Culture and Health

Orientation Texts
on the 1996 theme
This publication which is available in English, French and Spanish, has been prepared by the Information and Promotion Unit, in the Secretariat of the World Decade for Cultural Development at the UNESCO Headquarters in Paris, in cooperation with the World Health Organization (WHO) in Geneva.

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The present volume is a contribution to the:

World Decade Year on "Culture and Health"

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CLT.96/WS/1
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UNESCO

PROMOTING ENDOGENOUS DEVELOPMENT

by Birgitta Leander

This compilation of Orientation Texts on the theme of the World Decade for Cultural Development in 1996, "Culture and Health", is the continuation of a series of publications on the yearly themes, produced by the Decade Secretariat in UNESCO in cooperation each year with one or more of the sister agencies within the United Nations system.

Themes that favour inter-agency cooperation

The yearly themes were recommended by the Intergovernmental Committee for the World Decade in order to draw attention to the inter-connection between culture - in the anthropological sense of the word, i.e. modes of behaviour and thinking - and different aspects of development: agricultural development, technological development, development of the environment, development of health care and health institutions, and so forth. They were also conceived to promote closer cooperation between UNESCO and the rest of the United Nations system, with the themes being chosen in order to invite the different agencies to collaborate with the Decade and thus increase their awareness of the need to take cultural factors into consideration while planning for development in their respective fields.

Although the World Decade covers the period 1988-1997, the idea of the yearly themes was launched when it was almost half-way through its course. The yearly themes adopted were as follows:

1992: Culture and Environment
1993: Culture, Education and Work
1994: Culture and Development
1995: Culture and Agriculture
1996: Culture and Health

The World Day for Cultural Development

Closely linked to the yearly themes too was the institution of The World Day for Cultural Development, to be celebrated on 21 May each year, starting in 1992. The purpose of this World Day was to focus attention, around the world, on the ideals of the World Decade and to inspire Member States to organize activities on that particular day - or shortly before or after or even at any other time of the year - on the theme of the year or, for that matter, any of the subjects related to the general Decade ambition of incorporating the cultural dimension into development planning.
World Day will therefore be celebrated in 1996 - as usual on 21 May or around that date - in order to draw the attention of decision-makers and the public in general to the aims of the World Decade for Cultural Development (1988-1997), i.e. mainly to try to promote a different kind of development, one that would take the cultural dimension into account.

Since World Day was instituted, alongside the establishment of yearly themes that have contributed to bringing the work of the Decade Secretariat in UNESCO - the lead agency for the Decade among the different Organizations within the United Nations system - closer to each of the selected specialized UN agencies, it has been a genuine success. Each year more and more Member States are reporting to the World Decade Secretariat about events organized in their respective countries to celebrate World Day and it is no doubt the activity which has contributed most to spreading the message of the World Decade for Cultural Development to all sections of the population in countries throughout the world.

The first time that World Day was celebrated, when the subject was "Culture and Environment" (since it coincided with the year of the "World Summit" in Rio de Janeiro on Environment and Development) and initial cooperation was launched with UNCED (United Nations Conference on Environment and Development), some 30 Member States spontaneously reported to the Decade Secretariat on activities organized in connection with the event on 21 May. In 1993, when the subject was "Culture, Education and Work" and we cooperated with ILO (International Labour Organization), we received some 50 reports on national celebrations that took place. In 1994, the theme being "Culture and Development" - which is a subject that mainly concerns UNESCO itself and therefore gave rise to intensive cooperation between the different substantive sectors inside the Organization - the number of reporting Member States had risen to 88. In 1995, with the subject of "Culture and Agriculture", a similar number of countries reported on World Day activities.

Publications on the yearly themes

One of the reasons why the Member States so readily adhered to the idea of celebrating the World Day was the preparation by the World Decade Secretariat - in cooperation with the concerned specialized UN agency and/or with the UNESCO sectors of Education, Science, Social Sciences and Communication - of different publications containing articles on the yearly themes. Thus, in 1993, for instance, which was the Decade year of "Culture, Education and Work", but which also coincided with the "International Year of the World’s Indigenous People", proclaimed by the UN, the annual compilation of Orientation Texts was done jointly by the Decade Secretariat in UNESCO and ILO, a tradition of inter-agency cooperation that has continued ever since.

The last issue of these Orientation Texts on a yearly subject was the one produced in 1995 on "Culture and Agriculture" in cooperation with FAO, WFP, IFAD and UNSO. Special numbers of the Decade journal Culture Plus have also been produced on these different yearly themes. The increased interest in the World Decade in Member States since the institution of World Day was shown by the rise in the number of subscribers to these two publications (which have been appearing in English, French and Spanish) from 7000 institutions and individuals in 1992 to 23,000 in 1995.
In order to assist Member States to prepare relevant activities in connection with their celebration of World Day for Cultural Development, the production by the Decade Secretariat in UNESCO - in cooperation with one or more of the Specialized Agencies of the UN system concerned by a particular subject - of these publications on the yearly themes, in particular the compilation of Orientation Texts on the subject chosen for the year, has been of crucial importance.

The latter kind of publication has consisted of a collection of articles, half of which are usually written by UNESCO, while the other half is furnished by the sister agency chosen for the year. The articles are mostly simple, concrete accounts of experiences, where projects have either failed or been a success according to the cultural factors involved. Some of our sister agencies call this "popular participation" or "grass-root involvement" or "gestion de terroirs", but we all mean the same thing: it is crucial to understand the behaviour and thinking of the local population involved if we want our development efforts to become a success.

From the reactions we have received from countries, institutions or individuals to whom we have distributed our yearly compilations of Orientation Texts, we know that these are being intensively and extensively used, often translated into local languages and adapted to the local cultural context by all groups of the population: teachers in schools, media people in TV, radio and newspapers, politicians, planners, intellectuals and so on. They have constituted a fundamental ingredient in spreading the message of the Decade to all strata of the population in the Member States, together with the media attraction that the celebration of the World Day for Cultural Development undoubtedly represents.

These texts have also helped to eliminate some of the misunderstandings often connected with the World Decade and its goals. Readers of the texts have started to understand that the Decade does not aim at the development of culture - understood as the fine arts, music, literature or art - but that it aims at DEVELOPMENT, within the framework of the local cultural context, i.e. "endogenous development".

The yearly international symposia

Beside the celebration of World Day for Cultural Development by the Member States themselves each year and inspired by these publications on the yearly themes, the Decade Secretariat has also been organizing a number of activities, not only at UNESCO Headquarters in Paris and at the headquarters of sister organizations of the UN system - including the United Nations in New York - but also in one specific Member State every year, selected on a rotational basis. This additional major activity of the Decade Secretariat in a Member State, usually organized in cooperation with the National Commission for UNESCO in the chosen country and with the regional UNESCO representative in the country and/or the representative of the other UN specialized agency concerned, has consisted of an important international meeting on the theme of the year, surrounded by all kinds of artistic and other events which have caught the attention of the mass media so as to focus public interest on the World Decade for Cultural Development in the country and often also in the region and, in some cases, around the world.
Thus, in 1992, the first World Day of this kind was celebrated in Asia, where an international symposium on the theme of "Culture and Environment" was organized in Indonesia. In 1993, when the Decade theme was "Culture, Education and Work", it was the turn of Latin America where another international symposium was held on the subject of "Education, Work and Cultural Pluralism" - with the Maya Indian woman and winner of the Nobel Prize for Peace, Rigoberta Menchú, as a keynote speaker in order to mark the connection with the UN "International Year of the World's Indigenous People" - in the city of Oaxaca in Mexico. Africa was chosen, in 1994, for the third international meeting, when the subject was "Culture and Development", and Zimbabwe hosted it in its capital Harare, which already had seen several spontaneously organized World Day celebrations in previous years in the Harare gardens. In 1995 the Arab world was host, and a symposium on "Culture and Agriculture" was organized in Cairo in cooperation with FAO.

Thailand has offered to host the international symposium in 1996 on "Culture and Health" which the World Decade Secretariat in UNESCO is organizing with the enthusiastic collaboration of the World Health Organization and the national authorities of that country. The fact that 1996 coincides with the 50th anniversary of the rule of the Thai King makes it a very special occasion.

**UN capitals and private enterprise**

In order to match the numerous expressions of adherence to the idea of the World Day in Member States, the Decade Secretariat initially felt the need to organize major events too at UNESCO Headquarters, which was echoed by several other organizations of the UN system. Thus, a concert of young musicians was held in UNESCO in Paris, in 1992, while activities were extended to cover 10-day periods of events in 1993 and 1994, with the presence of two Queens one year and symposia with ex-Presidents and celebrities of all kinds the other year. Programmes included exhibitions, the ceremonies of donation of a sculpture and of the inauguration of a fresco covering the entire front of the UNESCO building, an international round-table on the social ties of theatre, two televised concerts - one with a mixture of classical and modern music and the other with folk music from all over the world - while other UN bodies hosted similar but more modest forms of World Day events.

In many of the events organized to celebrate the World Day, the Decade Secretariat collaborated with private enterprise, which invested huge sums in order to be seen on these widely-covered occasions. One such collaboration took place in connection with the enormous fresco covering the front of UNESCO house, which was made by the Italian artist Lucio Fanti, and where sponsoring members of the French business community received Decade awards alongside the laureates of a Decade competition of artists, instituted by the Japanese artist, Higoshiyama. Another example was a gigantic musical event in 1994, *The Great Music Experience*, co-organized with the British company Tribute Management Ltd in front of the Todaiji Temple - the biggest wooden structure in the world - in Nara, Japan, where international rock stars and Buddhist monks together with Irish and other folk musicians performed a most unusual musical blend, which was shown on 80 different TV channels all over the world.

Such joint activities between the Decade Secretariat and the private sector were being
renewed in 1995, when Mexico was chosen by the London-based company Tribute Management Ltd to stage the second edition (in a planned series of seven international concerts) of "The Great Music Experience" at the foot of the famous pre-Columbian pyramid of El Tajín in the State of Vera Cruz - a site on the UNESCO World Heritage List - on the Atlantic Coast of Mexico. Internationally famous rock stars performed together with traditional Mexican 'mariachi' musicians and pre-Columbian type musicians and dancers.

Back to the field

The impact of the World Day celebrations has been so great that the Intergovernmental Committee for the World Decade has recommended the concentration of efforts on activities in Member States rather than in international capitals, where the Headquarters of the organizations of the UN system are usually located, since these anyway tend to be exposed to an abundance of events among which the Decade message may lose its impact. The main target group of the message is the people and decision-makers in the Member States, hence the emphasis on activities in the field.

As of 1995, therefore, the most important yearly activity is the organization - by the Decade Secretariat and its partners in the selected Member State and pertinent sister Specialized Agency - of a major international symposium. In 1995, when it was the turn of the Arab world, and the country chosen was Egypt, an important international meeting on that year's theme, "Culture and Agriculture", held in Cairo in collaboration with the FAO, constituted the key event of the year. In the compilation of Orientation Texts, published by the Decade Secretariat on this crucial subject and distributed to a worldwide public on an impressive scale, as many as four of UNESCO's sister organizations in the UN system - not only FAO (Food and Agricultural Organization), but also IFAD (International Fund for Agricultural Development), WFP (World Food Programme) and the specialized UNDP-related agency called UNSO (United Nations Sudano-Sahelian Office) - collaborated and contributed articles to the publication.

Towards an endogenous development

It is expected that, in 1996, this compilation of Orientation Texts on the theme of the year, "Culture and Health", produced jointly by the Decade Secretariat in UNESCO and WHO (World Health Organization), as well as the major international symposium on the same subject, which will also be organized in cooperation with WHO - the key events of the year - will help to promote a new type of development: ENDOGENOUS DEVELOPMENT.
INTRODUCTION TO THE THEME
UNESCO

CULTURE, HEALTH AND CIVILIZATION

by Mervyn Claxton

The preamble to the World Health Organisation’s (WHO) Constitution states that "Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity". Throughout human history, societies have had particular perceptions of health and disease rooted in their own culture, and which have led to a plurality of practices for disease prevention and cure. The ancient Chinese approach to health grew out of their philosophy’s dualistic cosmic theory of the yin and the yang. The forces of yin and yang act in the human body as they do throughout the natural universe as a whole. Disease, or physical disharmony, is caused by an imbalance or undue preponderance of these two forces in the body, and the goal of Chinese medicine was to bring the yin and yang back into balance with each other, thus restoring the person to good health.

All other ancient and traditional medical systems shared a holistic approach to health care, emphasizing the importance of maintaining, or restoring, a harmonious balance within the patient or between the patient and his environment. In Ayurveda (Science of Life), India’s traditional medicine, health is described as the achievement of dhatusamya - the equilibrium of sustaining and nourishing factors. The traditional African approach to healing locates the origins of a disease within the social context of the afflicted individual, and in the Zulu concept Ukuzilungiza, health is not a state but a continuous activity, an endeavour to restore order where there has been disorder. For the North American Navajos, disease is considered a disruption of harmony caused either by external agents or by the breaking of taboos. One of the principles emphasized by Hippocrates, the 5th century BC Greek physician who has been called the father of medicine, is that disease is often the result of environmental forces - diet, climate and occupation. In traditional Tibetan medicine, the essence of health is holistic harmony in which the microcosm of the body and the macrocosm of the Universe are constantly in balance with each other. Disease results when this balance is upset.

In every language there are expressions which describe the degree of vitality of an individual as well as the degree of aliveness and uniqueness. There are also expressions which describe an individual’s ability or lack of ability to cope with his environment. In each language these expressions reflect an experience of life, specific to the particular culture, which would have given rise to its own style of suffering, of dealing with death or of bearing pain or disability. Classical Chinese medicine, for example, concerned itself with restoring normal function as distinct from treating specific symptoms such as, for example, the elimination or reduction of pain.

The modern, abstract term "health", which covers the range of conditions from excellent health to bad health, is foreign to most cultures. Modern Western civilization differs from other civilizations, as well as from classical Greek civilization, in assuming that there is one health - a universal type of health which is maintained by health services to be
delivered to people. The lack of universality of health experience is demonstrated by the fact that there are even certain types of illnesses which are specific to certain ethnic groups and not to others e.g. Tay-Sachs disease (a hereditary metabolic disorder resulting in early childhood death) which afflicts certain groups of Eastern European origin, and sickle-cell anaemia which affects Africans and people of African origin. These specifically cultural health experiences extend to the protection against tuberculosis associated with the genes that dispose certain groups to Tay-Sachs disease, and to the protection that the sickle-cell gene provides against malaria.

Human bodies are not identical, all equally threatened by the germs around them. The discovery of how the immune system works has underlined the uniqueness of each human body, which medicine cannot protect simply by identifying the cause of each disease and waging war on it. The individual can no longer be treated as a machine that infallibly obeys strict rules. The discovery of allergies, for example, has emphasized how individuals differ in their sensitivity, and the recognition of the influence of stress on health indicates that reactions are never wholly predictable. In virtually all societies, including Western societies, different medical systems co-exist, based on different culturally-determined and sometimes conflicting interpretations of health, disease and health behaviour. In India, for example, the three main traditional, medical systems - Ayurveda, Unani and Siddah - co-exist with the Western medical system.

Western medical science is largely based on the premise that health and disease can be universally defined by objective diagnostic criteria, but even in Western countries there are distinct differences in the diagnosis and treatment of specific diseases which cannot be explained alone by differences in the health of their populations. The far greater number of surgical operations in the United States, as compared with the practice in European countries, reflects an "aggressive" approach more consonant with American culture than with European culture. Different European countries tend to place greater importance on the role of particular organs as a major source of ill health or of concern. In the case of Germany it is the heart, for France it is the liver, and for Britain it is the bowels. Norway is able to provide good health care to its population with little more than 1000 brands of medicine available, while the United Kingdom makes available some 20,000 brands, Germany 24,000 and Italy 21,000. The number of prescription drugs issued in France is the highest in the European Community, and the number of medical x-rays annually performed (50 million, according to the French medical journal Impact Médecin) is the highest in the world, with no observable difference in the health of the population as compared with other developed countries. France also holds the world record for the consumption of tranquillizers and sleeping pills.

Most Western doctors view any given disease as having a single cause, and seek an absolute change, or cure, through technology. Modern medicine’s central promise, and goal, of eliminating disease and of regarding death as a frontier to be pushed back by technical means, affirms a world view that places ultimate value in the growth of technological development. The Western doctor basically diagnoses and treats an isolated individual. Patients are viewed as inherently separated from one another and from their surroundings, and health care is reduced from being the balanced input of a good environment, healthy nutrition and necessary medicine, to being merely the provision of medicine. Such an approach may well be the fundamental cause of the relative failure of Western attempts at developing community medicine.
The traditional approach to health care, in non-Western cultures, is based on a
different perception of the nature of illness and of the healing process, which has emphasized
the need to perceive patients as whole persons and to treat them accordingly, rather than
merely targeting a specific symptom or presumed cause of ill health. It recognizes the
psychological, environmental and social contributions to disease, the active involvement of
the patient in the treatment process, and places emphasis on preventive medicine and on
lifestyles that lessen the probability of developing disease. In India, China, Africa and other
parts of the developing world, medical systems have regarded drugs and medicines as only
a partial treatment for disease, with complementary treatment at the nutritional and
environmental levels. These systems have, also, traditionally rejected the distinction of mind
and body in their approach to the treatment of illnesses.

Western scientific medicine traces its origin to Hippocrates, whose views on health
closely resembled those of traditional medicine elsewhere. It was only in the 19th century
that Western medicine diverged, coming to regard ill health as consisting of a specific set of
symptoms, defined as a specific disease, which is cured by the precise treatment for that
condition. Modern scientific medicine found itself in competition with traditional medicine,
a struggle which ended with a victory for the former, largely due to the spectacular success
of new drugs such as aspirin, quinine and digitalis - extracted, ironically, from the very
plants used in traditional medicine.

A resurgence of interest in traditional medicine and in its holistic approach to health
and to illness took place, in the West, in the late 1960s, largely as a reaction to the
increasing role, in health care, of expensive and depersonalizing medical technology, and of
a nearly universal dependence on technology and drugs in the diagnosis and treatment of
disease. While the 19th century concept of a physician was regarded as having been basically
humanistic, critics of more recent developments have charged that medical technology has
led modern physicians to treat organs rather than whole persons. In addition, it has become
clear that many chronic conditions that are related to lifestyle, such as back pain, migraines,
neuralgia, allergic conditions and stress-related disorders could be more effectively treated
by the gentler, more integrated approach of alternative or complementary medicine.

Large numbers of people, for example, have obtained relief from stress by practising
simplified versions of Yoga. The importance of such success in dealing with a medical
complaint for which modern medicine has no effective remedy is illustrated by a 1993 report
of the International Labour Organisation which estimated that stress-related illnesses cost
American industry 200 billion dollars a year - the equivalent of the combined annual profits
of the 500 wealthiest American companies. Furthermore, American doctors specializing in
work-related illnesses have noted that absences on medical leave as a result of stress-related
illnesses are longer, and the relapse rate is higher, than those caused by cardiac diseases or
back ailments.¹

A survey conducted in the Netherlands in 1980 found that 40% of the patients of
practitioners of complementary or alternative medicine had sought their help because of prior
inadequate or unsuccessful treatment of the same ailment by medical doctors. This finding

¹ Le Monde, 19 September, 1995.
was subsequently confirmed by a government-sponsored study in Australia which showed that clinics practising unorthodox medicine attracted patients through real need, not merely through belief in the desirability of alternative medicine.²

A 1993 Harvard University study revealed that fully one third of all Americans pursue some kind of alternative care each year. The Preventive Medicine Research Institute in Sausalito, California, also published, in 1993, results of research conducted which showed that a lifestyle-based regimen could not only prevent heart disease but also reverse it, without drugs or surgery.³ The growing popular trend towards alternative medicine, its apparent success in areas where modern scientific medicine has failed, and the astronomical costs of the latter in the United States, are persuading an increasing number of American health insurance companies to reimburse the costs of such treatment on the same basis as that of modern medical treatment.

According to WHO’s World Health Report 1995, lifestyle-related diseases and conditions are responsible for 70-80% of deaths in developed countries and about 40% in the developing world. Examples are cardiovascular diseases, cancer, diabetes, chronic bronchitis, obesity, alcohol and drug dependency, and sexually transmitted diseases. The report points out that behaviour is of importance to health either directly, through learned lifestyles, or indirectly in the environmental and socioeconomic context, and that personal choice of behaviour can be one of several risk factors, acting in combination, to cause a disease, e.g. poor diet, lack of exercise, and smoking, which all contribute to cardiovascular diseases.

The WHO report underlines the fact that changing people’s behaviour requires an understanding of the practice and reasons that underly it as well as a clear idea of the preferred behaviour. It suggests that the aim of health promotion policies and programmes should be to stimulate health awareness and responsibility and to advocate conditions which favour health.

The findings of the WHO report and the results of the research carried out by the Preventive Medicine Research Institute in California point to the need for a socio-cultural redefinition of the basic medical concept of health.

The Cultural Origins of Modern Medicine

Ancient man did not at first regard death and disease as natural phenomena. Common illnesses such as colds were accepted as a normal part of existence and were treated with herbal remedies. Serious and disabling diseases were considered differently. They were regarded as being supernatural in origin - the result of a spell cast by an enemy, a visitation by an evil demon, or the work of an offended god. Magic and religion played a large part in the medicine of primitive and prehistoric man, and the administration of a herbal drug or remedy was usually accompanied by incantations and dancing. The first doctors or "medicine men" were, therefore, witch doctors or sorcerers who made free use of charms and talismans in their work, but who also treated the whole person, soul as well as body. In

³ Newsweek, July 24, 1995.
several civilizations of later date, priests were also "medicine men". In ancient Israel, for example, the practice of medicine was one of the duties of the priesthood.

In Mahayana Buddhism, medicine became one of the five major subjects a monk was required to study and master. The close links between religion and medicine in Buddhism are illustrated by the fact that the greatest of the Mahayana philosopher-saints were also great physicians who wrote important medical works. Foremost among these was Nagarjuna, an Indian of the 1st century AD, who was both author of a major medical work, The Hundred Prescriptions, and founder of the doctrine and philosophy of the void upon which the entire higher Mahayana and Vajrayana (Tantric Buddhism) teachings are based.4

From the time of the earliest human cultures, pathological disturbances of mind and spirit have been given religious interpretations. Theories of possession by evil spirits have been documented in all early cultures, and are also to be found in the world's major religions. Indeed, possession by evil spirits is the oldest "pre-rational" medical theory - a natural way of understanding some of the pathological disorders of personality and behaviour which characterize mental disease.

The transition from magic to medical science was a gradual process that lasted for centuries. In the West, this great advance in thought took place in Greece during the 5th and 4th centuries BC, and represented the first attempt at a rational, scientific theory of disease causation. In this respect, Greece inherited much from Babylonia, Egypt and even India and China. Hippocrates (born 460 BC) is credited with being the first person in the West to adopt the concept that disease was not a visitation of the gods but was caused, instead, by earthly influences. In spite of this early advance, however, doctors continued using, up to the 16th century, the Italian version of the word "influence" to describe the medical effects of an unfortunate astral "influence" (influenza). At first it meant any sudden visitation of an epidemic disease, and was a synonym for epidemic until the present use of the term "influenza" for the illness, now known by that name, began to appear in the 18th century.

There is historical evidence which indicates that Indian medicine made a similar advance, several centuries before the Christian era, from magico-religious health remedies to rational therapeutics. This development ushered in a wide range of theoretical and practical propositions based on the fundamental postulate of the unity of man and nature. Hippocrates noted the effect of food, of occupation and especially of climate in causing disease, and in one of his works, "De aere, aquis et locis" (Air, Water and Places) he made the first systematic attempt to set forth a causal relationship between human diseases and the environment, a work which would today be considered to be a treatise on human ecology and which, until the new sciences of bacteriology and immunology emerged well into the 19th century, provided a theoretical basis for the comprehension of endemic and epidemic disease.

Non-Western treatises on medicine, however, antedate by far the works of Hippocrates. A 4000 year old tablet, unearthed in the ruins of the Sumerian city of Nippur, is considered to be the world's oldest treatise on medicine. The Ebers papyrus and the Smith papyrus, dating from about 1600 BC, are the oldest known Egyptian medical texts. Although

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the Ebers papyrus includes incantations for specific illnesses as well as invocations to the
gods, careful case histories and valuable prescriptions, such as castor oil as a cathartic, and
tannic acid for burns, were also recorded. It also includes a surprisingly accurate description
of the circulatory system, noting the existence of blood vessels throughout the body and the
heart's function as center of the blood supply.

The Smith papyrus, although dating 1100 years before Hippocrates' major medical
treatise and believed to be a copy of a text originally written around 2500 BC, includes
surgical advice that remains pertinent today, such as the use of compression to stop bleeding
as well as advice on diseases of the eye, the heart and other internal organs. The practices
outlined resemble those of modern medicine - defining the disease, stating its symptoms,
indicating what the physician should find upon examination, suggesting therapy and giving
a prognosis. Hippocrates' Egyptian counterpart was Imhotep, who lived about 2800 BC and
is considered to be the greatest ancient Egyptian physician. He was later worshipped as the
God of Medicine in Egypt and in Greece, where he was identified with the Greek God of
medicine, Asclepius.

