

Basic Medical Education WFME Global Standards for Quality Improvement

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Basic Medical Education

WFME Global Standards for Quality Improvement

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PREFACE

The Executive Council The World Federation for Medical Education

Preface to the Trilogy of WFME Documents

Global Standards in Medical Education

The improved health of all peoples is the main goal of medical education. This is also the overall mission of the World Federation for Medical Education (WFME). In keeping with its constitution, as the international body representing all medical teachers and medical teaching institutions, WFME undertakes to promote the highest scientific and ethical standards in medical education, initiating new learning methods, new instructional tools, and innovative management of medical education.

In accordance with this mandate, WFME in its 1998 position paper launched the programme on *International Standards in Medical Education*. The purpose was to provide a mechanism for quality improvement in medical education, in a global context, to be applied by institutions responsible for medical education, and in programmes throughout the continuum of medical education.

In the early stages of developing the initial document, *Standards in Basic Medical Education*, it became clear that specifying global standards in any restricted sense would exert insufficient impact on the medical schools and their curricula, and indeed would have the potential to lower the quality of medical education. The criticism has become commonplace that medical education has adjusted inadequately both to changing conditions in the health care delivery system, and to the needs and expectations of societies. Thus, a lever for change and reform had essentially to be incorporated into the standards. This led to the concept of the WFME standards to be framed to specify attainment at two different levels: (a) basic standards or minimum requirements; and (b) standards for quality development.

That the WFME *Standards* would have the status as an accreditation instrument was considered from the outset. After deliberation WFME has taken the position that only nationally appointed agencies can be directly responsible for accreditation procedures. However, WFME could have a role in assisting in an accreditation process were one to be introduced. Globally adopted standards can function as a template for the agencies designated to implement recognition/accreditation. It would also be appropriate for WFME to develop guidelines and procedures for the use of its standards for accreditation purposes.

In the quality improvement of medical education, indispensable components are institutional self-evaluation, external review, and consultation. Both the structure and the function of WFME are conducive to the Federation partaking in setting up consultation teams in the entire world Regions.

The medical workforce is in principle globally mobile and WFME *Standards* have a role in the safeguarding of an adequate educational grounding of migrating doctors. However, incentives for retaining locally trained doctors in post in their own Regions are equally essential. The WFME *Standards* should not be viewed as encouraging increasing medical mobility and spurring brain drain of doctors from the developing world. The world is characterised by increasing internationalisation, from which the medical workforce is not immune, and the *Standards* should serve as necessary quality-assuring credentials of medical doctors wherever they are based.

To ensure that competencies of medical doctors are globally applicable and transferable, readily accessible and transparent documentation of the levels of quality of educational institutions and their programmes is essential. The *World Directory of Medical Schools*, published by the World Health Organization, was never

intended for a purpose other than a listing and qualitative considerations were explicitly excluded. WFME suggested already in its position paper of 1998 that a *World Register of Medical Schools* be developed, aiming to constitute a roster of quality assurance in medical educational institutions, and indicating specifically that institutions included have attained globally accepted and approved standards for medical education programmes.

The WFME *Global Standards* presented in this trilogy covers all three phases of medical education: **basic medical education**; **postgraduate medical education**; and **continuing professional development**. The three documents will provide the essential background material of the World Conference in Medical Education: *Global Standards in Medical Education for Better Health Care*, Copenhagen, 15 – 19 March 2003.

In developing the *Standards*, WFME appointed three International Task Forces, each constituted by a Working Party meeting on a retreat basis, and by a broader Panel of Experts, the latter communicating mainly electronically. Members of the Task Forces were selected on basis of their expertise and with geographical coverage an important consideration. The drafts of the *Standards* documents have been discussed on many occasions and in numerous settings around the world, and the many responsive commentaries received have been collated and incorporated.

The three sets of *Global Standards* are in different stages of implementation, but the Executive Council of WFME has formally adopted all. The document on *Standards in Basic Medical Education* has been translated into more than ten languages, validated in pilot studies at a number of medical schools, and are already influencing national and regional systems of recognition and accreditation of medical schools.

WFME is profoundly indebted to all who have contributed to this very complex process of formulating global standards. The enthusiasm and readiness to assist encountered in all Regions has been overwhelming, thereby signalling that the *Standards* are both desirable and implementable.

On the threshold of the 2003 World Conference, the Federation urges the medical education constituency, together with all those responsible for providing doctors and health services in the countries of the world, to contribute to the work in progress for definition and utilisation of the content in this trilogy, thereby further validating and endorsing the WFME *Global Standards in Medical Education*.

INTRODUCTION

HISTORY

WFME, since 1984, has conducted an "International Collaborative Programme for the Reorientation of Medical Education". Cornerstones in this process were the *Edinburgh Declaration*, 1988 (1), which was adopted by the World Health Assembly, WHA Resolution 42.38, 1989 (2), and the *Recommendations of the World Summit on Medical Education*, 1993 (3), reflected in WHA Resolution 48.8, *Reorientation of Medical Education and Medical Practice for Health for All*, 1995 (4).

To further promote change and innovation in medical education, WFME decided to extend implementation of its educational policy to the institutional level as described in a WFME Position Paper (1998) (5). The initial focus is on Basic (Undergraduate) Medical Education in medical schools. The initiative will subsequently be extended to Postgraduate Medical Education, and Continuing Professional Development (CPD) of Medical Doctors.

The WFME project on *International Standards in Medical Education* (5), approved by the World Health Organisation (WHO) and the World Medical Association (WMA), has three main intentions:

- to stimulate medical schools to formulate their own plans for change and for quality improvement in accordance with international recommendations:
- to establish a system of national and/or international evaluation and accreditation of medical schools to assure minimum quality standards for medical school programmes;
- to safeguard practice in medicine and medical manpower utilisation, and its increasing internationalisation, by well-defined international standards of medical education.

This undertaking has regional precedents for developing curriculum standards, such as the Project EMA (Medical Education in the Americas) of PAFAMS (6) and the ROME (Reorientation of Medical Education) Project in South East Asia (7). WHO has also examined the procedure for developing standards (8).

THE WFME PROJECT ON STANDARDS IN BASIC MEDICAL EDUCATION

Extending its project on *International Standards* in *Medical Education*, the Executive Council of WFME

in December 1998 appointed an International Task Force consisting of a Working Party and an International Panel of Advisors, charged with defining international standards for educational programmes in Basic (Undergraduate) Medical Education.

