

**Quality of Health Care: What Is It, Why Is It Important, and How Can It Be Improved in California's Workers' Compensation Programs?**

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**I. Introduction**

The Institute of Medicine (IOM) has defined quality of health care as "the degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge" <sup>1</sup>. A primary objective of the United States (U.S.) health care system is to provide the combination of health services that optimizes the population's health; efforts to improve the quality of health services are key to reaching this goal <sup>2</sup>.

Although there is a general assumption by most Americans that the quality of health care provided in the U.S. is very high, it is now well-documented that this is often not the case <sup>1</sup>. The recent failure to verify the blood type of a transplant patient at Duke Medical Center serves as a dramatic example that, even at the nation's premier medical centers, the quality of care may be less than optimal <sup>3</sup>. Such quality-related deficiencies are especially alarming at a time when annual, national spending on health care has exceeded \$1 trillion (approximately 14% of the Gross Domestic Product or GDP) and is expected to increase dramatically over the next decade <sup>4</sup>. In short, the quality of health care in the U.S. is not acceptable from a clinical standpoint and is not commensurate with the amount spent.

The care provided through workers' compensation programs is not immune from the same quality problems that plague the U.S. health care system as a whole. Indeed, given the complexities of most workers' compensation health care programs, there is reason to believe that the quality of care provided to workers through such programs may be especially lacking. In an effort to advance quality improvement efforts in California's workers' compensation programs, this paper begins by providing a broad overview of health care quality including: the current state of health care quality, why it is important, lessons learned from the non-workers' compensation world, and why a focus on quality makes sense from a business standpoint. This paper then examines challenges to measuring and improving quality-- both broadly-speaking and in California's workers' compensation program more specifically. Lastly, this paper concludes by offering some suggestions for next steps that may be taken to improve the quality of health care for individuals in California's workers' compensation programs.

## **II. An Overview of Health Care Quality**

### ***The Ideal: Key Components of High Quality Health Care***

According to the IOM, there are six important components of a health care system that provides high quality care to individuals<sup>1</sup>. First, the system is safe (i.e., free from accidental injury) for all patients, in all processes, all the time. This standard implies, for example, that there should not be lower standards of safety on weekends or at night, that patients need only tell their health care providers information once, and that information is not misplaced or overlooked. Second, a high quality health care system provides care that is effective (i.e., care that, wherever possible, is based on the use of systematically obtained evidence to make determinations regarding whether a preventive service, diagnostic test, therapy, or no intervention would produce the best outcomes). Third, a high quality health care system is patient-centered. This concept encompasses the following: respect for patients' values, preferences, and expressed needs; coordination and integration of care; information, communication, and education; physical comfort; emotional support (i.e., relieving fear and anxiety); and involvement of family and friends. Fourth, high quality health care implies care that is delivered in a timely manner (i.e., without long waits that are wasteful and often anxiety-provoking). Fifth, a high quality health care system is efficient (i.e., uses resources to obtain the best value for the money spent). Sixth and lastly, a high quality health care system is equitable (i.e., care should be based on an individual's needs, not on personal characteristics--such as gender, race, or insurance status-- that are unrelated to the patient's condition or to the reason for seeking care).

### ***Our Reality: The Current State of Health Care Quality in the U.S.***

At its best, the quality of health care in the U.S. is outstanding. For example, the U.S. is at the forefront in terms of both developing and using state-of-the-art medical technologies and innovative pharmaceuticals; it has some of the most sophisticated and highly renown medical centers in the world; and its training of clinicians is recognized across the globe as being of the highest caliber<sup>5,6</sup>. However, despite these impressive facts and unrecognized by many Americans, the quality of health care in this country is often sub-optimal and, at times, is alarmingly poor<sup>1</sup>. As has now been well-documented in the medical literature, the problems with the quality of health care in the U.S. are serious and extensive-- even at the finest medical institutions in this country, even if a patient has health insurance coverage, and even if he/she is able to access the health care system<sup>1,7</sup>. Generally-speaking, quality problems fall into one of three categories. First, overuse (when a service is provided under circumstances in which its potential for harm exceeds possible benefit) is a concern<sup>1,8</sup>. For example, in one study of Medicaid beneficiaries diagnosed with the common cold, 60% filled a prescription for an antibiotic despite the common knowledge that: 1) almost all colds are caused by a virus for which antibiotics are not effective, and 2) such overuse leads to the

development of bacterial strains that are resistant to available antibiotics<sup>9</sup>. Additional examples of overuse include one national study that found that 17% of coronary angiographies, 32% of carotid endarterectomies, and 17% of upper gastrointestinal tract endoscopies were performed for clearly inappropriate indications; another study concluded that 16% of hysterectomies in a group of seven health maintenance organizations (HMOs) were inappropriate<sup>8, 10, 11</sup>. In general, it is estimated that about one-third of the procedures performed in the U.S. are of questionable health benefit relative to their risks<sup>2</sup>.

At the opposite end of the spectrum, underuse (the failure to provide a health care service when it would have produced a favorable outcome for the patient) is a common quality problem<sup>1, 8</sup>. At the most basic level, over 40 million Americans do not have health insurance, thus greatly limiting their ability to obtain care<sup>12</sup>. Additionally, at alarming rates even those who are able to access the health care system fail to receive recommended preventive and/or clinically indicated services for both acute and chronic conditions. For example, in one nationally representative sample, approximately one quarter of children did not receive recommended routine vaccines<sup>13</sup>; in another nationally representative sample, over 30% of women had not had a Pap smear in the prior three years<sup>14</sup>. Regarding treatment for acute conditions, it is estimated that failure to use known, effective treatments for acute myocardial infarction (such as thrombolytics, beta-blockers and aspirin) for all patients who could benefit from these interventions may result in as many as 18,000 preventable deaths each year in the U.S.<sup>8, 15</sup>. Overall, the gap between the care individuals should receive and what they do receive is large: only about 50% of Americans receive recommended preventive care, only 60% receive recommended care for chronic conditions, and only 70% receive recommended acute care (meaning almost one third do not)<sup>7</sup>.

Third, misuse (preventable complications of treatment) is also troubling<sup>1, 8</sup>. Misuse may occur when an appropriate service is provided but a preventable complication occurs so that the patient does not receive the full potential benefit of the intervention. For example, 33% of a national sample of elderly Medicare patients discharged with antidepressants were given doses below the recommended level<sup>16</sup>. Misuse may also refer to medical error. A report released in 1999 by the IOM estimated that between 44,000 and 98,000 Americans die each year from medical errors<sup>17</sup>.

In addition to these three problems, there is notable consumer dissatisfaction with the health care system-- another indication of less-than-optimal quality. According to recent results of the Consumer Assessment of Health Plans Study (CAHPS®), 15 to 27% of health care consumers in the U.S. reported problems getting needed care, 13 to 22% reported only sometimes or never getting care as quickly as desired, 6 to 14% reported that their physician only sometimes or never communicated well, and 28 to 36% mentioned problems with their health plan customer services<sup>18</sup>. In California,

results of the 2002 California Consumer Assessment Survey (CAS) indicate that consumers often are not satisfied with the service they receive (such as availability of after-hours appointments) and with the timeliness of care provided from medical groups; additionally, California health care consumers rarely give medical groups the highest rating regarding access to treatment/specialty care and communication, suggesting that there is room for improvement<sup>19</sup>.

Although most patients are not medical experts, studies have shown that consumers tend to report accurately many experiences with the health care system, including the provision (or lack thereof) of clinical care<sup>20, 21</sup>; for example, one study determined that consumers correctly reported 80-94% of history and physical elements that were performed during a health examination<sup>20</sup>. Patient satisfaction information also provides a meaningful assessment of the design and management of the health care system<sup>22</sup>. Additionally, patient experiences are important given that the interpersonal process between a physician and patient is an important means by which high-quality, technical care is delivered and on which its success depends<sup>22</sup>. Patients who are dissatisfied with the health care they receive have been found to switch physicians and health plans more often (thereby disrupting their continuity of care), to delay seeking needed care, and to have poorer health outcomes<sup>1, 23-26</sup>. For all these reasons, patient satisfaction measures are valuable, and sub-optimal ratings are cause for concern.

