Healthcare Risk Insights: Benchmark Study of
Hospital Workers’ Compensation Claims
Zurich is pleased to present the 2015 Healthcare Risk Insights Benchmark Study of Hospital Workers’ Compensation Claims. The study focuses on today’s hospital workers’ overall profile, the impact of claim trends, the types of accidents causing claims and the associated “agents of loss.” In addition, we examine the resulting injuries and affected parts of the body that are typical for hospital workers’ compensation claims.

This analysis helps transform large amounts of claims data into valuable risk insights about workers’ compensation trends in frequency, severity (or cost of claims) and loss cost. We hope your hospital or health system will find the Healthcare Risk Insights helpful for comparing your own results with current and historical industry trends.

In this report, you will discover key insights into hospital workers’ compensation that could assist your hospital in managing risks, controlling costs and creating a greater awareness around the factors that impact workers’ compensation claims, including:

- **The older the employee, the more expensive the claim.** Is your hospital ergonomically set up for an older workforce? Do your shifts and their duration take an aging workforce into account? Could a wellness/fitness program prove beneficial? Are telehealth technologies an option?

- **Strain injuries have the most frequency, while slips, trips and falls have more severity.** Is your staff properly trained on safe patient handling? Are falls taking place in the same areas/conditions?

- **Patients are involved with a significant percentage of workers’ compensation claims.** Does your hospital have a solid needlestick prevention program in place? Are there protocols to reduce the anxiety of a patient to prevent potential aggression?

Today, major transformation within the Healthcare industry centers on strategic imperatives such as financial stability, patient safety and satisfaction, issues surrounding mergers and acquisitions, healthcare reform and regulations. Still, the largest expense for any healthcare organization continues to be its workforce. As hospitals take on more risk, they require effective mitigation tactics for workforce issues including back strains and sprains, slips, trips and falls, aging workforce, workplace violence and time away from work. The result will be a fully engaged and optimized workforce that serves as a critical catalyst in improving patient satisfaction and increasing revenue and quality of care.

Thank you for your trust and confidence in Zurich.

Cecil Maxwell
National Healthcare Casualty Practice Leader

**Facts about the data**

Zurich’s database reflects experience for about 3,000 hospital workers’ compensation claims annually, with roughly $20 million in incurred losses per year. Zurich defines a “hospital” to include all facilities run by a hospital system, including specialty hospitals, psychiatric hospitals and ambulatory care. It excludes physician or dental practices, nursing homes, rehabilitation centers, and labs or testing facilities (e.g., blood banks). To improve consistency, claims handled by third-party administrators are also excluded from the analysis.

All data is evaluated as of December 31 of each accident year (i.e., at 12 months), and no development factors have been applied. Thus, these results should be considered early indicators in hospital workers’ compensation claims, but not suggestive of ultimate costs, particularly given the long-tailed nature of workers’ compensation.

Additionally, these claims reflect the unique characteristics of Zurich’s hospital book, and while believed to be illustrative of patterns and trends in hospital workers’ compensation claims, should not be construed as statistically representative of the full hospital industry.

For a broader industry view, data is also included from the Bureau of Labor Statistics’ Injury & Illness Incidents.
According to the American Hospital Association, there are over 5,700 registered hospitals in the United States. Data from the Bureau of Labor Statistics indicates hospitals are a growing industry and source of employment in the U.S.

The number of hospital establishments (in NAICS 622000) has increased by 1.4% year over year since 2003. Employment within hospitals is also growing at a similar rate to over 4.7 million people. The full-time employee (FTE) rate within hospitals has remained relatively the same with 560 FTEs per hospital establishment. And the average annual wages are around $56,000, up 3.7% per year since 2003.

With employment comes the potential for workplace injuries and illnesses, which are tracked by OSHA through its Survey of Occupational Injuries and Illness (SOII) program and reported by BLS. With almost 5 million employees in the hospital sector, BLS reported that hospital workers had almost 250,000 injuries and illnesses in 2013.

