REPORT

WHO/AMEWPR MEETING ON
QUALITY ASSESSMENT OF MEDICAL EDUCATION:
FOCUS ON MEDICAL LICENSURE EXAMINATION

Seoul, Republic of Korea
14-16 September 1996

Manila, Philippines
November 1996
REPORT

WHO/AMEWPR MEETING ON
QUALITY ASSESSMENT OF MEDICAL EDUCATION:
FOCUS ON MEDICAL LICENSURE EXAMINATION

Convened by:
WORLD HEALTH ORGANIZATION
REGIONAL OFFICE FOR THE WESTERN PACIFIC
Seoul, Republic of Korea
14-16 September 1996

Not for sale
Printed and distributed by:
World Health Organization
Regional Office for the Western Pacific
Manila, Philippines
November 1996
NOTE

The views expressed in this report are those of the participants of the WHO/AMEWPR Meeting on Quality Assessment of Medical Education: Focus on Medical Licensure Examination and do not necessarily reflect the policies of the Organization.

This report has been prepared by the World Health Organization Regional Office for the Western Pacific for governments of Member States in the Region and for those who participated in the WHO/AMEWPR Meeting on Quality Assessment of Medical Education: Focus on Medical Licensure Examinations, which was held in Seoul, Republic of Korea from 14 to 16 September 1996.
CONTENTS

1. INTRODUCTION ........................................................................................................ 1
   1.1 Background ........................................................................................................... 1
   1.2 Objectives ............................................................................................................ 1
   1.3 Participants ......................................................................................................... 2
   1.4 Organization of the meeting .................................................................................. 2

2. PROCEEDINGS ........................................................................................................ 2
   2.1 Opening ................................................................................................................ 2
   2.2 Quality assessment in medical education .......................................................... 3
   2.3 Medical licensing examinations ......................................................................... 4
   2.4 Accreditation and recertification ....................................................................... 6
   2.5 Future of medical education in the region ......................................................... 7
   2.6 Closing remarks .................................................................................................. 8

ANNEXES:

ANNEX 1 - LIST OF PARTICIPANTS ........................................................................ 9
ANNEX 2 - OPENING ADDRESSES OF DR YONG IL KIM ...................................... 21
ANNEX 3 - KEYNOTE ADDRESS OF THE REGIONAL DIRECTOR, DR S.T. HAN .... 25
ANNEX 4 - PRESENTATION BY DR SHARIFAH H. SHAHABUDIN, AN OVERVIEW OF QUALITY ASSESSMENT OF MEDICAL EDUCATION .................................................. 29
ANNEX 5 - PRESENTATION BY DR STEPHEN ABRAHAMSON, ASSESSING QUALITY OF MEDICAL SCHOOL GRADUATES: WHO DOES WHAT AND HOW? ...................... 39
ANNEX 6 - SUMMARIES OF PANEL PRESENTATIONS BY SANG HO BAIK, THE MEDICAL LICENSING EXAMINATION IN KOREA .................................................. 43
BY DR ELENA INES-CUYEGKENG, THE PHILIPPINE MEDICAL LICENSURE SYSTEM .......................................................... 43

Key words

Education, Medical - standards / Licensure, Medical / Accreditation / Certification / Western Pacific / Korea
<table>
<thead>
<tr>
<th>ANNEX 7</th>
<th>PRESENTATION BY DR RONALD J. NUNGESTER, U.S. EXPERIENCES WITH MEDICAL LICENSURE EXAMINATIONS</th>
<th>49</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANNEX 8</td>
<td>PRESENTATION BY DR WAYNE K. DAVIS, ASSESSING THE QUALITY OF MEDICAL EDUCATION THROUGH NATIONAL LICENSING EXAMINATION RESULTS</td>
<td>51</td>
</tr>
<tr>
<td>ANNEX 9</td>
<td>PRESENTATION BY DR RAJA BANDARANAYAKE, ASSESSING THE QUALITY OF MEDICAL EDUCATION THROUGH ACCREDITATION</td>
<td>53</td>
</tr>
<tr>
<td>ANNEX 10</td>
<td>PRESENTATION BY DR ALBERTO ROMUALDEZ, THE PLACE OF RECERTIFICATION IN QUALITY ASSURANCE</td>
<td>59</td>
</tr>
<tr>
<td>ANNEX 11</td>
<td>TITLES AND OBJECTIVES OF COUNTRY PROJECTS ON ASSESSMENT OF QUALITY OF MEDICAL EDUCATION</td>
<td>63</td>
</tr>
<tr>
<td>ANNEX 12</td>
<td>PRESENTATION BY MS LORRAINE KERSE, THE FUTURE OF MEDICAL EDUCATION IN THE REGION</td>
<td>69</td>
</tr>
</tbody>
</table>
1. INTRODUCTION

1.1 Background

The Association for Medical Education for the Western Pacific Region (AMEWPR) is the regional organization of the World Federation of Medical Education (WFME). WFME is a nongovernmental organization which has official relations with the World Health Organization. It is composed of national institutions or groups engaged in or otherwise responsible for maintaining the quality and standards of medical education in their individual countries. Beginning with the 1988 Edinburgh Conference of Medical Education, WFME and its regional associations have conducted a series of global and regional conferences and meetings aimed at promoting international cooperation in medical education.

This is the fourth meeting of AMEWPR. The first meeting was held in Manila, Philippines in 1988 and focused on the role of medical education in the attainment of WHO's health for all goal. It was also the preparatory for the first World Conference on Medical Education in Edinburgh. The second was a two-phased meeting held in Seoul, Korea and Fukuoka, Japan in 1990 which dealt with postgraduate and continuing medical education in support of health for all. The third meeting in Kuala Lumpur, Malaysia in 1994 had the theme of "The Changing Medical Profession and the Emerging Health Challenges in the Western Pacific" and was the Association’s initial response to the Region’s New horizons in health document endorsed by the WHO Regional Committee in the same year.

Among the issues addressed by the "new horizons" approaches to health is the concern for quality in all aspects of health care. The concern for quality in medical education was also the focus of a number of international meetings including the 1994 Rockford, Illinois meeting of WHO Collaborating Centres in Medical Education and the 1995 Manila Meeting of the Network of Community-oriented Health Science Institutions. AMEWPR participated at these meetings. This was taken into account at preparatory meetings of the AMEWPR executive committee and advisory board in Nagoya, Japan on 9 April 1995 and in Manila on 26 November 1995 which determined that the theme for the 1996 meeting would be "Quality Assessment of Medical Education: Focus on Medical Licensure Examinations".

1.2 Objectives

The objectives of the meeting were:

(1) to exchange information and experiences on the following methods of assessing the quality of medical education:

(a) medical licensure examinations

(b) institutional accreditation

(c) performance evaluation of practitioners (e.g. practice audits)

(d) recertification of medical practitioners
to identify evaluation projects assessing the quality of medical education to be undertaken by each represented country and to be reported on at the next meeting of the Association.

1.3 Participants

There were a total of 135 participants of which more than one hundred were members of the Korean Society of Medical Education, the host organization. In addition to the members of the AMEWPR advisory board and the WHO secretariat, foreign participants included representatives of 10 of the 12 Western Pacific countries that have medical schools. Experts on quality assessment of medical education were invited as speakers and resource persons. The list of participants is given in Annex 1.

1.4 Organization of the meeting

Six presentations were made by invited experts during plenary sessions and discussions. There were four group activities for which the meeting was divided into eight groups. Four of the groups included both foreign and Korean participants while the other four were composed exclusively of Korean members. For each group activity, four topics were assigned. The two groups (mixed and Korean) assigned to a topic presented a common report at the plenary sessions which followed each activity.

2. PROCEEDINGS

2.1 Opening

In his preliminary remarks, Dr Kim Yong II, Chairman of the Organizing Committee and President of the Korean Society of Medical Education, pointed out the unique opportunity participants of the meeting would have to interact with eminent international experts in the area of medical licensure. Professor Masahisa Nishizono, President of the Association for Medical Education in the Western Pacific Region, welcomed the delegates to the Meeting and stressed the importance of quality assessment of medical education in meeting societal expectations and in influencing the nature of the medical curriculum. Congratulatory addresses were given by Mr Sung Ho Lee, The Hon. Minister of Health and Welfare of the Republic of Korea, Dr Sung Hee Ryu, President of the Korean Medical Association and Dr Hans Karle, President of the World Federation of Medical Education. Dr Karle pointed to the rapid internationalisation of medical education and the importance of creating common, high standards in all phases of the continuum of medical education.

The welcome and congratulatory addresses are in Annex 2.

In his keynote address, Dr S.T. Han, WHO Regional Director for the Western Pacific, reminded the delegates that, because of the central role played by the physician in the health team, the manner in which medical educators mould the doctors of the future would significantly influence the way we respond to future health needs. Outlining the improvements in the health picture of the Region over the last decade, and the associated current and anticipated demographic and socioeconomic changes, he stressed the importance of addressing emerging issues in health, such as air and water pollution, waste management, food and chemical safety, noncommunicable and lifestyle related diseases and new communicable...
diseases. The Regional Office has placed its emphasis on encouraging healthy individual and community behaviours as a logical extension of primary health care, and this requires a reorientation of existing infrastructures for health, at technological, managerial and communication levels.

In seeking quality in health care and medical education there is a need to balance the requirements of professional excellence with relevance, as the ultimate measure of quality is the continuous improvement of the health of the people. The processes of certification and licensure are but one mechanism to ensure the quality of the products of medical education in contributing to such improvement. The need to keep in mind the needs of countries not represented at the meeting, as well as of the other health professions, was pointed out by Dr Han in suggesting that representatives from these groups be invited to future meetings of the Association.

Dr Han's keynote speech is attached as Annex 3.

2.2 Quality assessment in medical education

2.2.1 Overview of quality assessment processes

This session was chaired by Dr Changgi D. Hong and Professor Shiu Hung Lee acted as Rapporteur. The session commenced with a presentation by Professor Sharifah H. Shahabudin in which she stressed the need to consider all three phases in the continuum of medical education, as well as inputs, processes, outputs and outcomes, in assessing quality at both institutional and individual levels. Thus assessment of quality included institutional accreditation, competence assessment in medical school, national licensing examinations, postgraduate performance assessment, specialty certification, practice assessment, as well as participation of individual physician's in continuing medical education (CME) activities. The text of Prof. Shahabudin's presentation is attached as Annex 4.

Participants, in groups discussed the advantages and disadvantages of each of the following methods of quality assessment in medical education, namely, accreditation, practice audit, recertification and national licensing examinations

Accreditation enabled medical schools to qualify for resources to improve standards, ensured that standards were maintained and stimulated schools to introduce innovation. Issues that needed to be discussed further were the period of accreditation, who should carry it out and how, and the strategy to integrate medical education with the health policy of the country.

Recertification, while not practised in any of the countries in the Region for undergraduate qualification, had been introduced in several countries on a voluntary basis at postgraduate level. The ineffectiveness of conventional methods for awarding credit for CME was identified, as was the need to improve existing methods, such as practice audit, and for the responsibility for this method to be delegated to non-governmental professional bodies.

Practice audit helped to improve the quality of medical services, bringing down medical costs and eliminating malpractice. However, it was difficult to monitor, was a costly technique and lent itself to bias on the part of the evaluators.

National licensing examinations provided a standard of minimal competency for medical practice, and could also result in curricular changes in desirable directions if used wisely. However, the validity of such assessment was limited, as such examinations did not easily lend
themselves to testing clinical performance, except with very costly techniques. Participants identified some difficulty in setting minimum pass levels. Furthermore, such examinations could encourage conservatism if they did not keep abreast of developments in medical education.

2.2.2 Assessment of the quality of medical school graduates

Dr Stephen Abrahamson, in answering the question "Who does what and how?", addressed the relationship between the profession, the medical school and society in sharing the responsibility for ensuring that the medical graduate is competent to practise. As competence involves many components the need to assess each separately, as well as the ability to "put it all together" was emphasized. He listed the different types of assessment instruments which were best suited for each ability, and identified the body which was best entrusted with the responsibility for assessing each ability. The challenge then was for each country to decide, in a licensing procedure, how each component of competence should be assessed, to design a system that guarantees that all components are assessed and that medical schools and licensing agencies work together to implement this system. Professor Abrahamson's full presentation is in Annex 5.

Each group discussed the advantages and limitations of national licensing examinations in assessing assigned abilities, and suggested steps to overcome these limitations. While recall and understanding of knowledge could be measured through such examinations, it was agreed that medical schools can also do very well in this regard. The limitation that such examinations measure only transient knowledge at a given point of time could be overcome by improving the nature of questions which encourage retention of knowledge. Application and problem-solving can also be measured but appropriate questions are difficult to construct and many staff are not trained in such techniques. While the technology for testing these abilities are well advanced, the technology is not familiar to many. This requires training of faculty members as well as computerized self-assessment programmes for students to become more skilled in problem-solving. While it was theoretically possible to measure psychomotor skills in national licensing examinations, it was highly impractical at present, as much time, resources, space and personnel are required. It was suggested that a representative from the licensing body should supervise such testing, which was best undertaken by the medical school on criteria contributed to by the national body. At the same time a consortium of medical schools could help develop a pool of standardized cases for use at a national level. It was agreed that communication and attitudes should be assessed in national licensing examinations but that it was not done as there was no opportunity for observation of the candidate at such examinations, given the large number of candidates, small number of examiners and limitations of time. Once again, it was suggested that medical schools be given this responsibility, with the use of interactive video systems and the exchange of faculty members among schools to obtain uniformity. It would be necessary, however, to include these skills in the curriculum before they can be assessed. Psychological tests could be used to assess attitudes both in selection to medical school and as a screening device in national licensing.

A summary of the main points that arose during the day's deliberations was given by Professor Lee.

2.3 Medical licensing examinations

The second day's proceedings were chaired by Professor Kenzo Kiikuni, while Professor Sharifah Shahabudin acted as Rapporteur.

