments to Ambulatory Surgery Centers and Hospital Outpatient* Departments (June 2014) WC-14-29

Payments to Ambulatory Surgery Centers (June 2014) WC-14-30

Interstate Variations in Use of Narcotics, 2nd Edition (May 2014) WC-14-18

Longer-Term Use of Opioids, 2nd Edition (May 2014) WC-14-19

*CompScope™ Medical Benchmarks*, 14th Edition (February 2014) WC-14-02 to WC-14-15

The Effect of Reducing the Illinois Fee Schedule (January 2014) WC-14-01

The Prevalence and Costs of Physician-Dispensed Drugs (September 2013) WC-13-39

Physician Dispensing in the Pennsylvania Workers' Compensation System (September 2013) WC-13-23

Physician Dispensing in the Maryland Workers' Compensation System (September 2013) WC-13-22

Impact of Reform on Physician Dispensing and Prescription Prices in Georgia (July 2013) WC-13-21

Impact of Banning Physician Dispensing of Opioids in Florida (July 2013) WC-13-20

A New Benchmark for Workers' *Compensation Fee Schedules: Prices Paid by* Commercial Insurers? (June 2013) WC-13-17

WCRI Medical Price Index for Workers' Compensation, Fifth Edition (MPI-WC) (June 2013) WC-13-19

Comparing Workers' Compensation and Group Health Hospital Outpatient Payments (June 2013) WC-13-18

CompScope<sup>™</sup> Medical Benchmarks, 13th Edition (February 2013) WC-13-03 to WC-13-16

Workers' Compensation Medical Cost Containment: A National Inventory, 2013 (February 2013) WC-13-02

Hospital Outpatient Cost Index for Workers' *Compensation, 2nd Edition* (January 2013) WC-13-01

Longer-Term Use of Opioids (October 2012) WC-12-39

Impact of Treatment Guidelines in Texas (September 2012) WC-12-23

Physician Dispensing in Workers' Compensation (July 2012) WC-12-24

Designing Workers' Compensation Medical Fee Schedules (June 2012) WC-12-19

*CompScope™ Medical Benchmarks, 12th* Edition (May 2012) WC-12-02 to WC-12-16

Why Surgeon Owners of Ambulatory Surgical Centers Do More Surgery Than Non-Owners (May 2012) WC-12-17

WCRI Medical Price Index for Workers' *Compensation, 4th Edition (MPI-WC)* (March 2012) WC-12-20

Hospital Outpatient Cost Index for Workers' Compensation (January 2012) WC-12-01

WCRI Medical Price Index for Workers' *Compensation, Third Edition (MPI-WC)* (August 2011) WC-11-37

Interstate Variations in Use of Narcotics (July 2011) WC-11-01

Prescription Benchmarks, 2nd Edition: Trends and Interstate Comparisons (July 2011) WC-11-31

Impact of Preauthorization on Medical Care in Texas (June 2011) WC-11-34

CompScope<sup>™</sup> Medical Benchmarks, 11th Edition (May 2011) WC-11-17 to WC-11-30

*CompScope™ Medical Benchmarks, 10th* Edition (June 2010) WC-10-19 to WC-10-13

Benchmarks for Designing Workers' Compensation Medical Fee Schedules: 2009 (June 2010) WC-10-32

*Prescription Benchmarks* (March 2010) WC-10-05 to WC-10-16

National Inventory of Workers' Compensation *Fee Schedules for Hospitals and Ambulatory Surgical Centers* (February 2010) WC-10-02

CompScope<sup>™</sup> Medical Benchmarks, 9th *Edition* (June 2009) WC-09-17 to WC-09-28

Workers' Compensation Medical Cost *Containment: A National Inventory (*August 2009) WC-09-15

The Anatomy of Workers' Compensation Medical Costs and Utilization, 7th Edition (January 2009) WC-08-16 to WC-08-26

Interstate Variations in Medical Practice Patterns for Low Back Conditions (June 2008) WC-08-28

