

The Zambia Health Information Digest



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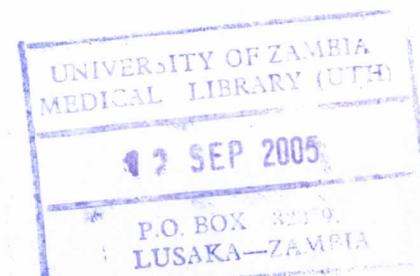
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ACKNOWLEDGEMENTS

The Zambia Health Information Digest is produced to primarily meet the information needs of the Health workers in the rural areas of Zambia who do not have easy access to current health information.

The Dreyfus Health Foundation of New York, under the Communication for Better Health programme, sponsors the production and distribution of the Digest.

EDITORIAL

TRADITIONAL MEDICINE

This edition of the Zambia Health Information Digest is dedicated to Traditional Medicine. Traditional medicine has become even more prominent because of the high prevalence of HIV in Zambia. With a number of traditional healers making claims that they can cure HIV infection. The digest is therefore justified to address this subject.

Our feature article is a study done by Dr Gretchen Birbeck on traditional medicine and the care of epilepsy patients. The World Health Organisation fact sheet on Traditional Medicine is also included in the Features section. In the News section and Abstract section are some news items and abstracts respectively on the subject.

World Health Organization defines Traditional Medicine as “the total combination of knowledge and practices, whether explicable or not, used in diagnosing, preventing or eliminating physical mental or social diseases and which may rely exclusively on past experience and observation handed down from generation to generation, verbally or in writing”.

Trends in the use of traditional and complementary medicine are on the increase in many developed and developing countries. The WHO estimates that about 80% of people living in rural areas in developing countries depend on traditional medicine for their health care needs. The importance of traditional medicine has been recognized by the Alma-Ata Declaration of 1978 as a means to help achieve health for all. The African Union Heads of State Summit, which was held in Lusaka in 2001, declared 2001-2010 as the decade for traditional medicine. The 50th Session of the Regional Committee for the WHO African Region held in Ouagadougou, Burkina Faso in 2000 adopted a strategy for promoting the role of traditional medicine in health systems, and declared 31st August as the African Traditional Medicine Day.

Many countries face challenges in promoting the role of Traditional Medicine especially those of property rights, standards, quality and efficacy of traditional medicines, research, promotion and protection of medicinal plants. WHO therefore urges countries to develop national policies, legal and regulatory frameworks, to create enabling environment for large scale manufacturing of safe and effective traditional medicines, protection of intellectual property rights and traditional medicine knowledge.

The Government of the Republic of Zambia is committed to the promotion of traditional medicine. The Health Reforms have been inclusive of the traditional medicine, whereby a Traditional Medicine Coordination Unit was created in the health sector and the Ministry of Health is in the process of developing a policy on traditional medicine.

A: FEATURES

Epilepsy Care in Zambia: A Study of Traditional Healers

*Roy Baskind and †Gretchen Birbeck

Epilepsia Volume 46 Issue 7 Page 1121 - July 2005

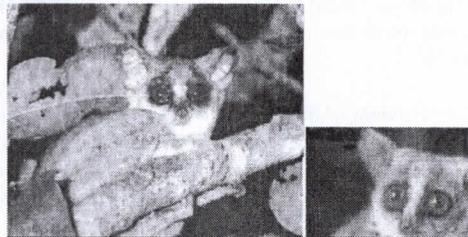
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Of the 40 million people with epilepsy (PWE) worldwide, 80% live in developing countries (1). In sub-Saharan Africa, two-thirds to three-fourths of the rural population may have virtually no access to modern healthcare facilities (2). Despite moves to decentralize health care, resources have remained largely centralized and poorly allocated (3). Patients must travel long distances to seek medical attention (4). Travel costs can be prohibitive, and large urban settings may be menacing to rural villagers unaccustomed to city life and its dangers (5). Delays to see overworked healthcare providers may be substantial (6). Patients may arrive to find personnel on leave, medicines out of stock, or medical providers who lack needed expertise (7). User fees further deter health care seeking, particularly in vulnerable patient populations (8). Those who overcome these obstacles and access medical facilities may incur further expenses purchasing medicines or traveling to collect them.

PWE are especially likely to encounter barriers to medical care. Because recurrent seizures may limit a person's ability to carry out the manual labor necessary for rural life, epilepsy causes economic losses (9). In sub-Saharan Africa, epilepsy is associated with tremendous stigma, which can worsen social and economic disadvantage (10). Where epilepsy is undertreated and stigmatized, PWE are less employable and less likely to earn a living (11). They may be unable to mobilize the social networks needed to provide the transportation, financial assistance, lodging, and psychological support required for seeking care in distant and underresourced medical facilities (12).

In this context, it is no surprise that PWE seek care from THs rather than from

FIG. 1. Southern lesser bushbaby (*Galago moholi*).² This animal feigns death when threatened



2

physicians. Not only are THs more physically accessible to patients, but they also offer greater cultural and conceptual familiarity. Hospital-based care is disease centered and may be unable to offer explanations of disease causality in an ecologically valid fashion (13). Conversely, THs focus on the patients and their social environments more than on their particular ailments, heavily emphasizing the psychological and social context of disease (14). Because patients in traditional cultures often believe psychological and social conflicts are a major cause of disease, failure of modern medicine to address these concerns may diminish the perceived power of modern medical interventions (15).

Reliance on traditional modes of health care in Africa is likely to increase as the gap between healthcare needs and resources widens under the increasing burden of poverty and the relentless human immunodeficiency virus (HIV) epidemic. Already 70% of patients in some areas initially seek health care from THs (16). Governments in developing countries have begun a dialogue with THs to facilitate some association with the formal healthcare sector. Recently, South Africa passed legislation to license its some 200,000 THs (17). Despite the global predominance of traditional healing for PWE and ongoing efforts to incorporate THs into the formal medical system, we know very little about how THs approach epilepsy care (18). We therefore undertook a multi-method qualitative study of THs in rural Zambia (19).

METHODS

Focus group

We solicited community health workers and tribal headmen within the Chikankata catchment area to identify THs (locally called *Ng'anga*) working in their area. These individuals were sent written invitations to attend a focus-group discussion held at a local high school. With delivery of written invitations, simultaneous verbal invitations were offered. A prominent community leader facilitated the discussion, which was conducted in the local language. One of the authors (G.B.) attended and transcribed the proceedings, with a translator providing real-time feedback. On completion, a tape-recorded transcript was reviewed and translated by a second translator. The two transcripts were then compared, reviewed, and discrepancies reconciled.

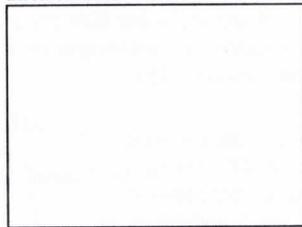
FIG. 2. Bateleur eagle (*Terathopius ecaudatus*).³ This bird is described as a "tight-rope walker" that...



Structured interview

Mr. Amos Makoli, Coordinator and Disciplinary Chairperson for the Mazabuka District branch for the Traditional Health Practitioners Association of Zambia (THPAZ), attended the focus-group discussion and was willing to provide further information. Dr. Baskind conducted a semistructured interview with Mr. Makoli at Mr. Makoli's place of work. An Epilepsy Care Team staff member was present and provided translation when needed. The interview was tape recorded and later transcribed. The transcript was then reviewed with the translator to check for accuracy. A summary statement of this interview was reviewed and approved by Mr. Makoli.

FIG. 3. Sweet potato weevil (*Cylas formicarius*).² The adult feigns death when threatened



Informal interviews

Both authors interviewed doctors, clinical officers, nurses, community health workers, and members of the Epilepsy Care Team at Chikankata Hospital. Specific questions were asked regarding the frequency with which patients sought THs for epilepsy care, known modes of traditional healing methods for seizures, and local beliefs regarding seizure attribution.

TABLE 1. Quotes from traditional healers

Establishing terminology
"Convulsions involve falling out with jerking of the body and sometimes tongue biting, urination, or defecation. The eyes may also move."
"Some people will stare and act strangely...chewing without food and hyperactivity" (TH demonstrates picking at clothes)
Diagnosis
GB: How do you diagnose epilepsy? Ng'anga: By several possible means. A diviner may know by use of methods including an axe, reading the beads, and communing with the ancestors. Not all ng'anga are diviners, and even those who are may diagnose by getting a history of convulsions.
"I have a child who has fits only after smelling rotten eggs. Then she has fits. But there is no smell. Only the child thinks there is an odor. She tells us this after she wakes up." ¹
Attribution

"The disease may run in the family or be caused by witchcraft."
"The brain is injured and may function like a leaking pipe."
"Seizures from malaria can be too severe; then the problem stays."
"Pregnant women may have seizures . . . the treatment for this is bed rest. These women must be referred to the midwives at the hospital."
Treatment
"They (PWE) want to be cured and given a reason for the condition. They don't want to take tablets for so long."

CASE STUDY

A 6-year-old girl was brought to Chikankata outpatient department for generalized seizures and frontal scalp burns. According to the mother, at age 4 years, the child had a generalized tonic-clonic seizure while in the care of the paternal grandparents. The paternal grandparents consulted a traditional healer (TH), who attributed the convulsion to the angry spirit of the child's dead father. After the father's death, the paternal grandparents had confiscated the family's assets, including this child, leaving the mother destitute. The mother had epilepsy, and the paternal grandparents did not believe her to be a fit parent, although she was taking phenobarbital (PB) with good seizure control. The TH invoked this breach of rightful inheritance as the cause of the child's seizures and advocated that the child and some of the possessions must be returned to the mother for the seizures to stop. The child continued to have intermittent seizures and had at least two episodes of status epilepticus, possibly in the setting of malaria. Eventually, the grandparents returned the child to the mother.

TABLE 2. Reasons traditional healers cited for referring patients with seizures to the hospital

Body hotness (fever)
Pregnancy with breach presentation
Pregnancy with body hotness
Concomitant burns (acute or by history)
Concomitant malaria, tuberculosis, anemia, or other chronic disease
Head injury
Headache with opisthotonus (demonstrated by the TH)
Prolonged seizures
Multiple therapies failing

The mother took the child to another TH, who treated the child with herbal steam tenting. During one of steaming sessions, the child fell forward onto a boiling steam pot and sustained burns to the forehead. The TH had assured the mother that with full treatment, the seizures would stop. However, when the mother was unable to pay the price of one live goat, the TH refused to complete treatment. The mother then decided to seek care at the hospital.

RESULTS

Human resources for epilepsy care

Eighteen healers were identified. Thirteen THs verbally accepted the invitation. Ten actually arrived (seven men and three women) and participated in the 2-day focus-group discussion. By simply questioning individuals residing in the Chikankata community, we easily identified 18 prominent THs practicing in the catchment area of 55,000 people, which is served by only four physicians. The THs live and work within local villages and are geographically distributed throughout the catchment region. The doctors and nurses we questioned universally assume a TH has already seen all PWE who seek care at the hospital, closely corroborating studies from other parts of sub-Saharan Africa (16). The THs we interviewed perceived themselves as the principal care providers for people who experience a seizure. See [Table 1](#) for direct quotes illustrating the THs' perspective, which is further detailed later.

Establishing terminology

Although several ChiTonga terms for seizure and epilepsy exist, the THs' descriptions of seizures are highly congruent with medical descriptions. In addition to familiarity with generalized tonic-clonic seizures, the THs also described focal motor and complex partial seizures and recognized these events as being a form of seizure. The healers did not make an overt distinction between single, sporadic seizures, provoked seizures, and epilepsy.

Diagnosis

As suggested in [Table 1](#), in addition to divination, the THs emphasized the importance of history taking. Details regarding seizure onset, preceding symptoms, and other periictal phenomena were reported to be especially important.

Attribution

All the THs interviewed believed witchcraft was responsible to some extent for seizures. The strong belief in witchcraft and sustained capacity for magical thought evident in rural Zambia may be difficult for Westerners to appreciate. These beliefs are

not limited to the uneducated. Some of the trained health care workers we interviewed, including physicians, believe witchcraft plays a role in causing seizures. Belief in witchcraft as the ultimate cause for the condition does not preclude attributing proximate causes for seizures. For example, a spell cast on someone might cause him or her to develop seizures during a bout of malaria, when otherwise the malaria would not cause seizures. The healers reported a diverse range of specific circumstances that can result in seizures.

