This lecture reviews quality and performance improvement.

The session objective is to review quality and performance improvement concepts relative to health professionals, organizations and public policy concerns. It should be noted that many requirements of the 2010 Affordable Care Act specifically address quality of care in order to advance improvements.

The Institute of Medicine has defined quality as “the degree to which all services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge.”

The Institute of Medicine or IOM is an independent, non-profit organization that works outside of government to provide unbiased and authoritative advice. It was established in 1970 and is the health arm of the National Academy of Sciences. The IOM asks and answers the nation’s most pressing questions about health and health care. Their aim is to help those in government and the private sector make informed health decisions by providing evidence. Their analytic reports are available at their web site and include all aspect of health, not just restricted to quality.

In a 2001 report, titled Crossing the Quality Chasm, the IOM identified six aims of health, which are: effective, safe, efficient, timely, patient-centered, and equitable. The dimensions reveal the complexity of quality in health and health care, as multiple diverse factors are integral to achieving quality.

Effectiveness requires that care adhere to the science of medicine and is evidence-based. Effectiveness requires avoiding the use of ineffective care and avoiding the underuse of effective care. Federal agencies, such as the Agency for Healthcare Research and Quality, are funding Comparative Effectiveness Research studies, which are studies that make a direct comparison between two clinical interventions to determine which is best based on benefits and harms. Thus, knowledge regarding effectiveness continues to advance.

Prostate cancer illustrates the problem. A recent health advisory advised men to not get the PSA screening test for prostate cancer. It is perceived as leading to overtreatment of prostate cancer, where the intervention does not impact mortality rates. Mortality is essentially the same if treated or untreated. Also, conflicting recommendations exist on a patient’s best option with the choices being watch and wait, robotic surgery, or radiation.

However concerns exist about CER, such as the potential for rationing effective interventions because they are expensive; for a government take-over of personal health decisions; for a one-size fits all practice of medicine, and for undervaluing patient values.

Safety requires avoiding injuries to patients from the care that is intended to help them. It should be at the forefront of patient care. In a report titled To Err Is Human, the IOM estimated that 44,000 to 98,000 people die in US hospitals each year as a result of medical errors that could have been prevented. This exceeds the number of people who die in car accidents each year. Medical errors are defined as the failure of a planned action to be completed as intended or the use of a wrong plan. The most common problems are adverse drug events and improper transfusions, surgical injuries and wrong-site surgery, suicides, restraint-related injuries or death, falls, burns, pressure ulcers, and mistaken patient identities. High error rates with serious consequences are most likely to occur in intensive care units, operating rooms, and emergency departments.

Efficient care is that which reduces waste. The health care system should constantly seek to reduce the waste, such as the cost of supplies, equipment, and space. For decades, Dr. John Wennberg and his colleagues at The Dartmouth Institute have studied geographic variation in health care among US patients, which is called practice pattern variation. For example, the number of back pain patients who are referred for surgery may be two times higher in one region than another. Wennberg concludes that if unwarranted variation were eliminated, the quality of care would increase and health care savings of up to 30% would be possible. Thus, the opportunity for US health care to become more efficient is significant.

Accountable care organizations or ACOs are another provision of the 2010 health reform law. It is a model of delivering care that provides incentives to providers for enhancing quality and
controlling costs. ACOs will provide a network of providers that care for patients, similar to HMOs. Financial incentives will be offered to providers to coordinate care, thereby avoiding overuse, underuse and misuse. However, the ACO concept is still vague and more information is forthcoming.

12. Despite the ACO concept still being in developmental stages, experts have forecasted on the potential for ACOs to achieve stated goals and the forecasts are not favorable. At least two drawbacks are recognized. ACOs will result in consolidation where hospitals will acquire specialist groups, resulting in less competition and higher prices. Second the financial incentives are perceived as insufficient to motivate physician groups to form ACOs and achieve the goals.

13. Timely care reduces waiting for both patients and those who give care, as prompt attention benefits both patients and caregivers. For example, one reason patients seek primary care in emergency departments is because they cannot get a timely appointment with their primary care provider.

14. Patient-centered care honors the individual and respects choice. Each patient’s culture, social context and specific needs deserve respect, and the patient should play an active role in making decisions about one’s own care. This aim is consistent with the bases for health care ethics.

15. It should be noted that health professionals and patients have somewhat different perspectives about what is and what is not quality. Quality has technical and art of care perspectives. In general, patients focus on the art of care. Was the clinician attentive and responsive to concerns? Was the visit long enough? Was the clinician an effective communicator? When these conditions are met, a patient is more likely to be satisfied with quality. In contrast, clinicians tend to emphasize the technical perspective. Did they order the right diagnostic tests and procedures? Did they make the right diagnosis? Was the treatment regimen effective? As a consequence, patients and clinicians can view quality very differently.