Still another indication of the problematic state of health care quality in the U.S. is the wide and unfounded variation in clinical practice patterns that have been well-documented for several decades across regions of the U.S., within states, and between cities in the same state or region<sup>2, 27</sup>. For example, one study found that in the last six months of life, Miami residents spent an average of 4.8 days in intensive care units (ICUs), while Minneapolis residents spent an average of only 1.6 days<sup>27</sup>. The same study determined that mastectomy for breast cancer is also a high variation procedure: 25 regions in the U.S. had rates 30% or more higher than the national average, while 21 regions had rates more than 25% below the national average; overall, rates were higher in the Midwest than on the East or West coasts<sup>27</sup>. Such variations have not been explained by differences in patient need or demand; indeed, they have little (if anything) to do with the severity of illness, socioeconomic status, or the prices of medical services. Rather, the amount and type of health care consumed by Americans is alarmingly dependent on the capacity of the health care system where individuals live and on the practice styles of local physicians; in short, geography seems to matter more than almost any other factor, including medical appropriateness or evidence<sup>27</sup>. Such geographical variations are troublesome not only with regard to their clinical quality implications, but also with regard to their cost ramifications. For example, Medicare enrollees in higher-spending regions of the country were found to receive more care than those in lower-spending regions, but were not found to have better health outcomes or satisfaction with care<sup>28</sup>.

With respect to workers' compensation programs more specifically, there is no reason to believe that the state of health care quality in these programs differs from that found in the general U.S. health care system. On the contrary, the quality of health care in workers' compensation programs is at least as troublesome as in the U.S. health care system as a whole, if not more so <sup>29</sup>. This is the case because beyond the problems noted above that all Americans face in using the U.S. health care system, injured workers face additional quality-related deficiencies specific to the workers' compensation system. For example, continuity of care within the workers' compensation health care system is problematic; one survey of California workers found that less than 20% of injured workers saw only one physician for treatment of their injuries, while one quarter saw five or more physicians <sup>30</sup>; another study determined that providers of patients with work-related conditions were less likely to be those patients' primary care physicians <sup>31</sup>.

Access to care is another concern for a variety of reasons including the following: patients may be unable to prove that their conditions were caused occupationally; they may be discouraged by employers from reporting occupational injuries; workers' compensation insurance carriers may contest claims; physicians may not be willing to participate in workers' compensation programs due to the administrative and legal complexities of the system; and cumbersome authorization procedures must often be followed to receive care for work-related conditions <sup>31-33</sup>.

Additionally, dissatisfaction from all parties involved in the system is common. As was found in a recent survey of injured California workers, nearly 25% of survey respondents reported dissatisfaction with medical care received or provider choice; over 44% said they had returned to work too soon after injury; and many reported significant continuing impacts of the work injury <sup>30</sup>. From the employer's perspective, dissatisfaction comes from the belief that providers (who are generally paid on a fee-for-service basis in workers' compensation programs) prescribe unnecessary services and keep employees from work for unreasonable lengths of time <sup>29</sup>.

Underlying all of these concerns is the lack of widely used quality of care standards, of treatment protocols, of systematic measurement of quality of care specific to work-related injuries, and of public accountability <sup>29, 34, 35</sup>.

Thus, despite the current deficiencies in quantifying quality of care in workers' compensation programs, it is apparent from the information that is available that the state of quality of care in such programs is at least as problematic as it is in the general U.S. health care system.

### *Measuring Health Care Quality*

Until fairly recently, professional judgment was relied upon almost exclusively to ensure that patients received high-quality care; and the monitoring of and

improvement in quality were viewed as the responsibility of individual clinicians<sup>36</sup>. However, as evidence has emerged regarding wide and inexplicable variations in practice patterns as well in quality, interest has grown in collecting and assessing objective measures. Additionally, dramatically increasing health care costs in the early 1990s pushed both public and private purchasers of health care to demand measurement and accountability<sup>37</sup>.

The measurement of health care quality is an "elusive but achievable goal"<sup>38</sup>. Health care quality is not a single product like a car, microwave, or radio. It is made up of unusually diverse components varying from mammography screening for breast cancer to performing surgery to counseling for depression<sup>38</sup>. Making matters even more complex, the steps in the process to achieve a good outcome are frequently not well specified or mutually agreed upon. To break down this measurement challenge into more manageable units, the conceptual framework proposed by Avedis Donabedian is often used; this framework identifies three dimensions of quality: 1) structure, 2) process, and 3) outcome<sup>39</sup>.

Structure refers to the relatively stable elements of a health care delivery system that promote or prevent access to and provision of services<sup>2</sup>. The structure of a health care delivery system includes community characteristics (such as disease prevalence and distance of the population from key health resources), organizational characteristics (such as number of hospital beds per capita, staffing patterns, and ownership), provider characteristics (such as specialty mix, years in practice, and board certification status), and population characteristics (such as sociodemographics, insurance status and type, and functional status)<sup>2</sup>. Structural quality is most commonly assessed through organizational accreditation. Organizations such as the Joint Commission on the Accreditation of Healthcare Organizations (JCAHO), the National Committee for Quality Assurance (NCQA), and the American Accreditation Healthcare Organization (also known as URAC) accredit various structural aspects of the health care system ranging from hospitals and clinical laboratories to managed care and utilization review programs. In general, research to date has shown that structural factors are often associated with differences in the process of care, but not with significant differences in outcomes<sup>2</sup>. For example, health insurance does not guarantee higher quality care because there may be other factors such as lack of education or transportation that impede access<sup>40</sup>. However, there is some evidence that facilities that perform a higher volume of certain surgical procedures yield better outcomes<sup>41, 42</sup>.

Process refers to what occurs during the patient-provider interaction, and consists of both technical excellence (the appropriateness of the intervention) and interpersonal excellence (the humane and responsive nature of the care provided to the patient)<sup>22</sup>. There are four commonly-used methods of assessing the quality of medical care processes. First, the appropriateness of an intervention (either diagnostic or therapeutic) may be assessed to determine whether for individuals with specific clinical

and personal characteristics, the expected health benefit from doing the intervention is sufficiently greater than the health risk so as to justify the intervention<sup>2</sup>. One group of experts at RAND and UCLA advocate assessing the appropriateness of an intervention through a rigorous procedure of reviewing the literature, developing a list of indications, convening a panel to select indications, rating the indications, and ultimately evaluating the appropriateness of interventions. Another way of assessing the process quality of health care is to examine the degree to which care parallels practice guidelines or professional standards. A third method of process assessment is practice profiling which compares the patterns of cost, utilization and/or quality processes among providers to a pre-established standard. Profiling is distinct from the other process methods outlined in that it is not necessarily conducted specific to a clinical condition. Fourth, process assessment, and more specifically, the interpersonal quality of care, may be evaluated through consumer ratings. Such ratings are typically obtained through surveys of health plan enrollees, and consist of measures of both care received and satisfaction with care received.

Outcome, the third dimension of quality, refers to the effect of the care on the health status of both patients and populations; it includes the results of efforts to prevent, diagnose, and treat health problems, and is often viewed as the "bottom-line" of health care quality assessment<sup>2, 22</sup>. Three approaches to outcome assessment include the condition-specific approach (which examines outcomes for individuals with a particular diagnosis), the generic approach (which examines outcomes—like mortality, change in functional status, and patient satisfaction—that can be assessed on all individuals regardless of health problems), and the sentinel/adverse events approach (which examines an event that is likely associated with poor quality and tracks its frequency)<sup>22, 43</sup>.

In general, good structure increases the likelihood of good process, and good process increases the likelihood of good outcomes<sup>22</sup>. It is possible to measure quality at any of the three levels proposed by Donabedian, and all three levels refer to important pieces of the health care quality puzzle. However, because the relationship between the structure of the health care services delivery system and the processes or outcomes is indirect, structural measures are generally less useful to policy makers than process or outcome measures<sup>2</sup>. Process data are thought to be more sensitive measures of quality than outcome data because a poor outcome does not necessarily occur every time the provision of care is substandard and/or may not be captured because it may take a long time to track<sup>36</sup>. This said, it is important to note that process measures may be viewed as proxies for outcomes if a link has been demonstrated. For example, the process measure of an adult receiving an immunization against measles, mumps, and rubella is a proxy for the desirable outcome of preventing these diseases.

