REPORT

WORKING GROUP MEETING ON QUALITY OF ACADEMIC EDUCATION IN TRADITIONAL MEDICINE

Melbourne, Australia
22-24 November 2003

Manila, Philippines
June 2004
REPORT

WORKING GROUP MEETING ON
QUALITY OF ACADEMIC EDUCATION
IN TRADITIONAL MEDICINE

Convened by:

WORLD HEALTH ORGANIZATION
REGIONAL OFFICE FOR THE WESTERN PACIFIC
Melbourne, Australia
22-24 November 2003

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NOTE

The views expressed in this report are those of the participants in the Working Group Meeting on Quality of Academic Education in Traditional Medicine and do not necessarily reflect the policy of the World Health Organization.

This report has been prepared by the Regional Office for the Western Pacific of the World Health Organization for governments of Member States in the Region and for the participants in the Working Group Meeting on Quality of Academic Education in Traditional Medicine held in Melbourne, Australia from 22-24 November 2003.
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SUMMARY

A Working Group Meeting on Quality of Academic Education in Traditional Medicine was held in Melbourne, Australia from 22 to 24 November 2003.

The objectives of the workshop were:

1. to review the current situation of traditional medicine education at the university level;
2. to identify challenges for improving the quality of traditional medicine education at the university level;
3. to discuss the relevance and applicability of *WHO Guidelines for Quality Assurance of Basic Medical Education in the Western Pacific Region* for traditional medicine education at the university level; and
4. make recommendations on improving the quality of traditional medicine education.

The meeting was attended by 22 temporary advisers and three members of the Secretariat from the WHO Western Pacific Region. There were also observers from Australia and the United States of America in attendance.

Presentations and reports on relevant issues were made by temporary advisers.

Subsequently, the participants were organized into two focus groups, each examining different aspects of the *WHO Guidelines for Quality Assurance of Basic Medical Education in the Western Pacific Region*. The focus groups identified issues, challenges and recommendations for improving the quality of traditional medicine education, which were then reviewed, discussed and modified in the plenary sessions. There was a perceived need to strengthen mechanisms of quality assurance in traditional medicine education, and the above guidelines were modified to suit the needs of traditional medicine education. Further, the participants proposed the following recommendations to pursue the goals and objectives for future activities:

1. Member States should ensure that all persons practising traditional medicine, including medical doctors, receive appropriate and adequate education in the traditional medicine field. This helps promote quality of practice and safety for consumers.
2. Member States should ensure that the primary goal of traditional medicine education should be to educate for effective and safe practice.
3. Given many patients are simultaneously using both traditional and modern medicine, Member States should ensure that both traditional and modern medicine practitioners have sufficient awareness and knowledge of the other, to ensure effective and safe management of patients.
(4) Member States should ensure that graduates of traditional medicine education programmes are equipped with appropriate skills and capabilities to participate in a modern health care environment.

(5) Member States should ensure that traditional medicine education includes training in relevant areas of public health importance.

(6) Member States should ensure that traditional medicine education maintains its strong cultural and philosophical traditional medicine principles.

(7) Member States should ensure that teaching and learning methods in traditional medicine programmes be regularly evaluated and upgraded where appropriate, to ensure high quality learning experiences.

(8) Member States should ensure that their traditional medicine education programmes clearly identify their programme objectives and goals, and the expected graduate outcomes.

(9) Local legislation or regulation of traditional medicine practice is an important factor for ensuring the quality of traditional medicine education. Hence, the Working Group recommends WHO Member States should adopt appropriate regulation of traditional medicine practice.

(10) WHO should endorse the guidelines developed for traditional medicine education.

(11) WHO should promote the use of these guidelines for quality assurance of traditional medicine education.

(12) As traditional medicine programmes require knowledge about traditional medicine regulation, WHO should facilitate sharing and dissemination of regulatory policies among Member States.

(13) Member States should use these guidelines to assist in the establishment of national committees to evaluate the quality of traditional medicine education and, where necessary, develop their own specific guidelines.
1. INTRODUCTION

A Working Group Meeting on Quality of Academic Education in Traditional Medicine was held in Melbourne, Australia from 22 to 24 November 2003. The WHO Regional Office for the Western Pacific proposed the working group meeting of traditional medicine educators to review the quality of academic education in traditional medicine and, if appropriate, prepare guidelines to strengthen and assure quality of traditional medicine education programmes.

Increasingly, traditional medicine is being used in the Region and many doctors apply techniques used by traditional medicine in their daily practice. Academic education in traditional medicine has been offered in universities in China and the Republic of Korea for many years. Recently, more universities in other countries, such as Australia and Hong Kong (China), have introduced full-time degree courses on traditional medicine.

The Regional Strategy for Traditional Medicine in the Western Pacific indicates the need to establish appropriate standards for traditional medicine practice and products. It recommends that training and education on traditional medicine in university medical schools and other educational establishments be provided. This working group meeting was held to implement further the Regional Strategy.

1.1 Objectives

(I) To review the current situation of traditional medicine education at the university level.

(2) To identify challenges for improving the quality of traditional medicine education at the university level.

(3) To discuss the relevance and applicability of WHO Guidelines for Quality Assurance of Basic Medical Education in the Western Pacific Region for traditional medicine education at the university level.

(4) To make recommendations on improving the quality of traditional medicine education.

1.2 Participants

Temporary advisers from Australia, Fiji, Hong Kong (China), Japan, China, the Philippines, the Republic of Korea, Singapore, United States of America and Viet Nam attended the consultation. There were also observers from Australia and United States of America in attendance. In addition, there were three members of the Secretariat from the WHO Western Pacific Region. The list of participants is attached as Annex I.

1.3 Organization

To preside over the meeting, a Chairperson, a Vice-Chairperson and two Rapporteurs were elected. Professor Daine Alcorn from Australia served as Chairperson. The Vice-Chairperson
was Professor Wang Ling-Ling from China. The two Rapporteurs were Professor Alan Bensoussan from Australia and Professor Bae Hyun-Su from the Republic of Korea.

In addition to plenary sessions, the participants were organized into two focus groups. Each group was allocated specific chapters of the WHO Guidelines for Quality Assurance of Basic Medical Education in the Western Pacific Region to review. The Chairs and Rapporteurs for the focus groups were, respectively, Professor Charlie Xue and Professor Alan Bensoussan (Group 1) and Professor Daine Alcorn and Professor Bae Hyun-Su (Group 2).

2. PROCEEDINGS

2.1 Opening ceremony

The meeting was opened by Dr Choi Seung-Hoon, Medical Officer for Traditional Medicine, WHO Western Pacific Regional Office, who was the Responsible Officer for the consultation. A brief introductory address was made by Ms Anne Louise Carlton from the Public Health Branch of the Department of Human Services, Victoria, Australia. Ms Carlton signalled the importance and relevance of the meeting for health practitioner regulation. WHO guidelines on traditional medicine education would likely be used by bodies such as the Victorian Chinese Medicine Registration Board in developing their regulations for traditional Chinese medicine (TCM) practitioners. The board would also refer to such guidelines to assist them in the review of TCM education programmes.

On behalf of Dr Shigeru Omi, Regional Director, WHO Regional Office for the Western Pacific, Dr Chen Ken, WHO Representative for the South Pacific, delivered an address welcoming delegates and summarizing the main objectives of the meeting (Annex 2). Professor Daine Alcorn, Pro-Vice Chancellor (Science, Engineering and Technology), RMIT University welcomed participants on behalf of the host institution, RMIT University. Each of the temporary advisers then introduced themselves.

Dr Chen Ken, in the role of Temporary Chair, oversaw the nomination and election of a Chairperson (Professor Daine Alcorn), Vice-Chairperson (Professor Wang Ling-Ling), and two Rapporteurs (Professor Alan Bensoussan, Professor Bae Hyun-Su). Following a round of introductions, Dr Chen presented an outline of the working format and a timetable for the sessions. Dr Chen gave a brief introduction to the objectives, working methods and expected outcomes of the meeting. An overview of traditional medicine education in universities in the Western Pacific Region was provided, highlighting differences between traditional medicine and modern medical programmes in terms of capabilities of graduates. For example, modern medical practitioners cannot, in general, prescribe herbs and similarly, traditional medicine practitioners are not authorized to prescribe a wide range of pharmaceutical drugs. The growth in new courses in Australia, the United Kingdom, Hong Kong (China) and other countries was also noted and contrasted to the relatively established programmes in China, the Republic of Korea and Japan. However, questions arose as to whether courses were generally targeting medical practitioners, or non-medical staff, and whether they were integrating medical and traditional medicine practice or not. Some special issues for consideration related to the overall goals for traditional medicine education included:
• Is the goal to produce experts in traditional medicine?

• Is the goal to produce broadly trained graduates with appropriate foundation for further training?

• What are the best teaching and learning methods for traditional medicine?

• How different should traditional medicine courses be in different countries in addressing different local needs?

Dr Choi presented an introduction on traditional medicine in the Western Pacific Region, which includes 37 member countries and areas from Mongolia to New Zealand. Within the WHO Western Pacific Regional Office, traditional medicine education falls under the Health Sector Development theme. Traditional medicine is basically defined as holistic practice and based on indigenous theories. Traditional medicine is used widely in this Region. Most notably, herbal medicine and acupuncture constitute appropriate health practices that should be integrated into the national care systems. The Regional Strategy for Traditional Medicine in the Western Pacific highlights the need for political support, establish appropriate standards of practice, develop an evidence-based approach, and protect and conserve indigenous health resources. The seven main regional traditional medicine strategies were outlined for the working group. Dr Choi emphasized the importance of quality traditional medicine education to support the proper use of traditional medicine.

2.2 Presentations

To address the issues around traditional medicine education and help achieve the objectives of the working group, 10 invited presentations, including seven country reports, were made during the plenary sessions. The titles and authors of the presentations are as follows (summaries of these presentations are found in Annex 3):

• Traditional medicine education in Australia (Prof Alan Bensoussan)

• Traditional medicine education in China (Prof Wang Ling-Ling)

• Education of traditional Chinese medicine in Hong Kong (China) (Prof Liu Liang)

• Traditional medicine education in Japan (Prof Kenji Watanabe)

• Education of oriental medicine in the Republic of Korea (Prof Koh Byung-Hee)

• Training work on traditional medicine in Viet Nam (Prof Pham Hung Cung)

• Acupuncture/traditional medicine education in the United States (Prof Kai Kit Hui)

• Teaching and learning strategies for traditional medicine education (Prof Alex Radloff)

• Principles in designing traditional medicine education programmes (Prof Charlie Xue)
• Enhancing quality of medical education: *WHO Guidelines for Quality Assurance of Basic Medical Education in the Western Pacific Region* (Dr Ezekiel Nukuro)

2.3 Working groups and plenary sessions

Working group sessions were held in addition to the plenary sessions. The participants were divided into two groups, each focusing on specific sections of the *WHO Guidelines for Quality Assurance of Basic Medical Education in the Western Pacific Region*. The groups had to review specific sections of these guidelines as to their suitability and relevance for traditional medicine education. Following each group session, the Rapporteur or Chair from each focus group reported the findings and recommendations to the plenary session for further deliberation and adoption.

In the final plenary session, the Working Group summarized the issues and challenges for traditional medicine education and developed a set of recommendations for improving the quality of traditional medicine education.

2.4 Closing ceremony

The Working Group Meeting on Quality of Academic Education in Traditional Medicine was brought to a close on 24 November 2003 by Professor Daine Alcorn, Chairperson of the consultation, who thanked all participants for their concerted efforts and active participation, and congratulated them for the success of the meeting, given the complex issues facing traditional medicine education. Professor Alcorn also thanked the WHO Western Pacific Regional Office and RMIT University for their collaborative and strong support that helped make the meeting a success.

Dr Fernando Sanchez and Dr Ezekiel Nukuro emphasized the importance of adopting the new guidelines at a national level.

Dr Choi Seung-Hoon, Medical Officer for Traditional Medicine, WHO Western Pacific Regional Office, thanked all participants for their contribution, acknowledged the RMIT University officials and staff for their obvious as well as behind-the-scenes support, and acknowledged the ongoing contributions of the Chairperson, Vice-Chair and Rapporteurs, Dr Chen Ken and Dr Nukuro. Dr Choi signaled the value of the new guidelines, in that it avoids duplication by individual countries and facilitates communication on traditional medicine education between countries. Importantly, the guidelines provide criteria and basic principles for quality of academic education in traditional medicine in the Region, and ensure that traditional medicine education can be aligned with modern medical education at the university level. It also allows interested countries and areas in the Region to tailor these guidelines to their individual country circumstances.
3. ISSUES AND ChALLEngES FOR IMPROVING QUALITY OF TRADITIONAL MEDICINE EDUCATION

There are several issues and challenges for improving the quality of traditional medicine education, including the following:

(1) There are substantial differences in the nature and context (local culture and politics) of traditional medicine practice across and within countries in the Region. Traditional medicine education programmes need to accommodate (adjust to) these differences.

(2) Traditional medicine, in contrast with modern medicine and by definition, does not readily update its knowledge base by discarding unproven remedies.

(3) How much traditional medicine training is needed for other health professionals to understand traditional medicine use by patients? Because many patients simultaneously use both systems, both traditional medicine and modern medicine practitioners need to have some degree of awareness and knowledge of the other system.

(4) There is the need to improve the standards and quality of traditional medicine practitioners.

(5) In some countries, a significant number of traditional medicine graduates are underemployed. traditional medicine schools need to be cognisant of graduate employment opportunities.

(6) There are substantial differences in traditional medicine education among institutions, reflecting access to facilities, resources and external review processes.

(7) Graduates of traditional medicine education programmes lack appropriate skills and capabilities to relate effectively to a modern health care environment.

(8) The importance of continuing education in both traditional medicine and modern medicine needs to be emphasized.

(9) Traditional medicine education quality assurance guidelines are focussed on principles, processes and general outcomes, rather than on detailed content, as this will depend on country-specific situations.

(10) Traditional medicine education programmes of individual countries need to identify clearly their programme objectives and goals, and the expected graduate outcomes.

(11) Traditional medicine education is lacking in public health programmes.

(12) With the globalization of traditional medicine education, it is important to develop appropriate academic staff and curriculum material.

(13) The outcomes of traditional medicine research need to be continuously reported to traditional medicine education programmes.
(14) There may be significant difficulties in ensuring traditional medicine students gain access to an adequate range of patients and conditions, a wide variety of practice settings, and experienced clinicians.

(15) There are significant challenges represented by the diverse cultural and language differences embodied in traditional medicine.

(16) Traditional medicine education should take account of the rapid change in teaching technologies and knowledge explosion.

(17) There are many challenges in modernizing traditional medicine without losing its essence, and harmonizing traditional medicine with modern medicine.

4. RECOMMENDATIONS FOR IMPROVING QUALITY OF TRADITIONAL MEDICINE EDUCATION

The participants of the Working Group Meeting on Quality of Academic Education in Traditional Medicine proposed the following recommendations to the WHO Western Pacific Regional Office and Member States to improve the quality of education programmes in traditional medicine:

(1) Member States should ensure that all persons practising traditional medicine, including medical doctors, receive appropriate and adequate education in the traditional medicine field. This helps promote quality of practice and safety for consumers.

(2) Member States should ensure that the primary goal of traditional medicine education should be to educate for effective and safe practice.

(3) Given many patients are simultaneously using both traditional medicine and modern medicine, Member States should ensure that both traditional and modern medicine practitioners have appropriate awareness and knowledge of the other, to ensure effective and safe management of patients.

(4) Member States should ensure that graduates of traditional medicine education programmes are equipped with appropriate skills and capabilities to participate in a modern health care environment.

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(12) As traditional medicine programmes require knowledge about traditional medicine regulation, WHO should facilitate sharing and dissemination of information regarding regulatory policies among Member States.

