

Benchmarks for training in traditional / complementary and alternative medicine

Benchmarks for Training in Naturopathy



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Contents

Coı	ntents	111
Acl	knowledgements	v
For	reword	vii
Pre	face	ix
Int	roduction	1
1.	Origin and principles of naturopathy	3
2.	Training of naturopathic practitioners	7
2.1		
2.2		
2.3	•	8
2.4		
3.	Safety issues	11
Ref	13	
An	15	
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Foreword

The oldest existing therapeutic systems used by humanity for health and well-being are called Traditional Medicine or Complementary and Alternative Medicine (TM/CAM).

Increasingly, TM/CAM is being formally used within existing health-care systems. When practised correctly, TM/CAM can help protect and improve citizens' health and well-being. The appropriate use of TM/CAM therapies and products, however, requires consideration of issues of safety, efficacy and quality. This is the basis of consumer protection and is no different, in principle, from what underpins modern medical practice. Upholding basic requirements for the modern practice of TM/CAM therapies can support national health authorities in the establishment of adequate laws, rules, and licensing practices.

These considerations have guided the work of the Regional Government of Lombardy in TM/CAM which was first included in the Regional Health Plan 2002-2004. Clinical and observational studies in the region of Lombardy have provided a crucial step in the evaluation of TM/CAM. With the help of data from these studies, a series of governmental provisions have been used to create a framework for the protection of consumers and providers. The cornerstone of this process was the first Memorandum of Understanding (MOU) for the Quadrennial Cooperation Plan which was signed between the Regional Government of Lombardy and the World Health Organization. The MOU highlighted the need for certain criteria to be met including: the rational use of TM/CAM by consumers; good practice; quality; safety; and the promotion of clinical and observational studies of TM/CAM. When they were published in 2004, the WHO guidelines for developing consumer information on proper use of traditional, complementary, and alternative medicine were incorporated into this first MOU.

In the region of Lombardy, citizens currently play an active role in their health-care choices. The awareness of the advantages as well as of the risks of every type of care is therefore critical, also when a citizen actively chooses to use TM/CAM. Consumers have begun to raise new questions related to the safe and effective treatment by all providers of TM/CAM. For this reason, the Regional Government of Lombardy closely follows WHO guidelines on qualified practice of TM/CAM in order to guarantee appropriate use through the creation of laws and regulations on skills, quality control, and safety and efficacy of products, and clear guidelines about practitioner qualifications. The Regional Government of Lombardy has also provided support and cooperated with WHO in developing this series of benchmark documents for selected popularly used TM/CAM therapies including Ayurveda, naturopathy, Nuad Thai, osteopathy, traditional Chinese medicine, Tuina, and Unani medicine.

Modern scientific practice requires a product or a therapeutic technique to be safe and effective, meaning that it has specific indications and evidence for care supported by appropriate research. Practitioners, policy-makers and planners, both within and outside ministries of health, are responsible for adhering to this, in order to guarantee the safety and the efficacy of medicines and practices for their citizens. Furthermore, safety not only relates to products or practices per se, but also to how they are used by practitioners. Therefore it is important that policy-makers are increasingly able to standardize the training of practitioners for it is another fundamental aspect of protecting both the providers and the consumers.

Since 2002, the Social-Health Plan of the Lombardy Region has supported the principle of freedom of choice among different health-care options based on evidence and scientific data. By referring to the benchmarks in this present series of documents, it is possible to build a strong foundation of health-care options which will support citizens in exercising their right to make informed choices about different styles of care and selected practices and products.

The aim of this series of benchmark documents is to ensure that TM/CAM practices meet minimum levels of adequate knowledge, skills and awareness of indications and contraindications. These documents may also be used to facilitate establishing the regulation and registration of providers of TM/CAM.

Step by step we are establishing the building blocks that will ensure consumer safety in the use of TM/CAM. The Regional Government of Lombardy hopes that the current series will be a useful reference for health authorities worldwide, and that these documents will support countries to establish appropriate legal and regulatory frameworks for the practice of TM/CAM.