## Research Review

Prescription Benchmarks for Florida: 2nd Edition (July 2011) WC-11-32

Prescription Benchmarks for Washington (July 2011) WC-11-33

Workers' Compensation Medical Cost Containment: A National Inventory, 2011 (April 2011) WC-11-35

Prescription Benchmarks for Minnesota (October 2010) WC-10-41

*Fee Schedules for Hospitals and Ambulatory Surgical Centers: A Guide for Policymakers* (February 2010) WC-10-01

WCRI Medical Price Index for Workers' Compensation: The MPI-WC, Second Edition (June 2008) WC-08-29

Connecticut Fee Schedule Rates Compared to State Medicare Rates: Common Medical Services Delivered to Injured Workers by *Nonhospital Providers* (December 2007) FR-07-04

What Are the Most Important Medical Conditions in Workers' Compensation?— A WCRI FLASHREPORT (August 2007) FR-07-03

What Are the Most Important Medical Conditions in New York Workers' Compensation?—A WCRI FLASHREPORT (July 2007) FR-07-02

Analysis of Illustrative Medical Fee Schedules in Wisconsin—A WCRI FLASHREPORT (March 2007) FR-07-01

The Anatomy of Workers' Compensation Medical Costs and Utilization: Trends and Interstate Comparisons, 6th Edition (February 2007)

WCRI Medical Price Index for Workers' Compensation: The MPI-WC, First Edition (January 2007) WC-07-33

Benchmarks for Designing Workers' Compensation Medical Fee Schedules: 2006 (November 2006) WC-06-14

Analysis of the Workers' Compensation Medical Fee Schedules in Illinois (July 2006) WC-06-28

The Cost and Use of Pharmaceuticals in Workers' Compensation: A Guide for Policymakers (June 2006) WC-06-13

State Policies Affecting the Cost and Use of Pharmaceuticals in Workers' Compensation: A National Inventory (June 2006) WC-06-30

How Does the Massachusetts Medical Fee Schedule Compare to Prices Actually Paid in Workers' Compensation? (April 2006) WC-06-27

The Anatomy of Workers' Compensation *Medical Costs and Utilization: Trends* and Interstate Comparisons, 5th Edition (November 2005) WC-05-19 to WC-05-27

The Impact of Provider Choice on Workers' Compensation Costs and Outcomes (November 2005) WC-05-14

Adverse Surprises in Workers' *Compensation: Cases with Significant* Unanticipated Medical Care and Costs (June 2005) WC-05-16

Analysis of the Proposed Workers' Compensation Fee Schedule in Tennessee—A WCRI FLASHREPORT (January 2005) FR-05-01

Analysis of Services Delivered at *Chiropractic Visits in Texas Compared to Other States— A WCRI FLASHREPORT* (July 2004) FR-04-07

The Anatomy of Workers' Compensation Medical Costs and Utilization: Trends and Interstate Comparisons, 4th Edition (June 2004) WC-04-04

Supplement to Benchmarking the 2004 Pennsylvania Workers' Compensation Medical Fee Schedule—A WCRI FLASHREPORT (May 2004) FR-04-06

Is Chiropractic Care a Cost Driver in *Texas?*—A WCRI FLASHREPORT (April 2004) FR-04-05

*Potential Impact of a Limit on Chiropractic* Visits in Texas—A WCRI FLASHREPORT (April 2004) FR-04-04

Are Higher Chiropractic Visits per Claim Driven by "Outlier" Providers?—A WCRI FLASHREPORT (April 2004) FR-04-03

Benchmarking the 2004 Pennsylvania Workers' Compensation Medical *Fee Schedule—A WCRI FLASHREPORT* (March 2004) FR-04-02

Evidence of Effectiveness of Policy Levers to Contain Medical Costs in Workers' *Compensation* (November 2003) WC-03-8

WCRI Medical Price Index for Workers' Compensation (October 2003) WC-03-5

The Anatomy of Workers' Compensation Medical Costs and Utilization: Trends and Interstate Comparisons, 1996-2000 (July 2003) WC-03-4

Where the Medical Dollar Goes? How California Compares to Other States— A WCRI FLASHREPORT (March 2003) FR-03-3