2.3.1 A panel presentation on the experiences of three countries in the Region which have established national licensing examinations was made by Dr Sang Ho Baik (Korea), Dr Elena Cuyegkeng (Philippines) and Dr K Uemura (Japan). The responsibility for
conducting the examinations has recently been delegated to the National Medical Licensing Examination Board (NMLEB) in Korea and to the Board of Medical Examiners in the Philippines, while in Japan the examination comes under the purview of the Ministry of Health and Welfare. Examinations are held once or twice a year with no limits to the number of attempts. All countries use some type of multiple choice questions (MCQs). Recent attempts have been made to test higher cognitive skills in Korea, while Japan has evolved a set of questions to test the steps in problem-solving. Standards appear to be norm-referenced, with some judgmental process being used in the Philippines. High failure rates in recent Korean examinations has resulted in pressure groups demanding re-examination. All countries are considering improvements by way of emphasis on primary care, increasing test-item variety, including assessment of clinical and communication skills, attitudes and teamwork and establishing set procedures for standard setting. Summaries of the panel presentation are given as Annex 6.

2.3.2  Dr Ronald J. Nungester described the US experience with national licensing examinations, now known as the United States Medical Licensing Examination (USMLE). It is a three-step process, each step consisting of multiple choice questions (MCQs), with Step 1 testing facts and principles of basic medical sciences, Step 2 application of knowledge to supervised patient care and Step 3 patient management for unsupervised practice. The examination is set by a committee of senior academics and practitioners including a representative from the public. A stringent and careful process of item construction, together with content-referenced standards based on a modified Angoff procedure, ensures a fair examination. Future directions include computerization of all steps, including computerized case simulations in Step 3, sequential testing and the possibility of using standardized patients. Dr Nungester’s presentation is attached as Annex 7.

2.3.3  Dr Wayne Davis addressed the issue of using national licensing examination results for evaluating the quality of medical education programmes. As the main goal of programme evaluation is programme improvement, he stressed the need to focus on both process and output in such evaluation. He stated that, while the present licensing examination is applied consistently to all students at a level appropriate to their training, it does not include multiple measures of performance nor is it carried out longitudinally on a given student, thereby limiting its use in programme evaluation. Effective programme evaluation requires other sources of data such as student performance during their training, feedback from students, graduates and residency directors, faculty review of the curriculum and peer review of teaching, and external and accreditation review. He recommended the careful use of licensing examination results as part of a larger system of programme evaluation, with results being compared with school results and interpreted over time. Annex 8 is the text of Dr Wayne Davis presentation.

After considering ways of improving the present systems of national licensing examinations in countries where they exist, groups made several recommendations. The need to include some form of clinical and communication skills and attitude assessment, either by the use of multicentre objective structured clinical examinations (OSCEs) or through mandatory clinical training for the licensee, was recognised. It was also recommended that licensing examinations be used in conjunction with institutional accreditation to ensure the quality of both product and process. While restricting the number of attempts to a given graduate, remedial courses should be provided for those who fail. Examiners should be selected on predetermined criteria, should be trained in examining and should not be anonymous. The validity of test items should be increased through relevance to primary care, rather than specialized care, weighted appropriately for problem-solving and pretested. Standards should be set using an expert judgement process systematically and scientifically. Examinations should be computerised and multi-staged, with their frequency increased to at
least twice a year. The body responsible for the examination should consist of stakeholder representatives. They should institute quality control in the examination and provide feedback to the medical schools. Bilateral or multilateral sharing of question banks among interested countries should be promoted.

Professor Shahabudin summarized the day's deliberations.

2.4 Accreditation and recertification

The third day's proceedings were chaired by Dr Hans Karle, while Dr J. H. Park acted as Rapporteur.

2.4.1 Accreditation

Addressing the topic of institutional accreditation, Dr Bandaranayake pointed out its dual purposes of protecting educational quality and encouraging curriculum improvement. The roles of the Liaison Committee on Medical Education (LCME) in the United States of America, of the General Medical Council (GMC) in the United Kingdom and the Australian Medical Council (AMC) in accrediting medical schools were outlined. It was important to note that, in the pursuit of quality, United States medical schools were subjected to both institutional accreditation and national licensing examination of the graduates of accredited schools.

The process of accreditation adopted by the AMC, featuring wide consultation, supporting educational programme diversity and promoting institutional self-evaluation, was described in detail. The steps included, documentation of its activities by the school to be accredited, appointment of a balanced assessment team, preliminary visit to the school by the chairperson and secretary of the team, a five-day visit to the school for interviews with a variety of individuals and examination of the facilities and preparation and submission of a detailed report with recommendations, for approval by the AMC before submitting to the university authorities. Accreditation is granted for 10 years, if satisfactory, or for a shorter period if deficiencies one found which need to be corrected. Brief annual reports, and a detailed five-year report, are sought after accreditation.

The advantages of the system are that it gives considerable flexibility to each school to pursue its philosophy and objectives as long as they are consistent with societal needs, thus encouraging diversity and innovation. The system encourages internal monitoring and provides guidelines for development rather than prescribing conditions. As a result some significant changes have been stimulated in many medical schools.

The interval of 10 years between successive accreditation visits however, could potentially lead to a tendency to relax in the intervening period. Another limitation is that product evaluation of the graduates is not carried out. Dr Bandaranayake concluded that assessment of the quality of medical education is a complex endeavour requiring a multifaceted approach. The presentation by Dr Bandaranayake is in Annex 9.

2.4.2 Recertification

Dr Romualdez discussed the place of recertification in quality assurance, identifying its basic purpose as the maintenance of the competence of medical practitioners. He stressed the need to link recertification with licensure, and for time-limited certification, rather than a lifetime guarantee of competence, if it is to be effective. Methods of recertification fall into two categories: (1) those based on evidence of efforts to maintain competence (e.g. participation in teaching activities, attendance at continuing education and other supervised learning activities, completion of self-assessments and involvement in quality assurance
activities); (2) The periodic demonstration of competence through formal tests, practice audits and outcome measures. Dr Romualdez discussed the strengths and limitations of each method, each having its problems related to validity, reliability, objectivity and acceptability. The need to develop appropriate tools for measuring medical skills and competencies, taking into account the cultural context, was emphasized. He concluded that there appears to be a consensus among stakeholders in the delivery of health services on the necessity of periodic assessment of competence of the medical practitioner. The presentation of Dr Romualdez is given as Annex 10.

Groups were given the option of discussing either accreditation or recertification. Accreditation systems were in place in Australia, Japan, Korea and the United States, while Hong Kong would decide after 1997 whether to introduce such a system. By way of improvement, Japan needs a strong, autonomous liaison committee as does Korea. Flexible criteria need to be developed which are applicable to institutions of all sizes. Accreditation teams should be strengthened in numbers and the duration of their visits to schools should be increased. Accreditation should be granted for a maximum of five to 10 years. Each institution should be given feedback on its strengths and weaknesses.

Recertification was considered desirable for specialist qualifications, but not for the basic degree, and it should be on a voluntary basis. The advantages of maintaining competence, protection of the profession and avoidance of litigation outweighed the disadvantages of individual stress and potential loss of resources. While there was no unanimity on whether recertification should be through re-examination, the majority favoured other methods of demonstrating competence that were less threatening, even though accumulation of CME points did not guarantee effectiveness of practice. Practice audit provided immediate feedback, but difficulty in standardizing the procedure and expense were disadvantages. Whatever system of recertification was used it was essential to provide appropriate opportunities for the practitioner to participate in such.

2.5 Country projects

Participants from each country represented were required to identify the title and objectives of an evaluation project dealing with the assessment of the quality of medical education (at any stage of the continuum of medical education) which they would undertake over the next two years. Participants would report back to the Association at its next meeting. The list of projects identified is given in Annex 11.

2.6 Future of medical education in the region

Ms L. Kerse stressed the importance of taking into account socioeconomic, political, religious and technological changes in the countries of the Region in determining the future of medical education. Deteriorating urban environments, unhealthy lifestyles, increasing urban populations in the face of diminishing size of the family unit necessitated new ways of delivering health services. Demographic changes (such as ageing populations and long-term residential care), altering disease and disability patterns, rising consumer expectations and technological advances in pharmaceuticals, new equipment-related techniques, information technology, telemedicine and human genetics need considerable investment in health workforce development, in the face of resource constraints. The need for increased opportunities for continuing education, health promotion and protection capabilities and transfer of knowledge and skills would have to be addressed. The doctor of the future would be a care provider, decision maker, communicator, community leader and manager. Doctors would need to strike a balance between individual and community health, and between curative and preventive care. Annex 12 is Ms Lorraine Kerse's presentation.
2.7 Closing remarks

The outgoing President of the Association, Professor Nishizono, in closing the Meeting, stated that the limitations of national licensing examinations became very evident during the meeting. The innovations in medical education taking place in the Region should be reviewed and that a future discussion on the continuum of medical education would be highly valuable. He expressed the Association's gratitude to WHO and KSME, particularly to the Organizing Committee headed by Dr Yong Il Kim for the excellent meeting, and expressed the hope that further innovations would take place in each country of the Region to meet the challenges of the future. Responding to these remarks, Dr Yong Il Kim, the incoming President of the Association said he would do his best to help in fulfilling these expectations.
LIST OF PARTICIPANTS

Dr Stephen Abrahamson
Professor Emeritus of Medical Education
University of Southern California
School of Medicine
United States of America

Dr Raja C. Bandaranayake
Director of Academic Programs
School of Medical Education
University of New South Wales
Australia

Dr Barra Amevo
Acting Dean
Faculty of Medicine
University of Papua New Guinea
Papua New Guinea

Dr Elena Cuyegkeng
Executive Director
Association of Philippines
Medical College Foundation
Philippines

Dr Wayne K. Davis
Associate Dean of Medical Education & Director
Office of Educational Resources and Research
University of Michigan Medical School
United States of America

Laurie Geffen
Professor of Psychiatry
The University of Queensland
Cognitive Psychophysiology Centre
Australia

Dr Hans Karle
President
World Federation for Medical Education
Faculty of Health Science
University of Copenhagen
Denmark
Mrs Lorraine Kerse  
Acting Regional Adviser  
Development of Human Resources for Health  
WHO/WPRO

Dr Kenzo Kiikuni  
Secretary, AMEWPR

Dr Akihumi Kuwasima  
Deputy Director  
Ministry of Health and Welfare  
Japan

Dr Shiu Hung Lee  
Department of Community & Family Medicine  
The Chinese University of Hong Kong  
Hong Kong

Mrs Salustiana Montillano  
Secretary  
Development of Human Resources for Health  
WHO/WPRO

Dr Masahisa Nishizono  
President, AMEWPR

Dr A.G. Romualdez, Jr  
Former Director  
Health Services Development and Planning  
WHO/WPRO

Dr Rounald Nungester  
Vice President  
Client Programs & Psychometrics  
National Board of Medical Examiners  
United States of America

Dr Jimi Samisoni  
Head  
Fiji School of Medicine  
Fiji

Dr Sharifah H. Shahabudin  
Department of Medical Education  
Faculty of Medicine  
Universiti Kebangsaan Malaysia  
Malaysia

Dr Jun-Ichi Suzuki  
President  
The Japan Society for Medical Education  
Japan
Dr Nguyen Dang
Deputy Director
Training Department
Ministry of Health
Viet Nam

Dr Kenichi Uemura
Department of Neurosurgery
Hamamatsu University
School of Medicine
Japan

Dr Jiang-lin Xie
Department of Medical Education
Ministry of Public Health
China

Korean participants (in alphabetical order)

Hyo Seop Ahn
College of Medicine
Seoul National University

Woo-Sup Ahn
College of Medicine
Dongguk University

Yong Ho Auh
College of Medicine
University of Ulsan

Jong-Woo Bae
College of Medicine
Kyung Hee University

Sang Ho Baik
College of Medicine
Seoul National University

Yung Hong Baik
Dean
College of Medicine
Chonnam University

Sang-Hyun Byun
College of Medicine
Chungnam National University

Bong Suk Cha
Yonsei University
Wonju College of Medicine
Byung Kook Chae  
Korea University  
College of Medicine

Im Won Chang  
Dean  
Chuang-Ang University  
College of Medicine

Moo Hwan Chang  
Dankook University  
College of Medicine

Soung-Hoon Chang  
Kon-Kuk University  
College of Medicine

Woo-Hyun Chang  
Dean  
Hallym University  
College of Medicine

Jae Kyu Cheun  
Dean  
Keimyung University  
College of Medicine

Bo Youl Choi  
HanYang University  
College of Medicine

Jang-Suk Choi  
Inje University  
College of Medicine

Sam Sop Choi  
Vice President  
National Medical Licensing Exam. Board

Sung-Min Choi  
DongGuK University  
College of Medicine

Duck-hwan Chung  
Dean  
Dong-A University  
College of Medicine

In-Won Chung  
Chung-buk National University  
College of Medicine
Pock Soo Kang
YeungNam University
College of Medicine

Sung-Kyew Kang
Dean
ChonBuk National University
College of Medicine

Chang Hwi Kim
SoonChunHyang University
College of Medicine

Chang Se Kum
Dean
SoonChunHyang University
College of Medicine

Doo-Hee Kim
Dean
DongGuk University
College of Medicine

Han Keom Kin
Korean University
College of Medicine

Hong Ki Kim
Hallym University
College of Medicine

Hyung Kyu Kim
Korea University
College of Medicine

Il Soon Kim
Yonsei University
College of Medicine

In-Kyung Kim
The Catholic University of Korea
Medical College

Jong Hwa Kim
Gyeong-Sang National University
College of Medicine

Jong Soo Kim
Dean
Yonsei University Wonju College of Medicine
Keun Youl Kim  
Dankook University  
College of Medicine  

Kun-Sang Kim  
Chung-Ang University  
College of Medicine  

Kwang Ho Kim  
Inha University  
College of Medicine  

Kyung Han Him  
Kosin Medical College  

Kyung Tai Kim  
HanYang University  
College of Medicine  

Myungjung Kim  
Busan National University  
College of Medicine  

Ok Bae Kim  
Keimyung University  
College of Medicine  

Ok Kyung Kim  
Ewha Womans University  
College of Medicine  

Sang-Hyo Kim  
Dean  
Inje University  
College of Medicine  

Se Jong Kim  
Yonsei University  
College of Medicine  

Shin Kun Kim  
Catholic University of Taegu-Hyosung  
College of Medicine  

Suh Wha Kim  
Seoul National University  
College of Medicine  

Sun Whe Kim  
Seoul National University  
College of Medicine
Sun Kim
Yonsei University
College of Medicine