Based on this data, a hospital could be considered one of the most hazardous places to work, with a rate of injury and illness nearly double the rate for private industry as a whole. This rate is also higher than the rates reported in construction and manufacturing — two industries that are traditionally thought to be relatively hazardous. However, the illness and injury rate has been declining for hospitals as it has for most industries.

As shown in Exhibit 1, the frequency of injuries and illnesses per full-time employees has been declining consistently over the last 10 years by about 3% annually (somewhat faster in the last five years at 3.4%). The mix has remained generally stable with about 22% of all injuries and illnesses as more serious cases with days away from work – with median days lost at seven days for the past three years.

While the SOII program measures injuries that are definitionally and methodically different from workers’ compensation programs, there is a lot of overlap between the two. On the next pages, we look at how some of the industry trends above are reflected in Zurich’s claims data.

Hospital workers’ compensation claims analysis: Profile of the hospital employee

To develop a profile of the hospital employee, Zurich looked at the distribution of hospital employees by age from the Bureau of Labor Statistics (BLS) and our own data on the age of hospital employees who submitted workers’ compensation claims. Exhibit 2 shows the averages from the years 2011-2014.

Exhibit 2: Hospital Employees & Claims by Age

Zurich’s claims profile closely matches the BLS age distribution. This suggests claims closely mirror employment patterns (for age), although we can’t tell what selection bias is in our data vs. the BLS data. We do know that roughly 20-25% of both hospital employees and workers’ compensation claims are in each of the 25-34, 35-44 and 45-54 age groups, with almost 25% in the 55 and over age category.
When comparing the number of claims by age group with the cost per claim in dollars by age group, we can see that employees’ claim costs rise with age – on average, the older the employee, the more expensive the claim. This steady progression is shown in Exhibit 3, and it is similar to results for other industries. The differences are dramatic, with the average cost of a claim for an injured worker aged 65 or older about $10,000, almost five times that of an injured 22-year-old worker. With the aging of the population and workforce, this can prove a significant driver for both current and future workers’ compensation costs.

Exhibit 3: Average Cost per Hospital Workers’ Compensation Claim by Age of Injured Employee

“Claims costs rise with employees’ age.”
As the hospital workforce ages, the physical, physiological and psychosocial changes that occur over time may lower the capacity for continual activity. Nurses and doctors working 14-hour shifts could bring on fatigue more easily in aging employees than in their younger counterparts, affecting productivity and potential injuries.

This may become even more prevalent as workers put off retirement and choose to continue working longer. According to the 2014 Gallup Poll, the average age of retirement in the United States has risen from 59 years of age in 2004 to 62 years in 2014, the highest Gallup has found since first tracking retirement age in 1991.

The retirement age may be increasing due to baby boomers becoming more reluctant to retire, government increasing the age for full Social Security benefits from 65 to 66, lost savings during the recent economic downturn or other economic pressures.

Solutions to help leverage age diversity

Hospitals can implement strategies designed to help reduce the negative consequences of aging and accentuate the positive ones — such as experience, commitment to quality, low turnover, attendance and punctuality. Conducted with competent legal and human resources counsel, this effort will help ensure a safer, more productive workplace, not only for aging individuals but for all employees. Strategies may include:

- Wellness programs to help promote a healthier workforce and work environment
- Health risk assessments, health screenings and educational programs on topics such as slips, trips and falls
- Stretching and flexing programs prior to performing job functions
- An ergonomically balanced workplace to help reduce stress, errors and injuries
- Return-to-work programs to help maintain productivity and avoid lost time at work
- Employing the knowledge of retiring workers in the training and mentoring of new workers
- Phased or flexible retirement planning

While mitigation techniques are effective in keeping all employees safe, consistent use is critical to success.”

Timing of hospital workplace injuries

For more serious injuries that result in days away from work (DAFW), the Bureau of Labor Statistics data from 2011 through 2013 offers some interesting additional insights into the timing of hospital workplace injuries, i.e., the time of day, the day of week and the hours into the shift that the injury occurred. All of these underscore that hospital workers operate in an atypical “24/7” environment and beyond the normal 8-hour shift.