Luciano Bresciani Regional Minister of Health Regional Government of Lombardy Giulio Boscagli Regional Minister of Family and Social Solidarity Regional Government of Lombardy

Preface

There has been a dramatic surge in popularity of the various disciplines collectively known as traditional medicine (TM) over the past thirty years. For example, 75% of the population in Mali and 70% in Myanmar depend on TM and TM practitioners for primary care, while use has also greatly increased in many developed countries where it is considered a part of complementary and alternative medicine (CAM). For instance, 70% of the population in Canada and 80% in Germany have used, in their life time, traditional medicine under the title complementary and alternative medicine.

Integration of traditional medicine into national health systems

Traditional medicine has strong historical and cultural roots. Particularly in developing countries, traditional healers or practitioners would often be well-known and respected in the local community. However, more recently, the increasing use of traditional medicines combined with increased international mobility means that the practice of traditional medicines therapies and treatments is, in many cases, no longer limited to the countries of origin. This can make it difficult to identify qualified practitioners of traditional medicine in some countries.

One of the four main objectives of the WHO traditional medicine strategy 2002-2005 was to support countries to integrate traditional medicine into their own health systems. In 2003, a WHO resolution (WHA56.31) on traditional medicine urged Member States, where appropriate, to formulate and implement national policies and regulations on traditional and complementary and alternative medicine to support their proper use. Further, Member States were urged to integrate TM/CAM into their national health-care systems, depending on their relevant national situations.

Later in 2003, the results of a global survey on policies for TM/CAM conducted by WHO showed that the implementation of the strategy is making headway. For example, the number of Member States reporting that they have a national policy on traditional medicine rose from five in 1990, to 39 in 2003, and to 48 in 2007. Member States with regulations on herbal medicines rose from 14 in 1986, to 80 in 2003, and to 110 in 2007. Member States with national research institutes of traditional medicine or herbal medicines rose from 12 in 1970, to 56 in 2003, and to 62 in 2007.

¹ Presentation by the Governments of Mali and Myanmar at the Congress on Traditional Medicine, Beijing, People's Republic of China, 7-9 November 2008.

² Perspectives on Complementary and Alternative Health Care, a collection of papers prepared for Health Canada, Ottawa, Health Canada, 2001.

³ Annette Tuffs Heidelberg. Three out of four Germans have used complementary or natural remedies, British Medical Journal 2002, 325:990 (2 November).

⁴ WHO medicines strategy 2008-2013 and Report from a WHO global survey on national policy on traditional medicine and regulation of herbal medicines, 2005.

Ideally, countries would blend traditional and conventional ways of providing care in ways that make the most of the best features of each system and allow each to compensate for weaknesses in the other. Therefore, the 2009 WHO resolution (WHA62.13) on traditional medicine further urged Member States to consider, where appropriate, inclusion of traditional medicine in their national health systems. How this takes place would depend on national capacities, priorities, legislation and circumstances. It would have to consider evidence of safety, efficacy and quality.

Resolution WHA62.13 also urged Member States to consider, where appropriate, establishing systems for the qualification, accreditation or licensing of practitioners of traditional medicine. It urged Member States to assist practitioners in upgrading their knowledge and skills in collaboration with relevant providers of conventional care. The present series of benchmarks for basic training for selected types of TM/CAM care is part of the implementation of the WHO resolution. It concerns forms of TM/CAM that enjoy increasing popularity (Ayurveda, naturopathy, Nuad Thai, osteopathy, traditional Chinese medicine, Tuina, and Unani medicine).

These benchmarks reflect what the community of practitioners in each of these disciplines considers to be reasonable practice in training professionals to practice the respective discipline, considering consumer protection and patient safety as core to professional practice. They provide a reference point to which actual practice can be compared and evaluated. The series of seven documents is intended to:

- support countries to establish systems for the qualification, accreditation or licensing of practitioners of traditional medicine;
- assist practitioners in upgrading their knowledge and skills in collaboration with providers of conventional care;
- allow better communication between providers of conventional and traditional care as well as other health professionals, medical students and relevant researchers through appropriate training programmes;
- support integration of traditional medicine into the national health system.

The documents describe models of training for trainees with different backgrounds. They list contraindications identified by the community of practitioners, so as to promote safe practice and minimize the risk of accidents.