Treatment

For immediate management, the healers concurred that nothing should be placed in the patient's mouth. They endorsed "blowing smoke up the nostril" to try to stop the seizure. They also identified bodily secretions (urine, feces, flatus, and saliva) as contagious substances that could potentially transmit seizures to bystanders. Treatments to "immunize" family members against epilepsy were advocated. The THs we interviewed endorsed the importance of giving the patient an explanation for the seizure.

Witchcraft-induced seizures can be cured by treatment with an antidote comprising the same ingredients that were used in the original witchcraft. Treatment failures occur when the healer is unable to identify and obtain the correct ingredients. Popular ingredients for epilepsy treatment mentioned by both the THs and hospital health care workers were products from animals that exhibit behaviors resembling convulsions or loss of consciousness. Such animals are illustrated in [Figs. 1–3](#). Some epilepsy cases cannot be cured. Burns are seen as a sign of intractable epilepsy. Many healers believe that the burn itself somehow seals the victim's fate. Other studies have confirmed similar beliefs among THs in other sub-Saharan African regions (20).

Referrals

This may refer patients to another healer if their own therapies fail. Referrals are made to a more powerful healer or one who has access to different ingredients for use in treatment. This also recognize a role for modern medicine in treating seizures and report referring patients to the hospital at times, especially when seizures occur within the context of certain other conditions ([Table 2](#)). Specific medical interventions such as "drips," injections, and wound care were also cited as reasons to send patients to the hospital. Sometimes patients are referred simply because the healer feels his or her care has failed. To quote one of the traditional healers, "We are different doctors. They bring a patient to you. You start treating him or her. Therefore, you try your level best, all your medicine you have. But that patient hasn't become well. You are to tell them 'no please, in my magic I have failed. Take her or him to the hospital. Maybe they will finish this disease he is having.'"

DISCUSSION



Significant economic limitations in sub-Saharan Africa continue to inhibit health systems development, and for the foreseeable future, modern medical systems alone cannot bridge the treatment gap for PWE. Despite numerous anthropologic (20–26) and some epidemiologic studies (27), emphasizing the important health-promoting role of THs in sub-Saharan Africa, modern health care has often viewed traditional healers with a mix of skepticism and suspicion (28). THs are an integral part of the healthcare milieu in sub-Saharan Africa (29,30), and attempts to intervene medically, without collaboration with THs, are likely to fail.

Qualitative methods do not seek to find a representative sample of informants. Rather we used data from several sources to develop a basic understanding of the epilepsy care provided by THs in Zambia. When one triangulates this data with our clinical observations and previously gathered quantitative data, the information gathered appears to have substantial validity. For example, PWE seen by the Epilepsy Care Team with seizures characterized by focal motor or sensory phenomena generally have TH's scarification or tattoos in the region affected at seizure onset. This supports the TH's reports that they obtain detailed histories of seizure onset (31). Burns in Zambian PWE are associated with frequent seizures and therefore probably are indicative of a low likelihood of seizure freedom (32). The ingredients THs and hospital staff named as being important for traditional epilepsy treatments have been independently reported elsewhere (9; Haworth. *Treatment for epilepsy: a description of a na'anga at work*. 1978: p. 1–5, unpublished paper.).

Traditional medicines are not always benign. Negative consequences can result from TH care, such as the child's burns in the case presentation. Care provided by THs can consume significant financial resources, but TH care may not be entirely without benefit. If a healer's treatment allows the family members of a PWE no longer to fear contagion, perhaps the family is more willing to assist the PWE when they experience seizures—pull them from the fire, prevent them from drowning. In addition, after a first seizure, some individuals worry constantly about the possibility of another seizure. Many will never have a second seizure, or the next seizure will not occur for months or years (33). Perhaps the TH's ritual treatment alleviates this worry and allows the person to return to the social fold as "normal." At times, the THs seem to function as the community's moral conscience—pointing out broken taboos and violated norms.

Regardless of how we choose to view THs and their care, from the perspective of PWE in rural Zambia, these individuals are central figures in healthcare provision. THs' prominence in the lives of PWE requires that we understand and acknowledge their care. Any interventions aimed at increasing access to care and alleviating epilepsy-associated stigma must be inclusive of this group of providers.

Summary statement from "Dr. Zuma"⁵(a.k.a. Amos Makoli)

A national association of *ng'anga* has been formed in Zambia to try to regulate practices and establish professional standards, but beliefs and practices remain varied among healers. There are no formal training schools or written books. Instead, most healers get their knowledge and skills from an older family member, or students may be apprenticed to a non-family member *ng'anga*. *Ng'anga* have different ideas about what causes epilepsy and how to treat this problem, but some ideas are shared. There are two types of epilepsy. One is a disease caused by witchcraft. Driven by jealousy or the desire to succeed in business, a person may, through magic, inflict epilepsy on another. The victim may no longer be able to earn money or may use all his money paying for treatments and seeking a cure. A second basic form of epilepsy is found when more than one family member has epilepsy. This may not be a result of witchcraft. This form is hard to treat and requires the TH to provide treatment to prevent disease in family members without epilepsy. In treating the type caused by witchcraft, the healer uses his supernatural powers to divine first the ingredients used to inflict the witchcraft on the sufferer. He may use certain enchanted objects to divine these ingredients. He then must gather those same ingredients as an antidote. Common ingredients are parts of insects or animals that themselves have convulsions (for example, a certain insect that, when molested, wiggles and then plays dead). The bushbaby feigns death to avoid attack. These are sought-after ingredients. Such insects or animal parts are mixed with plant parts in the same proportion as those used to inflict the epilepsy. The mixture is then applied to the skin, inhaled, or eaten. For the type of epilepsy that is found in families, treatment focuses on protecting family members without epilepsy. When such a patient goes to the *ng'anga*, other family members are given treatments to prevent spread of the illness. The need for such treatment is that convulsions of this type of epilepsy may be contagious. The contagion comes from saliva, stool, or urine, which, if contacted during or after a seizure, may transmit the disease. Treatment is not always effective. When an *ng'anga* admits that he is unable to know or locate the same ingredients used to cause epilepsy, he may refer to another *ng'anga*. Some *ng'anga* believe that if a person gets burned during a seizure, then the fits cannot be cured, so many *ng'anga* will not try to treat epileptics with a history of burns. Many of these patients go to the hospital for treatment of the burns but will go to other healers for treatment of the epilepsy. *Ng'anga* do refer patients for whom treatment has failed to the hospital. They can also receive self-referrals from the hospital. Modern doctors' treatment failures are either due to their powerlessness against witchcraft or to underdosing of medication.

Acknowledgment:

We thank Amos Makoli for his contribution to this work. His openness and patience were greatly appreciated. We are also grateful to Chieftainess Mwend, Mrs. Ellie Kalichi, for encouraging the THs and Chikankata health care providers to cooperate with one another in their care of her people. We also thank Mr. Charles Mabeta for his help with translations. Support for this work was provided by the Goldman Brothers Philanthropic Partnerships through their Charles E. Culpeper Medical Scholars program and NIH 1 R21 NS48060–01.

REFERENCES

1. Institute of Medicine. *Neurological and psychiatric disorders: meeting the challenge in the developing world*. Washington, DC: Institute of Medicine, 2001: 7.
2. Slikkerveer LJ. Rural health development in Ethiopia: problems of utilization of traditional healers. *Soc Sci Med* 1982;**16**: 1859–72.
3. Birbeck GL, Kalichi EM. Primary healthcare workers' perceptions about barriers to health services in **Zambia**. *Trop Doct* 2004;**34**: 84–6.
4. Birbeck G, Munsat T. Neurologic services in sub-Saharan Africa: a case study of Zambian primary healthcare workers. *J Neurol Serv* 2002;**200**: 75–8.
5. Hjortsberg CA, Mwikisa CN. Cost of access to health services in **Zambia**. *Health Policy Plan* 2002;**17**: 71–7.
6. Stekelenburg J, Kyanamina S, Mukelabi M, *et al*. Waiting too long: low use of maternal health services in Kalabo, **Zambia**. *Trop Med Int Health* 2004;**9**: 390–8.
7. Blas E, Limbambala M. The challenge of hospitals in health sector reform: the case of **Zambia**. *Health Policy Plan* 2001;**16**(suppl 2):29–43.
8. Malama C, Chen Q, De Vogli R, *et al*. User fees impact access to healthcare for female children in rural **Zambia**. *J Trop Pediatr* 2002;**48**: 371–2.
9. Kalumba K. The quiet black lamb: **epilepsy** in traditional African beliefs, in Community Health Research Unit Conference. Lusaka, **Zambia**: University of **Zambia**, 1983.
10. Jilek-Aall L, Rwiza HT. Prognosis of **epilepsy** in a rural African community: a 30-year follow-up of 164 patients in an outpatient clinic in rural Tanzania. *Epilepsia* 1992;**33**: 645–50.
11. Begley CE, Famulari M, Annegers JF, *et al*. The cost of **epilepsy** in the United States: an estimate from population-based clinical and survey data. *Epilepsia* 2000;**41**: 342–51.
12. Kleinman A, Wang WZ, Li SC, *et al*. The social course of **epilepsy**: chronic illness as social experience in interior China. *Soc Sci Med* 1995;**40**: 1319–30.
13. Cassel EJ. The nature of suffering and the goals of medicine. *N Engl J Med*, 1982;**306**: 639–45.
14. Hewson MG. Traditional healers in southern Africa. *Ann Intern Med* 1998;**128**(12 Pt 1):1029–34.
15. Tella A. The practice of traditional medicine in Africa. *Niger Med J* 1979;**9**(5–6):607–12.
16. Puckree T, Mkhize M, Mgobhozi Z, *et al*. African traditional healers: what health care professionals need to know. *Int J Rehabil Res* 2002;**25**: 247–51.
17. Sidley P. South Africa to regulate healers. *BMJ* 2004;**329**(7469):758.
18. Millogo A, Ratsimbazafy Z, Nubukpo P, *et al*. **Epilepsy** and traditional medicine in Bobo-Dioulasso (Burkina Faso). *Acta Neurol Scand* 2004;**109**: 250–4.
19. Stekelenburg J, Jager BE, Kolk PR, *et al*. Health care seeking behaviour and utilisation of traditional healers in Kalabo, **Zambia**. *Health Policy* 2005;**71**: 67–81.
20. Gelfand M. *Witch doctor, traditional medicine man of Rhodesia. With a foreword by Sir Roy Welensky*. London: Harvill Press, 1964, 191.
21. Rivers WHR, Kofoid CA. Medicine, magic, and religion: the Fitz Patrick lectures delivered before the Royal College of Physicians of London in 1915 and 1916. In: *International library of psychology, philosophy and scientific method*. London: K. Paul Trench Trubner, Harcourt Brace. 1924;**viii**: 146 (1).
22. Adekson MO. *The Yorùba traditional healers of Nigeria*. New York: Routledge. 2003;**xv**: 136.
23. Gumede MV. *Traditional healers: a medical practitioner's perspective*. Braamfontein: Skotaville Publishers, 1990;**iv**: 238.
24. Nwokedike A. *Folkmedicine in Iboland/Nigeria*. Düsseldorf: Institut für Geschichte de Medizin, 1980: 58.
25. Maclean U. *Magical medicine: a Nigerian case-study*. London: Lane, 1971: 166.
26. Bryant AT. *Zulu medicine and medicine-men*. Cape Town: C. Struik. 1966: 115.
27. Gessler MC, Msuya DE, Nkunya MH, *et al*. Traditional healers in Tanzania: sociocultural profile and three short portraits. *J Ethnopharmacol* 1995;**48**: 145–60.

28. Awaritefe A. **Epilepsy**: the myth of a contagious disease. *Cult Med Psychiatry* 1989;**13**: 449–56.
29. Selin H, Shapiro H. Medicine across cultures: history and practice of medicine in non-Western cultures. *Science across cultures*; v. 3. Dordrecht: Kluwer Academic Publishers, 2003;**xxiv**: 416.
30. Jacobson-Widding A, Westerlund D, Humanistisk-samhällsvetenskapliga forskningsrådet (Sweden). *Culture, experience, and pluralism: essays on African ideas of illness and healing*. Uppsala: 1989: 308.
31. Birbeck GL. Seizures in rural **Zambia**. *Epilepsia* 2000;**41**: 277–81.
32. Hampton KK, Peatfield RC, Pullar T, *et al.* Burns because of **epilepsy**. *Br Med J (Clin Res Ed)* 1988;**296**: 1659–60.
33. Hauser WA, Rich SS, Annegers JF, *et al.* Seizure recurrence after a 1st unprovoked seizure: an extended follow-up. *Neurology* 1990;**40**: 1163–70.