**Time Of Day – Injury Reported for DAFW**
More than half, or 52%, of all injuries and illnesses reported by employees during 2011-2013 were between the hours of 8:00 a.m. and 4:00 p.m.

**Day of Week – Injury Reported for DAFW**
The percentage of reported injuries or illnesses on Monday through Friday range from 14% to 16%, but drop off substantially over Saturday and Sunday, with 10% and 9% respectively. This pattern is roughly corroborated in Zurich’s claims data, with about 16% of workers’ compensation claims occurring on the weekend, and 16%-17% of claims per day from Monday through Thursday. Claims on Friday are slightly less in both sources of data.

**Hours Into the Shift – Injury Reported for DAFW**
Nearly a quarter, or 24%, of overall injuries and illnesses reported for DAFW during 2011-2013 were reported between the second and fourth hours of the employee’s shift, followed by 19% occurring between the fourth to sixth hours of the shift. Almost 15% of injuries occur after eight hours, either beyond a normal shift or late into an extended shift.
Drugs prescribed to address pain related to worker injuries can include narcotics, chemical substances often associated with physical dependence and psychological addiction. Prescription narcotics, in some instances, may escalate toward negative medical consequences such as addiction, illicit drug use or non-medical use. Drug over-utilization coupled with workers’ compensation claims may lead to increased medical costs, higher risk of surgery, prolonged opioid use, increased days away from work and accidental overdose.

Because of these potential risks, the standards of care for physicians who prescribe narcotics in the management of chronic pain include both drug screening and drug agreements.

**Drugs screening**

Employment-related drug testing falls into four categories: post offer, random, post accident and “for cause.” It is the random drug screening that is the standard of care when narcotics have been prescribed. The unannounced nature of the random test prevents the person who has been prescribed narcotics from substituting or adulterating their urine sample. The purpose of a random urine drug test in this circumstance includes:

- Verification that the person is taking the medications as prescribed — not diverting or selling the drugs
- Ruling out the presence of illicit, illegal drugs

Drug testing only identifies the presence of substances, however drug screen panels (other than those mandated by state or federal agencies) can be customized for drugs assayed.

**Drug agreement**

Signed by the patient prescribed narcotics and the prescribing physician, a drug agreement outlines the responsibilities of the patient being prescribed drugs. These responsibilities include submission to random unannounced drug testing to verify compliance with prescribed pain regimens and verification that there are no illicit or illegal drugs being taken. Consequences for failure to comply with the drug agreement can include discontinuance of the pain medication and termination from the physician’s practice.

In conclusion, a strong opioid pharmacy program, focusing on patient safety and addressing escalating claim costs, is an important part of patient care. It assists claims professionals in identifying red flags related to opioid use and provides the proper medical oversight when red flags are present. These programs usually include nurse case managers and peer review involvement to help identify prescribing patterns or behaviors that lead to negative medical consequences. After a review of medical outcomes for claims referred into Zurich’s program, we have seen a reduction in cases involving multiple prescribers, multiple pharmacies and injured workers receiving a higher dose of narcotics than necessary.

**About the author:**

Dr. Joe Semkiu joined Zurich in December 2007. His areas of responsibility include our Physician Peer Review program and Pain Management narcotics program. He also administers clinical educational programs and serves as an insurance medical resource. He completed his residency at Northwestern University’s program at St. Joseph Hospital in Chicago. He received his Medical Degree from the Chicago College of Osteopathic Medicine.
Hospital workers' compensation claims analysis by cause of loss and resulting injuries

The majority of workers' compensation claims in hospitals flow from two primary accident types or causes of loss: various straining accidents and a variety of slip, trip and fall injuries. The various straining accidents represent 38% of claims and 47% of losses. The variety of slip, trip and fall injuries are 20% of claims and 33% of losses. Notably, the slip, trip and fall injuries have a higher average cost per claim. Together, these two accident types are almost 60% of total claims and 80% of the total incurred losses.

