Lepr Rev (2000) 71, 98-120

# News and Notes

# Third International Conference on the Elimination of Leprosy

The 3rd International Conference on Elimination of Leprosy was held in Abidjan, the capital of Cote d'Ivoire between 15th and 17th November 1999. It was co-sponsored by WHO, the Sasakawa Memorial Health Foundation, Novartis and Association Francaise Raoul Follereau (AFRF). It was attended by National Leprosy Programme Managers and high officials from the ministries of health of 30 countries, including the 12 most leprosy endemic ones and representatives of several non-governmental organizations and United Nations agencies.

The conference which was opened by the Honourable Prime Minister of Code d'Ivoire had the following objectives:

- 1. To strengthen political commitment in the most endemic countries, as well as the commitment of concerned partners and agencies.
- 2. Analyse the situation and identify the most important problems ignored to find rapid solutions.
- 3. Promote the integration of leprosy elimination activities into general health services, and in particular, strengthen the capacity of general health workers in order to support this integration.
- 4. Identify strategies to strengthen and organize social mobilization and community participation in leprosy elimination activities.
- 5. Develop a plan of action and an appropriate strategy to overcome the remaining problems in reaching leprosy elimination in the most endemic countries.

At the beginning of the conference, WHO (through a message from the Director General) announced the creation of a Global Alliance to eliminate leprosy as a public health problem from every country by the end of 2005.

The alliance, to be chaired by the government of India in its first year (2000, has its core members: WHO, the governments of leprosy endemic countries, the Nippon Foundation, the International Federation of Anti-Leprosy Associations (ILEP) and Novartis. Other organizations and agencies which announced their preparedness to work closely with the Alliance included: Danish International Development Agency (DANIDA), the World Bank, UNHCR, the International Federation of Red Cross and Red Crescent Societies (IFRC), the International Association for Integration, Dignity and Economic Advancement (IDEA), the International Foundation for Dermatology (IFD), the International Leprosy Association (ILA), the International Leprosy Union (ILU) and the World Organization of the Scout Movement (WOSM).

The benefits for leprosy elimination, of working in partnerships was highlighted by all five working groups which discussed:

- 1. What remains to be done and by whom?
- 2. Integration.
- 3. Improving accessibility to MDT services and capacity building.
- 4. Monitoring and evaluation.
- 5. Alliances and partnerships.

Other key areas emphasized by the working groups included:

- 1. Strengthening of political commitment.
- 2. The importance of re-visiting the epidemiological indicators used for assessing the leprosy situation.
- 3. The important role played by local communities and their leaders and the persons affected by leprosy.
- 4. Building the capacity of general health staff to own and provide MDT services.
- 5. The need to keep a clear vision of the leprosy situation at global, national and sub-national levels after the year 2005; some countries will not have achieved elimination of leprosy by the end of the year 2000.

The new target is to achieve a reduction of registered prevalence rate to less than 1 per 10,000 population for all countries by 2005.

A commitment was made by Novartis (a Pharmaceutical Firm) to provide WHO with the MDT drugs worth approximately 30 million US\$ for the treatment of all leprosy patients in the world during the next 6 years. The Nippon Foundation and the Sasakawa Memorial Health Foundation pledged US\$ 24 million to assist in the implementation of the Global Alliances's strategy. The ILEP partners will contribute US\$ 19.5 million out of their 2000 budget towards the Global Alliance in addition to their other commitments to leprosy control especially in the area of social and economic rehabilitation of persons living with disabilities due to leprosy.

The discussions did underline the fact that the provision of drugs alone would not settle the various important aspects of essential care for leprosy patients and persons living with disabilities due to leprosy.

After the conference, all countries (particularly the 12 countries which have not reached elimination) are expected to carry out a critical re-examination of their leprosy situation in order to identify key areas in which strategies should be focused and to design ways of sustaining the successes so far achieved. The strategies will vary from country to country depending on the magnitude of the leprosy problem and other epidemiological and operational factors.

Dr. H. Joseph Kawung

# 21st Biennial Conference of Indian Association of Leprologists (IAL) held at Chandigarh, India

The 21st Biennial Conference of the IAL, was held at the Postgraduate Institute of Medical Education and Research during 17–19 September 1999 under the warm hospitality of Professor Bhushan Kumar, Department of Dermatology, STD and Leprology. More than 300 delegates, both from India and abroad, participated in the 3-day scientific conference.

