



Review Article

## Total Quality Management in Healthcare: A Historical Perspective for a Modern Definition

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### ABSTRACT

Total Quality Management (TQM) has wide applicability in healthcare. Although extensively researched, there is no consensus on the definition of TQM in healthcare. Since ancient times the distinction between primary and secondary quality has been made. The author in his pursuit of defining quality imbibed the Laotzian sublime attribute, appreciated the Platonic transcendent concept, and enlisted the Aristotelian manners of quality- state, capacity, affections and form. The modern era's philosophical reflections on quality include the Cartesian distinction of primary-secondary quality, Locke's conceptualization of the subjective nature of quality, Hume's surmise of the virtue or vice of quality, Hegel's idea of deficient quality and Nietzsche's perspective truth of quality. Garvin's eight dimensions of quality – Performance, Features, Reliability, Conformance, Durability, Serviceability, Aesthetics and Perceived Quality – can be seen as the culmination of the pursuit of defining quality in general in the contemporary age. In modern times quality is deemed to have six dimensions – Safety, Effectiveness, Efficiency, Patient-Centeredness, Equity and Timeliness. It is difficult not to question the plenty of terms and concepts in quality and to evade thinking about the need to limit the terms, allowing it to be more coherent and consistent. The article thus concludes with a proposed all-encompassing, coherent and consistent definition of TQM in healthcare.

**Keywords:** Total Quality Management (TQM), Healthcare, Quality Definition

### INTRODUCTION

#### *Defining Quality: A Historical Perspective*

Defining quality and understanding its dimensions is a necessary prerequisite to any form of research in Total Quality Management (TQM). But, finding an all-encompassing definition for "Quality" is a rather Herculean, and potentially Daedalian task.

One of the earliest mention of the concept of quality, made in the Golden Book Tao Te Ching, written around 6th Century

BC by Chinese philosopher Lao Tzu <sup>(1)</sup> immediately evokes a sublime and inspired understanding:

*tao k'o tao, fei ch'ang tao*

The Tao that can be named is not the Absolute Tao.

*ming k'o ming, fei ch'ang ming*

The quality that can be named is not its abiding attribute.

In the Hellenic period, Plato (427-347 BC), the father of Idealism, introduced the term 'Quality'. According to Barfield; <sup>(2)</sup>

The more common a word is, and the simpler it's meaning, the bolder very likely is the original thought which it contains and more intense the intellectual or poetic effort which went to its making. Thus, the word quality is used by most educated people every day of their lives, yet in order that we should have this simple word Plato had to make the tremendous effort (it is one of the most exhausting which man is called on to exert) of turning a vague feeling into a clear thought. He invented a new word 'poiotēs,' 'what-ness,' as we might say, or 'of-what-kind-ness,' and Cicero translated it by the Latin 'qualitas,' from 'qualis'.

In Plato's dialogue Hippias Major, Socrates, asks what "the Fine" is. Cooper, <sup>(3)</sup> the editor, translates the Greek word kalon as fine. This word is widely used as term "of highly favorable evaluation, covering our 'beautiful,' 'noble,' 'admirable,' 'excellent,' and the like."

What Socrates is asking for, then, is a general explanation of what feature any object, action, person, or accomplishment of any kind has to have in order correctly to be characterized as highly valued or worth valuing in this broad way (that is, as being fine) (p. 898).

Aristotle (384-322 BC), whose views strongly influenced medieval scholarship, in *The Categories*, <sup>(4)</sup> presented his canonical list of ten categories and described four kinds of quality (section titles reflect the traditional Latin title of the entire work);

Of things said without any combination, each signifies either substance or quantity or qualification or a relative or where or when or being-in-a-position or having or doing or being-affected (1b25-2a4).

By a quality I mean that in virtue of which things are said to be qualified

somehow. But quality is one of the things spoken of in a number of ways (8b25-8b26).

One kind of quality let us call states and conditions. A state differs from a condition in being more stable and lasting longer (8b27-9a9).