Exhibit 4 displays the claims data from the top 10 accident types, representing 70% of all workers' compensation claims and 88% of their losses at 12 months.

Guide to Graphs
The graphs display the claims data from the top 10 categories: accident types, agents of loss, nature of injury and body part injured, ranked by the percentage of total incurred loss.

- Dark Blue bars represent the percentage of claims for the specific category.
- Sand Stone bars represent the percentage of incurred loss.
- Red line shows the associated average cost per claim for each type and gives some indication of the relative severity of these different categories.

The average cost for all claims in the study is around $5,200. The costs are evaluated at 12 months, so they are subject to further development.
**Strain injuries have the highest number of claims**

Zurich’s claims data indicates that three in eight workers’ compensation claims — and almost 50% of costs — are caused by various strain accidents (from object, from movement, from other and from repetitive movement.) Strain injuries from objects account for 23% of claims and 31% of losses. These injuries include lifting or moving beds/patients, as well as accidents caused by holding, lifting, pushing and pulling activities. Not surprisingly, a significant portion of these involve patient handling.

---

**Solutions to help mitigate strains**

Many caregiver roles within the hospital involve a high degree of manual labor. Caregivers routinely reposition, lift, transfer and transport patients with limited mobility, increasing the frequency and severity of strain and sprain accidents. Mitigating the risks of these injuries involves:

- Proper safe lifting of patients and consistent use of mobility equipment and other appropriate devices
- Education and training, such as implementing stretch and flex programs
- Job assignment and placement
- Job rotation and breaks
- Redesign of tasks, workstations, environmental factors, tools, materials handling and equipment

---

**Slip, trip, fall injuries have higher claim severity**

Various types of slip, trip and fall accidents (on dry same level, on slippery conditions, on other and from height) generate another 20% of claims and 33% of losses for Zurich. About half of these losses involve STFs on the same level, and 13% of those are also on dry surfaces. Unlike many industries, falls from heights are not a significant exposure or loss driver for hospitals.

---

**Solutions to help mitigate slips, trips and falls**

Controlling slip, trip and fall exposures within the hospital setting should involve identifying locations that have the potential for accidents, prioritizing STF hazards and developing action plans to help reduce losses. Mitigation actions to implement include:

- Limiting distractions and unusual conditions
- Enforcing housekeeping and maintenance
- Conducting safety assessments/inspections
- Ensuring proper lighting
- Sharing importance of wellness and vision tests with employees
- Enforcing wearing of slip-resistant footwear
- Ensuring proper use of wet floor signage
The impact of age on workplace safety

By Nina McIlree, MD
Vice President Medical Management and Medical Director The Zurich Services Corporation

With Americans living longer and working longer, older workers are an invaluable part of any healthcare organization. They bring wisdom, knowledge and experience, while also acting as mentors for younger and less experienced workers. However, there are certain changes that occur as workers age, which can impact safety in the workplace.

- Decreasing muscle mass and flexibility – By age 60, muscle mass and flexibility can decrease from 15% to 20% leading to increased risk of injury and falls. Strength and flexibility can be improved at any age with the right exercise.

- Difficulties with circulation – Either as a direct consequence of the aging process or due to medications to treat health conditions, circulation problems may result in increased sensitivity to heat or cold.

- Declining respiratory functions – Respiratory capacity decreases from 15% to 25% from age 20 to 65, even in non-smokers. Oxygen uptake sharply declines after the age of 50, making intense physical activity more difficult for older workers.

- Loss of hearing and inner ear problems – 30% of people over 65 have significant hearing loss. Inner ear problems can contribute to impaired balance with slips and falls account for 14% to 40% of non-fatal occupational injuries.

- Deteriorating vision – Beginning for many people in their forties, vision problems often require prescription glasses to correct various eye problems. People 60 years of age need 8 times the light to see clearly compared to people 20 years of age.

Healthcare employers will need to rethink their work environment making sure it is "aging friendly," with programs addressing wellness, return to work, ergonomics of the work environment, slip, trip, fall risks, and human resource policies. Make sure your company is ready for the workforce of the future where everyone can work safely and productively.