The first meeting of the Working Party took place in Copenhagen (October 1999). In its *Report* (9), the Working Party defines a set of international standards in basic medical education designed to enable medical schools at various stages of development, and with different educational, socio-economic and cultural conditions, to use the system of standards at a level appropriate to them. Emphasis is placed on standards functioning as a lever for change and reform.

The second meeting of the WFME Working Party in Barcelona (March 2001) refined the document entitled *International Standards in Basic Medical Education* in the light of comments received from the International Panel of Advisors and from a number of conferences around the world at which the draft document was presented. In addition, the Working Party developed guidelines for the implementation of the standards.

The final document was adopted by the WFME Executive Council June 2001.

CONCEPT

International standards, which have general applicability for basic medical education, can be defined (5). These take account of the variations among countries in medical education due to differences in teaching tradition, culture, socio-economic conditions, the health and disease spectrum, and different forms of health care delivery systems. Such differences can also occur within individual countries. The scientific basis of medicine is universal. The task of medical education everywhere is the provision of health care. Notwithstanding variations, there is a high degree of equivalence of structure, process and product of medical schools worldwide.

A global set of standards for medical education is not to be equated with a global core curriculum. The core of the medical curriculum consists of the fundamental theory and practice of medicine, specifically basic biomedical, behavioural and social sciences, general clinical skills, clinical decision skills, communication abilities and medical ethics, and must be addressedby all medical schools aiming to produce safe practitioners of quality. These elements have an

important bearing on the concept of international standards in medical education, but such standards do not address details regarding content and quantity.

Equally relevant for international standards is the *process* of medical education. Desirable practices in educating the basic doctor, incorporating well-recognised and accepted principles of learning, together with the institutional conditions for educational activities, must form the basis for international standards.

International standards, of course, must be modified or supplemented according to regional, national and institutional needs and priorities. WFME has clearly emphasised that there can be no benefit in fostering uniformity of educational programmes (5). Moreover, quality assurance of medical school programmes must emphasise improvement and provide guidance for achieving it to avoid interpretation of standards as a levelling at a lower level of quality among institutions.

Standards are firstly useful for educational institutions as their basis for internal evaluation and quality improvement. They are a necessary tool when external evaluation, recognition and accreditation of medical schools are carried out. Furthermore, standards might best be used in quality evaluation studies of medical schools by combining institutional self-evaluation and peer review.

PURPOSE

Several recent reports have described the necessity for radical changes and innovations in the structure and process of medical education at all levels (10-14). Such reconstruction is essential to:

- prepare doctors for the needs and expectations of society;
- cope with the explosion in medical scientific knowledge and technology;
- inculcate physicians' ability for lifelong learning;
- ensure training in the new information technologies;
- adjust medical education to changing conditions in the health care delivery system.

WHO has also advocated the need for change in medical education (15-17). It has proposed a series of activities intended to meet the current and future requirements of society, especially underlining the importance of understanding the doctors' function in the society, and the need for continuing education and for inter-professional collaboration.

Only a minority of the more than 1600 medical schools worldwide are subject to *external* evaluation and accreditation procedures. Such omission causes major concern when the imperative for reform is amply documented. The rapid increase in the number of new medical schools in the last decades, many established on unacceptable grounds (e.g. some private »for profit« schools), adds to the disquiet.

Thus, a central part of the WFME strategy is to give priority to specification of international standards and guidelines for medical education, comprising both institutions and their educational programmes. Adoption of international standards will constitute a new framework for medical schools to measure themselves. Furthermore, internationally accepted standards could be used as a basis for national and regional recognition and accreditation of medical schools' educational programmes.

RATIONALE

The WFME Working Party examined the advantages of, and the reservations about, developing international standards in basic medical education. Attention was also focused on the general application of guidelines in quality development of basic medical education (9). For international standards to be generally accepted, the following premises were adopted:

- Only general aspects of medical schools and medical education should be covered.
- Standards should be concerned with broad categories of the content, process, educational environment and outcome of medical education.
- Standards should function as a lever for change and reform
- Compliance with standards must be a matter for each community, country or region.
- Standards should be formulated in such a way as
 to acknowledge regional and national differences
 in the educational programme, and allow for different profiles and developments of the individual medical schools, respecting reasonable autonomy of the medical schools.
- Use of a common set of international standards does not imply or require complete equivalence of programme content and products of medical schools.
- Standards should recognise the dynamic nature of programme development.
- Standards are formulated as a tool which medical schools can use as a basis and a model for their own institutional and programme development.

- Standards should not be used in order to rank medical schools.
- Standards are intended not only to set minimum requirements but also to encourage quality development beyond the levels specified. The set of standards, in addition to basic requirements, should include directions for quality development.
- Standards should be further developed through broad international discussion and consensus.
- The value of the standards must be tested in evaluation studies in each region. Such projects should be based on a combination of voluntary institutional self-evaluation and peer review.

Standards are not an **either*/or* matter, but a matter of specific conduct and intentional planning. Furthermore, some schools might develop so unique a quality as to go beyond standards achieved by most medical schools. Such qualities might, in the long run, serve as examples for new goal-setting in medical schools.

Standards must be clearly defined, and be meaningful, appropriate, relevant, measurable, achievable and accepted by the users. They must have implications for practice, recognise diversity and foster adequate development.

Evaluation based on generally accepted standards is an important incentive for improvement and for raising the quality of medical education, both when reorientation and reform are pursued, and also to promote continuous improvement and development.

Adoption of internationally accepted standards has the potential to provide a basis for national evaluation of medical schools as well as broader regional recognition.

WFME considers that the operation of standards can promote discussion and stimulate development of consensus about objectives, and will help schools to formulate essentials of their educational programmes and to define the core of medical education. Standards will broaden opportunities for educational research and development and foster discussion and cooperation across departmental and other boundaries.

The existence of standards will empower educators in their effort to bring about change, and will serve to guide medical students' choices.

For curriculum planners, acceptance of standards will save time and resources.

Adoption of standards for quality evaluation will provide valuable orientation for fund providers, politicians and society.

Placing medical education on a basis of shared international standards will facilitate exchange of medical students, and ease the acceptance of medical doctors in countries other than those in which they trained. In consequence, the burden of judging the competencies of doctors who have been educated in medical schools in different countries will be diminished.