Another kind of quality is that in virtue of which we call people boxers or runners or healthy or sickly—anything, in short, which they are called in virtue of a natural capacity or incapacity (9a14-9a28).

A third kind of quality consists of affective qualities and affections. Examples of such are sweetness, bitterness, sourness, and all their kin, and also hotness and coldness and paleness and darkness (9a29-9b9).

A fourth kind of quality is shape and the external form of each thing, and in addition straightness and curvedness and anything like these (10a11-10a16).

Perhaps some other manner of quality might come to light, but we have made a pretty complete list of those most spoken of (10a25-10a26).

So far, in our pursuit of defining quality, we have imbibed the Laotzian sublime attribute, appreciated the Platonic transcendent concept, and enlisted the Aristotelian manners of quality- state, capacity, affections and form.

In the modern era, Rene Descartes (1596-1650) propagated the idea of the quality-bearing essence and became an early exponent of what came to be known as the "primary/secondary" quality distinction. Descartes postulated his mechanical theory principally to refute the popular Aristotelian-based Scholastic explanation of natural phenomena that employed ontology of "substantial forms" and "primary matter". In a revealing passage from *The World*, <sup>(5)</sup> Descartes declares the Scholastic premise to be both an inarticulate and insufficient methodological approach to explaining natural phenomena;

If you find it strange that, in explaining these elements, I do not use the qualities called 'heat', 'cold', 'moistness', and 'dryness', as the Philosophers do, I shall say that these qualities appear to me to be themselves in need of explanation. Indeed, unless I am mistaken, not only these four qualities but all others as well, including even the forms of inanimate bodies, can be explained without the need to suppose anything in their matter other than motion, size, shape, and arrangement of its parts (AT XI 25–26).

Descartes' plan was to lessen the class of metaphysically suspect properties, such as heat, weight, taste, to the empirically irrefutable attributes of size, shape, and motion. In other words, Descartes intends to change the "mentally" influenced portrayal of quality in Scholastic natural philosophy with a theory that requires only the characteristics of extension to describe the manifest order of the natural world.

Another proponent of the primary/secondary quality distinction was John Locke (1632-1704). Locke's development of this distinction in the *Essay*,<sup>(6)</sup> was both careful and rational, as expressed in his three initial definitions;

A quality of x is a power of x to produce any idea in our mind (II, viii, 8). Primary qualities of body are those which are utterly inseparable from it; are such as sense finds constantly in every perceptible particle of matter, and the mind finds inseparable from every particle (II, viii, 9).

Secondary qualities are nothing in objects themselves but powers to produce various sensations in us by their primary qualities (II, viii, 10).

David Hume (1711-1776) had a skeptical perspective and made pleasure as the standard of virtue in his moral philosophy. In the *Treatise*,<sup>(7)</sup> Hume restricted the human idea of quality to that which can be perceived by the senses;

If any action be either virtuous or vicious, it is only as a sign of some quality or character. It must depend upon durable principles of the mind, which extend over the whole conduct, and enter into the personal character. Actions themselves, not proceeding from any constant principle, have no influence on love or hatred, pride or humility; and consequently are never considered in morality.

Immanuel Kant (1724-1804) questioned the legitimacy of such a division, noting that both of these qualities are subjective. In his *Critique*,<sup>(8)</sup> Kant introduces the "schema of quality – the creation of awareness with respect to time;

Now one sees from all this that the schema of each category contains and makes representable: as that for magnitude, the generation (synthesis) of time itself in the successive apprehension of an object; the schema for Quality, the synthesis of sensation (perception) with the representation of time, or the filling of time; for Relation, the relationship of the perceptions among one another in all time (i.e. according to a rule of time-determination); finally, the schema for Modality and its categories, time itself as the correlate of the determination of an object, whether and how it belongs to time (275-276; B: 184).

In turn, Georg W.F. Hegel (1770-1831) suggested that quality should be seen in its primary form as 'determinateness', which takes the form of 'being' in reality and may also be a limitation - a lack of quality;<sup>(9)</sup>

Determinateness thus isolated by itself in the form of being is quality - which is wholly simple and immediate. Determinateness as such is the more universal term which can equally be further determined as quantity and so on. Because of this simple character of quality as such,

there is nothing further to be said about it (196).