The earliest known document of Chinese traditional medicine is the Nei Ching, written
in the 3rd century BC and ascribed to the Yellow Emperor, Huang-ti, which describes, inter
alia, the human anatomy including the circulation of the blood. The earliest concepts of
Indian medicine are set out in the sacred writings called the Vedas and probably date as far
back as the second millenium BC. The first two great Indian physicians, Charaka (circa
1000 BC) and Sushruta (5th century AD) both wrote encyclopaedic medical treatises called
Samhitas. Charaka's work, which has survived to our time, has been described in the
following terms: "[It] stands as the finest [medical] document of the creative period of the
last centuries before the beginning of our era, both in regard to the extent of its contents and
to its state of preservation".5

With respect to Ancient India's skill in surgery a modern commentator writes: "The vast variety of Indian surgical instruments which have come down to us from the first
millenium AD suggest that surgery had developed to an extraordinary extent in early India.
The sutures and needles described in the Sushruta texts of several thousand years earlier
looked no different [to those used during the 19th and 20th centuries]. Straight and bent
needles of bone and bronze were used".6

The oldest known laws, relating to the practice of medicine, form part of the Code
of Hammurabi, a Babylonian king of the 18th century BC, which is inscribed on a stela to
be found in the art collection of the Louvre Museum in Paris. The Code stipulates draconian
penalties for what would today be considered medical malpractice. "If the doctor, in opening
an abscess, shall kill the patient, his hands shall be cut off." If, however, the patient was a
slave, the doctor was simply obliged to supply another slave.7

6 Jurgen Thorwald, Science and Secrets of Early Medicine, London, Thames and Hudson, 1994, p. 206, cited in
One of the many social ordinances of Ashoka, Emperor of India in the 3rd century BC, was one on medicine. It was also inscribed on a stela, and provided for the establishment of hospitals for both humans and animals, as well as the cultivation of medicinal plants. Ashoka’s hospitals predated similar institutions in the West by many centuries.

In the 7th century, the Tibetan Buddhist king, Srongtsan Gampo, organized, in Tibet, the first ever international medical conference. Doctors from India, Persia and China attended the conference, and each presented to the king a Tibetan translation of one of his country’s medical books. The doctors, also, in a joint endeavour, composed a new medical treatise for the king.

Culture, Health and Hygiene

Most of the world’s primitive peoples have practiced cleanliness and personal hygiene, often for religious reasons and, apparently, because of their wish to be pure in the eyes of their gods. The Old Testament has many adjurations and prohibitions about clean and unclean living, and Hebrew custom placed great emphasis on public health and sanitation, codifying these practices in the Pentateuch and Talmud as prescribed by Moses. In Islam, physical hygiene, through ritual washing of hands, feet and parts of the face before prayer became an important religious obligation.

The spread of Mahayana Buddhism to China, Japan and the Indianized kingdoms of South-East Asia had a beneficial effect on public health in those countries. As late as 1186 AD hospitals were established in the Khmer Kingdom under the spiritual guidance of Bhaishajyaguru, the Medicine Buddha. In Ayurvedic medicine, great importance had always been placed on hygienic living. Well before the development of Ayurveda, the Dravidians of the Indus valley culture appreciated the value of hygiene. Mohenjodaro, the 5000 year old Indus valley city state, first excavated in 1927, had two storey houses with drains and private wells as well as a great public bath with its own well and drainage system. The city state’s sanitary system was not equalled by London until the 19th century.

The decline in standards of hygiene in Christian Europe during the whole of the Middle Ages was later to have catastrophic consequences. Christian custom and teaching, unlike that of Judaism and Islam, presented no barriers to such a decline. "St. Jerome, the 4th century ecclesiastic whose writings exercised great influence throughout the Middle Ages, proclaimed that if one "bathed in Christ" there was no need for any other form of cleansing". In the General Index (compiled in 1788) to the six volumes of Edward Gibbon’s History of the Decline and Fall of the Roman Empire, the entry for Sylvania, sister of the Roman praefect Rufinus, describes her as "the studious virgin [who] had diligently ... perused the commentators on the Bible ... to the amount of five million lines. At the age of three-score, she could boast that she had never washed her hands, face or any part of her whole body, except the tips of her fingers, to receive the communion".

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It was the Christian knights, influenced by Arab customs during the Crusades, who, on their return to Europe, introduced the habit of bathing. The returning crusaders built new homes, or modernized their castles, in which they constructed special rooms so that they could indulge in their newly-acquired habit.

The relative unimportance given to personal and public hygiene greatly contributed to the disastrous consequences of the plague, known as the Black Death, which swept Europe in the middle of the 14th century. Some twenty-five million people, amounting to a quarter of Europe’s population, died in the Great Epidemic and, in some parts of the continent, as many as two-thirds or three-quarters of the population were afflicted.

Spurred by the Black Death, the city state of Venice introduced the first systematic quarantine regulations, and public authorities in Europe made major efforts to improve sanitation, including the development of pure water supplies as well as systems of garbage and sewage disposal.

**Culture, Disease and Empire**

**Malaria**

Malaria is one of the world’s most widespread and devastating diseases. More than a half of the world’s population live in endemic areas, and there are an estimated two million deaths a year from the disease. The disease has been known since Ancient times, and as far back as the 5th century BC, the Greeks had established a connection between malaria and swamps, but did not discover the real cause of the disease. As early as the 5th century AD, the great Indian physician, Sushruta, had established the connection between malaria and mosquitoes but, for centuries, people had sought in vain a remedy for malaria which, throughout history, has probably caused more deaths than any other disease. The Atharva Veda, one of the four ancient Vedas, which is considered to be the source of all Ayurveda, speaks of the use of an unidentified plant, Kushta, to combat malarial fever, and the Chinese Emperor and botanist, Chi’en Nung (circa 2700 BC), recommended cannabis for the treatment of malaria in his pharmacopoeia, the Pen Tsaio Ching.

It was the Jivaro Indians, living in the Amazonian jungle, who taught the world how to combat malaria with quinine, an alkaloid extracted from the bark of the chinchona tree, which is native to the Andes. For three centuries, up to the Second World war, quinine was the most important anti-malarial drug in the world, and it is doubtful whether European expansion into tropical climates would have been successful without this important gift, to the West, of the Jivaro Indians.

The plant, chinchona, was named after the Countess of Chinchon, wife of the Spanish Viceroy of Peru, who is supposed to have been cured of malarial fever in 1636. The "miracle" bark was introduced into Europe by the Jesuits and was sold as "Jesuits’ powder" in England from 1641. Its Jesuit connections, however, made it suspect to protestants, and

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in England Oliver Cromwell, dying of malaria, is said to have refused the "Popish remedy".¹⁰

Until the 1850s, all the world’s *chinchona* bark came from the forests of Peru, Bolivia, Ecuador and Colombia, where the trees grew wild. The Dutch introduced the *chinchona* plant to Java in 1854, and the British did the same in India in 1860. After its introduction to India, British soldiers were ordered to take quinine to protect themselves against malaria but, because of its bitter taste, they were reluctant to do so. The army, therefore, added it to their gin ration, hence the origin of "gin and tonic" - the tonic being quinine.¹¹ The modern tonic in the popular cocktail is sold as "Indian tonic" and contains quinine.

Scientific *chinchona* breeding in Java produced a more potent quinine by increasing the content of the sulphate of quinine in the *chinchona* bark. Without scientific *chinchona* production, European colonialism would have been almost impossible in Africa, where malaria was the principal cause of death for Europeans. In the early 19th century it was not unusual for half the British troops stationed in the Gold Coast (former Ghana) to die of the disease. The medical properties of quinine, therefore, played an important role in the 19th century Scramble for Africa, which has almost always been explained in political and geopolitical terms.

**Smallpox**

Modern smallpox vaccination, where the dead virus in the vaccine stimulates smallpox antibodies, is a method of fighting smallpox which originated in Ancient China, where doctors practiced taking scabs from the sores of smallpox victims and rubbing them on small cuts in the arms of those they wanted to protect from the disease.¹² The fundamentals of smallpox inoculation only became known in Europe in the 18th century. Over the centuries, mainland Asians and Europeans who had survived smallpox epidemics developed a certain degree of immunity to the disease.

Smallpox was unknown in pre-Columbian America and in Australasia, and little known in Africa, which left those continents with no protection when the disease accompanied European colonists to those parts of the world. In 1713, visiting ships of the Dutch East India Company caused a smallpox epidemic after infected linen was sent ashore to be washed by the Company’s stores at Table Bay in South Africa. According to a contemporary estimate, barely one in ten of the Hottentot population in the peninsula survived, and the disease ravaged groups far into the interior. In Australia, there were three smallpox epidemics in the 19th century which attacked the aboriginees, the first of which killed an estimated one third of their population.


¹¹ Maciotti, op. cit., p. 324.

Smallpox first crossed the Atlantic to Hispaniola in 1518-19, where it killed one third to a half of the Arawak Indian population. For the next four hundred years, smallpox played a major role in the success of European expansion in the Americas. It exterminated a large proportion of the Aztecs, and the Indians of New England, the Pampas and Brazil. At the beginning of the 17th century, the authorities in Buenos Aires asked the Spanish Crown for permission to import more black slaves because smallpox had decimated the Amerindian population. The miraculous triumphs of the Conquistadors were in no small part due to the smallpox virus.

In 1700, the Checkehets were one of the more numerous of the Amerindian peoples of the Rio de la Plata grasslands. When the tribe contracted smallpox in the early part of the 18th century, it suffered near annihilation. The Checkehets never recovered as an autonomous people, and by the end of that century even their language was gone, leaving extant today only fifteen of their words and nameplaces.13

In New England, some European colonists saw the smallpox epidemics as a heaven-sent fortune. John Winthrop, the first Governor of Massachusetts Bay Colony, noted in his diary on 22 May 1634: "For natives, they are neere all dead of small Poxe, so as the Lord hath cleared our title to what we possess."14

Smallpox was only one of the diseases European colonists brought with them to the Americas, although it caused the most devastation. The smallpox of the 1520s were followed by measles, influenza, plague, whooping cough and mumps - viruses unknown in the Americas. It has been estimated that the effect of these diseases on Mexico was greater than that of the Black Death in 14th century Europe from which the latter took two centuries to recover, even in the absence of alien rule. In 1519, Mexico had a population of 25 million. In 1608, the colonial census recorded a Mexican Indian population of just one million. In 1530, the indigenous population of Peru numbered ten million. In 1600 it was no more than 1,300,000.

Sir Hugh Thomas, in his monumental work, The Conquest of Mexico, expressed the conviction that, were it not for smallpox and other infectious diseases, the subsequent history of Spanish Colonial America would probably have been more like that of British Colonial India.15 The pre-Columbian civilizations would probably have survived Spanish colonization in the same way Indian civilization survived that of Britain.

**AIDS and Syphilis**

There is a curious historical parallel between syphilis and AIDS, two infectious, sexually transmitted diseases which produced widespread epidemics five hundred years apart. They both followed periods of relative laxity in sexual morals. They were both considered, by certain sections of public opinion, as being a divine punishment to man for his evil ways.

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14 Crosby, op. cit., p. 208.

and unrighteous living; they both produced a change in sexual mores, and they both provoked calls for the isolation of those afflicted which, in a few rare cases, actually occurred. In 1497, the Town Council of Aberdeen, in Scotland, banished all syphilitics to the Island of Inchkeith in the Firth of Forth and, in 1511, a Fellow of Merton College, Oxford University, was sent away for having what the English at the time called the "French Pox"\textsuperscript{16}, what the French called the "Neapolitan Malady", the Spaniards the "French Disease", and the Germans the "Spanish Scabies". In India, where it was introduced in the 16th century by Portuguese sailors, it was called "Firanga Roga" (foreigners' disease).

The origin of both diseases was attributed to a distant foreign culture. In the case of syphilis, it was claimed to have been of Amerindian origin. Syphilis raged with peculiar virulence in Europe from the early 1490s to the mid-16th century. There was a widespread epidemic outbreak in several parts of Europe only eighteen months after the return of Columbus from his first voyage in March 1493. Given the fact that only fifty sailors returned with Columbus, it would have been physically impossible for that small number to have caused such geographically widespread outbreaks, apart from the fact that the disease would only have been noticed in the secondary or tertiary stages - several years after incubation.

Both syphilis and AIDS, when transmitted sexually, share the only safe means of protection against them - the condom, which was invented in the 16th century, as a protection against syphilis, by the great Italian anatomist, Gabriel Fallopius (1523-1562), who gave his name to the fallopian tubes, the existence of which he had discovered.

**Culture, Health and Addictive Drugs**

The use of hallucinogenic plants go so far back in Prehistory that, according to certain authors, the idea of God may have occurred to man under the effect of a hallucinogenic trance which revealed the existence of another world.\textsuperscript{17} Escape into altered states of consciousness, into sedation or excitement, has been a constant ambition everywhere in all centuries. In many cultures ritual drugs have traditionally been used in certain religious practices to help people expand their consciousness and to explore the realms of the unseen world by embarking on imaginary journeys. Such drugs have long been a potent means of magical and religious communication. The hallucinogenic drugs, used in worship, were deeply rooted in the collective culture of the social group which used them but which controlled their use. The Aztecs had 400 gods of drink and drunkenness, called the 400 rabbits, to help them escape. When they were sober, they freely discussed their hallucinations.

The relatively recent secularisation of most societies has led to the abandonment of the regulated use of hallucinogenic drugs for specific religious or cultural purposes. Their modern use has become a potentially dangerous, individual adventure, undertaken mainly as a form of recreation or as a means of escape, without the imposed restraint that existed when


it was sanctioned by the group. Such a practice has come to be regarded, by the modern community, as an antisocial act of negation or rejection which is both harmful to the individual and, indeed, to society itself.

The 19th century Romantic movement in Europe fashioned a new view of the artist as a supremely individual person whose creative spirit was more important than strict adherence to formal rules and conduct. Absolute individual liberty, a refusal to accept any limits, a heightened examination of human personality, and an emphasis upon imagination as a gateway to transcendent experience and spiritual truth were essential characteristics of European Romanticism.

Opium and hashish were lauded by the Romanticists for their hallucinogenic qualities and for their ability to facilitate the artist’s exploration of his innermost self. Composition on the Death of Gérard de Nerval, a painting by French 19th century artist, Gustave Doré, appears to have been inspired by the use of opium or hashish, and Thomas de Quincey’s book, Confessions of an English Opium-Eater, first published in 1822, enjoyed enormous popularity, especially among the French Romantic poets. The latters’ praise of the drug as a means for the expansion and dissolution of the self made society aware of the previously hidden effects of opium, thus bringing about a change in the social perception of the drug. Opium and hashish lost their identity as ordinary household remedies (pain-killer and sedative), which had a regular place in the family medicine chest, and emerged as dangerous narcotics which posed a threat to society itself.

There has been no civilization in which people have not tried to escape from normality with the help of tobacco, alcohol or mood-altering drugs. In the United States of America, there began, in the 19th century, a succession of crazes for particular escape drugs, several of them enjoying, not only brief periods of legality but also, in some cases, the moral approbation of certain community leaders before being legally banned or restricted, thus making room for the next craze. A need existed, perhaps, at the subconscious level, to discover and explore possibilities of mental escape that matched the possibilities of physical escape presented by the Far West.

In the early 19th century, Americans doubled their consumption of alcohol. Later in the century, a craze developed for patent medicines with a high opiate content, which reached its peak in 1900, quadrupling the import of opium per inhabitant. In the following decade, smoking opium became the fashion until its importation was banned in 1909. When prohibition of alcohol was imposed, cola drinks, laced with cocaine, took its place. Cocaine was declared to be the best way to escape from addiction to alcohol, opium and morphine and to be an excellent general tonic, becoming at the time the official remedy of the American Hay Fever Association.18

A professor of medicine at the University of Pennsylvania and President of the American Philosophical Society even recommended cocaine as an aid to those who wished to be true and religious Americans, for it offered "an exaltation of our better mental qualities, a warmer glow of benevolence, a disposition to do great things but nobly and beneficially, a higher devotional spirit and withal a stronger self-reliance and consciousness

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of power. It seems to make the individual, for the time, a better and greater man".19

The perceived antisocial nature of the recreational use of hallucinogenic drugs, which permits users to withdraw into their own personal dream world, may well be the reason for most societies' indulgent treatment of such "social" drugs as alcohol and tobacco, which have proved to be potentially more harmful, and more addictive, than an "antisocial" drug such as cannabis. Charles Baudelaire, the 19th century French poet, in comparing wine and hashish, pointed out that wine made a person jolly and sociable while hashish tended to make him antisocial; wine fortified a person while hashish sapped his strength; wine was made for people who work while hashish was for the lazy and the idle; wine was useful for it stimulated worthwhile efforts while hashish was useless and dangerous. Baudelaire questioned, with irony, why anyone would want to work, toil, write or create when, with hashish, one could attain paradise instantly and without any effort.20

According to the WHO World Health Report 1995, smoking is the world's largest single preventable cause of illness and death. WHO estimates that there are 1.1 billion smokers in the world today, and that tobacco kills approximately three million people a year worldwide. The report further states that, in the United States of America, the risk from smoking far outweighs other dangers, with an eventual fatality rate of 50% among those who commence smoking at twenty years and continue smoking regularly.

Alcohol

Since classical antiquity the chief intoxicant of Western civilization has been alcohol, which has become a permanent part of Western culture in the various forms in which it is consumed - wine, beer or hard liquor. The great demand for alcohol (hard liquor), derived from the Arab word al kohl, which reflects the Arab discovery of distilling spirits from wine, came only with the Black Death. It was believed that those who drunk it regularly would never die, hence the name aqua vitae given to it.21 Until the 16th century, spirituous liquors were used only as medicines, after which they escaped the control of the doctors, and began to be produced in quantity as attested by the many laws prohibiting and restricting their use.

The non-alcoholic beverages - tea, coffee and chocolate - introduced into Europe in the 17th century, helped reduce the consumption of alcoholic drinks. A tradition of heavy drinking was so deeply imbedded in pre-industrial European social mores that, without the appearance of these new non-alcoholic beverages, such a tradition would not have been easily discarded to meet the demands of an industrializing society. The survival of drinking rites - drinking to someone's health, toasts, clinking glasses - are relics of pre-industrial drinking bouts where competitive drinking, to the point where participants lost consciousness, was a normal occurrence.

The social consequences of alcohol abuse in 18th century Europe were widely noted

19 Zeldin, op. cit., p. 232.


in contemporary commentaries, and depicted by contemporary artists such as the English painter, William Hogarth, in his famous engraving *Gin Lane and Beer Street*. The effects of alcohol ("firewater") were much more dramatic, however, for the indigenous peoples in the lands colonized by Europeans. Manhattan Island was purchased by the Dutch from the Indians in 1626 for three barrels of rum. The name "Manhattan", in the language of its indigenous owners, meant "the place where we got drunk".22

A 1978 WHO report described the harmful effects of modern alcohol consumption: "The addiction to drink costs the USA an estimated 25 billion dollars per year. In Britain, admissions into hospital of alcohol-related cases have increased twenty times in the last 25 years. The spread of alcohol into the Third World has been fast … causing one third of all road fatalities in Zambia, up to two thirds in Venezuela plus half of all cases of rape, 85% of all cases of homicide and 13% of child abuse … in Chile 30% of the medical budget … in Yugoslavia half the male admissions into hospital. Excessive drinking can have a special impact where nutrition is poor. It can lower resistance to disease, cause mental retardation, if large amounts are consumed during pregnancy, and increase the tendency to suicide."23

Opium

The poppy plant, from which opium is derived, is probably the first medicinal plant known to man. Sumerian records from as far back as 5000 BC refer to the poppy, and Assyrian tablets record its medicinal properties. The opiates from the poppy - heroin, codeine, etc. - are still among the most powerful painkilling, sleep-inducing agents known to man, but opium smoking did not begin until after the European discovery of America, where the practice of pipe smoking originated. Opium was unknown in either India or China in ancient times, and its widespread cultivation in those countries is a comparatively recent development. For much of the period since the early 19th century, Western public opinion has seen Chinese culture as an opium culture. It had only recently become so. Up to the 18th century, opium consumption in China was no more than that in Europe. Chinese addiction began with the imposition of trade in opium by the British East India Company in order to pay for British imports of Chinese tea, silk and porcelain. It has been estimated that, as a result of this imposed trade, Chinese consumption of opium increased seventy-fold, between 1767 and 1850, with serious social consequences for the country.24

The most common European drug in the Middle Ages was probably the poppy seed, with large areas devoted to its cultivation. It was used to make bread, restless children were given infusions of poppy to keep them quiet, and it enabled the poor to escape into a dreamlike condition. In Europe, opium became the fashionable way to escape from pain and boredom after the Swiss doctor, Paracelsus (1493-1541), mixed it with alcohol to produce *Laudanum*. In 1854, a standard English medical text book stated that opium was "undoubtedly the most important and valued remedy in the whole *materia medica* to be used for maladies of everyday occurrence" though smoking it was judged "dangerous for the

physical and moral character, especially of the lower classes."  

Abuse of drugs such as opium can lead to physical dependence on them or drug addiction, with serious social consequences. Various methods of treatment, including the use of substitute chemical drugs such as methadone, have proved to be only partially successful. The traditional healers of Malaysia use infusions of various plants in the management of drug addiction. One such infusion, an extract of buah mengkudu, the fruit of the morinda tree, has been shown to have a general sedative effect and to alleviate withdrawal pain in drug-addicts treated with it.  

Cannabis

The medical properties of cannabis (cannabis indica), known also as Indian hemp and marijuana, were described for the first time in the world's first Pharmacopoeia, the Pen Tsao Ching, around 2700 BC, by the Chinese Emperor, Chi'en Nung, and has been used as a folk medicine in China, India and the Middle East for several thousand years, as well as for recreational and religious purposes. In India, its psychoactive properties were much celebrated in religious rituals. In the original Hebrew text of the Old Testament, God directed Moses to make a holy oil compound of "Myrrh, sweet cinnamon, kanehbosem and cassia" (Exodus 30:23). According to a leading biblical scholar, the kanehbosem is almost certainly derived from the Sanskrit cana, meaning either reed or hemp, and bosm meaning sweet, and may well be the root for cannabis.  

Although cannabis (cannabis sativa) had been cultivated in Europe and North America for fibre production for centuries, neither its intoxicant nor its medicinal properties were generally known in the West until the 19th century when it was introduced from India, to those parts of the world, as a medicament. The use of cannabis derivatives for medicinal purposes spread rapidly throughout Western medicine, where it was successfully employed in the treatment of several ailments, but especially as a sedative and hypnotic. Between 1840 and 1900, European and American medical journals published more than 100 articles on the therapeutic use of the drug.

In 1890, the Physician in Ordinary to Queen Victoria and President of the British Royal College of Physicians, wrote on the basis of thirty years of clinical experience of the drug: "Indian hemp, when pure and administered carefully, is one of the most valuable medicines we possess", recommending it, in particular, for senile insomnia, neuralgia, migraine, spasms and convulsions and spasmodic asthma. Its use declined in the West in the early 20th century because of the variability in strength of different batches of cannabis derivatives, its insolubility in water which did not allow it to be injected, and because alternatives became available such as injectable opiates and, later, synthetic drugs. Up to


1946, however, it was still available in pharmacies in France\(^{39}\) and, in the 1960s, extracts of cannabis could still be legally prescribed in England. Subsequently, the explosive growth, throughout North America, Western Europe and other parts of the world, of the use of cannabis for recreational purposes, led to a worldwide, legal ban on its use, even for medical purposes.

Current growing interest, in the medical properties of cannabis is evidenced by a recent article on the subject in the *Journal of the American Medical Association*\(^{30}\), which lists its effectiveness in the treatment of several ailments, including glaucoma, which is responsible for 14% of all cases of blindness.

The cannabis plant can be grown both for fibre and seed as well as for its intoxicating and medical qualities. Agricultural hemp contains less than 3% of the hallucinogenic agent found in Indian hemp, and smoking it would have no greater effect than smoking hay. The economic potential of agricultural hemp far outweighs its medical potential, but its great value as a fibre has been obscured, ignored and even forgotten in the wake of the general condemnation of Indian hemp because of the latter's hallucinogenic properties.

In Chinese culture, hemp was the original textile fibre - the first in the world. The 1st century AD Roman writer, Pliny the Elder, stated: "Besides the use formerly made of hemp, for cloth, thread and cordage, it was the material of great other works, for which there was a very great demand, such as fishing lines and nets, hunting nets and gins...".\(^{31}\) The strong, durable, waterproof fibres of agricultural hemp makes it the best known source of cordage fibres and an excellent source of textile fibres. Its seeds can be pressed to produce an oil that is used for cooking and in industrial processes such as the manufacture of varnishes. It has a short growing season, its penetrating roots improve soil structure, it suppresses weeds, and if grown around the edge of a plot it will repel certain pests.

The word "canvas" is a corruption of cannabis, from which it was formerly made. Agricultural hemp was so important to Tudor England, because of its nautical use for ropes, sails, fishing nets, etc., that in 1563 Queen Elizabeth I decreed that every farm of sixty acres or more must allocate at least one acre for hemp growing. The Tudor penalty for not growing hemp, first imposed by Henry VIII in 1533, was five golden sovereigns.\(^{32}\) 18th and 19th century local records illustrate the importance of hemp growing to the English village economy, where a tithe or tenth part of every crop went to the local vicar. The beginning of the 19th century saw the decline of English hemp growing, the increase in wheat prices, as a result of the Napoleonic wars, making the growing of grain more profitable. It had, however, been an integral part of English countrylife, economy and culture for so many centuries that the hemp plant has left its mark on local customs and place names such as Hempstead in Essex and Hempnall in South Norfolk.

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\(^{31}\) Cited by Hanson, op. cit., p. 260.