Drafting and Consultation Process

The most elaborated material to establish benchmarks comes from the countries where the various forms of traditional medicine under consideration originated. These countries have established formal education or national requirements for licensure or qualified practice. Any relevant benchmarks must refer to these national standards and requirements.

The first stage of drafting of this series of documents was delegated to the national authorities in the countries of origin of each of the respective forms of traditional, complementary or alternative medicine discussed. These drafts were then, in a second stage, distributed to more than 300 reviewers in more than 140 countries. These reviewers included experts and national health authorities, WHO collaborating centres for traditional medicine, and relevant international

and regional professional nongovernmental organizations. The documents were then revised based on the comments and suggestions received. Finally, WHO organized consultations for further final review, prior to editing.

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Introduction

As more people turn to complementary and alternative health care to meet their various health-care needs, the use of naturopathic approaches continues to grow in popularity (1,2,3). This document begins with a brief overview of the naturopathic profession, including a discussion of terminology, followed by a summary of the principles that inform naturopathic practice. It is recognized that naturopathic practice may include additional roles, including the distribution of naturopathic products. However, these additional roles are considered beyond the scope of this document, which aims only to outline benchmarks for the training of practitioners, considered adequate by the community of practitioners, experts and regulators of naturopathy.

In general, naturopathy emphasizes prevention, treatment and the promotion of optimal health through the use of therapeutic methods and modalities which encourage the self-healing process – the *vis medicatrix naturae*. The philosophical approaches of naturopathy include prevention of disease, encouragement of the body's inherent healing abilities, natural treatment of the whole person, personal responsibility for one's health, and education of patients in health-promoting lifestyles. Naturopathy blends centuries-old knowledge of natural therapies with current advances in the understanding of health and human systems. Naturopathy, therefore, can be described as the general practice of natural health therapies.

This document provides benchmarks for basic training of practitioners of naturopathy; models of training for trainees with different backgrounds; and a review of what the community of practitioners of naturopathy considers as contraindications, so as to promote safe practice of naturopathy and minimize the risk of accidents. Together, these can serve as a reference for national authorities in establishing systems of training, examination and licensure which support the qualified practice of naturopathy.

1. Origin and principles of naturopathy

Many of the philosophical principles that underpin naturopathic practice can be traced to the teachings of Stoicism in ancient Greece and the practice of medicine in the Hippocratic schools. In addition to these ancient roots, naturopathic practice emerged from an amalgamation of the philosophy, techniques, science and principles that typified the alternative healing systems of the eighteenth and nineteenth centuries, particularly those related to vitalism (4). These alternative approaches tended to focus both on health promotion and on health-care regimes that supported the patient's innate healing processes.

Some of the founding influences that defined naturopathic philosophy and practice include (5,6):

- the hydrotherapy techniques of Vincent Priessnitz (1799-1851) and Father Sebastian Kneipp (1821-1897) in Europe, and John Harvey Kellogg (1852-1943) in North America;
- the Thomsonian method of Samuel Thomson (1769-1843) that foreshadowed physiomedicalism, from which some forms of modern phytotherapy emerged;
- the nature cure methods of Dr Louis Kuhne (1823-1907), Dr Arnold Rickli (1823-1926), and Dr Henry Lindlahr (1862-1924) that emphasized healthy lifestyles, sunlight and fresh air, vegetarianism and detoxification;
- homeopathy, derived by Christian Friedrich Samuel Hahnemann (1755-1843):
- the Eclectic school of medicine of Dr Wooster Beach (1794-1868), which employed botanical medicines;
- the philosophy of vitalism, which maintained that the body has an innate intelligence that strives constantly for health, so that the practitioner's role is to assist these efforts by cooperating with the healing powers of nature active within the body;
 - schools of manipulative therapies, such as osteopathy, developed by Dr Andrew Taylor Still (1828-1917), and chiropractic, developed by Daniel David Palmer (1845-1913).