Quality, taken in the distinct character of being, is reality; as burdened with a negative it is negation in general, likewise a quality but one which counts as a deficiency, and which further on is determined as limit, limitation (197).

William Stanley Jevons (1835-1882) in the Principles, <sup>(10)</sup> reflected on the indivisibility, negation and the human conception of quality. He argues that abstract terms are different from general terms by possessing only one kind of meaning; for as they denote qualities there is nothing which they can in addition imply. As in the case of colour; so far as things are merely coloured, colour is a single indivisible quality. He further enunciates that the very fact of not possessing a quality represents a new quality or condition, which can equally be the basis of conclusions. Between positive and negative there is, therefore, a perfect equilibrium and thus both positive or negative terms can be used to denote a given quality and the class of things possessing it. The conception of quality is very fundamental. In Jevon's words:

The mind learns to regard each object as an aggregate of qualities, and acquires the power of dwelling at will upon one or other of those qualities to the exclusion of the rest. Logical abstraction, in short, comes into play, and the mind becomes capable of reasoning, not merely about objects which are physically complete and concrete, but about things which may be thought of separately in the mind though they exist not separately in nature.

Friedrich Nietzsche (1844-1900) saw quality as nothing but differences in the quantity of forces that enter into relation in our "perspective truth"; <sup>(11)</sup> Our "knowing" limits itself to establishing quantities; but we cannot help feeling these

differences in quantity as qualities. Quality is a perspective truth for us; not an "in-itself."

The modern era's philosophical reflections on quality include the Cartesian distinction of primary-secondary quality, Locke's conceptualization of the subjective nature of quality, Hume's surmise of the virtue or vice of quality, Hegel's idea of deficient quality and Nietzsche's perspective truth of quality.

The Industrial Revolution, spurred by a revolution in technology that began in Britain, paved the way for mass manufacturing and profits, often with deleterious effects. <sup>(12)</sup> Increased productivity could have easily led to mass-scale deterioration in quality, were it not for the advent of Scientific Management - Taylorism, after Frederick Taylor (1856-1915) – the exponent of the Theory that systematically treated management and process improvement with scientific ground rules. In his Principles, <sup>(13)</sup> Taylor argues:

One of the dangers to be guarded against, when the pay of the man or woman is made in any way to depend on the quantity of the work done, is that in the effort to increase the quantity the quality is apt to deteriorate.

It is necessary in almost all cases, therefore, to take definite steps to insure against any falling off in quality before moving in any way towards an increase in quantity.

In 1924, two of the most important events in management science occurred at the Hawthorne Works electric plant in Cicero, Illinois. In May, Walter A. Shewhart (1891-1967) described the first control chart and kick-started statistical process control and modern quality improvement. In November of the same year, in the same factory, began a series of research projects that have come to be known as the Hawthorne studies from. This work is at the

heart of the creation of social psychology in the workplace and the human relations approach to management. It is very surprising that, although these events took place in the same place and in the same year, their consequent sciences have “remarkably little cross-fertilization of ideas between them”.<sup>(14)</sup> Shewhart joined the Western Electric Company in 1918 to help their engineers improve the quality of telephone equipment. While at Hawthorne he met and influenced W. Edwards Deming (1900-1993), the quality guru who inspired Japan’s economic power, and Joseph M. Juran (1904-2008), the great quality evangelist. These three are the veritable founders of the quality movement. Two of Shewhart’s constructs, the control charts and the Plan-Do-Study-Act (PDSA) cycle are continuing influences on quality science. In his monumental work *The Economic Control of Quality of Manufactured Product*,<sup>(15)</sup> he introduces Part II “A Review of the Methods for Reducing Large Numbers of Observations of Quality To a Few Simple Functions of These Data Which Contain the Essential Information”. Shewhart’s inclination towards a more objective definition of quality can be appreciated in these lines;

From the viewpoint of control of quality in manufacture, it is necessary to establish standards of quality in a quantitative manner. For this reason we are forced at the present time to express such standards, insofar as possible, in terms of quantitatively measurable physical properties. This does not mean, however, that the subjective measure of quality is not of interest. On the contrary, it is the subjective measure that is of commercial interest. It is this subjective side that we have in mind when we say that the standards of living have changed.