Finally, substandard medical schools can be improved by use of a system of evaluation and accreditation based on internationally accepted standards. This is likely to enhance the quality of health care, both nationally and internationally.

USE OF STANDARDS

Standards for basic (undergraduate) medical education have been used for many years in national systems of evaluation and accreditation of medical education (18-20). The methods used differ from country to country.

It is the opinion of WFME that the set of international standards presented can be used globally as a tool for quality assurance and development of basic medical education. This could be done in different ways, such as:

• Institutional Self-evaluation

The primary intention of WFME in introducing an instrument for quality improvement is to provide a new framework against which medical schools can measure themselves in voluntary institutional self-evaluation and self-improvement processes. The guidelines can thus be considered a Self-study Manual for medical schools seeking to meet the WFME Global Standards in Basic Medical Education.

• Peer Review

The process described can be further developed by inclusion of evaluation and counselling from external peer review committees.

Combination of Institutional Self-evaluation and External Peer Review.

WFME considers such a combination to be the most valuable method.

• Recognition and Accreditation

Depending on local needs and traditions, the guidelines can also be used by national or regional agencies dealing with recognition and accreditation of medical schools.

THE WFME GLOBAL STANDARDS

DEFINITIONS

The WFME recommends the following set of global standards in basic medical education. The standards are structured according to **9 areas** with a total of **36 sub-areas**. ¹

AREAS are defined as broad components in the structure, process and outcome of medical education and cover:

- 1. Mission and Objectives
- 2. Educational Programme
- 3. Assessment of Students
- 4. Students
- 5. Academic Staff/Faculty
- 6. Educational Resources
- 7. Programme Evaluation
- 8. Governance and Administration
- 9. Continuous Renewal

SUB-AREAS are defined as specific aspects of an area, corresponding to performance indicators.

STANDARDS are specified for each sub-area using two levels of attainment:

 Basic standard. This means that the standard must be met by every medical school and fulfilment demonstrated during evaluation of the school.

Basic standards are expressed by a »must«.

• Standard for quality development. This means that the standard is in accordance with international consensus about best practice for medical schools and basic medical education. Fulfilment of - or initiatives to fulfil - some or all of such standards should be documented by medical schools. Fulfilment of these standards will vary with the stage of development of the medical schools, their resources and educational policy. Even the most advanced schools might not comply with all standards

Standards for quality development are expressed by a »should«.

ANNOTATIONS are used to clarify, amplify or exemplify expressions in the standards.

¹ WFME is aware of the complex interactions and links between the various areas and sub-areas.

1. MISSION AND OBJECTIVES

1.1 STATEMENTS OF MISSION AND OBJECTIVES

Basic standard:

The medical school **must** define its mission and objectives and make them known to its constituency. The mission statements and objectives **must** describe the educational process resulting in a medical doctor competent at a basic level, with an appropriate foundation for further training in any branch of medicine and in keeping with the roles of doctors in the health care system.

Quality development:

The mission and objectives **should** encompass social responsibility, research attainment, community involvement, and address readiness for postgraduate medical training.

Annotations:

- Statements of mission and objectives would include general and specific issues relevant to institutional, national and regional policy.
- Any branch of medicine refers to all types of medical practice and medical research.
- Postgraduate medical training would include preregistration training, vocational training, specialist training and continuing medical education/professional development.

1.2 PARTICIPATION IN FORMULA-TION OF MISSION AND OBJEC-TIVES

Basic standard:

The mission statement and objectives of a medical school **must** be defined by its principal stakeholders.

Quality development:

Formulation of mission statements and objectives **should** be based on input from a wider range of stakeholders.

Annotations:

- Principal stakeholders would include the dean, members of the faculty board/council, the university, governmental authorities and the profession.
- A wider range of stakeholders would include representatives of academic staff, students, the community, education and health care authorities, professional organisations and postgraduate educators.

1.3 ACADEMIC AUTONOMY

Basic standard:

There **must** be a policy for which the administration and faculty/academic staff of the medical school are responsible, within which they have freedom to design the curriculum and allocate the resources necessary for its implementation.

Quality development:

The contributions of all academic staff **should** address the actual curriculum and the educational resources **should** be distributed in relation to the educational needs.

1.4 EDUCATIONAL OUTCOME

Basic standard:

The medical school **must** define the competencies that students should exhibit on graduation in relation to their subsequent training and future roles in the health system.

Quality development:

The linkage of competencies to be acquired by graduation with that to be acquired in postgraduate training **should** be specified. Measures of, and information about, competencies of the graduates **should** be used as feedback to programme development.

- Educational outcome would be defined in terms of the competencies the students must acquire before graduation.
- Competencies within medicine and medical practice would include knowledge and understanding of the basic, clinical, behavioural and social sciences, including public health and population medicine, and medical ethics relevant to the practice of medicine; attitudes and clinical skills (with respect to establishment of diagnoses, practical procedures, communication skills, treatment and prevention of disease, health promotion, rehabilitation, clinical reasoning and problem solving); and the ability to undertake lifelong learning and professional development.

2. EDUCATIONAL PROGRAMME

2.1 CURRICULUM MODELS AND INSTRUCTIONAL METHODS

Basic standard:

The medical school **must** define the curriculum models and instructional methods employed.

Quality development:

The curriculum and instructional methods **should** ensure that students have responsibility for their learning process and **should** prepare them for lifelong, self-directed learning.

Annotations:

- Curriculum models would include models based on discipline, system, problem and community, etc.
- Instructional methods encompass teaching and learning methods.
- The curriculum and instructional methods should be based on sound learning principles and should foster the ability to participate in the scientific development of medicine as professionals and future colleagues.

2.2 SCIENTIFIC METHOD

Basic standard:

The medical school **must** teach the principles of scientific method and evidence-based medicine, including analytical and critical thinking, throughout the curriculum.

Quality development:

The curriculum **should** include elements for training students in scientific thinking and research methods.

Annotation:

 Training in scientific thinking and research methods may include the use of elective research projects to be conducted by medical students.

2.3 BASIC BIOMEDICAL SCIENCES

Basic standard:

The medical school **must** identify and incorporate in the curriculum the contributions of the basic biomedical sciences to create understanding of the scientific knowledge, concepts and methods fundamental to acquiring and applying clinical science.

Quality development:

The contributions in the curriculum of the biomedical sciences **should** be adapted to the scientific, technological and clinical developments as well as to the health needs of society.

