56870

WHO/HRH/95.7
English only
Distr.: LIMITED

Defining and measuring the social accountability of medical schools

Charles Boelen, MD

Chief Medical Officer
Educational Development of Human Resources for Health
World Health Organization
Geneva, Switzerland

and

Jeffery E. Heck, MD

Director of Family Medicine Residency Training Program
and International Health Program
University of Cincinnati
Cincinnati, Ohio, USA

World Health Organization
Geneva

Abstract

Countries worldwide increasingly demand more value for money in health care. Medical schools, which both shape the health care system and are shaped by it, must continue to be socially responsible on their own initiative. In addition, they must accept and acknowledge being held to account by society; they must demonstrate social accountability. This paper proposes a framework by which medical schools can gauge their progress in helping promote health care systems characterized by a balance between relevance, quality, cost-effectiveness and equity through their activities in education, research and service delivery. Further studies are suggested to test the validity of the framework and any tools resulting from it, define more specifically the benchmarks of progress in addressing social accountability, and expand the framework to apply to other health professions schools and health sector institutions.

This document is not issued to the general public, and all rights are reserved by the World Health Organization (WHO). The document may not be reviewed, abstracted, quoted, reproduced or translated, in part or in whole, without the prior written permission of WHO. No part of this document may be stored in a retrieval system or transmitted in any form or by any means — electronic, mechanical or other — without the prior written permission of WHO.

The views expressed in documents by named authors are solely the responsibility of those authors.

Designed by WHO GRAPHICS

Contents

Introduction 1

The context of health care reform and the importance of social accountability 2

The values of social accountability 5
- Relevance 5
- Quality 6
- Cost-effectiveness 7
- Equity 8

The interrelationship between the values of social accountability in different health care systems 9

A social accountability grid 12

Future applications of the social accountability grid 14

Summary 16

References 17

Annex: A social accountability grid 19
- Domain of education 19
- Domain of research 24
- Domain of service 28

Introduction

In much of the world, health care beneficiaries and those who plan, finance and provide health care are increasingly aware of the need to reform health care systems but have very different priorities and expectations. For example, consumers primarily want high-quality health services in adequate quantity; health professionals want to expand their knowledge base and exercise independent judgment in providing the best possible care; and health care policy-makers want care for all citizens that is cost-effective.

For a health care system to make the necessary changes and run efficiently, however, the main stakeholders must decide to work together and must agree on a set of fundamental values. Relevance, quality, cost-effectiveness and equity are values implicit in the goal of Health for All,[1] endorsed by all nations and governments, which offers such a basis. The stakeholders — policy-makers, health managers, researchers, care providers, educators and consumers alike — must re-examine their position on the health chessboard and consider readjusting their expectations to ensure that these values are upheld and people's health needs are better met.

The context of health care reform and the importance of social accountability

With the growing desire to obtain better value for the increasing investment in health care, stakeholders of the health sector are being asked to demonstrate how they will contribute to improving the health care and health status of society. The introduction of quality control and total quality management are expressions of this trend towards demanding better returns from investment in the health sector.

Medical schools, too, must adapt; they cannot remain indifferent to the important health reforms society expects. They may decide to respond to what they think the changes will be, or, preferably, they may use their potential to contribute proactively to shaping the future health system.[2]

They must accept a certain degree of accountability for society's health if they wish to continue to be forces for social progress and consequently to merit taxpayer support. To fully respond to societal needs, medical schools must accept responsibility for the outcome of their deeds. Is there evidence that graduates perform effectively and as expected? Do research results have a positive impact on the way health care services are delivered and address health care priorities? Do delivered health services serve as models and optimally respond to needs?

Of course, even when medical schools act responsibly in attempting to fulfil their obligations there is no guarantee that their actions will have the greatest impact on health. Most medical schools train physicians to provide high-quality care, for example, but many are less concerned with access to care, which can be improved only through interactions with policy-makers, other health care professionals and the community.

Another example is the case in which a medical school increases its efforts to train physicians to treat populations at risk, in order that the underserved receive more and better care. Such activities can be fully effective only if health care policy-makers and managers collaborate to im-

prove the working conditions, including salaries, of health care professionals who work in underserved areas.

To maximize their contribution to improved health status, medical schools should develop collaborative links within and outside the health sector with those responsible for policy, planning and finance that are directly and indirectly related to health care, and with health care providers and consumers. All these partners should work together to create an environment that rewards education, research and service that are relevant, cost-effective, equitable and sustainable.

In its resolution WHA48.8, "Reorientating medical education and medical practice for health for all", the World Health Assembly — the supreme governing body of the World Health Organization — urges all WHO Member States to support efforts towards these ends.[3]

In this regard, it has been suggested that medical education requires a new definition to underscore its responsibility to society: "It is the art and science of (1) preparing future medical graduates to function properly in society and (2) influencing the environment in which these graduates will work, to the greatest satisfaction of the health consumers, the health authorities and the graduates themselves."[4] This new paradigm of social accountability by medical schools depends heavily on collaboration with others.