There are two general approaches to assessing quality and identifying areas for improvement<sup>1, 2</sup>. First, one may examine the health services delivery system without

referring to the specific clinical problems of individuals or treatments rendered to them. One example of this method is tracking the timeliness with which a physician receives the results for laboratory tests he/she ordered. Alternatively, one may focus on specific health conditions or services and compare the care delivered to an individual (or group of individuals) having those conditions to an accepted standard. Two examples of this method are evaluating whether: 1) a depressed patient was prescribed an appropriate anti-depressant at the correct dose, and 2) a woman underwent mammography screening at the appropriate time interval. For optimal quality improvement of a health care system, both areas should receive significant attention <sup>1</sup>. Health care quality problems are not simply the result of the deficiencies of a few health care providers; on the contrary, systems are highly responsible as well. As such, assessment and improvement are necessary at both the individual and system levels <sup>1</sup>.

### *Lessons Learned from the Non-Workers' Compensation World*

Within the U.S. health care system, there are a range of organizations that have taken a leadership role in promoting quality measurement, improvement, and accountability. Among these there are accrediting bodies (e.g., NCQA, URAC, and JCAHO), professional associations (e.g., the American Medical Association and Society of General Internal Medicine), individual purchasers or groups that represent purchasers of care (e.g., the Centers for Medicare and Medicaid Services (CMS), Pacific Business Group on Health, the Alliance, the Buyers HealthCare Action Group, the National Business Coalition on Health, The Leapfrog Group), governmental agencies (e.g., CMS, AHRQ, and the Centers for Disease Control and Prevention), and not-for-profit entities (e.g., the Institute of Medicine, the National Quality Forum, the Foundation for Accountability (FACCT), the Institute for Health Improvement, and RAND). The mandates of these groups include identifying priority areas for health care quality, establishing national standards for quality measurement and accountability, implementing quality measurement and improvement activities, and communicating the performance results to providers and consumers. Important lessons have been learned from the experiences of these organizations—many of which may be useful to those embarking on quality measurement and improvement efforts in workers' compensation programs.

The first lesson learned relates to quality measurement. Over the past decade, organizations such as the ones noted above have placed special emphasis on quality measurement. For example, NCQA developed and refined its Health Plan Employer Data and Information Set (HEDIS®) measures which are widely used today to evaluate health plan quality; AHRQ has made important measurement contributions in areas such as consumer satisfaction (through CAHPS®) and hospital quality (through the Healthcare Cost and Utilization Project, HCUP); the National Quality Forum's has developed a set of national measures for assessing the quality of care delivered by hospitals, performance measures for nursing facilities, and standards for patient safety; FACCT has developed quality measures for asthma care, been instrumental in the

development of the children's CAHPS® health plan survey, and developed a public reporting framework for displaying quality of care information in a consumer friendly fashion; and RAND has established a comprehensive, evidence-based tool to assess the quality of preventive, acute, and chronic health care (i.e., the Quality Assessment Tools) that is usable at multiple levels of the health system. These efforts represent important strides in the measures development area. This said, one lesson that has been learned from these measurement efforts is that-- while much has been done and there are signs of improvement-- much remains to do, and the process is slow.

Another lesson learned from quality of care efforts undertaken over the last decade is the growing recognition of the need to expand the scope of quality measurement. Initially, quality measurement and accountability focused on the plan level—primarily in response to the growth of managed care and the HMO being the unit accountable for delivering care to members. Employers, who increasingly shifted greater numbers of their employee and dependent populations into managed care, wanted to understand the quality of care being delivered in these new plan models. Employers also began pushing strongly for more accountability by their health plan partners in response to the rapid increase in health care costs during the late 1980s through the mid-1990s.

Today, the focus on measurement and accountability at the plan level, while still important, is shifting in response to growing recognition that variation in care is occurring at the hospital, provider group, practice site, and individual provider levels within the system, and that health plans have little direct influence in reducing this variation among their contract providers. Moreover, consumers report a desire for performance information about their individual doctor when making health care choices and less interest in plan-level comparative data that frequently show little variation in performance (i.e., all plans look the same to the average consumer). By shifting measurement and accountability down to the appropriate units accountable for delivering that care, it is hoped that more dramatic improvements may be achieved in the quality of care delivered than has been observed during the last decade. One significant effort in this area is CMS' Doctors' Office Quality (DOQ) project that seeks to evaluate individual physicians on clinical quality, patient experience, and efficiency measures. CMS has pilot projects in California, Iowa, and New York to develop and test performance measures that they intend to implement nationwide in the next five years. CMS is also actively engaged in the pilot test of the hospital CAHPS® survey ("H-CAHPS®") with the expectation that it will be used by all Medicare-contracting hospital in the future.

A new focus in the quality improvement area—which underscores efforts to drill measurement and accountability down to the provider level—is the development of financial and non-financial incentives to make the business case for delivering high quality care. There are several initiatives currently underway at the medical group and

individual physician levels, many of which include a pay for performance component aimed at providing financial incentives to improve quality. For example, CMRI-- a nonprofit health information company and the largest federally-designated Quality Improvement Organization (QIO)-- is launching a pilot of the DOQ project in the San Francisco Bay Area. As noted, this project aims to develop a model for measurement and improvement of quality of care for chronic and preventive services at the individual physician and medical office levels; the Bay Area pilot will test incentives for quality improvement such as Continuing Medical Education (CME) credits, public recognition, and reduction in medical liability risk and premiums <sup>44</sup>. Additional efforts to encourage providers to improve the quality of care they deliver include the Blue Cross of California Physician Quality Incentive Program (PQIP) and the Integrated Healthcare Association Pay for Performance Initiative. These two, California-based efforts will provide financial incentives to physicians and physician groups based on their performance on a set of quality measures; non-financial incentives (such as comparative performance scores of peers) will also be used <sup>45</sup>. In Florida, the Central Florida Health Care Coalition (CFHCC), a group of employers and providers committed to health care quality, is currently developing a program for PPO providers that will include three different tiers based on performance; the tiers will be tied to differential reimbursement and reduction of hassle factors that physicians currently face (e.g., elimination of pre-authorization for hospital admissions, electronic claims submission and rapid reimbursement for expenses) <sup>46</sup>. This program is slated for roll-out in 2004 and will include a public report card for consumers.

The shift in focus to the medical group and provider levels that is occurring in the general health care system is especially relevant to the workers' compensation system given its fee-for-service nature which relies heavily on individual providers. The development of measures that can be applied at the individual physician-level will be important to efforts to evaluate the quality of care in the worker's compensation system. Payment tiers (which reward physicians who provide higher quality care with higher reimbursement) as well as financial bonuses may also be useful mechanisms to encourage the delivery of high quality care in workers' compensation programs.

Another lesson learned from the last decade of work in quality of care is the importance of publicly reporting performance results. While public reporting remains controversial and is typically not favored by providers of care, evidence suggests that such reporting may yield positive change. For example, a recent study found that making hospital performance results public stimulated greater investment in quality improvement activities among those hospitals that publicly reported performance data as compared to hospitals that either received confidential internal reports comparing their performance to their peers or that did not receive any report card information <sup>47</sup>.

Finally, important lessons have also been learned regarding strategies for moving the quality of care agenda forward. Two organizations in particular provide

helpful illustrations of the convergence of factors that have been found necessary to advance the quality of care agenda in the general health care world, and are likely required for success in the workers' compensation arena as well. First, at the national level, NCQA has undertaken significant quality measurement and accountability efforts and, through its accreditation program, has succeeded in raising national awareness of the importance of health care quality<sup>2, 48</sup>. More recently, NCQA has partnered with leading associations (American Heart Association, American Stroke Association, and American Diabetes Association) to establish a program that allows physicians to voluntarily submit performance data on diabetes care and cardiovascular stroke care as part of its Physician Recognition Programs. This program is designed to publicly and nationally recognize and reward those health care providers who are delivering high quality care.