On the morning of 17 September there was a symposium on the Continuing Priorities in Leprosy. The session started with a discussion on neuritis. The aim of taking this subject was to standardize five important aspects of neuritis. As a teamwork exercise, a group of experts under the chairmanship of N. B. B. Reddy framed the definitions related to neuritis; the CLT&RI, under the guidance of P. K. Oommen, identified the minimum information on structure and function of nerve; the Central Jalma Institute for leprosy worked on the examination protocol, with B. K. Girdhar in the chair; Bombay Leprosy Project under the guidance of R. Ganapati prepared the recording and reporting system and R. S. Misra and his team finalized the management strategy. The proposed recommendations were briefly presented in the conference under the chairmanship of G. Ramu and suggestions from the delegates were incorporated. This was followed by a presentation by Diana Lockwood, the lead speaker on the subject. In her presentation she emphasized the need for a robust testing method for detecting nerve involvement early, understand the pathogenesis with reference to molecular/immunological mechanisms, and role of steroids and newer immunomodulating agents in management of neuritis. K. V. Desikan spoke on post-MDT monitoring and evaluation and emphasized the need for an inbuilt system for surveillance to detect relapse. He also briefly dealt with the importance of justifying the utility,

safety, cost-effectiveness and advantages of FDT. Ebenezer Daniel stressed the need for incorporating comprehensive eye care in the programme. Ben Naafs's talk dealt with all components of reaction in breif, with paramount reference to neuritis. Indira Nath's presentation emphasized the strong probability of dysregulation of IL-4 as a major factor in bringing the clinical changes in reactions. A. N. Chakravarti's presentation emphasized the homology of animal, human and soil-derived CAN bacteria, whose genetic heterogeneity may help in evaluating the time and place of origin of the disease.

The post-lunch session had the CME under the banner 'Newer Frontiers' in which N. S. Dharmashanktu highlighted the achievements of NLEP in India and opined that probably the programme is at its peak and ripe for integration. A. M. Dhople spoke on leprosy research beyond the year 2000 AD, while K. Prabhakaran dealt with treatment of patients relapsing after MDT. G. P. Talwar stressed the role of combined chemotherapy and immunotherapy in leprosy elimination. Yasin Quabati from Yemen projected his country's and global achievements through MDT. M. D. Gupte presented data on the comparative vaccine trial and highlighted the role of vaccines in the control of leprosy. S. K. Satpathy and B. L. Sharma presented innovative approaches of involving the community in the leprosy control programme undertaken by the DANLEP.

The conference was inaugurated by Professor N. K. Ganguly, Director-General, Indian Council of Medical Research. In the inaugural session, two small books on leprosy were released and A. R. K. Pillai, Director, Indian Leprosy Foundation was congratulated. After the inauguration, the keynote address 'A World Without Leprosy—what it should mean' was delivered by Yo Yuasa, President ILA, and S. K. Noordeen chaired the session.

The conference received a total of 147 abstracts, of which 59 were selected for free papers and the remaining 88 were posters. The sessions for free papers were on clinical leprosy, therapy of leprosy, immunology, experimental leprosy, microbiology and pathology, and social aspects of epidemiology. These sessions were chaired by V. B. Jadhav, V. K. Sharma, S. G. Dastidar, V. P. Shetty, K. V. Desikan, Mathura Prasad, C. S. Walter, V. V. Dongre and Adarsh Chopra. There were also a couple of awards. The Acworth Research Society Award for the best paper went to Arup De Sarkar of Chandigarh. The award for the best publication went to Gigi Ebenezer, Karigiri. Vishwanath Prasad, Kiran Katoch and P. B. Ranganatha Rao, respectively, received the first, second and third prizes for posters.

The valedictory session was presented by C. S. Walter, Director of the Leprosy Mission, South-East Asia. In this brief parting session, the IAL congratulated the Leprosy Mission on its completion of 125 years of dedicated service. In addition, the chairman thanked the organizing committee on behalf of the delegates and the organizing secretary thanked his team. Judged in terms of scientific content, floor management and the hospitality for the delegates, it was a superbly organized meeting. Professor Bhushan Kumar and the team he led deserve high commendation.