Wong Dong Kim
University of Ulsan
College of Medicine

Won Sik Kim
Chungnam National University
College of Medicine

Yong Il Kim
President
The Korean Society of Medical Education

Young Sook Kim
Chosun University
College of Medicine

Koing Bo Kwun
Dean
YeungNam University
College of Medicine

Chang Youn Lee
Kosin Medical College

Dong Geun Lee
Chonbuk University
College of Medicine

Hyun Chul Lee
Chonnam University
College of Medicine

Jae Woo Lee
Dean
Kosin Medical College

Jong Sub Lee
Kok-Kuk University
College of Medicine

Jong-Taee Lee
Inje University
College of Medicine

Keun Lee
Vice President
The Korean Society of Medical Education
Kwang Youn Lee
Yeung Nam University
College of Medicine

Min Chul Lee
Dankook University
College of Medicine

Moonho Lee
President
National Medical Licensing Exam. Board

Moo Sang Lee
Yonsei University
College of Medicine

Myung-Soon Lee
Gyeong-Sang University
College of Medicine

Sang-Bok Lee
Dean
The Catholic University of Korea
Medical College

Sang II Lee
Samsung Medical Center

Tchun Yong Lee
HanYang University
College of Medicine

Won Bok Lee
Chung-Ang University
College of Medicine

Won Chul Lee
The Catholic University of Korea
Medical College

Won Ki Lee
Dean
Dankook University
College of Medicine

Ye-Chul Lee
Dean
Kon-kuk University of Korea
Medical College
Yong Sung Lee  
HanYang University  
College of Medicine

Young Mee Lee  
Korea University  
College of Medicine

Yung Lee  
Hanllym University  
College of Medicine

Hun Kil Lim  
HanYang University  
College of Medicine

Hyun Muck Lim  
Chung-Ang University  
College of Medicine

Kwang-Ho Meng  
The Catholic University of Korea  
Medical College

Hyung Moon  
Dean Hanyang University  
College of Medicine

Tae-Geun Oh  
Chun-buk National University  
College of Medicine

Hee Choul Ohrr  
Yonsei University  
College of Medicine

In-Young Ok  
The Catholic University of Korea  
Medical College

Young Sook Pae  
Dean  
Ewha Womans University  
College of Medicine

Dong Ho Park  
Dean  
Inha University  
College of Medicine
Sang-Hak Park
Chosun University
College of Medicine

Seongyang Park
Seoul National University
College of Medicine

Jung Ae Rhee
Chonnam University
College of Medicine

Yang Keun Rhee
ChonBuk National University
College of Medicine

Soo Sang Sohn
Keimyung University
College of Medicine

Jun Kyung Song
Dean
Gyeong-Sang National University
College of Medicine

Chae-Hong Suh
Dong A University
College of Medicine

Duk-Joon Suh
Dong a University. College of Medicine

Moon Ja Suh
Seoul National University
College of Nursing

Suk Hyo Suh
Ewha Womans University
College of Medicine

Nam-Sick Woo
Kon-Kuk University, College of Medicine

Moon Ho Yang
Dean, Kyung Hee University
College of Medicien

Seung Ho Yune
Chungnam National University
College of Medicine
OPENING ADDRESSES OF DR YONG IL KIM, AT THE WHO/AMEWPR MEETING ON QUALITY ASSESSMENT OF MEDICAL EDUCATION
SEOUL, REPUBLIC OF KOREA
14-16 SEPTEMBER 1996

Honourable guests and dear participants:

It is my great pleasure and honour to open the Fourth WHO-Association for Medical Education in the Western Pacific Region (AMEWPR) Meeting here in Seoul. First of all, I would like to extend a warm welcome to all the participants and express my sincere gratitude especially to the guest speakers and foreign participants from the member states of the World Health Organization.

As indicated in the main theme of this Seoul Meeting, its ultimate goal is to bring the utmost challenging issues in the field of quality assessment of medical education, focusing on medical licensure examinations, in linking with competent and scientific knowledge and updated information so that not only the participants of the member countries but also the local participants are fully exposed precisely to the current international study trend and future prospect, and end up with encouragement for better quality assessment of the medical school graduates.

The organizing committee of WHO-AMEWPR and Korean Society of Medical Education led to the agreement to co organize this Seoul Meeting to promote a higher level of educational programme to meet the demand from medical practice under the sponsorship from WHO/WPR and local medical community. And this year, with a total of 10 invited professors and experts aside from two consultants from abroad, we organized a three day programme including 1 keynote address, 7 plenary presentations, 1 panel presentation, and 4 small group activities. The programmes were designed to maintain a balance and bridge of both theoretical background and practicalities in area of quality assessment of medical education including medical licensing examinations, institutional accreditation, performance evaluation of the practitioners such as through practice audit, and recertification of the practitioners. All the presentations the Programme Committee has chosen are the current challenging topics among the various issues in the quality assessment of our medical school graduates in the Western Pacific Region; especially the Programme Committee has planned to develop a much informal gathering under the open forum session with which the Korean participants have a chance to face-to-face free communication with world-known, eminent experts in the area of medical licensure examinations, I certainly believe that this international meeting will give you a unique learning opportunity and be a gigantic step to develop a better system in assessing medical education.

In particular, the Organizing Committee thanks to all invited speakers and panellists who kindly accept our request with a relatively short notice and made a long way trip from their home country to attend this meeting. And I would like to express my deep appreciation to the staff of the Organizing Committee who joined me to make the meeting possible and meaningful. I am also grateful to the Korean Medical Association, Korean Hospital Association, National Teacher Training Center for Health Personnel, Korean Medical Colleges Dean's Council, Korean Academy of Medical Sciences, Seoul City Medical Association and Je-II Pharmaceutical Company for their financial support.
Annex 2

WELCOME ADDRESS OF DR MASAHISA NISHIZONO, AT THE WHO/AMEWPR MEETING ON QUALITY ASSESSMENT OF MEDICAL EDUCATION SEOUL, REPUBLIC OF KOREA 14-16 SEPTEMBER 1996

Chairman, Regional Director of WHO, WPRO, Dr S.T. Han, Ministry of Health of Republic of Korea, President of WFME, Dr Hans Karle, Chairman of the organizing committee, Professor Yong Il Kim, consultants and temporary advisers of WHO, WPRO, Ladies and Gentlemen:

It is my great pleasure to have the Fourth Regional Conference on Medical Education of the Association for Medical Education in the Western Pacific Region (AMEWPR) in Seoul collaborating with WHO, WPRO, and it is my great honour to make a welcome address here. On the process of realizing this Seoul meeting, we formed guidelines for the meeting at preparatory meetings in Nagoya, Japan, last April and in Manila, Philippines, last November. Those guidelines were assumed to be appropriate by the Korean Society for Medical Education, and then the theme was agreed to be "Quality assessment of medical education: focus on medical licensure examinations". Or rather the society played an important role to realize the Seoul meeting, proposing fairly well-considered details of the meeting and assuming responsibilities to cover a large segment of expenses, I would like to express my sincere thanks to Korean colleagues.

Whatever form of assessment is available in one country, National Physician's Licensure Examination or others, quality assessment of medical education is to be paid highly attention to. It is because this is the way to estimate whether new physicians have knowledge, skills and attitudes to meet social needs and patient's expectations. In addition, characteristics of the assessment could have a great influence on practical undergraduate education.

In the Edinburgh Declaration of the WFME, it was emphasized that innovation of medical education should be processed through the world. What was agreed there was to give our priority to WHO's policy of primary health care. And this Seoul meeting gives us an opportunity to review quality assessment. I hope it will end up with forwarding innovation of medical education further. The Western Pacific Region has both commonality and differences in historical, traditional, cultural, economic and social backgrounds. No matter how various they are, we share the common purpose here; it is to produce physicians in high quality. I hope that our devotion and collaboration will help us to establish mutual understanding and clarify strategies of innovation of medical education.
CONGRATULATORY ADDRESS OF DR HANS KARLE, AT THE WHO/AMEWPR MEETING ON QUALITY ASSESSMENT OF MEDICAL EDUCATION
SEOUL, REPUBLIC OF KOREA
14-16 SEPTEMBER 1996

Internationalization of medical education is progressing rapidly. Programmes for exchange of medical students and teachers are becoming more common, and migration and mutual recognition of medical doctors is increasing. This advantageous development facilitates effective distribution of knowledge and experience in medical education as well as in biomedical research. It also represents a valuable buffer capacity in medical manpower planning. But this process, which can be expected to accelerate in the next century, also emphasizes the importance of creating common high standards in basic as well as in specialized education and training of physicians.

The 21st century approaching, medicine and medical educators are facing major problems and challenges. The explosion in biomedical knowledge, in technological refinements and in informatics opens an array of impotent potentialities to mankind. However, at the same time these developments pose increasing financial burdens to the health care systems, which now show obvious tendencies to distort medicine towards commerce, and also change the fundamental functions and ethical basis of medical practice.

Consequently, it is necessary to accommodate to these developments by redesigning medical education on all levels. The increasing trend of curriculomegaly in most medical schools must be replaced by new principles in management of basic medical education. The education should focus on the development of a framework of knowledge, skills and attitudes and commitment to sustain the lifelong active learning in medicine. This again requires revision of criteria for admission of students, new educational methods, and sufficient training of teachers, who must take the role as catalysts in the students' self-directed learning process.

In postgraduate medical education there is a universal need for a better balance between general and highly specialized medicine in order to coordinate medical education with health care services, and for the creation of adequate methods in continuing medical education. Furthermore, in all phases of medical education there is a need for revision of methods and practice in the evaluation and assessment of medical education.

It is on this background the role and significance of WFME must be seen as a global network organization, based on collaboration with the six Regional Associations for Medical Education and WHO, UNESCO, UNICEF, UNDP and the World Bank, and other organizations and institutions. Within the last decade, WFME has demonstrated its responsibility and endeavour to reach the objectives for the innovation of medical education in a number of ways. Major progress was obtained through the World Conference, which produced the Edinburgh Declaration in 1988 and the World Summit Recommendations in 1993 on medical education, both conducted and followed up by WFME's past President Prof. Henry J. Walton.
Besides the formulation of the general directions for future medical education, it is also a priority and responsibility of WFME to produce concrete results in the process of innovating medical education by facilitating the exchange of information, by supporting comparative studies and programmes of medical education, and by performing projects and other initiatives, from which international medical education can profit.

The main theme of this conference, "Quality assessment of medical education: focus on medical licensing examinations" is of paramount interest. The value of this kind of quality control is being discussed in many regions. As you know, there have been great differences in the development in various parts of the world. In North America regional licensing examinations have been performed during most of this century. In Europe some countries are developing national licensing examinations, whereas common supranational examinations will probably not be introduced. Also with respect to methods, one can see major developments with a change from multiple choice examinations to more complicated examinations which use e.g. computer technology and in the future standardized patients.

With my election as President of WFME from 1 July 1996, the Secretariat of WFME has moved from Edinburgh to Copenhagen, where it is going to be established as part of a Centre for International Medical Education in collaboration between the Faculties for Health Sciences of the Universities of Copenhagen (Denmark) and Lund (Sweden). It is my sincere intention and hope that WFME will continue to provide the global forum for concerted global action of all forces involved in the progress of developing high quality medical education, which will always be the keystone of quality assurance in health care.

I look forward confidently to continuing the good relationship and collaboration with AMEWPR and to participating with you in an interesting conference. One purpose of my presence here today will be to gather information from you about topics in which WFME could be of interest in your own endeavours to innovate and improve medical education.
KEYNOTE ADDRESS OF THE REGIONAL DIRECTOR, DR S.T. HAN,
AT THE WHO/AMEWPR MEETING ON
QUALITY ASSESSMENT OF MEDICAL EDUCATION
SEOUL, REPUBLIC OF KOREA
14-16 SEPTEMBER 1996

QUALITY IN HEALTH - A WESTERN PACIFIC PERSPECTIVE

THE MINISTER OF HEALTH AND WELFARE OF THE REPUBLIC OF KOREA,
HONOURABLE SUNG HO LEE; THE PRESIDENT OF THE KOREAN MEDICAL
ASSOCIATION, DR SUNG HEE RYU; THE PRESIDENT OF THE WORLD FEDERATION OF
MEDICAL EDUCATION, DR HANS KARLE; PRESIDENT NISHIZONO AND THE OTHER
OFFICERS AND MEMBERS OF THE ASSOCIATION OF MEDICAL EDUCATION FOR THE
WESTERN PACIFIC REGION; DISTINGUISHED GUESTS; LADIES AND GENTLEMEN:

First, I would like to congratulate Professor Kim and the members of the organizing
committee, especially the Korean Society of Medical Education on the arrangements for this very
important meeting. The various topics that are scheduled for discussion in the next three days
concern many issues that are difficult, but crucial to the future of medical education in this part of the
world. Nevertheless, I trust that your schedule will not be so tight as to prevent all the participants
from enjoying the social interaction that is often one of the most productive parts of meetings like
this. I would particularly like to think that those of you who come from distant places will have some
time to enjoy the sights and sounds of the City of Seoul.

I would also like to congratulate Professor Nishizono and the members of the Regional
Association for selecting the theme "Quality Assessment of Medical Education: Focus on Medical
Licensure Examinations". As we approach the end of this century and prepare to meet the health
challenges of the next, I can think of no other theme as timely and as relevant as this focus on quality
in medical education. For this reason, I hope that my talk on "Quality in Health: A Western Pacific
Perspective" will help you in your forthcoming deliberations.