It is proposed, therefore, that social accountability for medical schools be defined as *the obligation to direct their education, research and service activities towards addressing the priority health concerns of the community, region, and/or nation they have a mandate to serve*. The priority health concerns are to be identified jointly by governments, health care organizations, health professionals and the public.

Accountability exists independently of whether a school acknowledges it and addresses it; all medical schools are accountable (i.e. liable to be called to account). Medical schools voluntarily can, and should, be socially responsible, but they should also expect to be held to account by society for what they do; the term "social accountability" conveys this notion and is thus preferred to "social responsibility". It is in this context that terms such as "social accountability" and "socially accountable" should be understood.

Indeed, medical schools that successfully progress in addressing the obligations for which they are socially accountable could be said to be socially responsible. They would have embraced a continuous reform

process as a necessary means to meet the evolving needs of society. They would aim to contribute towards building a health care system that is relevant, of high quality, cost-effective, equitable and sustainable and that benefits the local community, the nation and the international community.

Medical schools have many obligations. For example, they must train the physician workforce, conduct research and provide health care services. They must also manage their own resources; respond to the policy-makers, health managers, researchers, other care providers, educators and consumers who are their stakeholders; and appropriately advance education and technology.

Some of their obligations may have no immediate or direct effect on society but be justified nonetheless. For example, although their research contributes to the sum of knowledge in a wide array of sciences, the benefits to society of that research may not be easily perceived. Then, too, the principles of higher education require that educators, researchers and students predict and propose new developments, which also may not have immediately demonstrable effects on society. The academic world must generate knowledge as well as transmit it; it is essential that academic freedom be protected, inasmuch as it allows creative minds to open new fields of investigation and intervention that will ultimately prepare society to face the challenges of the future.

Nonetheless, the obligation for social accountability is central in defining the institution and must be seen as both integral to the institution and independent from it. Social accountability is a responsibility to society that should guide the institution's entire scope of activities in education, research and service. It is universal.

The values of social accountability

Although many medical schools recognize their obligation to society, several conceptual problems regarding definition and evaluation exist, which, if resolved, may facilitate more widespread implementation of the paradigm of social accountability. This paper defines the concept of social accountability and proposes a framework designed to help medical schools evaluate sustainable progress towards meeting it — against the four values of relevance, quality, cost-effectiveness and equity in health care, defined as follows.

Relevance

Relevance in health care can be defined as the degree to which the most important problems are tackled first. Although priorities may be interpreted in different ways in different societies or by different groups within the same society, primary attention should be given to those who suffer most, to ailments that are most prevalent, and to conditions that can be addressed with locally available means. It is fundamental that health policy reflect these priorities.

Relevance also implies an organized effort to constantly update a plan to address the priority health needs. Medical schools should not be just instruments of health policy, they should contribute towards creating it.

Certain aspects of relevance may be considered universal. As articulated in the Declaration of Alma Ata,[1] these include issues of universal access, primary health care services, essential public health services and availability of essential drugs.

For medical schools, relevance requires that "the content and the context of a medical school's mission and its core activities be in synchrony with the context of the communities it serves."[5] But though their education, research and health care activities must serve the community, there

is no universal blueprint for these varied functions of medical schools.

For example, relevance in education, research and service would not be advanced by developing a centre of excellence in cardiovascular surgery and research as a major priority area in a country where there is high childhood mortality from communicable diseases, a comparatively short lifespan and a low incidence of cardiovascular disease. Rather, the quest for relevance would focus on exposing students and resident physicians to high-quality, cost-effective programmes to reduce morbidity and mortality from communicable diseases.

Furthermore, the medical school could collaborate with national or local health authorities in an effort to create practice environments for graduates that enable them to effectively address these health concerns. As the incidence of communicable disease dropped and longevity increased, the risk of cardiovascular disease in the population might begin to increase and a cardiovascular centre might become more relevant. Thus, relevance is a dynamic concept that must be continually assessed.

Medical schools can and should also have some role in defining the composition and distribution of the health workforce most appropriate to meeting the needs of society, and particularly the kinds and numbers of physicians needed. For example, most countries today are in need of more well-trained generalist physicians capable of providing a broad range of services to the entire population.[6] To help meet this need a medical school could, for example, create a department of family medicine to expose students to primary care practice and principles, favour the admission of candidates more likely to practise as generalists, or work in partnership with the government or the private sector, or both, to ensure that jobs will exist for physicians who deliver primary care.

Quality

High-quality health care uses evidence-based data and appropriate technology to deliver comprehensive health care to individuals and populations, taking into account their social, cultural and consumer expectations. WHO's definition of health as "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity"[7] should be a beacon for health care reformers and communities. The quest for high-quality care is universal, but the definition of quality may differ with sociocultural context. Also, what is good can no longer be deter-

mined solely by the professionals and institutions that deliver the goods and services.

