AMA Guides Sixth Edition: Perceptions, Myths, and Insights

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The AMA *Guides to the Evaluation of Permanent Impairment*[1] is the recognized international standard used to define impairment. It is designed to be used as support for legal systems seeking to compensate those with serious injuries or illnesses. The new Sixth Edition, published in December 2007, addresses many of the criticisms of prior Editions and reflects significant evolution in the impairment evaluation process.

The Sixth Edition provides a consistent methodology with a more rationale basis to defining impairment. It was designed by a consensus process to improve the reliability of impairment ratings and, therefore, reduce conflict, increase fairness and ease resolution. Impairment values overall are similar to the values assigned in Fourth and Fifth Editions; however corrections have been made for certain unsupportable ratings provided in prior Editions, and impairment ratings are now provided for certain conditions which do result in permanent functional deficits yet in the past were not ratable.

The early response to the Sixth Edition has been mixed, with generally favorable feedback from physicians and criticism from plaintiff's counsel. This article will report on reactions to the Edition, explore common myths and falsehoods, and offer insights into the context of impairment in legal systems. Challenges to the effectiveness of the *Guides* and opportunities provided by its existence will be examined.

Sixth Edition Survey

A survey was performed to better understand the reaction to the Sixth Edition of various stakeholders. An invitation was sent to over seven hundred individuals who purchased the Sixth Edition at www.impairment.com or who participate in live and web-based training programs provided by Brigham and Associates, Inc. Of the 115 respondees, the three largest groups responding were physicians 38%, chiropractors 19% and plaintiff attorneys 10%; the remaining 33% were comprised of defense attorneys (7 responses), claims professionals (10 responses), consultants, fact finders and governmental officials. Although the sample size is small, it does provide some insights to reactions to the Sixth Edition.

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The *Guides* were used in workers compensation cases by 83% of the responders, followed by personal injury by 55%, and automobile casualty by 45%. The Fifth Edition was used for workers compensation cases by approximately a half (53%), followed by the Sixth Edition by 36% and the Fourth Edition by 15%; some respondees reported using multiple Editions. Approximately one quarter (26%) were currently using the Sixth Edition for workers compensation cases, 22% anticipated its use within the next year, and an additional 9% anticipated its use within the next two to three years; therefore most expected use of the Sixth Edition with the next three years. The *Guides* were used for different purposes in state workers compensation cases, including as direct determinate of disability (18% of respondees), used in a specific formula (with other factors) to rate disability (17% of respondees), used among other considerations to rate disability (19%), used to rate scheduled injuries (15%), and as threshold determinate (i.e. differentiates more severe losses, 8%). Eleven percent did not know how the *Guides* were used for workers' compensation cases in their states. Impairment ratings were reported as important or very important by nearly all (89%). Most had considerable experience with prior Editions of the *Guides* (82% reported having performed or reviewed 30 or more ratings), however minimal experience with the Sixth Edition (only 6% had experience with 30 or more ratings.)

The response to the Sixth Edition appears to correlate closely with professional groups. As illustrated in Figure 1, overall 48% agreed or strongly agreed that the Sixth Edition was a significant improvement from prior Editions and 33% disagree; 60% of physicians and 41% of chiropractors agreed it was an improvement; however the vast majority (94%) of plaintiff attorneys disagreed. Of the seven defense attorneys who responded, four agreed it was a significant improvement, one was neutral and two disagreed. Of the nine claims professionals who responded to this question, 55% agreed this was a significant improvement, 22% were neutral and 22% disagreed. Therefore the majority of the groups agree that is an improvement, with the exception of plaintiff's counsel.

Although nearly everyone felt emphasis on function was important, a higher percentage of physicians (81%) and chiropractors (83%) shared this emphasis than the attorneys (56%). Only 7% of these attorney respondees felt that the use of the International Classification of Functioning, Disability and Health (ICF) was appropriate with the Guides; however 69% of physicians and 59% of chiropractors supported the use of the ICF model. There was agreement by all that the concepts of impairment and disability are often confused.