The NCQA model is a collaborative process of the key stakeholders—purchasers of health care (both public and private), plans, providers, and consumers. Its leverage for quality measurement and accountability stems from having purchasers at the table who require, as part of their contracting process, that health plans with which they do business undergo NCQA accreditation. To arrive at this point, NCQA ensured that all stakeholders were at the table to define the priorities for quality measurement, the levels of the system at which measurement should occur, and the way in which the results should be scored and made public. The development of NCQA's program has been iterative, starting with a small number of clinical quality measures and operating standards for the delivery of high quality care. Over time, NCQA has built a larger set of measures, covering a broader array of clinical conditions, and has incorporated its clinical and patient experience measures into its accreditation program. The key was getting a national body, representative of the key stakeholders, to use a consensus process to develop national standards for quality of care. The national standards derive from scientifically rigorous reviews of the literature to define evidence-based practices.

Second, in California the California Cooperative Healthcare Reporting Initiative (CCHRI) is a unique collaborative of health plans, providers, and purchasers dedicated to the standardized measurement and public reporting of quality indicators (CCHRI 2002 Report on Quality, 2002). Each year, CCHRI engages in the joint collection of CAHPS® and HEDIS® data at the plan level; conducts a Provider Access Audit Survey and the California Consumer Assessment Survey (CAS) which report on patient experience with getting care from more than 100 medical groups statewide; and operates the Diabetic Continuous Quality Improvement project, a collaborative of plans and provider groups that partner to improve care for diabetics. Like NCQA, CCHRI has been successful at bringing key players together and leveraging their collective interests to achieve the larger goals of quality measurement and accountability through public reporting of performance results. CCHRI works to minimize the burden of data collection through coordination across plans and medical groups for HEDIS®, standardizing the data collection process, moving health plans away from chart review

and towards the collection of electronic administrative data, and promoting measurement beyond the health plan level. As with NCQA, CCHRI's experience has been iterative-- starting with a small number of measures and only measuring at the plan level, and now undertaking a broad range of quality measurement, improvement, and reporting activities at several levels of the health system.

The experiences of NCQA and CCHRI offer important insights and lessons for broadening quality measurement and accountability to the workers' compensation program. In both instances, success required organizing and convening the various stakeholders to establish common agreement on the problem(s), to develop measures, and to reach consensus regarding how the data would be reported publicly.

### *The Business Case for Quality*

Increasingly, there is evidence that health care quality measurement and accountability have the potential to yield significant clinical benefit to the patient. Steady, and in some cases dramatic, improvement in the quality of health care and services has been documented by NCQA in health plans that committed themselves both to NCQA's performance-based accreditation process and to systematic public reporting of the data <sup>49</sup>. For example, from 1999 to 2001 the rate of cervical cancer screening increased from 71.8% to 80%, and the rate of cholesterol control increased from 36.7% to 59.3% <sup>49</sup>. Additionally and impressively, the rate of treatment with beta-blockers after a heart attack improved from 62.5% in 1996 to 92.5% in 2001—a 50% increase which has saved an estimated 10,000 lives in the population served by reporting commercial managed care plans <sup>49</sup>. Although critics may argue that such improvements may simply be due to better data, this explanation does not likely apply at this more advanced stage of NCQA's measurement process. In other words, it is possible that early improvements may be attributed to better data-keeping; however, such data-related benefits typically accrue at the beginning of a measurement process and then level out.

While clinical reasons such as those highlighted above are very compelling, establishing a business case for quality is somewhat more complex. A business case for quality implies that an entity that invests in a health care improvement intervention will realize a financial return on its investment within a reasonable amount of time <sup>50</sup>. In terms of potential financial benefit to employers gained from measuring and reporting health care quality, there are two main scenarios to consider. On the one hand, experts estimate that the elimination of non-beneficial and potentially harmful care would lead to large savings in both human and financial terms; on the other hand, for those who receive too little or technically poor care, fixing problems may increase spending <sup>7</sup>. If employers view their health care expenditures not simply as a cost of doing business but as an investment both in the productivity of their workforce and in their organization's future, there is a substantial business case for quality <sup>51</sup>. For example, if every American with depression received care from a health plan or provider

performing at the 90<sup>th</sup> percentile rank, employers could reclaim as many as 8.8 million absentee days per year <sup>49</sup>. If the care provided for asthma, diabetes, heart disease, and hypertension were also in keeping with the 90<sup>th</sup> percentile level, NCQA estimates that employers would save another 13 million sick days per year <sup>49</sup>.

There is also some evidence that delivering higher quality care may make a difference to the bottom-line of hospitals and physician practices in the general U.S. health care system. The results of one study of cardiac surgery in New York state indicate that hospitals and physicians reporting better outcomes experienced higher rates of growth in market shares; physicians with better outcomes also were found to have higher rates of growth in charges for the procedure examined (coronary artery bypass graft or CABG) <sup>52</sup>. While these findings are promising, there is also evidence that some entities do not see a compelling link between providing higher quality care and improved business. For example, one study in Wisconsin found that while making hospital performance information public stimulated quality improvement at hospitals in areas where performance was reported to be low, these same hospitals did not believe that such reports would affect their market share <sup>47</sup>. For benefits to be accrued on a larger scale and in a more consistent manner, more efforts are needed to ensure that health care payers (e.g., consumers and employers) recognize quality differences and have a way of "voting with their feet" so that entities providing poor quality care will feel a loss in their bottom lines <sup>47, 50</sup>. As discussed in previous sections, incentives (both financial and non-financial) may also be a useful way of making the business case for quality apparent to individual providers and provider groups.

In terms of insurers, making a business case is also challenging at present. In many instances, the financial gains from quality improvement efforts may only be realized to insurers many months or even years in the future. Given that many Americans change health plans frequently (often with changes in employment), insurers may not have significant motivation to invest in quality improvement. For insurers to become more interested in and committed to health care quality measurement and improvement, it is likely that employers and other purchasers will need to demand such efforts as a part of doing business. There is a need for payers to hold insurers accountable for the health care that is delivered through the providers with whom they (the insurers) contract. Regulators may also be helpful in setting quality standards and holding insurers accountable.

Regarding the special case of workers' compensation programs, at present the business case for quality improvement depends most heavily on employers. In fact, because of the unique structure and goals of workers' compensation programs, employers would seem to have an even greater incentive to ensure high quality care in such programs than they do in the general health benefits they provide. For example, distinct from traditional employer-based coverage, workers' compensation programs cover more than medical care. In 2001 in California, 53% of claims paid for insured

workers in workers' compensation programs were indemnity-related (e.g., cash benefits, including salary replacement that is paid to injured workers as long as they are unable to work due to their work-related injury/illness); 47% of claims were medically-related (e.g., payments made for providing health care benefits for work-related illness and injury)<sup>53</sup>. Of specific note, in California approximately 40% of lost time claims end in permanent disability claims which may result in significant payments from employer to employee<sup>54</sup>. Poor quality medical care may increase costs associated with these other benefits by, for instance, increasing time out of work or increasing the probability that an injury will result in permanent disability.

Additionally, with very few exceptions, employers bear the entire cost of coverage in their workers' compensation programs (i.e., for medical, indemnity, and rehabilitation benefits)<sup>55, 56</sup>. It is estimated that employers spent \$41.7 billion on workers' compensation benefits payments in 1998; if payment to insurers, state funds, and payments reported to regulators of self-insured employers are relied upon, the estimate of employer costs for 1998 is \$52.2 billion<sup>55</sup>. Both of these estimates are likely to be low because current methodology and data do not capture lost productivity from time out of work, overtime, retraining, or other costs incurred by employers when injuries disrupt work<sup>55</sup>. Thus, inherent in an employer's management of expenditures in its workers' compensation plan is the need to consider salary and benefits replacement in addition to health care costs. Ultimately, employers want their workers' compensation plans to restore their workers not simply to good health, but rather to good health *and productivity* at the lowest possible cost<sup>56</sup>. Because of this unique objective, it is especially in the employer's interest that high quality care be provided so that the injured or ill worker returns to work quickly, in a condition that allows him/her to carry out job task(s), and with minimal long-term disabilities requiring further use of workers' compensation benefits.