Patterns and Costs of Physical Medicine: Comparison of Chiropractic and Physician-Directed Care (December 2002) WC-02-7

Provider Choice Laws, Network Involvement, and Medical Costs (December 2002) WC-02-5

Analysis of Payments to Hospitals and Surgery Centers in Florida Workers' Compensation—A WCRI FLASHREPORT (December 2002) FR-02-3

Changes in Michigan's Workers' Compensation Medical Fee Schedules: 1996-2002—A WCRI FLASHREPORT (December 2002) FR-02-2

Benchmarks for Designing Workers' Compensation Medical Fee Schedules: 2001 *2002* (August 2002) WC-02-2

Targeting More Costly Care: Area Variation in Texas Medical Costs and Utilization (May 2002) WC-02-3

The Anatomy of Workers' Compensation *Medical Costs and Utilization: Trends* and Interstate Comparisons, 1996-1999 (February 2002) WC-02-1

2002) FR-01-6

2001) WC-01-4

Benchmarking California's Workers' Compensation Medical Fee Schedules— A WCRI FLASHREPORT (August 2001) FR-01-4

Benchmarking Florida's Workers' Compensation Medical Fee Schedules— A WCRI FLASHREPORT (August 2001) FR-01-3

The Impact of Initial Treatment by Network Providers on Workers' Compensation Medical Costs and Disability Payments (August 2001) DM-01-1

The Anatomy of Workers' Compensation Medical Costs and Utilization: A Reference Book (December 2000) WC-00-8

The Impact of Workers' Compensation *Networks on Medical Costs and Disability* Payments (November 1999) WC-99-5

Managed Care and Medical Cost Containment in Workers' Compensation: A *National Inventory, 1998-1999* (December 1998) WC-98-7

Fee Schedule Benchmark Analysis: Ohio (December 1996) FS-96-1

The RBRVS as a Model for Workers' Compensation Medical Fee Schedules: Pros and Cons (July 1996) WC-96-5

## Research Review

Benchmarking Pennsylvania's Workers' Compensation Medical Fee Schedule— A WCRI FLASHREPORT (Updated February

Managed Care and Medical Cost Containment in Workers' Compensation: A National Inventory, 2001-2002 (December

Comparing the Pennsylvania Workers' *Compensation Fee Schedule with Medicare* Rates: Evidence from 160 Important *Medical Procedures—A WCRI FLASHREPORT* (November 2001) FR-01-7

Benchmarks for Designing Workers' Compensation Medical Fee Schedules: 1995-1996 (May 1996) WC-96-2

Fee Schedule Benchmark Analysis: North Carolina (December 1995) FS-95-2

*Fee Schedule Benchmark Analysis:* Colorado (August 1995) FS-95-1

Benchmarks for Designing Workers' Compensation Medical Fee Schedules: 1994-1995 (December 1994) WC-94-7

*Review, Regulate, or Reform: What Works* to Control Workers' Compensation Medical Costs (September 1994) WC-94-5

*Fee Schedule Benchmark Analysis:* Michigan (September 1994) FS-94-1

Medicolegal Fees in California: An Assessment (March 1994) WC-94-1

Benchmarks for Designing Workers' **Compensation Medical Fee Schedules** (December 1993) WC-93-4

How Choice of Provider and Recessions Affect Medical Costs in Workers' *Compensation* (June 1990) WC-90-2

Medical Costs in Workers' Compensation: Trends & Interstate Comparisons (December 1989) WC-89-5-1