This Association and WHO's Regional Office for the Western Pacific have had a relatively
brief but fruitful history of collaboration since 1988, when we jointly participated at the first World
Conference on Medical Education in Edinburgh. I would like to note the fact that this collaboration
was among the first of the new partnerships established during my first term as Regional Director.
During these last eight years we have developed a common understanding of the future of health in
this Region, and of the role of academic medical institutions. We see these institutions as essential in
supporting continued improvements in the health of people in our member countries. I have said
many times before that the most critical component of a health infrastructure is its human resources.
The central figure in the health team continues to be the physician. It is therefore clear that the way
you, the medical educators, mould the doctors of the future, will significantly influence the way that
we responds to the future health needs of the people.
Annex 3

To help you in the coming days, I would like to begin by reviewing the present situation of health in the Western Pacific and how we view its future. In general, the health picture in the Region has improved during the last decade and a half. Several of the major targets for health for all by the year 2000, such as infant mortality rates, maternal mortality ratios, life expectancy and adult literacy, have been reached by most countries and areas of the Region. Average life expectancy in the Region has increased from 63 years in 1980, to 68 in 1990. Similarly, the average infant mortality rate has decreased, from 40 per 1000 live births in 1980, to 31 per 1000 in 1990.

These improvements have contributed to demographic changes that will require the development of new approaches and strategies in health. The proportion of elderly people is increasing in most populations, and this brings with it a different set of health needs. In Japan, for instance, the percentage of persons above 65 years of age is expected to increase from the current 12.5% to 16.3% in the year 2000, and to reach as high as 25% in the year 2020. Population growth rates continue to be unacceptably high in some countries, and urbanization is proceeding very rapidly in many parts of the Region. By the turn of this century, city dwellers will outnumber the rural population in most countries. In the Republic of Korea, even within the last 10-15 years, the urban population has grown to such an extent that it now exceeds 70% of the total population.

Linked to these demographic and socioeconomic phenomena is the growing awareness that the physical environment of the whole planet earth is under siege. Issues such as air and water pollution, waste management, and food and chemical safety have expanded the scope of environmental health far beyond the traditional boundaries of water safety and sanitation. Thus during the past four years, the Western Pacific Regional Office has given a great deal of attention to the formulation of a strong environmental health programme. This has helped to prepare the Region for the challenge of the proposed agenda for the twenty first century, widely known as "Agenda 21", adopted by the United Nations Conference on the Environment and Development (UNCED) in 1992.

We are also witnessing a period of epidemiological transition. Noncommunicable and other lifestyle-related diseases are becoming predominant in developed and developing countries alike. For some countries this means that even as they continue to grapple with infectious diseases, they are being forced to deal on a large scale with such diseases as cancer, cardiovascular disorders and diabetes. For example, these three groups of disorders just mentioned now rank in the top ten causes of morbidity and mortality in the Philippines, while tuberculosis, malaria and other "developing countries' diseases" are still major problems. Such a situation serves to remind us that despite our successes with poliomyelitis and leprosy, we still need to pay attention to old scourges including the periodic re emergence of diseases like cholera and dengue fever.

Moreover, recent events have warned us that new communicable diseases will require the health sector to remain vigilant so that we do not lose the health gains we have made thus far. The emergence of HIV/AIDS was the first of these threats. This continues to be a difficult problem for some of our neighbours. The Ebola outbreak in Africa and the presence of animal strains of the virus in our Region provided additional warning signs. The suspected link between British beef and Creutzfeld-Jakob disease in Europe and more recently the E. coli problem in Japan, have further reinforced the need to maintain capabilities to contain communicable diseases even in developed countries.
During the last decade and a half, WHO's strategy to meet health threats has been anchored on the primary health care approach. Up to now, the main thrust has been to bring the currently available technologies for prevention, cure and rehabilitation as close to the people as possible. But as we have just seen, urbanization and an increasing elderly population require us to devise new ways of dealing with health problems. If not prevented, noncommunicable and degenerative disease threaten to place an unbearable strain on the resources available for health in the coming years. AIDS and other new communicable diseases could wipe out all of the health gains of the past decade if not contained. Few of these diseases can be adequately dealt with by the current available technologies for prevention, treatment and rehabilitation. But if people begin to behave in ways that are conductive to better health, there will be little or nor need for more investment in development of newer and more expensive medical technologies.

It is for this reason that the Western Pacific Regional Officer (WPRO) has determined that the encouragement of healthy individual and community behaviours are the main approaches to meeting the health challenges of the future. This is a logical extension of primary health care that effectively transfers the responsibility for health to individuals and communities. In short, it emphasizes the human factor in health development over technological or biological factors.

In order to effectively implement this human approach to preparing for health in the 21st century, a reorientation of the existing infrastructures for health is required. I have already said that the most critical component of the health infrastructure is human resources for health. Aside from the continuing need for technological skills, the health workforce must develop greater manageral abilities, including communications. In addition, they must now learn how to use techniques such as the use of mass media and marketing in order to effectively engage in health promotion.

Logically then, information and communication support, especially for health workers at the periphery, must receive special attention. The exciting and explosive technological advances in this area will certainly enhance our opportunities to influence people, as individuals and groups. The health sector, under the leadership of the physicians of the future, must take full advantage of these opportunities. This will enable them to participate actively in a process that is receiving increased attention the world over. They can then exert significant influence on the process of health systems reform to ensure congruence with health approaches and goals that focus on human development rather than disease.

In turn this will assure that emphasis is placed on optimal use of resources, especially health financing, to ensure that all people have equitable access to high quality health services.

This finally brings me to the issue of quality and how it is viewed from the perspective of the Western Pacific Regional Office of WHO. It is true that the medical profession, especially in academic circle, has always viewed the assurance of academic and professional excellence as a major area of concern. Many of our traditional academic activities such as clinico-pathologic conferences, medical audits, and morbidity and mortality reviews are in fact mechanisms for quality assurance in patient care. Recently this concern for quality and excellence has become more explicit. Out present gathering is evidence of this. It follows on from similar meetings on the issue in Geneva in 1994 and in Manila in 1995. In these meetings, it was obvious that the medical education community is well aware of the need to balance the requirements of professional excellence with those of relevance to individual and community needs. I am therefore especially happy to be able to contribute another perspective to this discussion.
Annex 3

There are many definitions of quality. The one that seems most appropriate to the public health view is that which equates quality with the degree of achievement of the missions and goals of an institution or activity. In health services, this means that the ultimate measure of quality is the continuous improvement of the health of people. In order to attain this in the future, changes are needed in the education of physicians. We need to produce graduates with the skills and competencies needed for the promotion of healthy behaviours among individuals and communities, which I described earlier. I realize that such changes not easy and many members of the professions, for valid reasons, will resist them. It is therefore imperative to develop mechanisms for the management of change which will answer some of their objections. One such mechanism is the use of the processes of certification and licensure to ensure both the quality and relevance of the products of medical education. This is precisely the subject of your deliberations in the next three days, and I am keenly anticipating the outcome of your proceedings.

Before I close, I would like to inform two other concerns that arise from WHO's responsibilities in international health, especially in a region such as ours. The first relates to the fact that, because of geographic and population size limitations, not all countries in the Western Pacific have medical schools. Thus, not all countries are represented here today. I hope that when you discuss the various issues of quality and relevance, you will keep in mind the needs of the people in such countries. In fact, you may wish to consider the possibility of inviting their representative to a future gathering of this association.

The other concern is related to the position of leadership that the medical profession holds among the various health disciplines. Because of this, whatever you do in meetings like this will have an effect on the other health professions such as dentistry, nursing and midwifery. Again, it may be useful to have the viewpoints of their representatives considered in some future deliberations of this Association.

To recapitulate, I fully support the Association's efforts to improve the quality of education in the Western Pacific. I agree that mechanisms, such as redesigned certification and licensure processes, should be developed as tools for the assurance for such quality. I also propose that this Association consider as the final measure of quality in medical education the extent to which its graduates to fulfil their roles in the health systems of the future. And although these roles are increasingly described in management jargon, they can actually still be defined by the traditional concept of a doctor as: a scientist - who continually collects and organizes information about human organisms and how they relate to each other, other organisms and their physical environment; a teacher - who provides leadership for the other health professions and strives to persuade individuals and communities to live healthy lives; and a healer - who can apply the best that technology can offer, to cure, rehabilitate or otherwise improve the quality of the lives of those who, still fall ill despite their best promotive and preventive efforts.

If the regional medical education institutions can meet such standards of quality, then we can all be confident that, beyond the horizon of this century's end, people of this Region can aspire to be even healthier than they are now, with lessened disease burdens, leading lives of better quality, and dying with dignity and grace.
Importance of Quality in Medical Education

Medical education and practice have always been internationalised because physicians from various countries have long had international exchanges for study or practice. However, these physicians were subjected to the perceived medical superiority in the concepts of quality in medicine by the politically dominant nations (dominance marched from nation to nation). Those in the Commonwealth for example have historically adhered to the guidelines of the General Medical Council of Britain (GMC). Malaysia for example, used to invite the GMC to accredit its first medical school. Its graduates therefore can technically register with the GMC and practise in any country that recognises the GMC registration.

This practice stopped with the formation of the European Union and the rise of nationalism which reinforced the recognition that the practice of Medicine is a culturally determined pursuit and is locally accountable. Even though many aspects of technical medicine span national boundaries, the cultural, socioeconomic and epidemiological variations make the practice very setting specific. Any attempts to standardize medical education internationally must place these variations in equilibrium with the technical aspects. The highest standard of medical education is the one that meets the needs of the country. Many countries have now set up their own guidelines and procedures for the registration of physicians for the purpose of study or practice.

The recent global economic restructuring is suddenly giving an impetus towards achieving an understanding on international standards in medical education. The conclusion of the Uruguay Round of multilateral trade negotiations under the auspices of the General Agreement on Tariffs and Trade (GATT) has resulted in the establishment of the World Trade Organisation (WTO). Under GATT, education, training and health are also internationalised as economic services with access to domestic markets world-wide. Countries are supposed to liberalise their procedures and rules to break down sanctions and economic barriers so that goods and services can easily cross borders. Trade is
now done in a competitive global marketplace. Those who offer the best at competitive prices and are able to promote their services and goods will capture the market. The phenomenal development of communication and information technology such as telemedicine is also making education and health care without frontiers a reality. There are also regional groupings such as EU, NAFTA, APEC, Mercosul (Brazil, Paraguay, Uruguay, Argentina) which are supposed to ensure free trade. Under these arrangements physicians are produced for at least a continent.

The drivers for the reforms in health care are political and economic, not academic. But the educational implications are enormous and it can whiplash on academia. Cross-border delivery of education and health implies that transnational mobility of graduates of medicine will become an accepted practice of the future and transnational certification will be a necessary requirement. The response of Medical Education and academic medicine in serving the needs of society is to achieve an International Consensus on Standards and Systems of Quality Assurance in medical education. Consensus can only be achieved if each country evolve its standards and system of quality assurance.

Standards are models that stand for or are accepted as a basis for comparison (Webster dictionary). Evolution of a standard of universal values will give rise to a terminology that will facilitate communication, comparison, exchange of information and joint research worldwide. It will also reflect the commonality of concerns and priorities in health development and medical education. It will give confidence to many countries to plan and organise the education of their doctors in an unbiased manner, liberating themselves from foreign models that do not always fit the requirement of their environment.

Two World Conferences on Medical Education have been held in 1988 and 1993 followed by several regional meetings including the Western Pacific, to consolidate ideas about the reforms that are required in medical education in order to better serve the changing needs of society. In October 1994, WHO Geneva convened an invitational consultation to achieve a global consensus on standards. The proceedings of the meeting have been reported in a supplementary issue of Academic Medicine, Vol 70, July 1995. This meeting defined quality in medical education and examined ways of assessing and ensuring its achievement and comparability across institutions from various countries.

**Principles in Assessing Quality in Medical Education**

1. Medical education is a continuum in the life of a doctor that begins with undergraduate or basic medical education (4-5 years), through postgraduate education (4-6 years) and continuing
medical education (about 40 years). Quality must be assured and maintained and thus assessed throughout the continuum.

2. Quality medical education is not an absolute property but refers to aspects of quality only which are derived by agreement between all parties concerned. In each of these aspects, there are basic standards of universal value (core) for medical education which must be flexible enough to address local (cultural and health care) needs.

3. Medical schools and other training institutions are accountable to society and must also be part of the process of assessing quality. At the institutional level, quality assessment can be done on input measures (e.g. investment of resources, participation in improving health care), process measures (competence, performance) and outcome measures (e.g. impact on the patient and community).

4. Quality is reflected at the individual or output level through assessment of competence and performance as well as outcome measures. Competence is the consistent ability to perform the activities required in the profession at a defined level of standard. It indicates what the practitioner is capable of achieving. Performance is the actual use of the ability in practice. It is based on competence but modified by attitudes, values and culture as well as professional socialisation.

5. Standards should be determined by consensus with the involvement of all stakeholders. Those who determine the standards for quality must be responsible for ensuring that these are achieved and maintained.