Staggering statistics regarding the extent and overall cost of occupational injury and illness also support that quality measurement and improvement should be a top priority. Each day, an average of 9,000 U.S. workers sustain disabling injuries on the job, 16 workers die from an injury sustained at work, and 137 workers die from work-related diseases<sup>57</sup>. The economic burden of this toll is high; it is estimated that the annual direct and indirect cost of occupational injury and illness is \$171 billion (\$145 billion for injuries and \$26 billion for diseases)<sup>57</sup>. These costs are significant both in and of themselves and when compared to the costs of other leading health conditions: \$33 billion for AIDS, \$67.3 billion for Alzheimer's Disease, \$164.3 billion for circulatory diseases, and \$170.7 billion for cancer<sup>57</sup>.

Support for the argument that employers should care about the quality of health care delivered in their workers' compensation programs also comes from common sense and personal experience indicating that there is a direct, cause-effect relationship between health and productivity<sup>51</sup>. It makes sense for employers to push for high-

quality care in their workers' compensation programs because high quality care is linked to better outcomes, and better outcomes translate into workers who return to their jobs safely and in a position to add value to the company <sup>51</sup>.

In the workers' compensation arena, there is currently not a strong business case for physicians and medical groups to measure or improve health care quality. Because the current system is primarily fee-for-service, there are minimal financial incentives for physicians to provide efficient care, and limited-to-no accountability. Simply put, more is better in terms of the bottom line, without regard to quality. If high quality care is an important goal, current financial incentives are wrong; they promote more care that may not improve the patient's condition and that costs employers more. For physicians and medical groups to focus on quality, it is necessary to construct a business case for them. Employers need to find a way to drive more business to high quality providers and/or to pay them more for high quality care. To do this, quality data are needed, and providers who deliver high quality care must be rewarded financially. In the non workers' compensation world, this is beginning to happen. Pay for Performance—a collaborative, statewide initiative developed by a leadership group of California employers, health plans, and physician organizations to stimulate improvement in patient satisfaction and clinical quality—is a program that will provide significant health plan payments to medical groups based on their performance; it will also publicly report performance results through a consolidated report card <sup>58</sup>. Employers in California could emulate this program within the workers' compensation system.

In summary, for both the general health care system and for workers' compensation programs, it is highly unlikely that any entity involved in the health care field-- and especially in the private sector of this field-- will make a concerted effort in the quality improvement area without a strong business case. While some of the rewards to a business for engaging in quality improvement efforts may come in the form of an improved image or satisfaction with adhering to a corporate mission, these motivating factors are not enough <sup>50</sup>. As suggested above for both the U.S. health care system as a whole as well as for workers' compensation programs, the strongest business case for quality rests with employers and other payers; regulators may also exert influence. When these players leverage their power by demanding high quality health care and accountability, and when financial incentives are aligned with those goals, the business case for quality will be significantly more clear and compelling to insurers and providers of health care. In California, the California Public Employees' Retirement System's (CalPERS) recent decision to tie premiums to quality and preventive care demonstrate a step in the right direction <sup>59</sup>. The Pay for Performance initiative is another good example.

### **III. Challenges to Measuring and Improving Health Care Quality**

#### ***General Challenges***

To improve the quality of health care, it is important to measure it. One must be able to pinpoint problematic areas and know their scope in order to design interventions, assess progress, and make plans for additional improvements. Measuring the quality of health care, however, is not an easy task; there are many obstacles that must be overcome along the way. For example, in order to measure health care quality, it is necessary to balance the competing viewpoints of many players in the health care system<sup>60</sup>. Purchasers generally assess quality by how well premium dollars are spent for the given covered lives; patients typically judge quality in terms of how well their individual needs are met; and physicians attempt to walk a fine line among the many opposing demands of cost-controlling mechanisms, their own clinical judgment, and patient demands. Finding feasible ways to address each player's concern while remaining true to the overarching goal is difficult.

Another challenge to measuring the quality of health care is the complexity of establishing accountability (i.e., which level of the health care system is responsible for achieving certain measurement goals, and what individuals within each level should be held accountable)<sup>60</sup>. The performance standards expected of individual physicians, medical groups, hospitals, and health plans must be fair (i.e., achievable by that entity) and clearly defined. Of note, holding physicians accountable may be especially difficult to do in a fee-for-service environment where individuals are used to being independent and there are significant methodological, political, and legal obstacles. Additionally, if reporting the same measures for different entities is desired, it is important that quality scores are constructed so that direct comparisons may be made legitimately. Even in cases where intentions are good, logistic concerns (e.g., getting access to data, having an adequate sample of patients), lack of resources to evaluate health care delivery at different levels, and the imperfections of case-mix risk-adjustment methods can make evaluation arduous. The challenge of establishing accountability in quality measurement is also intimately tied to the larger, more global challenge of convincing all players that quality problems in the U.S. health care system cannot be attributed solely to individual clinicians or to management concepts such as health maintenance organizations<sup>61</sup>. While there certainly may be "bad apples" in the pool of physicians or inferior plan designs, the quality problems of the U.S. health care system are systemic--cutting across all types of care, facilities, providers, health insurance, geographic areas, and patient populations; as such, there needs to be accountability at all different levels<sup>1, 7, 8, 62</sup>.

A third challenge to assessing health care quality is the work required to establish explicit and transparent clinical criteria that allow for measurement<sup>1, 60</sup>. Wherever possible, quality measures should be based on the most current, evidence-based scientific literature. Where studies are not available, professional consensus should be sought. This process of review to construct measurement criteria is labor-intensive, time-consuming, and expensive. Thus, while standards have been developed for many important conditions, there are many more (such as acute problems, rare

conditions, or complexities of common conditions) for which there has been no criteria development. Additionally, even when criteria have been developed, they are often presented as clinical practice guidelines rather than in a format that is operationalized for quality measurement-- meaning, for example, that vague terms such as "mild" or "severe" have not been translated into specifics, that performance periods have not been precisely defined, and/or that complexities related to patient compliance have not been taken into account.

Linked to establishing explicit clinical criteria is the task of selecting indicators for reporting <sup>60</sup>. Measures cannot simply be explicit and evidence-based, they must also be relevant, scientifically sound (i.e., reliable and valid), and both comprehensive and financially achievable-- not a simple balance to reach or to maintain.

The limitations of information systems also pose significant challenges to quality measurement <sup>60</sup>. The detailed clinical information needed to assess quality of care, especially at the patient/provider or process level, is often only available in medical records that are very costly to review. Frequently, this lack of accessible, affordable information makes scoring quality measures as well as adjusting for case-mix differences among providers impossible. Because of this situation, the availability of automated data may drive the selection of quality measures, not the importance of the measure itself. Such deficiencies of relevant, usable data underscore the need for more advanced medical records systems <sup>1</sup>; for example, an electronic medical record would enable clinicians to follow closely their patients' treatment paths and would permit reliable, comprehensive, pertinent, and timely quality assessments to be made.

With regard to information on patients' assessments of quality, the Agency for Healthcare Research and Quality-sponsored Consumer Assessment of Health Plans Study (CAHPS®) has made a significant contribution to generating interest in consumer issues as well as to creating credible measures; however, a need remains for more information and further study in this area to ensure that such data are actually used by consumers to make health care decisions <sup>63, 64</sup>.

If data do exist, another complicating factor may be privacy and confidentiality regulations. For example, the federal Health Insurance Portability and Accountability Act (HIPPA) limits access to personal health information <sup>1</sup>. Additionally, the federal Privacy Act of 1974 precludes the federal government from collecting identifiable information at the physician level <sup>65</sup>. There are numerous similar laws at the state level as well. Thus, patient consent is not the only limiting factor in gaining access to data; many physicians and other health care entities do not want their data exposed.