### WORKER OUTCOMES

Predictors of Worker Outcomes in Arkansas (February 2015) WC-15-02

Predictors of Worker Outcomes in *Connecticut* (February 2015) WC-15-03

Predictors of Worker Outcomes in Iowa (February 2015) WC-15-04

Predictors of Worker Outcomes in Tennessee (February 2015) WC-15-05

Predictors of Worker Outcomes in Indiana (June 2014) WC-14-20

Predictors of Worker Outcomes in Massachusetts (June 2014) WC-14-21

Predictors of Worker Outcomes in Michigan (June 2014) WC-14-22

Predictors of Worker Outcomes in Minnesota (June 2014) WC-14-23

Predictors of Worker Outcomes in North Carolina (June 2014) WC-14-24

Predictors of Worker Outcomes in Pennsylvania (June 2014) WC-14-25

Predictors of Worker Outcomes in Virginia (June 2014) WC-14-26

Predictors of Worker Outcomes in Wisconsin (June 2014) WC-14-27

How Have Worker Outcomes and Medical Costs Changed in Wisconsin? (May 2010) WC-10-04

*Comparing Outcomes for Injured Workers* in Michigan (June 2009) WC-09-31

*Comparing Outcomes for Injured Workers* in Maryland (June 2008) WC-08-15

*Comparing Outcomes for Injured Workers* in Nine Large States (May 2007) WC-07-14

*Comparing Outcomes for Injured Workers* in Seven Large States (January 2006) WC-06-01

Worker Outcomes in Texas by Type of *Injury—A WCRI FLASHREPORT* (February 2005) FR-05-02

Outcomes for Injured Workers in California, Massachusetts, Pennsylvania, and Texas (December 2003) WC-03-7

Outcomes for Injured Workers in Texas (July 2003) WC-03-2

The Workers' Story: Results of a Survey of Workers Injured in Wisconsin (December 1998) WC-98-5

Workers' Compensation Medical Care: *Effective Measurement of Outcomes* (October 1996) WC-96-7

### ADMINISTRATION/LITIGATION

Workers' Compensation Laws as of January 1, 2014 (April 2014) WC-14-28

Workers' Compensation Laws as of January 2012 (March 2012) WC-12-18

Workers' Compensation Laws, 3rd Edition (October 2010) WC-10-52

Avoiding Litigation: What Can Employers, Insurers, and State Workers' Compensation Agencies Do? (July 2010) WC-10-18

Workers' Compensation Laws, 2nd *Edition* (June 2009) WC-09-30

Did Florida Reforms Reduce Attorney Involvement? (June 2009) WC-09-16

Lessons from the Oregon Workers' *Compensation System* (March 2008) WC-08-13

Workers' Compensation in Montana: Administrative Inventory (March 2007) WC-07-12

Workers' Compensation in Nevada: Administrative Inventory (December 2006) WC-06-15

Workers' Compensation in Hawaii: Administrative Inventory (April 2006) WC-06-12

Workers' Compensation in Arkansas: Administrative Inventory (August 2005) WC-05-18

WC-05-13

2004) WC-04-05

Workers' Compensation in Iowa: Administrative Inventory (April 2004) WC-04-02

Measuring the Complexity of the Workers' Compensation Dispute Resolution Processes in Tennessee—A WCRI FLASHREPORT (April 2004) FR-04-02

WC-00-2

Area Variation in Pennsylvania Benefit Payments and Claim Expenses (May 2000) WC-00-1

Performance Indicators for Permanent Disability: Low-Back Injuries in Texas (August 1988) WC-88-4

Performance Indicators for Permanent Disability: Low-Back Injuries in New Jersey (December 1987) WC-87-5

*Performance Indicators for Permanent* Disability: Low-Back Injuries in Wisconsin (December 1987) WC-87-4

### **COST DRIVERS**

Predictors of Multiple Workers' Compensation Claims in Wisconsin (November 2000) WC-00-7

Cost Drivers and System Performance in a Court-Based System: Tennessee (June 1996) WC-96-4

The 1991 Reforms in Massachusetts: An Assessment of Impact (May 1996) WC-96-3

## Research Review

Workers' Compensation in Mississippi: Administrative Inventory (May 2005)

Workers' Compensation in Arizona: Administrative Inventory (September

Area Variation in California Benefit Payments and Claim Expenses (May 2000)