16. Also, it should be noted that patient compliance and behavior directly influence one’s health. Research has concluded that patients are more likely to adhere to a recommended clinical regimen if satisfied with the care they receive, which is another important reason to emphasize the patient perspective.

17. To address this aim, the Centers for Medicare and Medicaid Services (CMS) have developed HCAHPS, which is the Hospital Consumer Assessment of Healthcare Providers and Systems. It is a standardized survey for obtaining patient perspectives of hospital care. HCAHPS is part of the CMS value-based purchasing initiative, which links payment for services to quality outcomes, including HCAHPS results. This is one provision of the Patient Protection and Affordable Care Act of 2010 and it begins in 2013 in terms of affecting hospital payment efforts.

18. Equitable is the final aim of quality. This aim is to close racial and ethnic gaps in health status. Race, ethnicity, gender and income should not prevent anyone from receiving high-quality health care.

19. Access to care is a major thrust of health reform, with initiatives to reduce the number of uninsured through multiple approaches, including the expansion of Medicaid. However, certain categories of people who do not purchase private health insurance will be fined, thereby leaving them with less money to spend, including on health services. Instead of making a lower cost public insurance option available, the health reform law used a punitive approach for failing to purchase private health insurance. As we know, this controversy is being addressed by the US Supreme Court. If a public option had been included in the law, the controversy over requiring people to purchase insurance from private companies would not have been an issue.

20. A major problem with being uninsured is the prices charged. Providers often charge the uninsured full charges, especially if they do not negotiate lower rates, as insurance companies do, in advance. On average, full charges are more than twice the rates charged to insured patients. Thus, people who cannot afford insurance pay the highest rates to receive health care.

21. A Florida man had a tooth abscess and pain at night. His dental clinic thought it might be an emergency due to the infection, and referred him to the ER. The ER provided a 10 minute doctor’s visit and prescriptions for an antibiotic and pain medicine. The patient’s bill was $1,400, and he still needed treatment for the affected teeth. The hospital’s chief financial officer agreed that the bacterial infection warranted an ER visit, and admitted the charge was several times higher then the cost of the visit. The explanation for the high price was that a lower charge had not been negotiated, as insurance companies typically do, and the higher charge was assessed
since many uninsured use the ER for primary care. Since other health plans do not subsidize this care, apparently the uninsured patients are asked to subsidize those who do not pay, which means they are paying for services of others. The lesson learned by the patient – do not use the ER, which results in access to care issues in the event of a true emergency.

22. The forecast from experts is that health care costs will continue to rise. Private health insurance premiums are forecasted to double in next 10 years. Health insurance only works if everyone covered, as it is unfeasible to have the healthy only opt for coverage at the time they become ill – thereby allowing people to in and out of coverage based on their health status. Health policy and management experts believe a public option is still needed; however, the political climate makes it makes it unlikely this will be revisited in the short term.

23. Thus, quality is multidimensional, which creates challenges in measurement and improvement. Quality can be defined in many ways and viewed from different perspectives. To recap, it has many dimensions. Cost and access are related to quality and value. If patients cannot access health care, which can occur due to the cost, then quality cannot be achieved. Quantity is also a dimension of quality, as it is possible to receive too little or too much health care. Continuity and coordination are important dimensions of quality and become increasingly important as more health services are provided in the outpatient setting. Finally, patient expectations must be understood and valued.

24. How is quality measured? In general, quality can be measured through structure, process and outcome measures.

25. Structure focuses on inputs or resources and their characteristics. The nurse-to-patient ratio could be used as a structure measure of quality. For example, the ratio in the hospital intensive care unit is 1-to-1 or 1-to-2 nursing care, which means one nurse is responsible for either one or two patients. A ratio of 1 to 4 in the ICU would reflect low quality with regard to staffing, since patients would not receive adequate nursing care. Continuing education requirements provide another structure measure. Healthcare providers are usually required to have current certification in CPR. This requirement assumes they will be prepared to act in an emergency. However, it is not a measure of how well they perform in an emergency, only that they have been trained. Also, equipment available on the crash cart for emergencies or corridor width are other potential structure measures that are used to assure patient safety.

26. In contrast, process measures focus on services provided, including prevention, diagnostic and therapeutic services. Process measures consider what was done on behalf of a patient. For example, did 100% of patients having hip replacement have the proper radiology tests that confirm the diagnosis?

27. Finally, outcome measures focus on the results of care. Did a patient or patient population achieve the expected outcome? Unfortunately, achieving structure and process measures does not guarantee a good outcome. Examples of outcome measures are provided, such as the postoperative infection rate. An immunization rate for a population is used as an outcome. In contrast, giving an immunization to a patient would be a process. It is typically unrealistic to achieve 100% for target outcomes due to other determinants of health. For example, a 100% immunization rate is unrealistic because some people are unwilling to be immunized or have their children immunized.

