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Giving meaning to quality of healthcare in Malaysia

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Abstract

Ensuring quality in healthcare calls for a coordinated, systematic, congruous, and sustained approach. Nevertheless, it demands defining what the quality of healthcare means in the local context. Presently, the Malaysian healthcare system utilizes various definitions of quality of healthcare across the different initiatives and levels of healthcare, which can lead to fragmented or ineffective quality improvement. The study aims to describe the process undertaken in developing an explicit definition of the quality of healthcare tailored to the Malaysian context, which is currently lacking. A pluralistic method was used to explore the different perspectives. Three distinct approaches were used to understand how quality is defined among the different stakeholder groups: (i) interactive policy-makers engagement sessions, (ii) a review of local quality-related documents, and (iii) an online survey engaging the public. The domains depicting quality of healthcare that emerged through these three approaches were mapped against a framework and synthesized to form the local definition of quality. A national quality-related technical working group convened on several sessions to achieve consensus and finalize the definition of quality of healthcare. Quality healthcare in Malaysia is defined as providing high-quality healthcare that is safe, timely, effective, equitable, efficient, people-centred, and accessible [STEEEPA] which is innovative and responsive to the needs of the people, and is delivered as a team, in a caring and professional manner in order to improve health outcomes and client experience. The consensus-driven local definition of healthcare quality will guide policies and ensure standardization in measuring quality, thereby steering efforts to improve the quality of healthcare services delivered in Malaysia.

Keywords: quality; healthcare; health system; definition; Malaysia

Introduction

Initiatives taken to improve healthcare quality and its outcomes begin with an understanding of what denotes 'healthcare quality' [1]. The complex nature of healthcare and its many players, which include policy-makers, providers, and patients with their diverse interests in the healthcare system, has led to different interpretations and definitions of quality, with various quality assessment approaches [2–4]. Conceptual clarity on the definition will pave the way for a coherent approach to measure quality, monitor and evaluate health system performances as well as plan strategies to improve the quality of our healthcare services [2].

After Donabedian's introduction to the concept of defining quality in 1980 [5], Maxwell's publication in 1992 [6] revisited the definition of quality and initiated the idea of explicitly identifying the domains of quality. Landmark publications by the Institute of Medicine (IOM) in 1999 [7] and 2001 [8] marked the evolution of the 'safety' domain, conceptualizing six dimensions in the definition: safety, timeliness, effectiveness, efficiency, equity, and patient centredness [8]. In 2018, the World Health Organization (WHO) highlighted seven dimensions in its definition: effective, safe, people-centred, timely, equitable, integrated, and efficient [9].

The WHO National Quality Policy Strategy (NQPS) [10] emphasized that each country should develop its own definition of quality of healthcare. Several countries used international definitions of quality of healthcare such as IOM [7, 8] and WHO [9] as a guide in developing their respective local definitions of quality of healthcare [11–18]. While there may be similar domains across the countries, the diverse domains deemed relevant to their respective local contexts and capacities highlight what is deemed most important to be explicitly stated in the definition of quality.

Before this, Malaysia had adapted from international definitions of quality of healthcare, but had yet to propose a definition tailored to the local context. Without an explicit

definition, it has left a fair amount of interpretation open in defining what quality is at the national, state, and facility levels in the Malaysian context, possibly resulting in fragmented or ineffective quality improvement initiatives [19].

The process of rooting a definition of the quality of healthcare within the local context is one of the eight essential elements described in the methodology of developing a National Quality Policy Strategy (NQPS) [10]. We too adopted this methodology in the process of developing the Malaysian National Policy for Quality in Healthcare (NPQH) [20]. Therefore, this study aimed to describe the process undertaken in developing a definition for quality of healthcare relevant to the Malaysian context that will be embraced by all levels of the health system.

Methodology

The multi-dimensionality of healthcare indicated that exploring the definition of healthcare quality necessitated a pluralistic approach, which applies more than one methodology [21]. This was represented through the three approaches used to allow a more holistic perspective [21, 22] of the definition of quality in healthcare. This study was registered with the National Medical Research Registry (NMRR-19-3522-50 030) and approved by the Medical Research and Ethics Committee (MREC), MOH Malaysia.

Setting and participants

Three distinct approaches were utilized to gather input: (i) interactive policy-maker engagement sessions, (ii) a review of quality-related documents, and (iii) an online survey engaging the public. The Institute for Health Systems Research (IHSR), as the Quality Assurance Programme Secretariat in the Ministry of Health (MOH), spearheaded the Technical Working Group (TWG).