The majority of the physicians (55%) agreed or strongly agreed to the statement that ratings will be more reliable with the Sixth Edition, 26% were neutral, and 9% disagreed. None of the plaintiff attorneys agreed that ratings will be more reliable, 12% were neutral and 88% disagreed. Most physicians (55%) agreed the impairment values were more reasonable, 35% were neutral and only 11% disagreed; in contrast none of those attorneys agreed, only 6% were neutral and 94% disagreed. Most physicians reported that the Sixth Edition was much better than prior Editions in terms of being clearer (56% reported better or much better versus 23% reported worse or much worse), easier to use (54% better vs. 25% worse), more internally consistent (68% vs. 5%), more reliable (62% vs. 11%), and more inclusive for conditions (69% vs. 8%); approximately one quarter of

the physicians were neutral on these issues. These responses are in stark contrast to those provided by plaintiff's counsel who felt the Sixth Edition was much worst in terms of clarity (73%), ease of use (57%), internal consistency (60%), reliability (73%), and inclusivity (57%).

In summary, and understandably given its recent publication, there has been minimal experience in the use of the Sixth Edition to date. ***More experience is necessary to reach definitive conclusions, but the response so far to the Sixth Edition has been mixed with generally favorable response by physicians and negative response by plaintiff attorneys.***

Myths

There are many myths about impairment evaluation. Some of these are the result of lack of knowledge and others appear to result from confusion between the role of physicians in assessing impairment and the role of legislators in determining benefits for those with serious injury or extended lost time from work. Some myths may result from the belief that it is easier to increase benefits by modifying or abandoning the use of impairment than it is to achieve benefit change in the courts or through legislatures.

MYTH- it is the role of impairment ratings to solely determine compensation for serious injury or extended lost time from work.

The role of the Guides is to utilize physician assessment to define impairment. Impairment assessment is the first step in the process of awarding compensation for injury or illness. Such a rating system is most amenable to physician assessment. The *Guides* creates the opportunity for consistency of ratings among physicians and the promotion of ease of use in defining impairment. As a result this creates the opportunity for reduction in friction costs arising within the compensations systems, speeding resolution, and supporting fairness to all stakeholders.

It is the role of legislators to determine how a rating is going to be used to achieve a fair economic result for an injured party and to continually assess their determination in light of many dynamic factors, including the evolution of impairment rating in modern society.

MYTH - Impairment ratings are directly equivalent to disability ratings

Impairment is not synonymous with disability. However many stakeholders assume it to be so and some jurisdictions use it as a direct correlate of permanent partial disability.[2] ***Failure to recognize the differences between a medical construct, impairment, and a contextual construct, disability, results in significant confusion and controversy.***

The Sixth Edition defines impairment as "a significant deviation, loss, or loss of use of any body structure or body function in an individual with a health condition, disorder, or disease." (6th ed., 5). Impairment is a medical determination. Therefore it is understandable that the American Medical Association has taken a leadership position in preparing the AMA Guides.

Disability is much more of contextual concept. It is defined by the Guides as "activity limitations and/or participation restrictions in an individual with a health condition, disorder, or disease" (6th ed., 5). Legal systems often define disability as loss of earning capacity resulting from injury or disease, resulting in further confusion between "impairment" and 'disability".

While disability and impairment may arbitrarily be determined to correlate at a point in time that a legislature determines the benefit rate, in fact, there is no direct correlation between impairment and work restrictions or loss of earning capacity. The Sixth edition specifically states, as did prior editions, that "the Guides are not intended to be used for direct estimates of work participation restrictions. Impairment percentages derived according to the Guides' criteria do not directly measure work participation restrictions." (6th ed., 6). Instead it stresses that "the intent of the Guides is to develop standardized impairment ratings which involves defining the diagnosis and associated loss at maximum medical improvement, enabling a patient with an impairment rating to exit from a system of temporary disablement, and provide diagnosis and taxonomic classification of impairment as a segue into other systems of long-term disability". (6th ed., 6) In other words, the process of assigning an impairment rating requires the evaluator to clearly delineate the diagnostic criteria (based on the history, including prior clinical course), physical examination findings, current and prior diagnostic test results, and functional status that places the patient in a given impairment class and warrants assignment of a specific number within the options for that class, with the understanding the provision of an impairment rating does not directly equate to a permanent disability rating.

MYTH – Most impairment ratings by prior Editions are accurate

Stakeholders have often accepted impairment ratings provided by physicians as being accurate and unbiased. ***The reality, however, is that many, if not most, impairment ratings are not performed according to standards defined in the Guides and the resulting impairment ratings are not correct.*** These errors are often not detected by casual users of the Guides, such as claims adjusters, attorneys and fact finders. The lack of recognition results in the inability to manage an erroneous impairment assessment and may result in an underassessment of the need for improvement on prior Editions of the Guides.