Still another challenge to quality measurement, and perhaps more so to improvement, is aligning financial incentives with the provision of high-quality care <sup>50, 60</sup>. In many instances, the U.S. health care system employs payment mechanisms that

may be at odds with the provision of high quality health care. For example, capitation offers providers a fixed payment for providing services to a certain population. While in some cases this inducement to limit care may result in best practices, in other cases a reduction in the provision of services may not be in line with optimal care<sup>66</sup>. At the opposite extreme, fee-for-service (the payment structure most often used in workers' compensation programs) tends to financially reward providers for higher volume, not quality, of care; it sets few limits and thus often leads to overuse. Still another example of a potentially mis-aligned financial incentive is that reimbursements for interventions or medications may be higher than for potentially more appropriate options (such as consultation regarding lifestyle modification)<sup>2</sup>. Designing incentives that track well with achieving quality goals is complex<sup>50</sup>. It requires a better understanding of the optimal combinations of interventions for different conditions as well as an assessment of how the structure of benefits, providers, and payers supports or inhibits the provision of high-quality care<sup>60</sup>. In California, as noted, at least two efforts are currently underway to assess whether offering providers a financial bonus for providing higher quality care leads to an improvement in the quality of care: the Physician Quality and Improvement Program (PQIP) at Blue Cross of California, and the Pay for Performance program managed by the Integrated Healthcare Association<sup>45</sup>. Even if these complicated interrelationships are understood, the political will to align incentives must also be present.

### *Challenges Specific to Workers' Compensation*

In addition to the challenges of measuring and improving quality that exist in the general U.S. health care system, workers' compensation programs face additional and unique obstacles. First, at the most basic level, there is not a clear, generally-accepted definition of quality for workers' compensation health care or agreement about what the most important issues are<sup>35</sup>. Without clear consensus about the end-goal, it is difficult to construct a process for measurement or improvement.

There are also no widely-usable, standardized quality measures for either clinical care or consumer satisfaction in workers' compensation programs. The assessment of clinical performance in particular has been stalled by the absence of evidence regarding the efficacy of most treatments and by uncertainties in interpreting existing information given wide variations in the workers' compensation population<sup>34</sup>; thus, the ability to assess the quality of technical care has been somewhat restrained by the weakness of clinical knowledge. Of note, despite these limitations, URAC made a significant effort to establish quality measures specific to workers' compensation. More specifically, with funding from the Workers' Compensation Health Initiative (WCHI)-- a \$6 million, multi-year program of the Robert Wood Johnson Foundation (RWJF), URAC designed several complementary tools relating to workers' compensation care provided by managed care organizations (MCOs): a survey of injured workers, a protocol for analyzing claims data, and a tool for auditing medical records for quality of care indicators<sup>67</sup>. URAC's measures, collected through these three sources, cover the

following: 1) access, 2) coordination of care, 3) communication, 4) work-related outcomes (e.g. return-to-work and lost days), 5) patient satisfaction, 6) injury prevention, 7) appropriateness of care for low-back, shoulder, knee, forearm, wrist and hand complaints, 8) cost for four injury groups (low back, shoulder, knee, and forearm/wrist/hand injury) and 9) utilization for the same four injury groups. While these efforts are an important start in that they address areas not covered by the Health Plan Employer Data and Information Set (HEDIS®) or other measurement systems, there are conspicuous limitations<sup>67</sup>. URAC's measures are consensus-based (not evidence-based), and they only address care provided by MCOs-- significant because only a very small percentage of individuals in workers' compensation programs are enrolled in managed care<sup>68</sup>. Additionally, because the quality measures have not been validated, they are recommended for internal measurement and improvement only (i.e., not to assist in comparisons of one organization to another in a public accountability framework)<sup>67</sup>.

Third, quality measurement suffers in workers' compensation programs due to the fragmented nature of the system<sup>35</sup>. Presently, each of the fifty states and the District of Columbia legislate their own workers' compensation programs; as such there are no national standards<sup>69</sup>. Additionally, there are complexities within each program. For example, in California when a worker is injured or becomes ill due to work, the employer (who, by law, pays the entire cost of care) controls the medical treatment for the first 30 days after an injury is reported; beyond that point, the employee is free to select any treating physician or facility<sup>70</sup>. Of additional note, if the employee notifies the employer of a preferred, personal physician prior to the work-related injury or illness, the employee may be treated by that physician from date of injury/illness<sup>70</sup>. Given these regulations-- which allow injured workers to see potentially many different providers in many different types of health facilities and systems-- care may be disjointed, thus adding another complicating factor to the quality tracking process. These complexities again underscore the problem of lack of accountability within the workers' compensation system.

In addition to the difficulties of tracking data from multiple sources, quality measurement efforts in workers' compensation programs face additional data challenges. Researchers have limited access to workers' compensation claims data, there is minimal information collected on medical care and functional status in existing databases, there is no national workers' compensation data collection system, and it is not possible to link workers' compensation data to general health information<sup>35</sup>. The latter issue is of particular importance because some workers, fearing retribution from their employers, elect to use their regular health care benefits for a work-related injury rather than being cared for under their workers' compensation plan; when this occurs, work-related injury data are lost in the sea of general health care claims<sup>33, 68</sup>.

Yet another obstacle to quality measurement that is somewhat unique to workers' compensation programs is the significant distrust with which the different players frequently regard each other<sup>33, 71</sup>. In a system where the employer pays the entire cost of medical care (i.e., no co-payments or deductibles for the injured worker) as well as disability benefits (i.e., at least partial wage compensation for time lost due to injury), the major stakeholders often view the situation differently and may have conflicting goals. Focus groups conducted in California have found that employers may be concerned about misuse of benefits, especially since disability pay is not taxed and thus a worker could earn more on disability leave than by working<sup>33</sup>. Employers also worry about the overuse of services that physicians may encourage given that workers' compensation billing operates on a fee-for-services basis in the majority of cases<sup>68</sup>. As found in several studies, workers also are sensitive to and resentful of these suspicions, fearing that their injury/work limitations could become an excuse to demote or fire them<sup>72</sup>. Frequently, workers also distrust the company physicians to whom they are typically sent by the employer or insurer; one of the main concerns they voiced was that the physician (who relies on the employer/insurer for referrals) could be more focused on getting them back on the job than on fully treating the work injury/illness<sup>71</sup>. At the same time, the physicians in this California focus group reported being frustrated by the inability to establish trusting relationships with some patients and by the intense legal component of providing care to injured/ill workers. Although care disputes are ultimately resolved by judges (not clinicians) in California, physicians are still embroiled in the legal aspects of care because their assessment of injuries is a critical determinant of whether an employee receives workers' compensation benefits. Ultimately, in this milieu of mistrust, incentives are misaligned. The goal is often not high quality care, but instead the maximization or minimization of care/compensation depending on whether one is (or represents) the employer or employee. Litigation (or the threat of litigation)-- not quality-- often drives care<sup>73</sup>. In such an environment, measurement of health care quality is not only an empirical challenge, it is also a highly political task.

Lastly, a significant obstacle to quality measurement in workers' compensation programs is that key players are not demanding it. The quality movement in the general U.S. health care system has been spurred on by key stakeholders, oftentimes employers or other payers, asking for it and indeed requiring it as a part of doing business<sup>38, 49, 51, 74</sup>. Workers' compensation needs influential quality champions-- most notably those who control payment for care, unions, or perhaps state or federal governments on behalf of workers-- to convince all players that quality measurement is important and further, to push for financial penalties if quality measurement and performance objectives are not met.

#### **IV. Next Steps to Improve Quality in Workers' Compensation in California**

### *What Has Been Done*

With regard to national quality improvement efforts relating to workers' compensation, at the broadest level, the National Institute for Occupational Safety and Health (NIOSH), a division of the Centers for Disease Control and Prevention (CDC), conducts research and makes recommendations for the prevention of work-related disease and injury <sup>57</sup>. Additionally, through the Department of Labor's Occupational Safety & Health Administration (OSHA), the federal government sets standards that impact the health and safety of workers <sup>75</sup>. Significantly, since 1995 the WCHI (noted above) has aimed to improve the quality of medical care for persons suffering job-related injuries and illness by awarding grants to develop and test models of health services delivery, and to conduct applied research regarding the quality of workers' compensation medical programs <sup>35</sup>. Through the WCHI, research and/or evaluation projects has been carried out in the following areas: 1) defining quality health care and establishing standards for measurement, 2) disseminating and evaluating treatment guidelines, 3) developing tools to measure satisfaction and outcomes of care, 4) developing tools and methods to improve communication, 5) encouraging and evaluating the implementation of integrated/coordinated benefits programs, and 6) supporting efforts to collect and disseminate needed information <sup>76</sup>. This work has provided useful insight and direction for future efforts. For example, regarding quality measurement, WCHI funding has supported the development of clinical practice guidelines for workers' compensation injuries as well as of URAC's performance indicators for managed care organizations <sup>67, 77</sup>. WCHI projects have also yielded evidence that physicians are receptive to assistance with quality improvement especially if benchmarks are provided, that obtaining quality information from workers is critical, that case managers are an effective way of ensuring appropriate use of workers' compensation benefits, and that training sessions for clinicians may be a useful method of generating interest in and improving quality <sup>76</sup>.