High-quality care includes a broad range of services from primary to tertiary care and from acute interventional care to disease prevention, health promotion and health education. Medical schools have traditionally focused on a definition of quality limited to technical capability and competence. Quality must also be viewed in the context of cultural and consumer expectations, however.[8] In some countries, for example, traditional medical practices are not only accepted but expected, and would play a necessary role in making a health care system high-quality.

From a practical standpoint, all countries are constrained to varying degrees by the availability of resources and influenced by their value systems, which underscores the importance of setting priorities and of cost-effectiveness. Thus, although it might be possible to define minimal standards that would be universally acceptable, the definition of high-quality care evolves with time and is influenced by a variety of factors in different contexts.

Cost-effectiveness

Cost-effective health care systems are those that have the greatest impact on the health of a society while making the best use of its resources. Whatever the level of resources available, cost-effective care can be provided.

In many countries, the public's perception must shift from the notion that quality in health care equates with quantity — for example, that the more drugs prescribed and expensive, high-technology diagnostic tests ordered, the better the care. Alternatives must be found within a given curative scheme, and health promotion and disease prevention measures must be used as cost-effective alternatives to curative measures whenever possible.

At the societal level, health care systems must emphasize plans for improving cost-effectiveness.[9] In this regard, the World Bank recommends that industrialized countries spend, on average, 50% less than they do now on interventions that are not cost-effective; on the other hand, they should double or triple their current spending on public health services and essential individual services such as sick child care, family planning, prenatal care, and treatment for tuberculosis and for sexually transmitted diseases. For their part, developing countries should redirect public spend-

ing for health to provide essential public health services and primary health care services to individuals. In many developing countries, moderate increases in health expenditure are vitally needed as well.[10]

Medical schools can work effectively to achieve some of these goals through curriculum reform that emphasizes cost-effective individual and public health services, and by developing local practice standards. Research that evaluates the effectiveness of patterns of health care delivery can make a measurable contribution to health care reform. Collaborative research in these areas by the medical school with the government, the private sector and the public can help to achieve high-quality health care for each unit of expenditure.

Equity

Equity, which is central to a socially accountable health care system, means striving towards making high-quality health care available to all people in all countries. The central goal of the WHO Global Strategy for Health for All is that all people receive "at least such a level of health that they are capable of working productively and of participating actively in the social life of the community in which they live. To attain such a level of health, every individual should have access to primary health care and through it to all levels of a comprehensive health system."[1]

Equity must not be seen only as a health care policy issue. For example, the medical school can contribute to defining populations at risk by well-designed research. Research can also help to describe the barriers that prevent such populations from seeking or receiving health care services. The results of such research can then be shared with policy-makers in the government or in the private sector, and solutions can be proposed and/or advocated.

Similarly, the provision of equitable care can be enhanced by medical education that exposes students to the needs of women and children or to the needs of underserved populations such as the urban and rural poor, ethnic and racial minorities and displaced people. Exposure of students to model practices that deliver care to the underserved not only increases sensitivity to these groups and their special needs, but it may stimulate career choices favouring care to these populations.

The interrelationship between the values of social accountability in different health care systems

The four values used to assess progress in addressing social accountability — relevance, quality, cost-effectiveness and equity — must be equally emphasized by the medical school and the health care system. Understanding the interrelationship between these values allows health planners and organizers to conceptualize how to direct (or redirect) programmes of action. To illustrate, Figure 1 depicts the four values plotted on a diagram. The crossing of the axes is the lowest point and the extremities of the axes are the optimal points on the scale of values. This figure represents an ideal health care system that is balanced in attempting to meet the needs of individuals and populations. Note that the circle does not extend to the periphery of the figure: in all countries there are limits to the extent to which services can be provided.

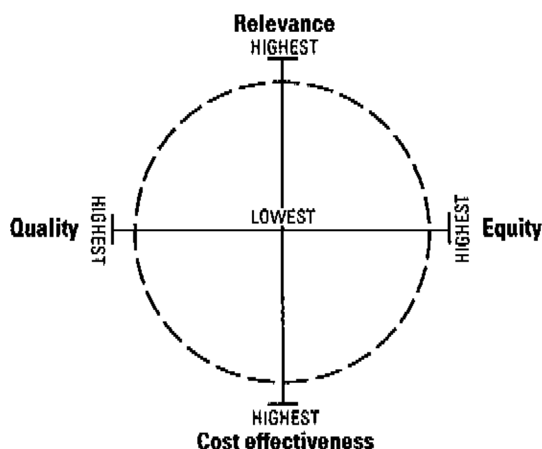
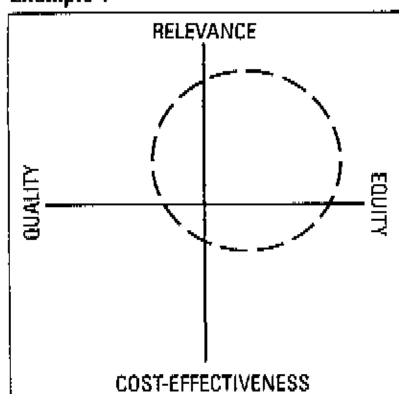
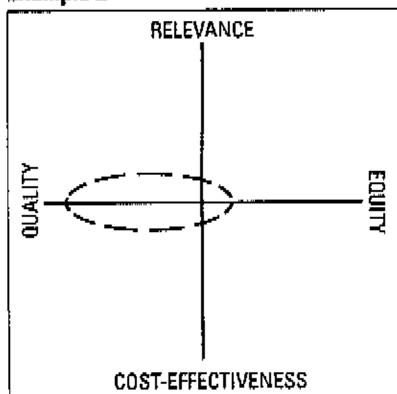