(13) Member States should use these guidelines to assist in the establishment of national committees to evaluate the quality of traditional medicine education and, where necessary, develop their own specific guidelines.
LIST OF TEMPORARY ADVISERS, OBSERVERS AND SECRETARIAT

1. TEMPORARY ADVISERS

Professor Daine Alcorn
Pro-Vice Chancellor
(Science, Engineering and Technology)
RMIT University
P.O. Box 71
Bundoora 3083
Victoria.
Australia
Tel. no.: (61 3) 9925 7006
FAX: (61 3) 9925 6506

Professor Bae Hyun-Soo
Assistant Professor
College of Oriental Medicine
Department of Physiology
Kyung Hee University
#1 Hoek-dong
Dongdaemun-ku
Seoul
Republic of Korea
Tel. no.: (822) 961 0323
FAX: (822) 967 2080
E-mail: hbae@khu.ac.kr

Professor Alan Bensoussan
Associate Professor
Director, Complementary Medicine Research Centre
University of Western Sydney
School of Exercise and Health Sciences
Locked Bag 1797
Penrith South DC
NSW 1797
Australia
Tel. no.: 61 2 9772 6363
FAX: 61 2 9772 6810
E-mail: a.bensoussan@uws.edu.au

Professor Marc Cohen
Professor and Head
Department of Complementary Medicine
RMIT University
P.O. Box 71
Bundoora 3083
Victoria.
Australia
Tel. no.: (61 3) 9925 7440
FAX: (61 3) 9467 2794
E-mail: marc.cohen@rmit.edu.au
Annex 1

Professor Pham Hung Cung
Director
Department of Traditional Medicine
Ministry of Health
138A Giang Vo Street
Ha Noi
Viet Nam
FAX: (844) 846-2384
E-mail: (844) 846 4051

Dr Nagendra Prasad Dubey
President
World Association of Integrated Medicine
At-N-10/60-C-1, Kakarmatta
Bazardeeha
Varanasi-221 009 (U.P.)
India
Tel. no.: 0091 542 231 6292
FAX: 0091 542 2360100
E-mail: integratedmedicine@yahoo.com

Professor David Eisenberg
Director
Osher Institute
Harvard Medical School
Division for Research and Education in
Complementary and Integrative Therapies
Boston, MA 02215
United States of America
Tel. no.: 617-384-8550
FAX: 617-384-8555
E-mail: david_eisenberg@hms.harvard.edu

Dr Sitaleki Finau
Professor of Public Health and Head,
School of Public Health and Primary Care
Fiji School of Medicine
Suva
Fiji
Tel. no.: (679) 311 700
FAX: (679) 308 122
E-mail: s.finau@fsm.ac.fj
sitaleki@hotmail.com

Professor Ka Kit Hui
Professor and Director
Centre for East-West Medicine
Department of Medicine
University of California, LA
Los Angeles, California
United States of America
Tel. no.: (310) 828 9358
FAX: (310) 829 9318
E-mail: khui@mednet.ucla.e
Professor Koh Byung-Hee
College of Oriental Medicine
Kyung Hee University
Seoul
Republic of Korea
Tel. no.: (822) 516 5819
FAX: (822) 3442-0220

Professor Lee Tae-Hee
College of Oriental Medicine
Kyung Won University
Sungnam City, Gyunggi Province
Republic of Korea
FAX: 82-31-750-5416
E-mail: ophm5418@mail.kyungwon.ac.kr

Professor Leung Ping Chung
Professor of Orthopaedics and Traumatology
Chairman, Management Committee
Institute of Chinese Medicine
Director, Centre for Clinical Trials on Chinese Medicine
The Chinese University of Hong Kong
5/F, Clinical Sciences Building
Prince of Wales Hospital
Shatin, NT
Hong Kong
Tel. no.: (852) 2632 2723
FAX: (852) 2686 8463
E-mail: pingcleung@cuhk.edu.hk

Professor Liu Liang
Dean
School of Chinese Medicine
Hong Kong Baptist University
Hong Kong
FAX: (852) 3411 2461

Professor Alex Radloff
Dean
Faculty of Life Sciences
RMIT University
P.O. Box 71
Bundoora, Victoria 3083
Australia
Tel. no.: 613 9925 7185
FAX: 613-9925 7185
E-mail: alex.radloff@rmit.edu.au
Annex I

Professor Roh Pyong-Ui
Dean of Academic Affairs
Daegu Haany University
290 Yukok Dong
Kyongsan, Kyungbuk
Republic of Korea
Tel. no.: 82 53 819 1406
FAX: 82 53 819 1412
E-mail: puroh@dhu.ac.kr

Dr Fernando Sanchez, Jr.
Executive Director
Association of Philippine Medical Colleges Foundation, Inc.
Suite 611 Future Point Plaza I
112 Panay Avenue
Quezon City
Philippines
Tel. no.: (63-2) 4153488
E-mail: nandingsanchez@yahoo.com
apmc@pacific.net.ph

Professor Wang Ling-Ling
Professor
Nanjing University of Chinese Medicine
Nanjing
People's Republic of China
FAX: (8625) 679 8168

Dr Kenji Watanabe
Associate Professor
Department of Oriental Medicine
Keio University of School of Medicine
35 Shinanomachi Shinjuku-ku
Tokyo 160-8582
Japan
Tel. no.: +81-3-3353-1211
FAX: +81-3-5366-3825
E-mail: toyokeio@sc.itc.keio.ac.jp

Professor Charlie Xue
Head
The Chinese Medicine Unit
RMIT University
P.O. Box 71
Bundoora, Victoria 3083
Australia
Tel. no.: 613 99257745
FAX: 613-99257178
E-mail: Charlie.xue@rmit.edu.au
Professor Christopher Zaslawski  
Director  
University of Technology, Sydney  
College of Traditional Chinese Medicine  
Department of Health Sciences  
Faculty of Science  
P.O. Box 123  
Broadway NSW 2007  
Sydney  
Australia  
Tel. no.: +61 2 9514 7856  
FAX: +61 2 9514 7866  
E-mail: Chris.Zaslawski@uts.edu.au

Professor Zheng Ying-Liang  
Chairman  
University Affairs Committee  
Beijing University of Chinese Medicine  
Beijing  
People's Republic of China  
Tel. no.: (8610) 6428 6709  
FAX: (8610) 6422 0867  
E-mail: yingliang_zheng@bjucmp.edu.cn

2. OBSERVERS

Dr Ray Myers  
Osteopathy Program Leader  
Australian Osteopathic Association  
and Member, Faculty of Life Sciences  
Department of Complementary Medicine  
RMIT University  
Melbourne  
Australia  
Tel. no.: 613 9925 7263  
FAX: 613 9467 2794  
E-mail: ray.myers@rmit.edu.au

Dr Phillip Ebrall  
Chiropractic Program Leader (Acting)  
Department of Complementary Medicine  
Faculty of Life Sciences  
RMIT University  
Melbourne  
Australia  
Tel. no.: 613 9925 7744  
FAX: 613 9467 2794  
E-mail: phillip.ebrall@rmit.edu.au
Annex I

Dr Henry Liming Liang
Principal
Sydney Institute of Traditional Chinese Medicine
92-94 Norton Street
Leichhardt, NSW 2040
Australia
Tel. no.: 612 9550 9906
FAX: 612 9560 3022
E-mail: sctcm@magna.com.au

Dr Qunhao Zhang
Associate Director
Acupuncture Research Centre
Massachusetts General Hospital
Harvard Medical School
Harvard University
Boston
Massachusetts
United States of America
Tel. no.: 617-724-2891
FAX: 617-724-2891
E-mail: qzhang@hms.harvard.edu

3. SECRETARIAT

Dr Choi Seung-Hoon
Medical Officer, Traditional Medicine
WHO Regional Office for the Western Pacific
P.O. Box 2932
1000 Manila
Philippines
Tel. no.: (632) 528 9844
FAX: (632) 521 1036
E-mail: chois@wpro.who.int

Dr Ezekiel Nukuro
Regional Adviser in Human
Resources Development
WHO Regional Office for the Western Pacific
P.O. Box 2932
1000 Manila
Philippines
Tel. no.: (632) 528 9816
FAX: (632) 521 1036
E-mail: nukuroe@wpro.who.int
Annex 1

Dr Chen Ken  
WHO Representative in the South Pacific  
Level 4 Provident Plaza One  
Downtown Boulevard  
33 Ellery Street  
Suva  
Fiji  
Tel. no.: (679)3-304600  
FAX: (679)3-300462  
E-mail: chenk@sp.wpro.who.int
PROFESSOR DAINE ALCORN, PRO VICE-CHANCELLOR OF SCIENCE,
ENGINEERING AND TECHNOLOGY, RMIT UNIVERSITY,

MS ANNE-LOUISE CARLTON OF THE VICTORIAN DEPARTMENT OF HUMAN
SERVICES, LADIES AND GENTLEMEN,

On behalf of our Regional Director, Dr Shigeru Omi, it is my pleasure to be here to
welcome you to the Working Group Meeting on Quality of Academic Education in
Traditional Medicine, which is being held through the joint efforts of the WHO Regional
Office for the Western Pacific and RMIT University.

For centuries, traditional medicine has been widely used in the Region. Today, many
doctors now apply traditional medicine techniques in their daily practices. Historically,
traditional knowledge of medicine was mostly developed within small and isolated ethnic
groups. Traditional medicine practices were based largely on empirical experience of
treatment. Most of the knowledge had never been written down and was transmitted orally
from generation to generation rather than being obtained through an organized training
process.

In the Western Pacific Region, however, some traditional systems of medicine are
highly developed and well-documented. Since the 1950s, some universities have been
developing formal education in traditional medicine based on systematized knowledge, a
comprehensive methodology, rich clinical experience, and detailed documentation. Now,
there are 32 universities or university colleges of Chinese medicine in China, and
11 universities with colleges of oriental medicines in the Republic of Korea. In Japan, a
national university provides post-graduate courses on Kampo medicine.

In recent years, courses on traditional or complementary medicine have been
introduced in universities in other countries and areas in the Region. For example, four
universities in Australia offer full-time degree courses on traditional and complementary
medicine. In Hong Kong, three universities started their full-time courses on Chinese
medicine in the last five years and in Viet Nam, departments of traditional medicine at
universities in Ha Noi and Ho Chi Minh City have been established. The Viet Nam
Government plans to set up a university of traditional medicine.

It is a great challenge to bring education in traditional medicine into university
education systems. Compared to modern medicine, formal education in traditional medicine
in universities has had a very short history. Following increasing interests and utilization of
traditional medicine by the public, the need for qualified practitioners becomes one of the key
issues for ensuring the quality of services and safety of consumers. The introduction of
licensing of traditional medicine practices by governments in the Region also requires good
education systems for traditional medicine. A review of the 50 years' experience in formal education in traditional medicine in China and the Republic of Korea, and the identification of challenges faced by newly established education in traditional medicine in more Western style countries, will be useful for improving quality of education in traditional medicine in universities. The basic principles and new concepts used by modern medical schools could be introduced to education in traditional medicine.

Major tasks of this meeting are to review the current situation of traditional medicine education at the university level; identify challenges for improving the quality of traditional medicine education at the university level; make recommendations on improving the quality of traditional medicine education; and discuss the relevance and applicability of WHO Guidelines for Quality Assurance of Basic Medical Education in the Western Pacific Region for traditional medicine education at the university level. We would also like to see that through this meeting, we can develop the WHO Guidelines on Traditional Medicine Education in the Western Pacific Region.

Through the organization of this meeting, WHO remains committed to supporting the development of quality traditional medicine education in the Western Pacific Region.

In closing, I would like to express our thanks to the Government of Australia and RMIT University for their generous support in organizing this meeting.

Thank you very much and I hope you all have a very fruitful and pleasant stay in Australia.
SUMMARIES OF PRESENTATIONS

Traditional medicine education in Australia
A/Prof Alan Bensoussan, Chinese Medicine Unit, University of Western Sydney, Locked Bag 1797, Penrith South DC NSW 1797. a.bensoussan@uws.edu.au

This paper summarises the available data on naturopathy, western herbal medicine and TCM education in Australia. No comprehensive educational programs are offered on traditional aboriginal medicine.

By the 1980’s traditional medicine courses were becoming accredited by educational authorities and health insurance funds were reimbursing patients treated by graduates of these programs. By the mid-1990’s traditional medicine education programs were moving into the universities. There are currently four Chinese medicine undergraduate programs, which are university supported and two undergraduate naturopathy programs in university. A preliminary survey has indicated that there are approximately 37 private colleges offering naturopathy and other natural therapy courses in Australia, amongst which a small number offer accredited degree qualifications. A further 17 universities and institutes of technology offer some study in the field.

The minimum primary qualification required in most healthcare professions, including traditional medicine, is generally considered to represent the equivalent of four years full-time undergraduate study. Student enrolments in traditional medicine education have increased steadily in the last 15 years, mirroring the growth in teaching programs. It is estimated that several hundred equivalent effective full time students (EFTS) are engaged in naturopathy and herbal medicine study across Australia. There would also be approximately several hundred students undertaking TCM education. Qualifying programs in traditional medicine usually cover four main areas of study:

- basic and medical sciences (30%);
- traditional medicine theory and practice subjects (30%);
- clinical training (30%); and
- ancillary subjects (such as ethics and law, research methods, etc) (10%).

The split of contact hours between these areas varies from institution to institution and relates in part to the level of funding and the targeted cohort of students.

Overall, traditional medicine education in Australia has strengthened substantially over the last 15 years. Universities have commenced teaching programs in traditional Chinese medicine and naturopathy. Both universities and private colleges play an important role in traditional medicine education. With the growing use of traditional medicine, government is actively considering statutory regulation of traditional medicine practice. Postgraduate research in traditional medicine is steadily increasing and both industry and government grants are available to researchers.

Traditional medicine education in China
Professor Wang Ling Ling, Nanjing University of Chinese Medicine, Nanjing, People's Republic of China

The general situation

Almost half a century ago, the high education of TCM was established in China. Nowadays there are 25 public colleges, 48 technical secondary schools in China. There are 990 000 of
undergraduates, 1,030,000 of technical secondary school students and 6000 of postgraduates in the school. Among them there are about 4000 of overseas students educated in degree.

There are 5 kinds of bachelor specialties, namely Chinese medicine science, acupuncture and Tuina science, Chinese Materia Medica Mongolia medicine and Tibetan medicine. The Chinese medicine course are given in all western medical school. Twenty-two Western medicine colleges set up Chinese medicine specialty.

The style of high education

1. The basic education is bachelor's degree

   Recently the high education together with adult education are developed. There different levels of education in Chinese medicine from undergraduate to postgraduate. The license system is forming in China now. The government pays more attention to the bachelor's degree education. About 150,000 students with bachelor's degree were produced from TCM colleges. They are playing the important role in the development of Chinese medicine in China within over 40 years. The technical secondary education is fading.

   Three stages of education system have been established for bachelor's degree education. The courses on basic theory of both Chinese medicine and western medicine are given in the first period. Then clinical courses are given secondly. The third stage is practice in clinic. This is the style learning from western medicine. The same teaching program and the same teaching materials are applied in all TCM colleges. But in recent years the government gave flexible policy that differ programs and differ teaching materials are allowed to be used. Different feature is appearing in different colleges.

2. The specialty of the combination of Chinese medicine and western medicine was set up.

   The proportion of teaching hours in two kinds of medicine in common TCM colleges is 70% in Chinese medicine and 30% in western medicine. Now many colleges have the specialty of the combination of Chinese medicine and western medicine. They pay equal attention to the both kinds of medicine in teaching hours.

3. Enhance the classic theory of TCM, pure Chinese medicine doctors are trained.

   Just like some western medicine doctors, they are skillful in western medicine, but they don't know Chinese medicine at all, so people believes that training pure Chinese medicine doctors is necessary and possible. Some colleges are trying this work to train the excellent Chinese medicine doctors.

4. The complex specialty of talents are trained.

   Taking the long period of teaching hours (seven years in general), some colleges cooperate with the technology institutes, liberal art universities and western medical colleges to train the students with the complex specialty.

5. Enroll the Ph D students from the other specialty.

   Recently the government allows the master students from literature, philosophy or science to join the entrance examination for Phd to train the new style of talents.
6. Advanced students trained by master doctors

The government selects the excellent doctors to take the role of master. Then through the national strict examination, their students are selected. Within 3 years the students will be trained mainly in clinic according the certain plan. The students should pass through the evaluation and clinical exam after 3 years following their masters.

Chinese medicine has thousands of history, but only has very short period for high education in modern school way. We have either successful experience or failure lesson. High education on TCM in Chine are making progress in grope.

**Education of traditional Chinese medicine education in Hong Kong**

_Professor Liu Liang, Dean, School of Chinese Medicine, Hong Kong Baptist University, Hong Kong (China)_

The Bachelor of Chinese Medicine and Bachelor of Science (Honours) in Biomedical Science programme launched by the Hong Kong Baptist University (HKBU) in 1998 is the first ever, five-year, full-time, government-funded degree programme in Chinese medicine in Hong Kong. It is a milestone in the development of Chinese medicine education because it is the first of its kind being included in the formal higher education system of Hong Kong. It also marks the end of the traditional master-apprentice mode of teaching and the beginning of a modern, formal higher education in Chinese medicine. In 2001, HKBU introduced yet another unprecedented programme approved by the University Grants Committee of the government, i.e. the four-year, full-time Bachelor of Pharmacy (Honours) in Chinese Medicine programme which aims at training professionals of pharmacy in Chinese medicine to meet the needs of the Chinese medicine sector.