Deming, who championed Shewhart’s cause, is recognized by the

Japanese as being a major contributor to their rise to world economic power in the second half of the 20th Century. In fact, the most esteemed award for Quality in Japan even now is known as the Deming Prize.

Deming’s philosophy of quality is summarized in his “system of profound knowledge”, with its four elements - Appreciation for a system; Knowledge of variation; Theory of knowledge; Psychology, and his “fourteen points of management”.<sup>(16)</sup> The idea of quality was simplified, yet embellished, by Deming in *The New Economics*,<sup>(17)</sup>

What is quality? A product or a service possesses quality if it helps somebody and enjoys a good and sustainable market. Trade depends on quality.

Juran added the “human” element to quality, effectively making it universal. The concepts of customer satisfaction, costs, income and training are predominant in Juran’s ideation. His Trilogy<sup>(18)</sup> - planning, control and improvement, in managing for quality, has influenced walk of managers’ lives. In his *Handbook*,<sup>(19)</sup> Juran defines quality as follows;

“Quality” means those features of products which meet customer needs and thereby provide customer satisfaction. In this sense, the meaning of quality is oriented to income. The purpose of such higher quality is to provide greater customer satisfaction and, one hopes, to increase income. However, providing more and/or better quality features usually requires an investment and hence usually involves increases in costs. Higher quality in this sense usually “costs more.”

“Quality” means freedom from deficiencies—freedom from errors that require doing work over again (rework) or that result in field failures, customer dissatisfaction, customer claims, and so on. In this sense, the meaning of quality is oriented to costs, and higher quality usually “costs less”.

Kaoru Ishikawa (1915-1989) played a key role in the Japanese quality movement, especially the scope of quality: top-to-bottom in cadres and start-to-finish in products. He contributed to the success of quality circles and made the use of the cause-effect diagram, also called Ishikawa diagram, common-place. <sup>(20)</sup> Ishikawa interpreted quality in the narrow and broad perspectives in his 1985 Book; <sup>(21)</sup>

How one interprets the term “quality” is important. Narrowly interpreted, quality means quality of products. Broadly interpreted, quality means quality of product, service, information, processes, people, systems etc.

Philp B. Crosby (1926-2001), best known for popularizing the “zero-defects” concept and the “Doing it right for the first time” (DIRFT) principle, in one of his popular books “Quality is free”, <sup>(22)</sup> wrote;

The first erroneous assumption is that quality means goodness, or luxury or shininess. The word “quality” is often used to signify the relative worth of something in such phrases as “good quality”, “bad quality” and “quality of life” - which means different things to each and every person. As follows quality must be defined as “conformance to requirements” if we are to manage it. Consequently, the non-conformance detected is the absence of quality, quality problems become non-conformance problems, and quality becomes definable.

Crosby tended to adhere to the definition of conformance to requirements and further raised the bar with the Four Absolutes in quality: Definition - conformance to requirements (product and the customer); System - prevention; Standard - zero defects; Measurement - price of non-conformance.

Armand V. Feigenbaum, who is widely credited for having devised the concept of Total Quality Control (TQC),

later called Total Quality Management (TQM), also propagated the concepts of accountability and costs with regards to quality. In his 1961 Book, <sup>(23)</sup> Feigenbaum defined TQC as;

...an effective system for integrating the quality development, quality maintenance, and quality improvement efforts of the various groups in an organization so as to enable production and service at the most economical levels which allow full customer satisfaction.

The International Organization for Standardization (ISO), an international standard setting body was founded in 1947 to promote commercial and industrial standards. ISO 9000 series of quality standards was first published in 1987. ISO 9001:2008 <sup>(24)</sup> defines quality as the “degree to which a set of inherent characteristics fulfils requirements”.