\(^{32}\) Anthony Henman, "Grow Hemp... or Else", *The Ecologist*, vol. 10, N° 8/9, Oct.-Nov. 1980.
As late as 1900, a book on hemp stated: "The hemp plant is the most widely diversified and, commercially and industrially, the most important plant in Europe. Hemp fibre is acknowledged to be the standard fibre in the world; and, properly manipulated, it is adapted to a much wider and more diversified use than any other fibre known. The hemp plant is the most simple and the most widely adapted to cultivation in all climates, the most susceptible to the manipulations of chemical and mechanical processes, and the most universally adapted to the production of fine, strong fibres for the widest character of products, from coarse strong cordage to threads and yarns for the finest linens, lawns and laces...".33

Agricultural hemp cannot only be grown for the production of high quality cloth but also for high quality paper. Agricultural hemp is still cultivated in Italy and in France and, in the latter country, over 10,000 hectares were under cultivation in 1978 for paper and seed.34

Folk Medicine and Traditional Culture

The natural wisdom and keen sense of observation of traditional peoples on different continents often led them to use the same natural medicines for the treatment of the same illnesses. Thus, peoples in tropical climates, on different continents, each produced popular remedies for the same disease. The various remedies for leprosy, for example, were based on extracts from the same family of plants - the Flacourtiaceae (the Indian plum).35 Other healers, separated from each other by thousands of kilometres, arrived at the same medicines based on very similar plants which modern botany now places in the same family. Both the Incas and the Chinese considered that the water lily had sedative and anaphrodisiac qualities. A team of Chinese experts, on a visit to Tanzania in the 1970s, found that several traditional medical remedies used in Tanzania were also used in China.36 Such evidence tends to demonstrate the essential wisdom of man in all cultural settings, and to negate the often explicit, and the more often tacit, assumption that certain cultures are inherently wiser than, or superior to, others.

A culture’s folklore is often a rich source of information on various illnesses and cures. Such knowledge, passed down from generation to generation by word of mouth, is often contained in legends, folk tales, sayings and proverbs in order to facilitate its preservation. This unscientific form of knowledge, which often appears to express superstition, or to reflect a naive explanation of natural phenomena, has often, when subjected to modern scientific examination, proved to be well-founded. Such is the case in

* A type of fine linen or cambric.

33 S.S. Boyer, Hemp, New York, 1900. Cited by Hanson, op. cit., p. 260.


many folk tales, for example, which tell that a particular herb must be collected in the middle of the night, or at dawn, or in a shady and damp place, or in clearly defined areas.

Modern science acknowledges that the sun, the temperature, the quality of the soil, the time of day, and the stage of development of the plant all have an important effect upon the plant's metabolism and on the natural formation of active biological components. In the early morning, the leaves of stramonium or the thorn-apple are much richer in alkaloids than in the evening. Certain other active substances react in the opposite way. The leaves of the foxglove or *digitalis* (first used in India to treat dropy), gathered in the afternoon, have a far higher glucose content than those gathered in the morning. Also, plants growing in shady areas contain far more alkaloids. The directions given in folklore have often proved, in scientific studies, to coincide with the conditions necessary for the extraction of the greatest quantity of the plants' active substances.\(^{37}\)

The medical remedies of ancient and traditional peoples have proved, and are continuing to prove, a rich source of knowledge for modern medicine. In Quebec, Jacques Cartier, the French explorer, successfully fought scurvy in 1536-37 by using Amerindian remedies - the bark and leaves of the white cedar tree. Among the drugs adopted by the West from traditional Chinese medicine are rhubarb, castor oil, camphor, croton oil and ephedrine, the last being the active substance of the Chinese herb *mahuang* (*ephedra*), which has greatly improved the Western treatment of asthma and similar conditions, and which had been employed in Chinese medicine for at least five thousand years. *Chaulmoogra* oil, extracted from the seeds of trees of the *Flacourtiaiceae* family, was used by the Chinese to treat leprosy from at least the 14th century. In the latter part of the 19th century it began to be used for this purpose by Western physicians and, until the 1940s remained, with its derivatives, the only drugs available to treat this disease.\(^{38}\) Modern study of analgesia by acupuncture, also, has brought a new understanding of the mechanism of pain control. A number of Western doctors are adding acupuncture to their therapeutic methods because it is safe, it works well for certain problems, and it is an alternative to treatment by some types of medication that have undesirable side effects.

Plastic surgery was highly developed in Ancient India. During the 19th century the Germans translated from the *Sushruta Samhita* details of an operation for repair of damaged noses and ears. This operation, which now appears in modern text books as the pedicle graft, led to the development of plastic surgery as an independent speciality and, today, Sushruta is regarded by plastic surgeons around the world as the father of their craft.\(^{39}\)

A fragment of *Indica*, a report of a 3rd century Greek who travelled down the Ganges river, stated: "[The physicians] know how to make women fertile and how these can give birth to boys or girls, by employing drugs. They heal diseases usually by ordering suitable foods and not by use of medicines. Mostly they employ drugs as cataplasms or by

\(^{37}\) Vesselin Petkov, "Bulgaria's Folk Remedies Stand the Test of Time", UNESCO Courier, July, 1979


rubbing [them] into the skin because other means are not free of undesirable effects.

Traditional Tibetan psychiatry, the basic tenets of which are at least 1000 years old, is remarkably "modern" in its approach. It takes into account the psychological causes of mental illness, both operating by themselves and in conjunction with biological, behavioural, environmental and spiritual factors. An understanding of psychological causes and motivation related to insanity did not emerge in Western psychology until the 18th century.

When a German botanist landed on one of the Molucca islands in the Malay Archipelago in 1742, the inhabitants told him of the medical properties of a small tree, *Ochrosia*. More than two centuries later, extracts from *Ochrosia* appear to offer hope of beneficial results in the treatment of certain types of cancer. The alkaloid, *emetine*, was derived from the roots of *ipecacuanha*, a small herb found in the undergrowth of the virgin forest of the Mato Grosso in the Amazon region, which is an important remedy for amoebic dysentery. Its discovery was sparked off by observation of the use made of the herb by the local Amerindians.

Modern China has developed an anti-malarial drug, *Ching Hao Su*, a substance obtained from wormwood, a plant which ancient Chinese medical records lists, more than 1000 years ago, as being effective in the treatment of malaria. The snakeroot, *Rauwolfia Serpentina*, has been a folk remedy, used in India for centuries, in the treatment of mental disease and insomnia. Its potential as a drug was not taken seriously by modern medicine until 1952 when its active ingredient, an alkaloid named *reserpine*, was discovered to produce profound and prolonged tranquillizing action and to be effective in treating a variety of psychiatric disorders as well as hypertension.

The old *Ayurvedic* remedy for mental illness was thus responsible for the development of the first major tranquillizer, ushering in a whole new era of psychiatric treatment - psychopharmacology which revolutionized the care and treatment of the mentally ill. The significance of this contribution could be appreciated by the fact that, prior to it, mentally ill people had been kept in padded cells and straight-jackets. In earlier times, yet, they were kept in chains and cages and were horribly abused. Bedlam, the popular name for the Bethlehem Royal Hospital, the first asylum for the insane in England, which had been given by Henry VIII to the city of London, in 1547, as a hospital for the insane, became infamous for the brutal ill-treatment meted out to its inmates. It was a regular Sunday pastime for Londoners to go to the hospital to taunt, mock at, beat and provoke the inmates by creating as much noise as possible, hence the modern meaning of 'noisy uproar' given to the word bedlam.

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40 Clifford, op. cit., p. 36.

41 Clifford, op. cit., p. 213.


Work by Nigerian and Ghanaian researchers on the fruit of a local plant, *xylopia aethiopica*, the dried fruits of which are used in many parts of Africa in folk medical preparations, including traditional obstetrics, have revealed antimicrobial properties which are effective against certain bacteria, and against a particular yeast which is a common agent in vaginal infections.\(^{45}\)

Modern medicine has also profited from traditional beauty-enhancing techniques. The juice of the belladonna plant (*Atropa belladonna*), which means "beautiful lady" in Italian, was used by women in centuries past to dilate, or widen the pupils of the eyes, a sign of beauty in those times. The active principle, *atropine*, is employed in modern medicine as a pupil dilator.

The Jivaro Indians of the Amazonian jungle, who had already given the world quinine more than three centuries ago, and had also taught the world to use curare as an anaesthetic and which is now used as a muscle relaxant in modern surgery, currently use more than one thousand plants for their medical preparations. It has been discovered that the knowledge of the medicinal properties of these plants rests with the older women of the tribe. Research programmes have been undertaken by North American teams to gather the plants and to tap the wisdom of the Jivaro women. One of the plants so far tested is *Uruchunum* - a plant that appears to stop bleeding almost instantly. The Jivaro women use it for bleeding gums, and some Peruvian doctors have, it is reported, recommended it for ulcers.\(^{46}\)

The value of folk medical knowledge in traditional societies is gaining increasing recognition in the West, which has led ethno-botanists to now spend as much time gathering this knowledge as they spend gathering the plants themselves. A number of new drug entities are being introduced into modern medicine as a result of research into traditional folk remedies. It has been estimated that, if traditional practitioners were consulted, instead of research being based only on random screening, the rate of discovery of pharmacologically-active ingredients would be increased from much less than one per cent to forty per cent.\(^{47}\)

Although traditional medical knowledge is more prevalent and more recognized in developing countries, which has resulted in it being increasingly sought there by research teams from the North, it is also being rediscovered in the developed countries. Western doctors are rediscovering a medical treatment first identified by surgeons treating casualties from the Napoleonic wars - the healing power of maggots. Doctors in Britain and in the United States of America are preparing to use the larvae of greenbottle flies to clean out dead tissue and foreign bodies from the wounds of hospital patients. Medical tests have shown that the use of maggots, in such cases, is a most effective treatment, requiring no anaesthetic and leaving less scarring than conventional surgery. In England, the maggots are being bred for surgeons by zoologists at Oxford University. The treatment was first noticed on battlefields during the Napoleonic wars. Injured servicemen, left unattended for several days, were found to have higher survival rates if their wounds had been infested by maggots. At a meeting of

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45 Ekong, op. cit., p. 42.


47 Fulder, op. cit., p. 19.
the European Tissue Repair Society in January 1995, a medical paper on the technique of using maggots was delivered by an American specialist from California, who had used maggots on more than one hundred patients. Among the latter was a 73 year old patient who had undergone five months of successful maggot treatment for diabetes-induced gangrene of the leg.\textsuperscript{48}

In recent years, the pace of modernization of health care in some developing countries has slackened, and the increase in recourse to traditional medicine has grown, largely because of the galloping costs of modern medicine, of which medical drugs are an important factor. A survey carried out in Dar-es-Salaam, Tanzania, in the early 1970s, showed that the city, despite the existence of modern facilities, still had some seven hundred full-time traditional medical practitioners.\textsuperscript{49} Recourse to traditional medicine has also increased in Côte d'Ivoire and other Francophone African countries, following the one hundred per cent devaluation of the French West African Franc in 1994.\textsuperscript{50}

In Western societies, more and more people are beginning to adopt health techniques and practices which have traditionally played an important role in the health systems of older civilizations, such as diet, exercise and meditation. Hippocrates, who had noted the effect of food on good health, laid much stress on diet. In Ayurveda, dietetic treatment was considered to be of great importance, and it preceded any medicinal treatment. An old Indian proverb states: "You do not need medicine if your diet is right, and it is not medicine you need when your diet is wrong".

**Medicinal plants, Culture and Health Care**

Most folk medicine, throughout history's different civilizations, has been derived from plants. It is probable that human beings, as soon as they reached the stage of reasoning, discovered, by the process of trial and error, which plants might be used as foods, which of them were poisonous and which had medicinal value. Over 4000 years ago, Chinese Emperor, Chi'en Nung, compiled a book of medicinal plants called Pen Tsao Ching which contained descriptions of more than three hundred medical plants, several of which are still used in medicine. As early as the Warring States period (475-221 BC) herbal medicine began to develop as an independent branch of Chinese medical science.

The first great Indian physician known, Charaka, who practiced about 1000 BC, recorded some five hundred medicinal plants, and Sushruta, another famous Indian physician, recorded seven hundred and sixty medicinal plants in the 5th century AD.

In the Middle Ages, Islamic scholars made a great contribution to the study of botany and, in particular, of medicinal plants, and al-Dinawari's six-volume "Book of Plants", compiled in the 9th century, was considered to be of outstanding importance. It combined

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\textsuperscript{49} Tarimo, op. cit.

\textsuperscript{50} "La dévaluation du Franc CFA et les systèmes de santé en Afrique Francophone", Le Monde, 28 February, 1995.
a philological, historical and botanical approach to the study of plants, the medicinal properties of which he detailed. Another Islamic scholar, al-Biruni (973-1048), listed in his "Book of Drugs" some 850 drugs of every conceivable origin, giving their names in several languages.  

51 Avicenna, the great Islamic physician-philosopher-scientist, produced his Treatise on Cardiac Drugs in the 11th century, in which the evaluation of many of the sixty-four drugs mentioned, based on medicinal plants, closely resemble the assessment made by modern scientists. Little has changed, for example in the scientific assessment of the medicinal properties of the damask rose (Rosa Damascena) which he had described in his Treatise.  

52 The tremendous progress made by Islamic scientists in the use of medicinal plants led to the opening of the first licensed apothecary shops in the world, in 9th century Baghdad.

A list of medicinal plants and the use to which they had been put in pre-Columbian Mexico, were recorded in the Codex Barberini which was compiled in 1552, in the Náhuatl language, by Martín de la Cruz, a Mexican Indian doctor. It was later translated into Latin by another Indian before finding its way to Spain where it was acquired by the papal nuncio, Cardinal Francesco Barberini (hence the name of the book), and then passed later into the possession of the Vatican Library.  

53 Phytotherapy, the treatment of illness by pharmaceutical preparations based on vegetable drugs, was the basis of all medical treatment until the mid-19th century. This practice was gradually replaced in Europe by the use of medicines, produced from the active ingredients of medicinal plants, which had a more specific or precise pharmacological activity. This was a turning point in the attitude to medicinal plants, marking a change in the traditional approach to nature which increasingly came to be regarded as a vast source of readily available raw material to be exploited, and even over-exploited, for man’s sole benefit. At first, only the active ingredients of medical plants were sought, with the rest of the plant being discarded. Then, when chemists succeeded in artificially reproducing a specific active substance, there was no further need for the plant from which it was originally obtained.

The essentially reductionist and atomistic nature of modern science which, in the West, has led to a separation of Man from Nature and to an exploitative approach to the latter, as compared with the holistic outlook of the majority of other cultures in which man is regarded as being part of Nature, has frequently been attributed to the cultural/religious roots of Western civilization:

"And God blessed them, and God said unto them, Be fruitful, and multiply, and replenish the earth, and subdue it; and have dominion over the fish of the sea, and over the fowl of the air, and over every living thing that moves upon the earth." (Genesis 1:28).

In a complex system, like that of Nature, the whole must, necessarily, be more than


the sum of its components. Thus Nature's action is not the sum of what is carried out simultaneously by all its parts, but the consequence of the many interactions between them. If this principle is applied to medicinal plants, the composition of which is invariably complex, it would confirm traditional theories according to which a plant, in its entirety, has properties which differ from those of its constituent parts. In traditional Tibetan herbal medicine, for example, it is not so much the presence of one particular ingredient but the combination of many ingredients that provides the desired therapeutic effect.

Experiments with the artichoke, which is useful in assisting the functioning of the liver, tends to confirm the above theory. The medicinal property involved was initially attributed to a single substance, and then it was discovered that a number of other substances were also partially responsible. Yet, when these other substances were tested, it was revealed that the majority of them, in isolation, proved to be totally inactive. They were active only in conjunction with one another, and it was found that the greater the number of substances involved, the more pronounced was their activity.\textsuperscript{54}

Furthermore, recent research has shown that some of the biological components, apart from the primary active substance, contained in a great many medicinal plants react on the biosynthesis of proteins in such a way as to produce effects different from those produced by the primary substance. This is why the effects of numerous plants like belladonna, garlic, coffee and others are different from the therapeutic effects of the chemical products extracted from those very plants, such as atropine, hypercin and caffeine.\textsuperscript{55}

The results of this research not only validates the inherent wisdom of the traditional use of medicinal plants, but also suggest the need for a changed approach to the modern study of medicinal plants. This development coincides with a rapidly growing, modern scientific interest in medicinal plants and in traditional medicines, one of the reasons for which is the recognition, in the pharmaceutical industry, that the destruction of tropical rainforests is leading to the extinction of plants that could be potentially lucrative for it. At least twenty-five per cent of all prescription drugs currently sold contain some plant element. Until the advent of biotechnology, only seven major drugs could be synthesized more cheaply than the cost of obtaining their natural counterparts. The pharmaceutical industry has an annual turnover of $200 billion, and since the origin of perhaps half of all modern medicines can be traced to plants, the economic potential of future plant-based discoveries is enormous.

Tropical America accounts for over half of the estimated closed tropical forest in the world, with Brazil being the single richest country in overall species diversity, the second richest country being Colombia, home to approximately ten per cent of the Earth's species of terrestrial plants and animals. One estimate suggests that there are some 120,000 different species of plant life in Brazil, extracts of which have been used throughout the ages by indigenous Indians as medicines and as arrow poisons for hunting. The first methodical description of plants used for medicinal purposes by the indigenous peoples of Brazil was undertaken by a scientific expedition to the North East of the country during the period 1630-1654. Another mission, undertaken in 1847, analyzed over six thousand plants, the results

\textsuperscript{54} Pelt, op. cit., p. 13.

\textsuperscript{55} Petkov, op. cit., p. 41.
of which were published in some one hundred and fifty scientific papers.\textsuperscript{56}

Nepal is also exceptionally rich in medicinal plants and herbs, and has one of the oldest traditions of herbal medicine in the world. Nepal's rich resources of plant life is due to its geography. With some parts of the country only fifty metres above sea level and others rising to over 8000 metres, this produces a range of climatic conditions (tropical, subtropical, temperate and alpine) which is responsible for the rich diversity of vegetation.

The attempts made by Northern pharmaceutical companies and laboratories to collect both tropical medicinal plants, as well as the knowledge of the use made of them by the local peoples, should be carried out on terms based on genuine respect for the latter, and which would acknowledge the legal rights of local peoples to their own intellectual property as well as to the material possession of the plants they and their ancestors have used, and lived with, from time immemorial.

\textbf{The Modern Culture of Drugs}

Modern pharmaceutical drugs, produced in huge quantities on a constantly growing scale, both create and satisfy a demand, in developed countries, for "convenience medicines" by people brought up in a "pill" culture of tranquillizers, many of whom are basically healthy individuals. The vast range of pharmaceutical products on sale in many countries, particularly those in the developing world, is not medically justified, and it stimulates an excessive demand which drains the resources of health services. The developing countries produce only ten per cent of all drugs consumed, and that production is confined to a very few countries, the others being obliged to spend a substantial portion of their health budget in pharmaceutical imports from the developed countries.\textsuperscript{57}

In 1986, one South-East Asian country spent forty per cent of its health budget on pharmaceuticals. 25,000 registered formula drugs were found to be available, in the country, at the time - a hundred times more than would be necessary according to WHO's estimation of the number of basic drugs needed by developing countries. Approximately ninety-five per cent of the raw materials for pharmaceutical production in the country were imported, and many of them were overpriced due to transfer pricing methods.\textsuperscript{58} International pharmaceutical firms are alleged to be among the highest cost sellers of technology, and regularly practise excessive overpricing of their products. A 1977 report of the Organization for Economic Development and Co-operation (OECD) stated that certain pharmaceutical ingredients were overpriced by one thousand per cent and, in some cases, by five thousand per cent.\textsuperscript{59}

More than 90\% of the pharmaceutical products sold in the fourteen African


francophone countries are imported, the cost of which doubled immediately with the devaluation of the West African Franc in 1994. In 1992, before the devaluation, the cost of pharmaceutical imports by these countries was estimated at 400 million French Francs. Fully half of the ten per cent of drugs produced locally depend on imported ingredients.\textsuperscript{60}

Since the mid-1950s, the pharmaceutical industry has ranked first or second in profitability among most industries. Such a favourable position has been due to the increasing concentration of the industry, the patent system, transfer pricing methods and brand name promotion. A recent issue of \textit{The Economist}\textsuperscript{61} reported $70 billion-worth of mergers and acquisitions in the past two years alone, in an industry with a yearly turnover of just $200 billion. It has been estimated that, while about nine per cent of the income from sales of pharmaceutical products by the largest companies is spent on research and development, more than twice that percentage is spent on advertising and promotion. Furthermore, the international pharmaceutical industry was estimated, in the 1980s, to allocate no more than one per cent of its research and development expenditure to Third World diseases, and there are said to be no good drug treatment for fully one half of the diseases which are specific to developing countries.\textsuperscript{62}

Some years ago, a Government-appointed committee in India estimated that the country's basic drug requirements could be met by 116 generic drugs, a number which represented less than one per cent of the 15,000 brand drugs then available in the country.\textsuperscript{63} This contrasts with the little more than 1000 registered drugs available in Norway which are considered sufficient to ensure good health care for its population. The excessive number of drugs on the market in most developing countries, combined with their overpricing due to current transfer pricing methods, is partially responsible for the fact that the cost of drugs represents forty to sixty per cent of total health care expenses in developing countries, but only ten to twenty per cent in the industrialized world.

Health services in developing countries have tended to follow an urban-centered, hospital-based pattern. The consumption of pharmaceuticals has, as a result followed a similar pattern, both as to the availability of a large number of registered drugs (Norway, being an exception) and as to the emphasis placed on medication in their health care systems. Such an urban-centered system, which may be relevant in mainly urban societies, cannot possibly be appropriate in the largely rural societies of developing countries. Thus, in spite of the cultural and socioeconomic differences which exist, not only between the industrialized and the developing countries, but also among the latter themselves, the health care solutions of most developing countries are, to a large extent, imitative and standardized. They also, irrationally, reflect the concept of the universalization of the pharmaceutical medical solution and of dosage recommendations, irrespective of the nutritional and health status of patients in deprived areas, when research has demonstrated that malnutrition, for example, influences

\textsuperscript{60} Le Monde, 28 February, 1995.

\textsuperscript{61} The Economist, 26 August-1 September, 1995.


\textsuperscript{63} Ibid.
the effect of medication.\textsuperscript{64}

In many developing countries, low-cost, self-reliant and locally-available health care alternatives have largely been marginalized, or replaced, by the Western, industrial, medical model. Furthermore, simple health care solutions such as changes in diet, herbal medicines and simple massages which are as effective today, as in the past, for a large number of minor health disorders, and which enabled people in the past to retain responsibility for their less important medical needs, have been gradually excluded from local health care systems because of an assumed superiority of modern drugs for all health problems.

For lack of even the simplest measures, vast numbers of the urban and rural poor die each year, in developing countries, of preventable and curable diseases, often associated with poor hygiene and sanitation, impure water supplies, malnutrition, vitamin deficiencies and chronic preventable infections. As a result, in the 1980s, the life expectancy at birth for men and women was about one third less in Africa than it was in Europe. Similarly, infant mortality in Africa was eight times greater than in Europe.

It has become clear that the system of health care that is appropriate for one country is often unsuitable for another. Research has established that effective health care is related to the special circumstances of the individual country, its people, its culture, and its economic and natural resources.

The principal medical problems that afflict developing countries include gastro-intestinal disorders, respiratory complaints, infections and those related to undernutrition, all of which may be the result of poverty, ignorance and poor hygiene. These are easy to identify or treat. Also prevention measures are simple and cheap, neither treatment nor prevention requiring extensive professional training, and in most cases could be dealt with adequately by the primary health care worker.

In the industrialized countries, on the other hand, the diseases so prevalent in developing countries have, for the most part, been eliminated or are readily treatable. Many of the adverse environmental conditions, as well as the principal public health hazards, have been brought under control. The major health problems tend to be obesity, many cancers and most heart diseases which have much to do with lifestyle. Anorexia and bulimia, for example, are health disorders, mainly prevalent in industrialized societies, and which highlight the stark contrast between cultures of plenty and cultures of want.

An Alternative Medicine

In recent years, the relevance and rationality of current Western medical models have been seriously questioned in the developed countries themselves. This is accompanied by the rapidly increasing importance given to alternative and complementary medical therapies, such as acupuncture, homeopathy, hypnotherapy, naturopathy, osteopathy, reflexology, etc. All these therapies possess a diagnostic procedure, a theory to account for the origin, development and cure of sickness, an established body of practical knowledge, and a

\textsuperscript{64} Mira Shiva, "Towards a Healthy Use of Pharmaceuticals: An Indian Perspective". Development Dialogue. 1985: 2.
professional grouping of practitioners.\textsuperscript{65} Ayurveda, the ancient Indian traditional medicine, which is still the health care practiced by seventy per cent of India's population, holds a special, important place in the West, among alternative medical systems, not only because of its age-old traditions, practices and techniques which have withstood the test of time, but because of the comprehensiveness and the coherence of its corpus of medical knowledge as well as its medical effectiveness. It has enjoyed a boom in the West, particularly in the United States, within the past five years.

The significance of the spiritual and physical exercises of meditation and yoga is gaining increasing recognition in the West. Yoga, as a system of preventive medicine, based on a programme of physical and mental exercise, has made it possible to control, voluntarily, functions which are normally automatic. Such exercises are also being used in the rehabilitation of the paralysed, who can be taught to modify their heart rate and blood pressure at will so as to help them recover some of their lost mobility.\textsuperscript{66}

Evaluative studies on complementary and alternative medicine have shown that it is at least as successful as conventional medicine in the short-term treatment of those health conditions it normally treats. The few studies conducted on the long-term management of such conditions usually give complementary medicine the edge on modern medicine.\textsuperscript{67}

The important common element of theories of complementary medicine is that they encourage, and elicit, self-healing. Both homeopathic and herbal remedies are given specifically to stimulate natural recuperative processes. Symptoms do not have the same meaning in complementary as they do in conventional medicine. They are not considered as disorder manifestations which must be attacked when they appear, nor as being necessarily linked to a disorder in the particular part of the body which produces the symptom. They are, rather, guides to underlying imbalances and indicators of progress to restoring the required underlying balance, and thus good health. Furthermore, since the whole person, and not the disease itself, is the focus of treatment, there is no reason to erect barriers between mind and body. Lifestyle, cast of mind, mood, energy, posture or constitution are all considered factors, as relevant as physical signs, in arriving at a diagnosis.