Footnotes

With contributions from Mr. Amos Makoli, Coordinator and Disciplinary Chairperson for the Mazabuka District branch of the Traditional Health Practitioners Association of Zambia.

¹ During a later discussion, this TH concluded that rotten eggs must have been used in the witchcraft that caused this child's epilepsy.

² <http://wonderclub.com/Wildlife/mammals/bushbaby.html>

³ <http://www.fondoscriptorio.net/wallpapers/Animales/>

⁴ <http://www.forestryimages.org/images/768x512/1435029.gif>

⁵ This is the title Mr. Makoli uses professionally

World Health Organisation

Fact sheet N°134

Revised May 2003

Traditional medicine

What is traditional medicine?

Traditional medicine refers to health practices, approaches, knowledge and beliefs incorporating plant, animal and mineral based medicines, spiritual therapies, manual techniques and exercises, applied singularly or in combination to treat, diagnose and prevent illnesses or maintain well-being.

Countries in Africa, Asia and Latin America use traditional medicine (TM) to help meet some of their primary health care needs. In Africa, up to 80% of the population uses traditional medicine for primary health care. In industrialized countries, adaptations of traditional medicine are termed "Complementary" or "Alternative" (CAM).

Increasing use and popularity

TM has maintained its popularity in all regions of the developing world and its use is rapidly spreading in industrialized countries.

- In China, traditional herbal preparations account for 30%-50% of the total medicinal consumption.
- In Ghana, Mali, Nigeria and Zambia, the first line of treatment for 60% of children with high fever resulting from malaria is the use of herbal medicines at home.
- WHO estimates that in several African countries traditional birth attendants assist in the majority of births.
- In Europe, North America and other industrialized regions, over 50% of the population have used complementary or alternative medicine at least once.
- In San Francisco, London and South Africa, 75% of people living with HIV/AIDS use TM/CAM.
- 70% of the population in Canada have used complementary medicine at least once.
- In Germany, 90% of the population have used a natural remedy at some point in their life. Between 1995 and 2000, the number of doctors who had undergone special training in natural remedy medicine had almost doubled to 10 800.

- In the United States, 158 million of the adult population use complementary medicines and according to the USA Commission for Alternative and Complementary medicines, US \$17 billion was spent on traditional remedies in 2000.
- In the United Kingdom, annual expenditure on alternative medicine is US\$ 230 million.
- The global market for herbal medicines currently stands at over US \$ 60 billion annually and is growing steadily.

Safety and efficacy issues

Scientific evidence from randomized clinical trials is only strong for many uses of acupuncture, some herbal medicines and for some of the manual therapies. Further research is needed to ascertain the efficacy and safety of several other practices and medicinal plants.

Unregulated or inappropriate use of traditional medicines and practices can have negative or dangerous effects.

For instance, the herb "Ma Huang" (Ephedra) is traditionally used in China to treat respiratory congestion. In the United States, the herb was marketed as a dietary aid, whose over dosage led to at least a dozen deaths, heart attacks and strokes.

In Belgium, at least 70 people required renal transplant or dialysis for interstitial fibrosis of the kidney after taking a herbal preparation made from the wrong species of plant as slimming treatment.

Biodiversity and sustainability

In addition to patient safety issues, there is the risk that a growing herbal market and its great commercial benefit might pose a threat to biodiversity through the over harvesting of the raw material for herbal medicines and other natural health care products. These practices, if not controlled, may lead to the extinction of endangered species and the destruction of natural habitats and resources.

Another related issue is that at present, the requirements for protection provided under international standards for patent law and by most national conventional patent laws are inadequate to protect traditional knowledge and biodiversity.

Tried and tested methods and products

- 25% of modern medicines are made from plants first used traditionally.

- Acupuncture has been proven effective in relieving postoperative pain, nausea during pregnancy, nausea and vomiting resulting from chemotherapy, and dental pain with extremely low side effects. It can also alleviate anxiety, panic disorders and insomnia.
- Yoga can reduce asthma attacks while Tai Ji techniques can help the elderly reduce their fear of falls.
- TM can also have impact on infectious diseases. For example, the Chinese herbal remedy *Artemisia annua*, used in China for almost 2000 years has been found to be effective against resistant malaria and could create a breakthrough in preventing almost one million deaths annually, most of them children, from severe malaria.
- In South Africa, the Medical Research Council is conducting studies on the efficacy of the plant *Sutherlandia Microphylla* in treating AIDS patients. Traditionally used as a tonic, this plant may increase energy, appetite and body mass in people living with HIV.

WHO efforts in promoting safe, effective and affordable traditional medicine

The World Health Organization launched its first ever comprehensive traditional medicine strategy in 2002. The strategy is designed to assist countries to:

- Develop national policies on the evaluation and regulation of TM/CAM practices;
- Create a stronger evidence base on the safety, efficacy and quality of the TAM/CAM products and practices;
- Ensure availability and affordability of TM/CAM including essential herbal medicines;
- Promote therapeutically sound use of TM/CAM by providers and consumers;
- Document traditional medicines and remedies.

At present, WHO is supporting clinical studies on antimalarials in three African countries; the studies are revealing good potential for herbal antimalarials.

Other collaboration is taking place with Burkina Faso, the Democratic Republic of the Congo, Ghana, Mali, Nigeria, Kenya, Uganda, and Zimbabwe in the research and evaluation of herbal treatments for HIV/ AIDS, malaria, sickle cell anaemia and Diabetes Mellitus.

In Tanzania, WHO, in collaboration with China, is providing technical support to the government for the production of antimalarials derived from the Chinese herb *Artemisia annua*. Local production of the medicine will bring the price of one dose down from US \$6 or \$7 to a more affordable \$2.

In 2003, WHO support has so far facilitated the development and introduction of traditional and alternative health care curricula in seven tertiary education institutions in the Philippines.

Training workshops on the use of traditional medicines for selected diseases and disorders have also been organized in China, Mongolia and Vietnam.

Priorities for promoting the use of traditional medicines

Over one-third of the population in developing countries lack access to essential medicines. The provision of safe and effective TM/CAM therapies could become a critical tool to increase access to health care.

While China, the Democratic People's Republic of Korea, the Republic of Korea and Vietnam have fully integrated traditional medicine into their health care systems, many countries are yet to collect and integrate standardized evidence on this type of health care.

70 countries have a national regulation on herbal medicines but the legislative control of medicinal plants has not evolved around a structured model. This is because medicinal products or herbs are defined differently in different countries and diverse approaches have been adopted with regard to licensing, dispensing, manufacturing and trading.

The limited scientific evidence about TM/CAM's safety and efficacy as well as other considerations make it important for governments to:

- Formulate national policy and regulation for the proper use of TM/CAM and its integration into national health care systems in line with the provisions of the WHO strategies on Traditional Medicines;
- Establish regulatory mechanisms to control the safety and quality of products and of TM/CAM practice;
- Create awareness about safe and effective TM/CAM therapies among the public and consumers;
- Cultivate and conserve medicinal plants to ensure their sustainable use.

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B: ABSTRACTS

TRADITIONAL MEDICINE

The efficacy of herbal medicine —an overview

Edzard Ernst

Abstract

Herbal medicine has become a popular form of healthcare. Even though several differences exist between herbal and conventional pharmacological treatments, herbal medicine can be tested for efficacy using conventional trial methodology. Several specific herbal extracts have been demonstrated to be efficacious for specific conditions. Even though the public is often misled to believe that all natural treatments are inherently safe, herbal medicine do carry risks. Ultimately, we need to know which herbal remedies do more harm than good for which condition. Because of the current popularity of herbal medicine, research in this area should be intensified.

Impact of socio-demographic factors, knowledge and attitude on the use of herbal drugs in pregnancy

Hedvig Nordeng^{1*} and Gro C. Havnen^{1,2}

Background. Herbal drugs are often promoted as 'natural' and 'safe'. These claims may especially attract pregnant women who are often concerned about their unborn child's well-being. Few studies have assessed the use of herbal drugs in pregnancy and the factors related to this use.

Objective. To investigate the impact of socio-demographic factors, knowledge and attitude on the use of herbal drugs in pregnancy.

Methods. A total of 400 postpartum women at Ullevål University Hospital in Oslo, Norway were interviewed within 3 days after giving birth by using a structured questionnaire in the period from February to June 2001.

Results. In all, 36% of the women reported herbal use during their pregnancy. Both women who had used herbal drugs in pregnancy and those not, had a positive attitude toward the use of herbal drugs in pregnancy. Echinacea was the most well known herb among both groups of women. The factors associated with the use of herbal drugs in pregnancy were: prior use of herbs, high knowledge about herbal drugs and age between 26 and 35 years. There was a non-significant higher frequency of herbal drugs use in pregnancy among women with a higher education level.

Conclusion. The widespread use and positive attitude toward herbal drugs in pregnancy indicates an increased need for documentation about both the efficacy and safety of herbal drugs in pregnancy. Women between 26 and 35 years with a prior history of herbal drug use and high knowledge about herbs, are more prone to using herbal drugs in pregnancy.

Regulations and policies for herbal medicines and TM/CAM- a global survey

With the widespread use of traditional/complementary and alternative medicine (TM/CAM) and the rapid expansion of international herbal medicine markets, the development of national policies and regulations on TM/CAM has become an important concern for both health authorities and the public. National policies and regulations are important in order to ensure the safety, quality and efficacy of TM/CAM therapies and products, promote recognition of these systems and modalities, protect the traditional knowledge and further define their role in modern health care systems. Legal frameworks and national policies need to be developed in a way that on one hand promote the safety, quality and efficacy of TM/CAM services and products, and on the other hand do not constrain the ability of TM/CAM to contribute to health for all. However, relatively few countries have developed policies and regulations on TM/CAM. In the late 1990's only 25 of WHO's 191 member states had a national policy on TM/CAM and only 64 countries regulated herbal medicines.

The two main objectives of this global survey are to assist Member States of the World Health Organization (WHO) in the development of policies on TM/CAM and legal mechanisms for herbal medicines, and to facilitate the exchange of knowledge on these topics between different countries. By using the same methods as in WHO assessments of structural progress of pharmaceutical sectors, 21 structural indicators of qualitative and quantitative nature were constructed for the survey. The indicators take measures of TM/CAM sector components such as national policies, legal mechanisms, national initiatives, the market, and the quality, safety and efficacy standards for herbal medicines. A questionnaire containing the indicators was sent out to all Ministries of Health in Member States in early 2002 and the answers have been collected up to year 2004. The answers are currently being analysed.

World Health Organization, Program for Traditional Medicine

<http://www.who.int/medicines/organization/trm/orgtrmmain1.shtml>

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Clinical review

Traditional herbal medicines for malaria

Merlin L Willcox, *secretary*¹, Gerard Bodeker, *senior lecturer in public health*²

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BMJ 2004; 329:1156-1159 (13 November)

The researchers sought evidence for how often herbal medicines are used to treat malaria, and what factors affect this; which plants are most commonly used; and the clinical safety and efficacy of preparations from these plants (see bmj.com).

They entered each cited species into a database and assigned an IVmal (importance value for the treatment of malaria) according to how widely its use was reported. This system was first developed for use at a local level, with values ranging from 1 to 4. We have extended this system to apply at an international level by creating additional values from 5 to 8.

The evidence summarised in this article, together with the guidelines proposed, should not only assist researchers already working in this specialty but also inspire other researchers and funding bodies to give serious consideration to the potential of traditional remedies for malaria.

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HIV AND AIDS

HIV/AIDS and the workplace: perceptions of nurses in a public hospital in South Africa. Smit R

J Adv Nurs 2005; 51:22-9.

Abstract

AIM: The purpose of this article is to report a study of the perceptions and experiences of nurses caring for people living with HIV/AIDS in the public health sector in South Africa.

BACKGROUND: The number of people living with HIV/AIDS in South Africa has escalated at an alarming rate. Many people being hospitalised are HIV positive, and hence nurses are in more regular and prolonged contact with people suffering from HIV/AIDS than is the case in other working environments. Although studies focusing on nurses' experiences of caring for patients with HIV/AIDS have been done in numerous countries, little is known about nurses' views in Africa, and South Africa in particular. To ensure quality care for patients with HIV/AIDS, it is important to understand nurses' experiences of nursing HIV-positive patients and how they may influence their attitudes towards these patients.

METHOD: A qualitative approach was used, the primary method of data collection being in-depth interviews. These interviews were conducted with 35 nurses at a public hospital in the Gauteng province of South Africa in 2002-2003.