In Europe, the naturopathic approach to health care tended to evolve from the hydrotherapy and nature cure practices that had been developed by Priessnitz, Kneipp, Kuhne and Rickli. In North America, Dr Benedict Lust is described as establishing naturopathy in 1902, deriving it from nature cure (7). Naturopathy has been regulated in various regions of Europe and North America since the 1920s. The practice of naturopathy can vary widely, depending on the history of its evolution, the legislation affecting its practice, and the demands of the public for traditional medicine and complementary and alternative medicine (TM/CAM) in the relevant jurisdiction.

From the mid-1960s into the 1980s, naturopathy enjoyed a renaissance as the public in many parts of the world became disenchanted with so-called "western" medical practices and more interested in holistic health-care practices that

emphasize healthy lifestyles as well as health promotion and disease prevention (8). Various modalities exist (see Box 1). As universities began to emphasize the need for credible research and scientific validation in every discipline and the demand for "evidence-based medicine" continued to grow, naturopathic practitioners continued their support for high academic standards and sound curricula to pursue the scientific confirmation of naturopathic methods. For instance, an international council for the accreditation of naturopathic colleges was established in North America (9) as well as a central agency to examine the graduates of naturopathic colleges (10,11). These efforts at formalizing and universalizing standards of naturopathic education and practice established new benchmarks and intensified discussion concerning the identity of the profession.

Box 1 - Common naturopathic modalities (non-exhaustive list)

The following non-exhaustive list shows the modalities most commonly used in naturopathic practice:

- acupuncture
- botanical medicine
- counselling
- homeopathy
- hydrotherapy
- naturopathic osseous manipulation
- nutrition
- physical therapies (e.g. soft tissue massage, electrotherapy, etc.)

The principles that inform naturopathy can be summarized as follows:

- "first, do no harm"
- act in cooperation with the healing power of nature
- seek, identify and treat the fundamental cause of the illness
- treat the whole person using individualized treatment
- teach the principles of healthy living and preventive health care

While the emphasis placed on these principles can vary within naturopathy, each version generally captures the same underlying philosophy and goals.

First, do no harm

Although a seemingly obvious statement that would be echoed by any health-care practitioner, the dictum attributed to the classical physician Hippocrates, that physicians should "do no harm" to their patients, has specific resonance in naturopathy. As in most health-care professions, investigative methods and therapeutic modalities that do the least harm to the patient are preferred. When other health-care approaches are required because of the patient's illness, naturopathic practitioners are trained to recognize this situation and to refer patients to those who can provide the needed care (12).

Act in cooperation with the healing power of nature

The Stoics of ancient Greece believed that there was an animating principle, *logos*, that acted as a vital force to order the universe. If humans used their rational abilities to bring their behaviour into harmony with this order, they would

flourish. Naturopathy, adopting this Stoic philosophy, recognizes that the same power that made the body – i.e. an innate intelligence active both in the universe and within the human body – would also heal the body unless prevented from doing so. By working with this healing power of nature – i.e. working with the *vis medicatrix naturae* of the patient – rather than trying to impose a treatment without regard for the person's own intrinsic ability to heal, the naturopathic practitioner seeks to assist the body, mind and spirit of the patient to bring about the desired healing (13).

Seek, identify and treat the fundamental cause of the illness

For every problem, there is a cause. Naturopathic practitioners are more interested in seeking, identifying and treating the cause than in treating the symptoms of illness. They argue that if the symptom of a disease is temporarily eliminated or suppressed but the underlying cause is neglected, then the problem will simply return, or could even worsen in the interim. The cause of illness must be identified and eliminated if true healing is to occur. This often requires a thorough examination of the patient's lifestyle, diet and vital force (14).

Treat the whole person using individualized treatment

Naturopathic practitioners work with a holistic understanding of human health. They recognize that humans are most likely to experience optimal health when their physical, psychological, spiritual and environmental dimensions are holistically integrated. People who exhibit integrated health are better able to realize their goals and actualize their potential. They are more likely to be in harmony within themselves, with others and with their environment. Because each person is different, the naturopathic practitioner must individualize treatments to meet the unique needs of each patient (15).