Figure 1. The four values of social accountability

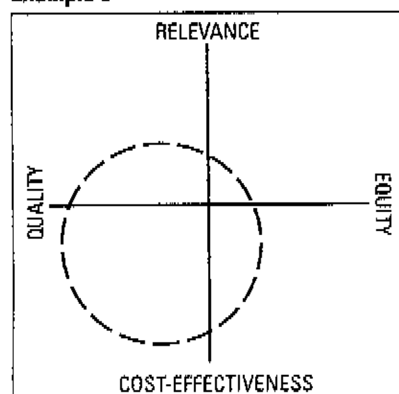
Example 1



Example 2



Example 3



Example 4

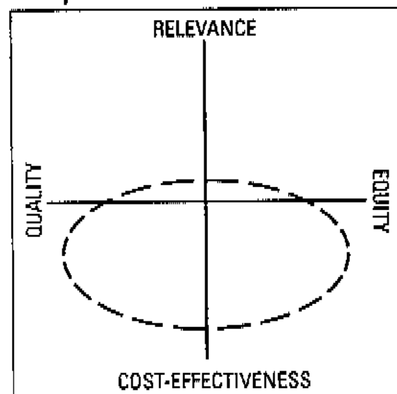


Figure 2. Compliance with values of social accountability in different health care systems

Figure 2 shows how different health care systems may favour one or more values over others. Examples 1 to 4 in Figure 2 characterize various patterns of health care systems that are less than optimal and for which reform would be justified. Through understanding the implications of these values and the way they relate to each other in the context of an evolving health care system, medical schools may grasp the scope of the challenges they face in living up to their social accountability.

Example 1: The health care system has worked well to achieve a system that provides services to all, even addressing the health care priority areas, but the quality and cost-effectiveness of the services are poor. Such a system may exist where there is a national health service with minimal input from the consumers and no competition to stimulate cost-effectiveness and quality.

Example 2: The health care system is consumer-driven, demanding quality — at high cost — but neglecting to meet priority health care needs and the need for equity. Such a system exists in many industrialized countries where there is no impetus (such as from government or private-sector planners and organizers) to plan for or meet the needs of society, including those of the underserved.

Example 3: The health care system is characterized by a consumer-driven system in which costs are constrained by competition or regulation. As in example 2, the system, which is emerging in many industrialized countries, looks after the interests of its "customers" only, resulting in minimal attention to health care priorities and underserved populations.

Example 4: The health care system makes good use of its resources while providing high-quality care for most of its citizens, but has not planned effectively to meet priority health care needs. This example is seen in many countries where the health sector fails to take a comprehensive approach aiming at an optimal coordination of numerous inputs to protect and improve health.

A social accountability grid

Values	Domains and phases								
	Education			Research			Service		
	Planning	Doing	Impacting	Planning	Doing	Impacting	Planning	Doing	Impacting
Relevance									
Quality									
Cost-effectiveness									
Equity									

Figure 3. The social accountability grid

Figure 3 provides a schematic overview of the social accountability grid (please see Annex), which is a framework for assessing a medical school's progress towards social accountability in each of three domains of institutional responsibility: **education, research** and **service.** The description in each cell represents the ideal. The grid can be used to assess the extent to which these three domains contribute towards building a health care system that is **relevant** to the needs of the community or nation and provides high-**quality** health care that is **cost-effective** and **equitable.** It can be used as a self-assessment tool by individual medical schools to ascertain the degree to which they have incorporated into their mission a commitment to meeting the health care needs of the community and/or the nation they have a mandate to serve.

During the evaluation process, progressive phases in each of the cells are indicated by the headings **planning, doing** and **impacting.** These terms imply a progressive sequence towards fulfilling the societal mandate.

For a medical school to demonstrate during the **planning** phase that

it takes seriously its obligations to society, there should be evidence of the school's commitment. For example, if the medical school plans to conduct research that is relevant, the faculty should have "protected time" to conduct this research and should be adequately supported.

During the **doing** phase, researchers should be actively conducting research in priority areas in a suitable work environment that was developed during the planning phase.

It is during the **impacting** phase of this social accountability paradigm that medical schools must stretch beyond the traditional boundaries of the medical school's sphere of activity. During the impacting phase of relevant research, for example, the medical school uses research methodologies or research results to advocate broad applications that will affect the larger health care arena, i.e. at the level of the community, nation or region. The school works in collaboration with governments, health care organizers and financers, health care professionals, professional associations and the communities that are affected. The chances of having a significant impact are greater if this collaboration begins at the planning phase and continues through the entire process.