Policy-maker engagement sessions

Policy-maker engagement sessions were conducted to allow in-depth deliberations on the definition of quality of healthcare in the Malaysian context. Informed consent was obtained from the policy-makers prior to the engagement sessions. All the participants were aware of the study's purpose, risks, and benefits. Participation was voluntary and participants were informed of their right to withdraw from the study if they wished to do so. Three separate in-person policy-maker engagement sessions were conducted in July 2019 among three different categories of policy-makers. To capture heterogeneity, purposive sampling was used to select information-rich healthcare professionals from various levels based on their expertise in healthcare quality improvement, availability and ability to communicate experiences in an articulate and reflective manner [23]. The description of policy-makers involved in the engagement sessions is as in Table 1. Policy-makers with similar roles in quality of healthcare, but from different levels of care, were grouped in one session to encourage involvement in the discussions.

Document reviews

A compilation and review of national-level MOH government documents, including regulations and policies, were

Table 1. Description of policy-makers involved in the engagement sessions.

No.	Policy-maker category	Description
1.	MOH key quality personnel ($n = 31$)	Roles ($n = 31$):
		i. Quality Improvement Initiatives (QIIs) representatives' ($n = 13$)
		ii. State and federal territory quality-related liaison officers ($n = 16$)
		iii. Quality champions from facility levels ($n = 2$)
		Gender ($n = 31$):
		i. Male ($n = 6$)
		ii. Female ($n = 25$)
2.	MOH vertical programme representatives ($n = 13$)	Representatives from vertical programmes ($n = 13$):
		i. Communicable disease ($n = 2$)
		ii. Non-communicable disease ($n = 3$)
		iii. Preparedness, surveillance, and response ($n = 1$)
		iv. Family health ($n = 7$)
		Gender ($n = 13$):
		i. Male ($n = 1$)
		ii. Female ($n = 12$)
3.	Non-MOH key quality personnel ($n = 18$)	Roles ($n = 18$):
		i. Universities ($n = 4$)
		ii. Ministry of Defence ($n = 2$)
		iii. Private healthcare sector ($n = 6$)
		iv. Professional bodies ($n = 6$)
		Gender ($n = 18$):
		i. Male ($n = 10$)
		ii. Female ($n = 8$)

undertaken to complement other methodologies in developing a local definition for quality of healthcare. These documents were obtained through an official request to all MOH Head of Programmes, while also screening the publication section of MOH official websites for relevant documents to ensure a comprehensive database. Documents related to healthcare quality were included irrespective of publication year, as long as they were the latest edition. Consultation with the focal person for each program guided the inclusion of specific documents.

Online public survey

An online survey was utilized to explore perceptions from a wider range of the public, given the complexity of obtaining a geographically representative yet diverse population sample. The content of the questionnaire was validated, pre-tested, and offered in both Malay and English languages. Any Malaysian above 18 years old who used health services and can understand either Malay or English was eligible to respond.

A set of simple, open-ended questions was developed using Google Form to explore their views on the quality of healthcare in Malaysia, namely: (i) What matters to you most when visiting any hospital or clinic? (ii) Which areas are working

well?, and (iii) What can be done to improve the quality of services in the hospital or clinic? Question (i) was used to explore the public's interpretation of quality of healthcare.

Data collection

Policy-maker engagement sessions

The process of gathering input from the policy-makers was initially tested among the TWG members to pre-test the process. Every TWG member was given a sheet of paper to silently generate ideas to answer a broad question: 'How do we define the quality of healthcare in the Malaysian context?'. This question was preceded by another question wherein workplace quality-related issues were reflected upon, which could guide their input on defining quality. The feedback from the pre-test was synthesized and used to refine the process flow for upcoming engagement sessions.

During each session, policy-makers were randomly divided into groups of 4–5 members depending on their seating arrangement, with a research team member assigned to moderate the discussion within each group. The research team preceded the discussion with an overview of international definitions for quality of healthcare, the MOH mission statement, and the importance of having a quality definition contextualized to Malaysia. To steer the discussion, the groups were asked to reflect on the strengths and areas needing improvement with regard to the quality of the current healthcare system. Following this, they were prompted with an open-ended broad question: 'How do we define the quality of healthcare in the Malaysian context?'. Subsequently, each group presented the output of their discussions to the main group.