On the other hand, the Chinese University of Hong Kong (CUHK) and the University of Hong Kong (HKU) also launched five-year, full-time degree courses in Chinese medicine in 1999 and 2002 respectively. Currently, the total annual intake of students of the three universities for their Chinese medicine courses is about 75, and that for the pharmacy in Chinese medicine course is 15. The total number of students studying Chinese medicine courses in the three local universities reaches 340. Targeting mainly at Form 7 graduates, the courses have received overwhelming responses and only candidates of high calibre have been selected.

In 2003, the first batch of graduates of the Chinese medicine course offered by HKBU sat for the qualifying examination for registered Chinese medicine practitioners conducted by the Chinese Medicine Council of Hong Kong. All of the 31 graduates, bar none, passed the examination.

In addition to the full-time Chinese medicine courses, the three universities and other Chinese medicine organizations also have on offer a wide range of part-time courses for those in pursuit of continuous education in Chinese medicine.

Since the reunification of Hong Kong with the People's Republic of China, the development of Chinese medicine has yielded substantial progress in areas of legislation, regulation, education, medical and healthcare services, as well as research and development. In 1999, the Chinese Medicine Ordinance was passed by the Legislative Council of Hong Kong. In 2000, the Chinese Medicine Council of Hong Kong launched the registration measures for "listed Chinese medicine practitioners" and "registered Chinese medicine practitioners". The first qualifying examination for registered Chinese medicine practitioners was conducted in 2003. In the same year, registration of Chinese medicines institutes and Chinese medicine products began. In addition, an accreditation panel for Chinese medicine courses was established under the Chinese Medicine Council of Hong Kong in 2001. It has reviewed and approved the full-time Chinese medicine degree courses offered by HKBU and CUHK, as well as the part-time Chinese medicine degree courses offered by HKBU and HKU.
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The panel will continue to make further review on the standard and quality of the Chinese medicine courses in Hong Kong.

**Traditional medicine education in Japan**

**A/Prof Kenji Watanabe, Department of Oriental Medicine, Keio University of School of Medicine, Tokyo, Japan**

1. **Background**

   Kampo is a Japanese traditional medicine originated from China and developed uniquely in Japan. One of the characteristic thing in Kampo is the abdominal diagnosis. On the other hand, pulse diagnosis is not important in Kampo system.

   In 1868, new government adopted only western medicine and abolished the Kampo license. Since then, only the physicians who graduated from western medical school could use Kampo medicines.

   In 1967, first Kampo medicine was approved by the national health insurance system. Now 147 Kampo formula are covered by the governmental insurance system and more than 70% of the medical doctors use Kampo medicines.


2. **History of traditional medicine education**

   Kampo education for the medical students was introduced in last 10 years. The number of medical schools having Kampo class has been increasing year by year and in 2004 it will be introduced into all 80 medical schools in Japan.

3. **Program: level of education**

   In Japan, medical schools give 6 years course after graduating from high school.

4. **Funding sources: public and/or private**

   National, public and private.

5. **Duration of program**

   In case of Keio University:
   - Kampo pharmacology: 10 sessions (15 hours) during 5 weeks in the third grade
   - Practical use of Kampo: 10 sessions (15 hours) during 5 weeks in the 5th grade

6. **Mode of delivery**

   Lectures of the basic theory of Kampo, practical use, mechanism of action
   Training of acupuncture
7. Admission criteria

Kampo pharmacology (10 sessions) are mandatory for all the medical students (100 students) and practical use of Kampo is elective.

8. Student selection process

Entrance examination of Keio University School of medicine is 2-steps exam. The first step is a written examination and the second step is oral examination.

9. Assessment

Written examination to assess the comprehension.

10. Student number

100 medical students per each grade

11. Balance between western medical sciences and traditional medicine

Western medicine is dominant (1804.5 hours lectures and 2833.5 hours of laboratory works and clinical clerkship)

12. Graduate capabilities

N/A

13. Curricula and Teaching and Learning Strategies

The Department administers two Kampo courses now, the first dealing with the basic concepts of Kampo and Pharmacology and the second focusing on clinical applications (10 sessions each.) Fellows receive training in a master-level research course consisting of 16 sessions.

14. Research activities and their relevance with teaching program

Basic and clinical research are performed by the department of Oriental Medicine which is composed by the same members of Kampo clinic.

**Education of Oriental Medicine in the Republic of Korea**

Koh Byung Hee, O.M.D., Ph.D., College of Oriental Medicine Kyung Hee University Seoul, Republic of Korea

Oriental medicine has been developed over a long period of time. When Medical Service Act was legislated in September 25, 1951 for the first time, Oriental medicine began to have the support of the law system. Presently Oriental medicine has the same legal status as the Western medicine in Korea. Students of Oriental medicine are qualified for the National License Examinations for Oriental Medicine Practice after finishing 6-year courses in College of Oriental medicine. Presently Oriental medicine Doctors are entitled to practice all the medical actions of Oriental medicine, including acupuncture and traditional medicine prescriptions.

The insurance coverage is quite limited only to cover some areas of Oriental medicine, such as diagnosis, acupuncture, moxibustion, cupping Tx. and 56 herbal Ex. formulae. As the insurance coverage for Oriental medicine is expanded, the number of visitors to clinics of Oriental medicine is increasing and expected to increase rapidly.
Annex 3

To promote the oriental medicine the Medical specialties system has been required by the oriental medicine doctors and government recently. After graduation of medical college, Medical licenses should be required by the ministry and they have to finish 1 year course internship and 3 year course resident ship.

- Program; 6 yrs bachelor degree program in University level.
- Funding; Private and public.
- Duration; 6yrs.
  2 yrs for masters degree program
  3 yrs for Doctorate degree program
  1 yr for Internship (for clinic)
  3 yrs for Resident ship
- Mode of Delivery; National Exam of O.M.D.
- Admission; 12 yrs education (primary and secondary Ed.)
- Student Selection; Free competition
  - Generally, those who scored top 1% Korean administration exam can enter the O.M.D program.
- Assessment; Above GPA 2.0 every semester
- Student Number; 4,500 in 11 universities
- Balance between east and west Medicine (total class hrs: 6500 hrs)
  - Basic science: 12.5%, clinical sciences: 5.5%, lab practice: 10%, ethics/law/arts/literature: 8%
  - Oriental principles & theory: 27%, oriental clinical practice: 37%
- Graduate Capability; 750/yr
  - Practically 100% of graduates enter into the professional fields such as private clinics, Intern in hospitals, basic research, military doctors
  - Total income; almost same as western medical doctors
- Curricula and T&L Strategies; Re. Curricula refer to the chart in the report.
  - Create third medicine; a combination of Oriental and Western Medicine through Comparative study and holistic approach.
- Research activities and their relevance with teaching programs;
  3 million dollars /yr research fund supported by Ministry of Health, Republic of Korea
Training work on traditional medicine in Viet Nam
Professor Pham Hung Cung, Director, Department of Traditional Medicine, Ministry of Health, Viet Nam

1. Introduction

Traditional medicine in Viet Nam has an ancient history. It has played an important role and revealed a great potential in the course of the people’s healthcare.

Since the success of our Revolution in 1945, much importance has been given to traditional medicine by the Vietnamese State and Party. The guidelines on Vietnamese traditional medicine promotion has been confirmed and agreed for last many years: the inheritance and development of traditional medicine in combination with the modern medicine and pharmacy, making it become a traditional medicine of science, tradition and public.

The most decisive and key issue to attain the abovementioned goal is the training work of traditional medicine staff in terms of speed, quantity and quality.

2. The actual situation of training work on the traditional medicine and pharmacy in Viet Nam

2.1 Regarding the organization work:

- Up to now, traditional medicine university is not available in Viet Nam. There are only two faculties of traditional medicine belong to Ha On Medical University and Medical and Pharmaceutical University in Ho Chi Minh City. Both faculties have a form of enclosed professional training. However, they have just been established in 1996 (in Hanoi) and in 1998 (in Ho Chi Minh city) respectively.

- Besides, there are also other seven subjects of traditional medicine scattered in different universities namely Thai Binh, Hai Phong, Hue, Thai Nguyen, Can Tho, Tay Nguyen and the Army Medical Institute, which are covered in teaching/learning programme for general practitioners.

- A traditional medicine school at intermediate level in Hanoi where is major in training traditional medicine physicians, is The Tue Tinh school.

- There is a medical school at intermediate level including a subject of traditional medicine in each province or city, thus total is around 61 subjects of traditional medicine.

2.2 Regarding the programs, education level, training period

2.2.1 Physicians on traditional medicine: the period of the intermediate program on traditional medicine is 3 years including theory and practice.

2.2.2 Doctors on traditional medicine: There are two types as follows:

- Doctor on traditional medicine: the training period is 6 years including 4 years for the modern medicine and fundamental science and 2 years specialized in traditional medicine.

- Doctor on the traditional and modern medicine: the training period is 7 years including 6 years for general practice and one year for traditional medicine.

2.2.3 Master on traditional medicine: two more years for doctors on traditional medicine

2.2.4 Doctor on traditional medicine: three more years for Master on traditional medicine
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2.2.5 Besides, there is a kind of practical doctor who has practical experience at medical units of traditional medicine. After being a doctor of traditional medicine, he will further study clinical medicine at the leading centers on traditional medicine and will be considered as the first grade professional doctor if he studies two more years; and a second grade professional doctor if he studies three more years.

2.3 Funding sources

- Previously, the source of training funds for public schools was provided by the State.
- Now it is provided by:
  - The State for public schools
  - The private for people founded schools

2.4 The mode of delivery

There are two types as follows:

(1) Theory: teachers give lecture on rostrum while students listen to him and write down notes.

(2) Practice: to be divided into 2 forms as follows:
  - Practice on models: students watch them and compare them with theory.
  - Practice at hospitals: students work at hospitals corresponding to their education level, teachers or doctors give lecture at sick-beds of patients, they guide their students how to do.

2.5 Admission criteria and student selection process:

There are two major criteria among various ones as follows:

(1) Students graduated from secondary school

(2) Students pass the entrance examination at national level

2.6 Assessment

It is carried out with many measures and courses:

(1) Examination at the end of a subject

(2) Examination at the end of a school year

(3) The final examination: Each subject consists of theory and practice, if fail an exam students must pass it again.
2.7 Student number
- Doctors on traditional medicine: 2000
- Post graduation:
  - The first grade professional doctors: 500
  - The second grade professional doctors: 100
  - Master on traditional medicine: 100
  - Doctor on traditional medicine: 35
- The staff on traditional medicine at intermediate level: 1700

2.8 Balance between Western medical science and traditional medicine:
The whole programme: 6 years including:
  - The fundamental science, basic medicine and Western medicine: 4 years
  - The Oriental medicine: 2 years

2.9 Graduate capabilities: 90%

2.10 The scientific research activities:
  - There are 30 themes of the scientific research at state level.
  - There are 36 themes and 2 programmes at ministry level.
  - There are 3 themes at provincial level.

3. The difficulties in training work on traditional medicine in Viet Nam
3.1 Regarding awareness:
This is really important. However, a lack of confidence in traditional medicine has occurred in some people and modern medicine staff.

3.2 Unsatisfactory investment:
  - lack of: funds, a comprehensive plan for traditional medicine promotion, a university of traditional medicine, synchronous infrastructure and equipment's for the training centers on traditional medicine, staff especially leading specialists.

4. Recommendations to WHO
(1) A national policy on traditional medicine promotion should be put forth in member states.

(2) Further increase in public awareness on the role and importance of traditional medicine in the course of the people’s health care with various measures.
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(3) More universities of traditional medicine should be established in each member where training of talents should be paid much attention with a view to inherit the genius and strong points of traditional medicine of each country, increasing the real value of traditional medicine by using the modern medicine, combining training and scientific research, training and treatment of disease.

(4) Governments should pay much attention on multi-faceted investment, especially funds.

(5) Further strengthening international and regional cooperation on traditional medicine training among universities.

Acupuncture/traditional oriental medicine education in the United States
Professor Kai Kit Hui, M.D., F.A.C.P., Professor and Director, Center for East-West Medicine, Department of Medicine, David Geffen School of Medicine at UCLA and Michael Francis Johnston, Ph.D., Post-Doctoral Fellow, Center for East West Medicine, Department of Medicine, David Geffen School of Medicine at UCLA (Supported in part by the Gerald Oppenheimer Family Foundation, the Sirpuhe and John Conte Family Foundation and the Stanley Dashiva Family Trust.)
(First draft and subject to revisions)

History of Acupuncture and Traditional Oriental Medicine Education

US-based training in acupuncture dates at least as far back as 1969, when Bill Prensky, Steven Rosenblatt and David Bresler founded the Institute of Taoist Studies in Los Angeles. Originally studying acupuncture with Ju Gim Shek, in 1973 they brought to their Institute James Tin Yau So, a respected acupuncturist and teacher from Hong Kong. In 1974, all three moved to Boston where they soon founded the New England School of Acupuncture (NESA) and then the California Acupuncture College in San Francisco. At the same time, other Americans were studying abroad and returning to contribute to the development of acupuncture education in the United States. In Macao, Dan Bensky, Ted Kaptchuk, and John O'Connor studied together in the mid-1970s. In Japan, Miles Roberts, Dan Kenner, Peter Thompson and others graduated from the three year program in the Meiji Oriental Institute and then passed the Japanese national licensure examination. In England, Robert Duggan, Dianne Connelly and thirty-six others studied with Professor J.R. Worsley in the early 1970s. These events provided a foundation for the opening of Acupuncture/Traditional Oriental Medicine (ATOM) schools over the next several decades, as is presented in Figure 1. These schools are concentrated on the Eastern and Western Coasts of the United States, as is presented in Figure 2.
Figure 1: Opening of A/TOM schools in the United States*

Figure 2: Geographic Distribution of A/TOM Schools*

* Information provided by TCM World Foundation. Appendix A is comprised of a fuller list of schools, along with the year they became a candidate for accreditation by ACAOM and the year they were accredited.
Annex 3

To further contextualize information about school openings, we provide an outline of key events that have influenced the development of TOM education in the United States.

1972 – President Nixon’s visit to China promoted interest in Chinese culture and opened new avenues of exchange. Traveling with Nixon, a New York Times columnist, James Reston, reported benefits of an acupuncture treatment he received while in China. After an emergency appendectomy, Reston had acupuncture, which successfully relieved his post-operative gastrointestinal discomfort. His praising account of the experience and the featured TV shows about surgical operations with acupuncture anesthesia in China were widely publicized and prompted a great interest both among the public and the medical establishment.

1973 – FDA commissioner announced that devices used in acupuncture, including specialized needles, electrical stimulators, and associated paraphernalia, would be considered investigational on the basis the perception at that time that "the safety and effectiveness of acupuncture devices [had] not yet been established by adequate scientific studies to support the many and varied uses for which such devices are being promoted including uses for analgesia and anesthesia" (Lytle, 1993).

1975 – Opening of the New England School of Acupuncture

1982 – Council of Colleges of Acupuncture and Oriental Medicine (CCAOM) and the Accreditation Commission for Acupuncture and Oriental Medicine (ACAOM) are founded

1985 – The National Certification Commission for Acupuncture and Oriental Medicine (NCCAOM) administers first national exam

1992 – NIH (National Institute of Health) established the Office of Alternative Medicine (OAM). The establishment greatly promoted the research and regulation of alternative medicine. The initial budget is for $2 million.

1993 – Dr David Eisenberg et al. at Harvard University conducted a study that was published in The New England Journal of Medicine. The article showed that approximately one third of Americans used alternative medicine in 1990. The study sparked further interest and research activities.

1993 Establishment of the UCLA Center for East-West Medicine, which is first major US medical school with such a Center.

1994 – FDA (Food and Drug Administration) passed the Dietary Supplement and Health Education Act (DSHEA) in order to regulate herbs as dietary supplements.

1996 – FDA reclassified acupuncture needles, upgrading the supplies from Class III (experimental use) to Class II (general Medical Use).

1996 – In response to FDA reclassification, more insurance companies begin to cover acupuncture services

1997 – NIH successfully sponsors a Consensus Conference on Acupuncture Efficacy. Meeting confirms acupuncture’s efficacy, application and safety for certain conditions.

1998 – In October, OAM was renamed as the National Center for Complementary and Alternative Medicine (NCCAM) with its budget being increased to $19.5 million.