For a two year interval, from June 2006 through June 2008, experts in impairment assessment associated with Brigham and Associates, Inc. reviewed 2798 impairment rating reports authored by other physicians and chiropractors. The experts disagreed with 2169 of the ratings (78%) and of these reports that were judged to be incorrect the average original rating was 20.4% whole person permanent impairment and the average re-rating by the expert was 7.3% whole person permanent impairment. (A comparison of original ratings versus re-ratings by experts is illustrated in Figure 2.) The error rate does vary be jurisdiction, for example in California, 84% of the reports were found to be incorrect with an average original rating of 20.8% versus expert rating of 7.0%; however in Hawaii the error rate was less at 39% with an average original rating of 9.0% versus expert rating of 3.8%. The differences between these two states are illustrated in Figures 3 and 4.

The vast majority of the disagreements related not to difference in judgment, rather failure to follow specific protocols defined in the Guides; numerous errors were encountered, with some of the more common including rating clinical data that was unreliable (e.g. rating for motion or neurological findings that are inconsistent with other documentation), rating by the wrong method (e.g. rating spinal

injuries by the Range of Motion Method when the Diagnosis-Related Estimates method was required), rating by methods prohibited for specified conditions (e.g. rating carpal tunnel syndrome on the basis of grip strength loss), combining multiple methods that cannot be combined (e.g. combining lower extremity impairments for motion and strength loss), adding values that should be combined, and evaluating physician bias. Of the 629 ratings that were felt to be appropriate the ratings averaged 8.9% whole person permanent impairment. Therefore, for these cases reviewed 57 % of the total value assigned to impairment ratings was not supportable by the data provided.

A review of 95 sequential, unselected cases referred by a California insurer of impairment evaluations performed in 2007 revealed an error rate of 93%. Of these cases the average original rating was 16.7% whole person permanent impairment and the average expert rerating was 5.9% whole person permanent impairment. In California the impairment value is adjusted by Future Earning Capacity factors, occupation and age. For these 95 cases the difference in dollar value assigned for the Permanent Disability rating based on the original ratings versus the corrected ratings was $1.2 million dollars. This suggests that the magnitude of erroneous ratings is not due to reviewing only cases referred due to suspected errors; rather it reflects significant problems with undetected erroneous ratings.

One of the goals of the Sixth Edition is to achieve a process that improves intrarater and interrater reliability by developing a more reasoned and consistent approach to impairment assessment. Reducing conflict and providing clarity may not always be perceived as beneficial to all stakeholders. Without question it is a benefit to employees, employers and insurers.

MYTH - Sixth Edition is not an improvement

There are many challenges associated with the use of the Guides, including criticisms of the Guides themselves, the use of impairment rating numbers, and a high error rate.[3 4 5 6 7 8 9 10] Previous criticisms include:

- Failure to provide a comprehensive, valid, reliable, unbiased, and evidence-based rating system.
- Impairment ratings did not adequately or accurately reflect loss of function.
- Numerical ratings were more the representation of “legal fiction than medical reality.”

The Sixth Edition was designed to address prior concerns by providing a more reasonable and consistent methodology.

The survey of reactions to the Sixth Edition revealed that most physicians agreed that the Sixth Edition was a significant improvement; this opinion is not shared by plaintiff’s counsel. We believe that the reason these attorneys are more likely to find it objectionable has more to do with the perception that the Guides have evolved into lower ratings for claims and, therefore, they and their clients receive lower amounts of money. Focus appears to be more on dissatisfaction with the Guides than focusing on legislative change to maintain equitable conversion factors after impairment has been determined to reach a value for disability. Frustration with numerical values related to impact on one’s practice is not a reflection of the quality of the rating system used by physicians. Since impairment determination is a medical issue the medical perspective should be given greater weight in evaluating whether the Sixth Edition is a significant improvement. Based on the survey results most physicians feel the Sixth Edition reflects improvement.

Discontent has also been expressed, however, by certain physicians who advocated for other approaches that were not selected. The approach to impairment assessment is based on consensus; therefore those who advocated for alternative approaches may not be in agreement with the methodology determined by the majority. Nevertheless, early response from those using the Sixth Edition confirms a perception of improvement.