About the author:
Dr. Nina McIlree joined Zurich in November 2005. As Vice President of Medical Management, she is responsible for Medical Professional Case Review, Utilization Review, Peer Review and Nurse Case Management. She also supports the development and implementation of Zurich's medical programs and managed care tools. Dr. McIlree is a board certified Physical Medicine and Rehabilitation physician, completing her residency and fellowship training at the Rehabilitation Institute of Chicago, Northwestern University. Dr. McIlree received her medical degree from the University of Illinois, College of Medicine.
According to BLS data, roughly one-third of hospital worker injuries resulting in days away from work (in each of the last 3 years) occur as a result of interaction with a patient (source of injury). These represent the more serious injury and illness incidents, and we find similar patterns in workers’ compensation claims, with just under 25% of claims where patient is the agent of loss, as shown in Exhibit 5.

**Exhibit 5: Hospital Workers' Compensation Claims by Agent of Loss**

![Graph showing claims by agent of loss]

Source: Zurich Claims Study Data (12 months)
Patients are involved in nearly 1 of every 4 workers’ compensation claims

Roughly one-third of hospital worker injuries resulting in days away from work are the direct result of an interaction with a patient. Of the patient-related claims, about one-quarter (5-6 percent overall) are accidents in which a patient struck the injured employee, whether voluntarily or inadvertently. While not all of these are deliberate or violent, it does demonstrate one of the unique risks faced by hospital employees.

Another agent of loss associated with workers’ compensation hospital claims includes needles. The “needlestick” claims are 7% of the claims volume, where only 1.5% involves infectious disease. The severity, or costs of these claims, are relatively small however, typically less than 1% of incurred dollars. Needlestick claims have reduced over the years, in large part due to diligent disposal of sharps and strong infectious disease awareness and mitigation.

Further contributing agents are those related to slips, trips and falls, such as weather conditions, change in surface texture and slippery floors; these also tend to have relatively higher average costs.

Solutions to help mitigate combative patients and/or workplace violence

Hospital workers serve patients with physical or mental challenges that can result in disorientation, confusion and anger. Factor in isolated treatment in patient rooms and limited trained staff to deal with patients with behavioral health issues, and the likelihood of aggression increases. Emergency rooms can be especially volatile when employees are dealing with intoxicated patients, irate family members or other public disturbances. A workplace violence prevention program should consider:

- Traditional components
  - Employee training
  - Incident investigation
  - Physical barriers
  - Security officer intervention
- Non-traditional components
  - Cameras
  - Drills
  - Alarms
  - Human resources practices
  - Process improvement
Hospital workers compensation claims analysis by nature of injury and body part injured

The specific accident types and agents of loss previously discussed will naturally be related to the resulting type of injury and body part. Exhibit 6 displays the claims data from the top 10 injury types, which account for 82% of all workers’ compensation claims and 93% of the losses at 12 months.

Exhibit 6: Hospital Workers’ Compensation Claims by Injury Type

Soft tissue sprains and strains account for the largest category of injuries at roughly 45% of both claim counts and incurred loss — thus, almost half of all workers’ compensation injuries at hospitals are soft tissue sprains or strains. Not as frequent, but much more costly, are fractures, dislocations (including rotator cuff tears) and ruptures. Collectively, these are just about 7% of the claims, but represent over 30% of the incurred loss recognized at 12 months. Other industries with materials handling activities display similar injury patterns, where stress on joints particularly in conjunction with older workers, produce serious and costly back, shoulder and knee injuries — many of which will ultimately require surgery.
Exhibit 7 represents the claims data from the top 10 injured body parts, which amounts to 60% of all workers’ compensation claims and 70% of their losses.