1998 – In November, several major American medical journals (Journal of the American Medical Association, Archives of Internal Medicine, et al.) jointly focused on CAM.
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2002 – ACAOM adopts standards for a Doctoral Program

2002 – NIH NCCAM has its budget increased to $104.6 million

2003 – Oregon College of Oriental Medicine begins the first doctoral program in Acupuncture and Oriental Medicine in the United States

Regulatory Framework of A/TOM Education

In 1982, a national regulatory framework of acupuncture education is established. The first body to be established is (what is now called) the Council of Colleges of Acupuncture and Oriental Medicine (CCAOM). This organization is dedicated to deepening education, knowledge, understanding and skills in the field of A/TOM programs. To realize this objective, the CCAOM carried out activities which include the development of recommended curricula for degree, diploma and other educational programs.

In 1982, the CCAOM founded the Accreditation Commission for Acupuncture and Oriental Medicine (ACAOM). ACAOM is a private, non-profit organization that is recognized by the US Department of Education as a “specialized and professional” accrediting agency. The US Department of Education periodically reviews ACAOM to ensure it is in compliance with requirements of the DOE. ACAOM’s primary purpose is to establish requirements for Acupuncture/Oriental Medicine Programs and to accredit programs/institutions that meet these requirements. As an independent agency, the decisions of ACAOM are not subject to review or change by any outside organization or regulatory body.

ACAOM accreditation confers several advantages to colleges and students, including: (1) Accreditation provides an assurance to regulatory bodies of competency of graduates in educational training; (2) Students are able to receive financial aid; and (3) Students are eligible to take the examination of the National Certification Commission for Acupuncture and Oriental Medicine (NCCAOM), which was first administered in 1985.

ACAOM does not require an Acupuncture/Oriental Medicine Program to acquire degree-granting authorization form its State Board of Higher Education in order to be eligible for accreditation. The practical result of this policy is that some ACAOM-certified programs confer degrees, while others confer diplomas or certificates. Currently, there are about 60 Acupuncture/Oriental Medicine colleges/programs in the US, of which 41 are accredited by ACAOM, 10 are in candidacy, and approximately 8 are in a review process for candidacy.

Programs & Curriculum/Duration of Programs

When classified by curriculum, educational programs are either focused on Traditional Oriental Medicine (TOM) or acupuncture. Requirements of ACAOM are presented here. States have varying educational standards. For example, California requires a larger number of hours of training, an option that is being explored by Florida, Rhode Island, New Mexico, and Nevada.

TOM programs incorporate both herbal medicine and acupuncture into their programs. The curriculum must be at least 4 years which includes a minimum of 2,175 hours. Training must include: 705 hours in Oriental medical theory, diagnosis and treatment techniques in acupuncture and related studies; 450 hours in herbal studies; and 660 hours in clinical training; and 360 hours in biomedical clinical sciences. There are more than 45 TOM colleges/programs in the US.

Acupuncture colleges/programs have a minimum three year program with minimum 1725 hours focused specifically on acupuncture. The program must include: 705 hours in Oriental medical theory, diagnosis and treatment techniques in acupuncture and related studies; 660 hours in clinical
training; and 360 hours in biomedical clinical sciences. There are 18 such colleges/programs in the United States. 

Those interested in additional curriculum details are encouraged to visit school webpages. Several have posted online entire programs with listings of class titles, class content, and semester hours/credits.

Degree: Masters-Level or Doctoral-Level

One of the more contentious professional issues is the place of doctorate education in the curriculum of A/TOM schools. There has been discussion on this topic for more than 10 years. In fact, in the 1970s and early 1980s, the profession had in place a doctoral program which led to the Oriental Medical Doctor (OMD) degree. ACOAM however, only accredited schools for a Master’s level program and over time the original doctoral program withered away. In the early 1990s, the profession began to converse again about a doctoral program but this was a professional issue which lacked consensus for a long period of time, especially regarding whether the doctorate degree should be an entry-level requirement for practice. In 2002 there was a major shift in the profession and ACOAM began the process of accrediting schools to offer a doctoral program in Traditional Oriental Medicine, which is called the Doctorate of Acupuncture and Oriental Medicine (DAOM). As of our writing this report, four schools have been approved to offer this degree: Pacific College of Oriental Medicine, Oregon College of Oriental Medicine, Bastyr University, and Emperor’s College of Traditional Oriental Medicine.

By design, the doctorate is clinically-based, so that competency areas are focused upon clinical application, clinical teaching, clinical research, and a medical specialization. In terms of minimum required hours, ACOAM has mandated that doctoral programs include 4,000 hours of training, which includes 2800 hours of training from the master’s level.

Textbooks

Textbooks are mainly translated from textbooks from mainland China, but there are an increasing number of locally produced English books.

One of the leaders in the educational field is Bastyr University. For textbooks, Bastyr uses standard texts commonly found in the United States that are required for passage of the National Certification Commission for Acupuncture and Oriental Medicine (NCCAOM) exam. Examples of these textbooks include:

- Chinese Acupuncture and Moxibustion by Xinnong Cheng
- Practical Diagnosis in Traditional Chinese Medicine by Tietao Deng
- Chinese Herbal Medicine by D. Bensky and A. Gamble
- Handbook of Chinese Herbal Medicine: Volumes I & II
- A Manual of Acupuncture by P. Deadman and M. Al-Khafaji

Mode of Delivery

The mode of delivery varies by school. Some are very classical in that instruction is lecture-based in classrooms. Other schools make every effort to have as much instruction as possible in a clinical setting.
Across the United States there is a great deal of interest in conventional educational circles in delivering information through a variety of different technology means such as multi-media, computer, video, on-line programs. In our interviews, we have found that only a few schools have incorporated these newer technologies into their teaching. One such school is Bastyr University, which currently offers powerpoint and video support for faculty use. Another school is the Pacific College of Oriental Medicine, which employs multi-media, computers, videos and online courses.

**Funding Sources & Funding for Research**

Almost all US schools are privately funded and for-profit.

Many schools have purposively devoted themselves to purely educational and clinical activities. One such school is the Seattle Institute of Oriental Medicine (SIOM). SIOM is explicitly focused on teaching students to be practitioners of A/TOM. To keep administration and institutional infrastructure to a minimum, no more than sixteen students per year are accepted and these students are only permitted to attend full-time. In line with their vision, SIOM devotes negligible time to advertising, fund-raising or research. Of their operating funds, 40% are from the clinic and 60% from tuition. SIOM maintains as many of the virtues as possible of classical training in A/TOM.

Another model of funding is offered by Tai Sophia Institute (TSI). TSI has been developed so that all basic educational costs could be funded by tuition alone. TSI also has a unique clinical arrangement that is discussed under the section "graduate capabilities." Tai Sophia does devote effort to fund-raising, especially from patients and corporations. These funds are used to add quality to the educational process in a variety of ways. For example, the funds are used to stage a speaker program by well-known healers. It is also used to improve quality by personalize the educational process by allowing administration and faculty to spend more time with students. Tai Sophia also uses these funds for research that is focused on demonstrating how A/TOM improves symptoms and heals people. Tai Sophia has opted not to secure research funding from the US Federal Government because such funded research is often narrowly constrained to focus on mechanisms and rigid clinical outcomes. In sum, Tai Sophia strives to help students transform into healers; efforts to secure support and use of such support is closely tied to this mission.

Only a very few schools have received federal monies to support research activities. One such school is the Oregon College of Oriental Medicine (OCOM). In 1999, NIH/NCCAM awarded two multi-year Center Grants for projects in which OCOM is active. One grant, awarded to the Kaiser Permanente Center for Health Research, examines CAM treatments for TMD and periodontal disease. The second, awarded to the Neurology Department of Oregon Health and Science University, is devoted to exploring CAM approaches for treating neurodegenerative disorders such as Alzheimer’s and multiple sclerosis. In addition, OCOM has been awarded a $108,000 grant from the M.J. Murdock Charitable Trust to help fund the college develop a clinical doctoral program. Subsequently, they received a $100,000 matching grant from the Meyer Memorial Trust of Portland for the final year of development of the doctoral program and the first two years of operation. In 2001, OCOM received a $250,000 research grant from NIH/NCCAM to compare the effectiveness of Chinese medicine versus hormone therapy in treating endometriosis.

Another leader in securing funds for research is the New England School of Acupuncture (NESA). NESA is participating in several funded research projects. A private foundation is funding NESA, Harvard Medical School, Harvard School of Public Health, and Massachusetts General Hospital (MGH) to carry out a pilot study on stroke rehabilitation. The Tufts Program in Evidence-Based CAM and NESA have been awarded a 5-year NIH/NCCAM educational grant to better integrate evidence-based complementary and alternative medicine into allopathic medical education and practice. NIH has also funded the New England Research Institute and MGH to evaluate the efficacy of acupuncture in treating mild to moderate hypertension - NESA faculty played a key role in designing the acupuncture intervention and other components of the study’s protocol. The Center for
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Complementary and Alternative Medicine Research and Education at Harvard University has funded a project to evaluate the efficacy of Tai Chi for patients with chronic heart failure and a NESA faculty is a co-investigator.

Admission Criteria/Student Selection

ACOAM specifies the following minimum admission requirements: satisfactory completion of at least two academic years of education at the baccalaureate level or equivalent from an institution recognized by the US Department of Education.  

It appears that US schools have a relatively high acceptance rate. For example, Bastyr University accepts approximately 70% of their applicants, the New England School of Acupuncture accepts approximately 79% of their applicants, and Pacific College of Oriental Medicine admits approximately 85% of their applicants.

A high acceptance rate does not necessarily mean that a school admits students of low caliber. Consider the case of Tai Sophia, which has an acceptance rate of approximately 90%. Staff estimates that there are approximately 1800 inquiries a year. These people are strongly encouraged to visit the school before applying, of which approximately 20% do. Of these, approximately 75-80 a year will actually meet the strict admission requirements of Tai Sophia, which include but are not limited to possession of a B.A., a minimum 18 hours of bioscience semester credits and 100 hours of clinical work experience. Throughout the student selection process, Tai Sophia emphasizes that theirs is a transformative program that trains students to become successful practitioners who are first and foremost a healer. For this reason, there is a great deal of self-selection in that students who do not fit with this ethos do not apply.

Student Assessment

Almost all schools, like Pacific College of Oriental Medicine, assess students through such methods as written examinations, papers, oral presentations and evaluations of clinical care. One school that goes beyond these conventional tools is Tai Sophia goes beyond these conventional tools to offer a comprehensive exam at the end of the second and third level of education as well as a personal assessment by a small group of faculty each semester.

Most schools have a comprehensive exam at the end of studies, although some schools allow a thesis in lieu of a matriculation exam. To be able to sit for the national or state board licensure exam, students must graduate from an ACOAM-certified or recognized school.

Student Number

There are currently 51 Acupuncture/Oriental Medicine colleges/programs in the US that are either accredited or a candidate for accreditation, with a total volume of approximately 7000 students and about 1500 to 2000 graduating per year. There are roughly 2000 students who graduate per year from A/TOM schools.

Large schools, such as NESA and ACTCM, have a total student body of about 400-500 total students in these schools and are concentrated in California, Massachusetts and New York. Mid-size schools that have a student population of 200-300 students are scattered across the Midwest and the South. Small schools with about 30-100 students can be found across the country.

Class sizes vary substantially even within schools from large lecture classes to intimate-sized classes using a discussion-based format.

Balance between Western Medicine and Traditional Medicine
Schools range from meeting the minimal ACAOM standards to those that go well beyond. We note two examples of the latter kind of school. One is the Pacific College of Oriental Medicine, which has 95% of its graduates practicing independently. They include more training in Western Medicine than is required by ACAOM because they see their training program as empowering their graduates to interact with their biomedical colleagues as peers through referral networks and being able to talk with their patients about some of the Western Medical aspects of their illnesses. Another school with a substantial Western Medical component is Bastyr University. Bastyr is a health university with programs in such areas as naturopathic medicine, nutrition, herbal sciences, health psychology, exercise science, as well as acupuncture and Oriental medicine. The philosophy of the university as a whole is to train students to become conversant in biomedical language so that their graduates will have the capability to function as part of a patient care team with other health providers, including physicians.

There is a trend towards including more training in biomedicine across the nation, as well as beginning to assess the competency of students in this area. The chair of ACAOM noted during an interview that as of August 2004, the minimum hours required by ACAOM for training in biomedical sciences will be increased from 360 to 510. She also noted that as of 2003, only California has actual questions on their state board examination concerning the training students received in biomedical sciences. NCCAOM will begin incorporating such questions into their national examination the summer of 2004.

Faculty

The faculty at various A/TOM schools vary in terms of whether they are full-time or part-time. There is also variation across schools by the number of faculty who are from China, who taught in China and who have their own practice.

Curricula and Teaching & Learning

Discussed above are the number of hours for particular curriculum components, textbooks frequently used, and mode of delivery. Interspersed throughout the report are discussions of the particular learning philosophies of individual schools. Another dimension worth mentioning is the use of case studies. Many schools employ such a method, along with clinical rotations, to help students become comfortable in dealing with the ambiguity that is often found in the real world but so rarely discussed in textbooks.

Graduate capabilities

The capabilities of school's graduates are assessed in a variety of ways.

One manner is through the percentage of students who pass the licensure exam. For California, such information is publicly available from the California State Acupuncture Board. Pacific College of Oriental Medicine notes that their graduates have averaged the highest pass rates on the National and California state exam for the last 13 years.

In a sense, the bottom line for whether graduates have a capability to practice A/TOM is whether or not patients seek them out as healers. Tai Sophia stands out as a school which offers their students considerably training in how to succeed professionally. When students enter the clinical rotation, they have to start their own practice under the supervision of faculty practitioners. As such, they often attend community events or similar venues to recruit patients. Since students experientially learn how to build their practice while at school a large number of graduates are successful practitioners. According to a recent survey of graduates, after ten years 95% are very successful practitioners. Of those practicing full-time, the average annual income is $69,000. Of those practicing part-time, the average annual income is $32,000.
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More broadly, graduates should be able to contribute to society. The New England School of Acupuncture stands out in this regard, with many of its alumni making significant contributions in a variety of areas. For example, alumni have:

- established acupuncture clinics in hospitals, community health centers and extended care facilities;
- initiated groundbreaking research on acupuncture treatment for post-stroke patients, and engaged in other clinical research projects;
- established the Boston-based AIDS Care Project and other acupuncture programs treating people with HIV and AIDS;
- developed drug detoxification programs using acupuncture in Massachusetts and other states;
- authored well-known texts in the field of Oriental medicine;
- served on state acupuncture licensing boards;
- served in leadership positions in state and national professional organizations; and
- founded acupuncture and Oriental medicine colleges.

Works cited


Teaching and learning strategies for traditional medicine education

Professor Alex Radloff, Dean, Faculty of Life Sciences, RMIT University, Victoria, Australia

- A synthesis of the broad and growing literature on student learning in Higher Education, suggests that learning is an active process that involves problem solving and requires both skill and will. It appears to occur in phases, is influenced by assessment, and is associated with feelings. It involves constructing knowledge and, when successful, leads to understanding and a new way of seeing the world. How learning is conceptualised by teachers and students will influence their approaches to teaching and learning.

- Most learners need help to develop the skills needed for effective lifelong learning.

- Learners will be motivated to engage in learning activities if they believe that they are able to achieve the learning outcome ("I can do it") and that the outcome is worth the effort needed to achieve it ("It's worth doing").
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- There has been a “paradigm shift from teaching to learning” in education (Barr & Tagg, 1995). This shift involves a move in university education from a focus on content to a focus on process, from inputs to outcomes, from transmission of information to construction of meaning, from the teacher as the expert to the teacher as a guide, mentor and coach. In the Learning Paradigm, the whole educational institution takes on the responsibility of supporting student learning.

- Effective teaching requires an understanding of the learning process, engagement in the scholarship of teaching and learning, and an evidence based approach to teaching. An example of such an approach is the *Seven Principles for Good Practice in Undergraduate Education* (Chickering & Gamson, 1987). The principles represent a distillation of over 50 years of research into teaching and learning (Chickering & Reisser, 1993) and provide a framework for designing, implementing and evaluating teaching (Hatfield, 1995). According to the *Principles*, good teaching practice:

  - encourages student-staff contact (frequent contact in and out of class with teachers is an important factor in student engagement and satisfaction, and in student intellectual growth)
  - encourages cooperation among students (effective learning is collaborative and social, and can help students develop communication, team work and analytical thinking skills)
  - encourages active learning (activity through discussion, writing, application, etc is a prerequisite for learning)
  - gives prompt feedback (learners need to know what they already know, what they need to know and how they are progressing towards their learning goals)
  - emphasises time on task (time and effort are needed for effective learning as is effective time-management)
  - communicates high expectations (expecting high performance becomes a self-fulfilling prophesy by increasing student and teacher efforts)
  - respects diverse talents and ways of learning (learners have different talents and approached to learning which teachers need to recognise and build on)

- Effective teachers are interested in students, knowledgeable and enthusiastic about their subject, organised and clear, make material meaningful, challenge students and encourage independence, are flexible, and have a sense of humour.