During these presentations, the research team members took field notes and collected these presentations, which were in the form of PowerPoint or flipcharts for further analysis. Findings from the policy-maker engagement sessions were de-identified to protect informant confidentiality. The inputs from the policy-maker engagement sessions were analyzed and coded by three research team members independently. Validity and reliability were assured by purposive sampling, selecting diverse representatives, and allowing them to review findings for accuracy. The policy-maker engagement sessions yielded a total of 18 domains.

Document reviews

A total of 443 full-text documents were collated in an Excel database. The quality-related documents submitted included:

(1) National health policies and plans, national quality strategies (42)
(2) Quality-related legislations, regulations, and statutes (35)
(3) Quality-related government documents on professional training materials, protocols, and guidelines (322)
(4) Healthcare quality performance data (10)
(5) Technical and vertical programme reports (33)
(6) Resources to support national quality efforts (1)

With the TWG divided into eight groups, relevant data were extracted onto an Excel template with pre-defined headings. Interconnected and comparable domains were subsumed to finally yield a total of eight domains. To ensure validity

Table 2. Categorization of the 18 themes from the online public survey into 13 domains reflecting the quality of healthcare.

No.	Themes	Frequency (n)	Domains
1.	Timeliness	373	Timely
2.	Patient–provider respect	158	People-centred
3.	Provider's competence	111	Effective
4.	Facility infrastructure	110	Facility capacities
5.	Workforce capacity	66	Workforce capacity
6.	Services availability	59	Accessibility
7.	Drugs availability	23	Accessibility (repeated)
8.	Financially acceptable	21	Affordable
9.	Efficiency	17	Efficient
10.	People-centred	9	People-centred (repeated)
11.	Effectiveness	9	Effective (repeated)
12.	Facility-management capability	6	Leadership
13.	Information system	5	Technology appropriate
14.	Patient–provider trust	5	Professional
15.	Priority setting in facilities	5	Facility policies
16.	Geographically reachable	4	Accessibility (repeated)
17.	Policy/procedures streamlining	4	Facility policies (repeated)
18.	Equity	1	Equitable
Total			**13 domains**

and reliability, a comprehensive document selection covering all relevant aspects of healthcare quality and establishing consistency among reviewers was employed.

Online public survey

Data were collected using a questionnaire from March to July 2019. The questionnaire was disseminated using Quick Response (QR) codes via the snowballing sampling method, which involves a 'chain reaction' [24]. The questionnaire was disseminated through work emails of known healthcare providers, programme representatives, and quality-related liaison officers, aiming for wider distribution across various facility levels to reach a broader public community. The survey was open to the public community who had used any healthcare facility, whether government or private. As the public survey was conducted using an online survey, electronic consent was embedded into the questionnaire, which explicitly informed the study nature, purpose, objective, risks, benefits, declaration of confidentiality and anonymity. Validity and reliability were secured through pre-testing, pilot testing, data cleaning, and response rate monitoring for sample representativeness.

The analysis comprised 800 respondents, of which majority were women (68.5%), aged 20–59 (95.5%). Majority of the respondents had received care in both public and private healthcare settings (56.2%). Responses to question (i), as stated above, were analysed using the Primary Healthcare Performance Initiatives (PHCPI) framework [25] by two independent research team members. Eighteen major themes were identified with their frequencies established. Detailed findings
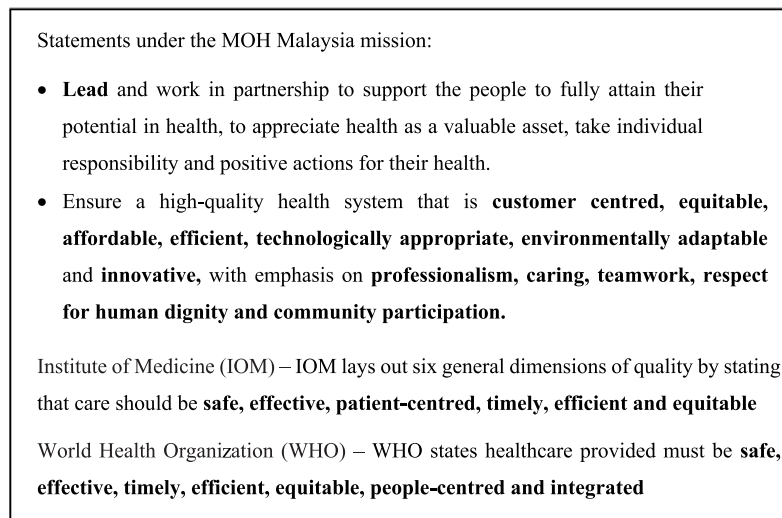
Statements under the MOH Malaysia mission:

