the Human Genome and Human Rights, which explicitly bans reproductive cloning in Article 11 – on the grounds that it is contrary to human dignity – as instigating the formation of customary law against reproductive cloning.

In the case of research cloning, it is difficult to identify a trend sufficient for formation of customary law due to the evidence of contrasting state practice. For "state practice to create a rule of customary law, it must be virtually uniform, both internally and collectively. 'Collective' uniformity means that different States must not have engaged in substantially different conduct, some doing one thing and some another." While Belgium, China, Finland, India, Japan, Republic of Korea, Netherlands, Singapore, Sweden, and the UK have legislated to allow research cloning, Austria, Colombia, Costa Rica, Denmark, Germany, Iceland, Norway, Peru, Slovakia, Spain, South Africa, and Switzerland have enacted laws prohibiting research cloning. Any international declaration on therapeutic cloning will have a major effect in the formation of customary international law.

Pragmatism and ethics

Polarization of opinions on cloning led to a downgrading of the UN negotiations from proposals for an international convention to a Declaration on Human Cloning. Those countries that have promoted the idea of the need to "show respect for human life" are likely to raise the same issue within the framework of ongoing debates at

UNESCO to develop a Universal Declaration on Bioethics. This will allow time for more considered debate than was possible under the tight timeline provided for resolution of negotiations on the Declaration on Human Cloning. It is possible that within the context of the UNESCO negotiations, efforts will be made to argue that definition of what amounts to human life, at least in so far as it applies to the issue of regulation of research cloning, should be decided at the national level.

Although the debates in the UN General Assembly ended on a less than satisfactory note, the UN and its agencies should explore other means to stay involved in developing a regulatory mechanism for cloning, with due attention to customary international law. A preliminary working draft of UNU-IAS research on the issue of international law and cloning was made available for participants in the meeting of the Working Group of the 6th Committee. The Institute is continuing its investigation in this area, and a policy report is due for release later in the year. The Biodiplomacy Initiative will continue its work in the area of bioethics, including through its participation at the UN Inter-agency Working Group on Bioethics and in the UNESCO debates to develop a Universal Declaration on Bioethics.

1 "Statement of Principles Applicable for the Formation of General Customary International Law", Final Report, International Conference, London 2000, International Law Association.

The Importance of Traditional Knowledge for Meeting Public Health Needs in Developing Countries

By Emilia Janska, Mihaela Serbulea, and Brendan Tobin

A large part of the world's population relies on traditional medicine as the primary source of health care. Though long dismissed by Western medicine as unscientific and unvalidated, traditional medicine is increasingly being recognized as providing sound, reliable, functional, and accessible health solutions for many ills.

Cultural and historical influence

Traditional knowledge plays an important role in meeting the health needs of a large proportion of the global population – a fact that is increasingly being recognized as relevant for national health planning and development policy-making. Traditional medicine is highly influenced by the culture and historical conditions within which it first evolved, and as such eludes precise definition, often containing diverse and sometimes conflicting characteristics and viewpoints. The World Health Organization (WHO) has adopted a very general definition that describes traditional medicine as knowledge based on the practices, beliefs, and experiences indigenous to different cultures, whether codified in writing or transmitted orally, used in the

maintenance of health as well as the prevention, diagnosis, improvement, or treatment of physical and mental illness.¹

In many developing countries, the majority of the population is dependent on traditional medicine to meet its primary health care needs.² The main reasons are affordability, accessibility, and acceptability – which are determined by a range of social, economic, geographical, and cultural factors as well as by the efficacy of the treatment. In some rural areas of Africa, for instance, the ratio of traditional healers to the population is 1:200 whereas the ratio of allopathic practitioners is 1:20,000 or less. Under such conditions, access to traditional medicine is of great importance.³ Despite its importance, however, traditional health practitioners in many countries remain marginalized and often stigmatized by health authorities; awareness of the importance of their role in meeting public health needs is only recently being recognized.

Some countries, though (such as China, Democratic People's Republic of Korea, Republic of Korea, and Viet Nam), have fully integrated traditional health practices in their national health programmes, and are actively promoting traditional medicine both

domestically and abroad for health as well as commercial reasons. Others countries have adopted a different approach, promoting recognition of traditional medicine as complementary to the established medical system. Peru, for example, has recognized the Shipibo indigenous people's traditional medicinal practices as complementary to the national health system, while Thailand has adopted specific legislation to regulate traditional medicine, and Turkmenistan has established a system for licensing Tebib healers.