- In order to ensure relevant and high quality educational programs in traditional medicine education, educators should:

  - design capability based curricula that incorporate the capabilities graduates will need for successful professional practice and lifelong learning;
  - implement evidence based practice in teaching such as exemplified by the *Seven Principles for Good Practice* and encourage and support teachers to engage in the scholarship of teaching and learning to improve student learning and satisfaction;
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- support and reward teachers and learners who undertake activities that improve their capability in teaching and learning;
- ensure that the curriculum provides plenty of opportunities for learner AIR (Action, Interaction and Reflection) through for example, problem based learning, group projects, peer learning, portfolio development, learning logs, minute papers, buzz groups, etc; and
- engage the head – knowledge about teaching and learning, the heart – beliefs about teaching and learning, and the hand – skills needed for effective teaching and learning.

References


Principles in designing traditional medicine education programs

A/Prof Charlie Changli Xue, Head, The Chinese Medicine Unit, RMIT University, Victoria, Australia

The usage of traditional medicine has been increasing in the western pacific region. Traditional medicine services are provided by both traditional medicine practitioners and medical doctors. Certain techniques such as acupuncture and herbal medicine have been widely used by many doctors throughout the region in daily practice. However, consistent standards of training in traditional medicine for practitioners in either traditional medicine or medical personnel are yet to be determined. This is largely due to the complexity of traditional medicine, that is, there are many forms of traditional medicine and numerous theoretical frameworks developed from different social and cultural contexts.

Principles in designing traditional medicine education programs

There are many models can be adopted for the development of educational programs in traditional medicine, such as a pure traditional medicine model and an integrated model. The general principles for program design in medical education are applicable to the development of programs in traditional medicine, however, there are eight specific principles that need to be borne in mind when programs in traditional medicine are being planned and developed.

1. Traditional medicine is not in isolation

There are many forms of health care that are practiced and used concurrently. Practitioners in traditional medicine and western medicine need to be familiar with other forms of healthcare. In addition, they are expected to communicate in one common language, most likely modern western medicine. This is because western medicine provides more precise and accurate understanding in etiological factors, pathology, diagnosis and prognosis.
2. Unique characteristics and integrity of traditional medicine theoretical framework should be preserved

The fact that traditional medicine continues to exist and play a meaningful role in the healthcare system reflects the value of its existence. Therefore, it is critical that the strength and potential effectiveness perceived and experienced by the public be maintained.

3. The balance between western and traditional medicine should be carefully considered

This should be determined by whether traditional medicine practitioners are responsible for making clinical decisions in both western and Chinese medicine treatments (such as those in China) or referring patients to other healthcare practitioners such as medical doctors.

4. Complementarities between Western and traditional medicine should be encouraged

Traditional medicine is clinically orientated and thus, it is practical, applicable, holistic and individualized to patients. However, there is a lack of detailed description of the theory, a lack of detailed process of clinical diagnosis that clearly identify the location, etiology and pathology, and lack of understanding of mechanisms of actions. Thus, the teaching of the two systems should be in parallel so that students can appreciate the complementarities between western medicine and traditional medicine.

5. Clinical training should be adequate

Traditional medicine tends to have abstract concepts and lack of detailed theoretical interpretation. However, understanding of these concepts heavily relies on clinical observation and practicum.

6. Critical thinking and research skills should be embedded

Most of the key concepts of traditional medicine were summed up by long-term clinical observation and are significantly different from those of western medicine. Although they are fundamental concepts to guide the practice of traditional medicine, the value of these concepts needs further validation.

7. Teaching and learning of traditional medicine should adapt recent advances of teaching technologies and innovative curriculum design to enhance learning outcomes and learning efficiency

Due to the long history of traditional medicine, teaching methods tend to base on one to one clinical tuition or face-to-face interaction. In addition, the duration of education is seen as the critical factor of assessing program quality. There is little emphasis on adaptation of teaching technology and innovative curriculum design as well as quality management.

8. Learning from the past forms the basis of future success

Although traditional medicine lacks of high level of scientific evidence of efficacy and safety as well as understanding of the mechanisms of action, it is critical to learn its past as most of the literature was based on human observation. This is distinctively different from western medicine where initial observation is based on animal studies. When it is being translated into human trials, it takes extra steps to ensure that data obtained from animal experiments are applicable to human subjects. In addition, critical review of classical literature may also help to identify priority areas of
traditional medicine research to ensure that limited resources are allocated for the most appropriate areas of research.

Conclusions

Due to the changes to the healthcare system and expectations of traditional medicine practitioners, educational programs in traditional medicine need to address these contemporary issues to ensure public safety and better understanding on quality and efficacy of traditional medicine techniques and herbal medicines. This will be achieved through a stepwise and progressive manner due to the roles of traditional medicine are different significantly in different countries and regions. Based on the capabilities required for safe and effective traditional medicine practice in a multidisciplinary health care setting, an integrative model with emphasis on EBM is recommended for traditional medicine program design for the western world such as Australia.

WHO guidelines for quality assurance of basic medical education in the Western Pacific Region

Dr Ezekiel Nukuro, Regional Adviser in Human Resources Development, WHO Regional Office for the Western Pacific

Since the scientific basis of medicine is universal and that there are basic core skills and competencies required for medical practice anywhere in the world, the World Federation of Medical Education (WFME) had produced international standards for quality assurance of basic education. The development of the guidelines for quality assurance of basic education in the Western Pacific Region is to give medical schools an idea of the benchmarks and the efforts they have to put towards quality improvement and to assist the schools in achieving acceptable performance of the graduates and meaningful and sustainable curricular reforms. The guidelines can also be used as a template to develop national versions of medical education standards and a tool for accreditation of new medical schools in the region, with the ultimate goal of promoting public confidence that the quality of provision and standards of award of a degree in Medicine in the region are being safeguarded and enhanced.

The guidelines cover the nine key components (areas) in the structure and process of medical education: Mission and Objectives of basic medical education; Educational programme; Assessment of educational outcomes; student selection and support; Academic staff and faculty; Educational resources; Monitoring, evaluation and curriculum changes; Governance and renewal; and continuous renewal of medical schools. Medical schools are expected to define their own educational objectives and curriculum, which should be broadly consistent with those contained in the guidelines.

The following is a summary of key aspects and attributes under each area:

**Mission and objectives of basic medical education:** An overall mission statement with accompanying general objectives should be developed. These should be translated into specific objectives dealing with the required knowledge and skills as well as essential attitudes and professional behaviours.

**Educational programme:** The statement of the educational programme will demonstrate how the objectives are to be obtained. Knowledge, skills, attitudes should be developed in academic settings and in contact with patients and communities. The design and implementation of the programme is important and there should be clear expectations for students. Integration of science with clinical practice should be achieved. There will be special topics, which will require emphasis and these will vary on a local, national and regional basis. Some of them can be included in core studies and other parts in electives. Teaching and learning methods should follow from the objectives and involve actual student participation in a range of clinical and community settings.
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Assessment of educational outcomes: The assessment should match the goals, content and teaching and learning methods of the medical course. This matching is essential if student learning is to be guided to the desirable outcomes of the course. Both the formative (or on-going) and summative (or final) assessment is important. Assessment process should be valid, reliable and feasible. Clinical assessment should be a central feature whether by objective structured clinical examination (OSCE), rating forms or direct observation.

Student selection and support: While there is no single “best” method for selecting students, medical schools need clear, fair and defensible procedures for selecting the best students. Appeal mechanisms should be put in place. Students should be supported during the course with adequate physical facilities and resources, and academic and personal counseling. Alternative exit points for those not suited to medicine are recommended. The personal and professional development of students is a core matter for the medical schools.

Academic staff/faculty: It is important to appoint qualified and appropriate basic science and clinical staff. Joint arrangements between universities and health services can facilitate this. There should be processes for staff development and review. The guidelines recommend the appointment of dedicated staff with educational expertise within medical education units or centers for teaching skills.

Educational resources: A medical school requires access to appropriate teaching rooms and library and computing facilities. Students require access to educational spaces in teaching hospitals and community services. A research active environment is also important.

Monitoring, evaluating and changing curriculum: Student feedback through regular questionnaires and consultations should be an undertaking of all medical schools. Student participation should be encouraged on Boards and Committees. Other forms of ongoing evaluation such as monitoring of pass, progression and withdrawal rates should be conducted, including follow-up of graduates with regards to their work performance and career progress – quality feedback on the outcomes of the course.

Governance and administration: This covers the administrative structure of the university and the relationship of the medical school within the health system. The school should have sufficient control over resources, curriculum and basic science and clinical departments for effective delivery of the curriculum. Multi-disciplinary schools can promote the collaboration between health professions but the specific needs of medical courses should not be neglected.

Continuous renewal: Finally the guidelines comment on the capacity of the medical schools to change, adapt and renew their curricula. Social responsibility is a priority area for the WHO in curriculum change. It needs to be accompanied by responsiveness to changing scientific, educational and health practices.

The regional guidelines include a framework for establishing a quality assurance system at institutional, national, and regional level. The framework relies on peer-review.
WHO GUIDELINES FOR QUALITY ASSURANCE OF TRADITIONAL MEDICINE EDUCATION IN THE WESTERN PACIFIC REGION

INTRODUCTION

Quality assurance in medical and traditional medicine education

The World Health Organization (WHO) has been actively advocating reform and improved medical education to meet the changing needs of health care. For the past three to four decades, WHO has intensified its efforts and has collaborated with a number of organizations and institutions at both global and regional levels to carry out activities aimed at improving human resources for health through better quality education. Significant among these are the growth of the Network of Community-oriented Institutions for the Medical and Health Sciences, the World Federation for Medical Education (WFME) conferences on medical education and their regional preparation and follow-ups, the global consensus consultation on quality in medical education, the establishment of centres for health personnel education, fellowships and numerous training workshops on medical education.

In the last two decades, world interest in traditional medicine has grown substantially, with many countries initiating efforts to better integrate and regulate these practices and therapeutic products. As a consequence of this growth in interest and consumption of traditional medicine products and clinical services there has also been a significant expansion in education programmes that focus on traditional medicine. However, to date most traditional medicine education programmes have operated in relative isolation within their own countries, and are often less well established than their orthodox medical counterparts, especially in the West. With increased international exchange and collaboration it is clear that traditional medicine programmes can benefit from internationally accepted guidelines to quality assurance.

The need for quality assurance programmes for medical education worldwide has been recognized by the WFME, which has developed International Standards in Medical Education. The WFME standards provide a general quality assurance instrument for medical education that can be used by medical schools to identify their own needs and those of the communities they serve, to assess their strengths and weaknesses, and to consider their potential for reorientation to existing and emerging health imperatives. These international standards can be equally applied to traditional medicine education programmes and have been modified in this document to suit traditional medicine.

In 1988, the WHO Western Pacific Regional Office supported the formation of the Association for Medical Education in the Western Pacific (AMEWPR). Through various meetings of this association and through WHO workshops, the AMEWPR developed the WHO Guidelines for Quality Assurance of Basic Medical Education in the Western Pacific Region. The present document, WHO Guidelines for Quality Assurance of Traditional Medicine Education in the Western Pacific Region, is an amendment of the original version for basic medical education and was developed by a WHO Western Pacific Regional Office Working Group of traditional medicine educators in Melbourne, Australia in 2003. It provides guidelines on educational standards as well as a framework for establishing a quality assurance system.
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**Use of the regional guidelines**

The WHO Guidelines for Quality Assurance of Traditional Medicine Education in the Western Pacific Region focuses on good practices in traditional medicine education and quality assurance. It is organized in two parts.

Part A provides recommendations for good educational practices that would enable traditional medicine schools in the Western Pacific Region (and elsewhere internationally) not only to meet acceptable standards at a basic level in each broad area, but also to develop further the quality of their programmes in line with consensus about best practice. The guidelines are complementary to the WFME international standards, which have been adjusted slightly to accommodate traditional medicine education. The international standards define basic and quality development standards across nine broad areas divided into 37 sub-areas. Each sub-area has operationally defined criteria that serve as performance indicators for quality assurance in traditional medicine education. Irrespective of the state of development of the traditional medicine education system in a country, each traditional medicine school can use the operational guidelines to measure itself. The international guidelines given in Appendix 1 can also be used as a template to develop national versions of the standards. The guidelines cover the same areas as the international standards, namely:

- mission and objectives,
- educational programme,
- assessment of students,
- student selection and support,
- academic staff,
- educational resources,
- programme evaluation,
- governance and administration, and
- continuous renewal.

In Part B of the guidelines, a framework is provided for establishing a quality assurance system at national, subregional or regional levels. The framework relies on peer review. Hence, those countries with only one or a few traditional medicine schools may wish to participate in regional quality assurance systems, with the decision arising from the evaluation process separately ratified in each individual country.
PART A

EDUCATIONAL GUIDELINES FOR BASIC TRADITIONAL MEDICINE EDUCATION

Approaches to traditional medicine education need to be compatible with the health care system and the needs of the community, which vary from country to country. The guidelines below acknowledge that diversity between traditional medicine schools is desirable. Thus, the educational guidelines define the prerequisites for basic traditional medicine education in broad outline only. Traditional medicine schools are expected to define their own educational objectives, which should be broadly consistent with those contained in these guidelines.

Mission and objectives of basic traditional medicine education

Mission

Traditional medicine schools need to define their overall mission and objectives and make these known to their constituencies after consultation with major stakeholders in the parent university, the community and government. Traditional medicine schools should then be responsible for developing and implementing curricula appropriate to their mission.

General objectives

1. The overall goal of traditional medicine education is to produce broadly educated traditional medicine graduates with an appropriate foundation for general health practice in traditional medicine and further studies in other specialties as appropriate, as well as for careers in public health, research, or health service administration.

2. Knowledge should be firmly based on the philosophy and theory of traditional medicine and scientific principles, and graduates should have developed appropriate learning and clinical skills, cultural values and professional attitudes.

3. Graduates in traditional medicine should be competent to practise safely, ethically and effectively under supervision while undergoing further vocational training to become independent practitioners. Graduates should be willing and trained to continue to develop their knowledge and skills throughout their professional careers.

4. Because the scope of knowledge relating to traditional medicine is growing, and because many aspects of practice are changing, emphasis in traditional medicine education should be placed on the principles underlying, critical thinking, decision-making and practical skills based on evidence and experience.

5. The quality of each traditional medicine school will ultimately be judged by the ability of its graduates to perform responsibly in the roles the community requires of its practitioners. This requires responsiveness to changing needs and a commitment to a lifetime of continuing education.
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Objectives relating to knowledge

Graduates completing traditional medicine education should have knowledge of the following areas:

1. The philosophy and theory of traditional medicine and relevant biological, behavioural and social sciences at a level sufficient to understand the basis for general health practice, and to incorporate the advances in knowledge that will occur over their working life.

2. The normal structure, function and development of the human body, and the mind and the spirit at all stages of life, their interactions and the factors that may disturb them.

3. Holistic approach to health enhancement, health promotion and the treatment and prevention of disease, as well as the importance of practicing and modelling self-care.

4. The aetiology, pathology, symptoms and signs, natural history, and prognosis of common mental and physical ailments in children, adolescents, adults and the aged from both a traditional medicine and modern medical perspective and an adequate knowledge of the conditions that require urgent treatment and/or referral.

5. Common diagnostic procedures, their uses and limitations from both a traditional medicine and modern medical perspective.

6. Management of common conditions with traditional medicine interventions that may include herbal, acupuncture, physical, nutritional, psychological and other therapies.

7. Adequate knowledge of maternal, child and family health.

8. The principles of public health, health education, disease prevention, amelioration of suffering and disability, rehabilitation, and the care of the dying.

9. Cultural and social factors affecting human relationships, the psychological well-being of patients and their families, and the interactions between humans and their social and physical environment.

10. Systems of provision of health care including their advantages and limitations, the costs associated with health care, the principles of efficient and equitable allocation of finite resources, and methods of meeting the health care needs of disadvantaged groups within the community.

11. The principles of ethics that relate to health care and the legal responsibilities of the traditional medicine profession.

Objectives relating to skills

Graduates completing traditional medicine education should have developed the following skills to an appropriate level for their stage of training:

1. The ability to take a tactful, accurate, organized and problem-focused personal health history from a traditional medicine perspective, and a modern medicine perspective where appropriate.
2. The ability to perform an accurate physical and mental state examination.

3. The ability to choose the appropriate and practicable clinical skills to apply in a given situation.

4. The ability to interpret and integrate the patient's medical history and physical examination findings to arrive at an appropriate diagnosis or differential diagnosis.