Users may wish to modify the indicators in the proposed grid to make them more meaningful to a given context. It should be noted that an irreducible amount of overlap between the cells of the grid remains, despite efforts to make each segment as specific as possible.

The purpose of this grid is not to rank or compare institutions, but to help an individual institution measure its progress in addressing social accountability and to stimulate institutional action. In doing so, the grid is intended to provide a means to facilitate the translation of good intentions into operational and practical terms so that the recommendations made by various national authorities, organizations and groups over the years can be implemented. Of vital importance to this model is the notion that medical schools in partnership with the government, the public, and the private sector aim not only to produce graduates trained to practise in a reformed health care system, but also to reform the health care system in which those graduates are to practise. The grid is designed to measure the progress of institutional efforts in education, research and service towards this goal.

Future applications of the social accountability grid

The proposed grid for social accountability could lead to several applications and benefit from further research:

1. To use the grid to **initiate and stimulate reform** in medical schools:

   Individual medical schools that wish to be more responsive to their regional or national health care needs can use the grid to identify strengths and weaknesses at a given time or as a self-assessment tool serially in time to measure success of interventions and stimulate further action.

2. To develop **specific indicators** of progress in addressing social accountability:

   If the grid for social accountability is used to evaluate a variety of medical schools in different regions of the world, a more precise and detailed definition of benchmarks for progress in addressing social accountability, and thus a more specific instrument, may be possible. For each cell of the grid, indicators and weighting criteria should be developed.

3. To adapt the grid for **external evaluation and/or medical school accreditation:**

   After the grid is refined, it could be adapted for use by external reviewers to assist in the evaluation and/or accreditation of medical schools. While external evaluation is not the purpose of the current grid, use of the grid would add more objectivity to comparison of schools. Degree of progress in addressing social accountability could become another criterion by which medical schools are evaluated.

4. To conduct **research to validate the grid**:

   A standardized tool for assessing progress in addressing social accountability could be developed as a result of validation of the grid by field testing. The protocol could be shared by medical schools from different parts of the world to set up a multi-centred research project. Lessons learned from applications in different sociocultural contexts would be used to further refine the assessment tool and improve its usefulness worldwide.

5. To **expand the use of the grid** by other health sector institutions:

   This proposed framework may be adapted by other educational institutions for health personnel (e.g. nursing schools, schools of public health, etc.) to measure progress in addressing social accountability. A composite measurement of several training institutions covering the entire spectrum of the health workforce in a given setting would be more informative than results from assessing one type of training institution alone. To a certain degree, a reference to the grid could also be useful to health care organizations (hospitals, health centres and networks of health services) interested in assessing their responsiveness to societal needs.

Summary

In view of society's increasing quest for more value for its investment in health care, institutions and organizations will need to demonstrate progress in addressing social accountability. Since medical schools both shape the health care system and are shaped by it, they must be able to objectively assess their progress in addressing social accountability. This paper presents a framework that can be used to evaluate efforts by individual medical schools to help achieve the goal of a health care system characterized by a balance between relevance, quality, cost-effectiveness and equity. Further studies must be conducted that test the validity of this framework and any tools resulting from it, define more specifically the benchmarks of progress in addressing social accountability, and expand this evaluation framework to apply to other health professions schools and health sector institutions.

References

1. *Global Strategy for Health for All by the Year 2000.* Geneva, World Health Organization, 1981.
2. *Changing Medical Education: An Agenda for Action.* Geneva, World Health Organization, 1991 (unpublished document WHO/EDUC/91.200; available on request from Division of Development of Human Resources for Health, World Health Organization, 1211 Geneva 27, Switzerland).
3. *Reorientating medical education and medical practice for health for all.* World Health Assembly Resolution WHA48.8. Geneva, World Health Organization, 1995.
4. Boelen C. Interlinking Medical Practice and Medical Education: Prospects for International Action. In: Walton H, ed. *Proceedings of the World Summit on Medical Education.* In: *Medical Education,* 1994, Suppl. 1, 28:82-85.
5. Maudsley RF. The New Social Mandate for Medical Schools. *Ann. of Community-Oriented Ed,* 1994, 7:21-26.
6. *Making Medical Practice and Education More Relevant to People's Needs: The Contribution of the Family Doctor.* World Health Organization and The World Organization of Family Doctors, 1995.
7. *Facts About WHO.* Geneva, World Health Organization, 1990.
8. Chase E, Carr-Hill R. The Dangers of Managerial Perversion: Quality Assurance in Primary Health Care. *Health Policy and Planning* 24, 1994, no. 3, 9:267-278.
9. Creese A. Global Trends in Health Care Reform. *World Health Forum,* 1994, 15:317-322.
10. World Bank. *World Development Report 1993: Investing in Health.* New York: Oxford University Press, Inc., 1993.