Annotation:

 The basic biomedical sciences would - depending on local needs, interests and traditions - typically include anatomy, biochemistry, physiology, biophysics, molecular biology, cell biology, genetics, microbiology, immunology, pharmacology, pathology, etc.

2.4 BEHAVIOURAL AND SOCIAL SCIENCES AND MEDICAL ETHICS

Basic standard:

The medical school **must** identify and incorporate in the curriculum the contributions of the behavioural sciences, social sciences, medical ethics and medical jurisprudence that enable effective communication, clinical decision making and ethical practices.

Quality development:

The contributions of the behavioural and social sciences and medical ethics **should** be adapted to scientific developments in medicine, to changing demographic and cultural contexts and to health needs of society.

Annotations:

- Behavioural and social sciences would depending on local needs, interests and traditions - typically include medical psychology, medical sociology, biostatistics, epidemiology, hygiene and public health and community medicine etc.
- The behavioural and social sciences and medical ethics should provide the knowledge, concepts, methods, skills and attitudes necessary for understanding socio-economic, demographic and cultural determinants of causes, distribution and consequences of health problems.

2.5 CLINICAL SCIENCES AND SKILLS

Basic standard:

The medical school **must** ensure that students have patient contact and acquire sufficient clinical knowledge and skills to assume appropriate clinical responsibility upon graduation.

Quality development:

Every student **should** have early patient contact leading to participation in patient care. The different components of clinical skills training **should** be structured according to the stage of the study programme.

Annotations:

- The clinical sciences would depending on local needs, interests and traditions typically include internal medicine (with subspecialties), surgery (with subspecialties), anaesthesiology, dermatology & venereology, diagnostic radiology, emergency medicine, general practice/family medicine, geriatrics, gynecology & obstetrics, laboratory medicine, neurology, neurosurgery, oncology & radiotherapy, ophthalmology, orthopaedic surgery, oto-rhino-laryngology, paediatrics, pathological anatomy, physiotherapy & rehabilitation medicine and psychiatry, etc.
- Clinical skills include history taking, physical examination, procedures and investigations, emergency practices and communication and team leadership skills.
- Appropriate clinical responsibility would include health promotion, disease prevention and patient care.
- Participation in patient care would include relevant community experience and teamwork with other health professions.

2.6 CURRICULUM STRUCTURE, COMPOSITION AND DURATION

Basic standard:

The medical school **must** describe the content, extent and sequencing of courses and other curricular elements, including the balance between the core and optional content, and the role of health promotion, preventive medicine and rehabilitation in the curriculum, as well as the interface with unorthodox, traditional or alternative practices.

Quality development:

Basic sciences and clinical sciences **should** be integrated in the curriculum.

Annotations:

- Core and optional content refers to a curriculum model with a combination of compulsory elements and electives or special options. The ratio between the two components can vary.
- Integration of disciplines would include both horizontal (concurrent) and vertical (sequential) integration of curricular components.

2.7 PROGRAMME MANAGEMENT

Basic standard:

A curriculum committee **must** be given the responsibility and authority for planning and implementing the curriculum to secure the objectives of the medical school.

Quality development:

The curriculum committee **should** be provided with resources for planning and implementing methods of teaching and learning, student assessment, course evaluation, and for innovations in the curriculum. There **should** be representation on the curriculum committee of staff, students and other stakeholders.

Annotations

- The authority of the curriculum committee would include supremacy over specific departmental and subject interests, and the control of the curriculum within existing rules and regulations as defined by the governance structure of the institution and governmental authorities.
- Other stakeholders would include other participants in the educational process, representatives of other health professions or other faculties in the University.

2.8 LINKAGE WITH MEDICAL PRAC-TICE AND THE HEALTH CARE SYSTEM

Basic standard:

Operational linkage **must** be assured between the educational programme and the subsequent stage of training or practice that the student will enter after graduation.

Quality development:

The curriculum committee **should** seek input from the environment in which graduates will be expected to work and **should** undertake programme modification in response to feedback from the community and society.

- Subsequent stages of training would include pre-registration training, and specialist training.
- Operational linkage would imply clear definition and description of the elements and their interrelations in the various stages of training and practice, and should pay attention to the local, national, regional and global context.

3. ASSESSMENT OF STUDENTS

3.1 ASSESSMENT METHODS

Basic standard:

The medical school **must** define and state the methods used for assessment of its students, including the criteria for passing examinations.

Quality development:

The reliability and validity of assessment methods **should** be documented and evaluated and new assessment methods developed.

Annotations:

- The definition of methods used for assessment may include consideration of the balance between formative and summative assessment, the number of examinations and other tests, the balance between written and oral examinations, the use of normative and criterion referenced judgements, and the use of special types of examinations, e.g. objective structured clinical examinations (OSCE).
- Evaluation of assessment methods may include an evaluation of how they promote learning.
- New assessment methods may include the use of external examiners

3.2 RELATION BETWEEN ASSESS-MENT AND LEARNING

Basic standard:

Assessment principles, methods and practices **must** be clearly compatible with educational objectives and **must** promote learning.

Quality development:

The number and nature of examinations **should** be adjusted by integrating assessments of various curricular elements to encourage integrated learning. The need to learn excessive amounts of information **should** be reduced and curriculum overload prevented.

Annotation:

 Adjustment of number and nature of examinations would include consideration of avoiding negative effects on learning.

4. STUDENTS

4.1 ADMISSION POLICY AND SELECTION

Basic standard:

The medical school **must** have an admission policy including a clear statement on the process of selection of students.

Quality development:

The admission policy **should** be reviewed periodically, based on relevant societal and professional data, to comply with the social responsibilities of the institution and the health needs of community and society. The relationship between selection, the educational programme and desired qualities of graduates **should** be stated.

Annotations:

- The statement on process of selection of students would include both rationale and methods of selection and may include description of a mechanism for appeal.
- The review of admission policies and the recruitment of students would include improvement of selection criteria, to reflect the capability of students to become doctors and to cover the variations in required competencies related to diversity of medicine

4.2 STUDENT INTAKE

Basic standard:

The size of student intake **must** be defined and related to the capacity of the medical school at all stages of education and training.

Quality development:

The size and nature of student intake **should** be reviewed in consultation with relevant stakeholders and regulated periodically to meet the needs of community and society.