FINDINGS: Seven themes were identified: helplessness, emotional stress and fatigue, fear, anger and frustration, occupational-related concerns, empathy, and self-fulfilment.

CONCLUSIONS: Increased understanding of the stresses and rewards experienced by these nurses can contribute to policy development in this area. It is also important to provide appropriate pre-registration and continuing education and support for nurses working in this field, and to ensure that the working environment is adequate in terms of resources.

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Quality of Life and the Concept of "Living Well" With HIV/AIDS in Sub-Saharan Africa

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Journal of Nursing Scholarship

Volume 37 Issue 2 Page 120 - June 2005

Purpose: To increase understanding of the meaning of quality of life for people living with HIV/AIDS in four countries in sub-Saharan Africa: Botswana, Lesotho, South Africa, and Swaziland.

Methods: Using a cross-sectional design and convenience sample, we administered a survey and collected data on demographic characteristics, measures of severity of illness, and perceptions of quality of life. The purposefully selected sample (N=743) consisted of community-based people living with HIV/AIDS in 2002. Based on the Wilson and Cleary framework for organizing variables related to quality of life, a hierarchical multiple regression was conducted with quality of life as the dependent variable.

Results: The sample of 743 persons was 61.2% female with a mean age of 34 years. Approximately 62% of the sample reported having received an AIDS diagnosis. Ten predictor variables explained 53.2% of the variance in life satisfaction. Those participants with higher life satisfaction scores were less educated, had worries about disclosure and finances, did not have an AIDS diagnosis or other comorbid conditions, had lower symptom intensity, had greater functioning, and had fewer health worries. None of these participants was taking antiretroviral medications at the time of this study.

Conclusions: Several dimensions of the Wilson and Cleary model of quality of life were significantly related to life satisfaction for people living with HIV/AIDS in sub-

Saharan Africa. Quality of life for this sample was primarily defined as overall functional ability and control over symptom intensity. These findings are similar to studies in developed countries that have shown the significant relationships among functional abilities, symptom control, and perceived quality of life. As antiretroviral medications become more available in these areas, community members and care providers can help clients realize the possibility of living well with HIV/AIDS, and can work with clients to improve functional ability and control symptom intensity to make living well a reality.

Are there simple measures to reduce the risk of HIV infection through blood transfusion in a Zambian district hospital?

M. J. van Hoogstraten¹, E. C. J. Consten¹, Ch P. Henny², H. A. Heij³ and J. J. B. van Lanschot¹

Tropical Medicine & International Health

Volume 5 Issue 9 Page 668 - September 2000

Summary

OBJECTIVE To quantify the potential impact of simple measures to reduce the risk of iatrogenic HIV infection through blood transfusion in a Zambian district hospital.

METHODS Three studies were conducted at St. Francis' Hospital, Katete, Zambia: (1) From 1991 to 1995 HIV seroprevalence among all listed blood donors and the impact of proper subgroup selection were studied retrospectively; (2) the sensitivity of locally used rapid antibody assays (HIV-spot/Wellcozyme HIV 1 & 2) for the detection of HIV in donor blood and the influence of the expiration date of the tests on this sensitivity were determined prospectively from June 1993 until March 1994 by screening all consecutive surgical patients and blood donors; (3) the number of unnecessary blood transfusions was determined retrospectively from January 1995 through January 1996 and prospectively from February 1996 through March 1996, and possibilities to reduce the total number of blood transfusions were considered.

RESULTS (1) Excluding prisoners, who have an HIV seroprevalence of 19–25%, from the donor population significantly reduces the overall HIV seroprevalence from 13–16% to 8–9% ($P < 0.01$). (2) Under local circumstances the sensitivity of the used rapid antibody assays was 6.8–17.9% lower than claimed by the manufacturer. Usage of non-expired tests increased the sensitivity significantly from 88.2% to 91.7% ($P < 0.05$). (3) None of the 294 studied blood transfusions can be classified as inappropriate according to international standards.

CONCLUSIONS Simple measures such as proper subgroup selection among blood donors and correct use of non-expired tests may decrease the risk of iatrogenic HIV transmission. Stricter indications for blood transfusions will not substantially reduce the number of transfusions.

ORIGINAL RESEARCH

Ethnic differences in stage of presentation of adults newly diagnosed with HIV-1 infection in south London

AE Boyd¹, S Murad¹, S O'Shea², A de Ruiter², C Watson¹ and PJ Easterbrook¹
HIV Medicine Volume 6 Issue 2 Page 59 - March 2005

Objectives To establish whether there were ethnic differences in demographic characteristics, the stage at HIV diagnosis and reasons for and location of HIV testing between 1998 and 2000 in a large ethnically diverse HIV-1-infected clinic population in south London in the era of highly active antiretroviral therapy.

Methods A retrospective review was carried out of all persons >18 years old attending King's College Hospital with a first positive HIV-1 test between 1 January 1998 and 31 October 2000, and of a random sample of patients attending St Thomas' hospital with a first positive HIV-1 test in the same period. Demographic data, details of reasons for and site of HIV test, clinical stage, CD4 lymphocyte count and HIV-1 viral load at HIV diagnosis were abstracted from the local database and medical records. Comparisons were made according to ethnic group (white, black African and black Caribbean) and over time (1998, 1999 and 2000).

Results Of the 494 patients with new HIV-1 diagnoses between January 1998 and December 2000, 179 (36.2%) were white, 270 (54.7%) were black African and 45 (9.1%) were black Caribbean. There were significant differences across the ethnic groups in HIV risk group, reasons for and site of HIV testing, and clinical and CD4 stage at diagnosis. Among whites, 72.6% were men who had sex with men, 3.4% injecting drug users and 21.2% heterosexuals, compared to 2.2%, 0.4% and 93.3% among black Africans, and 28.9%, 0% and 68.9% among black Caribbeans ($P < 0.001$). Black Africans were more likely to present with an AIDS diagnosis (21.3%) and a lower CD4 cell count [223 cells/ μ L; interquartile range (IQR) 88–348] compared to both whites (9.9%; 358 cells/ μ L; IQR 151–508) and black Caribbeans (17.9%; 294 cells/ μ L; IQR 113–380), who were intermediate between whites and black Africans in their stage of presentation. There was a statistically nonsignificant trend with time, between 1998 and 2000, towards earlier diagnosis based on the CD4 cell count in whites (323 and 403 cells/ μ L) and black Caribbeans (232 and 333 cells/ μ L), but a later diagnosis in black Africans (233 and 175 cells/ μ L). The majority of black Africans were HIV-tested as a result of suggestive symptoms or antenatal screening (58.4%) rather than because of perceived risk (40.5%), in contrast to the situation in whites (24.1% vs. 71.7%, respectively) or black Caribbeans (34.5% vs. 65.5%, respectively) ($P < 0.001$). We found no significant differences across ethnic groups in age, HIV-1 viral load or year of HIV diagnosis.

Conclusions Black Africans continue to present with more advanced HIV disease than whites or black Caribbeans, with no evidence of any trend towards earlier diagnosis. Future educational campaigns designed to promote the uptake of HIV testing among black Africans and black Caribbeans will need to address the multiple barriers to testing, including misperception of risk, stigma and ready access to testing.

TUBERCULOSIS

Decontamination with vaporized hydrogen peroxide is effective against

Mycobacterium tuberculosis

A. Kahner^{*}, P. Seiler^{*†}, M. Stein, B. Aze[†], G. McDonnell[†] and S.H.E. Kaufmann
Letters in Applied Microbiology Volume 40 Issue 6 Page 448 - June 2005

Abstract

Aims: To determine the efficacy of room fumigation with vaporized hydrogen peroxide (VHP) in decontamination of viable *Mycobacterium tuberculosis*.

Methods and Results: About 8×10^4 – 2.3×10^6 CFU of *M. tuberculosis* H37Rv and *M. tuberculosis* Beijing were dried in 10–11 drops in tissue culture plates, placed in steam-permeable Tyvek pouches and distributed on laboratory surfaces. The room was exposed to VHP delivered by air conditioning. Different exposure conditions were tested. Exposure to VHP resulted in sterilization of the bacterial samples in three different test runs.

Conclusions: VHP treatment is an effective means of reducing and eliminating room contaminations of *M. tuberculosis*

Significance and Impact of the Study: Fumigation with VHP represents an alternative to formaldehyde fumigation, particularly for decontamination of animal rooms in *tuberculosis* research laboratories.

Rural poverty and delayed presentation to tuberculosis services in Ethiopia

Alexis Cambanis¹, Mohammed A. Yassin², Andy Ramsay², S. Bertel Squire², Isabel Arbide² and Luis E. Cuevas²

Tropical Medicine & International Health Volume 10 Issue 4 Page 330 - April 2005

Summary To measure time to initial presentation and assess factors influencing the decision to seek medical attention, we interviewed 243 patients undergoing sputum examination for the diagnosis of *tuberculosis* (TB) at a rural health centre near Awassa, Ethiopia. A structured questionnaire was used. Median (mean + SD) patient delay was 4.3 (9.8 + 12.4) weeks. Delays over 4 weeks were significantly associated with rural residence, transport time over 2 h, overnight travel, transport cost exceeding US\$1.40, having sold personal assets prior to the visit, and use of traditional medicine. The majority of patients cited economic or logistical barriers to health care when asked directly about causes of delay. Case-finding strategies for TB must be sensitive to patient delay and health systems must become more accessible in rural areas.

Mycobacteriophage and their application to disease control: A REVIEW

R. McNerney and H. Traoré

Journal of Applied Microbiology Volume 99 Issue 2 Page 223 - August 2005

Abstract

The resurgence of tuberculosis and emergence of drug resistant disease has stimulated fresh research into mycobacteriophage. Studies are currently underway to develop phage-based tools for therapeutic and diagnostic use. Previous attempts at mycobacteriophage therapy in experimentally infected animals were not successful and alternative strategies of phage delivery that enable killing of intracellular bacteria are required. Replication of mycobacteriophage provides a simple means of detecting viable bacteria and good progress has been made towards the development of new phage-based diagnostic tools. When screening isolates for resistance to the major anti-tuberculosis drug rifampicin phage-based tests have been shown to have high sensitivity. For the diagnosis of pulmonary tuberculosis evaluation studies indicate that current phage tests are not as sensitive as traditional culture methods. Further trials are needed to determine whether they might have a role in the detection of smear negative tuberculosis. A second generation of phage tests are under development following the construction of luciferase reporter phage. Preliminary data suggests they may offer rapid detection of mycobacteria and simple screening for drug resistance. The potential of mycobacteriophage to detect and treat other mycobacterial diseases remains largely unexplored

MALARIA

How do patients use anti-malarial drugs? A review of the evidence

Shunmay Yeung^{1,2,3} and Nicholas J. White^{1,2}

Tropical Medicine & International Health Volume 10 Issue 2 Page 121 - February 2005

Summary

Patient adherence is a major determinant of the therapeutic response to antimalarial drugs, as most treatments are taken at home without medical supervision. With the introduction of new, effective, but more expensive antimalarials, there is concern that the high levels of efficacy observed in clinical trials may not be translated into effectiveness in the normal context of use. We reviewed available published evidence on adherence to antimalarial drugs and community drug usage; 24 studies were identified of which nine were 'intervention' studies, seven were classified as 'outcome studies', and the remainder were purely descriptive studies of antimalarial adherence. Definitions, methods, and results varied widely. Adherence was generally better when treatments were effective, and was improved by interventions focusing on provider knowledge and behaviour, packaging, and provision of correct dosages. There is

insufficient information on this important subject, and current data certainly do not justify extrapolation from results with ineffective drugs to new effective treatments. Research in this area would benefit from of standardization of methodologies and the application of pharmacokinetic modelling.

Building better T-cell-inducing malaria vaccines : REVIEW ARTICLE

Stephen M. Todryk and Michael Walther
Immunology Volume 115 Issue 2 Page 163 - June 2005

Summary

Since **malaria** continues to account for millions of deaths annually in endemic regions, the development of an effective vaccine remains highly desirable. The life cycle of **malaria** poses a number of challenges to the immune response since phases of the cycle express varying antigen profiles and have different locations, thus requiring differing antigenic targets and effector mechanisms. To confer sterile immunity, a vaccine would have to target the pre-erythrocytic stages of infection. Since at this stage the parasite is hidden within liver cells, the host defence predominantly requires cell-mediated immunity, chiefly T cells, to eliminate infected hepatocytes. The development of such vaccines has progressed from irradiated sporozoites, through recombinant proteins, to recombinant DNA and viral vectors. Some of the experimental vaccination regimens that explore various combinations of vaccines for priming and boosting, together with numbers of vaccinations, interval between them, and the vaccination site, are revealing strong immunogenicity and evidence of efficacy in human challenge studies and in field trials. Such approaches should lead to deployable vaccines that protect against malarial disease.

