



## SAVING MONEY ON WORKERS' COMPENSATION: EVALUATION FROM THE TOP DOWN OR THE BOTTOM UP?

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*raditional methods of cost savings in workers compensation cases rely on outsourced vendors to deal with claimants on a case-by- case basis, while executives examined the more global concepts, such as pricing and accident prevention.*

*Fraud evaluation using traditional means were not cost effective. Record reviews were flawed since 40%-80% of claimants were misdiagnosed, compounded by the use of medical tests which had a 56% to 78% false negative rate and failed to detect treatable pathology.*

*We describe methods of granular case by case evaluations, with documented cost savings ranging from 25% to 60%, which rely on identified "centers of excellence."*

*This technique was advocated by Walmart and other companies to produce cost savings and improved care of claimants. When the services are combined, it produces over-all cost savings of 40% or more compared to current methods of claims evaluation.*

There have been some interesting advances in the approach to cost savings for occupational injuries in the past decade.

Traditionally, companies relied on the outsourced reports of the treating physicians, third party administrators, and case managers to address the more granular issues of actual patient care, while corporate officials examined more global concepts leading to increased costs, such as fraud profiling to determine workers compensation fraud, national medical care offering a capitated health care plan, the use of Special Investigation Units (SIUs) to investigate fraud, cost savings based on pricing, early intervention programs, accident prevention programs, analysis of loss and medical expenses, using the ACG system from Johns Hopkins Hospital which examines every element of physicians' medical records, including diagnoses and testing, to try to identify high cost diagnoses, and other broad conceptual approaches (<https://www.hopkinsacg.org/>).

The Johns Hopkins ACG system models and predicts an individual's health over time, using existing data from medical claims, electronic medical records, and demographics like age and gender.

They claim to gain insights needed to evaluate and compensate providers, stratify risk, and identify patients who would benefit from care management. Attendant to these broad approaches were certain assumptions, which bear re-examination.

Chief among these faulty assumptions is the mathematical

technique of averaging results, which causes the loss of data, and leads to erroneous conclusions<sup>1</sup>.

The next most obvious error is the use of medical records, which contain medical tests such as an CT, which has 56% to 76% false negative rates<sup>2</sup>, and medical claims based on the misdiagnosis rate of 40%-80%<sup>3,4,5,6</sup>.

So the reviews of medical records and claims, no matter how elegant the mathematics, are gathering inaccurate information. These errors are a formula for a classic case of GIGO—garbage in resulting in garbage out.

Emerick challenged the assumption that the treating physician was providing accurate information and good medical care<sup>7</sup>. While he was vice-president of employee benefits at Walmart, he resorted to the use of "Centers of Excellence" to control the expense of surgery for the Walmart employees<sup>8</sup>.

He found that 25% of surgery suggested by community physicians was unnecessary, and the misdiagnosis rate approached 40%<sup>9</sup>. By referring employees to high quality medical centers around the United States Emerick was able to reduce the cost of surgeries by 30% or more<sup>10</sup>.

Emerick and Hendler describe these techniques which embrace an individual case by case evaluation, which resulted in significant over-all cost reductions<sup>11</sup>.

Bernacki, Chairman of the Division of Occupational and Environmental Medicine, at Johns Hopkins School of Medicine had even more dramatic results at Johns Hopkins Hospital, where, as part of a fully integrated program of early intervention, safety education and injury prevention, and patient advocacy, he was able to reduce workers' comp costs from \$5,600,000 a year to \$2,400,000 a year<sup>12</sup>.



He accomplished this by diverting injured hospital workers to a select group of doctors, rather than community doctors, who were misdiagnosing employees 40%-80% of the time, as reported by physicians at Johns Hopkins Hospital<sup>13</sup>.

Directing employee care to high quality physicians resulted in an overall savings of 54% on workers' compensation costs<sup>12,13</sup>. These articles fully support the cost savings associated with using a small, select physician network.

There are several other variables which influence workers comp costs. The first is the structure of the workers' comp system on getting an injured workers back to work.

Talo, winner of the prestigious Volvo Award from the journal Spine, and Hendler reported a 3 times higher return to work rate in auto accident patients versus workers' comp. The only difference was the type of litigation<sup>14</sup>.

The second issue is the presumed fraud, which influenced how insurance adjusters handle their cases, i.e. fraud investigation<sup>15</sup>.

Techniques, such as Independent Medical Evaluations, Functional Capacity Evaluation, the use of the Minnesota Multi-phasic Personality Inventory (MMPI), and surveillance have been reported by Elaine Howle, the auditor for the State of California, as not cost-effective, i.e. the return to companies is less than the money spent<sup>16</sup>.