*The Impact of Oregon's Cost Containment* Reforms (February 1996) WC-96-1

*Cost Drivers and System Change in* Georgia, 1984-1994 (November 1995) WC-95-3

Cost Drivers in Missouri (December 1994) WC-94-6

Cost Drivers in New Jersey (September 1994) WC-94-4

Cost Drivers in Six States (December 1992) WC-92-9

### **VOCATIONAL REHABILITATION**

Improving Vocational Rehabilitation *Outcomes: Opportunities for Early* Intervention (August 1988) WC-88-3

Appropriateness and Effectiveness of Vocational Rehabilitation in Florida: Costs, Referrals, Services, and Outcomes (February 1988) WC-88-2

Vocational Rehabilitation in Florida Workers' Compensation: Rehabilitants, Services, Costs, and Outcomes (February 1988) WC-88-1

Vocational Rehabilitation Outcomes: *Evidence from New York* (December 1986) WC-86-1

Vocational Rehabilitation in Workers' Compensation: Issues and Evidence (June 1985) S-85-1

### **OCCUPATIONAL DISEASE**

Liability for Employee Grievances: Mental Stress and Wrongful Termination (October 1988) WC-88-6

Asbestos Claims: The Decision to Use Workers' Compensation and Tort (September 1988) WC-88-5

### OTHER

Workers' Compensation: Where Have We Come From? Where Are We Going? (November 2010) WC-10-33

What are the Prevalence and Size of Lump-Sum Payments in Workers' Compensation: *Estimates Relevant for Medicare Set-Asides* (October 2006) FR-06-01

The Future of Workers' Compensation: *Opportunities and Challenges* (April 2004) WC-04-03

Managing Catastrophic Events in Workers' Compensation: Lessons from 9/11 (March 2003) WC-03-3

Workers' Compensation in California: Lessons from Recent WCRI Studies— A WCRI FLASHREPORT (March 2003) FR-03-2

Workers' Compensation in Florida: Lessons from Recent WCRI Studies— A WCRI FLASHREPORT (February 2003) FR-03-1

Workers' Compensation and the Changing Age of the Workforce (December 2000) WC-00-6

Medical Privacy Legislation: Implications for Workers' Compensation (November 2000) WC-00-4

The Implications of Changing Employment Relations for Workers' Compensation (December 1999) WC-99-6

Workers' Compensation Success Stories (July 1993) WC-93-3

The Americans with Disabilities Act: Implications for Workers' Compensation (July 1992) WC-92-3

Twenty-Four-Hour Coverage (June 1991) WC-91-2A

# Members

EMPLOYERS AGL Resources, Inc. Ahold USA American Electric Power Company **Bimbo Bakeries USA** Chevron Corporation Costco Wholesale E. & J. Gallo Winery Grimmway Enterprises, Inc. Kentucky Personnel Cabinet Macy's Marriott International Nordstrom, Inc. Publix Super Markets, Inc. **Raytheon Company** Safeway, Inc. The Sherwin-Williams Company Southern California Edison Stanford University **United Airlines** United Parcel Service Wal-Mart Stores, Inc. The Walt Disney Company Whole Foods Market

### SERVICE PROVIDERS Alaris Group Aon Risk Services, Inc. **Ascential Care Partners** Bunch CareSolutions, A Xerox Company CCMSI **CID Management** CONCENTRA, Inc. **CorVel Corporation** Coventry Workers' Comp Services Crawford & Company **Examworks Clinical Solutions** Express Scripts First MCO, Inc. Gallagher Bassett Services, Inc. **GENEX** Services, Inc. Healthcare Solutions Healthesystems Injured Workers Pharmacy, LLC (IWP) Integro Insurance Brokers McConnaughhay, Duffy, Coonron, Pope & Weaver, PA Medata, Inc. MedRisk, Inc Mitchell International MTI America myMatrixx OccuSystem Services, Inc. **Rising Medical Solutions** Sedgwick Claims Management Services, Inc. Trean Corporation UniMed Direct U.S. HealthWorks York Risk Services Group