Update Current strategies to avoid misdiagnosis of malaria

T. Hänscheid
Clinical Microbiology & Infection Volume 9 Issue 6 Page 497 - June 2003

Malaria remains the most important parasitic disease, and tens of thousands of cases are imported into non-endemic countries annually. However, any single institution may see only a very few cases—this is probably the reason why laboratory and clinical misdiagnosis may not be uncommon. In the laboratory, unfamiliarity with microscopic diagnosis may be the main reason, considering the large number of laboratory staff who provide on-call services, often without expert help at hand, as well as the difficulty in detecting cases with low-level parasitemia. Staff should therefore be provided with continuing microscopic training to maintain proficiency. The complementary use of immunochromatographic rapid detection tests (RDTs) may be useful, especially during on-call hours, although, in order to ensure correct interpretation, their inherent limitations have to be well known. Diagnosis based on the

polymerase chain reaction is still unsuitable for routine use, due to its long turnaround time, its cost, and its unavailability outside regular hours, although it may be helpful in selected cases. Once the alert clinician has considered the possibility of **malaria**, and suspicion continues to be high, **malaria** can be excluded by repeat smears or RDTs. However, the absence of clinical suspicion may not be infrequent, and may have more serious consequences. Depending on the local number of **malaria** cases seen, laboratory staff should have a low threshold for the decision to perform unsolicited **malaria** diagnostic tests on suspicious samples, especially if other laboratory tests are abnormal (e.g. thrombocytopenia, presence of atypical lymphocytes, or raised lactate dehydrogenase). The detection of intraleukocytic hemozoin during automated full blood counts is a promising new way to avoid misdiagnosis of clinically unsuspected **malaria**.

Jaundice in malaria : REVIEW

ANIL C ANAND* AND PANKAJ PURI†
Journal of Gastroenterology and Hepatology Volume 20 Issue 9 Page 1322 - September 2005

Abstract

Jaundice is not an unusual accompaniment of **malaria**. It can occur due to intravascular hemolysis, disseminated intravascular coagulation, and, rarely, 'malarial hepatitis'. Although the primary schizogony of the malarial parasite always leads to the rupture of the infected hepatocyte, alteration of the hepatic functions is uncommonly recorded due to this event. Histologically, the hepatitis or the actual inflammation in the liver has never been demonstrated. Nonetheless, the term 'malarial hepatitis' (MH) has been used in the literature to describe the occurrence of hepatocellular jaundice in patients with *Plasmodium falciparum* infection. The authors' own data and review of the literature indicate that it is not an uncommon entity. In endemic areas, jaundice is seen in approximately 2.5% of patients with falciparum **malaria**. It also appears to be a heterogeneous syndrome and one can recognize two clinical subsets. In one group there was an acute, virulent presentation with coma, renal failure and in some cases even hemorrhagic manifestations. It is only in this setting that jaundice signified a 'severe' disease as noted by the World Health Organization action program. This presentation is often confused with acute viral hepatitis and acute hepatic failure in non-endemic areas, but can be clinically differentiated.

C: NEWS AND REPORTS

HOME NEWS

Zambia moves to protect traditional knowledge

Talent Ngandwe 18 March 2005

Source: SciDev.Net

[LUSAKA] Traditional healers and lawyers are joining forces with scientists in Zambia to help draft a national policy for protecting indigenous knowledge and genetic resources.

The committee, headed by Mwanamwambwa Lewanika, director of the National Institute for Scientific and Industrial Research, will begin by conducting a 'situation analysis' in all nine of Zambia's provinces.

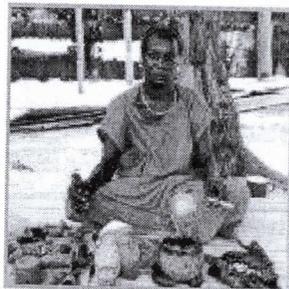
Its aim will be to assess how people use traditional knowledge and biological resources, and how much users know about patents and intellectual property rights. This last aspect of the analysis is important because Zambia's patenting system is complicated, and people who might develop innovations based on traditional knowledge, such as remedies derived from medicinal plants, often do not know the procedure for registering a patent.

The draft policy will incorporate strategies to address concerns about the protection of traditional knowledge raised during the research.

"Countries need to be in charge of their own resources, and to recognise the role indigenous knowledge and genetic resources play in the community," says committee member Godfrey Mwila, a senior programme officer for conservation at the Southern Africa Development Community gene bank in Lusaka.

Mwila said the project, which will be completed in June, would also assist in the documentation of genetic resources and indigenous knowledge.

As part of the initiative, the National Science and Technology Council will hold a consultative meeting in June to enable researchers, traditional healers and representatives of the private sector to comment on the draft policy.



An African traditional healer

Lloyd Thole, technical department manager at the council and a member of the new committee, told SciDev.Net that the protection of intellectual property rights had not been effective in Zambia, especially in relation to indigenous knowledge.

Zambia's traditional healers were reluctant to share their knowledge for fear of it being commercially exploited or even patented in other countries, he added.

The committee plans to submit its draft policy to the Zambian government in November.

World Going Herbal in HIV/Aids Fight

Source: <http://allafrica.com/stories/200503290681.html>

The Times of Zambia (Ndola)

March 29, 2005

Mildred Mpundu

IN his blockbuster book *Amazing Power of Healing Plants* Dr Reinaldo Sosa Gomez quotes a professor and scientist in America, Scott Elliot, as having at one time said Peruvian jungle dwellers discovered the value of the bark of the 'Cinchona' tree that contains an alkaloid called quinine used in treating malaria.

One day, the countess of Cinchon (from which the tree derives its name) and viceroy of Peru (1628-1639) came down with a persistent fever and was cured with the bark of the tree.

The use of this medicine was later propagated and the reputation of quinine grew rapidly and sold at high price. Today, its use around the world has been invaluable in the treatment of the world's number one killer disease.

Dr Gomez also reminds the world of how the Chinese have been using a medicinal plant called Ma-huang, containing a substance called ephedrine, for thousands of years to combat coughs, asthma attacks and bronchitis.

Physicians today prescribe it to fight numerous pulmonary infections just as the Chinese have been doing for 3,000 years.

Garlic has been used by ancient Greeks, Chinese, Romans, Egyptians and Hindus as an effective treatment for stomach disorders, skin problems, respiratory illnesses and numerous other medical difficulties.

Many expeditions are being made by scientists into South American, African and Asian jungles in search of new medicinal plants.

Dr Gomez explains that plants which have been around since the creation of the world are not here by accident.

"Their interaction with the animal world answers to intelligent designs placed at the service of the wisest plans of the author of nature Himself. We therefore applaud the recent decision of various health oriented institutions to give more relevance to natural medicine.

"This will contribute to human beings collaborating carefully and thankfully with the giver of life, and lead to a respect and obedience of the laws that govern nature, as well as an enjoyment of better health and satisfaction for living," says Dr Gomez.

The World Health Organisation (WHO) has since 1977 sponsored an active programme on promoting the development of medicinal herbs and other natural medicines.

At the 13th World Health Congress a resolution was adopted urging governments to take seriously the traditional medical systems and treatments of their respective countries.

A number of countries especially in the West now practice natural and homeopathic medicine to the same level as allopathic or drug-based medicine.

In Zambia, PANOS Southern Africa recently held a one day workshop in a series of many, for journalists to discuss the "Access to Treatment: Alternative Treatment".

The workshop sought among other things to discuss and share ideas and experiences on issues related to HIV/AIDS so as to help journalists keep abreast of new developments.

It was also expected to help them share ideas on how best to cover specific HIV/AIDS topics as a multi-dimensional story and ultimately to improve the quality of stories.

The programme included field visits to the two institutions that are sourcing, using and researching on natural medicines in relation to HIV/AIDS.

One of the institutions visited was the Zambia Institute of Natural Medicine and Research (ZINARE), established in 2004.

ZINARE, among others, facilitates scientific approach in the utilisation of herbal medicine and promotes the production of affordable drugs especially for HIV/AIDS patients and undertakes advocacy activities aimed at plant protection and promoting the use of affordable indigenous herbal medicine from Zambia and Africa as a whole.

ZINARE executive director, Dr Lawrence Chanza said that herbal medicines were being used more in Zambia now with the advent of HIV/AIDS.

He said that ZINARE was different from witch doctors and traditional healers in that the institute used naturopathy in its treatment.

Naturopathic medicine is a complete and coordinated approach to healthcare. It is the art and science of disease diagnosis, treatment and gentle techniques.

ZINARE explains that doctors of Naturopathic Medicine are specialists in natural medicine and preventive health care, integrating scientific knowledge with traditional healing wisdom.

"They are health care professional who use safe, gentle, non-invasive therapies to assist the whole person in maximising the body's inherent self-healing capacity," says ZINARE.

ZINARE works closely with the ministry of Health in their research.

The institute realises that treatment on drugs alone will not be effective if the diet is wrong.

"The first medication must be food to help boost haemoglobin and immunity," Mr Chanza said.

When treating a patient, naturopathic doctors take into account the genetical background of the person as not all people will respond to some herbs.

Professor Sitali Manjolo, multi-sectoral researcher HIV/AIDS with ZINARE, said there was need to exercise care in herbal medicine for HIV/AIDS research, not all plants were poison free.

He said the efficacy of a herb would also depend on the type of soil or climate in a particular area as plants extracted material from the soil.

Dr Noah Zimba, a botanist and consultant researcher said plant medicine was as old as man from the garden of Eden.

He said every medicine found in chemists and modified came from natural sources and that medicines even worked better in their natural form.

Dr Zimba said HIV/AIDS was a crisis problem arising from negligence.

He wondered why Zambia was still going chemical when the rest of the world was going herbal.

This is the only country that has not integrated herbal medicines into its programme. Yet, with the numerous improvements in health of people using herbal medicines, it is possible to conquer the impact of HIV/AIDS, Dr Zimba said.

Dr Stanley Hamalilo of ZINARE said that human beings had overlooked certain important principles that govern their well-being.

"We generally think that when a person appears healthy they cannot die. We do not understand what health is," he said.

He said health is the preservative of the life forces and the keeping of the delicate mechanisms.

There are trillions of body cells that die daily and need replacement. Food is very important in helping replace these cells.

Zambia, he said, has the best trees with high selenium content and has a diversity of over 6,000 plants with high nutritional qualities.

Another visit was to the Country Herb Clinic in Lusaka's Rhodespark.

Director, Friday Mulenga said the clinic had been using herbs such as herbal wonder to treat patients, including tuberculosis, HIV/AIDS and others with very positive results.

About 60 per cent of the patients have responded very well. Those that have not have either come to the clinic in the very late stages of their illness.

"TB patients are the most difficult to treat. Some patients who were both HIV/AIDS positive and had TB at the same time would not reveal they were HIV positive. They would only get treated for the TB and eventually other complications would arise.

If they get treated for both they would improve," Mulenga said.

Sexually Transmitted Infections were more serious cases than HIV/AIDS that the clinic was treating.

About 60 per cent of the patients at Country Herb Clinic were women, while 40 per cent were men.

Patients for Country Herbs have come from as far as the United Kingdom, German, USA, Japan and others.

The National Food and Nutrition Commission emphasises on the importance of food in the healing of the body.

Ms Beatrice Kawana, focal point person for HIV/AIDS in the Zambia National Food and Nutrition Commission said nutrition played a major role to HIV/AIDS.

"If one eats well they quickly recover from sickness," she said.

One wise Greek, more than 2000 years ago said, "May your food be your medicine, and may your medicine be your food."

According to Dr Joan Sabate, professor and chair of the department of Nutrition, School of Public Health, Loma Linda University, California in his foreword to Dr Pamplona Roger's book Healing powers of Food, says, population and clinical studies have demonstrated, for example, that the abundant use of vegetables and fruits prevents the initiation of certain cancers.

"Our daily food, more than sustaining us, may contain curative properties. Although, postulated, through the course of medical history, scientific evidence has only recently established the fact that some nutrients in our diet are agents that cause or cure certain diseases," Dr Sabate says.

The use of natural remedies as an alternative to modern medicine in the prevention and treatment of diseases is an area that needs to be taken seriously.

Health experts say, "Modern medicine has made great strides. But some of the greatest strides have been found to relate back to rather simple things: 'What you eat, what you drink, what you think, and what you do.'"