Annotations:

- The needs of community and society may include consideration
 of balanced intake according to gender, ethnicity and other
 social requirements, including the potential need of a special admission policy for underprivileged students.
- Stakeholders would include those responsible for planning and development of human resources in the national health sector.

4.3 STUDENT SUPPORT AND COUNSELLING

Basic standard:

A programme of student support, including counselling, **must** be offered by the medical school.

Quality development:

Counselling **should** be provided based on monitoring of student progress and **should** address social and personal needs of students.

Annotation:

 Social and personal needs would include academic support, career guidance, health problems and financial matters.

4.4 STUDENT REPRESENTATION

Basic standard:

The medical school **must** have a policy on student representation and appropriate participation in the design, management and evaluation of the curriculum, and in other matters relevant to students.

Quality development:

Student activities and student organisations **should** be encouraged and facilitated.

Annotation:

 Student activities and organisations would include student selfgovernment and representation on educational committees and other relevant bodies as well as social activities.

5. ACADEMIC STAFF/FACULTY

5.1 RECRUITMENT POLICY

Basic standard:

The medical school **must** have a staff recruitment policy which outlines the type, responsibilities and balance of academic staff required to deliver the curriculum adequately, including the balance between medical and non-medical academic staff, and between full-time and part-time staff, the responsibilities of which **must** be explicitly specified and monitored.

Quality development:

A policy **should** be developed for staff selection criteria, including scientific, educational and clinical merit, relationship to the mission of the institution, economic considerations and issues of local significance.

Annotations:

- Balance of academic staff/faculty would include staff with joint responsibilities in the basic and clinical sciences, in the university and health care facilities, and teachers with dual appointments.
- Issues of local significance may include gender, ethnicity, religion, language and others of relevance to the school.
- Merit can be measured by formal qualifications, professional experience, research output, teaching experience, peer recognition, etc.

5.2 STAFF POLICY AND DEVELOPMENT

Basic standard:

The medical school **must** have a staff policy which addresses a balance of capacity for teaching, research and service functions, and ensures recognition of meritorious academic activities, with appropriate emphasis on both research attainment and teaching qualifications.

Quality development:

The staff policy **should** include teacher training and development and teacher appraisal. Teacher-student ratios relevant to the various curricular components and teacher representation on relevant bodies **should** be taken into account.

- Service functions would include clinical duties in the health care system, administrative and leadership functions etc.
- Recognition of meritorious academic activities would be by rewards, promotion and/or remuneration.

6. EDUCATIONAL RESOURCES

6.1 PHYSICAL FACILITIES

Basic standard:

The medical school **must** have sufficient physical facilities for the staff and the student population to ensure that the curriculum can be delivered adequately.

Quality development:

The learning environment for the students **should** be improved by regular updating and extension of the facilities to match developments in educational practices.

Annotation:

 Physical facilities would include lecture halls, tutorial rooms, laboratories, libraries, information technology facilities, recreational facilities, etc.

6.2 CLINICAL TRAINING RESOURCES

Basic standard:

The medical school **must** ensure adequate clinical experience and the necessary resources, including sufficient patients and clinical training facilities.

Quality development:

The facilities for clinical training **should** be developed to ensure clinical training which is adequate to the needs of the population in the geographically relevant area.

Annotations:

- Clinical training facilities would include hospitals (adequate mix of primary, secondary and tertiary), ambulatory services, clinics, primary health care settings, health care centres and other community health care settings as well as skills laboratories
- Facilities for clinical training should be evaluated regularly for their appropriateness and quality regarding medical training programmes.

6.3 INFORMATION TECHNOLOGY

Basic standard:

The medical school **must** have a policy which addresses the evaluation and effective use of information and communication technology in the educational programme.

Quality development:

Teachers and students **should** be enabled to use information and communication technology for self-learning, accessing information, managing patients and working in health care systems.

Annotations:

- A policy regarding the use of computers, internal and external networks and other means of information and communication technology would include coordination with the library services of the institution.
- The use of information and communication technology may be part of education for evidence-based medicine and in preparing the students for continuing medical education and professional development.

6.4 RESEARCH

Basic standard:

The medical school **must** have a policy that fosters the relationship between research and education and **must** describe the research facilities and areas of research priorities at the institution.

Quality development:

The interaction between research and education activities **should** be reflected in the curriculum and influence current teaching and **should** encourage and prepare students to engagement in medical research and development.

6.5 EDUCATIONAL EXPERTISE

Basic standard:

The medical school **must** have a policy on the use of educational expertise in planning medical education and in development of teaching methods.

Quality development:

There **should** be access to educational experts and evidence demonstrated of the use of such expertise for staff development and for research in the discipline of medical education.

- Educational expertise would deal with problems, processes and practice of medical education and would include medical doctors with research experience in medical education, educational psychologists and sociologists, etc. It can be provided by an education unit at the institution or be acquired from another national or international institution.
- Medical education research investigates the effectiveness of teaching and learning methods, and the wider institutional context.

6.6 EDUCATIONAL EXCHANGES

Basic standard:

The medical school **must** have a policy for collaboration with other educational institutions and for the transfer of educational credits.

Quality development:

Regional and international exchange of academic staff and students **should** be facilitated by the provision of appropriate resources.

- Transfer of *educational credits* can be facilitated through active programme coordination between medical schools.
- Other educational institutions would include other medical schools or public health schools, other faculties, and institutions for education of other health and health-related professions.

7. PROGRAMME EVALUATION

7.1 MECHANISMS FOR PRO-GRAMME EVALUATION

Basic standard:

The medical school **must** establish a mechanism for programme evaluation that monitors the curriculum and student progress, and ensures that concerns are identified and addressed.

Quality development:

Programme evaluation **should** address the context of the educational process, the specific components of the curriculum and the general outcome.

Annotations

- Mechanisms for programme evaluation would imply the use of valid and reliable methods and require that basic data about the medical curriculum are available. Involvement of experts in medical education would further broaden the base of evidence for quality of medical education at the institution.
- *Identified concerns* would include problems presented to the curriculum committee.
- The context of the educational process would include the organisation and resources as well as the learning environment and culture of the medical school.
- Specific components of programme evaluation would include course description and student performance.
- General outcomes would be measured e.g. by career choice and postgraduate performance.

7.2 TEACHER AND STUDENT FEEDBACK

Basic standard:

Both teacher and student feedback **must** be systematically sought, analysed and responded to.