MYTH - Impairment ratings values should not change between Editions

This myth appears to derive from the belief that benefits amounts should only change as a result of legislative action. ***Impairment ratings will change between editions for several medical reasons.*** They are dynamic. If ratings change and are part of a formula used to reach a benefit payment, benefits will change as well. The solution is not, however, to make something that is dynamic artificially stagnant. The solution is for legislators to frequently assess their benefit structure so that all factors, including impairment ratings, are taken into consideration in determine levels of compensation. Impairment ratings should reflect real outcomes and be based, to the greatest extent possible, on scientific evidence or, when this is lacking, expert consensus.

It must be recognized that the common goal that all stakeholders should share is that an injured person receives appropriate effective care that results in full restoration of function and therefore there is no impairment and no disability. With advancements in medical and surgical interventions has come improved outcomes and, therefore, decreasing impairment in many situations. For example, the results of total knee replacements are significantly improved, therefore the default impairment for a total knee replacement with a good result was 50% lower extremity impairment with the Fifth Edition (published in 2000) and the Fourth Edition (published in 1993), however in the Sixth Edition is 37% lower extremity impairment to reflect advances in medical science.

Revisions in specific impairment values assigned for certain conditions were required in the preparing the Sixth Edition. For example, in the Fifth Edition a single level cervical fusion would result in a 25% to 28% whole person permanent impairment, yet these patients typically have excellent functional results; however this impairment was consistent with that given for a below knee amputation and patients with intractable cervical radiculopathy much more impairing and disabling would be limited to 15% to 18% whole person permanent impairment.

Modifications in approaches are also required. The goal of any medical or surgical intervention should be to improve the level of functioning and well-being of the patient. Yet in the Fifth Edition patients would often receive greater impairment for spinal surgical interventions, however in the Fourth Edition ratings for “surgery to treatment remains the same in spite of any changes in signs or symptoms that may follow the surgery.” (4th ed., 100) Thus a patient with a cervical radiculopathy who had a cervical fusion would have received a 15% whole person permanent impairment with the Fourth Edition (since surgery was not considered and the patient was rated on the presenting problem, not the outcome), a 25% to 28% whole person permanent impairment with the Fifth Edition (since surgery was considered), and a 6% whole person permanent impairment with the Sixth Edition (since impairment is based primarily on the outcome.)

Over time certain approaches are found not to be valid and/or reliable. For example, range of motion is no longer used to assess spinal impairment since current evidence does not support this as a reliable indicator of specific pathology or permanent functional loss.

Therefore, changes in impairment values should be expected and welcomed.

MYTH - Impairment rating values are significantly lower in the Sixth Edition

It is premature to determine the impact of the changes with the Sixth Edition until there is adequate experience with it, until impairment rating values associated with specific diagnoses may be compared, and until studies are performed where an adequate sampling of cases are evaluated both by the Fifth and Sixth Editions.

Although some impairment values have been corrected resulting in lower impairments, the Sixth Edition also expands the number of ratable conditions (such as soft tissue and muscle / tendon injuries, and non-specific spinal pain). These conditions would not have resulted in ratable impairment in prior editions. The impairment values for these conditions are typically low, in the range of 1 to 2%; therefore, they may receive less attention unless they serve as a threshold for benefits.

Re-rating examples provided in the Sixth Edition for diagnosis-based impairments by criteria provided in the Fifth Edition reveals there is minimal change in impairment values, with the exception of spine fusion cases. Reassessing the twelve examples provided in Section 15.3e Upper Extremity Diagnosis-based Impairment Examples (6th ed., 413-418) reveals an average rating of 4% whole person permanent impairment by both the Sixth and Fifth Editions and in Section 16.3e Lower Extremity Diagnosis-based Impairment Examples (6th ed., 522-529) the fifteen examples average rating of 7% whole person permanent impairment by the Sixth Edition and 8% by the Fifth Edition. In terms of spine cases analysis of the case examples in Section 17/3g Spine Impairment Case Examples (6th ed., 583-592) reveals the average, excepting surgical fusion cases, is 6% whole person permanent impairment by the Sixth Edition and 7% by the Fifth Edition, however the average for fusion cases was 15% by the Sixth Edition and 24% by the Fifth Edition. This is illustrated in Figure 5. Comparison of Diagnosis-based Impairment Example Averages.