Enhancing traditional medicine for public health care

WHO's "Traditional Medicine Strategy for 2002–2005" focuses on four areas identified as requiring action if the potential of traditional medicine to play a role in public health is to be maximized: policy; safety, efficacy, and quality; access; and rational use. In recent years, most research on traditional medicine has focused on clinical and experimental medicine. There is now a need for research that considers the cultural, social, political, and economic aspects of traditional medicine in order to maximize its potential contribution to healthcare globally.⁴

It is ironic that while the majority of medical health research budgets is dedicated towards developing medicinal products for ailments of the rich, a significant number of leading drugs have been developed using the biological resources and traditional knowledge of developing countries whose populations cannot afford them.

Considering the growing awareness of the value of traditional knowledge, and of its importance for public health needs, there is need for a significant investment of human and economic resources in the further enhancement of traditional medicine to ensure its efficacy and reliability and to improve delivery. Promoting awareness of the reality behind traditional medicine, its importance, the challenges for its promotion, and the need for protection of the populace against malpractice is a task that is being addressed by a number of national governments and international organizations.

To this end, the Biodiplomacy Initiative at UNU-IAS has initiated a research project on The Role of Traditional Knowledge in Public Health. This comparative research project looks at modalities for promoting recognition and respect for traditional medicine in public health policy-making and, where justified, its integration into health delivery systems in a respectful and culturally sensitive way. The project seeks to determine the manner in which national public health care will be enhanced by policies that encourage collaboration between traditional and modern health systems and their respective practitioners.

An initial set of case studies is being prepared with collaborators in Canada, Cote d'Ivoire, India, Mongolia, Peru, Trinidad and Tobago, and Japan. The study involves multiple triangulation (combining, in one investigation, multiple observers, theoretical perspectives, sources of data, and methodologies) to establish the credibility of qualitative analysis and provide clearer understanding of problems. It employs several methods of data collection, including questionnaires, observation, interviews, and analysis. The collaboration of national authorities, universities, local researchers, traditional healers, and indigenous health organizations is considered a vital part of the process and is invaluable for ensuring the quality of information for analysis.

A number of key challenges to incorporating traditional medicine into public health policy-making and delivery have already been identified:

- Traditional medicine has a different philosophical and cultural background than modern medicine. As a result, formal scientific methods have often failed to "prove" what centuries of continuous use have "demonstrated". There is a need for culturally appropriate research methodologies to investigate the scientific credibility of age-old therapeutics.
- Knowledge transfer must take place in a culturally sensitive manner.
 Education of community healers in the basics of nutrition and hygiene, of medical students and professionals in traditional practices, and of the general public will increase mutual understanding and access to safe and effective therapies
- A training and licensing system for traditional practitioners will
 enhance their authority and contribute to closing the gap between
 modern and traditional medicine. Such a system must be based on
 the customary law and practices of indigenous peoples and local
 communities, but must also ensure effective regulation of healers
 who serve the wider national or global community.
- Community and policy studies need to examine whether traditional medicine is a cost-effective and socially accepted complement to modern medicine, and vice versa.
- Investigating possibilities to build the capacity of traditional healers to utilize a certain range of Western medicinal practices may strengthen the healer's position and role in the community, and reduce resistance to the introduction of modern medicines. Similarly, training medical practitioners to understand and respect the value of traditional medicine by providing opportunities for patients to access their traditional healers while undergoing hospital and other treatment can ensure more effective long-term treatment of illnesses and reduce tensions between traditional healers and the medical establishment.

UNU-IAS research on the role of traditional knowledge in health delivery systems

Three field trips have been undertaken as part of this research. The first, in October 2004, involved visits to Cote d'Ivoire, Nigeria, and Senegal.5 Meetings with traditional healers, national health authorities, academics, medical doctors, researchers, and others helped to identify the importance of traditional medicine and the most pressing problems facing it. Among the factors given for reliance on traditional medicine were the fact that traditional healers are generally accessible (they tend to live in the same community as their patients), speak the local language, and have good counselling skills. In addition to cultural beliefs, which lead many people to seek treatment first from a traditional healer, another important factor is the economic one; Western-style health care is routinely out of reach due to geographic access and financial limitations.

One of the main problems is charlatan healers. Population migration to urban areas has loosened community ties and alienated large numbers of people. In this context, the numbers of persons who claim to be "traditional" or "spiritual" healers are burgeoning, and their credentials are difficult to scrutinize. Anecdotal evidence claims that 70 per cent of healers in suburban areas in Africa are charlatans.



Amerindians in Trinidad and Tobago offer a traditional medicinal tonic of snakes, herbs and stones, 2004. (Photo: Emilia Janska)

Another category of healers are street vendors of medicinal plants; because the herbs they sell are often collected by others, the identification of species (and, thus, their curative properties) is difficult to guarantee.