5. The ability to select the most appropriate and cost-effective diagnostic procedures.

6. The ability to formulate a holistic management plan, and to plan management in concert with the patient.

7. The ability to communicate clearly, considerately and sensitively and interact appropriately with patients, families, other health professionals and the community.

8. The ability to counsel sensitively and effectively, and to provide information in a manner that ensures patients, families and communities, where appropriate, can be truly informed when consenting to any procedure.

9. The ability to recognize serious illness and to manage and refer as appropriate in common emergency situations.

10. The ability to practise selective public health measures and to interpret health evidence in a critical and scientific manner, and to use libraries and other information resources to pursue independent inquiry relating to health problems.

Objectives relating to attitudes as they affect professional behaviour

During basic traditional medicine education, students should acquire the following professional attitudes, which are regarded as fundamental to traditional medicine practice:

1. Respect for every human being, with an appreciation of the diversity of human background and cultural values.

2. An appreciation of the traditions and philosophical foundations of traditional medicine, and the complexity of ethical issues related to human life and death including the allocation of scarce resources.

3. A desire to ease pain and suffering.

4. An awareness of the need to communicate with patients, their families and communities, and to involve them fully in planning the management of their health conditions.

5. A desire to achieve the optimal patient, family and community care, for the least cost to allow maximum benefit from the available resources.

6. Recognition that the health interests of the patient, family and the community are paramount.
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7. A willingness to work effectively and appropriately in a team with other health care professionals.

8. An appreciation of the responsibility to maintain standards of traditional medicine practice at the highest possible level throughout a professional career.

9. An appreciation of the need to recognize when health problems exceed their capacity to deal with it safely and efficiently and of the need to refer to others for help when this occurs.

10. A realization that it is not always in the interests of patients, families and communities to do everything that is technically possible to make a precise diagnosis or to attempt to modify the course of an illness.

11. A commitment to appropriate reporting of adverse events related to the practice of traditional medicine and other health care modalities being used concurrently.

EDUCATIONAL PROGRAMME

Educational principles

There are many ways to achieve the goals and objectives of basic traditional medicine education outlined above. The minimum foundation for traditional medicine training requires a combination of knowledge, skills and attitudes. These attributes cannot be defined simply as lists of factual knowledge, practical skills or attitudes as many competencies are related to more abstract qualities.

The challenge for all traditional medicine schools is to teach sufficient factual knowledge and practical skills, and also to encourage students to be enquiring, analytical and to develop desirable professional attitudes. Attempts should be made throughout the course to inculcate scrupulous ethical principles and to nurture and encourage the development of appropriate attitudes and professional conduct in the caring for patients, in relating to patients' families and to others involved in the care of patients.

Traditional medicine schools should encourage student participation in the education process through self-directed learning and provide opportunities for studying some areas in-depth and for clinical experience in a range of settings.

Any traditional medical training must include a significant period of time devoted to personal contact with patients. During this time, the student has the opportunity to learn of the complex interplay of pathogenic processes, and of social, psychological and physical factors. Students need to witness the roles of family and community supports, and the influence of the physical and social environment in determining the expression and course of disease in different individuals. It is essential that students are taught in an environment where patients as a whole are considered rather than individual organ systems or diseases. Although the diagnosis and management of the person in health and diseases is a central function of the traditional medicine profession, students must also acquire appropriate knowledge, skills and attitudes relating to disease prevention, health promotion and public health medicine. Students must also be made aware of other health practices used by the community including their cultural significance and their benefits and dangers.
Design and implementation of the curriculum

Traditional medicine schools should be able to demonstrate that the content and balance of the curriculum and its assessment matches the explicit objectives of the traditional medicine school. They should also be able to demonstrate that they can implement the curriculum with the resources available to them. Systems of distribution of funds within the university or traditional medicine school should promote the cooperation of individual departments or disciplines and be responsive to recommendations of curriculum committees.

Traditional medicine schools should have in place an identified group of individuals with expertise and interest in traditional medicine education who are responsible for the overall curriculum, implementation and student assessment. Membership of this curriculum committee should include representatives of all the relevant disciplines, but the responsibilities of individuals should transcend specific discipline interests. Traditional medicine schools should also have mechanisms to evaluate, review and change the curriculum.

Organization of topics and integration of the curriculum

All topics should be relevant to the overall objectives of the traditional medicine programme and their relevance should be clear to the students. Practitioners should participate in the teaching of the theoretical components using combined teaching sessions based on clinical problems. This not only helps to enforce basic concepts, but also highlights the relevance of the basic principles to later clinical practice.

The level of knowledge and understanding, skills and attitudes expected of the students at each stage of the course should be defined. For example, if particular clinical skills are learnt in more than one year of the programme, the traditional medicine school should inform both the students and the staff of the standards required each year.

Special health topics requiring emphasis

A number of special topics that are of considerable contemporary importance might require emphasis from time to time, for example, the specific health needs of indigenous people, minority ethnic groups and socially challenged groups; and environmental issues might need to be incorporated into the curriculum. The curriculum committee should develop a mechanism to identify local, national and regional needs, such as a consultative committee with broad community representation.

Elective periods

Elective periods provide students with the opportunity to study certain areas in-depth or to experience the practice of medicine in other environments, including other countries and other settings, both urban and rural. These periods add greatly to the diversity of the students' experience and are to be encouraged, provided they are appraised and do not become predominant over training in core disciplines in local settings.

Teaching and learning methods

Teaching and learning methods should be enjoyable and consistent with the school's educational objectives and should utilize sound educational principles including active student participation, problem solving and the development of communication skills. A school should incorporate educational strategies that promote student-centred learning, stimulate analytical and problem-solving skills, promote organization of knowledge, and foster lifelong learning.
Effective learning outcomes can be achieved using variety of teaching and learning methods including small group learning, peer learning, problem- and project-based learning. The use of a computer is becoming an integral part of professional practice. Computer-assisted learning should supplement other educational methods, and traditional medicine schools should ensure that students acquire an understanding and skills in the use of information and communication technology. The growing use of information and communication technology in teaching and learning can enhance the quality of learning by providing exciting and challenging learning environments and the opportunity for increased interaction and collaboration among learners.

**Clinical teaching settings**

Students need to be exposed to a range of settings in which health care and health promotion are delivered. Where possible, traditional medicine students should obtain experience in working in a variety of Western medicine practice settings in order to develop an understanding of the range and scope of the diagnostic and therapeutic procedure as well as the practice guidelines, policies and regulations guiding the practice of Western medicine.

Over the course of their studies, students need broad and sustained exposure to a range of common health problems and should have the opportunity to work in a variety of settings that may include rural and suburban practices as well as community health centres, nursing homes and hospices. Ideally, students should also have exposure to hospital patients, including the complex and severe cases found in the tertiary teaching hospitals. Where clinical training opportunities are provided in other countries, language and cultural differences may need additional teaching and learning support.

As well as the common and transitory health problems encountered in community practice that are not seen in the hospital setting, students should also experience the effect of the family and the community environment on symptom expression and therapeutic responses.

The objectives and the assessment of all placements, in hospitals and in the community, should be clearly defined and known to both the students and the supervisors. The traditional medicine school needs to have mechanisms to ensure that all placements enable students to undertake a thorough study of a series of patients under the supervision of suitably qualified clinicians who understand the learning objectives and assessment criteria for the clinical placement.

Every effort must be made to provide appropriate support services, such as library services and accommodation in all clinical settings. The school should make a special effort to monitor the educational experiences in more remote clinical attachments.

**ASSESSMENT OF EDUCATIONAL OUTCOMES**

Student learning is driven by assessment. It is therefore essential that methods of student assessment match and reinforce the goals and objectives of the traditional medicine programme. Assessment methods should be explicit and made known to students at the outset of the programme or the programme component. When a traditional medicine school changes the objectives of its traditional medicine programme, the assessment process should reflect these changes. Conventional assessment tools are unlikely to be helpful in measuring abilities such as independent learning, communication with patients, working as part of a health team and problem-solving skills. Traditional medicine schools should therefore seek to develop valid and reliable instruments to assess all their specific educational objectives.
Annex 4

Assessment comprises summative assessment, which serves to determine student progression, and formative assessment, where assessment is for student guidance only. Methods of formative and summative assessment may include written assessments, oral assessments, projects, documentation of the performance of practical procedures (such as log books) and clinical case examinations.

Although the reproducibility (reliability) of clinical examinations is usually less than that of written examinations, clinical examinations, whether on real or simulated patients, should form a significant component of the overall process of assessment of the clinical disciplines. This is partly because of the incentive it provides to students to practice their clinical and other health practice skills in a variety of settings and partly because no other method has been shown to provide a more valid basis for the assessment of competencies. Greater reproducibility can be achieved by using simulated and standardized situations and by testing specific skills in a structured, multiple-station assessment process, sometimes known as the “objective structured clinical examination”. Even when these forms of assessment are used, there may still be a need for an in-depth examination of a patient. This allows the traditional medicine school to assess the student’s ability to take a complete history, conduct a full clinical examination, interpret the findings and develop a management plan. Thus, assessment should include observation of the student performing a complete clinical and health skills evaluation.

STUDENT SELECTION AND SUPPORT

Methods of student selection

There are many approaches to selecting students. The aim of selection is to identify those students most likely to complete the course successfully and become successful graduates. Whatever selection process is chosen, it must be clearly defined, consistent, defensible and, except where explicit affirmative action in favour of nominated disadvantaged groups is used, free of discrimination or bias. A description of the selection process should be published and available to potential students. Where a school uses student interview, it should ensure that it is structured to be as objective and fair as is possible. Traditional medicine schools should monitor their selection process to ensure consistency with their stated objectives. Each traditional medicine school should have in place an appeal mechanism.

Although students need certain standards of literacy, numeracy, aptitude and scientific knowledge to complete a traditional medicine programme, the school should not demand an extensive and prescriptive list of prerequisite subjects for entry.

Student support and facilities

The traditional medicine school should provide adequate student support services and physical facilities for student study and recreation. Student support services should include access to counselling services with trained staff, a student health service, student academic advisers, and more informal and readily accessible advice from individual academic staff. These services should provide support to maintain the physical and emotional well-being of students. Assistance with such matters as vocational counselling, the development of learning skills, and financial advice and support should also be available. If non-academic concerns become apparent, there should be a formal mechanism that allows the school to notify the regulatory authority where such an authority exists, of such concerns about the ability of the student to meet the requirements of registration.

Mechanisms for exit to alternative courses
Annex 4

Traditional medicine schools should explore options for students who decide in the middle or later stages of the course that they do not wish to complete the traditional medicine programme. Students may wish to transfer to an alternative course, or complete a limited and prescribed amount of additional study to acquire an alternative degree.

Personal development of students

The curriculum should encourage personal development of breadth and perspective in the student, rather than being focused too narrowly on vocational training. Elective periods, self-directed learning, advanced study units in optional areas and intercalated years of research or work experience locally or abroad can all help to develop this breadth.

ACADEMIC STAFF/FACULTY

The quality of teaching staff is a vital ingredient of effective traditional medicine education. The faculty should consist of an appropriate blend of academic staff with expertise in traditional medicine clinical practice and medical sciences and, where possible, be actively involved in research and development of the traditional medicine field. Schools should develop transparent processes for recruiting and maintaining the best staff. This can be achieved by providing the best working conditions it can afford and by cooperative arrangements with appropriate health care services.

Traditional medicine schools should have policies on staff development and review. Staff development should be formative, and provide opportunities for the mentoring of newer staff by more experienced staff.

In order to undertake and sustain curriculum evaluation and reform, traditional medicine schools need staff with educational expertise that can be directed not only to curriculum design but also to teaching and learning methods, staff development, student assessment and course evaluation. There are advantages in creating an education centre or unit within the school that can facilitate and support school-wide developments. There are advantages in exploring the shared use of educational expertise and resources of other traditional medicine schools both nationally and internationally.

EDUCATIONAL RESOURCES

Teaching facilities

Traditional medicine schools should have access to well-equipped facilities to allow the achievement of educational objectives. This may include auditoriums, tutorial rooms, computers and audiovisual equipment, libraries, herbal specimens, traditional medicine laboratories and laboratory equipment, and clinical teaching facilities.

Libraries should maintain a collection of reference materials adequate to meet the curriculum and research needs of the students and the faculty staff. Supportive staff should be available to help the students. Access to computer-based reference systems should also be provided.
Facilities in other teaching centres including hospitals

Institutions involved in teaching should provide suitable facilities for students. Hospital accommodation to allow students to stay overnight and witness acute presentation of disease and emergency management is desirable. There should be facilities for quiet study and for relaxation. Other teaching centres, such as community centres, also need appropriate resources.

Research

Traditional medicine education is greatly enhanced by an environment in which research is actively pursued. A research ethos attracts high calibre staff who can engender a milieu of critical appraisal and evaluation of existing knowledge, and who can contribute to the advancement of knowledge. Active researchers are also in the best position to interpret and apply advances in traditional medicine occurring elsewhere for the benefit of the local community. The resources they attract through research grants add to the number of available teachers and boost the morale of the teaching staff. Moreover, while teaching, service, and research commitments can be construed as competitive for the time of busy professionals, often the contact engendered by interdisciplinary teaching has beneficial effects for research collaboration and delivery of clinical services. Research in traditional medicine may include educational studies and studies specific to sustainability of traditional medicine practice.

An active research environment provides students with opportunities to observe and participate in ongoing programmes either as mandatory or elective components of their curriculum. All students can benefit from direct contact with active researchers. Exposure to an atmosphere of curiosity and enquiry promotes the enduring ability to solve problems, analyse data and update knowledge. Students should have the opportunity for in-depth research experience to encourage an interest in research in their future careers. Alongside teaching, research and clinical practice should be mutually reinforcing; it does not follow that all academic staff can be equally active in all three domains.

MONITORING, EVALUATING AND CHANGING THE CURRICULUM

Each traditional medicine school should develop multiple sources and mechanisms for ongoing monitoring and evaluation of its curriculum, and teaching and learning. The focus of the evaluation should be on identifying strengths and opportunities for improvement. There should be mechanisms for feeding the information back to those responsible for designing and teaching individual courses or course components. Students should be kept informed of changes introduced as a result of evaluation.

The best method of evaluating the appropriateness and effectiveness of the traditional medicine programme is to examine the quality of the graduates. Traditional medicine schools should have follow-up mechanisms for obtaining feedback about their graduates from a number of sources and act on it as appropriate.

GOVERNANCE AND ADMINISTRATION

Administration and structure within the university

There are many ways of administering a traditional medicine school. While the specific structure is the responsibility of the parent university, the traditional medicine school should be able to demonstrate sufficient control over its curriculum to allow its objectives to be achieved. Methods of management also differ between universities. A traditional medicine school should have sufficient autonomy to be able to direct resources in an appropriate manner to achieve the
Annex 4

overall objectives of the school. There should be a clear and direct line of responsibility for the curriculum and its resourcing. The head of academic unit, as the chief academic manager of the traditional medicine school, should be appropriately qualified by education and experience and have the managerial authority to provide leadership for the traditional medicine school.

The traditional medicine school must be able to demonstrate that its resources are sufficient to allow the school’s objectives to be achieved and to maintain high standards of traditional medicine education for the proposed period of accreditation.

Grouping traditional medicine schools with schools of other health care professions (such as schools of nursing, physiotherapy, dentistry and pharmacy) in larger units of health sciences can result in economies of scale and interdisciplinary cooperation. Nevertheless, the specific needs of traditional medicine education differ in some ways from those of other health sciences. Although elements of basic traditional medicine education may appropriately be undertaken together with other branches of health care, the differing depth of knowledge required in many areas will usually necessitate specific courses designed for the traditional medicine curriculum.

Where medical science departments (such as biochemistry, physiology, anatomy, microbiology, pharmacology and behavioural science) administered through other faculties, the traditional medicine school should be able to demonstrate that it exercises sufficient curriculum control to achieve the specific educational goals of traditional medicine education.

Relationship of the traditional medicine schools with government health departments

Traditional medicine education may depend on government support. It is essential that the traditional medicine school has a constructive relationship with the government health department. Health care institutions benefit from being centres for traditional medicine education and students benefit from access to patients and teachers within institutions administered through the government. Traditional medicine schools need a supportive health authority and appropriate channels of communication to allow problems to be addressed and new initiatives to be developed.

Relationship with affiliated institutions and the community

Ideally, there should be effective communication and liaison between the university, the traditional medicine school and the health care and research institutions, including those affiliated with the university. Ideally, traditional medicine schools should develop effective communication and liaison with other higher education departments and schools, which may include traditional medicine, Western medicine, external health care, and cross-disciplinary education and research. Academic staff of traditional medicine schools working within health care institutions must be integrated into the service and administrative activities of the institution so that they have appropriate access to patients for teaching and health research and are able to maintain their clinical and health skills. Staff employed by the affiliated institutions must fulfil their teaching obligations. While formalized arrangements can protect these relationships, they are best developed by an ethos of reciprocity.