In assessing the impact of the Sixth Edition it is important to note that evaluations of prior ratings have often been distorted due to the high frequency of inaccurate ratings that more often than not have erred on the high side. Most impairment ratings performed by the Fourth and Fifth Editions have been shown to be erroneous when these original ratings are reviewed by experts in the use of the AMA *Guides*. One must consider whether original or expert ratings are being utilized as the baseline. Therefore in comparing differences it important to determine the relative change from observed ratings and those that are consistent with the *Guides*.

The full impact of changes in ratings will not be available until a large number of cases have been rated or comparative studies are performed where cases are rated by both the Fifth and Sixth Editions. It is critically important to understand this impact on the systems that make use of the Guides. Such understanding is the only way that a Legislature can make informed decisions concerning any adjustments necessary to the algorithm used to translate impairment into disability ratings.

Comparative studies of ratings performed by the Third Edition, Revised, Fourth Edition and Fifth Edition concluded that the Fourth and Fifth Editions are more complex than the Third Edition, Revised, and, in general, require more effort by rating physicians and result in lower ratings.[11] Such studies have not yet been performed for the Sixth Edition to assess it in the context of prior Editions.

Insights

The Sixth Edition is still far from perfect with respect to defining impairment or the complexities of human function, however it represents further advancement. It simplifies the rating process, will improve interrater reliability and will provide a solid basis for future editions of the *Guides*. Most importantly, systems must recognize the difference between impairment and disability and develop more reasonable approaches to translate impairment into financial awards.

Most physicians surveyed report that the Sixth Edition is a significant improvement; however it appears that other special interest groups disagree. Impairment assessment is a medical determination not a legal determination; impairment ratings are based on approaches developed primarily by physicians through a consensus process.

Changes in impairment values may impact some injured workers, and also in some circumstances fees of participants, unless legislatures choose to amend their formulas for compensation by considering other factors in the relationship. With the Sixth Edition, injured workers will receive impairment ratings and benefits for conditions that were not previously ratable.

In interpreting reactions by different stakeholders it is important to distinguish between the criticisms of the process and the perceived impact on the stakeholders. ***The more significant problems do not lie with the Guides, but rather, with how impairment ratings are used by workers compensation systems or other systems.*** The AMA *Guides* will continue to evolve and improve. The systems that make use of the *Guides* must also evolve.

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Figure 1. Responses to Survey Question "Sixth Edition is a significant improvement from prior Editions"