Because of the recognition that health care systems based on urban medical facilities had had disappointing results in developing countries, an international conference held in Alma-Ata (in the then USSR), in 1978, under the auspices of WHO, declared that primary health care, founded on basic medical care and health education, and giving priority to rural areas, was the best means of achieving WHO's aim of "Health for all by the year 2000".

The Alma-Ata Declaration stated that primary health care should be "based on practical, scientifically sound and socially acceptable methods and technology made universally accessible to individuals and families in the community through their full participation and at a cost that the community and country can afford to maintain at every

\textsuperscript{65} Fulder, op. cit., p. 16.

\textsuperscript{66} Zeldin, op. cit., p. 178.

\textsuperscript{67} Fulder, op. cit., p. 19.
Towards a Cultural Approach to Health Care

"Traditional medicine continues to be an important part of health care in many developing countries, and various "alternative" or complementary therapies enjoy a widespread following in developed countries. Traditional medicine has not, however, been incorporated into most national health systems, and the potential of services provided by traditional practitioners is far from being fully utilized. There is a continuing need for better assessment of the benefits of alternative forms of medicine including traditional ones." 68

In China, health services have, in the past three decades, been characterized by decentralization and the use of personnel chosen locally. Emphasis is placed on self-reliance as well as on the involvement of everyone in the community, and the importance of preventive measures has been stressed in health campaigns. Throughout China, the value of traditional medicine is emphasized, especially in the rural areas, and all medical schools are encouraged to teach traditional medicine as part of their curriculum. Both modern and traditional doctors are said to have equal rights and status, while Chinese health services are making efforts to develop and popularize both the traditional and the Western schools of medicine, with the aim of creating a new, integrated medical science based on the synthesis of the two schools.

Traditional Chinese medicine has used plants and herbs since very ancient times. More than five thousand varieties of medicinal herbs have now been catalogued in China, and their use, in conjunction with Western medical techniques, helps China to reduce its expenditure on synthetic drugs. 69

_Ayurvedic_ medicine is an example of a well-organized system of traditional health care, both preventive and curative, that has a long tradition behind it (originating in India 3000 years ago) and which is widely practiced in India and other parts of Asia. It is not only a system of medicine in the conventional sense of curing disease but also a way of life that teaches how to maintain and protect good health. The ancient _Ayurvedic_ medical _shastras_ (manuals), written or engraved on palm leaves and pieces of bamboo wood, have been handed down from generation to generation. There are an estimated 400,000 practitioners of _Ayurveda_ as well as over two hundred _Ayurvedic_ hospitals in India 70, and _Ayurvedic_ medication is based on some 1500 medicinal plants. Most _Ayurvedic_ practitioners work in rural areas providing health care to at least 500 million people in India alone.

The _Brihatrayee Ratna Award_, India's most prestigious honour for outstanding work done in the field of _Ayurveda_, was established in 1994, and the winner is selected each year.


70 Fulder, op. cit., p. 18.
by a ten-member jury of eminent Ayurvedic specialists. The Indian Medical Council, which is responsible for the establishment and maintenance of standards for undergraduate and post-graduate students, recognizes various forms of traditional Indian medicine which, apart from Ayurveda, include Unani and Siddah. Over 50 universities in India now have faculties of Ayurveda, and 100 Ayurvedic colleges are affiliated with these universities. Projects have been undertaken to integrate the indigenous Indian and Western forms of medicine, but there has been, so far, no amalgamation of the two.

In the Jamnagar Institution, Benares Hindu University, and elsewhere, efforts are currently being made to revive certain techniques advocated by the 5th century Indian physician, Sushruta. The latter’s technique, for example, in treating ano-rectal disease has been revived and has proven more effective than modern surgical techniques. Furthermore, the chapters of the 3000-year old Charaka Samhita which deal with rejuvenation therapy and the prevention of the aging process are now considered to be good sources for modern research work in this field.

In Africa, some attempts have been officially sponsored by governments to find a means of co-operation between, or even integration of, traditional and modern medicine. In view, however, of the historical relationship between these two systems, their different basic concepts, and the fact that their methods cannot readily be combined, there has been little success in this respect. There have been increasing efforts, however, to promote research into traditional medicine with a view to enhancing its usefulness as a complement to modern medicine.

In 1976, the Government of Gabon established the Institute of Traditional Pharmacology and Medicine, the objectives of which included the study of medicinal, alimentary and toxic plants as well as the products and procedures used in traditional medicine; the compilation of a rational and scientific pharmacopoeia; the linking and co-ordination of modern medicine and traditional medicine of recognized public benefit; and the fostering of close co-operation among practitioners of both forms of medicine, with the provision of support for traditional plant healers of proven competence. In 1980, Gabon began the production of certain traditional medicines in powder form, which were extracts from plants used by traditional practitioners and which had already proved their medical effectiveness.

In Brazil, pharmacologists are making detailed studies of the aetiotropic properties of local plant products, i.e. their action against organisms which are the causative agents of diseases such as bilharziasis and Chagas disease which affect millions of people throughout the world. Bilharziasis affects one tenth of the population of Brazil and is spreading.

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71 The Times of India, 29 May, 1995.

72 Subhash Ranade, Natural Healing Through Ayurveda, Salt Lake City, Utah, Passage Press, 1993, pp. 19-21.

A Cultural Future for Health Care

"The main ecological, social, economic and political actions required to create supportive environments include establishing healthy public policy with the involvement of all sectors; strengthening community participation and upgrading personnel skills; and reorienting health services towards prevention and health promotion".74

Health has, for a long time, been the exclusive preserve of a professional class - the medical profession - and this has resulted in a situation where health issues, unlike other important policy issues, have not, normally, been the active concern of the community. It has, also, militated against the formulation of a comprehensive view of health problems at the national level and, with the possible exception of AIDS, has led to the relegation of health issues to an unimportant place on the national and international development agenda.

The growing inadequacy of classical approaches to health care would indicate the need for major changes in individual, social, economic and environmental relationships, requiring a transformation of institutional structures and power relationships as well as radical shifts in value systems and lifestyle. Such changes could be stimulated by the rapid decentralization of health care management, especially in developing countries where the needs of rural areas are greatest, accompanied by the promotion of active involvement on the part of local communities, both through local non-governmental and governmental organisms. The resulting, increased participation at the community level in health care management would, inevitably, promote local self-reliance and responsibility.

Developing countries should begin, or continue, the reappraisal and scientific investigation of their medical traditions with a view to contributing to their public health requirements from their own traditional, intellectual resources. Such research would also provide developing countries with the opportunity to make a contribution to world medical knowledge and progress based on their own physical (plant life) and cultural (traditional knowledge) resources. Recent plant research, for example, has revealed the existence of hitherto unsuspected biodynamic compounds that provide possibilities for medical and commercial exploitation. Research undertaken for antibacterial agents in the extracts of 44 different types of fern found in Trinidad has shown positive results in 77% of the extracts.75 The success achieved in such research could stimulate confidence, on the part of developing countries, in their own resources and cultural traditions as well as in their capacity to utilize them for the development of their own public health systems, based on the growing recognition that these very traditions and practices are proving, in certain instances, more valid than some modern medical ones.

In the context of the growing recognition of the value of medicinal plants, the superior richness and variety of plant life in tropical countries provide the latter with far greater potential in the above respect, and present opportunities for South-South co-operation in medical research and health care, given the recurrence both of similar genera of plants in different continents, and similar tropical illnesses.


75 Schultes and Hoffmann, op. cit., p. 19.
CHAPTER I :
HEALTH, TRADITIONS AND DEVELOPMENT
WHO

WHO'S VIEW ON FEMALE GENITAL MUTILATION

by Dr. Hiroshi Nakajima

Director General of WHO

"...I shall take the example of excision. Just denouncing the practice can make some of us feel better and self-righteous but it certainly does not solve the problem. Our purpose should not be to criticize and condemn. Nor can we remain passive, in the name of some bland version of multiculturalism. We know that the practice of genital mutilation is painful and can have dire consequences on the health of the baby girl and, later on, of the woman. But we must always work from the assumption that human behaviours and cultural values, however senseless or destructive they may look to us from our particular personal and cultural standpoints, have meaning and fulfil a function for those who practise them. People will change their behaviour only when they themselves perceive the new practices proposed as meaningful, functional, and at least as effective as the old ones. Therefore, what we must aim for is to convince people, including women, that they can give up a specific practice without giving up meaningful aspects of their own cultures.

Experience shows for example that many people in the societies concerned do not naturally see the link between genital mutilation suffered by a woman in her childhood and the pain, infections and health accidents she may suffer in her later years. Our first task must be to document this link, and then to inform people very simply and clearly about it. It is for us to explain how and why the ritual practice does not prevent but, in its most severe forms, may in fact increase the risk of infertility. Parents are much the same everywhere: given the chance, they want the best for their children. They will accept the changes proposed once they realize that these are in the best interest of their children and that, together with better health, their daughters are more likely to enjoy a successful social and economic future.

The same approach could apply whenever we want to induce sustainable changes in harmful dietary habits and lifestyles, or to promote safe sex and condoms, family planning, children's treatment with oral rehydration salts, hygiene, immunization, rational drug use, etc. It must be our responsibility to present the changes proposed in such a way that they can make sense to the people themseves and fit in with their own social, cultural and economic environments..."

(Statement of the Director-General to the World Health Organization's Global Commission on Women's Health, WHO, 12 April 1994)
### ESTIMATED PREVALENCE OF FEMALE GENITAL MUTILATION (FGM)

<table>
<thead>
<tr>
<th>Country</th>
<th>Prevalence</th>
<th>Prevalence Estimates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benin*</td>
<td>50%</td>
<td>1 200 000</td>
</tr>
<tr>
<td>Burkina Faso*</td>
<td>70%</td>
<td>3 290 000</td>
</tr>
<tr>
<td>Cameroon*</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Central African Republic</td>
<td>50%</td>
<td>750 000</td>
</tr>
<tr>
<td>Chad</td>
<td>60%</td>
<td>1 530 000</td>
</tr>
<tr>
<td>Côte d'Ivoire*</td>
<td>60%</td>
<td>3 750 000</td>
</tr>
<tr>
<td>Djibouti</td>
<td>98%</td>
<td>196 000</td>
</tr>
<tr>
<td>Egypt</td>
<td>50%</td>
<td>13 625 000</td>
</tr>
<tr>
<td>Ethiopia and Eritrea¹</td>
<td>90%</td>
<td>23 940 000</td>
</tr>
<tr>
<td>Gambia*</td>
<td>60%</td>
<td>270 000</td>
</tr>
<tr>
<td>Ghana</td>
<td>30%</td>
<td>2 325 000</td>
</tr>
<tr>
<td>Guinea*</td>
<td>50%</td>
<td>1 875 000</td>
</tr>
<tr>
<td>Guinea-Bissau</td>
<td>50%</td>
<td>250 000</td>
</tr>
<tr>
<td>Kenya</td>
<td>50%</td>
<td>6 300 000</td>
</tr>
<tr>
<td>Liberia*</td>
<td>60%</td>
<td>810 000</td>
</tr>
<tr>
<td>Mali</td>
<td>75%</td>
<td>3 112 500</td>
</tr>
</tbody>
</table>

¹ Reported jointly in the absence of separate statistics.
## ESTIMATED PREVALENCE OF FEMALE GENITAL MUTILATION (FGM)

<table>
<thead>
<tr>
<th>Country</th>
<th>Estimate</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mauritania*</td>
<td>25%</td>
<td>262 500</td>
</tr>
<tr>
<td>Niger*</td>
<td>20%</td>
<td>800 000</td>
</tr>
<tr>
<td>Nigeria</td>
<td>50%</td>
<td>30 625 000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Two national studies conducted, but not released. A study of Bendel State reported widespread clitoridectomy among all ethnic groups, including Christians, Muslims, and Animists.</td>
</tr>
<tr>
<td>Senegal</td>
<td>20%</td>
<td>750 000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Predominantly in the north and south-east. Only a minority of Muslims, who constitute 95% of the population, practise FGM</td>
</tr>
<tr>
<td>Sierra Leone</td>
<td>90%</td>
<td>1 935 000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>All ethnic groups practise FGM except for Christian Krios in the western region and in the capital, Freetown.</td>
</tr>
<tr>
<td>Somalia</td>
<td>98%</td>
<td>3 773 000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>FGM is generally practised; approximately 80% of the operations are infibulation.</td>
</tr>
<tr>
<td>Sudan</td>
<td>89%</td>
<td>9 220 400</td>
</tr>
<tr>
<td></td>
<td></td>
<td>A very high prevalence, predominantly infibulation, throughout most of the northern, north-eastern and north-western regions. Along with a small overall decline in the 1980s, there is a clear shift from infibulation to clitoridectomy.</td>
</tr>
<tr>
<td>United Republic of Tanzania</td>
<td>10%</td>
<td>1 345 000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Clitoridectomy reported only among the Chagga groups near Mount Kilmanjaro.</td>
</tr>
<tr>
<td>Togo*</td>
<td>50%</td>
<td>950 000</td>
</tr>
<tr>
<td>Uganda*</td>
<td>5%</td>
<td>467 500</td>
</tr>
<tr>
<td>Zaire*</td>
<td>5%</td>
<td>945 000</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>114 296 900</td>
</tr>
</tbody>
</table>

* Anecdotal information only; no published studies.

References:

WHO

HEALTH AND DEVELOPMENT

The contribution of health to economic development

While health is an essential objective of development, the capacity to develop is itself dependent on health. A better understanding is now emerging of the crucial contribution that health makes to economic activity, to improving environments and through these - to all processes of development. The achievement of appropriate health objectives is a measure of the effectiveness of development strategies.

Previous work on the health-development links has often focused on the flow of costs and benefits from health to economic growth and other processes of development. In some cases these flows are clearly identifiable and interventions which strengthen the health-development link are easy to design and implement. This is the case when an endemic disease is acting as a serious impediment to growth. An example of the solving of a health problem leading to economic benefits can be seen in Sri Lanka when the programme of agricultural settlement was launched in the malaria-ridden dry zone in the 1940s and the decades that followed. A more recent example is the onchocerciasis eradication programme which liberated productive land to be used for development.

In other cases the link is not so evident or as readily perceived since changes in health occur over a period of time and have either positive or negative impacts on productivity and output. While an improvement in health status will most often result in greater economic activity, a reduction in the loss of working time due to ill-health, and less expenditure on curative health care, these economic benefits are often taken for granted and treated as the natural by-products of human beings acting in their own self interest to safeguard and improve their health. On this premise there is no need for special policy initiatives which identify these links between health and productivity or to actively undertake efforts to strengthen them. Such an approach which attempts to apply economic principles to health outcomes, and justify the allocation of resources to health on this basis, has not had a lasting impact on policy and decision-making processes.

In this context, it has been noted that although expenditure on health and related aspects of human development is sometimes perceived as a drain on national or community resources, such expenditure is in reality an investment in a nation's human capital. Health enhances people's ability to contribute actively to overall economic and social development and to enjoy a satisfactory quality of life. Furthermore, the health sector is a major employer and creator of economic activity - a fact sometimes overlooked.
The impact of development on health status

It is, however, the flow in the other direction, i.e. the impact which the entire development process has on health status, which raises most of the crucial issues presented in the development and health scenarios. Policy makers tend to treat health benefits which are brought about by economic development in the same way in which they treat the economic benefits brought about by health improvement. They generally assume that these benefits flow automatically from the processes of interaction between health and development processes. They seldom see the need for special interventions.

Whilst this may be true for most of such health benefits, there are special situations where the beneficial links need to be identified and reinforced. This is particularly true when dealing with vulnerable and disadvantaged groups where the deprivation in health and in economic resources exist together, reinforcing each other, and where integrated strategies are needed to break the vicious cycle of poverty, ill-health and illiteracy. All development strategies need to identify these situations and reinforce the health-development link.

Economic growth has been accompanied in most cases by the progressive development of a health infrastructure, including secondary and tertiary care, as well as a wide primary health care system aimed at bringing health services to the community level. But it has become clear that greater wealth - whether for countries, communities or individuals - is not sufficient guarantee of improving health status because of the random nature of the allocation of resources. Nevertheless, economic growth is important for the mobilization and allocation of resources for the health sector, both at the national and global levels.

Clearly, past development policies and economic strategies have contributed to an improvement in health status, especially where there has been simultaneous emphasis on social policies in areas like health and education. These have invariably improved overall quality-of-life indicators such as life expectancy and infant mortality rates.

However, the pursuit of development in the economic sphere alone may obscure the purpose of development as a whole, which is to improve the quality of life of all people. In recent years there have been instances where a narrow focus on economic development has had adverse effects on the health and social status of the population, particularly the most vulnerable groups such as disadvantaged women and the elderly, the unemployed, and children. Increasingly, these most disadvantaged people have been excluded from the benefits of development. All too often the development process has only served to aggravate their vulnerability through degradation of the environment, increasing unemployment, global recession with its consequent reduced social benefits and poorer chances of education, inadequate nutrition and clean water, poor waste disposal, unsafe housing, and lack of essential health services. All these consequences of development stand in the way of equity, social justice and satisfaction of basic human rights.

Relationship between health and development

Development is generally understood as the process of improving the quality of human life. It has three equally important aspects: raising people's living standards (reflected in increasing income and consumption); creating conditions conducive to self-esteem; and
increasing people’s freedom to choose. Health and the means to maintain it are crucial for development, but good health is not easily measured. Income alone is an inadequate indicator of development, but it remains the most widely used because it is more easily measured than other aspects of development. There are clear links between health and income both when considering individuals and when considering averages for countries. A comparison of health indicators with economic indicators at country level shows that the countries whose inhabitants enjoy the highest life expectancy tend to be those with the highest income per person. The link can also be seen over time; the countries whose per caput income has increased most over the past 30 years tend to be those in which health indicators show the greatest improvements. There is also some evidence of a decline in health indicator levels in countries that experienced economic decline during the 1980s.

However, the average level of income per person in a country is only one among many social, economic, cultural, and political factors that influence people’s health. These factors range from the wealth of a society (which in turn is influenced by its role within the world economic system) to the level of education of each individual, including knowledge of health-enhancing action and behaviour. Between these two extremes come a large range of variables: the distribution of incomes and capital assets within a society; the quality of the housing and living environment; and the quality of the infrastructure and services (of which the quality and availability of water supply, sanitation, and health care services are perhaps the most important). The health profile of any society is influenced not only by the scale of incomes and assets and their distribution but also by taxation structures and the macroeconomic policies of governments. This complicates the task of establishing the contribution of different factors to health, but it also provides policy-makers with a much greater range of possible interventions to promote it.

The limitations to equating the wealth of a society with its health can be seen in the many countries where health indicators such as infant mortality rates or average life expectancy at birth are well above or below the average for countries with the same level of income per person. These exceptions provide important clues as to how health improvement can be achieved without high levels of per caput income, resource use, and waste generation. Box 4 shows that countries such as China, Costa Rica, Cuba, and Sri Lanka and the Indian state of Kerala have life expectancies well above the norm for the per caput income level.

Some exceptions with regard to links between wealth and health

In Sri Lanka and China, two relatively poor countries if wealth is measured by per caput income, the government’s health policies have greatly improved the average level of health, well above the norm for countries with comparable income levels. The same is true for the State of Kerala in India. One reason is that at an early stage resources were directed to strengthening the community primary health care system and successfully integrating traditional indigenous health care systems with modern health services. Two countries with higher per caput incomes, Costa Rica and Cuba, also have higher life expectancies and lower infant mortality rates relative to their per
caput incomes; here a long-term government priority for education and health is an important factor. In Cuba, China, and Kerala, an agrarian reform resulted in a more adequate livelihood for many rural dwellers. In all five areas there has also been a long-standing commitment to education, and in each literacy rates are well above the norm for countries with comparable income levels. In addition, there are long-standing policies to improve the dietary intake and the nutritional status of the population.


While life expectancy at birth has been increasing in the great majority of countries, suggesting that global health is improving, national statistics conceal extreme variability within countries. Because income level and social status are important determinants of health, higher-income groups enjoy longer lives and better health than lower-income groups. The differentials tend to be greatest in Africa, Asia, and Latin America, where life expectancy among poorer groups is often 20-30 years less than for richer groups. The proportion of children born to poorer groups who die before the age of five is often 40 or more times that of richer groups. Disparities in health between rich and poor are also apparent within developed countries, although they are usually smaller; wealthy groups have the most concentrated medical attention, eat better, tend to smoke less, and have the opportunity to live away from industrial effluents and disaster-prone areas.

It should be stressed that growing prosperity in any society provides significant advantages for achieving health only if it also means that a growing proportion of the population enjoy adequate incomes, an improved housing and working environment, and access to preventive and curative health services. The rapid increase in life expectancy achieved in the developed world at the end of the nineteenth and the first half of the twentieth century was much influenced by the increased purchasing power of most people, combined with better public health. It is also notable that the countries with above-average health indicators relative to their per caput income level tend to be those with the most equitable distribution of income. Differences in average life expectancy between the richer developed countries may be more influenced by the degree of inequality in income distribution than by the average level of income.

WHO*

TRADITIONAL PSYCHIATRY IN MALI

by Piero Coppo

A study of the traditional psychiatric resources of the Dogon area in south-central Mali and of the Tuareg people of the north suggests how traditional and modern psychiatry can be integrated side-by-side within primary health care.

Mental disorders are much rarer among the rural communities of the Dogon high plateau than elsewhere. Nevertheless, the problem is made more serious than the number of cases would suggest by the hard conditions in which sufferers have to live. They are shut up, isolated or sometimes even physically assaulted.

A system of "traditional psychiatric centres" - there are 14 of them, or one for every 10,000 inhabitants - has spontaneously grown up in this area and serves the whole district. They use unusual and effective methods, but have features which "modern" psychiatry should try to understand and possibly adopt. At the same time, these methods do have limits which traditional psychiatry alone cannot overcome.

It seems essential to have a psychiatrist with a modern training, who is first and foremost a physician, to diagnose cases requiring purely medical attention, for instance, cases of dehydration or mental conditions caused by organic diseases. This person should also be able to build up mutual trust with the traditional therapists so that the two approaches to treatment can be almost spontaneously combined on the spot.

This idea deserves consideration because the social, economic and cultural changes brought about inevitably by the process of modernisation and the growth of towns cannot fail to produce an increase in mental illness. New disorders such as neuroses, depression and psychosomatic conditions are bound to appear, which the traditional psychiatrist would find hard to fit into his familiar framework.

So the information obtained from traditional communities needs to be taken into account when mental health care systems are being set up in rural areas where both modern and traditional methods can be deployed.

The Dogon communities tend to be in inaccessible areas: historically they were set up because their animist populations rejected Islam. Now their main occupation, which involves everyone, is agriculture. They grow millet for food and onions for trade. The

* Article commissioned by WHO from outside expert.
population is highly uniform and has not so far had any access to modern psychiatric
treatment. Treatment of mental disorders, therefore, is still wholly in the hands of the
traditional healers.

What is the Dogon attitude to mental illness? The layman makes no difference between
the various forms of what he calls "qué-qué" or "madness". The traditional psychiatrist
distinguishes between several forms of madness, which he ascribes to various good and evil
spirits living in the bush or in dwellings, some of them in human form, or to the malice of
someone using sorcery to harm his enemy. The treatment of psychotic illnesses is often
the same, but the practitioner always makes an individual diagnosis.

Epilepsy is well known in the Dogon communities, where it is called "tibi sougo", or
"falling like a stone". The healer observes the victim's fits, takes his pulse and examines
the iris of the eye, and then suggests treatment. If, however, the patient has at any time
fallen into the fire during a fit or if the disease is too far advanced, any treatment is
considered to be useless.

During our studies in this area, we carried out an epidemiological survey in 16 villages
with a total population of 6,448 and identified twelve cases of psychosis ("qué-qué"),
affecting 1.85 per 1,000 of the population, and eight of epilepsy ("tibi suogo") involving 1.24
per 1,000.

People from outside the study area also came to consult us. Several showed psychotic
or epileptic symptoms, and the only cases of neurosis came either from urban areas or from
environments which cannot be described as "traditional rural communities". In such rural
communities, the types of "madness" are always similar. There is a striking absence of
depressive symptoms, neuroses and conditions which may be regarded as psychosomatic.

Some mental disorders, moreover, which are not regarded as "madness" by local culture,
do not seem to have been referred to us for observation. To avoid any entanglement in the
insoluble problem of the borderline between what is "pathological" and what is "normal",
we preferred to leave the definition of "madness" to the local people whom we consider, for
the purposes of our study, the only possible judges.

**Traditional treatment**

Traditional Dogon psychiatrists usually apply therapies handed down from father to son,
although sometimes they do develop their own. Some holy men from other, sometimes
distant, cultural areas or local recent converts to Islam use Moslem methods based essentially
on the reading of the Koran. There is a trend now for the animist and Moslem methods to
be used side by side, but they do reflect the difference between the world's two approaches
to insanity.

The animists believe that it is caused by spirits with which they must communicate. To
the Moslems, insanity is the result of action by a malevolent spirit, a "devil", which must
be cast out. Deeply embedded in the culture of the few Tuareg tribes, some nomadic, some
settled, living in northern Mali is a well-ordered system of traditional psychiatry closely linked to Islam. Insanity always has something to do with the Devil in Tuareg culture. A man goes mad because he has met the Devil or is afraid of meeting him. Insanity can also be the result of poor hygiene because the Devil frequents dirty places.