As it is important that institutions associated or affiliated with traditional medicine schools share the educational and research objectives of the traditional medicine school, the university should be represented on the relevant staff appointment committees, and preferably the board of management of its affiliated institutions. In turn, the institutions should be represented on the committees of the traditional medicine school, especially those appointing academic staff who will have clinical responsibilities.
A formal mechanism for high-level consultation between the traditional medicine school and affiliated institutions should ensure appropriate communication and liaison on matters of mutual interest, particularly those relating to teaching, research, clinical and health service. Consultation should include regular communication with the health department and formal agreements that meet the interests of both parties.

So that it can respond appropriately to the health care needs of the community, the traditional medicine school should have effective methods for communicating with and receiving the opinions of traditional medicine practitioners, health workers and recipients of health care in the community.

CONTINUOUS RENEWAL OF TRADITIONAL MEDICINE SCHOOLS

Communities increasingly demand more accountability from their public institutions, including traditional medicine schools. Communities need accessible traditional medicine practitioners who are competent to treat common conditions and to serve the needs of social groups such as the elderly, and the socially and geographically disadvantaged. Traditional medicine school needs to focus more of their education, research and service on the requirements of health care delivery in their countries.

In addition to being responsive to these social needs, Traditional medicine schools need to adapt continuously to changes in scientific, educational and health practices worldwide. To meet these challenges Traditional medicine schools need robust and dynamic procedures for reviewing, modifying and renewing their fundamental structures and activities.
Definition of quality assurance

An acceptable definition is obtained from the Quality Assurance Agency for Higher Education in the United Kingdom, which defines quality assurance as:

"...the totality of systems, resources and information devoted to maintaining and improving the quality and standards of teaching, scholarship and research, and of students' learning experience."

Institutions have to maintain and demonstrate quality because they are subject to increasingly fierce competition for students and resources. The markets in which they compete are themselves becoming increasingly competitive and well informed.

Quality assurance system

There are two parts to a quality assurance system, an internal and an external quality assurance process. The most important part of the system is the Traditional medicine school's internal quality assurance process. The internal quality process is important because ultimately the quality of Traditional medicine education depends on the interaction between the teacher and the student, and on the collective integrity and professionalism of the academic community.

A traditional medicine school develops its own goals and objectives, which are relevant to local and national health care needs, as well as the methods to achieve the goals. It then conducts periodic reviews to assess the extent to which goals are met within the framework of the guidelines, and whether the methods of teaching and learning, the facilities, and the financial and human resources for delivery of the curriculum support the goals. A traditional medicine school may invite external reviewers to assist in the review.

The other part of a quality assurance system is external quality assurance, which is practised in most countries through mechanisms such as accreditation, validation and audit. External scrutiny is needed to confirm that a traditional medicine school's responsibilities are being properly discharged.

In many countries, public money is allocated to traditional medicine education. Therefore, there must be reasonable evidence that competent and safe graduates are being produced to meet the needs of the nation. Also, because the number of students and traditional medicine schools are rapidly expanding, methodological approaches have to be adopted to provide guarantees of quality.

For the purpose of external quality assurance, most countries establish an independent agency that carries out its functions in a continuous, transparent and open way. The external agency is usually called the accrediting authority or quality assurance agency. The external agency usually includes in its quality process representatives of universities with traditional medicine schools, health professionals, health care authorities, registration authorities and members of the community. In most countries, the processes of the external agency incorporate the traditional medicine school's own internal quality assurance processes.
Benefits of quality assurance by accreditation

Benefits flow from the feedback provided by external reviewers and report. Feedback includes the opinions of experts in particular fields of traditional medicine education, the shared experiences of colleagues who have faced similar challenges, the cross fertilization of ideas from institutions that have adopted different methods, and the local and national leverage that authoritative reports can provide in rectifying deficiencies.

A voluntary system of quality assurance of traditional medicine schools, among interested countries and institutions, based on the quality guidelines for traditional medicine education, can provide many benefits. Apart from the above benefits to the institution, a quality assurance mechanism also serves many useful purposes for its stakeholders, which include prospective students, employers of the graduates of traditional medicine schools and, ultimately, the community that relies on the traditional medicine school to produce safe, effective and caring professional traditional medicine practitioners.

Best practice in quality assurance systems

While universities have a long tradition of academic autonomy, which has ensured that fundamental educational principles are not compromised by other interest groups, in professional programmes such as traditional medicine, the community, the profession and government all have legitimate interests in the quality and orientation of the graduates of the programme.

A credible quality assurance process should therefore have the following attributes:

- It should include all major stakeholders.
- It should be open to external public scrutiny.
- It should be conducted in a consultative and consensus-building fashion.
- It should be collegial but not collusive.
- It should balance academic priorities with those of regulating authorities.
- It should identify both strengths and weaknesses.
- It should encourage innovation and re-orientation toward changing health needs.
- It should have the means and authority to implement its conclusions.
- It should monitor progress on an ongoing cycle of review.
- It should focus on the achievement of self-specified objectives.
- It should encourage a variety of methods of teaching and learning.
- It should ensure the choice of credible student assessment methods appropriate for the teaching and learning methods chosen.
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- It should ensure there are adequate resources to deliver the curriculum.
- It should be concerned with good outcomes and not detailed specifications of curriculum contents.

Procedures in quality assurance of traditional medicine education

The following processes are recommended for an effective quality assurance system.

Self-review by the traditional medicine school

This process enables the traditional medicine school to reflect on and identify its strengths and weaknesses, and to decide on areas for change. In self-review, the traditional medicine school brings together representatives of the administration, the academic faculty, students, those associated with its teaching facilities and other constituents to collect and review data about the traditional medicine school and the educational programme, identify the strengths and problem areas and devise strategies to ensure that the strengths are maintained and problems are addressed. The educational guidelines are used to evaluate the traditional medicine school's sufficiency and organization of the resources as well as the performance and effectiveness of the programme. The traditional medicine school usually sets up an internal task force chaired by the responsible officer. Chairpersons are appointed for each section of the guidelines and a person who is familiar with the traditional medicine education process is appointed as coordinator of the self-study process. Traditional medicine schools should comply with quality assurance processes within the institutions.

External quality assurance process

In an external quality assurance process, the traditional medicine school submits its self-review report and database of information about the school and its programme to an external agency. The external agency constitutes a panel of four or five reviewers with a balance of expertise in the various disciplines, health services and community interests. A chairperson and secretary of the panel are usually appointed. Each member is responsible for reviewing specific sections of the traditional medicine school report and to identify issues they would like to be clarified.

A reviewer's visit is usually arranged by the traditional medicine school. The visit should be long enough to enable the reviewer to understand the educational programme, to visit the physical facilities and to interact with students, faculty, clinical staff and administrators. The panel assesses whether the traditional medicine school is operating within the educational guidelines and is meeting its own objectives. Apart from observing firsthand the activities and facilities in the traditional medicine school, the other purpose of the visit is to clarify issues identified from the self-review report and database as well as to validate some of the information. The visit is a peer-review process and the review panel is professional, collegial and positive, not punitive. The aim is to be helpful to the traditional medicine school. The reviewers prepare an interim report that is given to the traditional medicine school for correction of errors of fact. A final report is then prepared.

Accreditation

In countries that have an accreditation process, the report is submitted to the accrediting authority. The accrediting authority may make a final decision on accreditation based on the report. The period of accreditation, if granted, may vary from three to five years, or longer, depending on the duration of the programme.
Sometimes a traditional medicine school is given accreditation subject to certain conditions being addressed within specified periods. The accrediting authority may revisit a traditional medicine school in this category during the period of accreditation, depending on the periodic reports. If the traditional medicine school does not achieve the required progress, the accrediting authority may revoke or reduce the accreditation to a shorter period of time. It may also impose additional conditions.

Quality assurance in approving new traditional medicine programmes

The development of a new traditional medicine programme is a complex undertaking. Before a new programme is set up, decisions need to be made about the workforce implications of the new programme, how it will be resourced, and the educational needs it will serve. It also needs to be decided whether the proposed programme is likely to meet the standards in the educational guidelines, whether it has demonstrated the commitment and capacity to manage the change process and how the new traditional medicine programme will have an impact on the educational and clinical resources available to existing traditional medicine schools. A panel of reviewers is usually constituted to study the broad outline of the new programme, which is submitted by the traditional medicine school well before the new programme is to be introduced. A site visit may be arranged prior to commencement of the programme.

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THE WFME INTERNATIONAL STANDARDS – AMENDED FOR
TRADITIONAL MEDICINE

DEFINITIONS

The World Federation of Medical Education (WFME) recommended a comprehensive set of international standards in basic medical education. These are provided here with the only major change being the inclusion of item 2.3 on traditional medicine theory. The standards are structured according to nine areas with a total of 37 sub-areas.¹

AREAS are defined as broad components in the structure and process of traditional medicine education and cover:

1. Mission and objectives
2. Educational programme
3. Assessment of students
4. Students
5. Academic staff/faculty
6. Educational resources
7. Programme evaluation
8. Governance and administration
9. Continuous renewal

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

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

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

  Basic standards are expressed by a "must".

• Standards for quality development. This means that the standard is in accordance with international consensus about best practice for traditional medicine schools and basic traditional medicine education. Traditional medicine schools should be able to demonstrate fulfilment of some or all of these or that initiatives to do so have or will be taken. Fulfilment of these standards will vary with the stage of development of the traditional medicine schools, their

¹ WFME is aware of the complex interactions and links between the various areas and sub-areas.
resources and educational policy. Even the most advanced schools might not comply with all standards.

_Standards for quality development are expressed by a “should”._

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

1. MISSION AND OBJECTIVES

1.1 STATEMENTS OF MISSION AND OBJECTIVES

**Basic standard**

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

**Quality development**

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

Annotations:

- *Statements of mission and objectives* would include general and specific issues relevant to institutional, national and regional policy.

- *Any branch of traditional medicine* refers to all types of traditional medicine practice and traditional medicine research.

- *Postgraduate traditional medicine training* would include pre-registration training, vocational training, specialist training and continuing traditional medicine education/professional development.

1.2 PARTICIPATION IN FORMULATION OF MISSION AND OBJECTIVES

**Basic standard**

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

**Quality development**

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

Annotations:

- *Principal stakeholders* would include the dean, members of the faculty board/council, the university, governmental authorities and the profession.
Appendix I

- A wider range of stakeholders would include representatives of academic staff, students, the community, education and health care authorities, professional organizations and postgraduate educators.

1.3 ACADEMIC AUTONOMY

Basic standard

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

Quality development

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

1.4 EDUCATIONAL OUTCOME

Basic standard

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

Quality development

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

Annotations:

- Educational outcome would be defined in terms of the competencies the students must acquire before graduation.

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

2. EDUCATIONAL PROGRAMME

2.1 CURRICULUM MODELS AND INSTRUCTIONAL METHODS

Basic standard

The traditional medicine school must define the curriculum models and instructional methods employed.
Appendix I

Quality development

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

Annotations:

- **Curriculum models** would include discipline, system, problem- and community-based models, etc.

- **Instructional methods** encompass teaching and learning methods

- **Curriculum and instructional methods** should be based on sound learning principles and should foster the ability to participate in the scientific development of traditional medicine as professionals and future colleagues.

2.2 SCIENTIFIC METHOD

Basic standard

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

Quality development

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

Annotation:

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

2.3 TRADITIONAL MEDICINE THEORY

Basic standard

The traditional medicine school must identify and incorporate in the curriculum the contributions of traditional medicine theories fundamental to acquiring and applying clinical practice in traditional medicine.

Quality development

The contributions in the curriculum of the traditional medicine theories should be adapted to the scientific, technological and clinical developments as well as to the health needs of society.

Annotation

- **Traditional medicine theories** would, depending on local needs, interests and traditions, typically include reference to all prominent traditional medicine theories used in the traditional medicine practice.
2.4 BASIC BIOMEDICAL SCIENCES

Basic standard

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

Quality development

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

Annotation:

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

2.5 BEHAVIOURAL AND SOCIAL SCIENCES AND MEDICAL ETHICS

Basic standard

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

Quality development

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

Annotations:

- Behavioural and social sciences would, depending on local needs, interests and traditions, typically include medical psychology, medical sociology, biostatistics, epidemiology, hygiene and public health, community medicine, etc.

- Behavioural and social sciences and medical ethics should provide the knowledge, concepts, methods, skills and attitudes necessary for understanding socio-economic, demographic and cultural determinants of causes, distribution and consequences of health problems.

2.6 CLINICAL SCIENCES AND SKILLS

Basic standard

The traditional medicine school must ensure that students have patient contact and acquire sufficient clinical knowledge and skills to assume appropriate clinical responsibility upon graduation.
Appendix 1

Quality development

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

Annotations:

- Clinical sciences would, depending on local needs, interests and traditions, typically include internal medicine (with subspecialties), dermatology and venereology, general practice/family medicine, geriatrics, gynaecology & obstetrics, laboratory medicine, neurology, oncology, ophthalmology, otorhinolaryngology, paediatrics, pathological anatomy, physiotherapy and rehabilitation medicine, psychiatry, etc.

- Clinical skills include history talking, physical examination, procedures and investigations, emergency practices and communication skills.

- Appropriate clinical responsibility would include health promotion, disease prevention and patient care.

- Participation in patient care would include relevant community experience and teamwork with other health professions.

2.7 CURRICULUM STRUCTURE, COMPOSITION AND DURATION

Basic standard

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

Quality development

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

Annotations:

- Core and optional content refers to a curriculum model with a combination of compulsory elements and electives or special options. The ratio between the two components can vary.

- Integration of disciplines would include both horizontal (concurrent) and vertical (sequential) integration of curricular components.

2.8 PROGRAMME MANAGEMENT

Basic standard

A curriculum committee must be given the responsibility and authority for planning and implementing the curriculum to secure the objectives of the traditional medicine school.
Quality development

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

Annotations:

- The authority of the curriculum committee would include supremacy over specific departmental and subject interests, and the control of the curriculum within existing rules and regulations as defined by the governance structure of the institution and governmental authorities.

- Other stakeholders would include other participants in the educational process, representatives of other health professions or other faculties in the university.

2.9 LINKAGE WITH TRADITIONAL MEDICINE PRACTICE AND THE HEALTH CARE SYSTEM

Basic standard

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

Quality development

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

Annotations:

- Subsequent stages of training would include pre-registration training and specialist training.

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

3. ASSESSMENT OF STUDENTS

3.1 ASSESSMENT METHODS

Basic standard

The traditional medicine school must define and state the methods used for assessment of its students, including the criteria for passing examinations.
Appendix I

Quality development

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

Annotations:

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

- Evaluation of assessment methods may include an evaluation of how they promote learning.

- New assessment methods may include the use of external examiners.

3.2 RELATION BETWEEN ASSESSMENT AND LEARNING

Basic standard

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

Quality development

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

Annotation:

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

4. STUDENTS

4.1 ADMISSION POLICY AND SELECTION

Basic standard

The traditional medicine school must have an admission policy that includes a clear statement on the process of selection of students.

Quality development

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

- The statement on process of selection of students would include both rationale and methods of selection and may include description of a mechanism for appeal.

- The review of admission policies and the recruitment of students would include improvement of selection criteria, to reflect the capability of students to become doctors and to cover the variations in required competencies related to diversity of medicine.

4.2 STUDENT INTAKE

Basic standard

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

Quality development

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

Annotations:

- The needs of community and society may include consideration of balanced intake according to gender, ethnicity and other social requirements, including the potential need of a special admission policy for underprivileged students.

- Stakeholders would include those responsible for human resources in the national health sector.

4.3 STUDENT SUPPORT AND COUNSELLING

Basic standard

A programme of student support, including counselling, must be offered by the traditional medicine school.

Quality development

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

Annotation:

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

Basic standard

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

Quality development

Student activities and student organizations should be encouraged and facilitated.

Annotation:

- Student activities and organizations would include student self-government, student representation on educational committees and other relevant bodies, as well as social activities.

5. ACADEMIC STAFF/FACULTY

5.1 RECRUITMENT POLICY

Basic standard

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

Quality development

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

Annotations:

- Balance of academic staff/faculty would include staff with joint responsibilities in the basic and clinical sciences, in the university and health care facilities, and teachers with dual appointments.

- Issues of local significance may include gender, ethnicity, religion, language and other issues of relevance to the school.

- Merit can be measured by formal qualifications, professional experience, research output, teaching, peer recognition, etc.
5.2 STAFF POLICY AND DEVELOPMENT

Basic standard

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

Quality development

The staff policy should include teacher training and development and teacher appraisal.