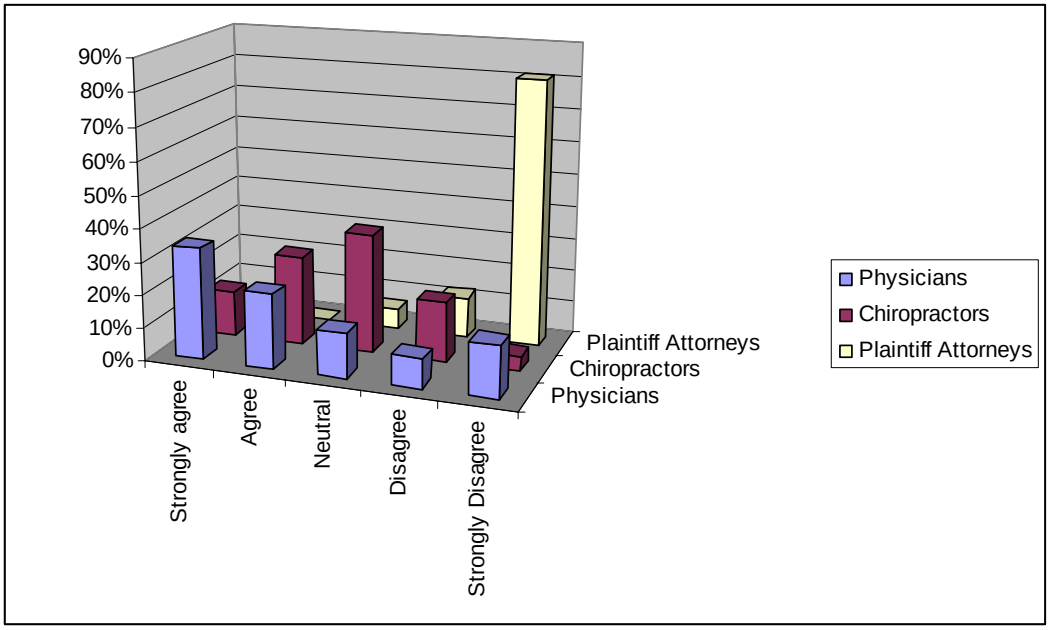


Figure 2. Comparison of Original Rating vs. Expert Ratings

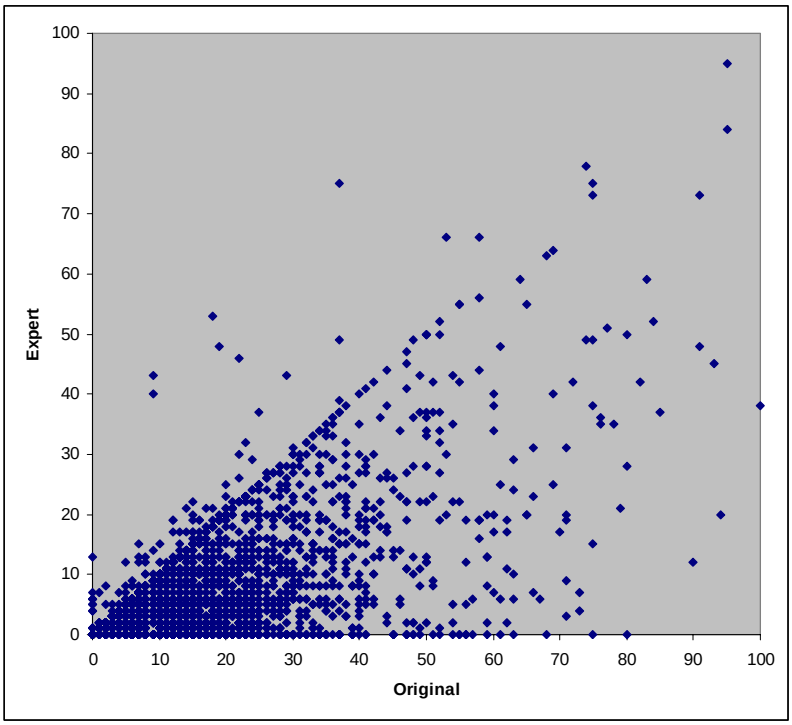


Figure 3. Comparison of Original Rating vs. Expert Ratings in California

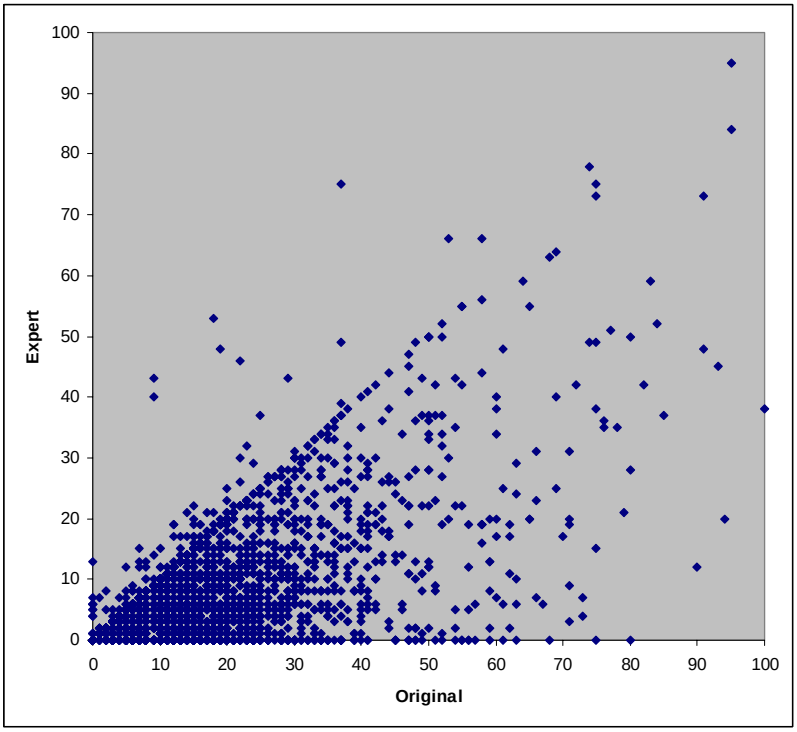


Figure 4. Comparison of Original Rating vs. Expert Ratings in Hawaii