Quality development:

Teachers and students **should** be actively involved in planning programme evaluation and in using its results for programme development.

7.3 STUDENT PERFORMANCE

Basic standard:

Student performance **must** be analysed in relation to the curriculum and the mission and objectives of the medical school.

Quality development:

Student performance **should** be analysed in relation to student background, conditions and entrance qualifications, and **should** be used to provide feedback to the committees responsible for student selection, curriculum planning and student counselling.

Annotation:

 Measures of student performance would include information about average study duration, scores, pass and failure rates at examinations, success and dropout rates, student reports about conditions in their courses, as well as time spent by the students on areas of special interest.

7.4 INVOLVEMENT OF STAKEHOLDERS

Basic standard:

Programme evaluation **must** involve the governance and administration of the medical school, the academic staff and the students

Quality development:

A wider range of stakeholders **should** have access to results of course and programme evaluation, and their views on the relevance and development of the curriculum **should** be considered.

Annotation:

 A wider range of stakeholders would include educational and health care authorities, representatives of the community, professional organisations and those responsible for postgraduate education.

8. GOVERNANCE AND ADMINISTRATION

8.1 GOVERNANCE

Basic standard:

Governance structures and functions of the medical school **must** be defined, including their relationships within the University.

Quality development:

The governance structures **should** set out the committee structure, and reflect representation from academic staff, students and other stakeholders.

Annotations:

- The committee structure would include a curriculum committee with the authority to design and manage the medical curriculum.
- Relationships within the University and its governance structures should be specified, if the medical school is part of or affiliated to a University.
- Other stakeholders would include ministries of higher education and health, other representatives of the health care sector and the public.

8.2 ACADEMIC LEADERSHIP

Basic standard:

The responsibilities of the academic leadership of the medical school for the medical educational programme **must** be clearly stated.

Quality development:

The academic leadership **should** be evaluated at defined intervals with respect to achievement of the mission and objectives of the school.

8.3 EDUCATIONAL BUDGET AND RESOURCE ALLOCATION

Basic standard:

The medical school **must** have a clear line of responsibility and authority for the curriculum and its resourcing, including a dedicated educational budget.

Quality development:

There **should** be sufficient autonomy to direct resources, including remuneration of teaching staff, in an appropriate manner in order to achieve the overall objectives of the school.

Annotation:

The educational budget would depend on the budgetary practice in each institution and country.

8.4 ADMINISTRATIVE STAFF AND MANAGEMENT

Basic standard:

The administrative staff of the medical school **must** be appropriate to support the implementation of the school's educational programme and other activities and to ensure good management and deployment of its resources.

Quality development:

The management **should** include a programme of quality assurance and the management **should** submit itself to regular review.

8.5 INTERACTION WITH HEALTH SECTOR

Basic standard:

The medical school **must** have a constructive interaction with the health and health-related sectors of society and government.

Quality development:

The collaboration with partners of the health sector **should** be formalised.

- The health sector would include the health care delivery system, whether public or private, medical research institutions,
- The health-related sector would, depending on issues and local organisation, include institutions and regulating bodies with implications for health promotion and disease prevention (e.g. with environmental, nutritional and social responsibilities).

9. CONTINUOUS RENEWAL

Basic standard:

The medical school **must** as a dynamic institution initiate procedures for regular reviewing and updating of its structure and functions and **must** rectify documented deficiencies.

Quality development:

The process of renewal **should** be based on prospective studies and analyses and **should** lead to the revisions of the policies and practices of the medical school in accordance with past experience, present activities and future perspectives. In so doing, it **should** address the following issues:

- Adaptation of the mission and objectives of the medical school to the scientific, socio-economic and cultural development of the society.
- Modification of the required competencies of the graduating students in accordance with documented needs of
 the environment graduates will enter. The modification
 shall include the clinical skills and public health training and involvement in patient care appropriate to
 responsibilities encountered upon graduation.
- Adaptation of the curricular model and instructional methods to ensure that these are appropriate and relevant
- Adjustment of curricular elements and their relationships in keeping with developments in the biomedical sciences, the behavioural sciences, the social sciences, the clinical sciences, changes in the demographic profile and health/disease pattern of the population, and socioeconomic and cultural conditions. The adjustment shall assure that new relevant knowledge, concepts and methods are included and outdated ones discarded.
- Development of assessment principles, and the methods and the number of examinations according to changes in educational objectives and learning goals and methods.
- Adaptation of student recruitment policy and selection methods to changing expectations and circumstances, human resource needs, changes in the premedical education system and the requirements of the educational programme.
- Adaptation of recruitment and staffing policy regarding the academic staff according to changing needs of the medical school.

- Updating of educational resources according to changing needs of the medical school, i.e. the student intake, size and profile of academic staff, the educational programme and contemporary educational principles.
- Refinement of the process of programme monitoring and evaluation.
- Development of the organisational structure and management principles in order to cope with changing circumstances and needs of the medical school and, over time, accommodating to the interests of the different groups of stakeholders.

OUTLINE FOR DATA COLLECTION

This guide is to assist medical schools to review their medical educational programme against the WFME Global Standards in Basic Medical Education.

The data collection, based on the Areas and Sub-areas in the Global Standards, should result in a document providing comprehensive answers to all the topics. Answers should, if possible, be referenced to published documents, which could be appended.

The medical school is encouraged to undertake an analysis of the strengths, weaknesses, threats and opportunities relevant to its education programmes measured against the WFME Standards.

Information on the processes by which decisions are made and the reasons for decisions may be just as important as the decisions themselves.

1. MISSION AND OBJECTIVES

1.1 Statements of Mission and Objectives

Basic Describe or provide a copy of the published general mission and objectives of the medical school. The detailed objectives of the medical programme should be described.

How are they made known to the relevant parties?

Quality Specify how social responsibility, research attainment, community involvement and readiness for postgraduate training are reflected in the objectives.

Provide references to other published mission and objective statements that refer to these areas.

1.2 Participation in Formulation of Mission and Objectives

Basic Who are the school's principal stake-holders?

How has the school involved its principal stakeholders in formulating the mission and objective statements?

Quality What groups other than the above principal stakeholders does the school consult?

How does the school consult and involve these groups in ongoing refinements to the mission and objectives statements?

1.3 Academic Autonomy

Basic Describe or provide copies of institutional and government policies that confer responsibility for the curriculum and allocation of resources.