Teach the principles of healthy living and preventive health care

Naturopathic practitioners teach the principles of healthy living and preventive health care. They teach patients the causes of illnesses so that the patients are better able to avoid recurrences. Furthermore, patients should be involved in the therapeutic process so that they can engage in their own recovery and learn to take responsibility for their future health. This cooperative approach between the practitioner and patient has been shown to empower the patient, which provides further benefit. It is also more likely to engender a positive attitude in the patient, which is believed to improve the chances of optimal recovery (16).

2. Training of naturopathic practitioners

Regulating the practice of naturopathy and preventing practice by unqualified practitioners requires a proper system of training, examination and licensing. Benchmarks for training have to take into consideration the following:

- content of the training;
- method of the training;
- to whom the training is to be provided and by whom;
- the roles and responsibilities of the future practitioner;
- the level of education required in order to undertake training.

Naturopathy experts distinguish two types of naturopathic training in function of prior training and clinical experience of trainees.

Type I training programmes are aimed at those who have no prior medical or other health-care training or experience. They are designed to produce naturopathic practitioners who are qualified to practise as primary-contact and primary-care practitioners, independently or as members of a health-care team. This type of programme consists of a minimum of two years of full-time study (or its equivalent) of no fewer than 1500 hours, including no less than 400 hours of supervised clinical training. Acceptable applicants will typically have completed high school education or equivalent.

Type II training programmes are aimed at those with medical or other health-care training (western medicine, dentistry, chiropraxis, osteopathy, etc) who wish to become recognized naturopathic practitioners. The learning outcomes should be comparable to those of a Type I programme.

2.1 Learning outcomes of Type I programme

Graduates of the Type I programme have to be able to:

- provide a basic description of the principles and practice of the various disciplines of traditional, complementary and alternative medicine;
- assess the health of their clients of all ages with skill and accuracy and to communicate this information effectively to their clients;
- prescribe appropriate treatments involving naturopathic modalities used in accordance with naturopathic principles;
- recommend traditional medicines for the purpose of treating and preventing diseases and promoting health;
- prepare traditional medicines in accordance with pharmacopoeia requirements and good compounding and dispensing practices;
- monitor, evaluate and adapt, when necessary, the naturopathic care of each client;
- educate both clients and the public concerning the promotion of health and the prevention of diseases;

- refer clients to other health-care professionals when necessary and appropriate;
- practise ethically and in compliance with the codes and guidelines of the relevant professional organizations as well as the statutes, rules, laws and/or regulations of the licensing or regulatory body.

2.2 Syllabus

The Type I programme includes four primary areas of study:

- basic sciences
- clinical sciences
- naturopathic sciences, modalities and principles
- clinical training and application.

Since some courses and disciplines overlap more than one of these areas, this classification is merely intended to provide a simple categorization of the breadth of courses that are studied.

Basic sciences include: anatomy, physiology, pathology.

Clinical sciences include: taking a patient history and clinical assessment; physical examination; first-aid and emergency medicine; hygiene and public health.

Naturopathic sciences, modalities and principles include: naturopathic history and practice; nature cure; nutrition; hydrotherapy; botanical medicine; homeopathy and tissue salts; Bach flower therapy; stress management and lifestyle counselling; ethics and jurisprudence; optional courses (light and electrotherapy; iridology; soft tissue therapies; aromatherapy; acupuncture).

Clinical training may include preceptorship and supervised clinical training.

2.3 Competency in botanical medicine

Competency in botanical medicine requires training in core naturopathic subjects as well as specific botanical medicine subjects. All naturopathic practitioners receive training in the use and compounding of medicinal plants. They are knowledgeable in the identification, storage, compounding and dispensing of herbal remedies. These practitioners should be able to identify the herbal remedies that are most commonly used in their region and demonstrate knowledge of pharmacognosy and good compounding and dispensing practices. For each of these herbal medicines, they should be able to state the indications, dosages, contraindications, potential adverse effects, toxicity levels and potential interactions between herbal remedies, pharmaceutical products or foods. Practitioners should comply with requirements for adverse-reaction reporting.