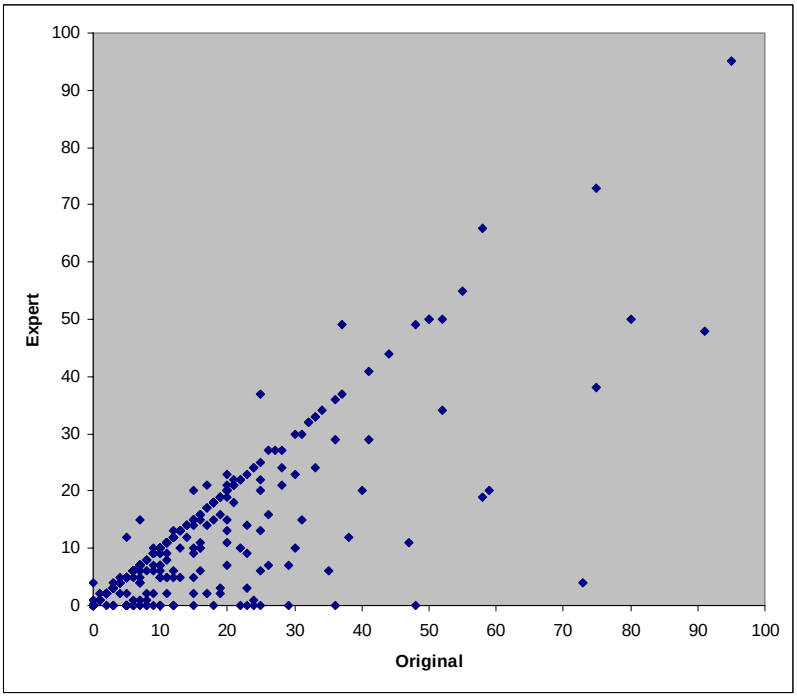
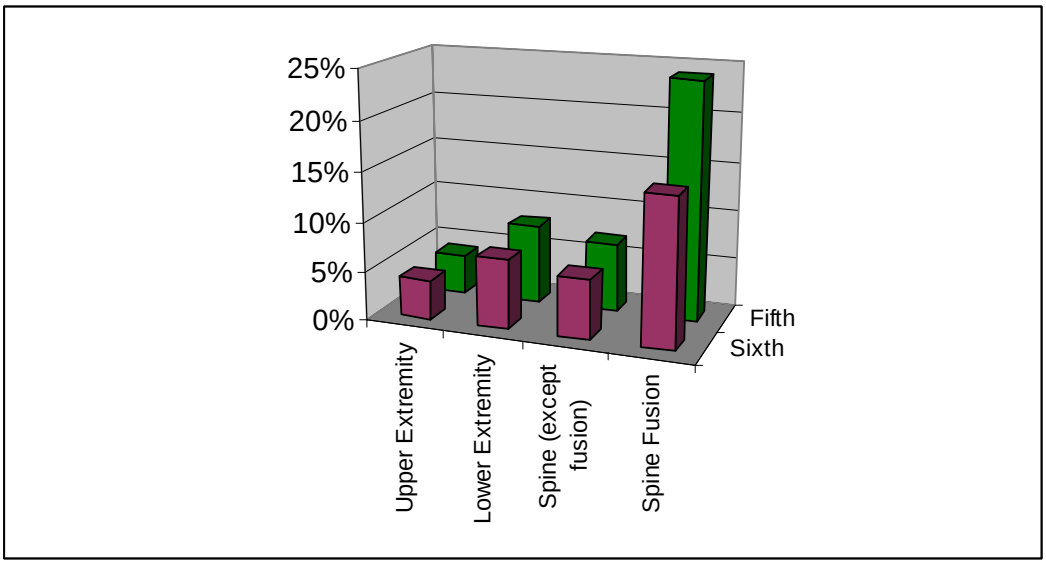


Figure 5. Comparison of Diagnosis-based Impairment Example Averages



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Further information on the AMA *Guides to the Evaluation of Permanent Impairment,* Sixth Edition is available at www.impairment.com and www.sixthedition.com.