**Universal Aspects and Values of Quality**

There are basic elements for professional and social accountability and self-regulation in the whole continuum of medical education which ensure the development of core competencies and performance required by doctors throughout the world, regardless of country, region or culture. For each aspect (core ingredient) of quality a country must further define or qualify its standards to meet local needs. Attempts must be made to avoid defining and dictating narrowly the elements concerned, for example the content of the curriculum or the teaching-learning process. This is to encourage the medical school or any other training institution to approach the education of physicians in a variety of innovative ways that will also reflect the local needs. Social accountability is the commitment of the institution to address issues or help solve problems identified and perceived jointly with society as priorities for both the present and longer term, in the expectation that the medical school's action will benefit the local community, the country as a whole or the international community. The quality of some core values are assessed at the institutional level while others are assessed at the individual level.
The basic elements include evidence of:

**Input measures**
- recruitment and selection criteria and procedures in support of qualified students
- recruitment and retention of faculty members who are motivated to teach effectively
- a supportive administration and governance
- adequate provision of material and physical resources for the educational support system, community and hospital facilities
- adequate intersectoral mechanism to support education and participation in the provision of health care
- adequate support for quality assurance and mechanism to implement changes

**Process measures**
- defined and disseminated mission, educational aims and objectives which are based on the health needs of the country
- a student-centred curriculum which stresses the essential medicine-specific domains of health promotion, illness identification and prevention as well as patient management in a cost effective and ethical way, population medicine and community experience, and professional skills;
- an educational or teaching-learning process that develops the general competencies of an educated person such as critical reasoning, directed self-learning, leadership and communication.
- an assessment system that is relevant to educational objectives, reliable and objective
- research and scientific rigour as a basis for rational evidence-based medicine
- the presence of a good system of quality assurance and mechanism for quality improvement

**Output measures**
- achievement of competence
- career choice, concern for quality in continuing learning and professional development
- achievement of performance indicators

**Outcome measures**
- provision, research and development of health care services at all levels of care
- technology assessment and research
- research and improvement in patient care indicators
- research and improvement in health status of the community
- organisational models for health delivery
Assessing Quality at Institutional Level

Accreditation is the process for determining whether a training programme conforms to established educational standards. It represents a professional judgement about the quality of an educational programme. The medical schools have to provide evidence which shows that the institution has established, documented and implemented the guidelines in the accreditation criteria. The evidence is compiled from a process of institutional self study which is verified by visits from the accreditation team. An integrated combination of internal quality control (self assessment) and external assessment by peers which emphasise constructive feedback serve as a sound approach to quality assurance.

The need to adhere to standards can lead to medical schools’ improvement and empower their leaders to seek the resources they need. The many stakeholders in medical education are also involved in the quality assurance process. They range from national governments, licensing bodies, medical associations, international agencies, NGOs, labour organisations, the media, local communities, patients, students and the medical school itself. All have different and sometimes conflicting interests and expectations. Hence their involvement bring a wholistic and realistic perspective to the development and determination of standards of quality.

Many countries have evolved accreditation as a system of assuring quality. Examples at the undergraduate level include the Liaison Committee for Medical Education (LCME), Council for Accreditation of Canadian Medical Schools (CACMS) and the Australian Medical Council which accredit medical schools in the US, Canada and Australia respectively. In the US all state medical practice laws recognise the accreditation status conferred by LCME on medical schools. Holders of the MD degree from these schools are provided the opportunity for licensure subject to certain examinations and other requirements imposed by each state.

At the postgraduate level, specialty-based training programmes are mainly organised by the professional associations and colleges as well as the medical schools. In programmes conducted by the Royal Colleges (e.g. Britain, Australia, Canada) quality assurance is conducted within the colleges or association themselves (self audit). In the US the organisation of a programme may involve several administrative forms. A programme may be conducted within a single institution or may involve more than one institution. The Accreditation Council for Graduate Medical Education (ACGME) accredits a residency programme when it is judged to be functioning on a stable basis in substantial compliance with the Essentials in Accredited Residencies in Graduate Medical Education. The ACGME is made up of representatives from the American Board of Medical Specialties, the American Hospital Association, the Association of American Medical Colleges, the Council of Medical Specialty Societies, the Federal Government and the public. In Malaysia, postprogrammes in medicine are
conducted by the medical schools but they must comply with the guidelines of the National Board of Postgraduate Medical Education (NBPGME). The Board consists of representatives from the Universities, the Ministry of Health and the Academy of Medicine (representing the profession). The secretariat is at the Ministry of Education. Under the Board are the various specialty committees with the same representation.

Continuing medical education is the longest phase of medical education (about 40 years) and therefore merits special attention. It is less institutionalised compared to undergraduate and postgraduate education. This is because CME is very often a personal and self-directed educational process. Nevertheless there are many sponsors or providers of CME programmes and they exist because of the requirements in some places for mandatory CME for the purpose of relicensure and recertification as well as the obligation of the profession to conduct programmes to meet specific needs of the members. In the US the Accreditation Council for Continuing Medical Education (ACCME) accredits providers of CME programmes. Only programmes conducted by these providers will be recognised for CME credits. In acknowledging the individualised approaches in CME, the Council also recognises the practice-linked approaches in CME.

Assessing Quality at the Individual Level

At the undergraduate level assessment of quality involves a matching of the programme objectives with the competencies demonstrated by the students at the beginning, during and end of the course. Programme objectives are derived from an analysis of the professional roles and responsibilities of the future practitioner. A variety of methods are used by medical schools to test theoretical knowledge and its application in solving problems as well as the observation of component and composite clinical skills. Mastery of a set of objectives enable the students to progress to another level of objectives. Decisions on mastery can be criterion or norm referenced.

To ensure quality in the faculty-based examination system, the rules and procedures of examination are usually established as a University Senate regulation, which in turn is usually governed by law. In Malaysia, this law is the University and University Colleges Act. Each medical school is responsible for establishing the criteria and procedures for evaluating students' performance, promotion and graduation. Any changes to the criteria and procedures must be approved by the Senate. There is usually an examination committee with appropriate subcommittees, that plan, administer and evaluate all examination questions and the test results, using quality control techniques such as item analysis. Relevance to objectives is an important criterion for ensuring validity of examination questions, in addition to the consideration of reliability in selecting the test instrument.
In some schools there is a system of external examiners, whereby distinguished and very experienced academics from other universities in the world as well as members of the profession outside the university are invited to examine students. Their role is to assess the quality of the examination and to compare the students' performance with that of students from other faculties. Strict criteria of selection are applied to the external examiners in order to maintain the validity and reliability of their comparison.

National examinations

In many countries, the school-based examination is recognised as the certifying examination. In Malaysia for example, any student who graduates with a medical degree from a university governed by the University and University Colleges Act and the Medical Act is licensed provisionally to practice as a house doctor (intern). At the completion of the internship he/she is given a full registration.

In other countries, in addition to the school-based examination a national examination for licensure is mandatory. Licensure is a process of government through which an individual doctor is given permission to practise medicine within a defined territory. Some schools also use these examinations as a requirement for graduation. For example, Part 1 and part 2 of the three-step United States Medical Licensing Examination (USMLE), established by the Federation of State Medical Boards (FSMB) and the National Medical Board of Examiners (NMBE) are requirements for graduation in about 76 and 55 medical schools respectively. The USMLE is also used to assess foreign medical graduates.

Postgraduate medical education prepares doctors for practice in a medical specialty and focuses on the development of clinical skills and professional competencies in both hospital and ambulatory settings. The resident, with guidance and supervision, takes on progressively greater responsibility for patient care throughout the course consistent with the individual growth in clinical experience, knowledge and skill. The learning is acquired primarily through the process of providing care under supervision. Thus the assessment of quality also includes performance indicators in the quality of care to patients. Assessment of quality of performance implies the degree of compliance to the expected professional role, responsibilities, duties and tasks shown by the medical practitioner. In addition to assessment of competence, practice audit is an important method of quality assessment at postgraduate level. In practice audit the performance of the practitioner on various aspects of patient care for groups of patients and problems under his/her care is observed over a period of time and compared to some pre-defined standards of performance.

There are at least three aspects to observe:
a) clinical skills or doctor outcomes (e.g. diagnostic accuracy, investigative habits, prescribing habit, complications of procedures, etc)

b) patient outcomes (e.g. cost of treatment, patient satisfaction, length of stay, etc)

c) managerial outcomes (e.g. effectiveness, efficiency, equity, acceptability, access, etc)

Certification is the process for determining whether individual doctors have met established requirements within a particular specialty. Thus certification involves more than an examination because there are other requirements in addition to passing examinations. Many postgraduate programmes require reports of clinical audit, case write-ups and a research dissertation. Certification is conducted by the specialty board or committee and in the US the board must be a member of the American Board of Medical Specialties. In most countries postgraduate examinations are also participated by external examiners.

At the continuing medical education level, many countries require doctors to accumulate a certain number of credits as an indication of their continuing medical education. Most of these activities are done on a voluntary basis. But some countries require the CME credits for the purpose of relicensure and recertification of specialty practice. As the theory of how doctors learn and change their practice become more clear, practice-linked methods are assuming greater importance and are being incorporated in the award of credits besides the traditional attendance at lectures, conferences, seminars and workshops. The quality of performance in practice can be assessed through evidence of the use of such methods as chart stimulated recall, practice audit, analysis of practice diary and health system research. With consent, observation of practice can also be done through the use of standardised patients. For such assessment of performance, practice protocols, guidelines and consensus statements are increasingly being evolved.

Conclusion

As political and economic forces move us towards a global market the demand for globally accepted standards become more pressing. Our duty as medical educators and medical practitioners is to develop a global perspective in ensuring an enlarged understanding of our shared global health problems, in encouraging international exchange and in educating competent doctors who can deal effectively with health problems wherever they may be. (Think globally and act locally). In the era of the communication revolution where knowledge is very transportable, our efforts towards reaching a consensus on Standards for transnational certification must be approached with caution and humility, but nevertheless should include evidence of quality in:
• institutional accreditation at undergraduate, postgraduate and continuing medical education levels
• competence assessment and quality control in faculty-based certification and licensure
• quality control in national examination for licensure
• performance assessment and quality control in postgraduate / specialty certification process
• performance assessment in award of credits for voluntary CME, relicensure and recertification

To achieve a global consensus on standards there must be:

• continued linkages and development of new ones for sharing experiences between medical schools
• development of tools for quality assurance
• studies on the standards of practice of international migrant doctors
• research and development in medical education as well as world-wide dissemination of its applications.

References:

Papers selected from the Invitational Consultation on Achieving Consensus on Quality in Medical Education, Geneva, 1994

1. Rosemary Stevens. International Medical Education and the Concept of Quality: Historical Reflections.
   Professor of History & Sociology of Science, University of Pennsylvania

2. A.I Vroeijenstijn: Quality Assurance in Medical Education.
   Coordinator, External Quality Assessment, Association of Universities in the Netherlands (VSNU)

3. John Anderson: reaction to Vision of Quality in Medical Education by Charas Suwanwela.
   Postgraduate Dean and Director, University of Newcastle, Regional Postgraduate Institute for Medicine and Dentistry.

   Chief Medical Officer, Educational Development of Human Resources for Health. WHO, Geneva

5. Sharifah H Shahabudin: Reaction to paper by Charles Boelen.
   Professor of Medical Education and Director of International Relations, Universiti Kebangsaan Malaysia.

Sharifah H Shahabudin
Email: shs@pksun5.medic.ukm.my
## Summary of Assessment of Quality in Medical Education

<table>
<thead>
<tr>
<th>Phase of Medical Education</th>
<th>Undergraduate Medical Education</th>
<th>Postgraduate Medical Education</th>
<th>Continuing Medical Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organisation</td>
<td>Medical School</td>
<td>Training Program</td>
<td>CME Providers /Individual</td>
</tr>
<tr>
<td><strong>ACCREDITATION</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Universal Core Values of</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aspects of Quality</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(with local definition</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>of standards)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Input Measures
- ...
- ...

### Process Measures
- ...
- ...

### Output Measures
- Competence assessment
- National licensure examination

### Competence & Performance Assessment
- ..... Level 1
- ..... Level 2
- ..... Level 3

### Performance Assessment
- Performance assessment in changing environment
- e.g. practice audit, standardised patient, chart stimulated recall

### Outcome Measures
- Demonstrate Models in initiating and participating in health care reforms through education, health service delivery (1°, 2°, 3°), research, advocacy
- Doctor outcome (professional growth and development)
- Patient care outcomes (patient care indicators at 1°, 2°, 3° levels)
- Health management and organization outcomes
- Health status of the community

---

Sharifah H Shahabudin, September 1996
ASSESSING QUALITY OF MEDICAL SCHOOL GRADUATES: WHO DOES WHAT - AND HOW?

Medicine is a profession in which practitioners apply basic sciences to the solution of problems of health and disease. Essentially, medicine demands a number of things: knowledge of sciences and clinical disciplines, skills in working with patients, problem-solving and judgment.

Medical education, therefore, must graduate students who are prepared for further education and training and who can continue to learn. The medical school must graduate students who meet society's need for safe, humane practitioners of medicine and must protect society from incompetence. In other words, the medical school must graduate students who are "competent".

"Competence" is best defined as "the ability to do something". It involves knowledge and skills and attitudes - all of which are involved in performance. There are a number of components of competence: knowledge, the ability to use that knowledge, clinical skills, the ability to apply those skills, problem-solving, judgment and interpersonal skills. Competence is the ability to "put it all together" in performance.

The question then becomes how do we measure or assess these components. Each component is best measured separately from the others. The following table indicates which techniques are most appropriate for assessment of each of the components.

To this point, the discussion has been on what to assess and how to assess. The next question is who should do the assessment. Obviously, the medical school should be capable of assessing all of the components, some better than others. All medical schools assess the acquisition and retention of information; in the United States, we do that too much! Medical schools can also assess the ability to use that information, but fail to do so in many cases. More and more medical schools are now using the OSCE
Presentation 2

Table 1. Components and Their Assessment

<table>
<thead>
<tr>
<th>Component of Competence</th>
<th>Assessment Technique</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge</td>
<td>Objective Examinations</td>
</tr>
<tr>
<td>Ability to Use Knowledge</td>
<td>Essay Examinations</td>
</tr>
<tr>
<td></td>
<td>Patient Management Problems(&quot;PMP&quot;)</td>
</tr>
<tr>
<td>Clinical Skills</td>
<td>By Observation</td>
</tr>
<tr>
<td></td>
<td>With check lists</td>
</tr>
<tr>
<td></td>
<td>with rating scales</td>
</tr>
<tr>
<td>Ability to Use Skills</td>
<td>By Observation</td>
</tr>
<tr>
<td></td>
<td>Over time in clerkships</td>
</tr>
<tr>
<td></td>
<td>The &quot;OSCE&quot; (Objective Structured Clinical Examination)</td>
</tr>
<tr>
<td>Problem-Solving and Judgement</td>
<td>The PMP</td>
</tr>
<tr>
<td></td>
<td>Special Examinations</td>
</tr>
<tr>
<td></td>
<td>The &quot;Long Case&quot;, the &quot;Short Case&quot;, the &quot;Triple Jump&quot;</td>
</tr>
<tr>
<td>Interpersonal Skills</td>
<td>By Observation</td>
</tr>
<tr>
<td></td>
<td>Over time in the clerkships</td>
</tr>
<tr>
<td></td>
<td>The OSCE</td>
</tr>
<tr>
<td></td>
<td>The &quot;CPX&quot; (Clinical Performance Examination)</td>
</tr>
<tr>
<td>Total Performance</td>
<td>Over time in clerkships</td>
</tr>
<tr>
<td>(Putting it all together)</td>
<td>The &quot;CPX&quot;</td>
</tr>
</tbody>
</table>

...to assess clinical skills and the CPX is being used in an increasing number of medical schools to measure the ability to apply those clinical skills. Until recently, for the assessment of interpersonal skills we have relied on observation which has proven to be subjective and unreliable. Now with the spreading use of the OSCE and the CPX, medical schools are finding reliable and objective measures of this important component. "Putting it all together" is best measured by the CPX and as many as one-third of the American medical schools are now using this technique.