The solution to the HIV/AIDS pandemic is here.
<http://allafrica.com/stories/200503290681.html>

Zambia: Security Sector Not Spared By Aids

UN Integrated Regional Information Networks

August 4, 2005

Posted to the web August 4, 2005

Johannesburg

HIV/AIDS has not spared Zambia's defence and security sector, according to Peter Mumba, the permanent secretary in the Ministry of Home Affairs.

Figures presented to the national security and foreign affairs committee by Mumba this week, showed that a total of 337 police officers had died from AIDS-related illnesses during 2004.

The local Post newspaper quoted Mumba as saying: "HIV and AIDS is also a drain, both economically and in terms of human resources. Apart from deaths, the police force has had to deal with officers affected by the pandemic, most of whom cannot perform certain duties as required."

He reported that the impact of the pandemic was causing the force to operate below full strength.

Chililabombwe HIV/Aids Prevalence Rate Reduces

The Post (Lusaka)

August 4, 2005

McDonald Chipenzi, Lusaka

CHILILABOMBWE district commissioner Friday Malwa has said that the HIV/AIDS prevalence rate in the district had reduced drastically.

In an interview, Malwa said despite the district being a border area, the HIV/AIDS rate had been reduced due to vigorous campaigns in the district.

Malwa said as District HIV/AIDS Task Force (DATF) chairman, he had ensured that all the money secured by non-government organisations in the district was well-coordinated.

He said this was in an effort to control some NGOs, which had a habit of securing money from donors in the pretext of fighting HIV/AIDS but the money ended up in their individual pockets.

"As you know, Chililabombwe is a border town. We have continued to sensitise people about the dangers of the HIV and AIDS pandemic," Malwa said.

He said their message to the people was that the HIV/AIDS fight should not be left to DATFs alone but to all people and institutions in the country such as schools, churches and parents.

"It's no longer a taboo to talk about HIV and AIDS in our homes. If we are not going to be more involved in the fight against HIV and AIDS, all the 93,000 people in Chililabombwe district will be affected," he said.

Malwa said he was happy because people were putting more interest in the HIV/AIDS fight in the district and that people had developed positive approaches to the fight.

Malwa said companies such as Konkola Copper Mine Plc had HIV/AIDS programmes put in place for their workers and the Corridors of Hope was also working hard to sensitise the people in the area about the dangers of HIV/AIDS.

"HIV and AIDS prevalence rate has reduced in Chililabombwe despite being a border town. We are grateful for the government and National AIDS Council for their support in this fight," Malwa said.

MPs Urged to Take Leading Role in Aids Fight

The Times of Zambia (Ndola)

August 22, 2005

Posted to the web August 22, 2005

THE Southern Centre for the Constructive Resolution of Disputes (SACCORD) has urged members of Parliament (MPs) to take a leading role in fighting HIV/AIDS and stigma in society. The MPs have been identified as a most influential group in society that could be used to get to the grassroots in the dissemination of information. SACCORD information officer Obby Chibuluma said yesterday that MPs should be engaged in advocacy work in their respective constituencies. He said SACCORD and Peace-Zambia organised a workshop in Lusaka for MPs and ministers from all political parties to among other things look at how the draft national HIV/AIDS policy could be effected.

Mr Chibuluma said in an interview yesterday that there was also urgent need to ensure that Mps advocated against stigma and discrimination on people infected with HIV/AIDS. He said since parliament adjourned sine die, it was the right time for MPs to get to their respective voters and educate them on matters concerning HIV/AIDS stigma and good governance. Lufwanyama MP Eddie Kasukumya (MMD) who is Communication and Transport deputy minister said the workshop targeted on parliamentarians was well timed because Government had a serious agenda to fight HIV/AIDS. Mr Kasukumya who attended the SACCORD and Peace-Zambia workshop said there was also need to involve more MPs in such educative gatherings. He advised the organisers to get to other remote districts of the country to sensitise people about the dangers of HIV/AIDS and good governance. He said good governance knowledge was equally important if development was to be delivered to the people on time.

And Mandevu MP Patricia Nawa (FDD) who is also Defence Deputy Minister urged fellow parliamentarians to support any budgetary proposals meant to increase funding to HIV/AIDS fight. She said the effects of the pandemic could not be ignored and MPs were critical in ensuring that funds for HIV/AIDS fight were accessed through Parliament.

Regional News

International Scientists Support Traditional Medicines

Ministry of Health, South Africa

14 January 2005

Source: <http://www.doh.gov.za/docs/pr/2005/pr0114.html>

The study of Indigenous Knowledge Systems is not simply a scientific endeavour, but an opportunity to reclaim Africa's scientific and socio-cultural heritage which was stigmatised and discredited as primitive rituals and witchcraft by colonialism and apartheid, said Minister of Health Dr Manto Tshabalala-Msimang in a closing remark at the end of the First International Conference on Natural Products and Molecular Therapy held at the University of Cape Town today (Friday).

Dr Tshabalala-Msimang said the traditional knowledge systems are much older than the 150-year-old allopathic medicine, and draw on the rich heritage and knowledge of the earliest civilisations of the world in Africa, Central America, China and India. She urged the delegates at the conference to expose the false dichotomy that had arisen between natural medicine and allopathic medicine. "This is a division fostered by the need to make money from patented drugs through discrediting the use of natural products," said Minister Tshabalala-Msimang.

The Minister said the Department of Health and other government structures were providing support for research into traditional medicine and the promotion of other fields of inquiry in Indigenous Knowledge Systems.

"We have developed a legislative framework to encourage the development of natural products for human health through the Medicines and Related Substances Act. The Act seeks to regulate the use of complementary, alternative and African traditional medicines in South Africa to ensure quality, safety and efficacy," said Dr Tshabalala-Msimang.

She said the Department would however like to avoid the pitfall of putting such products in the same regulatory environment as pharmaceuticals drugs; whose testing and control is very different.

The Department of Health's support for African traditional medicines research include a R6 million grant channelled through the Medical Research Council of South Africa, for research into the safety, efficacy and quality of traditional medicines used as immune boosters by people living with HIV and AIDS.

This field of research has shown promising results with completion late last year of Phase I trials in healthy human volunteers of one of the 5 candidate preparations.

Government supports research in universities and science councils into the efficacy of many traditional medicines used for conditions such as tuberculosis, malaria, asthma, cancer, diabetes, anxiety and stress, and musculoskeletal disorders.

In some instances our scientists have extracted and characterised the active chemical moieties for possible development as novel drugs.

In other cases, the approach has been to use the natural product in native state and study its safety and efficacy.

Government also supports research into the role of nutrition in human health including the use of different foods, micronutrients and vitamins in conditions such as HIV and AIDS, diabetes and osteoporosis. Nutritional supplementation and traditional medicines are important components the Comprehensive Plan for Management, Care and Treatment of HIV and AIDS. This approach has been vindicated by recent studies

such as the Tanzania/Harvard study that showed a 30 percent reduction in mortality of HIV positive women in Tanzania with the use of multivitamin; and the Zambia/British MRC trial which indicated a 50% reduction in mortality in children with AIDS when given cotrimoxazole.

The conference has highlighted the importance of the Mediterranean Diet in heart health, particularly the centrality of monounsaturated fats such as olive oil. It has helped explain the observation that such a diet containing olive oil has been shown to reduce mortality after a heart attack by 70% in the Lyon Heart Study - a figure twice that achieved by statin drugs (for cholesterol).

"It is indeed proper that the first conference of this nature is held in an African country. It is in order that the study of medicine which began over 5 000 years ago in the medicinal herbariums of Ancient Egypt - should return to the African continent," concluded Minister Tshabalala-Msimang.

Issued by: Ministry of Health

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Tuberculosis Drugs Now Running Out of Stock

The Nation (Nairobi)

August 4, 2005

Arthur Okwemba, Nairobi

Tuberculosis patients could run out of essential drugs in the next few weeks. Sources at the Ministry of Health say current stocks may not last until the end of the month.

Reports from the ministry headquarters point to a national crisis should new stocks not arrive by August 18.

But the head of the National Tuberculosis and Leprosy Programme, Dr James Chakaya, is putting a brave face to it all, saying there is no cause for alarm. "We are working on the issue and more drugs will be available soon," he says. "We also expect drugs from the Global Fund in the next three weeks.

This is not the only bad news on the TB front. Researchers now say vaccines such as BCG - used in most countries - no longer work. On Monday this week, scientists at the University College London (UCL) said TB vaccines being tested in developed countries will not protect people living near the equator.

"What we have done is identify the mechanisms that we think lead to the fact that BCG vaccine does not work close to the equator, where the problem really is," Prof Graham Rook, an immunologist at UCL, told Reuters.

"We realised that the vaccine candidates going into clinical trials at the cost of hundreds of millions of dollars haven't in any way answered that particular problem," he added.

Bad news comes in threes, apparently, and reports of a rise in multi-drug resistance TB in the country only compounds the problem.

Should this happen, it will be devastating as the cost of treating one such TB case is estimated at more than Sh1 million over a period of two years compared to less than Sh1,000 for managing an ordinary TB patient for eight months.

Over 80,000 Kenyans are estimated to suffer from TB, with the country being classified among the 22 TB high burdened countries that account for 80 per cent of the total TB cases worldwide.

The current stock-out problem has been linked to procurement delays. Whereas tendering had been done and won by an Indian company, orders were never placed for reasons we could not establish.

Sensing the creeping crisis, the Government placed an order with the same Indian company - only to find that the price had risen by more than 50 per cent.

The tenderer could not supply at the old price and the Government did not have any new money to cover the difference. In the meantime, stocks have gradually decreased. And a few weeks ago, the Government realised it might have to deal with a bigger problem in a matter of weeks if it does not act expeditiously.

It has now been forced to place an emergency tender for supply of the drugs. But it is feared that a cumbersome procurement process may delay the availability of the drugs in the short-term.

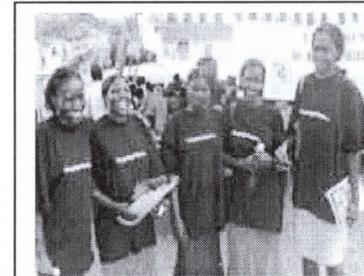
Besides the emergency order, the ministry is also hoping that the Global Fund will release money to buy more TB drugs.

Although the Government earlier this year tried to play down the emergence of Multi-Drug TB Resistance (MDR) strains in the country, fresh evidence points in the opposite direction.

Of the 149 TB patients referred to Kenya Medical Research Institute from private and public hospitals in Nairobi for further analysis, 17 - or 11.4 per cent - had multi-drug TB resistant

Uganda: AIDS Mark works with First Lady Janet Museveni to Address Cross Generational Sex

Population Services International and AIDS Mark is working with First Lady Janet Museveni to address the problem of "Cross Generational Sex" in Uganda. Also known as the "Sugar Daddy" phenomenon, cross-generational sex is believed to be a primary driver of high prevalence rates of HIV among young girls in Uganda.



First year university students join the Go-Getters Club in Uganda that teaches abstinence, delayed sexual debut and the rejection of Cross Generational sex to university girls.

In 2004, PSI and AIDSMark began working with First Lady Janet Museveni to address the problem of "Cross Generational Sex" in Uganda. Cross Generational Sex is defined as a non-marital relationship between an older man and younger woman, where the age difference is 10 years or more. Also known as the "Sugar Daddy" phenomenon, cross generational sex is common in Uganda and is believed to be a primary driver of high prevalence rates among young girls: HIV prevalence among girls aged 15-24 years is 10% but is significantly lower among boys the same

age, at 3%. These relationships are for the most part transactional, often including the exchange of material goods or cash for sex. Formative research conducted with young girls revealed that many girls aim to satisfy short-term goals with little regard or acknowledgment of the long-term consequences, including HIV. The price that Sugar Daddies paid for sex with these girls in many cases was as little as a plate of chips, a mobile phone, clothes or cosmetics.

Go Getters at the University

Universities are the perfect breeding-grounds for Cross Generational relationships and older men have capitalized on this. A girl's decision to attend university demonstrates ambition, however, once she is introduced to the uninhibited environment of campus life, she is subject to a variety of pressures to look like her peers and to afford the materials/props to support this image.

The "Go Getters" program is for girls in their first year of university. Go Getters encourage abstinence, delayed sexual debut and the rejection of Cross Generational sex among university girls. Sixty peer educators have been trained from three universities in Kampala. The peer educators impart life skills, raise personal risk perception for contracting HIV, cultivate confidence and self-esteem, and encourage young girls to look beyond short-term gratification and to plan for long-term goals. The expected result of the program: motivated, career-focused, goal-oriented women.