Annex

A social accountability grid

Domain of education

Relevance

Planning: The curriculum is designed and updated at appropriate intervals, to address the priority health care needs of the community, region and/or nation.

- The medical school has developed a formalized means to regularly assess the priority health needs by data collection and consultation with representative groups.
- The medical school has defined a profile of the "ideal" doctor that would optimally respond to society's health needs. This profile is used in planning the curriculum.
- Educational programmes emphasize recent scientific and technical developments in health sciences, but *proportional representation* is given to education concerning priority health needs.
- The institution is committed to evaluating the relevance of the educational programmes, as evidenced by a clearly articulated mission statement and task forces, etc., calling for a curriculum that addresses the priority health care needs of the community, region and/or nation.

Doing: Throughout their education, all students are exposed to a variety of learning opportunities in which the priority health care concerns are addressed.

- Medical students are introduced to concepts that address the priority health care issues as identified and the practical application of those

concepts. These experiences are a part of *every* student's medical education.

- During clinical experience, the students are *active* participants: they see patients, interact with teams of health professionals, and understand the administrative and policy issues.
- For many priority health issues, a thorough exposure to epidemiology and public health principles is necessary.

Impacting: **The medical school has taken the initiative to ensure that it has produced physicians who can maintain their skills in order to address the priority health concerns of the community, region and/or nation.**

- Initiatives are taken to ensure that medical students acquire the skills to address the priority health concerns and that those skills are maintained.
- The medical school also has formed partnerships with health care decision-makers, health professionals and consumers to take active measures to advocate programmes that ensure jobs for health professionals who have been trained to address the priority health concerns. This could include active participation in such issues as workforce planning, primary care and public health services, incentives for physicians who practise in priority areas, and working conditions, including remuneration.
- Resident training and continuing education for the practising physician also continue to stress priority health concerns in order to sustain relevance.

Quality

Planning: **The curriculum is designed and updated at appropriate intervals, to emphasize the provision of high-quality care.**

- There is deliberate planning by the medical school to ensure that the curriculum is preparing graduates capable of providing high-quality care. Evidence for this includes a commitment of adequate resources to support learning environments in which personalized, comprehensive and continuous care is provided.

Doing: Throughout their education, all students and graduates are exposed to a variety of learning opportunities in which high-quality health care is provided.

- Learning sites are carefully selected so that all students and residents can develop the necessary knowledge, skills and attitudes to successfully practise high-quality health care.
- Supervisors and learners are evaluated and given feedback in every setting.

Impacting: The medical school has taken the initiative to ensure that it has produced physicians who can maintain their skills and deliver high-quality health care.

- The medical school is equipping students, residents and practising physicians with the knowledge, skills and attitudes needed to successfully provide high-quality care — for example, through the development of practice guidelines, quality assurance programmes and continuing education.
- When these programmes can be shown to be effective, the medical school takes the initiative to ensure that they are considered by appropriate groups for policy development and decision making.

Cost-effectiveness

Planning: The curriculum is designed and updated at appropriate intervals, to emphasize the provision of cost-effective care.

- There is deliberate planning by the medical school to ensure that the curriculum is preparing graduates capable of practising cost-effective care. Evidence for this includes a commitment of adequate resources to support learning environments in which cost-effective care is practised.
- Curriculum planning and review committees periodically evaluate the content of the curriculum to ensure that the provision of cost-effective care is appropriately emphasized throughout the training of students and residents.

Doing: Throughout their education, all students and graduates are exposed to a variety of learning opportunities in which cost-effective health care is provided.

- Learning sites are carefully selected so that all students and residents can develop the necessary knowledge, skills and attitudes to successfully provide cost-effective care.
- Supervisors and learners are evaluated and given feedback in every setting.
- Learners are *active* participants: they see patients, interact with teams of health professionals, and understand the administrative and policy issues that affect the cost of health care.
- Learners also learn to apply objective evidence from the literature, such as outcome data, which define rational and cost-effective practice patterns.

Impacting: The medical school has taken the initiative to ensure that it has produced physicians who can maintain their skills and deliver cost-effective health care.

- The medical school is equipping students, residents and practising physicians with the knowledge, skills and attitudes needed to successfully practise cost-effective care — for example, through the development of practice guidelines, quality assurance programmes that also consider cost of care and continuing education.
- When these programmes can be shown to be effective, the medical school takes the initiative to ensure that they are considered by appropriate groups for policy development and decision making.

Equity

Planning: The curriculum is designed and updated at appropriate intervals, to emphasize the provision of care to the underserved.

- The medical school has taken the initiative to identify groups at risk and potentially underserved. Such groups may include racial and ethnic minorities, displaced persons, the rural and urban poor, women and children.

- Curriculum planning and review committees periodically evaluate the content of the curriculum to ensure that the provision of care to the underserved is appropriately emphasized throughout the education of learners.

Doing: Throughout their education, all students and graduates are exposed to a variety of learning opportunities in which health care to the underserved is practised.