The Licensure Examination is capable of assessing most of the components of competence, but it is easily and often costing more. However, the licensure examination is necessary to insure that the graduates of different schools all meet the same mutually agreed-upon standards. It is through the mechanism of a licensure
examination that society is protected from potential incompetence which might occur if different schools set different standards. Most of the time, licensure examinations have been limited to assessment of knowledge only. Such an approach would be acceptable only to the extent that the medical school did in fact assess all of those other components of competence as part of their assessment procedures.

The remaining question is who should be responsible for what in the assessment of competence in medical-school graduates. The following table includes one set of recommendations for your consideration.

### Table 2. "Abrahamson's Model"

<table>
<thead>
<tr>
<th>Component of Competence</th>
<th>Assessed By:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge</td>
<td>The Licensure Examination (and the Medical School)</td>
</tr>
<tr>
<td>Ability to Use Knowledge</td>
<td>The Medical School (and the Licensure Examination)</td>
</tr>
<tr>
<td>Clinical Skills</td>
<td>The Medical School</td>
</tr>
<tr>
<td>Ability to Apply Skills</td>
<td>Internship/Residency</td>
</tr>
<tr>
<td>Total Performance</td>
<td>CPX administered by the Medical Schools but designed and supervised by the Licensure System</td>
</tr>
<tr>
<td></td>
<td>...... OR ......</td>
</tr>
<tr>
<td></td>
<td>CPX designed and administered in Assessment Centers by the Licensure System</td>
</tr>
</tbody>
</table>

The challenge is thus for each country to decide what should be in a licensure procedure; to decide how each component of competence should be assessed; to design a system that guarantees that all components will be assessed objectively and reliably, and that medical schools and licensing agencies work well together. In a sense, this challenge is at the heart of this Conference.
SUMMARIES OF PANEL PRESENTATIONS BY DR SANG HO BAIK, AT THE WHO/AMEWPR MEETING ON QUALITY ASSESSMENT OF MEDICAL EDUCATION SEOUL, REPUBLIC OF KOREA 14-16 SEPTEMBER 1996

THE MEDICAL LICENSING EXAMINATION IN KOREA

A national examination is essentially required to take and pass for a medical school graduate to become a physician in Korea. The examination is administered by the National Medical Licensing Examination Board (NMLEB), a civilian organization, and a medical doctor's license is issued by the Ministry of Health and Welfare to the examinee who passes the examination.

Traditionally the licensing examination has been administered by the government during the last four decades (1952-1993), but the task of examination was transferred to the NMLEB from January 1994. The characteristics of examination systems of two administrating organizations revealed many differences and the main points of interest are compared.

The examination is administered regularly one full day once a year at the medical school-based test centers in six major cities using 440 test items of MCQ type. To pass the examination more than 60% of total points must be obtained, with a minimum of 40% of current answers in a single subject.

Since the NMLEB took over the medical licensing examination from the government the system has changed greatly. The major points of change such as reducing of testing subjects, an effort to increase the relevancy of test content, balancing cognitive level of MCQ items, operation of test committees, different time allocation depending on the type of test item, routine item analysis for examination, management of test bank items will be presented. In addition to that, significant changes of both positive and negative aspects resulted from the newly introduced system in the licensing examination, such as pass rate, the reaction of students and the medical schools are also discussed.

The NMLEB is planning continuously to improve the quality of the licensing examination and matters being discussed for the future direction of the examination will be introduced. It contains the application of new test content without demarcation of subjects, extension of the testing periods, increasing of number of test items, introducing of new format of test items, and key-validation in scoring.
Since the establishment of the National Medical Licensing Examination Board four years ago, the medical licensing examination in Korea has changed enormously and this has resulted in both examinees and medical school teachers thinking about their respective roles.

Despite continuing efforts, the board still has many problems such as differential weighting of test items, appropriations of pass standard, practicality of pre-testing and measurement of clinical performance to solve.
SUMMARIES OF PANEL PRESENTATIONS BY DR ELENA INES-CUYEGKENG
AT THE WHO/AMEWPR
MEETING ON QUALITY ASSESSMENT OF MEDICAL EDUCATION
SEOUL, REPUBLIC OF KOREA
14-16 SEPTEMBER 1996

THE PHILIPPINE MEDICAL LICENSURE SYSTEM

The Philippine Medical Act 1959 as amended in 1969 mandate that "no person shall engage in the practice of medicine unless he is at least twenty-one years of age, has satisfactorily passed the corresponding board examination and is a holder of a valid certification of registration duly issued to him by the board of medical examiner". At the time of enactment of this Act, the board of medical examiners was under the Civil Service Commission. In 1973, the Professional Regulation Commission was established to regulate the professions; for regulation of the medical profession, the Board of Medical Examiners was named the Board of Medicine.

Composition of the Board of Medicine

This new board consists of six members appointed by the President of the Philippines from recommendees of the Professional Regulation Commission screened from twelve recommendee of the Philippine Medical Association after consultation with other medical associations. Each member has a term of three years without prejudice to extension of the term. A medical examiner must be a natural-born citizen of the Philippines, has been in practice for at least ten years of recognized standing in the medical community and must not be a member of the faculty of any medical school nor is directly or indirectly connected with any institution where any branch of medicine is taught at the time of his appointment.

The responsibilities of the board

The Board of Medicine is responsible for conducting the licensing examinations which are given in February and August of each year. It also checks on the qualification of each examinee, which are: must be a holder of the degree of Doctor or Medicine from a recognized Philippine Medical School where the medical course consists of at least four years; he must have undertaken a 12-month rotating internship in a hospital accredited by the Board of Medical Education at the Department of Education, he must be of sound mind, good moral character and has never been convicted of any offence involving moral turpitude.
The Licensing examinations

Each member of the board is assigned to two of twelve subjects (Anatomy and Histology, Physiology, Biochemistry, Pharmacology & Therapeutics, Microbiology & Parasitology, Pathology, Medicine, Pediatrics & Nutrition, Obstetrics & Gynecology and Surgery including Ophthalmology and Otorhinolaryngology, Preventive Medicine and Public Health and Legal Medicine including Medical Jurisprudence & Ethics).

Each member is instructed to make a syllabus for each subject to be used as guide as the preparation of five-hundred questions for each subject which must be classified into easy average or difficult according to his perception. The test items must assess knowledge, competence & skills expected of beginning professionals not medical 100 questions are extracted, 33 each of the 3 varying difficulties. The extraction is done by the same expert one hour before the scheduled examination in the presence of the examiner inside a room with tight security guarded by an NBI (National Bureau of Investigation) agent and a member of the Philippine National Police. Only the examiner, the computer and another NBI agent and police are allowed inside the room. Emphasis here is on tight security because of rumours of leakage of questions. The mimeographed questionnaires are packed in sealed boxes for distribution and transport to the neighbouring examination sites. The accomplished questionnaires are gathered after the end of the scheduled time of examination and transported back to the guarded room where the examiners do their corrections.

The type of questions is mostly multiple choice questions of recall application and problem-solving on clinical cases. The corrections are done with the assistance of a computer to shorten time and lessen the probability of any naughty manipulations.

The examinations for the twelve subjects are held in three weekends - for those taking the complete (all 12 subjects) examination. An examinee may take only the preliminary examinations take the basic subjects (Anatomy, Physiology and Biochemistry) and take the examination in the clinical subjects on a future date. The results of the examination are released at the earliest one week after the last examination.

The Grading system

The examiners are provided by guidelines made by an evaluation expert in the transmutation of raw scores of the examinees. The system uses the median or the mean as the guiding score where the median corresponds closely to the top score made by the lowest 50% of the examinees while the mean is the arithmetic average of all the scores. Where the difference between median or mean is less than 2, the mean or median corresponds to the passing mark of 75%. Scores above or below the median or mean can be transmuted on the average zero correct to 100 correct.

<table>
<thead>
<tr>
<th>Raw score</th>
<th>Transmutation</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>50</td>
<td>75</td>
</tr>
<tr>
<td>0</td>
<td>50</td>
</tr>
</tbody>
</table>
If the median is higher than the mean, the mean correspond to 75% of if the mean is higher than the median, the median is used as reference point.

To illustrate transmutation, a formula is followed:

Transmutation score = 75 + f (raw score - mean)

where f is the correction ration

(a) If the mean or median is close to 50, transmutation score would be 75 plus 1/2 for every 2 raw scores points above or below the mean/median

a.1 (T.S.) = 75 + \frac{100 - 75}{100 - 50} \text{ Raw score} \\
T.S. = 75 + 0.1 = 75.5

a.2 For a score of 43:

T.S. = 75 + 0.5(43.50)

= 75 + 0.5(-7) = 75 - 3.5 = 71.5

(b) If the mean or median is far below 50 in the transmutation, it is necessary to consider the highest and the lowest raw source as well as the difference between the projected highest transmited score and the mean score.

b.1 example mean raw score = 34

highest raw score = 62

lowest raw score = 13

67 mean = 34

lowest score = 13

82 - 73 = 7 67 - 34 = 33

7/33 is approximately 0.2

TS for a raw score of 43 is:

TS 43 = 75 + 0.2 (43 - 34)

= 75 + 0.2 (9) = 76.8

b.2 If TS for a raw scores of 25 is

TS 25 = 75 + 0.2 (25 - 34)

= 75 + 0.2 (-11)

= 72.8
Further goals of the Board:

1. To increase the items in the data bank to 5000 by adding 500 new items before each examination.
2. To upgrade items every year to respond to contemporary concepts.

Suggested changes from the academe

1. There should be one examiner for each of the twelve subjects. Assign an examiner to the subject of his expertise to assure relevance of questions. To avoid specialized questions, the board should sit en banc to review the questions.

2. Improvement of grading system. The academe suggests MPL determination for each item.

3. Medical Board examiners should have experience in test construction under medical experts and not general technocrats and therefore the examiner must have been in the teaching profession.

4. The use of a blue print or grid in distributing content and type of questions in a subject to make a fair and balanced examination.

5. Item analysis of the questions should be encourage/continued to make a scientific interpretation of which are easy, average or difficult items.
ANNEX 7

PRESENTATION BY DR RONALD J. NUNGESTER, AT THE WHO/AMEWPR MEETING ON QUALITY ASSESSMENT OF MEDICAL EDUCATION SEOUL, REPUBLIC OF KOREA 14-16 SEPTEMBER 1996

U.S. EXPERIENCES WITH MEDICAL LICENSURE EXAMINATIONS

Over the years, medical licensure examinations in the United States have existed in a number of forms. Unlike many countries, the licensing of physicians is not controlled by the national government, but by the state(or territory). For most of our history, the individual states prepared, administered, and set standards for their own examinations. This lack of a common standard both raised issues of quality of care and restricted the movement of physicians across the country.

Early in this century, the National Board of Medical Examiners(NBME) was formed to provide a high quality, voluntary national examination program that could be used for licensure by all states. Over time the NBME Part I, II and III examinations were endorsed by almost all of the states. In the late 1960s, a second national examination program, the Federation Licensing Examination(FLEX) was created by the Federation of State Medical Boards of the United States, Inc. (FSMB) with the assistance of the NBME. The FLEX grew to be recognized by all U.S. jurisdictions.

In the 1990s, the FSMB and the NBME joined to create the United States Medical Licensing Examination(USMLE). The new USMLE was first fully implemented in 1994. It incorporated many of the characteristics of the discontinued FLEX and Part examinations, maintaining the traditional link to medical education, and providing the advantages of uniform measurement and standards applied to all applicants for medical licensure. The initial administrations of the USMLE have been very successful.

The USMLE is administered in three Steps. Currently each of the three Steps is composed of multiple-choice test items and is administered twice each year over a two-day period. Step 1 and Step 2 are administered in test centers worldwide. Step 3 is administered only in the United States by the individual state and territorial
licensing boards, although many states contract with the NBME for test administration services. Step 1 and Step 2 are administered to U.S./Canadian students at NBME test centers predominantly in the U.S. and to graduates of foreign medical Graduates (ECFMG). The passing of all three Steps is accepted by all U.S. jurisdictions as meeting the examination requirement for licensure.

An overall view of the USMLE and its Step examinations, including committee structure, content coverage, scoring, standard setting, score reporting to examinees and medical schools is provided in the presentation. In addition, future directions for the USMLE including computer adaptive/sequential testing and computer-based case simulations are discussed.
ASSESSING THE QUALITY OF MEDICAL EDUCATION THROUGH NATIONAL LICENSING EXAMINATION RESULTS

The concept of Quality Assurance had its origins in the manufacturing and service sectors of business and was rapidly adopted by the health care industry. More recently, professional schools have incorporated principles of Quality Assurance into their educational programs. In the simplest of terms, quality assurance means assuring that standards are met consistently for a product (in this case, students who graduate from a medical school program). An essential part of Quality Assurance is program evaluation.

Program evaluation is the collection and interpretation of data about the curriculum and the "products" (graduates) of an educational program. Although the results of program evaluation may be used to make summative decisions, the emphasis in this talk will be on the formative use of program evaluations for purposes of program improvement.