It is interesting to note that the origin of any illness, and thus also of mental conditions, is ascribed to an imbalance between hot and cold. In the Tuareg culture, these two elements are as important as the yin and the yang in oriental cultures, and must be taken into consideration in any treatment.

The Tuareg holy men believe that mental problems are increasing because those with powers to stop the devils are becoming ever fewer, giving the devils new opportunities to spread insanity. It is a sign of the "beginning of the end" which, for some, must result in the annihilation of the human race, while others believe that the time is coming when what was always hidden will be revealed, "as if a man who has always been clothed should walk around naked."

In prescribing treatment, the holy men rely on their own dreams, which may be good or bad, and also draw a great deal on the Koran. They read the texts, write verses on the patient's body and make up amulets containing the holy writ. They also give the patient water to drink in which pages bearing texts from the Koran have been soaked. It is worth noting that the ink used is made from the ashes of a shrub used elsewhere in treating epilepsy and mental disorders.

The patient is also treated with medicines from various plants, is made to sweat and is spun round to make him lose his sense of direction. Rituals of the psycho-drama type are also used.

The importance of research into these various methods is obvious. First of all, the study of the development of the concept of mental illness in traditional rural communities makes it possible to stress the links which certainly exist between psycho-pathology and culture. It also makes it possible to discover what is universal and inherent in human nature, as distinct from that which arises from specific cultural, social, economic or environmental factors. Finally, and most important, traditional psychiatry is still very much alive in many developing countries, where in some areas it is still the only way of helping the mentally ill and of defending the community from the disorder which anti-social behaviour could create.

If this contribution is properly understood and absorbed by the psychiatric services which form part of primary health care, these countries will be better able to provide effective treatment for the mentally ill within their own community.
Examples of what is considered psycho-pathological behaviour in Mali's traditional rural communities:

- Anti-social behaviour, like making children afraid, hitting or injuring other people, theft, or non-observance of beliefs and social customs.

- An inability to maintain a place in society, to the point of having to look to others for sustenance.

- Strange behaviour, like undressing in public or taking to the bush.

- True psycho-pathological symptoms, like verbal incoherence, visual or aural hallucinations, talking to devils, negativism, fixations, agitation, confusion and insomnia.
Chapter II:

HEALTH, POPULATION AND ENVIRONMENT
HEALTH AND THE ENVIRONMENT

Human health ultimately depends on society's capacity to manage the interaction between human activities and the physical and biological environment in ways that safeguard and promote health but do not threaten the integrity of the natural systems on which the physical and biological environment depends. This includes maintaining a stable climate and continued availability of environmental resources (soil, fresh water, clean air). It also includes continued functioning of the natural systems that receive the wastes produced by human societies - domestic, industrial and agricultural - without exposing people to pathogens and toxic substances.

The physical environment has a major influence on human health not only through temperature, precipitation and composition of air and water but also through its interaction with the type and distribution of the flora and fauna (the biological environment). The biological environment is a major influence on the food supply and on the reservoirs and transmission mechanisms of many diseases.

Environmental factors that impair health include:

(a) pathogenic agents and their vectors and reservoirs;

(b) physical and chemical agents present in the environment that are independent of human activities and can impair health either by their presence (e.g., naturally occurring radionuclides, ultraviolet light) or by their relative deficiency (e.g., iodine, selenium);

(c) noxious physical and chemical agents added to the environment by human activities (e.g., nitrogen oxides, polycyclic aromatic hydrocarbons, particulates arising from fossil fuel combustion, gaseous, liquid, and solid wastes produced by industry, radioactive wastes).

The effects of these agents can be magnified or diminished by human intervention or activity. Draining marshlands within or close to settlements in malarious areas can greatly reduce the incidence of malaria by removing the mosquito's breeding sites. Building can modify the physical environment, reducing some health risks (e.g., by providing protection against extreme heat or cold and precipitation) and increasing others (e.g., by causing the accumulation of natural radon indoors). Buildings can be designed specifically to protect occupants against certain diseases, for instance by excluding insect vectors. Buildings and settlements also modify the biological environment in ways that can increase or decrease health risks. Concentrated populations permit major cost savings in the provision of piped water, sewers, and storm drains, and in the collection of household wastes, greatly reducing the risk of foodborne and waterborne diseases and many other health problems.
Restricting discussion of the interactions of health and the environment to the three groups of factors described above excludes noxious agents to which humans are exposed largely as a result of their own chosen form of behaviour. Such health problems are the ones resulting from the use of tobacco and the excess consumption of alcohol, saturated fat, and salt, which in many societies have become the principal causes of avoidable disease.

An example: Irrigation and malaria

The absence of proper drainage systems in irrigation schemes and problems with continuing maintenance are perhaps the two most important factors contributing to the spread of vector-borne disease as a result of irrigation development. Because draining systems are costly and because the costs of irrigation schemes have been rising steadily over the past 20 years (Levine, 1986; WHO/FAO/UNEP, 1986), drainage construction is often inadequate.

For example, the implementation of a large irrigation scheme on the Cukurova plain of Turkey in the 1970s resulted in a resurgence of endemic malaria in the region. This was due to increased breeding of the vector species in poorly drained ditches which received the run-off of surplus irrigation water. Gratz (1987) found that "there are probably few areas where the cause and effect between agricultural development and increased malaria can be so readily seen as in the Cukurova". He attributed the rise in malaria to "the sequence of construction... with very inadequate or... no provision for drainage, the increased agricultural activities requiring more and more irrigation and the vast increases in population densities of the main vector in the area, A. sacharovi, combined with an influx of migrants, inadequate surveillance activities, and the failure to institute satisfactory control measures in good time."
The problems of control were magnified as the working population moved between farms every fortnight so that their employers could avoid liability for welfare contributions.

Another well-known example of irrigation development causing disease is that of the Mahaweli River basin in Sri Lanka, as documented by Wijesundera (1988). The situation might have been different with proper mitigatory measures.

Unfortunately, the cost to the environment and to human health of omitting appropriate drainage systems and other related measures from project plans is usually not taken into account in calculating the internal rate of return (IRR). This calculation is often used by governments and multilateral lending institutions as an indicator of the economic viability of new projects (Tiffen, 1987). With pressure on them to contain costs, planners will be all the more unlikely to provide for improvements in structural design in order to prevent adverse health effects.

Different types of irrigation system (surface, subsurface, over-surface, continuous flow, demand flow, and intermittent flow) and different cycles of water distribution have different effects on the transmission of vector-borne diseases (Goonasekere & Amerasinghe, 1987). There has been evidence from India and Portugal since the early 1940s, for example, that intermittent irrigation in certain circumstances reduces mosquito-breeding and consequently malaria incidence. The irrigation schemes that appear to present the greatest risks of increased transmission of vector-borne diseases are those located where: (1) soils present drainage problems; (2) rice is cultivated; (3) reservoirs are constructed; (4) canals are unlined; and (5) there is compacted settlement or resettlement (Tiffen, 1989).
The differing impact of alternative irrigation systems on health is not the only aspect of the complex relationship between irrigation and health that requires further investigation. The size of irrigation schemes and how and by whom they are run, are also important factors. Hunter et al (1982) recommended more research on small impoundments since their aggregate impact is probably greater than that of large lakes. This is because they are used by local populations for a variety of purposes, including fishing, water supply, animal watering, irrigation, and flood control; human and animal contact with the water is thus relatively more frequent so that the risks of disease are increased. As international financing is rarely needed for small dams, the likelihood of an environmental health impact assessment at the planning stage is remote. However, "size" is a relative and perhaps misleading term: what is large in Jordan may be small in India. It may be more helpful to speak of "centrally planned" as opposed to "smallholder/community-based" systems. The latter are the most numerous and the most difficult to monitor in terms of impact on, or risk to, public health (see Tiffen, 1989; FAO, 1987; Small, 1986).

The proper operation and maintenance of irrigation schemes may be critical for health. Small (1986) argued that the participation of farmers in the financing of small irrigation systems would improve their operation and maintenance, and thus benefit health. He recommended devolution of responsibility for running these systems from central government offices to the farmers themselves. It is Small's contention that better cooperation can be achieved between farmers in their communities than between the different government agencies and planners at the central level who have different perspectives and priorities. He also considered that farmers are usually willing to improve their environment if they believe it will lead to better health for themselves and their families (Small, 1986).

References


This article is based on extracts from the publications Our Planet, Our Health, Geneva, WHO, 1994, as well as The impact of development policies on health - A review of the literature, Geneva, WHO, 1990.
Poverty, unemployment, social disintegration and other items on the agenda of March 1995 Social Summit in Copenhagen cannot be fully understood without reference to demography. Here much was spoken about poverty, unemployment and social disintegration, threats closely related to the demographic problem, considered as the key element in the new approach to development. Jean-Claude Chasteland, a former director of the United Nations Population Division and currently scientific advisor to the French National Institute for Demographic Studies in Paris, answers questions on the subject, outlining his thinking on demographic problems today.

_The international community has been concerned about population questions since the 1950s. At that time world population was two billion; today, it is 5.7 billion. How should we be reacting to this situation?_

- The world population situation has changed radically in the past forty years and especially in the past twenty. Of the 5.7 billion people living on the planet, about one billion live in the so-called developed countries, where fertility is low. But people should realize that only some 700 million of the other 4.7 billion live in countries where fertility has not yet begun to fall. In most Third World countries, fertility has definitely declined. That was not the case in 1974. Today, the problems of very high fertility are centered geographically on sub-Saharan Africa, some regions of south-west Asia and one or two countries of Central America.

In the other areas with a high population density, such as North Africa - notably Tunisia, Algeria and Morocco - and above all China, fertility has fallen very rapidly. The case of China is particularly extraordinary. A developing country with 1.2 billion inhabitants, representing one-quarter of the population of the Third World and one-fifth of total world population, has managed to bring its birth rate down below replacement level within a single generation. Europe took more than a century to reach that stage. This unprecedented decline is an encouraging sign, especially since other equally spectacular downturns have been observed in a different political context, in the Republic of Korea and in Thailand.

'Population growth will peak early next century and will begin to fall later on.'
However, despite the fall in fertility, the number of births is still rising in the Third World and will continue to do so. There are fewer births per couple but a very large number of couples have already reached the age of procreation. It is only when their children in turn reach that age that the number of births will fall in absolute terms. There is a gap between the time when fertility falls and that when the number of births itself begins to decline in absolute terms. Because of that gap, population growth will peak early next century and will only begin to fall later on.

For the time being, rapid population growth is continuing and all these people must be properly provided with food, education and health care, and have access to work and shelter. That calls for considerable investment and poses problems in terms of development.

*Development has been described as the most effective contraceptive. The specific link between population and development was to be examined at the Cairo Conference on Population in September 1994 and it was also on the agenda of the Social Development Summit in Copenhagen in March 1995.*

- The Cairo Conference was supposed to be dedicated to the problems of population and development, but the development issue was to some extent sidelined. The emphasis was placed on reproduction and on the condition of women, all this being seen in an individualist perspective which disturbed a number of participating countries. Some twenty of these countries expressed reservations about the content of some paragraphs of the Action Plan, whereas a paragraph in the introduction stipulates that the recommendations are acceptable only to the extent that they are not incompatible with religious beliefs. This is a retrograde step in comparison with the previous population conferences held in Bucharest (1974) and Mexico City (1984).

*How do you explain this disagreement?*

- It must be accepted that the Action Plan was inspired by a Norther approach. The model of the condition of women is based on that of women in Sweden rather than in Saudi Arabia. Similarly, the countries of the North tried to win acceptance for their very open concepts of the family. Of course this gave rise to keen controversy, underlining the dichotomy between a religious vision of the world and what I would term a more modernist approach without religious overtones.

Regardless of their theme, the big United Nations conferences always reflect the international atmosphere prevailing at the time when they are held. The Cairo Conference was the first population conference to be held since the collapse of the Communist bloc. Previously, these conferences were generally the setting for East-West ideological confrontations in which the South played whatever role it could. With the disappearance of the "left hemisphere" of international life, confrontations have shifted onto religious ground, with on one side the Vatican and certain Islamic countries and on the other industrialized nations which subscribe to radically different concepts of the family, the condition of women, abortion and sexual life in general.
This being so, is it going to be possible to harmonize population and development strategies, as desired by the United Nations?

- It was probably the emphasis laid on individual problems, leaving aside development issues, that weakened the expected consensus on the programme of the Cairo Conference. There are other development problems as well as that of the condition of women. I fail to see how women's condition could be improved independently of other development factors such as water supplies, electrification and employment. A woman is not really free if she has to walk several miles every day to fetch water, just as a family cannot flourish in an environment of poverty.

'Let us not be pessimistic. Extraordinary progress has been made in the last forty years, in the Third World as elsewhere.'

Everybody agrees on the need for development, regardless of their religious or ideological convictions. Let us not be pessimistic. Extraordinary progress has been made in the last forty years, in the Third World as elsewhere. Mortality in the Third World has declined substantially, because of education as well as vaccination campaigns. In the 1950s the level of illiteracy was very high - as much as 90 per cent in the case of women. Today, even if progress has been uneven, we are dealing with illiteracy rates of between 20 and 30 percent.

On the whole, the 5.7 billion people alive today lead far better lives than the 2 billion who lived in the 1950s. The proof is that their life expectancy has risen. We have made enormous progress. Now we must maintain the pace of advance and also adopt a cautious attitude towards population growth and its potential impact on the environment. We must also avoid polarizing attention on some aspects of the problem, such as pollution or depletion of natural resources, for which the critical thresholds are constantly being pushed back either by new discoveries or by the appearance of substitution products.
UNESCO

LINKS BETWEEN CULTURE, COMMUNICATION, ENVIRONMENT
AND HEALTH

by Birgitta Leander

Meeting in Bamako

An important meeting was held in Bamako, Mali, under the auspices of the World
Decade for Cultural Development, in March 1995, in preparation for the year of "Culture
and Health" being organized for 1996, in close collaboration between the Decade Secretariat
at UNESCO and the World Health Organization. The Bamako meeting with the theme
"Health, Culture, Communication, and Environment", which had been adopted as one of
the major programmes by the Intergovernmental Committee for the Decade, was organized
in the framework of the Decade by the Institute for Health and Development of the
University of Paris VI, and the French Mission for Cooperation in Bamako, under the
patronage of Madame Adame Ba Konaré, wife of the President of the Republic of Mali.

The conference, which was highly publicized by the media, was a great success and the
strong links existing between health, culture, communication, and environment were stressed.
The public health professionals present - Europeans and Africans trained in modern medicine,
as well as the "tradicpractitioners", attached to the ancient customs of their respective cultures
- all had wide experience in fieldwork, particularly in Africa. They made presentations in
accessible language, with frequent reference to case studies illustrated by slide projections.

Of some 50 participants, more than half came from Africa (Mali, Ivory Coast, Senegal,
Central African Republic, Benin, Congo, Comoros) and the others from France (Paris,
Lyons, Marseilles, Tours, Bordeaux, Aix-en-Provence, Limoges, etc.).

The majority were doctors, but sociologists and anthropologists as well as dignitaries of
the host country and members of the diplomatic corps posted to Mali also attended.

The themes addressed

The papers were divided into three broad thematic groups:

1) The Link between Culture and Health (the concept of transmissible and hereditary
diseases, illness due to an accumulation of different infections and trauma);

2) Health and the Environment (water, pollution, eating habits);

3) Communication, Environment, Health (public figures, health, communication).
The first group discussed interpretations of the causes of diseases and the possible remedies in regard to the different cultural contexts. Methods of healing using traditional medicine were also raised.

The second group analyzed the cultural concept of the "modernization" of the environment, particularly the urban fabric and its link to certain diseases, as well as methods to prevent illness which sometimes contradict cultural practices, without jeopardizing productivity, especially in the rural areas.

The third group discussed the vital issue of transmitting messages about health across cultural, linguistic and religious barriers. The use of mediators to "translate" cultural messages between the patient and the doctor was proposed, and the results of the use of traditional theatre to convey these messages to the local community were described.

What would have emerged as a fourth theme (and which was mentioned several times in the context of the three preceding themes) was the role of anthropology and professionals of social science and culture in medicine. The need for anthropology courses in medical schools was recognized, in both industrialized and developing countries. The fundamental role of anthropologists and sociologists in the implantation of programmes or the construction of medical buildings in developing countries was also stressed, in order to throw light on the links between the different cultural interpretations of disease and its infrastructure.

The major role of culture

It has been shown that culture plays a major role in interpreting pathological phenomena as well as in conceiving ideas about the way in which these phenomena should be treated. Thus it appears necessary to be able to decodify the dialogue between the ailing in a developing country and the doctor generally trained in modern medicine either in the industrialized world or in a medical school of a developing country designed after a modern model. Thus, communication is essential to permit a cultural interpretation of the message from the patient to the doctor and vice versa, assisted by "cultural translators" familiar with the two systems.

Using well-illustrated examples, the meeting also focused on the relationship between the environment and the outbreak of certain diseases, as well as between the environment, the cultural interpretation of the environment and health. Concrete examples from the rural environment were cited, such as the outbreak of bilharzoisis in areas near a river, and the population's interpretation of these problems and their causes. For example when malaria broke out in the Comoros Islands as a result of installing water tanks beside the homes, the population was unable to imagine that its troubles stemmed from this "modernization".

The only woman doctor who participated in the conference cited other concrete examples from the urban environment in her description of the proliferation of the "maquis", little makeshift restaurants in the city of Abidjan, as a consequence of the growing demands
of the numerous immigrant workers of diverse origins for a greater variety of dishes sold on
the street.

Finally, as stated above, the participants discussed at length the urgent need to provide
courses in anthropology or ethnology, not only in the medical schools of developing
countries, but also in the institutions of industrialized countries which train many doctors who
will later become active in developing countries. Anthropologists or sociologists must also
be included in the medical or building teams of hospitals and medical centres undertaking
activities in developing countries, to ensure that cultural traditions which affect the
implementation of the projects are taken into consideration. Examples were given of big
modern hospitals built in Africa which had to be abandoned because they did not include a
welcome area for the family members who often accompany patients during their stay in the
hospital.

Recommendations for the future

So that culture and the environment will be taken into account in health programmes for
sub-Saharan Africa, the participants in the conference "Health, Culture, Communication
and Environment", meeting on 6 and 7 March 1995, in Bamako (Mali), in the framework
of the "World Decade for Cultural Development" of UNESCO and the United Nations
system, therefore made the following recommendations:

1. The cultural dimension must be taken into account in projects for developing
   international cooperation, and it must be integrated into daily practices in the form of
   health care, teaching or research. Studies and research on epidemics should be
   undertaken and analyzed, taking account of the cultural factors of the concerned
   communities.

2. The role of traditional knowledge must be clearly defined in the modern methods used
   in the field of health.

3. Sustainable development projects must be linked to the environment, taking account of
   the ecological and social demands, from the conceptual through the implementation
   stages.

4. Poor water management leads to major public health problems in sub-Saharan Africa
   and joint measures are thus necessary to provide the populations of these regions access
   to uncontaminated water and an efficient purification system.

5. In order to improve understanding between the African health services personnel and the
   patients, the introduction of a "culture and health education" module in the medical
courses is an initiative which should be supported and encouraged.
   In the same spirit, health professionals, whether from the North or South, should accept
   a multidisciplinary approach to the public health services in sub-Saharan
   Africa, allowing for constructive criticism of actions sometimes poorly understood by the
   African villagers.
6. The health education programmes for the rural and urban populations should be adapted to their psychological and socio-cultural concepts, so they can take the responsibility for the sanitary measures to combat the major problems.

The role of women and mothers must be stressed, as they are often more attentive than men to negative environmental factors affecting African children.
UNESCO*

POPULATION, CULTURE AND DEVELOPMENT IN INDIA

by Ashish Bose

In an era of economic liberalization, privatization and increasing globalization, economics will dominate the scene, unless vigorous efforts are made to safeguard the socio-cultural environment. In spite of the famous Environment Conferences in Stockholm (1972) and Rio (1992), and the increasing concern for environment and its relation to development, there is a tendency to equate environment with physical environment only. Socio-cultural environment gets a back seat. Therefore, any attempt to relate culture to development is welcome.

There is considerable 'cultural illiteracy' among policy makers, planners, administrators and experts which comes in the way of the success of many developmental projects launched with good intention. By 'cultural illiteracy' we mean ignorance of socio-cultural factors affecting development, inadequate acquaintance with grass root reality and the lack of comprehension of the vital role which culture plays in the development process.

During my field work in various parts of India for the last three decades, I have learnt the need for collecting data on socio-cultural factors in all bench mark surveys, resurveys, evaluation surveys, etc. I propose to discuss a few case studies on the intimate link between culture and development.

Case Studies

The Unfortunate Elephant

"Information, Education and Communication" (IEC) is an international buzzword and all family planning programmes, whether funded by the Government of India or by foreign donor agencies, allocate large sums for IEC which is in-built in the budgets. Our field work experience is that much of this money is wasted. In fact, we have lampooned IEC as "incompetence, extravagance and corruption". Under conditions of mass illiteracy, what information do we give to our masses? Is it enough to devise a red triangle for family planning services? Will people make a bee line for contraceptives wherever they see a red triangle?

* Article commissioned by UNESCO from an outside expert.
This reminds me of a hilarious episode. In the early sixties, a communication expert from the West came to advise the Government of India about propagating the small family norm among rural masses. His strategy to overcome the constraint of illiteracy was to buy an elephant, put a red triangle on the decorative cloth of the elephant and parade the elephant from village to village to convince people about the 'elephantine' nature of India's population problem! This culturally illiterate expert did not know that an elephant in Indian mythology stands for prosperity - the elephant was born in the clouds which bring rain, and therefore prosperity in an agricultural country. Indian temples are full of the elephant motif and several Western scholars have worked on this symbolism in temple architecture. To cut a long story short, the elephant project was a disastrous failure and the elephant died of starvation.

Overcoming the son-complex with "IEC"

A marked bias for sons is a cultural trait in India and many other Asian countries. Is the son-complex basically a religious phenomenon as most Western experts think? My field work convinces me that the son-complex is basically a strategy for survival and an economic phenomenon. The empirical evidence shows that most traditional families in India (except in Kerala and some communities in North-East India and a few other places) would like to have at least two sons before they think of family planning.

To overcome this bias for sons, the Family Welfare Department spends a lot of money putting out posters and advertisements on radio and TV saying that 'son or daughter - it is all the same', 'a girl is as good as a boy', etc. Many posters show a couple with only one daughter with a beaming smile, with the red triangle in the background. We were doing field work in Rajasthan. Our survey showed that every family gave more or less the same answer. "We want two sons!" For a moment, I thought the investigators had filled up the schedules sitting in a coffee house! But I had full faith in the integrity of the investigators.

I went from village to village and got the same answer. Finally, I asked a typical village woman: "Why do you want to have two sons?" She retorted quickly: "Is this a question to ask? Why do you have two eyes?" I could not answer this question. The Rajasthani village woman put her hand on one eye and elaborated: "If one eye is lost, still the other eye will remain". This set me thinking and I coined the term 'demographic fundamentalism' to indicate the inherent desire for two sons, a phenomenon which cuts across socio-economic classes and is both rural and urban. It is broadly true of all religious communities also. The question is: "Can we overcome demographic fundamentalism by the IEC strategy and by saying that it makes no difference whether one's child is a boy or a girl."
Discussion

The case studies we have presented raise important policy issues which deserve careful thought from our planners and policy-makers as well as from researchers. If we want to improve the quality of life, it is not enough to be guided by purely economic considerations and the profit motive or the prospects of earning foreign exchange.

Let's look e.g. at people's participation in health and family planning programmes! A lot of thought must go into evolving a health delivery strategy at the grassroots level, keeping in mind India's demographic diversity. Socio-cultural factors and gender issues must not take a back seat in evolving such strategies.

On the difficult question of communicating effectively with the illiterate masses, a fundamental question to ask would, first of all, be: why keep the masses illiterate? On the question of son-complex one would ask: why deny social security to the rural masses?

The current family planning strategy based on technology and monetary incentives and the use of electronic media may appeal to the West as a solution to India's population problem. But in our view, it will not succeed. In a lighter vein, we call this strategy COMIEC, where CO stands for contraceptive technology, M for monetary incentives and IEC for information, education and communication.

The strategy we are advocating can be summed up in the acronym BLISS, where B stands for basic needs, LI for literacy, S for secondary level schooling and the second S for skill formation.
Considering the population size, per capita income and the level of poverty, South Asia is indeed the world's leading problem region. One does not have to argue much in favour of effective poverty alleviation programmes. In our scheme of things, family planning should be an integral part of all poverty alleviation programmes. This does not mean that ration cards should be denied to persons with more than two children and maternity leave should be denied to women with more than two children. India is proud of her democracy and there should be no aberration in our democratic norms of behaviour, including reproductive behaviour.

In a people-oriented family planning programme, the government must apply its mind to fulfilling the basic needs of the people, which include primary health care. According to the philosophy of Jawaharlal Nehru, health includes family planning. Therefore, we challenge the school of thought which relies heavily on technology, money power, and media power to motivate poor, illiterate, malnourished Indian masses to take to family planning. Development, indeed, is the best contraceptive and the vicious circle of poverty and population can be broken only if we give the same attention to poverty as we give to population.

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Extract from paper presented at International Workshop of the World Decade for Cultural Development on "Information Model for Integration of Endogenous Cultural Dimension into Development" (New Delhi, 19-23 April, 1995).
WHO*

FAMILY PLANNING AND TRADITION: A VIEW FROM NORTHERN CAMEROON

by Ellen M. Einterz

Sometimes efforts to improve the quality of life can hasten the destruction of a whole way of life, in which case the "beneficiaries" can lose much more than they gain. This presents health workers and planners with difficult choices.