Solutions for return to work

Hospitals can enable employees returning from an injury, such as a soft tissue sprain or strain, to stay at work by implementing a variety of return-to-work strategies. Common strategies used to help maintain productivity and avoid lost time at work include:

- Assessing high risk jobs for potential modifications to reduce risk
- Conducting ergonomic reviews of jobs to help bring them in line with the employee’s physical capabilities
- Having interactive discussions with employees who come forward with concerns related to productivity based on medical issues
- Providing flexible work schedules
- Offering job-share opportunities and transfers as needed and appropriate
Almost half of the costs (about 30% of the claims) relate to injuries to shoulders, lower backs and knees. Other than injured fingers at nearly 10% of claim counts, no other single injured body part represents more than 5% of either counts or incurred losses, at least at this early stage of development. In terms of costs, injuries to shoulders, hips and lumbar areas are roughly $10,000 per claim, or twice as costly as the average claim, while disc and neck injuries are substantially more costly on average, almost $40,000 per claim.

Given the relative immaturity of these claims, it’s also useful to evaluate these body parts using the National Council on Compensation Insurance’s designation of injured body parts as either “likely to develop” or “not likely to develop.” The mix between likely to develop (LTD) body parts and not likely to develop (NLTD) has stayed consistent over this five-year term, ranging between 40% and 45% LTD and averaging 42%. At 12 months, the percent of incurred loss associated with the likely to develop claims is already higher, at 50% — or looking at average incurred, the LTD claims are 30% more costly, on average, than those injuries considered not likely to develop.


Solutions to help mitigate muscular fatigue

To minimize the risk of sprains, strains, muscular fatigue or other musculoskeletal disorders, hospitals should consider stretching and conditioning programs that are designed to help hospital workers improve:

- Cardiovascular and muscular endurance
- Muscular strength
- Flexibility
- Balance
- Coordination and agility
Conclusion

For a hospital worker, a workers’ compensation claim can lead to increased anxiety, confusion and even unnecessary litigation. And the impact doesn’t stop there. As an employer, your hospital can experience lost production and continuity, as well as increased costs and resource strains. Delays in reporting even minor claims can contribute to higher claim costs, as well as missed opportunities to mitigate medical spend and correct safety issues that could lead to additional incidents.

Understanding your hospital’s workers’ compensation claims data is an important first step to managing your overall claims program. Analyzing the data surrounding claims frequency, severity, agents of loss and accident types can help you identify trends and prioritize mitigation strategies for reducing and controlling your workers’ compensation loss costs.

Hospitals should also strive to adopt the characteristics common to best-in-class claims programs, including:

- Leadership commitment to safety and management support of the claims program
- Respect for employees, as shown by immediate contact following claim reporting to see how they are doing, advising on the workers’ compensation process, and ongoing communication for as long as the employee is disabled from work
- A designated employee for the overall workers’ compensation program
- Frequent and proactive communications between the hospital’s designated workers’ compensation contact and the claim provider
- Established return-to-work protocols that consider temporary, alternative or modified job functions and other methods, such as volunteer programs, to ease employees back into the workforce
- Procedures for internal claims reporting and prompt reporting of 90% of claims to the carrier within five days

In an environment where we are seeing a rapid rate of change and new risk exposures for the healthcare industry, coordination of your workers’ compensation claims program and risk mitigation strategies could help improve overall claim results.

For additional information about Healthcare solutions, visit zurichna.com/healthcare.
The information in this publication was compiled from sources believed to be reliable for informational purposes only. All information herein should serve as a guideline, which you can use to create your own policies and procedures. Any and all information contained herein is not intended to constitute advice (particularly not legal advice). Accordingly, persons requiring advice should consult with independent advisors when developing programs and policies. We do not guarantee the accuracy of this information or any results and further assume no liability in connection with the publication and sample policies and procedures, including any information, methods or safety suggestions contained herein. We undertake no obligation to publicly update or revise any of this information, whether to reflect new information, future developments, events or circumstances or otherwise. The subject matter of this publication is not tied to any specific insurance product nor will adopting these policies and procedures ensure coverage under any insurance policy. Risk engineering services are provided by The Zurich Services Corporation in the U.S.

©2015 The Zurich Services Corporation

A1-112005637-A (05/15) 112005637