Go Getters in the Community

By bringing political, social and community pressure to bear, PSI hopes to effect a change in cultural perceptions about the acceptability of Cross Generational sex. PSI is also working with community and political leaders and FBOs, to develop a campaign discouraging older men from engaging in relationships with younger women. Radio spots and posters will challenge the existing norm, by asking, "Would you let this man be with your 18 year old daughter? So why are you with his?"

PSI is working with the private sector to provide internships and "shadowing" opportunities for the girls in Go Getters clubs. In these businesses, girls are placed according to their ambitions, to give them the experience of their dream career and to encourage them to work hard to achieve it. In return, the local businesses get recognition for Corporate Social Responsibility, and will identify and train dynamic potential new recruits for future employment. In this marriage between the public and private sector, HIV infections will be averted, women's standing will increase, and businesses will play a pivotal role.

Africa: Former US President to Launch New World Aids Campaign

UN Integrated Regional Information Networks

August 4, 2005

Posted to the web August 4, 2005

Johannesburg

Former US President Bill Clinton is to launch a new initiative next month to tackle international problems, such as HIV/AIDS and poverty.

The annual 'Clinton Global Initiative' will engage world leaders, politicians, business leaders and celebrities in global challenges and encourage them to commit to taking concrete action during the following year.

In a statement Clinton noted that "by identifying specific ways to address the challenges of our time, I believe the Clinton Global Initiative will prove to be a unique and useful forum for leaders and communities around the world".

The first meeting is scheduled to take place from 15 to 17 September in New York city and will focus on poverty, corruption, climate change, and religious and ethnic reconciliation.

Aids Treatment On Rise, But Stigma Still Around

UN Integrated Regional Information Networks

August 17, 2005

Accra

With anti-AIDS drugs becoming widely available in Ghana, thousands of HIV-positive people are living longer, healthier lives but health workers say they continue to hide their status, frightened of rejection by friends, family and colleagues.

The government began heavily subsidising antiretroviral (ARV) treatment for people living with HIV/AIDS after receiving a US \$15 million grant from the Global Fund to Fight AIDS, Tuberculosis and Malaria in 2004. This year another US \$6 million from the national purse was added.

Some 2,600 Ghanaians are now receiving the life-prolonging medication. "Treatment is so readily available, unlike what pertained a few years ago - people who were on the verge of death are now looking healthy and going about their everyday duties," Eric Pwadura, an official at Ghana's AIDS Commission, told IRIN.

Although more people were receiving ARVs than ever before, it was still difficult to get a job and a place to live; even retaining relations with friends and family was not easy, according to Kakra Ankobiah, programme director of the West African AIDS Foundation (WAAF). The WAAF operates a hospice specialising in HIV/AIDS treatment and care, and also runs outreach programmes in the capital, Accra. "More people are alive today - thanks to ARVs - but no one wants to employ them; landlords or other tenants are evicting and ostracising people who openly reveal their status. These are problems we have yet to deal with as a society," said Ankobiah. While the Ghana AIDS Commission estimates that about 90 percent of Ghanaians are aware of HIV/AIDS, health officials concede that the stigmatisation of people living with the virus remains the biggest challenge.

According to Sakyi Awuku Amoah, head of the commission, earlier campaigns inadvertently contributed to creating the problem by associating AIDS with death and focusing too heavily on the fear factor. "The epidemic of stigma, discrimination, blame and collective denial is making all preventative interventions ... very difficult," Awuku Amoah admitted.

Patients and health workers agreed that enabling people living with HIV/AIDS to afford treatment, keep their jobs and not be dependent on their families could go a long way towards combating stigmatisation.

"It all depends on the financial empowerment ... to support ourselves and our families, have our own accommodation without the fear of being ejected, and have a well-paying job," Haruna, a 38-year-old HIV-positive teacher, told IRIN.

He would never have been able to afford his medication without the government subsidies that allow him to spend 50,000 cedis (less than US \$10) a month on ARVs: the commercial retail price of his treatment is between \$800 and \$850 - far beyond the limits of his \$100 a month salary.

"Only when we are empowered can you expect a majority of people living with AIDS to have the confidence to come out and make their status open," Haruna pointed out.

WAAF hospice officials say most of their AIDS patients have been shunned by their families, who can't afford to look after them.

"Our in-patient capacity is limited to 20 beds, and when the hospice is fully booked about 70 percent of all our cases are patients who have been dumped here by their relatives. They only turn up again after the patient is dead to collect the corpse for burial," Ankobiah told IRIN.

"But it is slowly easing up and people are beginning to accept their relatives' condition," said Ankobiah, whose clinic provides free treatment after payment of a 30,000 cedi, or US \$10, registration fee.

Nevertheless, Dela, 38, an HIV-positive teacher also on subsidised ARV treatment, said it would be unthinkable to declare her status publicly - she runs her own nursery school and any mention of AIDS would be bad for business.

"I do not think it is time ... to declare my status, due to the possible negative repercussions that can come up," she affirmed. When her sister first found out Dela was HIV positive eighteen months ago, she urged neighbours to withdraw their children from the school. "Rumours went around, especially when I started the ARV treatment and initially lost some weight, but now it does not bother me. I know I have the disease and I just have to live with it. Fortunately, I have always been slim, and since I still go about my duties like any active person, the rumours have died down," Dela told IRIN.

Afua, 42, a foodstuff trader who lived in the next suburb, was not so lucky: she died three years ago - just before the government-subsidised ARV programme started.

"When people realised she had the virus, they stopped buying her foodstuffs and she had to depend on her aged mother for her upkeep," Dela said. "As she grew weaker, prior to her death, she was confined to the outer room of her family's rented apartment with her own cup and plate, and prevented from going to the main bedroom area."

[This report does not necessarily reflect the views of the United Nations]

INTERNATIONAL NEWS

Africa: WHO Re-Lists Indian Aids Drugs

UN Integrated Regional Information Networks

August 22, 2005

Johannesburg

Seven Indian generic drugs have been reinstated on the World Health Organisation (WHO) list of approved HIV/AIDS medicines for use in developing countries.

The UN health agency removed three of the drugs from its list in August 2004, and Ranbaxy willingly withdrew the other four drugs shortly after, also citing uncertainty about whether they were biologically the same as the patented drugs.

"Subsequently, WHO ran the full range of quality, safety and efficacy checks on the medicines, as well as thorough inspections of the new laboratories. The products and laboratories were all found to be satisfactory," WHO noted.

Expanding Choice On Affordable Contraception

The Problem

Every year, there are 66 million unintended pregnancies and more than 500,000 deaths from pregnancy-related causes.

The Response

Increased knowledge and access to a range of contraceptive methods.

The PSI Contribution

In 2004, PSI delivered 10.7 million couple years of protection and prevented 11,800 maternal deaths due to complications related to pregnancy and childbirth ([details](#)).

Giving low-income men and women the ability to manage the size of their families has been at the heart of PSI's mission for more than three decades. Two studies of the efficiency of various family planning delivery systems show that, except for sterilization, contraceptive social marketing, PSI's unique contribution to family planning, delivers one couple year of protection at far less cost than any other mode of service delivery. PSI now has contraceptive social marketing programs in 26 countries, and produces nearly 10 million couple years of protection (CYPs) annually.

Improved access to modern and natural family planning options is the goal of all PSI family planning programs. Starting with one condom social marketing project in Kenya in 1972, PSI's family planning programs have expanded to include male and female condoms, oral and injectable contraceptives, intrauterine contraceptive devices (IUDs), emergency contraceptive pills and implants. PSI also promotes natural methods such as the Standard Days Method using CycleBeads® and the Lactational Amenorrhea method.

Effective contraceptive use is dependent upon client satisfaction and success with a chosen method. By having a range of affordable methods available coupled with provider counselling, women are more likely to find a contraceptive that suits their individual needs.

Product distribution takes place in conjunction with the training of health care providers and communication to increase acceptance and reduce misconceptions, such as associated side effects and efficacy of a contraceptive method.

In 2004 alone, PSI provided a year's worth of contraception to more than 10.6 million couples, preventing 6 million unintended pregnancies and averting more than 11,700 maternal deaths.

Examples of PSI Family Planning Impact

- **Pakistan:** The Green Star Network of clinics and pharmacies combines medical training and support supervision, public education and reliable product supply to deliver comprehensive, affordable, quality reproductive health products and services to millions of low-income people.
- **Zimbabwe:** A ProFam sign on thousands of clinics signals quality reproductive health services with trained providers and contraceptive products sold at affordable prices. ProFam's comprehensive product range resulted in almost 500,000 CYPs in 2003.
- **Myanmar:** PSI's Sun Quality Health network comprises nearly 400 clinics. In 2003, PSI provided the equivalent 223,000 CYPs against unintended pregnancy.
- **Tanzania:** Sales of PSI/Tanzania's SafePlan oral contraceptives provided 30,000 couples with protection against unintended pregnancies in 2003. The program's Modern Methods Family Planning Campaign communicates the benefits of birth spacing and dispels common misconceptions about family planning — increasing use not only of PSI products, but other modern contraceptives as well.
- **Nepal:** PSI/Nepal's Sun Quality Health network offers affordable and reliable family planning services and products in the Kathmandu Valley. Services are offered in 53 clinics as well through a mobile unit at health fairs.
- **Uganda:** A team of four medical detailers provides training, products, and support to health providers nationwide. In 2003 alone, PSI/Uganda provided 303,500 couple years of protection. Family planning is also an important component of PSI/Uganda's efforts to prevent mother-to-child transmission of HIV.
- **Democratic Republic of Congo:** PSI's long-standing condom social marketing program is re-introducing family planning in a health system devastated by HIV. In 2003, PSI introduced the Confidence line of contraceptives including injectable contraceptives as well as the Standard Days Method. The three-city pilot project is expanding to an additional

D: HEALTH TIPS

Prevention of Allergies and Asthma in Children

It has long been known that allergies and asthma tend to run in families. In other words, children in families where one or both parents have allergies or asthma are more likely to develop allergies or asthma. That is why many prevention efforts have been targeted to these children. This pamphlet describes steps that may be taken to delay or, possibly, prevent the onset of allergies and asthma in children.

Preventing food allergies

Food allergies in children can cause a variety of problems that range from eczema to life-threatening allergic reactions. The major strategy for preventing food allergies is to delay exposure to potentially allergenic foods and liquids, since newborn infants may be more likely to become allergic to foods than older infants. Mothers should breast feed their infants for at least four to six months if possible, since breast milk is much less likely to produce an allergic reaction and can strengthen the child's immune system. Infants not being breast fed or fed with breast milk should be fed partially pre-digested, protein hydrolysate formulas such as Alimentum or Nutramigen rather than milk- or soy-based formulas.

Infants should not be fed solid foods until they are six months old. When infants are six to 12 months old, vegetables, rice, meat, and fruit can be introduced to their diets. Each food should be introduced one at a time so parents or caregivers can identify and eliminate any foods that cause a reaction. After the child is one year old, milk, wheat, corn, citrus and soy may be added. At two years of age, the child may have egg. Finally, at age three, fish and peanuts may be introduced.

Preventing environmental allergies and asthma

It makes good common sense that, since some airborne substances may trigger allergy or asthma symptoms, reducing contact with these substances early in life may delay or prevent the onset of allergy or asthma symptoms. The evidence for this relationship is clearest in the case of dust mites, which are microscopic creatures related to spiders that are found in large quantities inside the home. Therefore, taking steps to aggressively control dust mites in the homes of high-risk children may reduce the occurrence of dust mite allergy in these children. These steps include using zippered, plastic covers on pillows and mattresses and washing bedding in hot water every seven to ten days. Indoor relative humidity should be kept below 50% and, optimally,

carpets, upholstered furniture, or objects that collect dust should be removed from the infant's bedroom.

Recently published data has made the relationship between early life exposure to animals and the eventual development of allergies and asthma much more confusing. For example, some evidence seems to show that early life exposure to animals may make children more likely to develop allergies and asthma whereas more recent evidence seems to show that early life exposure to animals (dogs and cats, in particular) may protect children from later developing these diseases. Your allergist/immunologist can address this issue with you to give you the most current information and can match this current information with the needs of your family.

Other considerations in preventing asthma

Maternal smoking during pregnancy is associated with increased wheezing during infancy. Exposing children to secondhand smoke in the home has also been shown to increase the development of asthma and other chronic respiratory illnesses. Therefore, it is extremely important that infants not be exposed to tobacco smoke before or after they are born. Finally, respiratory infections are a common trigger of asthma. Breast feeding for the recommended time period of at least six months strengthens children's immune systems, which can be helpful in avoiding respiratory infections, and consequently, asthma. Also, it is best to avoid placing very young children in group day care, since this is more likely to increase their exposure to respiratory infections, and consequently, trigger asthma.