The later part of the 20th century witnessed a wave of TQM initiatives, standardization and accreditation. Standards provided an easy model for organizations to adopt in their pursuit for quality improvement. In 1987 The Malcolm Baldrige National Quality Improvement Act was established by Congress for manufacturers, service businesses and small businesses. The Award was designed to raise awareness of quality management and recognize U.S. (United States) companies that have implemented successful quality-management systems. MBNQA criteria for performance excellence <sup>(25)</sup> reflect the seven facets of an organization that quality systems must address: Leadership; Strategic Planning; Customer Focus; Measurement, Analysis, and Knowledge Management; Workforce Focus; Operations Focus; and Results.

David Garvin in his 1988 Book, <sup>(26)</sup> described five principal approaches to defining quality:

Transcendent; Product-based; User-based; Manufacturing-based; and Value-based  
Garvin's eight dimensions of quality - Performance; Features; Reliability; Conformance; Durability; Serviceability; Aesthetics; and Perceived Quality – can be seen as the culmination of the pursuit of defining quality in the modern age, starting with Shewhart.

### ***Defining TQM in Healthcare: Origin and Evolution***

Arguably the earliest documented attempt to define quality in medical care - King Hammurabi's Code - was an ancient Sumerian inscription on an 8-foot tall column circa 1700 BC. Rewards for successful treatment and punishment for adverse outcomes were prescribed. The latter is illustrated in the following Law; 218: If a physician performed a major operation on a seignior with a bronze lancet and has caused the seignior's death, or he opened the eye-socket (nakkaptu) of a seignior and has destroyed the seignior's eye, they shall cut off his hand. <sup>(27)</sup>

Throughout history, both in ancient times <sup>(28)</sup> and in the contemporary period, quality and safety have been key areas in medicine. Florence Nightingale (1820-1910) made some pioneering contributions to the field of quality and safety in healthcare. She managed to create the first secular nursing school in the world, in 1860, at St Thomas Hospital in London. Nightingale's greatest contributions were her efforts to reform the British military health-care system through training programs and the implementation of sound professional standards of nursing. Much of what now seems basic in modern health care can be traced back to Nightingale in the 19th century. Along with William Farr (1807-1883), who is regarded as one of the founders of medical statistics, Nightingale authored works on hygiene, sanitation, mortality and statistics all of

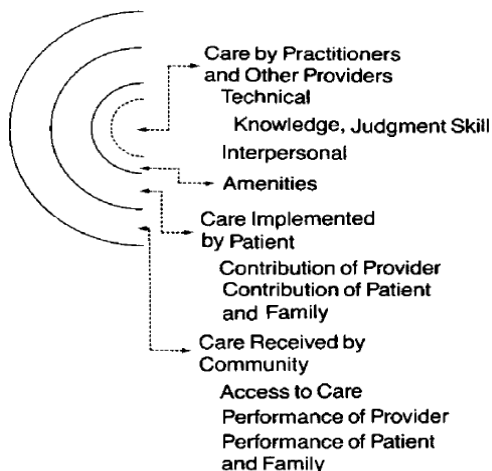
which contributed to the body of knowledge in the science of quality. <sup>(29-31)</sup>

Ignaz Semmelweis (1818-1865), the earliest known exponents of infection control, observed that women whose children were delivered by students and doctors in the first clinic at the General Hospital in Vienna, always had a higher mortality than those whose children were delivered by midwives in the Second Clinic. <sup>(32)</sup> He noted that physicians who went directly from the autopsy suite to the obstetrics department had an unpleasant smell on their hands despite hand-washing with soap and water before entering the maternity ward. He postulated that puerperal fever that has affected so many parturient women was caused by "cadaverous particles" transmitted from the autopsy suite to the hands of students and physicians. Perhaps because of the deodorizing effect of chlorine compounds, he insisted that students and doctors wash their hands with a chlorine solution between each patient at the clinic. Maternal mortality in the first clinic decreased sharply and remained low for years. This intervention by Semmelweis represents the first evidence that the cleaning of contaminated hands with an antiseptic agent between patient contacts may reduce nosocomial transmission of infectious diseases more effectively than hand washing with soap and water.