INSURERS Accident Fund Holding, Inc. ACE-USA AIG BITCO CA State Compensation Insurance Fund ASSOCIATE MEMBERS – PUBLIC Eastern Alliance Insurance Group **Employers Mutual Casualty Company** The Hartford Insurance Group Kentucky Employers' Mutual Insurance Liberty Mutual Group Mitsui Sumitomo Insurance Co. of America New Jersey Manufacturers Insurance Company The PMA Group Property Casualty Insurers Association of America Safety National Selective Insurance Company of America, Inc. Sentry Insurance a Mutual Company Society Insurance The Travelers Companies, Inc. Zenith Insurance Company Zurich North America

REINSURER JLT Towers Re

RATING BUREAUS

**Compensation Advisory Organization** of Michigan Indiana Compensation Rating Bureau Massachusetts Workers' Compensation Kansas Department of Rating & Inspection Bureau Minnesota Workers' Compensation Insurers Association New Jersey Compensation Rating & Inspection Bureau New York Compensation Insurance Rating Board North Carolina Rate Bureau Pennsylvania Compensation **Rating Bureau** Wisconsin Compensation **Rating Bureau** 

CONTRIBUTOR American Insurance Association

ASSOCIATE MEMBERS – LABOR ORGANIZATION AMA Victoria, Australian Salaried Medical Officers Federation Arkansas AFL-CIO Canadian Union of Public Employees CISCO (Construction Industry Service Corporation) IN, IL, IA Foundation for Fair Contracting Massachusetts AFL-CIO New Hampshire AFL-CIO

40

Oklahoma AFL-CIO **Professional Fire Fighters of** New Hampshire Wisconsin State AFL-CIO

SECTOR UNITED STATES Alaska Division of Workers Compensation Arizona Industrial Commission Arkansas Workers **Compensation Commission** California Commission on Health and Safety and Workers' Compensation California Division of Workers' Compensation Colorado Department of Labor and Employment – Workers' Compensation Division Connecticut Workers' **Compensation Commission** Delaware Office of Workers' Compensation District of Columbia Office of Workers' Compensation Florida Department of Financial Services, Division of Workers' Compensation Georgia State Board of Workers' Compensation Idaho Industrial Commission Illinois Workers' **Compensation Commission** lowa Division of Workers' Compensation Human Resources/Division of Workers' Compensation Kentucky Department of Workers' Claims Louisiana Office of Risk Management Louisiana Office of Workers' Compensation Administration Maine Workers' Compensation Board Maryland Workers' **Compensation Commission** Massachusetts Center for Health Information and Analysis Massachusetts Department of Industrial Accidents Massachusetts State Rating Bureau, Division of Insurance Massachusetts Human Resources Division, Workers' **Compensation Section** Michigan Workers' **Compensation Agency** Minnesota Department of Labor and Industry Mississippi Workers' **Compensation Commission** Montana Department of Labor & Industry National Institute for Occupational Safety and Health (NIOSH)

Nebraska Workers' **Compensation** Court Nevada Department of Business and Industry, Division of Industrial Relations, Workers' **Compensation Section** New Hampshire Department of Labor New Jersey Compensation Rating & Inspection Bureau New Mexico Workers' **Compensation Administration** New York State Workers' Compensation Board Oklahoma Workers' **Compensation Court** Oregon Department of Consumer & **Business Services** Pennsylvania Department of Labor and Industry Rhode Island Department of Labor and Training South Carolina Workers **Compensation Commission** South Dakota Department of Labor and Regulation Tennessee Department of Labor Texas State Office of Risk Management Texas Department of Insurance, **Division of Workers' Compensation** United States Department of Labor Utah Department of Industrial Accidents Vermont Department of Labor Virginia Workers' **Compensation Commission** West Virginia Offices of the Insurance Commissioner Wisconsin Department of Workforce Development

ASSOCIATE MEMBERS – PUBLIC SECTOR INTERNATIONAL British Columbia Workers' Compensation Board (WorkSafe BC) Manitoba Workers **Compensation Board** New Brunswick Workplace Health, Safety and **Compensation Commission** New Zealand Accident **Compensation Corporation** Ontario Workplace Safety and Insurance Board ReturnToWorkSA Safe Work Australia Victorian WorkCover Authority WorkCover Authority of **New South Wales**