Quality What policies and practices does the medical school have, which ensure that teaching by individual staff and by departments appropriately addresses the design of the curriculum.

How is this evaluated and, if necessary, redressed?

What is the medical school's process for reviewing resource allocation in support of an evolving curriculum?

1.4 Educational Outcome

Basic What are the broad competencies (know-ledge, skills and attitudes) required of students at graduation?

How do these relate to the subsequent training of the graduates?

How do these relate to the existing and emergent needs of the society in which the students will practise?

Quality Specify how the competencies at graduation are bridged with postgraduate training.

How does the medical school measure and get information about the competencies of its graduates?

How does the school feed back this information into programme development?

2. EDUCATIONAL PROGRAMME

2.1 Curriculum Models and Instructional Methods

Basic What are the principles guiding the design of the curriculum and the types of teaching and learning methods actually used to deliver it?

Quality How will curriculum and instructional methods encourage students to take active responsibility for their learning?

Specify how the medical school envisage that these methods prepare students for lifelong learning.

2.2 Scientific Method

Basic Which components of the curriculum inculcate the principles of scientific method and evidence-based medicine and enable analytical and critical thinking?

Quality What specific opportunities are there for students to acquire research training?

2.3 Basic Biomedical Sciences

Basic Which of the basic biomedical sciences contribute to the medical programme?

How is their contribution integrated with the clinical sciences at the different stages of the curriculum?

Quality What is the process by which the medical school adapts the curricular contributions of the various basic biomedical sciences to developments in the science, practice and delivery of health care?

2.4 Behavioural and Social Sciences and Medical Ethics

Basic Which of the behavioural and social sciences and the disciplines of medical ethics and medical jurisprudence contribute to the medical programme?

How does the curriculum provide for contributions of these sciences and disciplines to foster effective communication, clinical decision making and ethical practices?

Quality What is the process by which the medical school adapts the curricular contributions of the behavioural sciences, the social sciences and medical ethics to developments in the science, practice and delivery of health care?

2.5 Clinical Sciences and Skills

Basic What are the specific objectives (know-ledge, skills and attitudes) stated to ensure clinical competence on graduation?

What are the specific clinical disciplines and levels of involvement in which this experience (knowledge, skills and attitudes) is to be acquired?

What are the forms of practice (inpatient/ambulatory health care, hospital/community, rural/urban, specialist/general) in which this experience is to be acquired?

Quality What specific opportunities are there for early and ongoing direct participation in patient care?

What specific opportunities are there for relevant community experience and for working with other health professionals?

2.6 Curriculum Structure, Composition and Duration

Basic For the compulsory elements of the curriculum, provide a summary in terms of topics/subjects taught, and length (hours/weeks) by Semester/Year. Indicate balance between lectures, small group teaching, seminars, laboratory sessions, clerkships, etc.

Provide a brief synopsis of individual topics. Indicate where health promotion, preventive medicine and alternative/unorthodox medical practice are dealt with

For optional elements provide a similar summary.

Quality What policies guide integration (horizontal/vertical and basic/clinical sciences) of the curriculum?

What mechanisms exist to ensure that it occurs?

2.7 Programme Management

Basic What are the terms of reference and composition of the curriculum committee? Specifically, what authority does the committee have to resolve conflicts of educational principles and to determine the contributions of specific disciplines to the medical programme?

How are its decisions implemented?

Quality What is the medical school's mechanism and the resources of the curriculum committee for introducing teaching and learning, evaluation and curriculum innovations?

2.8 Linkage with Medical Practice and the Health Care System

Basic What links exist between the basic medical programme and the next stage of training for practice?

What specific transition programmes occur in the final year of the programme?

Are there reciprocal representations between the committees responsible for the basic medical programme and the subsequent phases of education and training?

Quality How does the curriculum committee obtain the participation of health services in effecting the transition between the basic medical programme and the next stage of training?

What mechanisms exist to obtain and make use of feedback from the community and society?

3. ASSESSMENT OF STUDENTS

3.1 Assessment Methods

Basic Provide the general policy on assessment including the documents provided to students that specify timing, weighting and criteria for progression.

Who is responsible for the assessment policy?

Describe composition of involved committees and their terms of reference.

Quality How does the medical school monitor the reliability and validity of assessments?

How are internal assessments validated against external standards?

How are new assessment methods researched, tested and introduced?

3.2 Relation between Assessment and Learning

Basic How are assessment practices made compatible with educational objectives and learning methods?

Quality How does the medical school monitor assessment to reduce curriculum overload and encourage integrated learning?

To what extent is integrated assessment of various curricular elements obtained?

4. STUDENTS

4.1 Admission Policy and Selection

Basic What are the academic criteria for admission to the medical course?

Are there additional requirements at institutional or government levels?

What body is responsible for selection policy?

What methods does it use?

What mechanisms exist for appeal?

Quality How do the methods used to select students test their suitability and capability to practise in diverse areas of medicine?

How do they comply with the social responsibilities and health needs?

How does the selection committee evaluate the outcome of its policies on subsequent educational achievement?

4.2 Student Intake

Basic Describe the size of student intake and any distribution on different categories of students.

How is the intake determined in relation to the capacity of the medical school?

Quality What mechanisms exist for adjusting the intake and quotas?

Who is consulted concerning changes in the size and composition of the student intake?

4.3 Student Support and Counselling

Basic What counselling services are available in the medical school?

What other student support programmes are available through the medical school?

What additional support programmes, provided by other organisations, can the students access?

Quality What mechanisms exist to identify students in need of pastoral, psychological, social and/or academic support?

4.4 Student Representation

Basic What is the medical school's policy on student contribution to curriculum matters?

What is the medical schools policy on student contribution in other matters relevant to the students?

How have students contributed to the development of these policies?

Quality What practical measures does the medical school have for encouraging student self-government and participation in the activities of the governing bodies of the medical school?

5. ACADEMIC STAFF/FACULTY

5.1 Recruitment Policy

Basic What policies does the medical school have for ensuring that the staffing profile matches the range and balance of teaching skills required to deliver the curriculum?

What are the requirements related to the qualifications for appointment?

Are there institutional or government policies or requirements that affect the medical school's staffing decisions?

What is the balance between medical and non-medical staff and between full-time and part-time staff?

How frequently does the medical school review its priority list for staffing?

Quality How does the medical school propose to improve its recruitment of staff to meet its mission and objectives?