The last three decades of 20th Century witnessed a surge in health care quality progress. The Institute of Medicine (IOM), an American non-profit, non-governmental organization established in 1970, under the congressional charter of the National Academy of Sciences, <sup>(33)</sup> galvanized the cause of quality and safety in healthcare in the new millennium.

Avedis Donabedian (1919-2000), member of the Institute of Medicine, contributed a rich body of work on the conceptualization and measurement of

quality. His approach to quality assessment involved three categories of information from which inferences can be drawn on the quality of care – structure, process and outcomes. <sup>(34)</sup> He suggested that quality can be assessed at multiple levels (Fig 1). At the practitioner’s level there are two elements in the quality of care – technical and interpersonal.



(Figure 1) Levels at which quality may be assessed <sup>(35)</sup>

In the Introduction to Quality Assurance <sup>(36)</sup> he defined quality as a product of technical and interpersonal elements in healthcare, with various aspects that influence its connotation and intensity; It is possible to conceive of quality as the product of two factors. One is the science and technology of health care and the second is the application of that science and technology in actual practice. The quality of care achieved in practice is the product of these two.

..That product can be characterized by several attributes that include efficacy, effectiveness, efficiency, optimality, acceptability, legitimacy, and equity. These, taken singly or in a variety of combinations, constitute a definition of quality and, when measured in one way or another will signify its magnitude.

Donald M. Berwick, another pioneer in healthcare quality, co-founded the Institute for Healthcare Improvement (Improvement 2013), <sup>(37)</sup> an organization helping to lead the improvement of health care throughout the world. Berwick, a strong proponent of TQM principles, believed the ultimate goal of continuous improvement is the attainment of an unprecedented level of performance (Berwick 1989). <sup>(38)</sup> He exhorted health care leaders to begin applying the continuous improvement model in medicine, replacing blame and finger-pointing with shared goals. He insisted that organizations must invest management time, capital and technical expertise to improve quality. Respect for health professionals must be restored, indicating that they are believed to be trying hard in good faith and not due to fear of the system.

TQM, as it was known in the manufacturing industry evolved into continuous quality improvement, when applied to healthcare (Sollecito and Johnson 2011). <sup>(39)</sup> It was well recognized that TQM / CQI, presented a compelling case for adoption in health care. <sup>(40)</sup> At the turn of the millennium TQM became the only way for healthcare organizations to stay relevant (Kunst and Lemmink 2000), <sup>(41)</sup> especially in the age of knowledge, consumerism and patient empowerment.

The emphasis of CQI is not on the performance of individual clinicians, but on the continuing efforts to improve the whole healthcare organization. McLaughlin and Kaluzny <sup>(42,43)</sup> presented an inter-disciplinary and integrated approach to quality in healthcare, starting with a broad definition of TQM/CQI as;

..A structured organizational process for involving personnel in planning and executing a continuous flow of improvements to provide quality health care that meets or exceeds expectations.



..It usually exhibits these common characteristics: (1) a link to key elements of the organization's strategic plan, (2) a quality council made up of the institution's top leadership, (3) training programs for personnel, (4) mechanisms for selecting improvement opportunities, (5) formation of process improvement teams, (6) staff support for process analysis and redesign, and (7) personnel policies that motivate and support staff participation in process improvement. In the course of that process analysis, rigorous techniques of the scientific method, including statistical process control, are typically applied.

David Blumenthal deemed it necessary that physicians absorb the essence of quality, lest they lose the confidence of their patients. <sup>(44)</sup> In his Report Card (Blumenthal and Kilo 1998), <sup>(45)</sup> Blumenthal elaborated on TQM/CQI;

Substantively, the CQI movement consists of methodologies to improve quality and a vision of leadership. The methodologies highlight the central role of processes in transforming inputs into outputs in all organizations, including health care. For CQI, organizational processes are the objects of improvement, and their improvement is the key to better quality. This, in turn, is best accomplished by applying scientific methods. One of CQI's important contributions is its development of effective, simplified techniques that are accessible to employees without an advanced education for applying scientific approaches to the improvement of daily work processes.