- Learning sites are carefully selected so that all students and residents can develop the necessary knowledge, skills and attitudes to successfully deliver care to the underserved.
- Supervisors and learners are evaluated and given feedback in every setting.
- Learners are active participants: they see patients, interact with teams of health professionals, and understand the administrative and policy issues that affect the care of the underserved. For example, learners may be required to identify patients and their families who belong to a group at risk, and initiate an appropriate intervention.

Impacting: The medical school has taken the initiative to ensure that it has produced physicians who can maintain their skills and deliver health care to the underserved.

- The medical school is equipping educating students, residents and practising physicians with the knowledge, skills and attitudes needed to deliver care to the underserved.
- Collaboration with the private sector, health professionals and the community is occurring, especially for the development of incentives that promote the provision of care to groups at risk. When these programmes can be shown to be effective, the medical school takes the initiative to ensure that they are considered by appropriate groups for policy development and decision making.

Domain of research

Relevance

Planning: Research priorities are commensurate with the health care priorities of the community, region and nation.

- Research priorities of the medical school are identified in consultation with health care beneficiaries, health care providers and health care policy decision-makers.
- In setting up its research agenda, the medical school seeks to influence these groups to ensure that the research results have the potential to be used to improve the health care and health status of the community, region or nation.

Doing: The medical school is conducting research in priority areas.

- Research projects are being conducted at different levels of the health system, especially in areas such as health care delivery, primary care, risk assessment, health promotion, disease prevention, health care teams, etc., which will ultimately benefit the population that the medical school is meant to serve.
- Research in the priority areas is supported with at least as much personnel, equipment and supplies as other research areas within the school.

Impacting: Research results are disseminated and the medical school takes initiatives to ensure they are considered by appropriate groups for policy development and decision making.

- Results of research in the priority areas are being published and presented in pertinent meetings and conferences.
- Appropriate measures are taken to actively influence health care decision-makers, health professionals and consumers in an effort to improve the provision of relevant health care services.

Quality

Planning: There is institutional commitment to conducting research that will enhance the delivery of high-quality health care.

- The medical school has a well-articulated mission statement and a clearly defined plan for conducting research that will enhance the delivery of high-quality health care, taking into account the health professional's perception of quality as well as cultural and consumer expectations.

Doing: The medical school is conducting research that will define and enhance the delivery of high-quality health care.

- Research is being conducted that will enhance quality assurance, such as research on evidence-based practice guidelines, medical outcomes, health care teams and other areas of health services delivery that directly affect the ability of practitioners to deliver high-quality care.

Impacting: Results of research on quality care are disseminated and initiative is taken by the medical school to ensure that they are considered by appropriate groups for policy development and decision making.

- Results of research are being published and presented in pertinent meetings and conferences.
- Appropriate measures are taken to actively influence health care decision-makers, health professionals and consumers in an effort to improve the provision of high-quality health care services.

Cost-effectiveness

Planning: There is institutional commitment to conducting research that will enhance the delivery of cost-effective health care.

- The medical school has a well-articulated mission statement and a clearly defined plan for conducting research that will enhance the delivery of cost-effective health care.

Doing: The medical school is conducting research that will define and enhance cost-effective health care delivery.

- Research is being conducted that will improve the delivery of high-quality care while effectively using the resources available within the health care system. This research enhances the ability of practitioners to deliver cost-effective care to both individuals and populations, e.g. studies to assess the comparative performance and costs of different categories of health professionals and the composition of health care teams, the effect of practice guidelines on cost of care, and the cost-effectiveness of primary care and preventive services.

Impacting: Results of research on cost-effectiveness are disseminated and initiative is taken by the medical school to ensure they are considered by appropriate groups for policy development and decision making.

- Results of research are being published and presented in pertinent meetings and conferences.
- Appropriate measures are taken to actively influence health care decision-makers, health professionals and consumers in an effort to improve the provision of cost-effective health care services.

Equity

Planning: There is institutional commitment to conducting research that will help to establish equity in health care systems.

- The medical school has a well-articulated mission statement and a clearly defined plan for conducting research that will identify groups at risk and enhance the delivery of health care to underserved populations. Such groups may include racial and ethnic minorities, displaced persons, the rural and urban poor, and women and children.

Doing: The medical school is conducting research that will identify populations at risk and enhance health care delivery to the underserved.

- Research is being conducted that will identify groups that do not receive adequate health care services.
- Research efforts may attempt to ascertain why certain groups are at risk and what interventions can improve their health status or health care delivery.

Impacting: Results of research on equity in health care delivery are disseminated and initiative is taken by the medical school to ensure that they are considered by appropriate groups for policy development and decision making.

- Results of research are being published and presented in pertinent meetings and conferences.
- Appropriate measures are taken to actively influence health care decision-makers, health professionals and consumers in an effort to improve the provision of health care to the underserved.

Domain of service

Relevance

Planning: There is institutional commitment to contributing towards meeting the priority health needs of the community, region and/or nation.