In the rural Kolofata district of northern Cameroon, as elsewhere in the non-industrialized world, it is unusual to find adults who are more interested in limiting than in increasing their offspring. Children are prized and recognized as a source of wealth, labour, income and insurance against the disabilities of old age. Children shepherd the goats and sheep, fetch water, tend market stalls, help with farming and chores, and care for younger siblings. As teenagers, girls are given in marriage for money, cattle and cloth. Boys bring home wives who gradually relieve aging mothers of the daily burdens of the household. The old retire gladly to mats under trees, occupying themselves with endless talk and gentle tasks. The more children one has, the greater the chance that adequate prosperity will allow life to follow its expected, secure course.

Overpopulation is recognized as neither a current problem nor a threat. Periodic drought has resulted in short-term famine in some areas, but fertile land, much of it unfarmed, is abundant. Generous sources of surface and groundwater want only the technical apparatus and will to be harnessed. Housing is primitive but never unavailable. Cooking fuel is cheap. Orphaned or abandoned children left to roam the streets are non-existent. There are no gangs of aimless angry youth.

It is a poor area, undeveloped in terms of transport, communication, health or education. There are no paved roads, no telephones, no post office, no farm machinery, no industry. Due to the population’s lack of interest in education, only a tiny minority of children attend any of the thirteen public primary schools in the district. Adult illiteracy exceeds 90% and under-five mortality has been among the highest in Africa. People of half a dozen ethnic groups, each with its distinct language and culture, live in harmony. Three quarters are Moslem; the rest are Christian and animist. Life throughout is steeped in tradition, cultural taboos and sorcery. Modern methods of family planning are unknown, but traditional means of limiting population are plentiful.

Conception itself is limited by a number of traditional practices, including breastfeeding which is continued for 18 to 24 months.

* Article commissioned by WHO from outside expert.
Traditional population control

Some practices effectively promote infant mortality. Most women, for example, withhold breast milk from their newborn children for a minimum period of three days\(^2\). The sticky consistency and yellowish colour of colostrum are considered unhealthy. A mother who dares to feed her child during this period will not be credited with providing possibly life-saving protection against enteric pathogens, but blamed for causing future illness and possibly death. Some women who have already buried one or two of their offspring, believe that their milk is inherently and incurably bad. These women avoid breast-feeding altogether, instead giving their babies some combination of millet gruel, sugar water and animal milk or fat. News of the unique benefits of early breast-feeding and the devastating effects of inappropriate substitution is received with polite tolerance and profound disbelief.

Many traditional birth practices, in particular the use of unsterilized millet stalk to cut the cord, combined with a history of indifference or resistance to maternal vaccination, have contributed to the high incidence of neonatal tetanus and sepsis. This is complicated by the fact that in many families a neonate may not be removed from his home until he is named on the eighth day. In case of sickness, he cannot be taken to a health centre. Illness is treated in the home with herbs and abdominal scarification, and the compromised child’s intimate exposure to pathogenic organisms is thus compounded. Even after the eighth day, families are unlikely to be willing to devote much effort or expense to keep a sick infant alive. In traditional households, facial scarification is performed unsterilely on the eighth day, and later during infancy the uvula is excised similarly.

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Seemingly innocuous daily activities in the lives of the newborn are replete with opportunities to contract illnesses which may lead to death. A mother shows affection by spitting in the face of her infant after breast-feeding. While being washed, babies are given their bathwater to drink. Close, unprotected exposure to dense smoke from cooking fires begins as soon as the mother first straps her newborn baby on her back. Spitting on the walls and floor in the confined quarters of a grass or mud hut is accepted practice, much increased in Moslem homes during the month-long yearly fast.

Conception itself is limited by a number of traditional practices, including breast-feeding which is continued for 18 to 24 months. Socially a stigma is attached to a couple who conceive before the youngest child is walking. Polygamy - widely practised among Moslems, Christians and animists alike - might also reduce the reproductivity of individual women.

Finally, the traditional strenuous discouragement of formal education, particularly for girls, helps to perpetuate high childhood mortality\(^3\). Illiterate, submissive, ignorant and bound by superstition, girls grow up to be women who know almost nothing about the
biology of their own bodies or of the world around them. They do not know why their children so often fall sick and die, and not knowing the reason, they can do nothing to stop the result.

Benefits from risks

Traditions which are widely practised and which have continued for centuries are seldom uniquely disadvantageous. In societies in which subsistence is the norm, however, the advantage must be first to the tribe and only then to the individual. It is conceivable, for example, that withholding colostrum conserves the mother’s strength in the stressful postpartum days. Since a strong mother is a more valuable member of society than a fragile neonate, the practice of delaying breast-feeding may have developed to favour her at the possible expense of her offspring. Traditional practices which prevent early conception following delivery also serve to protect the health of the mother\(^4\). The principle of survival of the fittest may be subtly invoked in prohibiting a mother who has already buried other infants from feeding her newest born: the weak line is likely to die out. Neonatal scarification, unsterile uvulotomy, and exposure to dense smoke and enteric and respiratory pathogens may likewise serve as a sort of crude traditional immunization process, condemning the weak and fortifying the strong.

No initiative is so urgent that it need be implemented unmoulded by close, careful regard for the history, beliefs and traditions of the people being advised or forced to change.

No mother asks that her child may die, and the grief of a mother in one society is no less terrible for being much more common than the grief of a mother elsewhere. The difference may be that ignorance - the lack of understanding that her child’s death was easily avoidable - protects the uneducated mother and her family by preventing grief from drifting into bitterness and despair.

Weighing gain against loss

Health care personnel are charged with improving the quality of life of the people they serve by helping them maintain and improve their health. Modern health professionals do this through medical and surgical intervention, vaccination, education and co-ordination with other development workers. While introducing "beneficial" practices, they actively seek to abolish "harmful" practices which have maintained a society for generations.

The concerned populations are skeptical of such change. If the children are sent to school, who will shepherd the goats? If the weak are saved, who will care for the handicapped, and how will the expense be met? If centuries-old traditional "immunization" practices disappear, what will prepare survivors for the hazards of life? Why and for whose benefit should trust be confided in nascent, fragile government structures? Exactly who is seeking whose decreased fertility? And educate girls for what?
It is difficult to condemn the reticence of traditional societies which resist the advances of narrowly focused development programmes, particularly those determined to impose control on a population whose cultural existence is already threatened. No initiative is so urgent that it need be implemented unmoulded by close, careful regard for the history, beliefs and traditions of the people being advised or forced to change. National programmes in culturally heterogeneous countries must be flexible. The complex mix of rituals and traditional practices which fill a culture is like murky water in an urn. The water is brown and cloudy and laced with germs, but the people who drink it know that it is water and that for generations it has been life-sustaining and sufficient. The urn is full, and whatever old water is ladled out must be replaced by new. If it is not, one day the vessel will be found not only empty but dried, cracked and fallen to pieces, the people chaotically dispersed and dying of thirst.

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This article is reprinted from World Health Forum, Volume 15, 1994, Geneva, WHO.
Chapter III:
COMMUNICATION, CULTURES AND THE ARTS
WHO

FINDING OUT LOCAL ATTITUDES IS VITAL

by Harry Campbell

Pneumonia kills quickly. Unless medical help is sought, a young child with pneumonia may die within three to five days of the onset of symptoms such as cough or difficult breathing. Their survival depends on fast action by parents or other carers.

If parents do not recognise the signs of pneumonia or do not understand how important these signs are, or if they decide not to seek treatment from a trained health worker, then the child is at great risk. There is no life saving home treatment for pneumonia.

We have probably all seen health workers talking angrily to parents, blaming them for coming too late with their sick child. ‘If only you had come sooner we could have saved the child.’ Those parents go home still not understanding the problem, and may be even less likely to return to consult a health worker if pneumonia strikes their family again.

But is it really the fault of parents? Health services need to make more effort to find out what parents think and to give them information in a way that they can understand and accept.

Research for action related to ARI (Acute Respiratory Infections)

A standardized research methodology called the Focused Ethnographic Study (FES) was developed by WHO to assist ARI programmes in collecting information for planning better ways of communicating with parents.

If we know the views of the communities we work with, we will be able to talk with people using terms and ideas they understand. As a result, the message will be clearer to parents. They will be more likely to give the treatment we advise and to return for a follow-up visit if asked to.

Next time one of the family or other neighbours’ children develops pneumonia, appropriate help will be sought more quickly, and the crucial message of ARI control - when we seek medical help - will have reached a wider audience.

Focused Ethnographic Study: an ARI research tool

Teaching parents when to seek medical help for their children is crucial to ARI control. To get this information across, health workers need to understand local beliefs and terms.
Beliefs about illness vary from community to community, and local views often differ from internationally recognised medical opinion. People explain, classify and manage illness largely according to past experience, cultural beliefs and tradition.

When health workers know about local beliefs and practices, and make use of familiar terms and concepts, communications with families will be improved.

Research into a community’s beliefs can be a complex, time consuming and expensive process. The WHO ARI programme has developed a research protocol called the Focused Ethnographic Study (FES). The protocol is a standardised method for collecting information about communities’ perceptions and practices related to ARI. It aims to streamline research and to ensure that results can be easily used.

The FES is intended to be used by trained researchers, familiar with the local culture under study. It should enable research to be completed within six weeks, and provide information which is of immediate use in planning ARI programmes, training health workers and preparing communication messages.

Information is collected mainly from the female population. Researchers use this information to identify commonly held local beliefs and to analyse how locally recognised signs and symptoms relate to the clinical definition of ARI, in particular pneumonia. Information is also sought about the usual patterns of seeking outside help for ARI, and the reasons why mothers do not seek medical advice.

This information can be used to construct messages that families understand, as well as for other aspects of ARI programme planning.

Getting the message across

The most important message of ARI control programmes is that parents whose children are having difficulty breathing or are breathing at a higher rate than normal should seek medical help. Those children may have pneumonia.

However, the way this advice is expressed to parents is crucial. Terms used by ARI programme planners, even when translated into the local language, may not mean anything to parents. Yet parents often do recognise the physical signs of ARI and have their own way of describing them. For example, mothers in Haiti use the term ‘dancing ribs’ to describe fast breathing. In Ghana, mothers refer to it as ‘panting’ or having ‘tight ribs’.

In some countries, if all children thought to be experiencing ‘difficult breathing’ were taken to health workers, the health services would be overrun. In Canto Grande, Peru, ‘difficult’ breathing is a very common occurrence and is almost always due to a blocked nose. Mothers use a different term for difficult breathing due to a problem in their chest.

The use of medical words can also be confusing. Parents and health workers sometimes use the same words, but their understanding is very different. If a health worker in Mindoro, in the Philippines, tried to reassure a mother that her child ‘only has bronchitis’
(which does not require antibiotics as it is viral) not pneumonia, this would cause alarm. What people in Mindoro call 'bronchitis' is a potentially fatal illness.

In some cultures, certain illnesses are thought to be treatable only by a traditional healer. Pneumonia is sometimes included in this category. Examples of this are 'pilay' in Mindoro and 'piang' in Bohol, also in the Philippines.

The Focused Ethnographic Study enables ARI programmes to collect information about local terms and beliefs. Clear messages can then be given to parents in language they understand, advising them to seek help from trained health workers when children show signs of pneumonia rather than for symptoms of mild illnesses such as coughs and colds.

Studies using the WHO FES protocol have been conducted in Ghana, Turkey, Honduras, Haiti, India, Bolivia, Indonesia, Egypt, The Gambia, Nigeria, Sudan, Mexico and Thailand. Below we have reproduced reports on findings from Nigeria, Egypt, and Bolivia.

Studies in Nigeria

by Ruth Wilson, Selina Ajabeng-Asem, Abiodun Adetoro and M. D. Adedeji

A Focused Ethnographic Study of ARI was conducted in Ile-Ife, Nigeria, by a team consisting of a social scientist from the local university, a Ministry of Health staff member and three research assistants.

Key Findings

Recognition of fast breathing

Fast breathing was not generally recognised by mothers, and was rarely noted when they watched a videotape developed to assess recognition of ARI signs and symptoms. Because of the importance of fast breathing, as an indicator for immediate care seeking, the investigators recommended that mothers in Ile-Ife should be taught to recognise this danger sign.

Interpretation of illness

The mothers regarded many of the signs and symptoms of ARI, such as fever, cough and even convulsions, as a normal part of a child's development. This belief may prevent them from seeking help when a child has signs of pneumonia and should be addressed in health education messages.
.../

Home treatment

When children in Ile-Ife have ARI, mothers often treat them with traditional herbal teas (agbo) or home-made remedies for cough. Mothers may also buy antipyretics and antibiotics from the pharmacy or local drug sellers.

Antibiotic sales

The study found that drug sellers and pharmacists routinely sell antibiotics to parents seeking advice for children with ARI. The investigators pointed out the need for interventions aimed at changing inappropriate behaviour of drug sellers and pharmacists and suggested training them to give health education messages.

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Studies in Egypt

by Nagwa Khallaf

Separate studies in upper and lower Egypt, using an earlier version of the WHO Focused Ethnographic Study (FES), have produced similar pictures of ARI practice, despite geographical and cultural differences. The main differences related simply to the terms used to describe illness.

Key Findings

- Mothers make a clear distinction between mild respiratory infections (such as coughs and colds) and more serious illnesses that affect the chest (such as pneumonia).

- The most commonly identified cause of ARI is rapid chilling of the body.

- 'Evil eye' is described as a possible but infrequent cause, and does not usually interfere with seeking medical care.

- There are culture-specific childhood illnesses that mothers believe must be treated by traditional healers, but none of these include signs and symptoms of pneumonia.

- Respiratory symptoms in newborns are thought to be caused by mishandling at the time of birth, i.e. either failure to keep the baby warm or to adequately clean the nose and mouth. The belief that nothing can be done for babies, or that respiratory symptoms are best treated by traditional birth attendants, may prevent early care seeking.

.../.
Mothers recognise the symptoms of rapid and/or difficult breathing, but do not believe them to be serious or a reason to seek care. Fever and noisy breathing are of much greater concern.

Respiratory infections are first treated at home with water flavoured with sugar and spices such as fenugreek, mint, cumin and anise. Mothers continue to breastfeed or feed during ARI, although they note that children often have decreased appetites.

Fever is treated with aspirin preparations, often in combination with caffeine. Government health facilities are seen as sources of prescriptions but not of medical care.

 Mothers often seek advice and medicines directly from pharmacies without first going to see a doctor or other health worker.

Most mothers are realistic and expect medications to make a child better after two to three days. But there is a tendency to stop giving medicines when symptoms go or to save them for future episodes.

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Studies in Bolivia

by Dolores Charaly

Field tests of the Focused Ethnographic Study (FES) protocol were carried out in two poor communities in Bolivia: Quechua-speaking peasant farming families in Quari, Cochabamba, and a group of Aymara-speaking families in Jayuma, La Paz, who work in the local salt production fields. Both communities are some distance from their nearest primary health facility, and many kilometres away from a town with clinic and hospital services.

Terms used

In each language group, a number of terms which mothers use to describe fast and difficult breathing and cough were found. For example in Quechua the term for 'up and down movement of the stomach' corresponded with fast breathing. In Aymara, terms for 'breathes a lot' and 'chest moves out in an abrupt way' were used. Mothers in both communities considered very difficult breathing, cough and fever to be worrying symptoms. However, they felt that if fever was successfully treated, fast breathing would also disappear. For both communities the key signs and symptoms for ARI are associated with several distinct illnesses.
Supernatural forces

The studies revealed important perceptions about ARI in children under two months old. Although mothers recognised that young infants could get sick and die more quickly, illness in this age group was usually considered to be the result of supernatural forces, and therefore required treatment from a traditional healer. Treatments involving medicines or home remedies were mostly considered to be inappropriate for young infants. Even when they were considered to be appropriate, they would only be given to the mother because the benefits of the treatment were believed to be transferred to the infant in a more gentle manner through breastmilk.

Despite cultural and linguistic differences between the two communities, factors preventing prompt care seeking from health workers were similar. Older children, especially boys, tended to arouse more concern, and thus more prompt care seeking for illness. The belief that illness can in most cases be cured at home using traditional home remedies was widespread. If these remedies fail, the first priority is a visit to a traditional healer who determines the cause and recommends the treatment. There was also dissatisfaction with the available health services, particularly due to cultural and language barriers between carers and providers. Financial constraints were common. Families often had to sell animals or goods to obtain cash before seeking care.

Old and new

Home care guidelines were developed using local terms for key signs and symptoms to watch for. Mothers were encouraged to continue to use non-harmful traditional remedies. Specific harmful practices, such as giving the child oils to drink, or putting kerosene or creosol on the chest, were discouraged. Finally, families are not discouraged from seeking care from traditional healers, but are encouraged to also seek care from a trained provider as soon as danger signs appear.
WHO*

BREAST-FEEDING, THE BETTER OPTION:
GETTING THE MESSAGE ACROSS

by Joh Chin Rossiter

An outline is given of the making and evaluation of a culture- and language-specific video for the promotion of breast-feeding among immigrant Vietnamese women in Australia.

In their own country, most Vietnamese women breast-feed their children for a prolonged period. However, the practice is significantly less common among Vietnamese women who have migrated to Western countries, where the majority bottle-feed and those who breast-feed wean their infants very early.

Vietnamese women's infant-feeding practices appear to be shaped by their health beliefs, which are influenced by social, cultural and economic factors. When they migrate their health beliefs and practices change in response to the perceived culture of the host country. The switch to bottle-feeding in the new environment could lead to major health problems for both the women and their children.

With a view to encouraging immigrant Vietnamese women in Sydney to breast-feed, a culture-specific educational programme, including a 25-minute videotape entitled "The best for my baby", has been produced. The purpose of the video is to promote breast-feeding among these women by:

* Article commissioned by WHO from outside expert.

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- providing information on the benefits of the practice;
- offering culturally acceptable advice on infant-feeding practices, taking into account the women’s health beliefs;
- using an entertaining style to convey the right messages.

Creating a story

By means of questionnaires and interviews a study was conducted on the attitudes of 87 Vietnamese women living in Sydney towards infant-feeding practices before and after immigration. Most of the women had had little education and could neither speak nor write English. Their knowledge about the benefits of breast-feeding was minimal, and they had deep-rooted cultural beliefs relating to postnatal ritual and dietary restriction. Under the social, culture and economic influences of Australia, many of the women turned to bottle-feeding. They lacked family support and social networks, and harboured misconceptions about formula milk and the Australian way of feeding infants. It was clearly necessary to communicate with them through Vietnamese actors speaking their own language. Actors were selected for their appearance, age and personality. A well-known female doctor in the Vietnamese community volunteered to participate in the video.

Once a basic script had been written a grant of $A 5000 (about US$ 3750) was obtained from a commercial source for the making of the video. A story line was developed with the assistance of final-year studies in the Faculty of Humanities and Social Sciences of the University of Western Sydney, and the advice of a professional scriptwriter was sought. It took about three months to complete this process so that the message was delivered in an interesting and entertaining manner.

In the video, Linh, a young Vietnamese mother-to-be, emerges from a doctor’s surgery, thinking about her conversation with the doctor and traditional postpartum rituals, dietary restriction, the comparative merits of breast- and formula-feeding, social support, and her perception of social expectations on infant-feeding practices in Australia. She discusses the matter with Vietnamese friends and eventually decides to breast-feed. The final scene shows her leaving the doctor’s surgery with her baby and her husband, content that she is providing her baby with the best possible food: her own milk.

Video production

Filming lasted three to four weeks and the locations included the Sydney Harbour Bridge, the Sydney Opera House, the streets of Cabramatta, a Vietnamese household, a child care centre and a doctor’s surgery. The highly motivated team working on the project consisted of actors, students serving as technical crew, the director, the author, the executive producer and a technical consultant. A further period of two to three weeks elapsed as a preliminary version was created from the best takes and music. The video was shown to pregnant Vietnamese women, some of their husbands, health workers, an interpreter, research assistants, an ethnic liaison worker and the health educators at the antenatal clinics of three hospitals. Most of the pregnant women and health workers indicated that they enjoyed the video and music. Some women returned to watch the video a second time, accompanied by friends. Editorial changes were suggested, and thanks to further financial support from the
same commercial source it was possible to engage a video production company to make additional improvements. English subtitles were incorporated for the benefit of English-speaking health educators. The final version was completed in November 1991.

It was necessary to communicate through Vietnamese actors speaking their own language.

The video is now available for public viewing in the library of the Association for the Welfare of Children in Hospital and in that of the University of Western Sydney, Nepean. Copies can be obtained (price, A$5.00 including postage) from the Communication Health and Education Research (CHER) Centre, Faculty of Health Studies, University of Western Sydney, Nepean.

The video has been distributed to the hospitals where the breast-feeding educational programme was conducted and evaluated. Its dissemination and use by Vietnamese women’s associations, migrant centres, high schools and health organizations are to be expected in the near future.

Getting the message across with puppets

Jochim Chacha is someone who is much in demand in Rajasthan. When it comes to installing a hand pump, he settles the disputes over where it should be placed and the means of payment. After gaining the sympathy of the people through his knowledge of the local expressions and jokes, he delivers messages about the dangers of usury and the severity of bureaucracy. If members of higher castes try to prevent those they consider as untouchable from using the newly installed hand pumps, Chacha pays them a visit to settle the conflict in a friendly manner.

Jochim Chacha is a puppet - a venerable 300-year-old Moslem - who inspires feelings of fear and respect from children wide-eyed with wonder. His puppet master lends an attentive ear to the gossip and the local disputes, gleaning material to use in the dialogue between the puppet and the public. This enchants the villagers, who are amazed to see that Chacha is fully aware of their problems. Chacha involves real people in themes directly related to daily life. Messages that the radio and television had taken months to broadcast - if they were able to do so at all - attain their objective in a single evening thanks to this show. Performances have been given in more than 100 villages. Thanks to donations of 10,000 rupees, people are now trained in the use of this method in other regions.

India, like other countries, is not lacking in people whose talent for communication allows them to reach the poor and rural populations. Half of the 600,000 villages of India already have travelling actors, puppet masters, historians of oral tradition and minstrels who can make contact with the community and transmit an idea simple and at little cost. The problem is to know where to find them and how to train them - or, rather, how to persuade them to receive training.

The Peasants' Theatre in Bolivia

The Aymara Peasants' Theatre in Bolivia, which encourages active participation by the audience, is a good example of using the media for learning. The theatre gives preference to the folk media.

Each month an educational fair is organized in a campesino community in coordination with community leaders. Through radio publicity in the Aymara language members of the community and their neighbours are invited to take part in the fair. Popular activities such as dancing, Aymara drama, band contests, inter-community sports competitions, agricultural shows and games are presented. There are demonstrations and displays, use of electronic media (films, sound and video recordings) and sales of handicrafts, agricultural produce and livestock.

Because they have an opportunity to present their skills and achievements, the campesinos are motivated to take part in other activities planned for the future. The Servicio Nacional de Alfabetización y Educación Popular has introduced important innovations by using the occasion of traditional fairs to promote educational and health programmes and the practice of folk medicine.

Source: Studies on post literacy and continuing education, No. 1, UNESCO Institute for Education, Hamburg, Germany.

The video on the Vietnamese women in Australia was produced at relatively low cost, using university resources. In providing an introduction to a programme of small-group discussion sessions in which breast-feeding was promoted among immigrant Vietnamese women, it attempted to stimulate thought and interaction. The educational programme increased the women's knowledge and improved their attitude towards breast-feeding, thus encouraging them to adopt the practice.

The programme demonstrated that health education can be presented in a culture- and language-specific video format to reach individuals and groups in various locations.

This article is reprinted from World Health Forum, Volume 14, 1993, Geneva, WHO.
UNESCO*

ARTS IN HOSPITAL - CULTURE TO PROMOTE HEALTH

by Zabrina Holmström

The arts can support the caring process and thus the patient’s health in a number of ways and at a fairly low cost. The international joint project "Arts in Hospital" is part of the World Decade for Cultural Development. The project aims to develop art and the aesthetic environment in hospitals and similar institutions in a way that also takes into account the cultural needs of those in the hospitals, especially long-term patients.

Starting in 1989 as a bilateral arrangement between the former East Germany and Austria, the project became international in 1990, at which time the first meeting of experts was held in Wiepersdorf. The German National Commission for UNESCO is coordinating the project, and most Western European countries and the Nordic countries are now involved, as are several Eastern European countries, including the Baltic States. The second meeting of experts was held in 1991 at Linköping in Sweden; the following two years, meetings were held in France and Switzerland.

The central principles and objectives of the "Arts in Hospital" project were defined at the Linköping meeting in 1991. The main idea is that time spent in hospital should satisfy all the patient’s needs, i.e. not only the physical but also the spiritual and cultural needs. In many countries these have received too little attention. Patients are still individuals and members of society, and should not be excluded from cultural life during the time they are being treated.

The arts are part of everyday life

The "Arts in Hospital" project deals mostly with two sub-areas: how art, in its very different forms, is received and how it is created. In this connection, art is viewed in as broad a way as possible. The arts perform three roles in the project: promoting health, improving the aesthetic environment and, through its different means of expression, performing a psychotherapeutic role. The aim is to improve the quality of life of those being cared for, by using ideas from the arts which have too often been neglected and undervalued. In this sense the arts include creative and art therapy, the activities which actively involve patients and in which the arts can aid recovery, thereby becoming as good a medicine as the visual and performing arts in which the patients often play only a passive role.

* Article commissioned by UNESCO from outside expert.
A hospital can host different arts presentations, such as musical, ballet, dance and theatre performances. It could show films and videos, stage different plays and invite visiting authors. Practical arts activities could also be used to help patients improve their physical condition.

