Leading Article

Continuous quality improvement
A proposal for Arabian Gulf Medical Associations

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ABSTRACT

Having well-established and active medical associations in the Arabian Gulf countries is a promising event. Ideally, however, it must be assured that these associations are efficiently and effectively functioning in a manner designed to serve the ultimate goal of promoting the standards of the medical profession and thus, the quality of health care in the region. This paper is designed to promote the application of Continuous Quality Improvement principles by the medical associations in the Arabian Gulf. The paper is presented in a general format so as to allow for appropriate modifications according to the specific objectives of different medical associations. The *indicators* identified in this proposal to assess the quality of *structure, process* or *outcome* are not intended as a comprehensive list. Rather, the authors aim at establishing a framework on which various fine-tuned and appropriately tailored systems can be based.

Keywords: Continuous quality improvement, medical associations.

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The Gulf Council Countries (Bahrain, Kingdom of Saudi Arabia, Kuwait, Oman, Qatar, and United Arab Emirates) are rapidly developing countries that have many attributes in common. These attributes include the development of their medical care delivery systems against a global background of cost-containment during what has been described as an 'era of assessment and accountability'.[1] This latter fact provides both an opportunity and perhaps a necessity for professional organizations, among other sectors in these countries, to share views and experiences. This paper provides a proposal for Continuous Quality Improvement (CQI) that is general enough to be applicable to any of these organizations while specifically tailored to none of them.

Different authorities use different expressions to define quality.[2,3] For CQI, however, the definitive criterion is to continually search for opportunities to get better, no matter how good you already are.[3] Arabian Gulf Medical Associations (AGMAs) are encouraged to develop a common commitment to this concept. The contemporary question, which cannot be overemphasized, is not whether adopting a CQI approach will be beneficial to an organization, but rather, how to develop a suitable CQI plan for a given organization. As a general principle, the prerequisites for a successful CQI program include: commitment by top management, motivation of all members to participate and continuous training. This proposal is intended to be more practical than theoretical and therefore the discussion below will be written in a format to best serve this purpose. The authors followed Donabedian's theoretical model by dividing aspects of quality into three components, namely structure, process and outcome. To assure and improve quality in any of these components, 4 steps are necessary: first, the selection of topics to be looked at; second, the development of indicators; third, the analysis and evaluation of the data; and fourth, the implementation of change and follow-up review (Figure 1).

Structure. Elements of structure within an organization are those things that go into it and provide the basis within which processes can be developed; i.e., the various types of resources used

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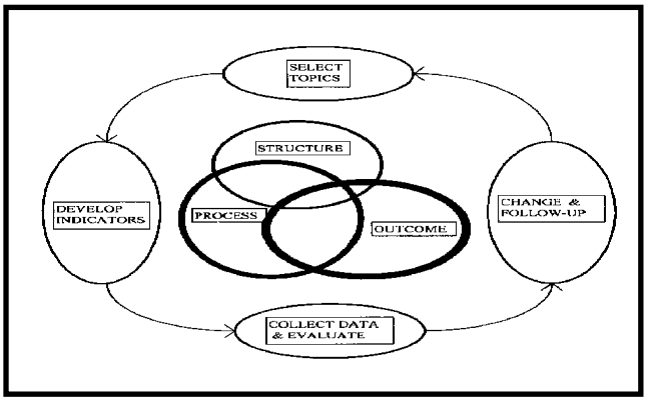

Figure 1 - A quality improvement cycle showing the overlapping between the three components (structure, process & outcome) of a system together with the steps required for continuously improving quality.

and the rules and regulations of the organization are forms of structure. Quality improvement focusing on aspects of structure in a medical association might, for example, be concerned with membership, funding, premises, equipment, as well as rules and regulations (Table 1). Structure may seem only indirectly or loosely connected to the quality of outcome, but the role of structure is crucial in establishing a solid foundation on which processes can be developed.

Process. This aspect refers to the 'throughput' of the organization, that is, to the various activities carried out by a medical association in order to achieve a desired outcome. Quality of process is usually judged in terms of results or outcome because, in many situations, there is no obvious best process.[4] Nevertheless, process activities such as the effectiveness of policies and procedures, level of participation by members or the state of harmony with social factors such as religion, social values or language can be evaluated and improved (Table 2).

Table 1 - Examples of possible indicators to measure quality of some structure related topics of a medical association.

Topics	Indicators
- Members	
- Qantity	- Variability with time
- Continuity (Loyalty)	- Duration of membership
- Fund	
- Quantity	- Variability with time
- Expenditures	- Fund-raising projects
- Premises	- Rental vs owned
	- Accessibility
	- Maintenance
	- Matching:- objectives activities members' density
- Equipment	- Availability
	- Maintenance
	- Cost-effectiveness

Table 2 - Examples of possible indicators to measure quality of some process related topics of a medical association.