- **Lead** and work in partnership to support the people to fully attain their potential in health, to appreciate health as a valuable asset, take individual responsibility and positive actions for their health.
- Ensure a high-quality health system that is **customer centred, equitable, affordable, efficient, technologically appropriate, environmentally adaptable** and **innovative,** with emphasis on **professionalism, caring, teamwork, respect for human dignity and community participation.**

Institute of Medicine (IOM) – IOM lays out six general dimensions of quality by stating that care should be **safe, effective, patient-centred, timely, efficient and equitable**

World Health Organization (WHO) – WHO states healthcare provided must be **safe, effective, timely, efficient, equitable, people-centred and integrated**

Figure 1 The three sources used to identify domains to form the framework.

of the survey will be reported in a separate publication. These major themes were then categorized into 13 domains which reflected the quality of healthcare, as shown in Table 2.

Overall triangulation and mapping of data

The findings from the policy-maker engagement sessions were triangulated with findings from the document reviews and online public survey. Data extracted through the three different approaches were mapped against a framework and synthesized to form the local definition of quality.

The framework used consisted of domains identified from three sources deemed most applicable and relevant through consensus of the TWG. Figure 1 depicts the three sources chosen, namely the statements in the MOH mission in the MOH Strategic Plan [26] that portrayed domains of quality of healthcare, as well as internationally recognized definitions from IOM [8] and WHO [9].

Seventeen quality domains from the three sources were collated to form the framework, namely (i) safe, (ii) timely, (iii) effective, (iv) efficient, (v) equitable, (vi) people-centred, (vii) teamwork, (viii) caring, (ix) professionalism, (x) affordable, (xi) leadership, (xii) respect for human dignity, (xiii) community participation, (xiv) technologically appropriate, (xv) innovative, (xvi) environmentally adaptable, and (xvii) integrated.

Results

The collated results of the three different categories of policy-makers yielded a total of 18 domains, while the 443 quality-related documents reviewed revealed a total of eight domains. Lastly, from the online survey, 13 domains emerged. All the domains from the three approaches were then mapped against the framework above-mentioned. If domains were identified outside the framework or if certain domains within were not captured, further deliberations among the TWG team members aimed to achieve a consensus whether to include them as separate domains, exclude or subsume them under conceptually similar domains. Table 3 depicts the comparison of the domains that arose from each source, mapped against the 17

framework domains. 'Accessible' was a domain outside the framework identified; however, it consistently emerged during all three approaches, hence it was unanimously decided to be added as a new main domain. Despite initial consideration, 'structure', another domain which emerged outside the framework, was ultimately excluded from the definition due to its limited nature to modify, as agreed upon by consensus.

After mapping the domains, the TWG was tasked with determining the over-arching main domains for the definition and the interconnected sub-domains to be incorporated under these main domains. Although many domains could be integrated under broader domains, there was a risk that important domains could become less explicit. For example, if caring was subsumed under patient-centredness, there is a risk that imperative components of behaviour, attitudes, and therapeutic relationships will be marginalized [27].

As such, the three core values, namely teamwork, caring, and professionalism, under the Corporate Culture of MOH Malaysia, which are a part of the current mission statement, were retained. While some of the domains from the current mission statement were reasserted, a few new key domains such as safe, timely, effective, and accessible were added to further bolster the definition. Among various terms to depict 'patient-centredness', the term 'people-centred' was selected for its inclusivity, encompassing the value of both healthcare providers and service recipients [27]. A preliminary definition was then synthesized and presented back to the policy-makers in February 2021 for finalization.

Preliminary definition

'Providing high quality healthcare that is **SAFE, TIMELY, EFFECTIVE, EQUITABLE, EFFICIENT, PEOPLE-CENTRED,** and **ACCESSIBLE [STEEEPA]** which is responsive to the needs of the Malaysian people and is delivered as a **TEAM**, in a **CARING** and **PROFESSIONAL** manner in order to improve health outcomes'.

After minor refinements based on the policy-makers feedback, the finalized definition was presented to the top MOH leaders in April 2021.