# 'The Past & Present of Leprosy': International Congresses on the Evolution and Paleoepidemiology of Infectious Diseases, Bradford University UK, July 1999

Following the first and second Congresses on syphilis and tuberculosis, respectively, held in France and Hungary, the third, on the 'Past and Present of Leprosy' was held in the University of Bradford in July 1999. The subjects covered were as follows: Vilhem Møller-Christensen, his work and legacy; microscopic study and X-ray analysis of two fifth-century cases of leprosy: paleoepidemiologic inferences; a possible leprosy hospital in Stubbekobing, Denmark; mycobacterial disease in North America; epidemiological evidence for cross immunity; differential diagnosis at a leprosy referral clinic in Nepal; leprosy in the former Russian Empire: historical evidence of dissemination of the disease; comparative pathology of mycobacterial infections in living lower vertebrates; rhinomaxillary syndrome in the absence of leprosy: an exercise in differential diagnosis; was there mediaeval diagnostic confusion between leprosy and syphilis?—an examination of the skeletal evidence; the stigma of leprosy; the history and paleoepidemiology of leprosy in the territory of the Czech Republic; PCR primers that can detect low levels of *Mycobacterium* DNA; exploitation of cell wall lipids for the

diagnosis of ancient mycobacterial disease; molecular evidence of Mycobacterium leprae in skeletal remains from an historic ossuary in South Germany; the immunological basis of bone change in mycobacterial disease: a viewpoint for oseologists; acral bone resorption in multibacillary patients: clinical and retrospective study; persistence of leprosy neuropathy after treatment; acro-osteolysis previous to diagnosis of leprosy; leprosy epidemiology in Vietnam; the last leprosy communities ... and the people wo call them home; historic patterns in the spread of leprosy; evidence for infant and childhood leprosy: past and present; infective bone changes in leprosy; leprosy worldwide, 1999; sociological reaction in the past and present in leprosy: socio-economic rehabilitation of leprosy cured persons (LCPs); reliable lipid biomarkers for the comparative diagnosis of ancient leprosy and tuberculosis; the myth of the spread of leprosy with the crusaders; a population analysis of mycobacterial diseases in Kellisz, Dakhleh, Egypt; lepromatous leprosy in a Romano-Byzantine sample from the Dakhleh, Egypt; a case of late mediaeval leprosy from Ireland; the past can influence the present in the management of leprosy; observations on the pathogenesis of skeletal disease in leprosy; medical historical and skeletal evidence of leprosy in Hungary and interpretations of paleopathological data; the antiquity of leprosy in Britain: the skeletal evidence; can leprosy produce characteristic changes at the micro-level?--results of light microscopic research on tibiae from Chichester Leprosy Hospital cemetery, UK; evidence for pre-European leprosy among ancient Marquesan islanders, Marquesas Archipelago; the ILA (International Leprosy Association) global project on the history of leprosy; Mycobacterium leprae DNA in archaeologicasl specimens; the study of ancient DNA answers a paleopathological question; leprosy: a correctable model of immunological perturbation; hepatitis B and C infection among leprosy patients attending the sanatorium of Fontilles (Spain); the history of leprosy in the Pacific; epidemiology and treatment; Immunological aspects of leprosy; history of Leprosy in Finland; detection of Mycobacterium leprae in paraffin sections of a museum-preserved leprosy sample by the polymerase chain reaction; new evidence for the history of leprosy in the ancient Near East: an overview.

*Further information*: Dr Keith Manchester, The Calvin Wells Laboratory, Department of Archaeological Sciences, University of Bradford, Bradford, BD7 1DP, UK.

# New global 'Health for All' targets.

The following is extracted from the *British Medical Journal*, volume 319, 11 September 1999, pages 700–703:

## **Global health targets**

#### Health outcome

- 1 *Health equity: childhood stunting*: By 2005, health equity indices will be used within and between countries as a basis for promoting and monitoring equity in health. Initially, equity will be assessed on the basis of a measure of child growth.
- 2 Survival: maternal mortality rates, child mortality rates, life expectancy: By 2020, the targets agreed at world conferences for maternal mortality rates (<100/100,000 live births), under 5 years or child mortality rates (<45/1000 live births), and life expectancy (>70 years) will be met.
- 3 *Reverse global trends of five major pandemics*: By 2020, the worldwide burden of disease will be reduced substantially. This will be achieved by implementing sound disease control programmes aimed at reversing the current trends of increasing incidence and disability caused by tuberculosis, HIV/AIDS, malaria, diseases related to tobacco, and violence or trauma.
- 4 *Eradicate and eliminate certain diseases*: Measles will be eradicated by 2020. Lymphatic filariasis will be eliminated by the year 2020. The transmission of Chagas' disease will be interrupted by 2010. Leprosy will be eliminated by 2010, and trachoma will be eliminated by 2020. In addition, vitamin A and iodine deficiencies will be eliminated before 2020.