Despite these difficulties, departments for the promotion of traditional medicine in the ministries of health of many African countries (including Cote d'Ivoire) are increasingly aware of the need to build on the traditional medicine assets existing in communities. Professional associations of traditional healers have been successfully established in a number of countries in Africa, providing a mechanism that can be utilized to differentiate authentic healers from charlatans.

In December 2004, a second field trip was undertaken in Trinidad and Tobago – a multicultural and multiethnic society in which traditional medicine of two indigenous tribes, the Caribs and Arawaks, together with the traditional knowledge of Indians, Africans, Chinese, Mediterranean, and other nationalities, is still practiced. Traditional healing practices include herbal medicine, spiritual therapies, meditations, manual therapies, yoga, and various exercises. The high prevalence of use of medicinal herbs is significant; about 150 medicinal plants species are used traditionally as teas to treat colds, fevers, and other ailments.

A serious problem is that many people self-medicate without knowledge of proper dosages, which can be highly hazardous. The increasing availability of Western clinical services has led to a progressive loss of many important facts about usage of local herbs, plants, and trees. "Bush doctors" are dying out, and there is a great lack of documentation of their knowledge. Fortunately, this situation is now changing. A major step forward in documenting Caribbean herbals has been the production of a Caribbean herbal pharmacopoeia published by TRAMIL (Traditional Medicine in the Islands).

TRAMIL's work is focused on validating the traditional Caribbean ethnomedicines, and the group works in direct contact with individual, low-income families who rely largely on home remedies.

A highly successful workshop in April 1998, at which traditional

herbal practitioners met with the scientific community, led to the formation of the Caribbean Association of Researchers and Herbalists (CARAPA), which is gaining recognition and support from the government. CARAPA holds annual conferences with the aim of providing a scientific rationale for the traditional uses of plants; facilitating information exchange; educating local people on safe use of traditional medicines; and supporting the development of a sustainable herbal industry producing a range of safe and costeffective herbal products. Last year, the medical school in Trinidad introduced herbal medicine into its curriculum; some students carried out research on acceptance and knowledge of medicinal herbs by physicians, which found a high acceptance level but very poor knowledge (which decreases their ability to adequately advise patients on the risks and benefits, and possible herb-drug interactions). The resurgence in use of medicinal herbs presents a unique challenge in a managed healthcare system.

In preparing the case studies for Trinidad and Tobago, meetings were held with the University of West Indies, University Hospital, CARAPA, and representatives of Public Health as well as with local and indigenous peoples of the Santa Rosa Carib Community. Ongoing collaboration with national researchers and experts will be a crucial element of the process for developing the UNU-IAS comparative report.

A third field trip to Mongolia was carried out in mid-January 2005. All field trips are reported on the UNU-IAS website soon after completion.

The case studies highlight experiences, differing approaches, possible obstacles, and best practices in integrating traditional knowledge into national health policies or creating partnerships between traditional healers and medical doctors. The research also provides useful insights into the ethical aspects involved in evaluation, utilization, and sharing of traditional knowledge in different cultures. The results of this research will be presented at relevant international forums relating to traditional knowledge protection and to development of public health strategies.

UNU-IAS believes that drawing attention to successful experiences in promoting traditional medicine in a variety of differing cultural, political, and economic contexts will help to draw increased attention to the promise that it holds, and to the need for concerted efforts at the national and international level to build respect, protection, and incentives for use and development of traditional medicines.

- 1 "WHO Traditional Medicine Strategy 2002–2005," WHO, Geneva: http://www.who.int/medicines/library/trm/trm_strat_eng.pdf.
- 2 Africa: 80 per cent; India: 67 per cent; China: 40 per cent; Chile: 71 per cent; Colombia: 40 per cent. Statistics from Geneva Foundation for Medical Education and Research: http://www.gfmer.ch/TMCAM/PGC_TMCAM_2004.htm.
- 3 In a conceptual framework on poverty and ecosystems, prepared by United Nations Environment Programme, access to traditional medicine is regarded as one of the ten constituents of well-being.
- 4 G. Bodeker and F. Kronenberg, 2002, "A Public Health Agenda for Complementary, Alternative and Traditional Medicine", *American Journal* of Public Health, 92, 10:1582-1591.
- 5 The field trip to Senegal was featured in early 2005 on the Development Gateway website: http://topics.developmentgateway.org/indigenous/highlights/viewHighlight.do~activeHighlightId=103240?intcmp=915.
- 6 See the UNU-IAS website at http://www.ias.unu.edu.