The project also looks at the physical environment of hospitals, their architecture, interior design and grounds, from both the point of view of the patients and the visitors. An aesthetically pleasing environment is assumed to improve the staff’s sense of belonging, which might help them to perform their duties better. The use of methods and forms of expression from the arts in psychotherapy is viewed as a demanding area calling for special professional skills.

Conference on Culture to Promote Health held in Finland

Nordic cooperation in the "Arts in Hospital" project was considerably enhanced following the meeting in Basel, Switzerland, in 1993. The meeting gave rise to the idea for the Nordic joint Conference on "Culture to Promote Health", held at the Swedish-Finnish Hanasaari Cultural centre, Espoo, Finland, from September 1 to 3, 1994. Having similar cultural backgrounds, social structures and ideologies regarding the caring professions, the Nordic countries felt that they could benefit from the experience and information of others and would be able to work in cooperation.

Mrs Eeva Ahtisaari, wife of the President of the Republic of Finland, honoured the Conference with her presence on the opening day. It was Finland’s Minister for Culture, Tytti Isohookana-Asunmaa, who opened the conference, stressing the following: "It is important to adopt the attitude that the arts should feature in the everyday life of institutions, so that the concept and its application are expanded out of the public domain and become closer to the individual." According to the Minister, the main focus over the next few years will be in communication and education, stimulating activity in different professions and administrative areas, and in forging links of different kinds. "Interaction between cultural, social and health matters is the basis for these activities and it should be encouraged", she continued.

The main speakers were the following persons: Professor Matti Bergström of Finland, who explained the causal connection between the arts and culture; Dr Ingela Josefsson of Sweden, who discussed the subject of cultural differences between men’s and women’s attitudes in the caring profession; and Professor Peter F. Hjort of Norway, who spoke about the place of culture in regional health policy.

In a series of parallel seminars, each participating country dealt with various aspects of the theme of the Conference: the meaning and experience of physical space, hospital architecture, music therapy in psychiatric care, the benefits of different cultural forms in care and the training of nursing and home-care staff.

What next?

The following passages could be quoted from the Resolutions of the Conference:
"In its different forms, culture should play a natural role in the caring profession and should be part of the treatment process."

"Art therapy has already been used as a form of care - for example, in treatment for children and the elderly who are long-term patients, and also in psychiatric hospitals. The number of care communities involved is small, but constitute an encouraging example of the way in which the arts can be used. These forms of care have only gained a small foothold in traditional medicine."

"To correct the situation, the Conference proposes that cultural knowledge should, in the future, be part of education and training in the caring profession at all levels. The experts believe there is also a need to promote research into the interaction between culture, health and well-being."

"In promoting the arts in the caring community, the interaction between patients, artists and the purveyors of art should increase, enabling patients' opinions also to be taken into account."

The Conference appointed a group with the task of enhancing cooperation among Nordic countries in promoting the role of culture in the caring professions and to plan a joint Nordic conference for 1996.

The Conference was attended by some 230 participants and included decision-makers in cultural policy as well as social and health care workers, people working in the field, and finally artists and architects.

The organizers of the Conference were the Finnish National Commission for UNESCO, the Hanasaari Swedish-Finnish Cultural Centre, The Association of Finnish Local Authorities and the National Research and Development centre for Welfare and Health, together with various collaboration partners from Sweden, Norway and Iceland.

The fifth international Arts in Hospital conference took place in Berlin from October 26 to 29, 1994. A sixth conference was celebrated from 28 to 30 October 1995 in Oslo, Norway.
UNESCO

ART IN THE SERVICE OF AIDS PREVENTION

by Sonia Bahri

With the outbreak of the AIDS epidemic, the seriousness and scope of which are without precedent in the history of mankind, information and prevention campaigns have been launched throughout the world, often upon government initiative but also by a growing number of new NGOs especially created to fight this scourge.

It quickly became apparent that information on AIDS diffused by the media (television, radio, press...), on its modes of transmission and how to protect oneself, although necessary, was not sufficient to change peoples’ attitudes and behaviour with regard to AIDS as an illness and a social phenomenon.

Promoting behavior which would prevent HIV transmission (being contaminated or contaminating oneself or others) is not an easy task, and to change the acquired behaviour of an individual with regard to his sexuality is even more difficult and can sometimes be a great challenge.

To have a real impact on people’s behaviour, not only is it important to take into consideration their prior knowledge and personal beliefs, but also to alert them to the risks involved and their obligations with regard to others, so they can modify their own decisions or choices.

Art and prevention campaigns

Diverse forms of cultural expression have been used in AIDS prevention campaigns as a means to create awareness and encourage preventive measures.

Although the problems raised by this illness have led to a number of artistic creations, it does not seem that the recourse to art has been generally favoured in the prevention campaigns of most industrialized countries. These countries have mostly called upon advertising agencies to develop communication and information campaigns which are often diffused through the media, but which are limited in addressing the scope of the problems, including AIDS, with which humanity is presently confronted.

Good information is of course indispensable in all health promotion activities. But artistic creation is able to deal with aspects that are difficult to express, even with very precise information, in that it appeals to the inner being, challenging one’s intimacy with regard to such and such a problem. Through the emotion and sensory awakening thus
provoked, it stimulates reflection and leads to a deeper understanding of the problems and dangers. For the painter Pierre Soulages "The reality of a work of art is the tri-partite relationship that is created between what it is, what it might be, the person who created it and the person who contemplates it". To a certain extent, the work surpasses its creator and gives an additional dimension to the binary relationship between the "giver" and the "receiver" of information, as that offered by the media for example. Thus, the artist, better than anyone, is able to share his feelings with others when it comes to humanitarian causes or subjects of general interest. Several remarkable examples can be cited with regard to images: Picasso’s dove of peace, Topor’s poster for Amnesty International, etc...

In keeping with tradition, certain regions of the world such as Africa, and certain countries of Asia, have accorded a relatively important place to artistic expression, dramatic arts (theatre, puppets, mask games), music and chants..., in order to educate the public about AIDS. This approach is linked to a certain perception of art and to its role in society that the African anthropologist Damien Mwegera defines thus: "In Africa, it seems that the purpose of art is mainly to serve the community. A mask, for example, is not a museum object, but a medium of a collective ritual with a utilitarian purpose for those who wear it and those attending the ceremony. An object is first qualified as convivial, dynamic, educative and useful before being qualified as beautiful."

Nevertheless, it is necessary that the message transmitted by these diverse forms of expression bears correct information and does not lead to a misunderstanding of the modes of transmission of the virus. For example, the impression must not be given by a scenario, a painting or a story that the virus is transmitted only by women (or men) or only concerns such or such a race. At the same time, the use of the spectre of death to dramatize the situation often leads to a rejection of the persons suffering from the illness, without however leading to a good comprehension of the means of protecting oneself against the AIDS virus.

Such approaches have been employed, however, especially with images intended for AIDS prevention, which are reproduced as posters.

The power of the image

It is true that the printed supports for reproduction, especially in the form of a poster, have become more and more widespread throughout the entire world in creating awareness and educating the public about AIDS. This form of expression has the advantage of reaching every kind of public, including the illiterate or people with limited reading abilities. It is sometimes based on ancestral traditions or techniques as for example the glass painting of Senegal, or the Indian paintings representing the positions of the Kamasutra ("several with one partner is preferable to one with several...").

Some 400 posters on AIDS collected by the ASERC (AIDS School Education Resource Centre) situated in UNESCO’s Headquarters in Paris, give an idea of the diversity of the approaches adopted, according to the cultures. In general, these approaches can be divided into four major tendencies: dedramatization through esthetics and the play-on-words (western Europe), pragmatism of the "problem-solution" type (Africa, Latin America), incitation to a conscious awakening often through identification (North America), dramatization through the image of death (some examples in Africa, the Caribbean, the Gulf
States...). Although these posters, mostly produced by an advertising agency (western countries) or by local designers, are not lacking in talent, rare are those which are produced by artists and which have a comparable impact to that of the dove of peace...

Thus, in view of the need to promote awareness of the major contemporary problems - human rights, AIDS, the environment - through artistic creation, an innovative project "Images against AIDS" was conceived and developed by the ARTIS Association. It receives support from UNESCO's educational programme for the prevention of AIDS and the World Decade for Cultural Development.

ARTIS produces kits of "ready to mount" exhibition posters designed by artists, and distributes them to the communities (schools, social centres, local associations, cultural centres, hospitals, barracks). The aim is to provide the local people who are developing information and prevention activities with a tool adapted to very diversified publics. Each kit can be used as a local travelling exhibition over a period of several years by different types of institutions.

The exhibition consists of some thirty posters produced by artists (designers, graphic artists, photographers, painters, multimedia artists) aiming to alert the public to the social, psychological and emotional dimensions of the illness. There are also some information posters on the modes of transmitting the virus and the means of protection. The kit includes a system for consolidating the supports and a guide to mounting the exhibition.

The artists are selected with a view to obtaining a diversity in the forms of artistic expression, and with the objective of creating the conditions for a critical and clear understanding of the works and the subject treated in the exhibition. They are commissioned in accordance with a project document containing technical details for the reproduction of the works and a text on the development of the AIDS epidemic. The artists work from these documents as well as from their own experience and feelings.

Another important action for ARTIS is working from cultural and social references of the populations which will receive the exhibition kits. This is why, for example, the selection of artists retained for the Spanish edition of the exhibition "Images against AIDS" includes artists originating from Spain and Latin America. This cultural and social identity input is indispensable for good public reception because the images must reflect the reality of the target audience. However, the exhibition also contains images which promote the common concerns of everyone.

The exhibition functions as a collection of artists' posters creating, image after image, very different emotions and reactions from one individual to another. The viewers are thus brought face to face with issues which challenge their personal interpretation of the world and their concern with the AIDS epidemic. Therefore, the exhibition is not conceived as an end in itself but as a source for reflection, exchange and dialogue. In this environment created by the artists, the works, the public and the organizers of the exhibition, all kinds of discussions and debates on promoting responsible behaviour and greater solidarity with HIV-infected persons will be developed.
The role of the school

Recognition of the impact that art can have on AIDS prevention does not in any way undermine the role of education - and the primordial role of the school. On the contrary, the school plays a key role in informing youth about the risks of HIV infection and the ethical aspects of AIDS, to help them acquire the necessary defenses to avoid the illness and adopt an attitude of tolerance and non-discrimination with regard to contaminated persons. Traditional teaching is not suitable for this type of education, and the recourse to art, for example through exhibitions of posters designed by painters or graphic artists can only facilitate the teachers' work by providing them with a means of awakening the senses and arousing curiosity. "It is necessary to show the students how close art is to real life and how all aesthetic choices have ethical equivalents. These are things which can be felt, touched. They can also be expressed orally, of course, but in that case they are only the words of a teacher", states Pierre Soulages.1

This method of approaching AIDS as any other major problem of humanity through artistic creation is also a way of rehabilitating art in the school and adopting "interdisciplinary" teaching.

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UNESCO

CULTURES AND DRUGS

by Victor Kolybine
and Doris Buddenberg

Ways to "pep" you up or calm you down, are products of the human will used to counteract mood swings and the prevailing atmosphere. It is one way to step back and see oneself in perspective and influence one's state of mind. We can consider these means as a universal cultural property. They include psychophysiological techniques like music and dance, but also the use of drugs, or a combination of both.

In every culture, habits and their means of control are passed on through tradition. A system of drug control is thus an integral part of the general and comprehensive system of written and unwritten rules which make up a culture. If traditional rules for drug control existed in written form, they would be readily accessible to all, but in most cases they are part of a culture's collective memory and transmitted in other ways.

An analysis of drug use through historical and intercultural comparison is based on cultural diversity, supposing that cases of abuse stem from normal use, ingrained in the specificity of each culture. Thus, drug abuse is an extreme form of their use, surpassing limits set by different cultural rules.

What can history teach us about different cultures and civilizations? Most historical periods testify to a production and consumption of drugs. But, historical study finds varied definitions. For example, drugs have been perceived of as a desired substance, or, disturbing, dreaded and transmutable. At certain times drugs were considered medicinal, while in other ages they were considered poisonous. Changes in the definition of a substance result from conflicts, debates, traditions and changing cultural codes.

During the renaissance, local empires and tribes (the Moguls in India, the Incas in South America, the European, Chinese, African and Near-Eastern Monarchies) used certain products known today as drugs, as part of daily, religious, political, social and literary life. We know of the indigenous drugs of these regions: cannabis and opium in the Mogul Empire, coca in the Inca Empire, alcohol in the European and Chinese monarchies, coffee in the Near East.

Later on, at the dawning of global economic and commercial activity, "drugs" played an essential role. First, spices from the orient became highly desirable and Europeans developed an insatiable taste for pepper, cinnamon, saffron, ginger and nutmeg, and later on, for stimulants such as tobacco, coffee and tea. Europe exported alcohol to the conquered territories, and the ravages caused by this drug amongst the peoples of North America are well-known. Distilled alcohol, "fire water", was an important factor which contributed to the domination of these populations. In cultures already familiar with fermented and/or
distilled alcohol, imported alcohol became a prestigious luxury product among the well-to-do classes, an attitude which persists to this day. In turn, the colonizers imported the drugs that they discovered in the conquered empires, into their countries of origin.

Traditionally, drug consumption was partially regulated within the religious systems. The great religious traditions, Judaism, Christianity, Islam, Hinduism, and Buddhism are based on compilations of texts adapted and modified by the specific cultures adopting them. They are integrated with elements of more ancient and indigenous religions, and the artistic religious expressions seen in architecture, images, sacred objects, chants, etc. reflect the cultures from which they emerged. Christianity in Mexico is culturally different from Christianity in France or in the United States. Islam in Indonesia is interpreted differently from that in Saudi Arabia, and the Buddhism of Sri Lanka and Myanmar are two visibly different forms of the same religion.

The original foundations of religion are interpreted and expressed in different ways according to local cultural traditions and the evolution is a synthesis of local cultural expression, facilitating identification with this religion and the textual code. It wasn't until the twentieth century that drug consumption became regulated by legal systems.

The links and associations between drug use and religious traditions have always been close, and the first prohibitions and laws on the use of drugs were linked to the religious system. Whether with the tribal Shamans or the prophets of the Near Eastern religions, laws on the use of drugs have always been an element of the religious regulatory texts. The terms of the rules differed according to tradition, ranging from prohibition (alcohol in Islam and most of the Hindu caste system, tobacco in Sikhism) to recommendations for moderation (Confucianism) or the justification of the privileges of certain groups (adults, religious officials) with regard to drug use, or the establishment of a system of use based on the agricultural or religious calendar.

The religious systems which dominated all human societies before the recent secularism, always attempted to control and regulate the use of drugs, either by integrating their use into the religious system, or by prohibition or denial.

Especially in Sufism, Zen Buddhism, and Christianity, the religious tenets and the subconscious are more strongly bound by the aspects of mysticism. In fact, both the use of drugs and the mystical experience are often said to be indescribable, and in both cases focus on a feeling of being "one" with the universe: the mystical union. The mystical or syncretic movements represent heterodoxy as opposed to the orthodoxy of textual traditions and include practices and debates forbidden by orthodoxy. Taoism and Tantric Hinduism use alcohol in its meditative exercises, and Sufism embraces many practices forbidden by Islam such as dance, music and cannabis.

Therefore, different cultures in a number of historical periods have adopted different preventive methods for dealing with drugs. In our present efforts to educate in the prevention of drug abuse, cultural diversity has to be considered. A scientifically standardized viewpoint, globally and universally acceptable is just not possible. Research carried out in other disciplines, anthropology, sociology and history in their approaches to alcohol abuse and drug addiction gives a deeper and more complete understanding of the complex nature of these problems.
Every culture has a number of popular names for drugs reflecting the attitudes and interest in drugs as well as consciousness of their danger. Every culture, also possesses a certain popular knowledge of drugs sometime unrelated to medical knowledge which tends to exclude all cultural aspects of drugs.

History would indicate that the evolution of a problem is only a process leading to the acceptance of new emerging forces. It also demonstrates that refusal of the use of drugs is linked to more fundamental changes in the economic, political and social systems, ideology, material well-being, culture and its manifestations. But, it is the cultural knowledge which creates the symbol "drug", and this symbol is meaningless outside the cultural context; it is from the culture and its specific particular universe that this symbol derives its emotive power, its negative and/or positive connotations, its acceptance or refusal, its cultural code.

This close link between drugs and cultures prevents any narrow definition of prevention focusing simply on the abuse of drugs and alcohol.

Perceived globally, there are nevertheless some cultural invariables or constants concerning drugs and the rules observed worldwide. However, there are also variables by which cultures establish "the differential divergence" of the use of "their" drug which is considered as a typical commodity and which serves as a means of identification and differentiation from other cultures.

Here are some of these invariables:

- A permanent feature in the system of drug control in all cultures is the age of the user: children are always forbidden the use of drugs. The abuse of drugs by children is looked upon with horror and they are never held responsible for taking up the habit; the blame is placed on their parents or outside influences (socio-economic problems).

- Another universal feature is differentiation according to sex: women are discouraged using most drugs in all societies. Only a single drug is used by women on a global scale to the same extent as men: pharmaceutical tranquilizers.

- A third permanent feature is the hierarchy of drugs within a culture. Different drugs have been and still are given different "weight" to serve as indications, symbols, and signs of the social hierarchy in each culture. Moreover, within a culture, drugs are often the symbol of an opposition: culture versus counter-culture. The poets and writers of the 19th century who indulged in the non-accepted drugs, defined themselves as a counter-culture, a culture in revolt against the bourgeois. (Baudelaire defines the "wine-hashish" conflict as analogous to that of "bourgeois - non-bourgeois"). The youth movements of the 1960s declared against alcohol and for marijuana. Cocaine is consumed by Hippies and Wall Street professionals, while crack is consumed in the ghettos; To be different is thus expressed in the choice of a drug. This "differential divergence" operational in cultures also applies to the relations between cultures and between different regions with regard to the consumption of drugs.
That the licit and illicit drug markets are an equalizing and identifying factor of cultures, resulting from the global system of the free market, is only the other side of the coin. Total refusal to accept the use of a drug is an inherent choice in cultures as well as the capacity to establish differences.

A study of this phenomenon offers possibilities for enlarging the concepts of prevention. However, we should neither overestimate nor underestimate the strength of the market, but ensure that the cultural code remains a decisive determinant.

UNESCO’s scope of action against drug abuse is wide, interdisciplinary and interactive. It includes not only activities against licit and illicit drugs, but also against tobacco and alcohol.

Religious and legal prohibitions, or social recommendations for moderate drug use, are preventive elements, but the acceptance or refusal of these rules by men or women in different cultural contexts within the same religion or country, indicates that there exist cultural and social forces that must be taken into consideration. Today drug abuse cannot be seen as a problem of marginal groups. It is a social phenomenon so widespread that drug trafficking and abuse are undermining the very foundations of our societies. Drug abuse is indicative of the erosion of social values, and of the socio-economic and cultural problems which remain unsolved.

Consequently, the prevention and control of the use of drugs should be a major concern not only of governments, but of society as a whole. In educating and protecting the young, we preserve our future!
Chapter IV:
RETURN TO TRADITIONAL LIFESTYLES
UNESCO

CULTURE AND EARLY CHILDHOOD INTERVENTIONS

by John Bennett

It is a matter of concern in many countries that national primary schools teach reading, writing and arithmetic in a highly decontextualised manner that ultimately depreciates local experience and cultures\(^1\). Arithmetic, for example, becomes rote-learning of tables and the practice of abstract operations. It is divorced from buying and selling and from the measurements and weights used in rural economies. Reading and civics are likewise dissociated from the concerns of poorer people, viz. health, co-operation among neighbours and the many problems of housing, infrastructure or employment that they must face in their daily existence. When such education is paralleled by media admiration for Western or capital city life-styles, the disempowerment of local culture is further reinforced.

In early childhood interventions, however, is cultural sensitivity important? Are not the needs of infants and young children stages similar in all regions of the world? Patterns of development in young children are indeed universal. We know for example that in order to survive all babies are born with certain universal responses to stimuli, e.g. all healthy babies cry and become agitated in order to inform the adults around them of their needs. All children too have the capacity to initiate or respond to interaction. Across cultures, all infants sit, crawl, stand up, walk and talk at roughly the same ages, but in the rearing of the child distinctive cultural differences appear. These differences are important in that they indicate an adaptation by a culture to specific and often unique circumstances, e.g. in the competitive, communications dominated cultures of the West, caregivers encourage verbal skills and independence in children. In contrast, in many rural societies throughout the world, respectful silence before elders and co-operative skills are inculcated. Early childhood agents from Western or international agencies, practising in developing countries, need therefore to be aware of the cultural implications of their values and objectives.

What then are the attitudes and knowledge necessary when engaging in early childhood intervention within different cultures and social milieux? From the literature on the subject\(^2\), we have chosen the following:

- An awareness that middle class, Western child-rearing objectives are relative and linked to a particular type of culture, e.g. to have intelligent, competitive children, Westerners lay emphasis on cognitive development, stimulation and early competition

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\(^1\) By culture we mean a shred system of skills, knowledge, needs and values.

The resulting intelligent child would be judged in many traditional societies as being merely clever or bold. Rather, an intelligent person is one who has the insight to act in accordance with the moral code of his/her community (Hundeide, 1991).

- **An intimate knowledge of the society in which the intervention is to take place, in order to take advantage of its strengths and give better attention to its weaknesses.** For example, in developing countries, older pre-school children in extended family households tend to develop well as they receive much affection and attention. On the other hand, if they belong to lone-parent families and are displaced by a new baby, their development tends to slow significantly in the second year. Their situation is one that needs attention especially in urban slums where mothers are poor, illiterate and denied extended family help (Coletta, 1992). Attention too needs to be given to gender bias e.g. pre-school girl children are often malnourished in certain societies as they come last in the established feeding order.

- **Clarity about which child-rearing practices have a real adaptive value within a culture for the future lives of children.** Fundamental questions to be asked are: What is the best outcome that a child from this neighbourhood can reasonably expect in terms of becoming a healthy, fulfilled person with an occupation? What skills and qualifications are needed by the child to achieve this situation? What facets of child-rearing and socialisation will help her toward this goal. Hundeide (1991) in his work in the slums of Jakarta interviewed several poor boys about their hopes for the future. Most wished to become policemen, drivers, teachers or soldiers. The children, however, were illiterate and lacked the formal cognitive and planning skills necessary to prepare them for such careers. In contrast, they possessed highly developed social skills which suited them for their main occupations: shoe-shining, begging, carrying bags from supermarkets. Any programme to improve their cognitive skills would be useless unless social conditions could be changed in their slum so as to allow them regular schooling and some chance of access to their desired professions.

- **Respect for family care and local early childhood networks.** Long-established communities have accumulated much experience in rearing children and understand the local climate, food supply, cultural taboos, social expectations and limits of action better than outside professionals. Instead of importing expensive, professional pre-school models into such communities, much more can be done for infants and young children if local parents are supported in their child-rearing tasks. Given too the fact that in many developing countries, much of the child-minding is carried out by older siblings, concentration on the family environment can help prepare these older children for parenthood. At the same time, parents are empowered in an area of their lives which is vitally important to their self concept.
WHO/UNESCO*

WHAT'S SO SPECIAL ABOUT THE MOTHER-INFANT RELATIONSHIP?

A Biological and Cultural Perspective

by James J. McKenna

Unique biological characteristics of the human infant at birth shape the nature of the relationship with their mothers.

Compared with many animal species the relationship between the human mother and her infant is especially intense and long-lasting. In fact, even after birth in many ways the human mother continues to influence, indeed, regulate, her infant’s physiology (heart rate, breathing, body temperature, nutritional status, sleep-wake cycle, and metabolism) in much the same way that she did before the infant was born. This is because unlike other mammalian infants the human infant is unable to sufficiently warm itself by shivering, cling to its mother’s chest, back, or belly, or follow her, eat without assistance or satisfy its needs for affection and emotional support (Konner 1981). The presence of a special 'someone' is required. As a famous infant clinician Donald Winnicott once said: "There is no such things as a baby, there is a baby and someone". In fact, to a degree unparalleled among the animal kingdom continuous maternal supervision, observing, breastfeeding, carrying, holding, massaging, touching, and affectional responses are critical for the human infant’s physical, social and psychological survival. While many other people, including the father, also play critical roles in providing for the overall needs of the infant, for most of the world’s populations it is still the mother who remains the primary caregiver, the "someone" to use Winnicott’s description of it, on whom the infant’s survival and general well-being depends.

One reason why the human infant cannot fend for itself and why the human mother-infant relationship remains so special is because, compared with other mammal infants, the human infant’s brain is at birth extremely undeveloped. It is only 25% of its eventual adult size. To put this in perspective, most other mammals are born with between 60-90% of their adult brain size and within a year or two their brains reach their full size - a feat accomplished by us humans only after about 14 to 17 years of development (see Figure 1). This means that compared with the human infant many other mammalian young can more actively secure their own needs. Many become socially and physically independent of their parents within a year and some become mothers or fathers themselves within a couple of years after birth! Human beings will spend more than a third of their lives in a pre-adult phase, unable to breed or to assume responsibility for their own care and with little or no social status (McKenna 1986).