28. Structure, process and outcome quality measures coincide with the system's approach of inputs, conversion processes, and outputs.

29. There are many approaches to improving quality. We will review licensure, accreditation, and continuous quality improvement methods.

30. Many types of institutions and professionals need a license in order to practice. Hospitals, nursing homes and home care agencies are examples of institutions that require a license. Healthcare professions that require a license in order to practice include physicians, nurses, nursing home administrators, pharmacists, and a diverse number of other health professions.

31. Licensure establishes the minimum requirements, which are stated in statutes and regulations. Licensure is required by law and is conducted by each state. A health professional that is licensed to practice in one state would need to apply for a license in another state, if planning to practice there. To be granted a license, a facility or professional must meet regulations. Also, a license is not a predictor of quality of services that will be provided. It is a structure measure of quality that the person or facility has met minimum requirements for a license.
32. To be eligible for a license in a health profession, the person must meet education requirements, pass the required boards or exam, and pay the required fee for the license.

33. Unlike hospital administrators, nursing home administrators must be licensed as a nursing home administrator. This was enacted to protect patients and advance quality by setting standards for the education and training of nursing home administrators.

34. Licensure of health professionals tends to be dominated by the professional group. This is particularly true of State medical boards that are comprised almost exclusively of physicians. While the disciplinary actions from such boards are increasing, they are not particularly common or severe. Sanctions for physicians in Florida are frequently a fine of $1000. This is not a significant expense relative to a physician’s overall practice expenses and they can pay out the practice rather than paying it individually. Also, there is a concern that licensure is used to advance the agenda of the profession and thus exclude other types of professionals from practicing within the arena. Physicians have tried to limit the practice of other health professionals. Thus, licensure not only establishes minimum standards, but also creates barriers to entry.

35. In contrast, licensure of institutions, such as hospitals, is less dominated by the profession. Licensure is conducted by a state agency that uses inspections to determine whether state regulations are achieved. Inspections are typically conducted every one or two years. The institution is provided with a list of deficiencies that must be corrected and a follow-up inspection is scheduled, with the timing based on the severity of the problems.

36. Accreditation intends to set higher standards than state regulations, recognizing that licensure establishes minimum requirements. In theory, accreditation is voluntary self-regulation. It is the theory since accreditation is often not optional. For example, the Medicare program requires hospitals to be accredited by The Joint Commission in order to participate. In addition, Florida requires HMOs to be accredited. Accreditation is used for facilities, colleges, and education programs. Accrediting organizations develop standards and inspect institutions to assure compliance. When areas of non-compliance are identified, recommendations are made and the organization reports progress toward achieving them.

37. These are examples of major accrediting organizations in health care. The Joint Commission accredits hospitals, long term care facilities, and home care and ambulatory care organizations. NCQA accredits health plans, and the College of American Pathologists accredits clinical labs.

38. The Joint Commission is an independent, non-profit organization, which is sponsored by: the American College of Physicians, American College of Surgeons, American Hospital Association, American Medical Association, and other medical, dental, and health care associations. It was founded in 1952, and emerged from the Hospital Standardization Program that was developed by the American College of Surgeons in 1917.

39. The Joint Commission develops standards for particular types of health facilities, such as hospitals. They offer education programs and publications to help organizations better understand what is required for accreditation. They also provide consultations to organizations for specific problems. Finally, they conduct surveys and provide reports using their standards and then follow up on the recommendations made.

40. Hospital accreditation decisions reflect different levels of progress in achieving standards. The Joint Commission uses five different survey outcomes: accreditation with commendation, accreditation, accreditation with recommendations, conditional accreditation, and denial of accreditation.

41. The Joint Commission has also assumed an active role in achieving patient safety, which was in response to the high death rate from medical errors.

42. These are examples of Joint Commission patient safety goals that are intended to reduce medical errors. Each targets a known patient safety problem.

43. The NCQA is an accrediting organization for health plans. Like the Joint Commission, it is an independent, private, not-for-profit organization. Its governing board includes healthcare quality experts, employers, labor union officials, and consumer representatives.

44. NCQA develops standards for the following areas: quality, credentialing, member rights and responsibilities, utilization, prevention health services, and clinical records.

45. NCQA developed HEDIS, which is the Health Plan Employer Data Information Set. HEDIS is a report card for managed care plans and has 64 measures in the following five areas: quality,
access and patient satisfaction, membership and utilization, finance, and plant management. HEDIS permits individuals and employers to make better decisions about health plan selection by having better information.

46. This is an example of how HEDIS can be used. This was a pilot project regarding their member satisfaction measures. It included 21 different health plans. Health plans have different performance on these measures, as noted by the range. It is possible to use the information about a particular health plan's performance to select one plan among the choices.