Conclusion

A great deal of research is taking place to determine which children are most likely to develop allergies and asthma and to learn how to prevent the development of these diseases. The measures, described above, may be very helpful to children who are at risk to develop allergies and asthma and much more information and treatment options will be available in coming years.

Your allergist/immunologist can provide you with more information on preventing allergies and asthma in children.

Tips to Remember are created by the Public Education Committee of the American Academy of Allergy, Asthma and Immunology. The content of this brochure is for informational purposes only. It is not intended to replace evaluation by a physician. If you have questions or medical concerns, please contact your allergist/immunologist.

American Academy of Allergy,
Asthma and Immunology
555 East Wells Street

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(Acknowledgements: Adopted from the American Academy of Allergy Brochure)

Tips for a Healthy Life for Women

Eat Healthy

<http://www.cdc.gov/nccdphp/dnpa/tips/>

"An apple a day keeps the doctor away." There's more truth to this saying than we once thought. What you eat and drink and what you don't eat and drink can definitely make a difference to your health. Eating five or more fruits and vegetables a day and less saturated fat can improve your health and may reduce the risk of cancer and other chronic diseases. Have a balanced diet, and watch how much you eat.

Maintain a Healthy Weight

http://www.cdc.gov/nccdphp/dnpa/tips/tipping_scales.htm

Obesity is at an all time high in the United States, and the epidemic is getting worse. Those who are overweight or obese have increased risks for diseases and conditions such as diabetes, high blood pressure, heart disease, and stroke. Eat better, get regular exercise, and see your health care provider about any health concerns to make sure you are on the right track to staying healthy.

Get Moving

<http://www.cdc.gov/nccdphp/dnpa/physical/>

More than 60 percent of American men and women do not get enough physical activity to provide health benefits. For adults, thirty minutes of moderate physical activity on most days of the week is recommended. It doesn't take a lot of time or money, but it does take commitment. Start slowly, work up to a satisfactory level, and don't overdo it. You can develop one routine, or you can do something different every day. Find fun ways to stay in shape and feel good, such as dancing, gardening, cutting the grass, swimming, walking, or jogging.

Be Smoke-Free

<http://www.cdc.gov/tobacco/how2quit.htm>

Health concerns associated with smoking include cancer, lung disease, early menopause, infertility, and pregnancy complications. Smoking triples the risk of dying from heart disease among those who are middle-aged. Second-hand smoke - smoke that you inhale when others smoke - also affects your health. If you smoke, quit today!

Helplines, counseling, medications, and other forms of support are available to help you quit.

Manage Stress

<http://www.cdc.gov/niosh/topics/stress/>

Perhaps now more than ever before, job stress poses a threat to the health of workers and, in turn, to the health of organizations. Balancing obligations to your employer and your family can be challenging. What's your stress level today? Protect your mental and physical health by engaging in activities that help you manage your stress at work and at home.

Be Safe - Protect Yourself

<http://www.cdc.gov/women/tips/besafe.htm>

What comes to mind when you think about safety and protecting yourself? Is it fastening seat belts, applying sunscreen, wearing helmets, or having smoke detectors? It's all of these and more. It's everything from washing your hands to watching your relationships. Did you know that women at work die most frequently from homicides, motor vehicle incidents, falls, and machine-related injuries? Take steps to protect yourself and others wherever you are.

Be Good to Yourself

<http://www.cdc.gov/health/womensmenu.htm>

Health is not merely the absence of disease; it's a lifestyle. Whether it's getting enough sleep, relaxing after a stressful day, or enjoying a hobby, it's important to take time to be good to yourself. Take steps to balance work, home, and play. Pay attention to your health, and make healthy living a part of your life.

ARV Advice and Information - 1

By Central Board of Health, Zambia

HIV & ANTIRETROVIRAL (ARV) DRUGS

HIV is a virus which attacks the immune system – the body's defense against infection and illness. A person carrying the virus is more likely to become sick as their immune system is damaged, until eventually they are no longer able to fight infections – this stage is called AIDS. Antiretroviral (ARV) drugs reduce the level of HIV in your body.

By reducing the level you can slow or prevent more damage to your immune system and therefore slow the progression towards AIDS. You must know you are HIV – positive before taking ARVs. You can find out your HIV-status by going for

voluntary counseling and testing (VCT). These drugs are not a cure for HIV, but they can help you stay well and extend your life. Anti-HIV drugs are known as ANTIRETROVIRAL DRUGS (ARVs).

HOW DO ARV DRUGS WORK?

HIV infects cells in the immune system called CD4 cells. Over time the number of CD4 cells drops and your immune system is weakened. ARV drugs work by slowing down this process. Once you begin the treatment, your immune system should begin to recover and your ability to fight infections is likely to improve. Taking ARV drugs reduces the amount of HIV in your blood to very low levels which can become undetectable when you have your HIV level tested.

However HIV is still present and you can still pass it into others. You must therefore continue to take your treatment and practice safer sex by abstaining or using a condom every time with the same partner. ARV drugs can also be used to reduce the risk of the transmission of HIV from a mother, who has the virus, to her child. The drugs can help to reduce the risk of the baby becoming infected, but do not treat or cure the mother's HIV.

Post Exposure Prophylaxis (PEP) for victims of sexual abuse is also available through the ARV centers. For children, these can be accessed through the Pediatrics Unit at University Teaching Hospital (UTH) in Lusaka. The drugs should be taken 72 hours after the incident has occurred, they are a one-off treatment to prevent HIV-infection.

WHEN TO TAKE TREATMENT

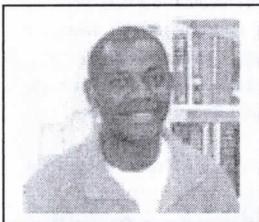
ARV drugs are not suitable for every HIV-positive person. Treatment is usually recommended when the body becomes vulnerable to repeated infections (opportunistic infections). Your care provider will examine you by checking for any illness. It is dangerous to take ARV drugs without your care provider's approval. Special blood tests, which guide the care provider about when to start treatment, are also available at selected clinics.

A CD4 count, or white blood cell count, will show how much damage HIV has done to your immune system. Viral load test indicates how much HIV is in your blood. Remember – it is your decision when to begin treatment. Think carefully about how your friends, workmates and family can help you to take your drugs in the right way.

To be continued in next issue....

OBITUARY

TB and leprosy specialist dies



It is with very great sadness and shock that we announce the death of Dr. Mwape Lyndon Kafwambulula, the TB and leprosy specialist (equivalent to NTP manager) at the Central Board of Health, in Zambia.

Lyndon died in South Africa as a result of the serious injuries he sustained in a car accident in Zambia. His wife and young family survived the crash unharmed. His death is a great loss for TB control in Zambia and our

deepest condolences go to his wife and family.

E: CONFERENCES AND WORKSHOPS

1:Strength, Limitations, and Research needs for evidence-based integrated helminth control in Africa:

16th.-19th January 2006 Lusaka, Zambia. By DANISH BILHARZIA LABORATORY, DENMARK. Closing Date 5th. September 2005.

Send e-mail to hlscholer@dblnet.dk Or Fax 45 77 32 77 33.

2:Technical Consultancy for Laboratory Networks to Support integrated Disease Surveillance and Response in the African Region.

September 13-15, 2005 CDC, ATLANTA USA.

Contact WHO.

International Conference on Malaria (125 Years of Malaria Research)

New Delhi, November 4—6, 2005

To commemorate the 125th anniversary of historic discovery of malaria parasite by Charles Louis Alphonse Laveran on November 6, 1880 (for which he was awarded Noble Prize in 1907), Malaria Research Centre, Delhi (India) is organizing an 'International Conference on Malaria' from 4th to 6th November 2005 in New Delhi. The conference will feature plenary lectures, invited lectures and contributed paper presentations on key issues of malaria. The conference will focus on scientific progress in malaria research with emphasis on progress in genomics of malaria parasite and vector. The Organizing Committee extends invitation to all scientists working on malaria to participate in this conference. Your active participation is crucial to the success of this prestigious event.

The Zambia Chapter of the Alliance for Prudent Use of Antibiotics (APUA_ZAMBIA) in conjunction with the International Chapter guest speakers from Boston USA will be

holding a training workshop in Research Methodologies in Anti-microbial Resistance from 25th. to 27th October 2005.

Contact: Mr. Oliver Hazemba ohazemba@msh.org; or Dr. James C.L. Mwansa - jclmwansa@yahoo.ca or phone msh offices 261614

Maya Angelou Research Center on Minority Health Conference on Cardiovascular Disease Disparities: Translating Research into Practice
: [Additional information](#) September 8-9, 2005
Winston-Salem, North Carolina

15th Annual Urban Maternal and Child Health Leadership Conference, "For All It's Worth: Leading with Values and Vision" September 10-13, 2005
Fort Worth, TX

[Additional information](#)

Sept 25-27, 2005
Lüneburg, Denmark

Higher Education for Sustainable Development: New Challenges from a Global Perspective

The Conference is an important part of Germany's contribution to the United Nations' World Decade of "Education for Sustainable Development" (2005-2014). The aim of the Decade is to make sustainability a key element in educational processes - including higher education.

For more information, please contact: michelsen@uni-lueneburg.de

September 28-30, 2005
Irving, TX

Healthy People 2005: Progress Toward 2010 Goals Conference

Conference goal is to improve knowledge and collaboration between public health and partners to facilitate the attainment of Healthy People 2010 goals and objectives. Those who should attend are: physicians, nurses, health educators, epidemiologists, registered sanitarians, environmental health personnel, and other public health professionals who are currently involved in the practice of public health, or individuals who have an interest in public health.

October 26-28, 2005
Toronto, Ontario, Canada
4th International Conference on Urban Health

This year's conference theme is Achieving Social Justice in Urban Communities. Proposals are specifically sought on topics related to community-based participatory research.

[Information on submitting an abstract](#)

October 28-29, 2005
Chicago, IL

Optimizing Global Health through Nursing Science

In celebration of 50 years of scholarly excellence, the University of Illinois at Chicago, College of Nursing and the first U.S. World Health Organization Collaborating Center (WHO CC) for Nursing, along with sponsoring hosts (UCSF, U. Wash., U. Mich, U. Penn & UIC affiliates - U. of Wisc. Milwaukee, N. Illinois U., & Pontificia Universidad Catolica de Chile) invite you to attend the scientific conference.

Any questions may be directed to: Olga Sorokin at osorok1@uic.edu.

November 3-5, 2005
Vancouver, British Columbia, Canada

Where's the Patient's Voice in Health Professional Education? Conference

Patient/client centered care has become an espoused rule for 21st century health care. Health Professional Education needs to reflect this partnership. Join your inter professional colleagues at this important conference to establish a vision for health professional education in which patients play an active role that models trends in practice.

<http://www.health-disciplines.ubc.ca/DHCC>

for more efficient use of resources.

Nov. 9-10, 2005
Atlanta, GA

Building A Hospital/ Faith Community Partnership Conference sponsored by Pastoral Care Services Congregational Health Alliance Ministry Program Baptist Health South Florida Miami, Florida

www.baptisthealth.net/champ

November 10-13, 2005
Williamsburg, VA

Oral Health: A Vital Part of Overall Health

A four-day continuing education conference for physicians, dentists, nurse practitioners, physician assistants, nurses, dental hygienists, and office managers. Sponsored by Clinical Directors Network and Dental Management Coalition

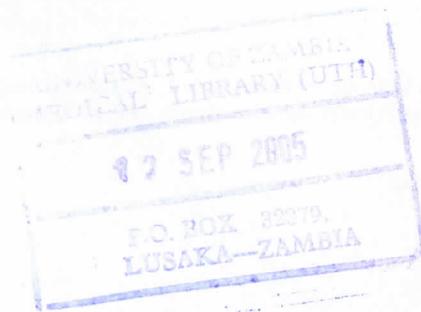
For details, go to www.dentalmanagementcoalition.org and click on the 2005 Conference tab on the left side.

November 16-18, 2005
Hanoi, Vietnam

The Second International Scientific conference on Occupational and Environmental Health

Emphasis will be placed on topics of high priority to SE Asia and research that goes beyond problem identification to include recommendations for controlling exposures.

Questions? Contact [Kathlene Mirgon](mailto:Kathlene.Mirgon).



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