The impact of the inability to detect inaccurate diagnosis is further amplified in the example from Laidlaw, a 90,000 employee school bus leasing company and owner of Greyhound, as reported in an earlier issue of *The Self Insurer*<sup>13</sup>.

At the request of Laidlaw, Hendler and Goff, former president of the Self Insurance Institute of America, evaluated workers' comp cases<sup>13</sup>. Of the 90,000 workers, there were 260 workers compensation cases which were 6 months old or older.

Of these 260 cases older than 6 months, 126 (48%) were "diagnosed" with lumbar strain. By medical definition, 100% of all of these cases were misdiagnosed, since a sprain or strain cannot last 6 months.

The medical literature reports that sprains and strains are self-limited disorders, which average no more than 75 days of disability<sup>3,6,11</sup>. So (a) these claimants were misdiagnosed, and (b) the correct diagnosis was overlooked.

Of these 126 ultra-long term workers' compensation cases, the cost to Laidlaw was \$12,365,366 with an average cost of \$98,137. With proper diagnosis, these 126 cases could have been accurately diagnosed as facet syndrome, or internal disc disruption, and treated for \$15,000

to \$45,000 a case, a savings of at least \$43,000 a case or more for an overall cost savings of at least \$43,000 X 126 or \$5,418,000 or at least 44% cost savings compared to current case management techniques.<sup>13</sup>

Using the example above, the reserves on these cases could have been reduced from \$98,137 to at least \$43,000, and comparable reductions in reserves could be realized for other commonly misdiagnosed disorders. (See appendix A- the attached list of bad diagnoses versus correct diagnoses.)





# The right solution

## Self-funded health plan administration

The speed of change in the health care industry is expanding the definition of health care and redefining roles for traditional players. New and emerging technologies led by single point solution vendors, rising health care costs, regulation, and non-traditional market entrants have many payers and health systems evaluating their options.

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Finally, there is the reduced workplace performance, where the employee doesn't file any legal claim, but has a high rate of absenteeism and reduced work-place performance.

This results in an estimated \$61,000,000,000 a year loss to businesses. The largest source of this poor performance... headaches and back pain<sup>17</sup>.

The use of the bottom-up granular approach provides the skill sets often missing in a typical top-down evaluation. The bottom-up approach addresses multiple elements which contribute to the overall cost of a workers' compensation case, by using highly specialized focus in each component part.

Fraud evaluation can be done using an Internet based Software as a Service (SaaS) Pain Validity Test, developed by a team of physicians from Johns Hopkins Hospital, which has always been admitted as evidence in 9 states, unlike other fraud evaluation methods which are often disallowed, or discounted<sup>18, 19, 20, 21</sup>. The cost of this evaluation is a fraction of the cost of a typical fraud evaluation, with reported savings of \$1,654 per case<sup>22</sup>.

Another Internet-based SaaS test is the Pain Diagnostic Test, also developed by a team of physicians from Johns Hopkins Hospital, which addresses the 40%-80% of injured workers who are misdiagnosed.

This software gives diagnoses with a 96% correlation with diagnoses of Johns Hopkins Hospital doctors<sup>23</sup>. This granular approach to evaluating an injured workers saved between \$20,000 to \$175,000 for long term expensive cases.

Medical testing is based on the accurate diagnosis provided by the Pain Diagnostic Test. The recommended tests are the ones with the highest degree of accuracy, with the lowest false negative and false positive rate.

As an example, the MRI is poor test to evaluate damaged discs. It has a false positive rate of 28%-34%, and a false negative rate of 77%-79% compared to a provocative discogram<sup>24, 25</sup>, yet most physicians do not use provocative discograms.



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By evaluating an injured worker as soon as the injury occurs, this “early intervention” diagnosis steers the treating physician on the correct path, and reduces inaccurate diagnoses, and the use of the inappropriate medical testing.

The use of the “Centers of Excellence” approach identifies the patients who have been recommended for unnecessary surgery and reduces surgery by 25%.

If surgery is indicated, the injured workers is referred to one of the identified “Centers of Excellence” where any surgery is performed at a discounted rate by top surgeons in the country, with overall cost savings on surgery of 15%-20%.”

Medical management of complex medical care cases, directed by experienced nursing staff using the “best practices” methodology has documented cost savings of 45%.

The nurses select medical care from centers which has documented outcome studies, and eliminate unnecessary care and overtreatment, which are leading causes of inflated medical expenses.

Finally, a negotiated benefits package saves hundreds of dollars per injured worker on discounted medicine and durable medical goods.

Taken in the aggregate, each component of medical care of an injured worker, when optimized by highly specialized expert evaluations and care, produce a documented overall cost savings of 40%-50% from current levels of costs. This is the great advantage of a bottom-up, fully integrated granular approach to workers' compensation cost containment. ■

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