How will this improvement influence the emphasis on scientific, educational and clinical qualifications?

5.2 Staff Policy and Development

Basic What is the medical school's policy for ensuring that teaching, research and service contributions are appropriately recognised and rewarded?

Are there additional institutional or governmental policies or regulations?

Quality What staff development programmes exist or are proposed to enable teachers to upgrade their skills and to obtain appraisals of their teaching performance?

How is participation in staff development programmes encouraged?

How are teacher-student ratios, relevant to the various curricular components, taken into account in the staff policy?

To what extent is teacher representation in relevant bodies ensured?

6. EDUCATIONAL RESOURCES

6.1 Physical Facilities

Basic Provide a brief description of each of the physical facilities available for the delivery of the non-clinical components of the curriculum.

How does the medical school review the adequacy of the educational resources?

What mechanisms exist for gathering feedback from students and staff on the facilities?

What authority does the medical school have to direct resources to respond to deficiencies?

Quality Indicate what plans exist for improving these facilities in relation to developments in educational practices.

6.2 Clinical Training Resources

Basic Provide a brief description of the facilities available for clinical training at the medical school in hospitals, ambulatory services, community clinics, primary health care settings, skills laboratories, etc.

How does the medical school review the adequacy of the facilities and patients available for clinical teaching?

What mechanisms exist to deal with deficiencies?

Quality How is the medical school adjusting and improving its use of clinical training facilities, including skills laboratories and affiliated institutions, in relation to changing needs?

6.3 Information Technology

Basic What policy does the medical school have for the use of information and communication technology in its teaching programme?

What committee or body is responsible for formulating the medical school's policy on information and communication technology?

Are there additional institutional or governmental policies?

What authority does the medical school have to direct resources to the use of information and communication technology?

Quality How is the medical school enhancing delivery of the curriculum by the use of information technology?

To what extent are information and communication technologies used by teachers and students for self-learning, accessing information, managing patients and working in health care systems?

What training is available to staff and students in the use of information and communication technologies?

6.4 Research

Basic Provide a brief description of the research facilities and research programmes of the school.

How does the school foster interaction between its research and educational activities?

Quality What mechanism exist to ensure that research activities are reflected in the curriculum and teaching?

Are there any initiatives at the medical school to engage students in medical research?

6.5 Educational Expertise

Basic What policy or procedures does the medical school have to ensure that its education methodologies are appropriate for the delivery of the curriculum?

Quality Does the medical school have access to an expert medical education unit or other educational expertise?

Describe the use of such expertise.

6.6 Educational Exchanges

Basic What policy does the medical school have for collaborating with other educational institutions?

Provide a summary of the existing collaborative links with other institutions and describe the nature of those links, student exchanges, staff exchanges, and research.

What is the medical school's policy and practice on the transfer of educational credits?

Quality Describe any activities directed towards regional and international co-operation with other medical schools.

What authority does the medical school have to direct resources to international cooperation?

7. PROGRAMME EVALUATION

7.1 Mechanisms for Programme Evaluation

Basic How does the medical school evaluate its programme?

Is there a group that independently monitors performance and outcome data and ensures that identified concerns are addressed by the appropriate body?

What evaluation data are being collected?

Quality Describe how evaluation activities are being enhanced and refined to cover all important components of the medical education programme.

7.2 Teacher and Student Feedback

Basic How does the medical school sample, analyse and use the opinions of staff and students about its educational programme?

Quality How does the medical school encourage individual staff and students to participate in its evaluation activities and in subsequent programme development?

7.3 Student Performance

Basic What statistical data on student performance is collected and analysed, and how are they used in relation to the curriculum and the mission and objectives of the medical school?

Quality What individual student parameters are monitored in relation to performance during the course and how is this fed back into student selection, curriculum planning and student counselling?

7.4 Involvement of Stakeholders

Basic How are the principal stakeholders within the medical school involved in programme evaluation?

How does the medical school communicate the outcomes of programme evaluation to stakeholders?

Quality To what extent is a wider range of stakeholders involved in the evaluation and development of the programme?

What mechanism (formal and informal) are established to ensure considerations of stakeholders views?

8. GOVERNANCE AND ADMINISTRATION

8.1 Governance

Basic Describe the governance structure, its components and their functions.

Describe the relationships between the medical school and the University, if the medical school is part of or affiliated to a University.

Quality Describe the representation and functions of academic staff, students and other stakeholders in the various governance structures and committees.

8.2 Academic Leadership

Basic Describe the academic management structure of the medical school indicating the line of responsibility for individual areas of the medical programme.

Quality How is the performance of the academic leadership of the school evaluated and appraised in relation to the mission and objectives?

8.3 Educational Budget and Resource Allocation

Basic Describe the budgetary practice and responsibility of the medical school.

Quality How is appropriate resource allocation assured to achieve the objectives of the school?

8.4 Administrative Staff and Management

Basic What administrative support functions are provided by staff of the school?

Describe the administrative staffing structure to support these functions.

How is the size of the administration staff determined in relation to the programme and other activities?

Quality How is the management of the programme reviewed?

Does the administrative and management component of the medical school have a quality assurance programme?

8.5 Interaction with Health Sector

Basic Describe the relationships between the medical school and the health services with which it interacts, regarding mission and objectives of the school, the educational programme, the provision of resources, teaching facilities and staff.

Quality What formal mechanisms exist to ensure that the medical school interacts constructively with the health sector?

Describe any type of shared responsibility between the medical school and health care providers.

9. CONTINUOUS RENEWAL

Basic What procedures does the medical school use for regular reviewing and updating its mission, structures and activities?

How frequently does the medical school undertake such reviews?

Quality Describe recent and projected activities undertaken with the purpose to ensure that the medical school remains responsive to its changing environment.

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APPENDIX

MEMBERS OF TASK FORCES OF THE WFME GLOBAL STANDARD PROJECT

The members of the three WFME Task Forces dealing with Basic Medical Education, Postgraduate Medical Education and Continuing Professional Development of Medical Doctors respectively are presented in a common list. Some members participated in more than one of the Task Forces. Furthermore, the complete endeavour of developing the Trilogy of WFME Standards in Medical Education shall be seen as one dynamic process building on results from previous Task Forces.

It should be emphasized that the development of the Trilogy of documents also benefited from other important contributions. These consisted of a great number of verbal and written commentaries as well as discussions at national and international meetings and conferences.

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