Topics	Indicators
- Policies and procedures	- Availability - Continuous updating - Matching:- objectives community needs
- Members commitment	Participation in: - voting - meetings - donation - other activities
- Harmony with social factors	- Religion - Social norms - Language - Governmental regulations - Community expectations

Outcome. Outcome refers to the result or 'output' of an activity or process. Quality of outcome for a medical association might be evaluated by concentrating on topics such as improving members knowledge and attitudes, developing standards of practice for physicians and other health care personnel, encouraging health promotion projects or participation in scientific research (Table 3). Outcome is less easy to quantify (and thus to measure) than either structure or process. Hence, though the ultimate goal should be to focus on whether the objectives of medical associations have been achieved, there tends to be greater emphasis on improving the more measurable aspects of structure (inputs) and process (throughputs).

Selection of topics. In order to improve the quality of a given aspect of a medical association, be it structure, process or outcome, then key-topics must first be identified. In this respect a number of criteria have gained universal acceptance for

Table 3 - Examples of possible indicators to measure quality of some outcome related topics of a medical association.

Topics	Indicators
- Members	
- Knowledge, attitudes and practices	- Level and variability
- Satisfaction	- Level of satisfaction
- Continuous medical education	- Quantity - Relevance - Innovation - Effectiveness - Continuity
- Research	- Quantity - Relevance - Cost-effectiveness
- Health promotion projects	- Quantity - Acceptance by community - Cost-effectiveness

providing a focus for medically related improvement topics: timeliness, appropriateness, acceptability (social and professional), relevance and equity.[5] However, within the context of cost containment, the criteria of effectiveness and efficiency could also be added. Various methods could be employed for topic identification, for example, consensus conferences, reference to pertinent literature and interviewing key-people.[4] Tables 1, 2 and 3 show examples of topics that might be suitable for improving quality of the AGMAs.

Development of indicators. Once the topics have been selected, the next task should be to develop indicators. Indicators are measures of specific, objective events that provide information about the quality of a particular part of a service. The source of appropriate indicators can be developed internally from those members of the organization who are knowledgeable about the topic under evaluation. Alternatively, external indicators may be developed from nationally agreed guidelines or on the basis of public policy for example. Members assigned to the development of internal indicators may consult authoritative sources, review pertinent literature or make use of their own and others' experience in order to develop the most appropriate indicators for monitoring and improving the issue under review. Tables 1, 2 and 3 show examples of indicators developed with the aim of measuring the quality of some issues related to structure, process, and outcome of an AGMA.

Data collection and evaluation. Having selected the topics to be studied and developed the indicators that will serve as parameters for measurement, the next step shall be to gather the relevant data. The data pertaining to different indicators may reside in a variety of sources and thus, different methods of data collection will be required. Validity and reliability of the methods used, together with practical feasibility are among the important points one should consider when selecting the most appropriate method of data collection. Evaluation of the collected data may be based on economic criteria such as cost-benefit analysis, on appropriate comparisons between different AGMAs or within a given AGMA over a specified period of time. Where an indicator has been developed on the basis of an agreed standard, then the evaluation can be based on the comparison between the measure of actual practice and the standard. Conversely, where no such standard exists and the indicators provide an insight into performance, then a desired standard can be established and used as a basis for evaluation in future or follow-up studies.

Change and follow-up. In order to improve quality, the most critical need is to change actual practice.[6] Yet the lack of change following a CQI project is a common complaint in medical quality improvement.[1] Various barriers from within or out with an organization can make the implementation of change a difficult task. This places great emphasis on the importance of having commitment from top management to CQI. However, when change is implemented, its effect must be assessed through subsequent data collection and evaluation in order to ensure that it has the intended effect. Clearly, the quality improvement process must be continuous.

In conclusion, the Arabian Gulf Medical Associations are relatively young organizations, but seemingly growing fast. Notably however, evidence from elsewhere suggests that professional medical associations may find increasing competition from more commercially orientated businesses.[7] Thus, without the developmental potential that correlates with in-house CQI systems, the future of these associations might be questionable as far as cost-benefit and effectiveness is concerned. Thus, the common attributes that Gulf Countries share provide a substantial opportunity for medical associations to cooperate in order to improve their standards and, ipso facto, the services to their members and communities. In order to facilitate these objectives, the authors believe that intra-organizational and inter-organizational CQI committees should be created and given support by the steering boards of the AGMAs. This support is crucial because the level at which a quality improvement system is adopted will influence its success.

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