Table 3. Mapping of the domains from the three approaches against the framework.

No.	Framework domains	Policy-maker engagements (18 domains)	Document reviews (8 domains)	Online public survey (13 domains)	Notations
1.	Safe	a) Safe	a) Safe		Identified as a main domain
2.	Timely	b) Timely	b) Timely	a) Timely	Identified as a main domain
3.	Effective	c) Effective	c) Effective	b) Effective	Identified as a main domain
4.	Efficient	d) Efficient	d) Efficient	c) Efficient	Identified as a main domain
5.	Equitable	e) Equitable	e) Equitable	d) Equitable	Identified as a main domain
6.	People-centred/Patient-centred/Customer-centred	f) People-centred	f) Patient-centred	e) People-centred	Identified as a main domain
7.	Teamwork	g) Teamwork			Identified as a main domain
8.	Caring				Identified as a main domain
9.	Professionalism	h) Professionalism i) Competent j) Integrity		f) Professional g) Workforce capacity	Identified as a main domain
10.	Affordable	k) Affordable	g) Affordable	h) Affordable	Subdomain under 'accessible'
11.	Leadership	l) Leadership		i) Leadership	Subsumed under 'teamwork'
12.	Respect for human dignity				Subsumed under 'people-centred'
13.	Community participation				Subsumed under 'people-centred'
14.	Technologically appropriate	m) Technologically appropriate		j) Technology appropriate	Subsumed under 'innovative'
15.	Innovative	n) Innovative o) Adaptable			Included in the definition, however not as a main domain or subdomain
16.	Environmentally adaptable	p) Environmentally adaptable			Subsumed under 'efficient'
17.	Integrated	q) Integrated			Subsumed under 'people-centred'
* Additional domain not part of the framework					
	Accessible	r) Accessible	h) Accessible	k) Accessible	**New main domain added**
	Structure			l) Facility capacities m) Facility policies	Not added into the definition

Finalized definition

'Providing high quality healthcare that is **SAFE, TIMELY, EFFECTIVE, EQUITABLE, EFFICIENT, PEOPLE-CENTRED, and ACCESSIBLE [STEEEPA]** which is innovative and responsive to the needs of the people and is delivered as a **TEAM**, in a **CARING** and **PROFESSIONAL** manner in order to improve health outcomes and client experience'.

Table 4 further defines the main domains, the subdomains incorporated under the broader main domains, and the terms used to depict the domains [28].

Discussion

Statement of principal findings

The development of a clear definition of quality is a fundamental element in creating a high-quality health system. Nevertheless, without clear meaning relevant to the local context, quality improvement is likely to be fragmented or ineffective [19]. In its endeavour to develop a local definition of quality, Malaysia utilized a local evidence-based, pluralistic approach to develop a definition of quality that is relevant and applicable to all.

Strengths and limitations

Given the emphasis on person-centred care and the public's expectations of healthcare today, our process was specially designed to also capture their perspectives which often differ from that of providers and policy-makers [29]. The pluralistic approach collating these diverse perspectives is one of the main strengths of this study.

Another strength of the study is its triangulation methodology, which utilized various data sources, which can ensure the bias from the use of a single perspective is overcome. Engagement sessions with the policy-makers derived the highest number of domains, most likely because they represented multiple levels of care from various backgrounds and experiences.

However, some aspects limit the study's robustness. Although we canvassed the entire MOH to obtain documents, we did not receive responses from all departments and may have missed some others. Nevertheless, the volume of documents successfully obtained which included major policies render the impact of this potential gap negligible. Similarly, despite our efforts to ensure a comprehensive approach, there is still the likelihood that certain stakeholders may have been less represented, particularly the public who have less access to smartphones or computers to complete the online survey.

Table 4. Definitions and terms depicting the main domains of quality of healthcare.

Domains	Definitions & sub-domains
Safe	Avoiding or minimizing risk and harm during the process/delivery of healthcare for both patients and providers.
Timely	Reducing delays in providing and receiving healthcare.
Effective	Providing the best healthcare services through competent healthcare personnel utilizing the best available evidence.
Equitable	Delivering healthcare that does not differ in quality according to personal characteristics such as gender, race, ethnicity, geographical location, or socioeconomic status.
Efficient	Delivering healthcare in a manner that makes the best use of the resources while also avoiding waste (such as underuse and overuse).
People-centred	Providing care that is respectful of and responsive to individual patient preferences, needs and values, in partnership with patients and ensuring that patient values guide all clinical decisions.
Accessible	Physical accessibility: availability of good health services within reasonable reach of those who need them and of opening hours, appointment systems, and other aspects of a service organization and delivery that allow people to obtain the services when they need them. Economic accessibility or affordability: ability to pay for services without financial hardship. It takes into account not only the price of the health services but also the indirect and opportunity costs (e.g. the costs of transportation to and from facilities and of taking time away from work). Information accessibility: the right to seek, receive, and impart information and ideas concerning health issues.