- Health care delivery programmes of the medical school are, in part, planned in consultation with health care beneficiaries, health care providers and health care policy decision-makers.
- In setting up its service programmes, the medical school seeks to anticipate what types of services and health care professionals will be needed in the future to improve the health care and health status of the community, region or nation.

Doing: The medical school contributes to service delivery in the priority areas.

- The medical school contributes to the delivery of service at different levels of the health care system, especially in areas such as improving health care delivery, primary care, risk assessment, health promotion, disease prevention, etc., benefiting the population that the medical school is meant to serve.
- Service programmes of the school and its partners that address the priority areas are supported with at least as much personnel, equipment and supplies as other service functions of the school.
- The medical school forms partnerships with other institutions and/or practitioners, to accomplish the same goals, particularly where the resources and personnel capacity to meet the defined needs are insufficient.

Impacting: Based on experience and evaluation of different approaches to health service delivery, the medical school has taken the initiative to influence appropriate groups for policy development and decision making and to ensure that the priority health concerns of the community, region and/or nation are addressed.

- The medical school collaborates with government, the private sector and/or the community to evaluate the programmes that best meet priority health needs.
- The medical school advocates consideration by appropriate groups* for policy development and decision making of programmes that address issues such as primary care and public health services, working conditions for health care professionals, health care teams, incentives to work in priority areas, and renumeration issues.

Quality

Planning: There is institutional commitment to encouraging the delivery of high-quality health care.

- The medical school has a well-articulated mission statement and a clearly defined plan to collaborate with other health care professionals and health care decision-makers to promote and develop incentive systems that enhance the delivery of high-quality care.
- The health professional's perception of quality as well as the consumer's expectations are taken into account in order to include the vision of continuity of health care that is personalized and comprehensive.

Doing: The medical school contributes to the delivery of high-quality health care.

- The medical school develops and promotes standards of high-quality health care, especially for commonly encountered health issues and including practice guidelines, that are influenced by the scientific literature and within the context of cultural and consumer expectations.
- The medical school forms partnerships with other institutions and/or practitioners to accomplish the same goals, particularly where the resources and personnel capacity to meet the defined needs are insufficient.

---

* includes political authorities, health care organizers, professional associations, accrediting bodies and community health representatives

Impacting: Based on experience and evaluation of different approaches to health service delivery, the medical school has taken the initiative to influence appropriate groups for policy development and decision making and to ensure that high-quality health care delivery is promoted and encouraged.

- The medical school advocates consideration by appropriate groups* for policy development and decision making of programmes that provide incentives for high-quality care, e.g. offering quality assurance and CME programmes that are practical and convenient, special professional recognition and/or financial rewards.

Cost-effectiveness

Planning: There is institutional commitment to encouraging the delivery of cost-effective health care.

- The medical school has a well-articulated mission statement and a clearly defined plan to collaborate with other health care professionals and health care decision-makers to promote and develop programmes that enhance the delivery of cost-effective care.

Doing: The medical school contributes to the delivery of cost-effective health care.

- The medical school develops and promotes standards of cost-effective care, especially for commonly encountered health issues, that are influenced by the scientific literature, including practice guidelines, and within the context of cultural and consumer expectations.
- The medical school forms partnerships with other institutions and/or practitioners to accomplish the same goals, particularly where the resources and personnel capacity to meet the defined needs are insufficient.

Impacting: Based on experience, and evaluation of different approaches to

* includes political authorities, health care organizers, professional associations, accrediting bodies and community health representatives

health service delivery, the medical school has taken the initiative to influence appropriate groups for policy development and decision making and to ensure that cost-effective health care delivery is promoted and encouraged.

- The medical school advocates consideration by appropriate groups* for policy development and decision making, programmes that provide incentives for cost-effective care, e.g. offering quality assurance and CME programmes that are practical and convenient, special professional recognition and/or financial rewards.

Equity

Planning: There is institutional commitment to encouraging the delivery of health care to the underserved.

- The medical school has a well-articulated mission statement and a clearly defined plan to collaborate with other health care professionals and with health care decision-makers and volunteer organizations to promote and develop programmes that enhance the delivery of health care to the underserved.

Doing: The medical school contributes to the delivery of health care to the underserved.

- The medical school works either alone or in partnership with other institutions and/or practitioners to provide or support the delivery of health care to the underserved, such as racial and ethnic minorities, displaced persons, the rural and urban poor, and women and children.

Impacting: Based on experience and evaluation of different approaches to health service delivery, the medical school has taken the initiative to influence appropriate groups for policy development and decision making to ensure that health care to the underserved is promoted and encouraged.

---

* includes political authorities, health care organizers, professional associations, accrediting bodies and community health representatives

- The medical school collaborates with government, the private sector and/or the community to evaluate the programmes that best deliver health care to the underserved.
- The medical school advocates consideration by appropriate groups* of programmes that encourage the delivery of health care to the underserved, e.g. by offering CME programmes, special professional recognition and/or payment schemes.