In California, significant efforts regarding quality in workers' compensation programs have been made by the state's Division of Workers' Compensation (DWC), many funded by the WCHI. For example, DWC conducted a preliminary assessment of utilization review in California's workers' compensation health care system and found that there is considerable variability in current utilization review practices, including variation in clinical criteria used for review and in the internal appeals process <sup>78</sup>. DWC recommended further study of utilization review in California's workers' compensation programs. Additionally, it recommended that in order to avoid cumbersome administrative processes and high transactional costs, regulations and statute governing utilization review in workers' compensation should be more consistent with those in other health care sectors in the state. Utilization review data collection methods are important because the data gathered for such review may form the foundation of a database that could be used for quality measurement.

With support from the WCHI, DWC also explored the feasibility of establishing a California Work Injury Resource Center to educate the community on quality of care for injured workers, to convene quality of care researchers, and to work with stakeholders regarding quality of care issues<sup>79</sup>. Thus far, the Center has assisted in creating a greater awareness of quality problems in workers' compensation and in taking steps to measure, report, and improve quality. It also held a workshop and twice convened an Ad Hoc Work Group on Quality Improvement to address quality issues, including identifying steps to develop standardized quality indicators.

Additionally, DWC (with assistance from the University of California at Berkeley's Survey Research Center) designed a standardized questionnaire to assess patient satisfaction with care as well as patients' perceptions of pain and functional outcomes. This survey was then used in a study of 800 workers. Importantly, this study found strong and consistent evidence of dissatisfaction, underscoring the need for quality monitoring and improvement efforts<sup>30</sup>. DWC also conducted a series of focus groups with key players in workers' compensation (i.e., injured workers, employers, physicians, nurse case managers, claims adjusters, attorneys, DWC judges, and information/assistance officers)<sup>33</sup>. The findings of these focus groups highlight the significant disagreement and lack of trust among the groups. This study will likely be important in future quality improvement planning as it documents the context in which those striving to improve quality must work.

Finally, DWC oversees data reporting for workers' compensation managed care organizations. These data may be a useful source of information for quality measurement at this stage, given that they are fairly comprehensive and that there are not many such data resources at present<sup>80</sup>.

Another entity in California, the Commission on Health and Safety and Workers' Compensation (CHSWC), a joint labor-management body created by the workers' compensation reform legislation of 1993, has also played an important role regarding health care quality in workers' compensation programs. For example, CHSWC produced a guidebook for workers to help navigate the workers' compensation system<sup>81</sup>. It has also funded research examining return-to-work issues as well as the impact of legal decisions on medical practice<sup>71, 73</sup>. Additionally, CHSWC has helped to inform the issue of the economics of workers' compensation—which, as noted above, may be linked to quality through the incentives and disincentives that exist for different players to provide high quality care or to seek care through the workers' compensation program<sup>55, 82-85</sup>.

Of particular note, CHSWC is currently involved in the Worker Injury National Survey (WINS) Project, a national effort funded by the Robert Wood Johnson Foundation to better understand how injured workers fare after treatment for their injuries<sup>86</sup>. A survey that was developed and tested by the WINS team has been

administered in Florida and Minnesota; California as well as Texas, West Virginia, and Massachusetts will soon be administering a revised instrument. In addition to the wealth of information being collected regarding injuries and treatment, the WINS project is promising in that it will allow state-to-state comparisons to be made.

These efforts by DWC and CHSWC represent important contributions to quality measurement and improvement in California. They may serve as an important basis for future initiatives to improve the quality of health care in workers' compensation programs in the state.

### *Next Steps in California*

Given the troubling state of health care quality and the challenges of measurement, what steps may be taken to improve the quality of health care in California's workers' compensation program? First and foremost, there is a need for workers' compensation stakeholders in the state to acknowledge that there is a quality problem in need of addressing<sup>74</sup>. Convincing stakeholders of this fact and then keeping this issue on their agendas is perhaps the single biggest challenge to quality measurement and improvement in California's workers' compensation programs. The mindset in California concerning workers' compensation needs to be expanded beyond cost to include quality.

Secondly, to improve the quality of health care in California's workers' compensation program, stakeholders must move past the distrust they have of one another to recognize that improving the quality of health care in the state's workers' compensation program stands to benefit each of them. If quality can be measured and improved, workers would receive improved care and return to their jobs better able to perform; employers would receive better value for their workers' compensation dollar (including lower costs and fewer legal challenges); insurers would deliver a better product that, if incentives are aligned properly, could result in greater market share; and physicians, rather than being trapped with frustrated patients and in legal conflict, would likely find the atmosphere less contentious and thus more rewarding. Additionally, an effort must be made to view quality problems primarily as the result of systemic failures, as opposed to the failures of individual physicians. Physicians working within the workers' compensation system cannot be the only ones held accountable for quality deficiencies. Instead, all levels of the system need to be bear responsibility and partnerships (especially between health plans/employers and physicians) need to be forged<sup>49, 50</sup>.

Third, funding is needed to carry out the task of measuring and improving quality<sup>74</sup>. While it is well known that California, like most states, is presently in a budget crisis, there remains the possibility of pursuing support from the federal government, private foundations, and the private sector-- in addition to trying to secure some funding from the state.

Fourth, someone-- whether it be private or public purchasers, regulators, labor unions, and/or some other entity-- must demand that attention be focused on quality in the workers' compensation system. As past experience at both the national and state levels has shown, change instigated from within is highly unlikely; significant quality improvement efforts in health care have historically come from continued outside pressure. Such demand would be most effective if it came from entities with significant leverage. Strongly linked to the need for a demand for improved health care quality is the need for those demanding improvement to hold accountable those delivering care. Quality measurement and improvement is not likely to happen unless responsibilities for these tasks are clearly delineated and there are repercussions for not meeting goals<sup>74</sup>. Of note, it is extremely difficult to achieve accountability and quality improvement in a fee-for-service system (which is the structure of the overwhelming majority of workers' compensation programs). Aligning incentives and overcoming barriers in this area have not been resolved in fee-for-service environments in non-workers' compensation programs; doing so remains a significant-- though not insurmountable-- challenge for both types of health systems.

It is recognized that these steps present significant hurdles that are not to be taken lightly. Acknowledging these challenges but electing to assume the positive scenario that they can be overcome, we offer some suggestions here regarding how to advance the effort of measuring and improving workers' compensation quality in California. Once the quality problem has been accepted and funding has been secured, it is recommended that a task force be formed and charged with addressing quality issues in workers' compensation programs in the state. Ideally this team would be comprised of clinicians familiar with work-related injuries and illnesses in the state, researchers well-versed in quality measurement, employers, insurers, legal experts, representatives from the state's DWC and CHSWC, and workers. Regarding the latter, it is vitally important that patients be included in and listened to by the task force. According to the IOM, one of the key components of an effective health care system is that it be patient-centered. As such patients should be involved at all stages of the quality improvement effort-- and especially in the selection of measures and how to report them. Of note, at this juncture, lessons from DWC's experiences with its Ad Hoc Work Group on Quality Improvement may be useful. Ideally, this team would be the beginnings of a state-wide workers' compensation quality oversight board which would oversee quality measurement and reporting for California's workers' compensation programs on a consistent basis<sup>74</sup>. Given that there is no such organization at the federal level, it seems especially important that there be one at the state level.