By the end of the training programme, students should have the competency in the area of botanical medicines (6) and:

- have a basic knowledge of botany; have an understanding of the taxonomy and morphology of botanical medicines; be able to identify botanical medicines, both growing and dried, relevant to their level of practice;
- be able to classify plants according to their action e.g. as astringents, demulcents, diaphoretics, etc. – and relate the action of an individual plant to the indications for its use;
- understand the pharmacological action of botanical medicines;
- know in detail the dosage range and toxicities of the botanical medicines studied in their training programme;
- know in detail the contraindications and incompatibilities of the botanical medicines studied in their training programme;
- be able to list potentially adverse botanical-botanical, botanical-nutraceutical, botanical-pharmaceutical and/or botanical-food interactions for the botanical medicines used in their practice;
- have awareness of the relative merits of simple and/or complex botanical medicine preparations;
- have an understanding of good compounding and dispensing practices appropriate to their level of practice;
- be able to report adverse reactions to the appropriate authorities.

Table 1 - Indicative Type I training programme

Course Name	Total Contact Hours	Lecture Hours	Tutorials/ Practicals/ Labs	Credit hours
Year 1				
Anatomy Physiology Pathology Naturopathic History and Practice Nature cure principles Toxicity, Detoxification, Cleansing Hydrotherapy Hygiene and public health Psychology and stress management First Aid, emergency care	48 48 24 24 24 24 24 12 12	36 48 24 24 24 24 12 12 12 6	12 12 6	4.0 4.0 2.0 2.0 2.0 2.0 2.0 1.0 1.0
Year 2				
Anamnesis and clinical assessment Fasting, diet, nutrition Homeopathy & Tissue Salts Herbology Bach Flower Therapy Light & Electrotherapy Soft Tissue Manipulation Preceptorship Supervised clinical training	24 24 24 12 12 12 36 96	18 18 24 24 12 6 4 12	6 6 8 36 84	2.0 2.0 2.0 2.0 2.0 2.0 3.0 8.0

2.4 Type II programme

The Type I programme can be adapted to a Type II programme which is designed to enable other health-care professionals to obtain additional qualification as a naturopathic practitioner. Accordingly, the duration and syllabus of the Type II programme will depend on prior education and experience, and will vary from student to student. However, the duration should be no fewer than 1000 hours, including no fewer than 400 hours of supervised clinical training and the syllabus will be tailored to include any course content from the Type I programme that had not previously been studied by the student.

3. Safety issues

The community of naturopathy practitioners recognizes a number of contraindications associated with naturopathic modalities. These contraindications may be associated with the modalities themselves rather than the specifically naturopathic use of these treatments. As naturopathy includes interventions from acupuncture, nutrition, physical therapies, counselling, and other practices, it is not practical to provide a comprehensive list of contraindications in this document. Instead, it is recommended that reference be made to the guidelines of the relevant health-care practices regarding contraindications to interventions also included in naturopathy. These may include WHO and WHO Regional Office publications, such as the WHO Guidelines on basic training and safety in acupuncture (17,18,19).

The foremost principle of naturopathy – *primum non nocere* – or "first do no harm", demands that naturopathic practitioners place patient safety first. Properly trained naturopathic practitioners know the limitations of, and the contraindications to, the products and modalities they use. For example, a properly trained naturopathic practitioner will immediately refer a patient when circumstances indicate that a patient's safety and well-being will be put at risk if that patient is not treated by a different health-care practitioner. Referral is also indicated when naturopathic treatment is not likely to assist the patient or is not producing the anticipated positive result.

Referral to other health professionals is specifically indicated when:

- a life-threatening situation occurs or is suspected;
- the diagnosis, assessment or treatment of a specific condition is not within the scope of naturopathy;
- the diagnosis, assessment or treatment of a specific condition requires expertise or technology that is not readily available to the naturopathic practitioner;
- a diagnosis cannot be confirmed with the training and technology that is available to the naturopathic practitioner;
- the response to treatment is not adequate, or inexplicably unsatisfactory, or the patient's condition deteriorates;
- a second opinion is desired.

Such referrals may reduce the risk of indirect adverse effects, which can occur when an inappropriate treatment is administered; when proper treatment is delayed or interrupted; when a misdiagnosis is made; or when naturopathic therapies are used when not indicated.