V. Kazandjian, in his *Epidemiology*, <sup>(46)</sup> provided an interesting perspective on the definition of quality. He enunciated what does not amount to quality care;

The definition of quality health care remains elusive, despite the reams of articles, books, papers, and speeches on the

subject. It is easier to say what quality health care is not than what it is. It is not providing services that put patients at risk for little benefit. It is not recommending procedures and medications with high price tags and questionable results. It is not making mistakes when there are no second chances. In fact, books have been written, television shows produced, and sensational reports broadcast that tell in horrific detail what quality health care is not.

R. Brook (RAND) et al. summarized the research done on defining and measuring quality of care <sup>(47)</sup> into two components that are important to people;

The first component is providing care of high technical quality. By high technical quality care we mean that the patient receives only the procedures, tests, or services for which the desired health outcomes exceed the health risks by a sufficiently wide margin; and that each of these procedures or services is performed in a technically excellent manner. The second component of quality of care is that all patients wish to be treated in a humane and culturally appropriate manner and be invited to participate fully in deciding about their therapy.

It has been noticed that amongst the widely-accepted definitions of quality, there are some that are very discrete, whereas others are broad in perspective. IOM defined quality as "the degree to which health services for individuals and populations increases the likelihood of desired health outcomes and are consistent with current professional knowledge". <sup>(48)</sup> Discrete dimensions are sometimes subsumed in broad definitions of quality. <sup>(49)</sup> The widely-adopted IOM definition of Quality, in its six dimensions, <sup>(50)</sup> is akin to WHO's working definition of Quality. <sup>(51)</sup> Table 1 contains the comparative definition of these dimensions.

**Table 1: Six Dimensions of Health Care Quality as per IOM <sup>(50)</sup> & WHO <sup>(51)</sup>**

Dimension of care	Institute of Medicine (IOM)	World Health Organization (WHO)
Safe	Avoiding injuries to patients from the care that is intended to help them	Delivering health care which minimizes risks and harm to service users
Effective	Providing services based on scientific knowledge to all who could benefit and refraining from providing services to those not likely to benefit (avoiding underuse and overuse, respectively)	Delivering health care that is adherent to an evidence base and results in improved health outcomes for individuals and communities, based on need
Timely / Accessible	Reducing waits and sometimes harmful delays for both those who receive and those who give care	Delivering health care that is timely, geographically reasonable, and provided in a setting where skills and resources are appropriate to medical need
Patient-Centred / Acceptable	Providing care that is respectful of and responsive to individual patient preferences, needs, and values and ensuring that patient values guide all clinical decisions	Delivering health care which takes into account the preferences and aspirations of individual service users and the cultures of their communities
Efficient	Avoiding waste, including waste of equipment, supplies, ideas, and energy	Delivering health care in a manner which maximizes resource use and avoids waste
Equitable	Providing care that does not vary in quality because of personal characteristics such as gender, ethnicity, geographic location, and socio-economic status	Delivering health care which does not vary in quality because of personal characteristics such as gender, race, ethnicity, geographical location, or socioeconomic status

## CONCLUSION

It is difficult not to question the plenty of terms and concepts in quality and to evade thinking about the need to limit the terms, allowing it to be more coherent and consistent. “Linguistic proficiency seems to be more prolific than the creative generation of practices of improvement”. <sup>(52)</sup> Thus, as a consolidation of the historical and modern perspectives, and with the intent of ensuring coherence and consistency, the author in conclusion would like to propose the following all-encompassing definition;

### *Total Quality Management in Healthcare*

A synthesis of various scientific measures to continually improve the technical and interpersonal capability of healthcare providers and organizations, so that they provide evidence-based care that is effective, efficient, equitable, safe, timely and patient-centered; primarily intended to promote the health and well being of individuals, communities and nations.

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