* Article commissioned from outside expert by UNESCO on the recommendation of Mr James Akre of WHO in Geneva.
### Brain Development
Percentage of Adult Brain Size:

<table>
<thead>
<tr>
<th>Chimpanzee Infant</th>
<th>Human Infant</th>
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<tbody>
<tr>
<td>At birth</td>
<td>45 %</td>
</tr>
<tr>
<td>3 months</td>
<td>50</td>
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<tr>
<td>6</td>
<td>60</td>
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<tr>
<td>9</td>
<td>65</td>
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<td>1 year</td>
<td>70</td>
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<td>2</td>
<td>75</td>
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<tr>
<td>4</td>
<td>85</td>
</tr>
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<td>8-9</td>
<td>100</td>
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## Characteristics of human milk influences the mother-infant relationship

As inferred from the number of calories in human milk, human infants are biologically designed to be in constant proximity to their mothers for frequent feeds (Konner and Worthman 1981). Compared with many other mammals human milk is composed of relatively low amounts of both protein and fat, but relatively high amounts of quickly absorbed and metabolized sugars. To compliment the infant’s hunger cycle, then, breastfeeding human mothers must therefore remain in proximity to their infants, carrying them wherever they go because the time intervals between feeds are relatively short. It is not surprising that our species is categorized as a "carrying" species, in contrast with species wherein mothers regularly leave their babies alone in nests, dens or burrows for considerably longer periods of time than can human mothers. Intervals between feeds are much longer among these mother-infant pairs because mothers milk has many more calories (Jelliffe and Jelliffe 1969). The milk of "cache" species is high in protein and fat, but low in sugars (see Figure 2).

### Biology of mother’s milk reflects evolved infant needs

<table>
<thead>
<tr>
<th>Cache Species (Ungulates)</th>
<th>vs.</th>
<th>Carrying Species (Humans)</th>
</tr>
</thead>
<tbody>
<tr>
<td>. high fat</td>
<td></td>
<td>. low fat</td>
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<tr>
<td>. high protein</td>
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<td>. low protein</td>
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<td>. low carbohydrate</td>
<td></td>
<td>. high carbohydrate</td>
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<tr>
<td>(high calorie = long feeding interval)</td>
<td></td>
<td>(low calorie = short feeding interval)</td>
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</tbody>
</table>
Human beings have an extremely prolonged period of infancy and childhood during which mothers and/or fathers continue to play an important role in shaping their children's future. Actually, this period extends beyond infancy and young childhood into the juvenile adolescent and young adult phases of the life cycle. Parent-offspring interdependence at this age is truly unique to the human species. The reason why nature designed such slow development may be because human beings depend on learning rather than upon knowledge acquired innately through genes. There is simply a lot to learn and it takes time! For infants and young children learning almost always occurs in the context of powerful and long-lasting social relationships beginning with the mother-infant relationship. Mothers constitute the first and probably most critical connection that the infant has to it's social and physical world. She provides the context within which the infant learns how to learn. Thus, the quality and characteristics of the mother-infant relationship to which the infant is exposed often serves as a model or basis for future social knowledge and relationships. The emotional quality and strength of the mother-infant relationship asserts a significant effect on the emergence of empathy, trust and the infant-child acquiring a sense of self-worth. Moreover, the infants capacity for joy, coping with stress, handling its fears and anxieties, developing understanding and patience is heavily influenced by what occurs in the first few years of life when the most important attachment figure is usually the mother (Lewis and Sarni 1994).

Infants are biologically prepared to be adapted to the mother-infant social and physical relationship

While it is true that for quite some time after birth infants cannot walk, talk, make tools or speak a formal language (abilities anthropologists use to define humanness) there is much that they can do, especially beginning with the physical and behavioral activities infants exhibit while breastfeeding. For example, infants turn in the right direction to face their mother’s body if the mother’s nipple touches their cheek; and infants have been observed to locate their mothers nipples in the dark probably through their sense of smell and, of course, once the nipple is in the infant’s mouth, the infant’s taste and sucking responses are activated in just the right way to sustain the activity. Turn-taking, body orientations and use of space, gazing and short-distance visual focusing, communication skills, and learning to associate a particular face and voice with emotional satisfaction are, perhaps, simple things infants do, but they are profoundly important to the infant in this, their first relationship.

By breastfeeding mother and infants initiate an entire socio-emotional and psychological system which moves well beyond nutrition. In fact, the breastfeeding aspect of the mother-infant relationship cannot be found or replicated in other types of relationships, and breastfeeding activities themselves prove to be both educational for the infant as well as health promoting. Breastmilk provides critical immunities or antibodies and, thus, protection from infant diseases. Moreover, the touching, movements, sounds, heat, body smells and gases, exchanged between mothers and infants, either while awake or asleep, are known to positively effect the infants physiological status. At this early point in the infant’s life, the infant psychological status cannot be differentiated from its physiological status. For example, maternal contact and proximity determines how secure or "happy" the infant feels. Of course, "secure" and "happy" are subjective adult terms of which infants are not aware, except by virtue of what they experience physically or emotionally with their caregivers. Since we cannot ask them if they are happy, one way we infer this "state of mind" is noting
how often they cry or get sick. Using this universal standard it is clear that infants who are held the most, responded to quickly by their caregivers, and who spend the greatest amount of time breastfeeding are generally the "happiest". They gain weight faster, they spend less time crying, and their survival rates are higher.

How do we know that "mutual" physiological regulatory effects underlie the human mother-infant relationship? Evidence from a mother-infant sleep laboratory.

Our studies of infants and parents sleeping together in a sleep laboratory reveal that when infants have physical access to mothers movements, sounds, touches, interventions (such as mother adjusting the infant's position or blankets during the night, giving it a kiss or hug, or singing to it), important changes in the most fundamental physiological systems of the infant can and often do occur. Over consecutive nights we study the effects of mothers and infants sleeping in the same bed and then on the next night sleeping apart in adjacent rooms (or vice-versa). The infants are about three months old and breastfeeding. One reason why we study mothers and infants in bedrooms in a sleep laboratory, rather than in their homes is so that we can videotape their activities using infra red cameras throughout the night. And at the same time we are able to measure a variety of physiological variables including the mothers' and infants' brain waves, heart rates, breathing patterns, and the infants' oxygen saturation, all simultaneously. We have found that each sleeping partner effects the temporal patterning of the other's sleep including the amount of time each spends in different stages of sleep. We have also learned that when one cosleeping partner arouses (moves, coughs, makes a sound etc.), within a few seconds often the other arouses, too. In other words, during the cosleeping night there are a great many mother-infant, partner-induced arousals clustered together in time, as if mother and baby were dancing together. We consider these instances of overlapping arousals examples of behavioural synchrony. They are important because they induce further physiological changes such as changes in heart rates and breathing, leading each to have an impact on the other's overall physiological status. For the more vulnerable infant, we think there may well be benefits associated with maternally-induced interruptions to the infant's sleep. For example, infants who arouse more frequently spend less time in deep stages of sleep from which some infants have a difficult time awakening required to end a breathing pause or apnea. Less time spent in deep sleep for young infants, then, may help some infants to resist a life-threatening breaking disorder such as the sudden infant death syndrome (SIDS, cot, or crib death) as we have hypothesized elsewhere (McKenna 1986, McKenna et al., 1993, Mosko et al., 1993).

We found that bed sharing almost tripled the number of breastfeeding episodes and tripled the total nightly duration of breastfeeding, compared with the amount and duration of breastfeeding which occurred when mothers and infants slept in separate rooms. Infants cried much less frequently when sleeping next to their mothers, and experienced less wake time, though their sleep tended to be lighter, as mentioned above (McKenna et al., 1994). We think that this increased breastfeeding may also be protective for infants and beneficial, too, since several studies revealed that the more frequently and more intensely infants are breasted, the less likely they were to die from cot or crib death (Fredrickson et al., 1994).
Infants regulate their mother’s biology, too

While mother’s increased availability for breastfeeding while bed sharing changes the infant’s health status, so in turn does the infant potentially change the mother’s, particularly her ability to reestablish ovulation. The significantly increased amount of nipple contact and decreased intervals between feeds during bed sharing likely characterizes the habitual pattern of cosleeping mother-infant pairs at home. Among other things, with increased breastfeeding routine bed sharing potentially prolongs the birth interval by suppressing mother’s ovulation through what is called post-partum (after birth) lactational amenorrhea (skipping menstrual cycles due to breastfeeding) (Howie and McNeilly 1982, Knauer 1985 and McNeilly et al 1994). While there is much controversy and not universal agreement as to how biochemical pathways, neurohormonal interactions, and environmental factors act in concert to prevent pregnancies by preventing ovulation, the frequency and time interval separating mother-infant breastfeeding sessions (both day and night), rather than simply breastfeeding or not breastfeeding is thought to be a critical factor (Vitzhum 1994). One explanation for how breastfeeding might prevent pregnancies involves the hormone, prolactin. Frequent nipple contact by the infant has the effect of increasing prolactin levels which, in turn, is known to inhibit ovulation. Therefore, mothers who breastfeed their infants throughout the night while sleeping with them stand to benefit indirectly in yet another way, as suggested by Blurton-Jones (1986): routinely cosleeping mothers are likely to become pregnant later, rather than soon, permitting their infants to continue to benefit from maximum, undivided maternal attention and resource allocation, thereby improving the prospects of better psychosocial and physical health for both the mother and infant, and for future offspring/siblings whose births will occur at a more optimal time (Blurton-Jones 1986).

Our study is a reminder of just how tightly bound together the physiological and social aspects of the mother-infant relationship really are; and that for the slowly developing and neurologically immature human infant, it is difficult to discuss any aspect of the mother-infant relationship without appreciating physiological systems which underlie it that both directly and indirectly promote infant survival and well-being. Anthropological studies reveal that the intense physical and social relationship between the human mother-infant pair is millions of years old; moreover, many studies reveal that separation of the mother and infant lead to adverse consequences (McKenna 1986).

Conclusions

In Western industrialized societies pediatric health professionals generally encourage child care practices believed to foster social and biological independence in their infants, as early in life as possible. Birth is commonly viewed as the moment in which the newborn becomes an independent being from the mother, since the mother’s body is seen no longer to directly regulate the infant’s physiology through the placenta. In these cultures the establishment of early infant/child independence is the developmental goal, autonomy the desired outcome. However, an important question by anthropological studies is whether the historically recent recommended child care patterns which emerge from this view presume infants to be more physiologically independent from their caregivers than they actually are. By ignoring the infant’s evolutionary history, we ask here, are critical aspects of the infant’s biology being mismatched with rapidly changing patterns of infant care, patterns that clearly promote separation from the mother before it is either ideal or even safe?.
One thing is clear. The social best interests of parents are not always the same as the biological best interests of the infant. Indeed, there is no such thing as a baby, there is a baby and "someone", just as Winnicott reminded us - and this will remain true no matter how far our respective cultures and technologies will continue to take us. That "someone" is usually mother, and although it need not be her, the beginning point for understanding "normal" and "optimal" human development must at some point recognize the primacy of this relationship above all others.

References

WHO*

HEALTH AND THE AGED:
SWEDEN'S SERVICEHOUSE CONCEPT

by Britta Asplund and Ruth Bonita

It is taken for granted in Sweden that older people have made an important contribution to society and now deserve a good life and the best that can be offered. The Servicehouse is regarded as a more pleasant alternative to hospital. It is also regarded as a right.

Health and the Aged in "the Developed World"

In many developed countries, providing elderly persons with medical care in their homes appears increasingly preferable to treatment in a medical institution -- for different reasons. This development requires that more attention be given to the special needs of the elderly in the field of health education. Apart from degenerative illnesses which result in the multiplication of physical and often mental disabilities, the state of health of elderly persons is aggravated by other phenomena: loss of personal and social usefulness, separation from the family and the social environment, necessity of adapting to solitude, inaction, progressive incapacity and the perspective of dying. To a certain degree, the public authorities have developed a policy responding to the difficulties of adaptation which elderly persons must face -- for example by postponing retirement age and organizing programmes which allow elderly persons to participate in social activities. However, the initiatives that are essentially aimed at prolonging an active life do not take account of the more profound disturbances that affect the quality of life of the elderly.

As with adolescents, most of the health problems of the elderly are linked to cultural factors resulting in the erosion of social institutions such as the family, to the weakening of ties between generations or to the waning of religious faith. It is not easy to alleviate this situation by focusing on health, or by acquiring health-related knowledge. In the developing countries, the social institutions and value systems continue to give an important place to the elderly, and fundamental beliefs create a balance between the quality of life and the transcendental notion of death. This different cultural context has enabled people to avoid certain serious maladjustments which they are subjected to in industrial societies. However, the health sector must take account of these relationships between health and the profound changes that people must undergo at different stages of their life.

* Article commissioned by WHO from outside experts.
The health problems linked to the culture encountered in developed countries raise important questions for developing countries. The experience acquired, including precise answers to numerous questions, provides useful information. This knowledge and information are essential elements of health education dispensed to children and the community.


Up to 40% of people over the age of 80 in Sweden either have some sort of home care or are cared for in facilities provided by each local council. The municipal councils also have responsibility for group homes, which in turn are based on a social model where personal autonomy is regarded as an important ingredient. Usually 6-8 single apartments or single rooms are grouped around a living room and kitchen, and the residents have their own furniture and keys.

In 1992 there were around 6,000 demented or confused elderly people living in group homes, although it is estimated that by the year 2000 places will be needed for 25,000.

Currently there are between 45,000 and 50,000 nursing-home beds and 40,000 sheltered homes. Most of the sheltered homes try to develop a familiar home-like atmosphere with routine activities and household tasks where the staff are seen as positive role models. Since hospital care is expensive and the communities have their own medical staff, sheltered homes are regarded not only as an inexpensive form of care, but also as a humane one. It is taken for granted in Sweden that older people have made an important contribution to society and now deserve a good life and the best that can be offered.

A model centre has recently been developed in Sweden for the care of older people. This "Servicehouse" comprises specially built self-contained apartments, provided by the local council and catering to people needing rest-home care, those needing considerable help and supervision, confused elderly people, and short-stay residents requiring respite from caring for elderly relatives in the community. The Servicehouse is an attractive building with 48 apartments, nine of which are for patients clinically diagnosed as having dementia. Before 1991 it was an "old people's home" where each person had just a single room and a toilet, with only two bathrooms in the whole building.

**Help in the home**

We visited one women who was on the waiting list for one of the Servicehouse apartments. Although needing a walking aid she lives alone on the second floor of a building with no lift and where the washing machine is in the basement. She cannot manage the stairs by herself and has a home help every day, besides help from her relatives. When she had
just come home from hospital after a hip fracture, she felt insecure and very afraid of another fall but managed quite well. Home service was provided three times a day and evening "patrols" dropped in and helped her prepare for bed. Food service was provided three times a week, with two days' supply of meals at a time. She has a safety alarm linked with the Servicehouse, and could use a community-subsidized taxi service.

Monthly rental for a Servicehouse apartment with a fully equipped kitchen and bathroom is around US$ 350-400, or $700 including full service (cleaning and full personal care) and all meals. Residents have their own furniture and furnishings to their own taste. A restaurant is also available which provides three meals a day.

The Servicehouse plays an integral part in the community because it also provides respite care (alternative day care). There is no limit to the amount of relief that carers can provide; it depends entirely on the person's needs. Care in the Servicehouse is regarded as a less expensive alternative and a more pleasant one than hospitalization. It is also regarded as a right.

For the confused elderly

The special unit for the confused elderly consists of two separate sections, one containing four apartments and the other, five. It was opened only 18 months ago and all residents (and staff) have been carefully chosen. The staff furnished the place, planned all the activities, made schedules and received one week's in-service training and education from a doctor and advice from the psychogeriatric clinic.

Each staff member is assigned to one or two residents and takes a special interest in those persons by checking doctor's appointments and arrangements, providing a focal point for continuing care, and in general acting as an advocate and contact person for relatives. The contact staff member also prepares the box of medicines to be taken each night and keeps a log book for each resident. This becomes an important document and is available for staff and relatives to read. It is also a way of documenting changes over time. Electronic surveillance ensures that staff members know at any stage where an individual patient is.

The whole complex provides employment for students during the summer months. Up to ten students, mainly women, help in keeping the old people active and interested. By being paired with a full-staff member, they are trained and eventually assigned their own special charges. The students are then able to take sufficient responsibility to allow staff members to go on annual leave.

This article is reprinted from the journal World Health, 47th Year, N° 4, July-August 1994, Geneva, WHO.
WHO*

REPLACING THE HOSPITAL

by Laurence Malcolm

New Zealand's shift from hospital care to community-based services could provide an important international model for both developing and developed countries.

Recent radical changes within the New Zealand health system are leading to the phasing-out of hospitals as units of health care organization. Population-based services including, to an increasing extent, primary health care, are replacing hospitals as the units of organization and management.

For a long time New Zealand has had a population-based approach to the provision of health services. In 1989, after many years of debate and discussion, a system of 14 area health boards was established around the country. Each board provided comprehensive hospital and related services to the population, which ranged from 900,000 down to 35,000. Boards were also responsible for improving the health of their populations, and therefore included public health services within their scope.

An important feature of the area health board system was service management. Every service - medicine, surgery, mental health, geriatrics and, in some cases, primary health care - became the key units of organization in almost all boards. Each service had both a hospital as well as a community component. For example, the Child Health Service in the Wellington Area Health Board, imaginatively named "Kiddie Corp," was responsible not only for the paediatric wards in the hospital but also for following up discharged children with specialist services, and developing educational programmes and preventive activities to promote child health generally among the population served.

More community-based

In 1993, following the proposals of the government elected in 1990, the 14 area health boards were converted into 23 crown health enterprises (CHEs). Each CHE has retained and extended the service management model and, in a recent survey, nearly all chief executive officers of CHEs indicated that they are no longer managing hospitals and were moving from hospital-based to more community-based services. They also indicated that shifts were occurring from secondary and tertiary towards primary care, and they were seeking closer relationships with primary care services in their areas.

The New Zealand system has also created a fully integrated purchaser, the regional

* Article commissioned by WHO from outside expert.
health authority (RHA), of which there are four for the country’s population of 3.4 million people. Each RHA is responsible for purchasing a full range of in-patient care and community-based services, both secondary and primary, including general practice. By shifting the emphasis away from hospitals and towards community-based services, the RHA is aiming at promoting more population-based services.

There have also been rapid developments in both general practice and community budget-holding (i.e., to have the authority and be accountable for expenditures from a fixed budget). In Christchurch, for example, almost all 195 general practitioners have formed a contracting body, called Pegasus, to be responsible for primary and eventually secondary services. They are forming the nucleus of a managed primary health care system which is expected to have a profound effect upon shifting the emphasis from secondary to primary health care.

Important initiatives to encourage indigenous Maori people to develop their own services are also under way. In Wanganui, for example, tribal groups have come together not only to provide their own health services, under contract with the RHA, but also to be responsible for referred primary and secondary care services. This is real community empowerment as envisaged at the 1978 Alma-Ata Conference on Primary Health Care.

This shift from hospitals to community services as units of organization, particularly for primary health care, could be an example to both developing and developed countries. The dominance of hospitals in all countries, particularly in the developing world, requires a major shift to empower community-led and community-managed primary health care to take its rightful and central place in all health systems. The approach in New Zealand could serve as a model.

This article is reprinted from the journal World Health, 47th Year, N° 5, September-October 1994, Geneva, WHO.
WHO*

PAYING THE PRICE FOR ONE'S BELIEFS

by Paul Oostvogel

Several communities in the Netherlands have long refused vaccinations of all kinds on the grounds that they are "against the will of God". As this article shows, young people paid heavily for not receiving their full protection against poliomyelitis.

One day in September 1992, a 14-year-old boy cycles to his secondary school in Rotterdam, some 25 km from his home village of Streefkerk. The next day, while cycling, his back starts aching and a throbbing headache begins. Despite increasing pain he cycles back to Streefkerk. On the third day, his legs and back hurt so badly that he cannot attend school. After the pains have disappeared he tries to get out of bed at the request of the family doctor, but he cannot stand: his legs are too weak.

The boy is immediately referred to the neurology department of the nearest regional hospital. As he belongs to a community which refuses vaccination on religious grounds, the suspected diagnosis is clear: poliomyelitis. The neurologist notifies his clinical diagnosis immediately to the regional and national health authorities. The media hear of it and present it on radio and television as a major item. Headlines appear in the national press even before the laboratory has confirmed the suspected case, but specimens from both the patient and his 12 family members show the presence of wild poliovirus type 3. The single dose of vaccine virus type 1 which the boy had at the age of two months, during a previous outbreak in 1978, only protected him against type 1 and not against type 3.

Municipal public health services offered mass vaccination to try to stop the outbreak, and the enormous demand for vaccines from the general public caused chaotic situations in Rotterdam. Within two weeks a second case, in a 23-year-old man from the same region, confirms that the outbreak is a serious threat to this community, after 14 years without any case. At its peak in the middle of November, clinicians reported ten cases in one week. The final count was 71 victims within five months, two of whom died.

Vaccine-refusing groups

Since the introduction of inactivated polio vaccine (Salk) in the National Programme in 1957, the first seven localized and the last two nationwide outbreaks occurred within vaccine-refusing communities. They have their own churches and schools and live in clusters from the northeast to the southwest of the Netherlands. The number of susceptible people

* Article commissioned by WHO from outside expert.
at risk of infection with poliovirus is continuously increasing. Because of the long periods between epidemics, the classical pattern of infantile paralysis no longer applies, and the mean age of victims shows a striking increase, changing from 1-4 years in 1961 to 15-19 years in 1992. This fact reflects the virtual absence of virus circulating in the Netherlands. This change in average age is not contradicted by the fact that the youngest victim of the 1992 outbreak was only 10 days old and four cases were aged under one month. In earlier days these infants would have been protected by antibodies from the mother.

The outbreak caused confusion for several weeks throughout the population. Fear of infection and paralysis, even among the older people who had been immunized, was widespread. People stopped sharing public transport, and soccer matches and other social events scheduled to take place near places like Streefkerk were cancelled.

Once it was seen that cases only occurred among similar unvaccinated communities, confidence in the vaccine was reassured. Discussions then focused on ethical aspects. Why were the excellent vaccines available being withheld from young children? Why does the government allow parents to do this? How can future outbreaks be prevented? Members of parliament raised these and other questions. Nevertheless, the option of making immunization obligatory was again rejected. Some of the Dutch reformed churches consider immunization as an act against the will of God. To counter this view, the strategy of the government and the medical council was based on education and information. But even today, immunization coverage in municipalities such as Streefkerk is still as low as 60%, compared with over 97% for the country.

A traditional pattern

Soon after the outbreak began, the National Institute of Public Health and Environmental Protection (RIVM) started trying to trace the virus that was causing the trouble throughout the country. Techniques were developed and tested which may eventually be useful for the eradication initiative. Proving the presence of the virus and predicting the final course of an outbreak could contribute to greater immunization acceptance. A large population survey finally confirmed that this had been an almost traditional outbreak pattern in the Netherlands. Not only cases but also the spread of the virus was to a large extent restricted to the risk group.

One remarkable finding emerged from a virological analysis of river-water from near Streefkerk, taken some three weeks before notification of the first case. A poliovirus was isolated which appeared to be molecularly identical with the causative virus for the 1992 outbreak. This finding prompted virologists of the RIVM to propose an environmental surveillance plan which would serve as an early warning system for any further circulation of the virus.

In the end, all these investigations probably did not result in the final destruction of poliovirus type 3 in 1992-93. The simple lesson once more is that, in high coverage areas with excellent hygienic conditions, local circumstances may cause pockets of low immunization coverage where polio may strike over and over again. Acceptance of polio vaccine within the high-risk community during the last outbreak was scattered, therefore the
immunity prevailing after the outbreak remains uncertain. More widespread travel throughout the world makes importation of wild virus to the Netherlands increasingly probable, with an ever greater danger of triggering a new outbreak. The wild poliovirus which circulated within the risk community during the last outbreak will protect less than one generation and then only against one type.

Only the eradication of all polioviruses will finally protect all non-immunized people in the world from this fearsome paralytic disease. The Netherlands has faithfully supported the Expanded Programme on Immunization, and fully shares WHO's confidence in attaining the final goal: eradication of all poliovirus. Meanwhile the daily wheelchair taxi from Streefkerk to Rotterdam, which is provided for the boy who was the first victim of the 1992 outbreak, is a good example of help for the disabled in an industrialized, welfare society. At the same time it shows what simple immunization could have prevented.

This article is reprinted from the journal World Health, 48th Year, N° 1, January-February 1995, Geneva, WHO.
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World Decade Plan of Action

The World Decade for Cultural Development, which covers the entire United Nations system of organizations, has the following aims:

1. To increase understanding of the relations between culture and development and to encourage closer integration of the cultural dimension into projects and policies for sustainable developments;

2. To concentrate efforts on large-scale interdisciplinary projects launched and implemented in each reaction;

3. To strengthen co-operation with other partners in the United Nations system with a view to undertaking joint studies and projects aimed at preparing the integration of the cultural dimension of development into the strategy for the fifth United Nations Development Decade.

4. To promote and co-ordinate the work of those involved in the Decade for the purpose of implementing its Plan of Action.

Priority Fields of Action

The six priority fields of action for activities during the remainder of the World Decade are:

1. Cultural dimension of development
2. Culture and sustainability
3. Culture, tourism and development
4. Cultural pluralism
5. Investing in culture
6. Culture, science, technology and the media.

The subject of this publication is "Culture and Health". The theme was selected by the Intergovernmental Committee of the World Decade for Cultural Development (1988-1997) as the World Decade theme for 1996 and is part of the annual themes attributed to each year of the Decade.

World Decade Themes

The annual themes for the latter half of the World Decade for Cultural Development are:

1992  Culture and Environment
1993  Culture, Education and Work
1994  Culture and Development
1995  Culture and Agriculture
1996  Culture and Health
1997  Culture and Technology: Arts, Science and Communication

Objectives of the World Decade

The Decade has four main objectives:

1. Acknowledging the cultural dimension of development
2. Affirming and enriching cultural identities
3. Broadening participation in cultural life
4. Promoting international cultural co-operation

The central idea behind the Decade is to place culture at the very heart of development.

World Day

The World Day for Cultural Development, celebrated yearly on 21 May or on any other suitable occasion of the year, may focus on these annual themes or on the overall Decade theme "The Cultural Dimension of Development".