References

- 1. Adams J, Sibbritt D, Young AF. Naturopathy/herbalism consultations by mid-aged Australian women who have cancer. *European Journal of Cancer Care (Engl)*, 2005, 14(5):443-447.
- 2. Bensoussan A et al. Naturopathic and western herbal medicine practice in Australia a workforce survey. *Complementary Therapies in Medicine*, 2004, 12(1):17-27.
- 3. Stewart D, Weeks J, Bent S. Utilization, patient satisfaction, and cost implications of acupuncture, massage, and naturopathic medicine offered as covered health benefits: a comparison of two delivery models. *Alternative Therapies in Health and Medicine*, 2001, 7(4):66-70.
- 4. Pizzorno JE. Naturopathic medicine. In: Micozzi MS, ed. *Fundamentals of Complementary and Alternative Medicine*. New York, Churchill Livingstone, 1998:164.
- 5. Griggs B. *Green pharmacy: the history and evolution of Western herbal medicine.* Rochester, VT, Healing Arts Press, 1981.
- 6. Kirchfield F, Boyle W. *Nature doctors*. Portland, OR/East Palestine, OH, Medicina Biological/Buckeye Naturopathic Press, 1994.
- 7. Cody G. History of naturopathic medicine. In: Pizzorno JE, Murray MT, eds. *Textbook of naturopathic medicine*. New York, Churchill Livingstone, 1999:17.
- 8. Hough HJ, Dower C, O'Neil EH. *Profile of a profession: naturopathic practice*. San Francisco, Center for the Health Professions, University of California, 2001:8.
- 9. Council on Naturopathic Medical Education (CNME), United States of America (http://www.cnme.org/, accessed 1 July 2007).
- 10. North American Board of Naturopathic Examiners (NABNE), United States of America (http://www.cnme.org/, accessed 1 July 2007).
- 11. Naturopathic Physicians Licensing Examinations (NPLEX), United States of America (http://www.cnme.org/, accessed 1 July 2007).
- 12. Pizzorno JE. Naturopathic medicine. In: Micozzi MS, ed. *Fundamentals of Complementary and Alternative Medicine*. New York, Churchill Livingstone, 1998:173.
- 13. Lindlahr H. *Nature cure*. Chicago, Nature Cure Publishing Company, 1924.

- 14. Trattler R. Better health through natural healing. New York, McGraw-Hill, 1985:5-9.
- 15. Murray MT, Pizzorno JE. *Encyclopedia of natural medicine*. Rocklin, CA, Prima Publishing, 1991:6-11.
- 16. Bennett P. Placebo and healing. In: Pizzorno JE, Murray MT, eds. *Textbook of naturopathic medicine*. New York, Churchill Livingstone, 1999.
- 17. Guidelines on basic training and safety in acupuncture. Geneva, World Health Organization, 2003.
- 18. WHO guidelines on safety monitoring of herbal medicines in pharmacovigilance systems. Geneva, World Health Organization, 2004.
- 19. WHO guidelines for assessing quality of herbal medicines with reference to contaminants and residues. Geneva, World Health Organization, 2007.
- 20. Definition of naturopathic health care. Bastyr College of Naturopathic Medicine, United States of America (http://www.bastyr.edu/academic/naturopath/default.asp, accessed 1 July 2007).

Annex 1: Glossary

Naturopathic detoxification

A collection of methods such as fasting, exercise, hydrotherapy and traditional medicines to remove endogenous compounds or endogenous waste products from the tissues and bloodstream.

Iridology

A method of diagnosis that determines conditions in the various organs and parts of the body by examining the iris of the eye.

Nature cure

A system for treating disease with natural agents such as water, air, diet, herbs and sunshine, developed in nineteenth century in Europe.

Naturopathic osseous manipulation

Treatments that involve manual or mechanical manipulation of the joints to restore normal alignment and function.

Naturopathy

A profession of health care, emphasizing prevention, treatment and the promotion of optimal health through the use of therapeutic methods and modalities that encourage the self-healing process - the *vis medicatrix naturae* (20).

Vital force

The essential energy that animates the body, referred to in Chinese medicine as *chi* and in Ayurvedic medicine as *prana*.

Annex 2: WHO Consultation on Phytotherapy, Milan, Italy, 20–23 November 2006: list of participants

Participants

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