Concerning the direction of the task force, as noted previously some research has been conducted in California regarding patient satisfaction. Approximately one quarter of a random sample of 800 injured California workers reported that they were dissatisfied with their overall care and choice of providers<sup>30</sup>. Additional focus groups

conducted in the state have also documented extreme patient dissatisfaction with care<sup>33, 71</sup>. This body of research serves the important function of documenting one significant problem with the workers' compensation program in the state: patient dissatisfaction. What is now needed to advance the quality cause is documentation and baseline measurements of the clinical care provided through workers' compensation programs. In particular, external assessments of clinical quality indicators (i.e., those comparing information across several entities, rather than internally) are needed to understand variations in care and to assist in improving care where unfounded variations exist<sup>2</sup>. It is only by measuring the quality of care that the nature and extent of the problem can be known and effective improvement strategies can be developed and implemented. Demonstrating empirically that there are quality problems also is helpful in convincing skeptics.

Thus, it is suggested that the first job of the task force be the selection the health conditions or problems to be evaluated. There are several criteria useful to consider in this task<sup>2</sup>. First, both to have the greatest impact and to ensure adequate statistical power, the condition selected should be highly prevalent or have a significant effect on the mortality and morbidity of the population. Second, there should be reasonable scientific evidence that efficacious or effective interventions exist to prevent a disease from developing, to identify and treat the disease at an early stage, or to reduce impairment, disability and suffering associated with having an illness. Third, improving the quality of the service delivery should improve the population's health, not produce inconsequential health improvements. Fourth, with limited resources for health care, the recommended interventions should be cost-effective. Fifth, the recommended interventions should be able to be significantly influenced by health plans or providers; it is not appropriate to hold plans and providers accountable for interventions (such as seat belt use) that are beyond their control. In keeping with the successful tactics used by other quality measurement organizations such as NCQA, it is also recommended that the task force "start small" by focusing on only a few conditions at first.

At this juncture, it would also be beneficial to identify any existing sources of data that may be helpful in beginning to understand workers' compensation quality problems in the state, in defining the most important areas for evaluation, and perhaps in beginning to measure these areas if the data permit. In past quality improvement efforts, effective and accurate systems for tracking care have proven to be a crucial component of success<sup>49</sup>. Data are especially important at the beginning of quality improvement efforts when it is useful to establish baseline measurements. One useful source of information will be the data collected through the WINS Project with which the CHSWC is currently involved. As noted previously, California-specific data collected through WINS will include information on how injured workers fare after treatment for their injuries; given that the survey will be conducted in several states, state-to-state comparisons will also be possible<sup>86</sup>.

Other potentially useful data are those collected by the state's DWC as part of a legislative mandate to evaluate medical and related health care services provided to injured workers in managed care organizations (called "health care organizations" or HCOs by the state) <sup>68, 80</sup>. This already-existing database contains enrollment, cost, and care information; it includes worker demographics, outcomes, principal diagnosis, utilization, provider(s), and costs. As such, it may be a good starting place for documenting current care and identifying problem areas. Additionally, the states managed care efforts in workers' compensation could serve as a laboratory to test quality measurement ideas on a smaller scale <sup>68</sup>. Currently 500,000 out of the 14 million workers in California are enrolled in a HCO <sup>68</sup>.

Additional sources of potentially useful data include the Industry Claims Information System (ICS) constructed by the California Workers' Compensation Institute (CWCI), and a similar database from the Workers' Compensation Research Institute (WCRI) <sup>87</sup>. These data may be useful as they contain information regarding workers' compensation-related care provided in the fee-for-service system.

Once a limited number of the most important workers' compensation conditions in California are identified, specific clinical performance measures should be drafted based upon the clinical evidence available and expert consensus as needed. One approach advocated by RAND involves reviewing the literature, developing a list of indications, convening a panel to select indications, rating the indications, and ultimately evaluating the appropriateness of interventions <sup>2</sup>. An example of some clinical quality indicators arrived at through this method is the following: "Patients with the diagnosis of Type 1 diabetes should have all of the following: a) Glycosylated hemoglobin or fructosamine every 6 months, b) Eye and visual exam (annual), c) Total serum cholesterol and HDL cholesterol tests (annual), d) Measurement of urine protein (annual), e) Examination of feet at least twice a year, and f) Measurement of blood pressure at every visit" <sup>88</sup>. The strengths of these indicators for diabetes care are that they are evidence-based, identify the criteria clearly, and specify time frames. While some of the information needed to score these indicators would likely need to be obtained from medical records (a potential limitation due to cost and access), in general they are a good example of sound, useful, and usable measures. The development of such measures, followed by the use of them to evaluate care provided is the end goal of the measurement process described above.

As it is not necessary to duplicate efforts, the team should draw upon past measurement efforts in the field of workers' compensation, such as those made by URAC, for possible direction. Existing clinical practice guidelines that focus on conditions specific to workers' compensation may also be a useful starting place <sup>77</sup>. This said, it is important to note that almost all existing measures and guidelines in the workers' compensation field are consensus-based, not evidence-based, largely due to

the fact that limited evidence exists. This paucity of evidence begs research. The task force may want to devote energy to seeking funding for research that could inform clinical action in workers' compensation health care that is based on fact, not speculation.

At this stage, it is also important to obtain feedback from stakeholders and build consensus through a transparent process and open dialogue about the proposed measures. Communication is fundamental to keeping stakeholders at the table and supportive of chosen paths.

As measures are being drafted, the group should also focus on the feasibility of obtaining data that would permit the scoring of the indicators. While ultimately the data should not drive the analysis, starting with measures that have a strong likelihood of being able to be evaluated is preferred at the early stages of the quality measurement process. Some possible data sources were discussed previously. These sources may prove useful in scoring some clinical measures; however, given that the information in them was not collected specifically for this purpose, crucial information is likely to be lacking. Another possible avenue is to use claims data to assess quality; however, like the data sources mentioned, it may also not be suitable for quality of care assessment. Medical chart reviews are another, albeit significantly more expensive, option. Ultimately, assuming a strong commitment to improving the quality of care for California's workers, it will likely be necessary to collect data that is specifically intended to measure clinical care and patient satisfaction. Ideally, such information would be collected statewide at certain intervals so that the quality of care could be assessed over time. In the short-term, however, the task force must find creative ways to obtain and use data that is adequate to score enough indicators to give an initial picture of the quality of workers' compensation care in California. This picture will then inform future steps that the task force could take to address quality deficiencies.

From a bigger picture perspective, to truly move the quality effort forward in the area of workers' compensation, legislation may also be needed in California. For example, statewide minimum quality standards could be set and required of all entities providing workers' compensation care. State regulations could require all entities providing workers' compensation care to submit information specific to workers' compensation care at certain intervals, much in the same way that California's Office of Statewide Health Planning and Development (OSHPD) (a department of California's Health and Human Services Agency) currently requires hospitals, nursing homes, clinics, and home health agencies to submit data. Alternatively or additionally, the establishment of an independent accrediting organization could be useful, much as the NCQA has been instrumental in making quality an important issue to managed care organizations. In either case, there is a need to encourage employers and insurers to take quality seriously. The current environment offers virtually no incentive to collect quality data, measure quality, and/or improve performance. Given that the payoff for

carings about quality may be several years down the line and thus not immediately apparent to employers or insurers, a law and/or an accrediting entity could help to focus attention on quality. It might also serve to encourage health plans to align financial incentives with reaching specific quality goals.

Clearly, the steps outlined above represent a "tall order." It is not possible to make them quickly. Rather, the movement towards improving the quality of health care in California's workers' compensation programs will be slow and must be deliberate, just as it has been in the nation as whole. Quality measurement has and will continue to be challenging-- presenting both empirical and political challenges. Not trying to improve quality, however, is not acceptable, given the known quality deficiencies in this country and the evidence that important improvements can be made that ameliorate care, save lives, and ultimately reduce the burden of injury and disease in both human and financial terms. In 2003, the first National Quality Report will be presented to the U.S. Congress and released to the public <sup>1</sup>. The significant effort to produce this report-- led by AHRQ with collaboration from the National Center for Health Statistics and the IOM, and drawing upon existing measurements developed by NCQA, JCAHO, and other organizations-- signals a substantial commitment on the part of the federal government to identify quality deficiencies and highlight areas in need of improvement. Workers' compensation programs-- which suffer from many of the same quality problems as the nation's health care system as a whole-- should strive to emulate this national commitment by actively engaging in quality measurement and improvement; workers' compensation programs must not remain distant from such quality improvement efforts.

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