The creation of a national licensing examination has obvious benefits to the public by establishing a minimal level of competence, as measured by the examination, for all licensed practitioners. These examinations have other potential benefits, including the use of examination results to assure the quality of the programs that educate future practitioners. In the U.S. medical licensing examinations strongly influence student study decisions and medical school curricular content.

Issues that influence the use of licensing examinations for program evaluation purposes will be discussed. These include: 1) the conditions under which the examination is given, 2) the standard of comparison selected for program evaluation and 3) the methods of reporting the results of the examination. Several cautions are
also discussed that should temper the use of licensing examination results for purposes of educational program assessment.

The paper closes with a concise list of Recommendations for the use of national licensing examinations as a component of curriculum evaluation in medical education.
ANNEX 9

PRESENTATION BY DR RAJA BANDARANAYAKE, AT THE WHO/AMEWPR MEETING ON QUALITY ASSESSMENT OF MEDICAL EDUCATION
SEOUL, REPUBLIC OF KOREA
14-16 SEPTEMBER 1996

ASSESSMENT OF QUALITY OF MEDICAL EDUCATION THROUGH ACCREDITATION

Introduction

Accreditation is a process of external evaluation of a curriculum and its associated activities to determine whether the public can be assured that the qualification granted by the institution to its products (i.e. the graduates) is of a standard that is likely to result in safe practice. It is generally a process-oriented activity, in that it examines the strengths and weaknesses of the processes involved in the curriculum, such as its teaching-learning activities, examination procedures and administration. However, these processes are not viewed in isolation, but in the context in which they are carried out. The process of accreditation also examines the nature of the inputs into the curriculum, such as the calibre of students and teachers, the quality of available learning resources and facilities and the sources of funding. While some countries use product or output measures, such as graduates' performance in national licensing examinations or during their internship, as the basis for accreditation of the curriculum, this presentation will be confined to the notion of accreditation as predominantly process evaluation.

The purpose of accreditation is two-fold: to protect educational quality and to encourage curriculum improvement (Kassebaum, 1992). Protection of educational quality implies both quality assurance and the maintenance of educational standards. In serving this purpose accreditation guarantees the academic standing of the qualification granted by the institution. If the process of accreditation is to have any teeth, the recommendations made by the body responsible for accreditation must be recognised by those bodies which are responsible for the registration of the degree as a licence to practise. This means that if an educational program loses or is not granted
accreditation, its graduates run the risk of non-registration. The extent to which accreditation serves its second purpose, that of encouraging curriculum improvement, depends very much on the manner in which the body responsible for accreditation carries out its responsibilities.

History of accreditation

In North America, following the Flexner Report, for almost three decades site visits were undertaken to medical schools to review their curricula. These visits were undertaken separately by both the American Medical Association (AMA) and the Association of American Medical Colleges (AAMC), each assessing the schools visited against its own set of standards. In February 1942 agreement was reached to accredit medical schools jointly and the Liaison Committee on Medical Education (LCME) was born (Petersdorf, 1992).

In the United Kingdom, the General Medical Council assumed responsibility for the accreditation of medical schools within the country as well as in those countries from which doctors sought opportunities for postgraduate training and medical practice in the UK. Australian medical schools, because of their close ties with the UK, were until quite recently visited by accreditation teams from the GMC, as were schools in many other countries of the Commonwealth. The purpose of these visits was, quite naturally, to determine whether the training of the graduates of these medical schools was of a sufficiently high standard to be permitted to practise in the United Kingdom. The needs of the country in which each school was located was not the main concern of GMC. It is well known that medical schools in some countries, in their efforts to obtain recognition by GMC, often paid inadequate attention to the priorities of their own country. Another drawback of the accreditation activities carried out by these visiting teams was that they were more in the nature of an inspection, euphemistically called a visitation, with little immediate feedback to encourage improvement, the second purpose of accreditation.

As late as 1985 the Australian Medical Council was established, with one of its mandates being the "accreditation of medical schools and of courses leading to basic medical qualifications". With the formation of the AMC Accreditation Committee, registration bodies in Australia agreed to accept AMC accreditation as a necessary and sufficient basis for the registration of graduates from Australian medical schools (Hamilton & Vandewerdt, 1990).
This presentation will focus on the procedure adopted by the AMC in accrediting medical schools in Australia and New Zealand. The guidelines for this process were drafted by the Accreditation Committee, but were influenced by the procedures used by bodies with similar function in the UK, USA and Canada.

The process of accreditation

The process adopted by the AMC in accrediting medical schools and their curricula have three significant features: it involves wide consultation, supports diversity of programs and promotes institutional self-evaluation. The steps that have been laid down in the guidelines are aptly described by Hamilton & Vandewerdt (1990).

1. The Accreditation Committee requests the school to be considered for accreditation to document various aspects of its activities, including its admission policy, systems of student progression, assessment and support, syllabus, program evaluation methods, staffing, funding, teaching hospital facilities, research activities and significant issues in health care which impact on the curriculum. This information is sought well in advance of the site visit.

2. As assessment team is appointed by AMC, and its chairman and secretary nominated, the latter being a permanent officer of the Council. The team consists of about six members, ensuring a balance between basic and clinical science faculty, and between teaching and research. At least one dean from a medical school other than the one to be visited, an expert in public health and one expert in any area identified as a special issue for that school, are included in the team.

3. The chairman and secretary of the assessment team appointed by AMC visit the school five months or so before the team visit. The purpose of this preliminary visit is to brief the administration and senior staff of the school and its associated teaching hospitals on the objectives and process of accreditation.

4. The visit by the assessment team lasts five days. During this visit the dean of the medical school being assessed first introduces the main issues faced by the school. Following this members of the team, either as a whole or in sub-groups, have discussions with the main committees in the school responsible for education and related matters, and visits each department and teaching hospital for discussions with staff, students, graduates and administrators. At the end of each day the members of the team meet by themselves to share their impressions and opinions. On the fifth day the team finalizes its conclusions and recommendations and presents these verbally to
the dean, who is given the opportunity to respond and correct any errors of fact. Verbal feedback is given to the vice-chancellor before the team leaves. In this respect the system differs from that adopted by the GMC, where feedback is given by way of a report after a long delay, when much of the interest in the school and the impetus for corrective action and dissipated.

5. The team prepares a formal and detailed accreditation report. This includes the significant issues which impact on medical education in the state; the nature of the institution and its faculty; the process of student selection and admission, progression and support; the educational objectives, content, teaching activities and sequence of the undergraduate curriculum; the system of formative assessment and examination of the students; the recruitment of academic staff, funding and hospital resources; the degree of emphasis on community medicine; the relationship between research and education; and logistics and communication. The report ends with the conclusions and recommendations of the team.

6. The report is presented to the AMC together with the team’s recommendation and the reasons for the recommendation. The recommendation could be to accredit for ten years, or for a shorter period, with a further visit when the areas of concern have been addressed by the faculty.

7. When the Council has approved the report, it is sent in full to the dean and vice-chancellor. It can be released to the public if the AMC and the vice-chancellor are agreeable to such release.

8. The AMC seeks an annual report from the school detailing any major changes which have an impact on education. In the fifty year after accreditation a detailed report is requested.

Advantages

The process described above has certain definite advantages. Firstly, it affirms the right of each school to determine its own philosophy and define its own objectives. Assessment is carried out against those objectives, as long as the latter meet the needs of society. Thus diversity and innovation are encouraged in the curriculum, rather than it being straight-jacketed by a stipulated system such as a national licensing examination. Secondly, the system encourages internal monitoring of the curriculum by the school concerned. Thus each school sets up its own mechanism for program evaluation to monitor progress of, for example, any changes it institutes in the
curriculum. This promotes the capacity of the school to review and make mid-course adjustments to the curriculum even as change is being implemented. Thirdly, the AMC does not prescribe conditions but provides guidelines for curriculum development. It is left to the school concerned to follow these guidelines. Many schools do so of their own accord. As a result, the process of accreditation has, as a matter of fact, stimulated significant changes in the educational programs of many medical schools.

Limitations

As the process of assessment of a given school takes place only once in five or ten years, there could be a tendency for schools to "relax" in the intervening period. The school is encouraged to undertake self-evaluation of a formative nature at more frequent intervals to avert this. The annual report to AMC may also help in this regard.

The AMC does not determine the quality of the graduates or their competence, as the process is not output oriented. This latter orientation is adopted by the AMC Examination Committee which is given the responsibility of determining the eligibility of overseas trained medical graduates to practise in Australia.

Conclusion

The assessment of quality of medical education is a complex endeavour which cannot and should not be addressed by a single method, be it accreditation, national licensing examinations or performance evaluation of the graduate. The AMC has contributed to such assessment through a process of accreditation which allows each school to develop in the manner in which it decides, while at the same time ensuring the each school reaches a minimum standard in the educational program it subjects its students to. At a time when medical schools in many countries of the region are tending to increase, the public has a right of guarantee that the products of these schools are of a sufficient calibre to practise safely. A multifaceted approach to assessment of quality is called for, if that guarantee is to be a genuine one.

REFERENCES

1. Hamilton, JD & Vandewerdt, JM, The accreditation of undergraduate medical
Presentation 5

education in Australia, *The Medical Journal of Australia*, 153(1990), 541-545


THE PLACE OF RECERTIFICATION IN QUALITY ASSURANCE

During the last two days we have extensively discussed the various ways by which quality in medical education can be assessed. As per the agreed theme, we focused mainly on the product of the educational process - the competence of the medical graduate. Dr Bandaranayake has just presented another tool for quality assurance in medical education, namely the accreditation processes.

To round out the discussions on quality, it is not my turn to introduce an issue which has assumed increasing importance given the rapidly evolving developments in health technology. The expansion of medical knowledge has enabled the development of new and increasingly complex diagnostic tools (such as biochemical and imaging techniques) and intervention methods (vaccines and pharmaceuticals). Practitioners are therefore required to constantly update their skills and knowledge to keep abreast of such developments. The certification and licensure of medical graduates upon completion of their basic training is now no longer assumed by all as being sufficient guarantee of a practitioner’s continuing competence throughout his/her professional lifetime. One approach to providing this assurance of continuing quality is recertification.

Definitions (Fifth Cambridge Conference, 1994)

Certification is a testimony to the fact that an individual has completed an appropriate form of training.

Recertification is the process by which a professional body testifies intermittently to the competence of each of its members, either with or without a period of training.

Much of the content, including definitions and concepts, of this presentation was extracted or otherwise derived from materials related to the Fifth Cambridge Conference on Certification and Recertification of Doctors in 1994. I would like to thank Dr Bandaranayake for making these available.

The definitions presented here are not intended to be final or complete but are to be taken as springboards for further discussions and comment. For example, we have seen that competencies and skills can be assessed in the process of the initial certification of training and competence given to doctors upon completion of their basic medical education. The process which we will now discuss - recertification - assumes that the initial certification is time-limited and must therefore be renewed periodically.

Purpose of recertification

Basic purpose - maintenance of competence of medical practitioners

Assumption - rapid developments in science and technology require continuous updating of skills and competencies

Needs of various stakeholders for assurance of medical competence.
Among the stakeholders in recertification are the following:

1. The public constitutes the recipients of medical care who ultimately pay for it in some form. All agree that they are entitled to the highest possible standards of medical care.

2. Government in almost all instances has the mandate to regulate the practice of all professionals. In addition, there are many countries in which government is also the payor of medical services.

3. The responsibility for health financing depends on the system adopted by individual countries. These may be government, as mentioned, or employers, HMOs, insurance companies, or individuals.

4. The medical professional as a whole has an interest in ensuring that its members meet a minimum standard of quality. This is also true for specialist groups within the professional.

5. The individual practitioner is not only the object of recertification measures but also has ultimate responsibility as a professional for the maintenance of his or her own competence.

6. Finally, academic institutions must provide the technical basis for all assessments of competence as part of their responsibility for medical education as a "womb to tomb" continuum.

Mechanisms and methods

- Linkage with licensure
- Time-limited certification vs lifetime guarantee of competence
- Evidence of efforts to maintain competence
- Periodic demonstration of competence

One of the important mechanisms designed to ensure compliance with recertification requirements is the linkage to licensure processes in place in most countries. A number of jurisdictions have made recertification a requirement to the grant of permission or authority to practice medicine.

This implies that in those places, certification is time-limited in the first instance. The period of validity of certification may vary from one year (as in New Zealand) to as much as five years or up to a certain age. This is a departure from the assumption made in the past that the initial certification of competence issued at graduation from medical school is valid for the lifetime of the individual professional.

Recertification requirements fall under two broad categories, namely showing evidence of efforts to maintain competence and actual demonstrations of competence on a periodic basis.

Efforts to maintain competence

- participation in teaching activities - lectures, presentation, etc.
- attendance at CME activities
- attendance at supervised learning activities
- participation in teaching activities - lectures, presentation, etc.
- attendance at CME activities
- attendance at supervised learning activities
- involvement in quality assurance activities
- completion of self-assessment tests

Even prior to the emergence of recertification as a viable mechanism for quality assurance in medical practice, doctors have accepted a number of activities as measures to ensure their own individual competencies. Engaging in teaching activities such as lecturing to medical students, other health professionals and the public has long been considered as a learning activity itself. Attendance at CME and other supervised learning activities as well as administration of self-assessment test are also accepted as evidence of efforts to maintain individual medical competence.

Recently, the effectiveness of these self-administered or implemented measures in the assurance of competence of practitioners as a whole has been questioned. It has been argued that more objectively obtained evidence should be required for recertification. Thus a number of methods for periodically assessing competence have been developed and are being tied in various forms by different countries.

**Periodic demonstration of competence**

- formal tests (examinations)
- practice audits
- outcome measures

**Formal examinations** provide direct evidence of abilities, are easily quantifiable and are acceptable to the public. However, all examination methods have built-in weaknesses in reliability and validity. Further, many practitioners find the idea of "re-examination" or "re-qualification" objectionable.

**Practice audits** have good sensitivity with respect to detecting incompetence. However, these also have limitations because of questionable objectivity, high cost and dependence on reliability of records being reviewed.