Domains	Terms to depict the domain	
Teamwork	• United towards a common goal • The spirit of togetherness • Leadership	• Mutual trust and respect • Accountability
Caring	• Punctuality • Tolerance • Emotional control • Exemplary character • Courtesy	• Considerate • Ready to serve • Proactive • Responsiveness
Professionalism	• Commitment • Discipline • Best way	• Work ethic • Standard of work

Interpretation within the context of the wider literature

Comparing the domains between policy-makers and the public, it is interesting to note that safety was a domain not highlighted by the public, most likely because they were assumed to be already incorporated into the healthcare service before being deemed suitable to be delivered to the public. While the quality of healthcare can be objectively defined through the technical domains, compassion too has been identified as a

hallmark of quality of care as it ensures healthcare is rendered in a manner that is acceptable by the people [30].

The new domain, accessibility, which appeared in all three approaches, reflects the importance this domain was given to be explicitly stated. This domain possibly arose recognizing these aspects of concern in Malaysia, given the equity and physical accessibility disparity among the local population. Although 'accessibility' could be integrated under the domain of equity, the meaning may not have been accurately captured. According to IOM, the 'equity' domain focused more on equal service provision for vulnerable groups, rather than specific challenges of accessing and finding ways around complex healthcare systems [8]. If the systems cannot be accessed or the patient's journey is slowed by bottlenecks or other system challenges, the quality of healthcare will continue to be impeded [27].

Implications for policy, practice, and research

In Malaysia, the only document that had incorporated domains of quality was the mission statement in the MOH Strategic Plan, with the latest being produced in 2021 [26]. The domains of quality in the mission statement were last revamped in the 2011–2015 edition, wherein one domain that was considered crucial but not stated, was safety. With this updated definition of quality in the NPQH document, it may be timely to suggest a revisit of the MOH mission statement to ensure the alignment with the broader national health sector policies and plans. The definition will undergo periodic 5-year reviews as part of the NPQH review process, reflecting the evolving healthcare system dynamics.

Following the definition development, existing national indicators monitored across MOH programs were mapped against the STEEEPA domains. Indicator performance will be reviewed in 2025 as part of monitoring and evaluation, ensuring alignment with national health priorities and accurate representation of respective domains. These mapped indicators serve as benchmarks for improvement, offering insights into domain performance enabling an assessment of Malaysian healthcare quality and identification of areas for improvement.

The updated definition will be disseminated via hard copies, official websites, social media, and simplified promotional material as part of the National Policy for Quality in Healthcare (NPQH) implementation. Additionally, workshops with healthcare professionals will focus on educating and promoting the use of STEEEPA domains to guide quality improvement projects in addressing facility-related issues. Educating healthcare professionals on quality care domains and its indicators aims to promote adherence to standards, ensuring high-quality service delivery.

Conclusion

Driven by changing needs, what quality of healthcare meant 10 years ago would probably not have captured the true meaning of quality in healthcare today. The pluralistic evaluation revealed that quality healthcare services have different meanings for patients, providers, and policymakers, which would not have been possible had a singular approach been used.

Utilizing the diverse data sources, a definition of quality of healthcare tailored to the Malaysian context which is

evidence-based and consistent with international definitions was successfully formulated. This clear, shared interpretation of the definition is envisioned to steer the process of developing quality indicators, selecting intervention strategies, allowing a more standardized evaluation of existing QIIs, and setting the direction for newer QIIs in improving the provision of the quality of healthcare.

Supplementary data

Supplementary data is available at *IJQHC* online.

Conflict of interest statement

The author(s) declared no known conflicts of interest with respect to the research, authorship, and/or publication of this article.

Data availability statement

The dataset that supports the findings of this article is not publicly available to protect participant privacy. Request for data can be obtained from the corresponding author on reasonable requests and with the permission from the Director General of Health, Malaysia.

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