Teacher-student ratios relevant to the various curricular components and teacher representation on relevant bodies should be taken into account.

Annotations:

• Service functions would include clinical duties in the health care system, administrative and leadership functions, etc.

• Recognition of meritorious academic activities would be by rewards, promotion and/or remuneration.

6. EDUCATIONAL RESOURCES

6.1 PHYSICAL FACILITIES

Basic standard

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

Quality development

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

Annotation:

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

6.2 CLINICAL TRAINING RESOURCES

Basic standard

The traditional medicine school must ensure adequate clinical experience and the necessary resources, including sufficient patients and clinical training facilities.
Appendix I

**Quality development**

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

**Annotations:**

- *Clinical training facilities* would include hospitals (adequate mix of primary, secondary and tertiary), ambulatory services, clinics, primary health care settings, health care centres and other community health care settings as well as skills laboratories.

- *Facilities for clinical training* should be evaluated regularly for their appropriateness and quality regarding traditional medicine training programmes.

**6.3 INFORMATION TECHNOLOGY**

**Basic standard**

The traditional medicine school must have a policy that addresses the evaluation and effective use of information and communication technology in the educational programme.

**Quality development**

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

**Annotations:**

- A policy regarding the use of computers, internal and external networks and other means of *information and communication technology* would include coordination with the library services of the institution.

- The use of *information and communication technology* may be part of education for evidence-based medicine and in preparing the students for continuing medical education and professional development.

**6.4 RESEARCH**

**Basic standard**

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

**Quality development**

The interaction between research and education activities should be reflected in the curriculum and influence current teaching and should encourage and prepare students to engagement in traditional medicine research and development.
6.5 EDUCATIONAL EXPERTISE

**Basic standard**

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

**Quality development**

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

**Annotations:**

- *Educational expertise* would deal with problems, processes and practice of traditional medicine education and would include traditional medicine doctors with research experience in traditional medicine education, educational psychologists, sociologists, etc. It can be provided by an education unit at the institution or be acquired from another national or international institution.

- *Traditional medicine education research* investigates the effectiveness of teaching and learning methods, and the wider institutional context.

6.6 EDUCATIONAL EXCHANGES

**Basic standard**

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

**Quality development**

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

**Annotations:**

- Transfer of *educational credits* can be facilitated through active programme coordination between medical schools.

- *Other educational institutions* would include other traditional medicine schools or public health schools, other faculties, and institutions for education of other health and health-related professions.
Appendix I

7. PROGRAMME EVALUATION

7.1 MECHANISMS FOR PROGRAMME EVALUATION

Basic standard

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

Quality development

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

Annotations:

- Mechanisms for programme evaluation would imply the use of valid and reliable methods and requires that basic data about the traditional medicine curriculum are available. Involvement of experts in traditional medicine education would further broaden the base of evidence for quality of traditional medicine education at the institution.

- Identified concerns would include problems presented to the curriculum committee.

- The context of the educational process would include the organization and resources as well as the learning environment and culture of the traditional medicine school.

- Specific components for programme evaluation would include course description and student performance.

- General outcomes would be measured, e.g. by career choice and postgraduate performance.

7.2 TEACHER AND STUDENT FEEDBACK

Basic standard

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

Quality development

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

7.3 STUDENT PERFORMANCE

Basic standard

Student performance must be analysed in relation to the curriculum and the mission and objectives of the traditional medicine school.
Quality development

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

Annotation:

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

7.4 INVOLVEMENT OF STAKEHOLDERS

Basic standard

Programme evaluation must involve the governance and administration of the traditional medicine school, the academic staff and the students.

Quality development

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

Annotation:

- A wider range of stakeholders would include educational and health care authorities, representatives of the community, professional organizations and postgraduate educators.

8. GOVERNANCE AND ADMINISTRATION

8.1 GOVERNANCE

Basic standard

Governance structures and functions of the traditional medicine school must be defined, including their relationships within the university.

Quality development

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

Annotations:

- The committee structure would include a curriculum committee with the authority to design and manage the traditional medicine curriculum.

- Relationships within the university and its governance structures should be specified, if the traditional medicine school is part of or affiliated to a university.
Appendix I

- Other stakeholders would include the health care sector and the public.

8.2 ACADEMIC LEADERSHIP

Basic standard

The responsibilities of the academic leadership of the traditional medicine school for the traditional medicine educational programme must be clearly stated.

Quality development

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

8.3 EDUCATIONAL BUDGET AND RESOURCE ALLOCATION

Basic standard

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

Quality development

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

Annotation:

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

8.4 ADMINISTRATIVE STAFF AND MANAGEMENT

Basic standard

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

Quality development

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

8.5 INTERACTION WITH HEALTH SECTOR

Basic standard

The traditional medicine school must have a constructive interaction with the health and health-related sectors of society and government.
Quality development

Collaboration with partners of the health sector should be formalized.

Annotations:

- The health sector would include the health care delivery system, whether public or private, medical research institutions, etc.

- The health-related sector would, depending on issues and local organization, include institutions and regulating bodies with implications for health promotion and disease prevention (e.g. with environmental, nutritional and social responsibilities).

9. CONTINUOUS RENEWAL

Basic standard

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

Quality development

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

- adaptation of the mission and objectives of the medical school to the scientific, socio-economic and cultural development of the society;

- modification of the required competencies of the graduating students in accordance with documented needs of the environment graduates will enter (The modification shall include the clinical skills and public health training and involvement in patient care appropriate to responsibilities encountered upon graduation.);

- adaptation of the curricular model and instructional methods to ensure that these are appropriate and relevant;

- adjustment of curricular elements and their relationships in keeping with developments in the biomedical sciences, the behavioural sciences, the social sciences, the clinical sciences, and changes in the demographic profile and health/disease pattern of the population, and socio-economic and cultural conditions (The adjustment shall assure that new relevant knowledge, concepts and methods are included and outdated ones discarded.);

- development of assessment principles, and the methods and the number of examinations according to changes in educational objectives and learning goals and methods;
Appendix I

- adaptation of student recruitment policy and selection methods to changing expectations and circumstances, human resource needs, changes in the premedical education system and the requirements of the educational programme;
- adaptation of recruitment and staffing policy regarding the academic staff according to changing needs of the traditional medicine school;
- updating of educational resources according to changing needs of the traditional medicine school, i.e. the student intake, size and profile of academic staff, the educational programme and contemporary educational principles;
- refinement of programme monitoring and evaluation; and
- development of the organizational structure and management principles in order to cope with changing circumstances and needs of the traditional medicine school and, over time, accommodating to the interests of the different groups of stakeholders.
GUIDELINE FOR COLLECTING DATA

This questionnaire is provided as a guide to assist traditional medicine schools to review their traditional medicine course.

AREA 1. MISSION AND OBJECTIVES

Criterion A: Statements of mission and objectives

Basic  Provide a copy of the published general mission and objectives of the traditional medicine school. The detailed goals and objectives of the traditional medicine course should be described below under criterion D.

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

Criterion B: Participation in formulation of mission and objectives

Basic  Who are the school's major stakeholders? How has the school involved its stakeholders in formulating the mission and objective statements?

Quality  What groups other than the above major stakeholders does the school consult? How does the school consult and involve these groups in ongoing refinement to the mission and objectives statements?

Criterion C: Policy on academic independence

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

Quality  What policies and practices does the traditional medicine school have that ensure teaching by individual staff and by departments appropriately addresses the design of the curriculum? How is this evaluated and, if necessary, redressed? What is the traditional medicine school's process for reviewing resource allocation as the curriculum evolves?

Criterion D: Definition of educational outcomes

Basic  What are the broad competencies (knowledge, skills and attitudes) required of students at graduation? How do these relate to the existing and emergent needs of the society in which the students will practise?

Quality  How does the traditional medicine school measure the competencies of its graduates? How does the school feed back this information into course development?
Appendix 2

AREA 2. EDUCATIONAL PROGRAMME AND PRINCIPLES

Criterion A: Curriculum models and instructional methods

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

Quality  How will these methods encourage students to take active responsibility for their learning. What evidence is available to verify that these methods prepare students for lifelong learning?

Criterion B: Scientific foundation

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

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

Criterion C: Role of traditional medicine theory

Basic  What traditional medicine theories contribute to the course? How is their contribution integrated with clinical practice at the different stages of the curriculum?

Quality  What is the process by which the traditional medicine school adapts the curricular contributions of the traditional medicine theory to developments in the science, practice and delivery of health care?

Criterion D: Role of Basic Sciences

Basic  What basic biomedical sciences contribute to the traditional medicine course? How is their contribution integrated with clinical sciences at the different stages of the curriculum?

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

Criterion E: Role of Behavioural and Social Sciences and Medical Ethics

Basic  How does the curriculum provide for contributions of behavioural sciences, the social sciences and medical ethics?

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

Criterion F: Role of clinical sciences and skills

Basic  What are the specific objectives (knowledge, skills and attitudes) specified to ensure clinical competence on graduation? What are the specific clinical disciplines and forms of practice (inpatient/ambulatory health care, hospital/community, rural/urban, specialist/general) in which this experience is to be acquired?
Appendix 2

Quality: What specific opportunities are there for early and ongoing direct participation in patient care and for working with other health professionals?

Criterion G: Curriculum structure, composition and duration

Basic: For the core curriculum, provide a summary in terms of topics/subjects taught, length (hours/weeks), by semester/year. Provide a brief synopsis of individual topics. Indicate where health promotion and preventive medicine. For optional subjects provide a similar summary.

Quality: What policies guide integration of the curriculum? What mechanisms exist to ensure that it occurs?

Criterion H: Programme management

Basic: What are the terms of reference and composition of the curriculum committee? Specifically, what authority does the committee have to resolve conflicts of educational principle and to determine the contributions of specific disciplines to the traditional medicine course? How are its decisions implemented?

Quality: What is the traditional medicine school's mechanism for introducing teaching and learning, evaluation and curriculum innovations? Does the traditional medicine school have a traditional medicine education unit for these purposes? If so, what is its scope?

Criterion I: Linkage with traditional medicine practice

Basic: What links exist between the traditional medicine programme and the next stage of training for practice? What specific transition programmes occur in the final year of the course? Are there reciprocal representations between the committees responsible for the basic traditional medicine phase and the subsequent phase?

Quality: How does the curriculum committee obtain the participation of health services in effecting the transition between the traditional medicine programme and the next stage of training? How does it evaluate the effectiveness of its programme?

AREA 3 ASSESSMENT OF EDUCATIONAL OUTCOMES

Criterion A: Assessment methodology

Basic: What committee is responsible for assessment policy? What are its terms of reference, composition and authority? Provide the general policy on assessment, including the documents provided to students that specify timing, weighting and criteria for progression.

Quality: How does the traditional medicine school monitor the reliability and validity of assessments? How are new assessment methods introduced? How are internal assessments validated against external standards?

Criterion B: Relation between assessment and learning
Appendix 2

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

**Quality** How does the traditional medicine school monitor assessment to reduce curriculum overload and encourage integration?

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**AREA 4. STUDENTS**

**Criterion A: Recruitment and admission policy**

**Basic** What are the academic criteria for admission to the traditional medicine course? Are there additional requirements at institutional or government level?

**Quality** How do the methods used to select students test their suitability and capability to practise in diverse areas of traditional medicine? How do they comply with the social responsibilities and health needs?

**Criterion B: Methods of selection**

**Basic** What body is responsible for selection policy? What methods does it use?

**Quality** How does the selection committee evaluate the outcome of its policies on subsequent educational achievement? What mechanisms exist for appeal?

**Criterion C: Student intake**

**Basic** What quotas exist and how are they determined?

**Quality** What mechanisms exist for adjusting the quotas?

**Criterion D: Student support and counselling**

**Basic** What student support programmes are available through the traditional medicine school? What other programmes can students access?

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

**Criterion E: Student representation**

**Basic** What is the traditional medicine school’s policy on student contribution to curriculum matters? How have students contributed to the development of this policy?

**Quality** What practical measures does the traditional medicine school have for encouraging student participation and self-government?
AREA 5. ACADEMIC STAFF/FACULTY

Criterion A: Recruitment policy

Basic What policies does the traditional medicine school have for ensuring that the staffing profile matches the range and balance of teaching skills required to deliver the curriculum? What are the requirements related to the qualifications for appointment? Are there institutional or government policies or requirements that affect the traditional medicine school’s staffing decisions? How frequently does the traditional medicine school review its priority list for staffing?

Quality How does the traditional medicine school propose to improve its recruitment of staff to meet its objectives?

Criterion B: Staffing policy

Basic What is the traditional medicine school policy for ensuring that teaching, research and service contributions are appropriately recognized and rewarded? Are there additional institutional or government policies?

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

AREA 6. EDUCATIONAL RESOURCES

Criterion A: Physical facilities

Basic Provide a brief description of each of the physical facilities available for the delivery of the non-clinical components of the curriculum. How does the traditional medicine school review the adequacy of the educational resources? What mechanisms exist for gathering feedback from students and staff on the facilities? What authority does the traditional medicine school have to direct resources to respond to deficiencies?

Quality Indicate what plans exist for improving these facilities.

Criterion B: Facilities for clinical training

Basic Provide a brief description of the facilities available for clinical training in hospitals, ambulatory services, community clinics and primary health care settings. How does the traditional medicine school review the adequacy of the facilities and patients available for clinical teaching? What mechanisms exist to deal with deficiencies?

Quality How is the traditional medicine school adjusting and expanding its use of clinical training facilities including skills, laboratories and affiliated institutions?
Appendix 2

Criterion C: Information technology and networking

Basic What policies does the traditional medicine school have for the use of information technology in its teaching programme? What committee or body is responsible for formulating the traditional medicine school’s policies? Are there additional institutional policies? What authority does the traditional medicine school have to direct resources to the use of information and communication technology?

Quality How is the traditional medicine school enhancing delivery of the curriculum by electronic methods?

Criterion D: Research attainment

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

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

Criterion E: Traditional medicine education expertise

Basic What policies does the traditional medicine school have to ensure that its education methodologies are appropriate for the delivery of the curriculum?

Quality Does the traditional medicine school have access to an expert traditional medicine education unit and how does it operate?

Criterion F: Exchange with other educational institutions

Basic What policies does the traditional medicine school have for collaborating with other educational institutions? Provide a summary of the existing collaborative links with other institutions and describe the nature of those links, student exchanges, staff exchanges, and research. What is the traditional medicine school’s policy on the transfer of educational credit?

Quality Describe any activities directed towards regional and international cooperation with other traditional medicine schools.

AREA 7. MONITORING AND EVALUATION OF PROGRAMMES AND COURSES

Criterion A: Mechanisms for programme evaluation

Basic How does the traditional medicine school evaluate its programme? Is there a group that independently monitors performance and outcomes data and ensures that identified concerns are addressed by the appropriate body? What evaluation data are being collected?

Quality Describe how evaluation activities are being enhanced to cover all components of the traditional medicine education programme.
Criterion B: Student and teacher opinion

Basic How does the traditional medicine school sample the opinions of staff and students about its educational programme?

Quality How does the traditional medicine school encourage individual staff and students to participate in its evaluation activities?

Criterion C: Student performance

Basic What statistical data on student performance is collected and analysed?

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

Criterion D: Feedback of evaluation information

Basic How is information gathered from programme evaluation to modify the curriculum?

Quality What steps are being taken to ensure that there is an evidence-based approach to the enhancement of the quality of the traditional medicine education programme?

Criterion E: Involvement of stakeholders

Basic To what extent are the principal stakeholders within the traditional medicine school involved in programme evaluation? How does the traditional medicine school communicate the outcomes of programme evaluation to stakeholders?

Quality To what extent are the principal external stakeholders of the traditional medicine school involved in the evaluation of its programme?

AREA 8. GOVERNANCE AND ADMINISTRATION

Criterion A: Organizational structure (refer to Criterion 2G)

Criterion B: Educational budget and resource allocation (refer to Criterion 2C)

Criterion C: Academic Leadership

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

Quality How is the performance of the academic leadership of the school appraised?

Criterion D: Administrative staff and management

Basic What administrative support functions are provided by staff of the school? Describe the administrative staffing structure to support these functions.
Appendix 2

Quality  Does the administrative and management component of the traditional medicine school have a quality assurance programme and how is it reviewed?

Criterion E: Interaction with health sector

Basic  Describe the relationships between the traditional medicine school and the health services with which it interacts.

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

AREA 9. CONTINUOUS RENEWAL OF THE TRADITIONAL MEDICINE SCHOOL

Basic  How frequently does the traditional medicine school review its mission, structures and activities? What processes does it use for review?

Quality  Describe recent and projected activities undertaken to ensure that the traditional medicine school remains responsive to its changing environment.