**Outcome measures** are more direct evidence of the effectiveness of interventions. However, these are methodologically difficult to implement and to evaluate. Moreover, most of the data from outcomes research is hospital based while the bulk of medical practice is carried out in ambulatory settings.

**Situation analysis**

- Strength - consensus among all stakeholders
- Weakness - questionable reliability and validity of most tools
- Opportunity - quality is a major issue in health reform
- Threat - recertification may be used for non-health ends
In summary, the present situation internationally with respect to recertification of physicians is as follows:

There appears to be a consensus among the stakeholders in the delivery of health and medical services that, in the light of rapid developments in technology, some form of periodic assessment of competence is necessary. Furthermore, the health systems reforms being undertaken in many countries provide a supportive environment for such activities. This tempered by the fact that the tools for conducting such assessments have in one form or another problems with regard to validity, reliability, objectivity or acceptability. In addition, in a number of forums, a caution has been raised with regard to the possible use of the recertification process to achieve aims which are not directly relevant to either the physician’s competence or the benefit of patients. For example, we have mentioned here the potential conflict between the concern for quality and that for cost containment.

Conclusion

• Recertification supports improvements in the quality of health and medical care

• Appropriate tools for measuring medical skills and competencies have to be developed

• Recertification tools must take into account the cultural context of medical practice

In conclusion, I would like to re-state that quality is a major issue in the worldwide movement for the reform of health systems. Academic institutions must seize this opportunity to enhance their contributions to health care by focusing on the development of valid, reliable and acceptable methods for maintaining physicians’ competencies. And lastly, all involved must remember that medicine is still both a science and an art and that its practice takes place within cultural environments that influence its effectiveness in maintaining the health of people.
TITLES AND OBJECTIVES OF COUNTRY PROJECTS ON ASSESSMENT OF QUALITY OF MEDICAL EDUCATION

Australia

1. Title: The evaluation of overseas medical graduates for licensing in Australia
   Objectives:
   1. To review the present system of assessment of overseas trained medical graduates.
   2. To improve the present system so as to make it more in line with the assessment of potential medical graduates in Australian medical schools.
   3. To propose these developments to AMC.

2. Title: Redrafting the guidelines for accreditation of medical schools in Australia and New Zealand
   Objectives:
   1. To review the present guidelines for accreditation
   2. To re-formulate these guidelines based on recent changes in medical schools
   3. To propose revised guidelines to AMC

3. Title: Developing a system of evaluating internship
   Objective:
   To develop a system of evaluating medical internship taking into account variations in medical curricula among Australian medical schools.
Annex

Hong Kong

Title: Evaluation of postgraduate medical education in Hong Kong post-1997

Objective:

To study the system of postgraduate medical education and training in Hong Kong with a view to assessing its applicability in the light of the changing circumstances, and having regard to the need to maintain quality and standards at international level

Japan

Title: Review of the National Physicians Licensure Examination in Japan

Objectives:

1. To develop new guidelines for licensure examination
2. To review the questions used in the examination with a view to:
   (a) emphasizing primary care orientation
   (b) revising of the pass levels through:
      (i) introduction of indispensable questions
      (ii) introduction of incompatible questions
      (iii) reformation of question style [K2, K3, K’ type to X2, X3 type]
3. To follow up these reforms through the task Force Committee on Innovation of the National Physicians' Licensure Examination in Japan
4. To introduce a Skills Analysis Test
5. To develop guidelines for clinical skills examination in medical schools

Malaysia

Title: Implementing the recommendation of the Malaysian Medical Council on accreditation of medical schools

Objectives & Activities:

1. To review the objectives, criteria and procedure of accreditation with the constituents
2. To amend the existing Medical Act or enact new provisions/regulations as necessary, e.g. establishing relevant committees
3. To conduct training workshops on accreditation procedures for external assessors
4. To conduct training workshops for institutional self-study and documentation
5. To conduct at least one external assessment

Papua-New Guinea

Title: Recertification

Objectives:

1. To establish a system of recertification of medical practitioners (Input: Faculty of Medicine, professional associations, National Medical Board, Department of Health)
2. To educate the medical community in the country about the importance of recertification, and the processes involved in implementing it
3. To persuade the National Medical Board to adopt the process of recertification as one of the prerequisites for the licence to practise Medicine.

People’s Republic of China

1. Title: Accreditation of newly established medical schools
   Objectives:
   1. To set criteria
   2. To promote self-evaluation
   3. To undertake on-the-spot visits by a team

2. Title: Development of a national medical examination
   Objectives:
   1. To hold a workshop on medical examinations to discuss its necessity and acceptability
   2. To develop a test-item bank
Republic of Korea

1. Title: To establish criteria for "primary care"

2. Title: To establish a non-governmental superpower body ['Liaison Committee'] for the evaluation of medical education through:

   1. national licensing examination
   2. accreditation
   3. recertification

Republic of the Philippines

Title: Accreditation of medical schools

Objectives:

1. To review the current process of accreditation as to its existing mechanism and procedure (to be implemented in October - December, 1996)

2. To conduct consultations with stakeholders as to the validity, acceptability, reliability and other characteristics of the current process (to be implemented in January - June 1997)

3. To revise the process by creating an accrediting body and establishing new standards (to be implemented in July - December, 1997)

Vietnam

Topic: Improving the licensure examination system in Vietnam after two years

Objectives:

1. To reorganize existing (so-called) NBME and its institutional partners (MOET, MOH, MOL, MOLI) by official agreement (6 months)

2. To get official assignment for the renewed NBME

3. To retrain official trainers in designing objective tests used in seven schools of Medicine (requirement: support consultancy)

4. To develop temporary test materials for application

5. To test these materials and review.
Annex

WHO/WPRO

Title: Establishing a question bank for medical schools in the Western Pacific Region

Objectives/Strategies:

1. To identify the types of assessment in common use in medical schools of the Region (e.g. MCQ, MEQ, OSCE)

2. To select key individuals from the Region to assist in:
   (a) developing guidelines for constructing different types of questions
   (b) collecting/formulating questions of different types
   (c) reviewing and selecting questions
   (d) pre-testing selected questions in the respective countries
   (e) improving the quality of the questions from pre-test results
   (f) storing the questions in a computer bank

3. To develop policies for the use of the bank
PRESENTATION BY MRS LORRAINE KERSE, AT THE WHO/AMEWPR MEETING ON QUALITY ASSESSMENT OF MEDICAL EDUCATION SEOUL, REPUBLIC OF KOREA 14-16 SEPTEMBER 1996

THE FUTURE OF MEDICAL EDUCATION IN THE REGION

I would like to congratulate Professor Kim and the members of the organizing committee, especially the Korean Society of Medical Education on the arrangements for this very important meeting. The various topics that have been discussed in three days concern many issues that are difficult, but crucial to the future of medical education in this part of the world.

The theme "Quality Assessment of Medical Education: Focus on Medical Licensure Examinations" is important as we approach the end of this century and prepare to meet the emerging health challenges. For this reason, I hope that my talk on the future of medical education in the region will remind us all that we must continually look ahead and realize that the forces of socioeconomic, political, religious and technological change are sweeping the world, and that the new realities these events are bringing influence in the way we practice medicine and consequently in the methods for training physicians for the 21st century.

What is happening around us?

Economically, the Western Pacific is the most dynamic and rapidly developing region of the world. Cities are the focus of much of the economic development of the countries. Economic development should provide more resources for health care services, but deteriorating urban environments and associated unhealthy lifestyles, together with the ever-increasing population pressures in the urban areas, often create more health problems than the increases resources can address.

A variety of social changes have been caused by the rapid industrial, urban, and economic development. These affect the provision of health care and services in the community. Formerly, the family, which was the main provider of help for its sick members, has become smaller and can often no longer function in this way. The number of those living alone and the number of people living in towns continue to increase rapidly.

The complexity of living in towns has brought many people into danger of becoming dependent on social services or whatever services are available. The services of social networks which depended on mutual support and exchange of goods, have nearly disappeared or have entirely disappeared. They have not been replaced, or they require significant amounts of resources for their revival.

The success of a health sector over the next five to ten years will depend increasingly on its ability to respond to pressures for change and on how well it takes advantage of opportunities to deliver services in new ways.
The next ten years will see a number of pressures for change such as:

- demographic changes will have major effects on service;
- disease and disability patterns will alter;
- consumer expectations will rise;
- technological advances will improve delivery of services.

Demographic changes

The overriding demographic trend is for the total population to grow slowly and to gradually age, primarily because of a continued decline in the overall birth rates. Increases in the number of older people will mean a greater demand for coordinated services that allow people to stay in their own homes for a longer period, before they require long-term residential care. We need to plan ahead to find ways to manage pressure on services.

Disease patterns will keep changing

The range and the prevalence of diseases are changing in ways that are difficult to predict with any certainty. Communicable diseases such as tuberculosis are not disappearing, despite improvements in knowledge and technology. New diseases such as HIV/AIDS are likely to continue appearing. Changing lifestyle patterns - including significant population flows - are contributing to changing disease patterns and are placing different demands on services. We will therefore need to have a flexible response to changing patterns of disease, and new approaches to managing diseases may be required.

Consumer expectations will rise

People will increasingly expect services to reflect the diversity of their communities and values and be responsive to their individual needs and circumstances. People will wish to be involved in decisions about their care and they will expect to be provided with information to help them evaluate their options. There are now increasing expectations from the public about the range and quality of services and what services are to be publicly funded and how to access them.

Technological changes will improve the delivery of services

Dramatic technological changes have occurred over the last two decades and will continue to produce major improvements in the way services are delivered to consumers. The main areas of technological development are pharmaceuticals, equipment techniques, information technology, telemedicine, and in the longer terms, human genetics.

Technological developments are greatly improving our ability to prevent, treat and manage acute and chronic diseases. And these are contributing to rapid increases in the use of minimally invasive surgery; shorter lengths of stay in hospitals; increased use of ambulatory services; faster treatments and shorter recovery time for patients.

An example of new technology is telemedicine and this has the potential to free health services from the constraints imposed by physical location of facilities and the lack of qualified health care providers and influence the role of community health workers.
For example, a person in a rural health centre may have an urgent X-ray taken locally in the middle of the night and transmitted to a major centre for immediate reporting by the duty radiologist. A completed report and recommended treatment can be returned within minutes to the local person for follow-up treatment. A full teleconsultation (audio and visual) between the patient, local health service provider and the remote specialist can be carried out in the same way.

Clinical and management practices will continue to improve

Clinical and management practices are changing in response to technological changes, and in response to our growing knowledge of how to do things better. Health professionals are improving the ways in which they practice.

If clinical practices are to continue to change and improve, considerable investment will be required to develop the health workforce. The training of professionals will need to keep up to date with new work practices. There also needs to be continual "upskilling" of the existing workforce. The success rate for some new techniques and technologies is highly dependent on trained and experienced staff who use these new approaches on a regular basis.

Health professionals will need to keep up to date with international best practice in areas such as consumer-focus care, continuous quality improvement.

Resource constraints will continue

In all areas of health, treatment boundaries are constantly being pushed back and consumer expectations are increasing. Governments throughout the world are facing the dilemma of how to manage these pressures and opportunities while maintaining the public funding at a level that present and future taxpayers can sustain.

In addition, the cost of using sophisticated technology continues to escalate. This puts pressure on health professionals to decide who receives services on the basis of who obtains the greatest benefit, often in relation to cost.

The success of a health sector over the next five to ten years will depend increasingly on its ability to respond to pressures for change, and on how well it takes advantage of opportunities to deliver services in new ways.

A process of reorienting the basic education of health professionals towards current and future needed has been going on for some time now. This is being done by analysing what services and competencies will be needed from our health personnel to meet the rapidly changing pattern of health issues and problems in countries; by redesigning training programmes, by strengthening teaching capabilities and ensuring safe practice by health care providers.

At the same time, since changes in basic education take at least ten years to change the way in which a workforce operates, steps must also been taken to increase the opportunities for continuing education. In this way the skills of the current health workers will be upgraded to enable them to deliver the services required in a modern health environment.

The important aspect of the redesigning of medical education is the strengthening of the health promotion and protection capabilities. Training programmes will need to focus on the need to enhance doctors abilities to transfer knowledge and skills to individuals and communities while recognizing the limited impact of traditional biomedical technology on emerging health problems.
Physicians are traditionally the centre of the health team and are in key positions to shape and operate health care systems, but their decisions are challenged more and more, particularly with the increasingly widespread expectation of value for money. As Dr Han said in his keynote address: "the medical educators, mould the doctors of the future will significantly influence the way that we respond to the future health needs of the people".

The World Health Assembly resolution in 1995 encourages all countries to undertake activities to reform medical education and medical practice with an aim to increase relevance, quality, cost-effectiveness and equity in health care.

The Western Pacific Regional office of WHO has determined that the encouragement of healthy individual and community behaviours are the main approaches to meeting the health challenges of the future. This is a logical extension of primary health care that effectively transfers the responsibility for health to individuals and communities. In short, it emphasizes the human factor in health development over technological or biological factors.

The doctor of the future will need to be all of the following:

**Care provider**, who considers the patient holistically as an individual and as an integral part of a family and the community and provides high quality, comprehensive, continuous and personalized care.

**Decision maker**, who chooses which technologies to apply ethically and cost-effectively while enhancing the care he or she provides.

**Communicator**, who is able to promote healthy lifestyles by effective explanation and advocacy.

**Manager**, who can work harmoniously with individuals and organizations inside and outside the health care system to meet the needs of patients and communities.

Doctors and medical educators will have to consider striking a balance between individual and community health care and between curative and preventive care, choosing cost-effective services and satisfying an increasingly demanding public. During this meeting, you have identified an evaluation project to implement which will assess the quality of medical education which produces the future appropriate doctors and also will ensure the safety of the population. I look forward to progress reports of these projects.

I believe that in our Region, we are suitably positioned to ensure that countries are prepared to meet the new health challenges of the 21st century. It only remains to further refine and apply the technologies which have already been developed over the last decade or so. If the participants of this meeting continue to be innovative and forward thinking then people can be confident that in the new century, they will be served by technically competent, adequately skilled, and well-motivated medical personnel.