# Determinants of health

- 5 *Improve access to water, sanitation, food, and shelter*: By 2020, all countries, through intersectoral action, will have made major progress in making available safe drinking water, adequate sanitation, and food and shelter in sufficient quantity and quality, and in managing risks to health from major environmental determinants, including chemical, biological, and physical agents.
- 6 *Measures to promote help*: By 2020, all countries will have introduced, and be actively managing and monitoring, strategies that strengthen health enhancing lifestyles and weaken health damaging ones through a combination of regulatory, economic, educational, organizational, and community based programmes.

# Health policies and sustainable health systems

- 7 *Develop, implement, and monitor national Health for All policies*: By 2005, all member states will have operational mechanisms for developing, implementing, and monitoring policies that are consistent with this Health for All policy.
- 8 *Improve access to comprehensive essential health care*: By 2010, all people will have access throughout their lives to comprehensive, essential, quality health care, supported by essential public health functions.
- 9 Implement global and national health information and surveillance systems: By 2010, appropriate global and national health information, surveillance, and alert systems will be established.
- 10 Support research for health: By 2010, research policies and institutional mechanisms will be operational at global, regional, and country levels.

# **Summary points**

- The renewal of the Health for All strategy represents a further call for social justice
- Ten new global health targets reflect most health problems in the world
- Although the four targets for health outcome are the most concrete and measurable ones, they will be hard to achieve
- The remaining six targets, dealing with the determinants of health and health policies, need further elaboration
- Global targets are of questionable use to individual member states

# 'TB ALERT': a response to the growing TB epidemic

TB ALERT is a UK-based charity, first registered in October 1998, and with the main aim of bringing practical help and cure to the world's TB 'hotspots' and to raise awareness both overseas and in Britain about the growing, and increasingly serious, epidemic. The Honorary President is Sir John Crofton, Emeritus Professor of Respiratory Diseases and Tuberculosis, University of Edinburgh, Scotland and the Trustees include representatives and Advisory Board include professionals from medicine, science, the media, medical schools and the law.

*Further information*: TB Alert, 22 Tiverton Road, London NW10 3HL, United Kingdom. Tel.: +44 181 969 4830; Fax: +44 181 960 0069; e-mail: tbalert@somhealy.demon.co.uk.

# 'Cytotoxic T-lymphocytes against malaria and tuberculosis: from natural immunity to vaccine design'

This is the title of a publication in *Clinical Science* (1998), 531–538 by Ajit Lalvani and Adrian V. S. Hill of the Nuffield Department of Clinical Medicine, Institute of Molecular Medicine, University of Oxford, John Radcliffe Hospital OX3 9DU, United Kingdom. The Abstract reads as follows:

- 1. *Mycobacterium tuberculosis* and the liver stage of *Plasmodium falciparum* are intracellular pathogens which are potentially susceptible to cytotoxic T-lymphocytes, a crucial component of the protective immune response to viral infections. Evidence from animal models points to a protective role for cytotoxic T-lymphocytes against *M. tuberculosis* and *P. falciparum*, but cytotoxic T-lymphocytes specific for these pathogens have been difficult to identify in man.
- 2. Using a reverse immunogenetic approach, candidate epitopes from selected antigens of *P*. *falciparum* and *M*. *tuberculosis* were used to detect peptide-specific cytotoxic T-lymphocyte responses in individuals exposed to these pathogens. Cytotoxic T-lymphocyte activity was detected by the <sup>51</sup>Cr release cytotoxicity assay and a sensitive ELISPOT assay for single-cell interferon- $\gamma$  release.
- 3. In naturally exposed, partially immune Africans in The Gambia, eight largely conserved cytotoxic T-lymphocyte epitopes in *P. falciparum*, restricted by several different HLA class I alleles, were identified. Several epitopes were also recognized in Tanzanians and cytotoxic T-lymphocytes recognised endogenously processed antigen.
- 4. In tuberculosis patients with HLA-B52, a CD8+ cytotoxic T-lymphocyte epitope was identified in ESAT-6, a secreted antigen specific for *M. tuberculosis* complex but absent in BCG. Cytotoxic T-lymphocytes exhibited HLA-B52-restricted peptide-specific interferon-γ release and lytic activity and recognized endogenously processed antigen.
- 5. These studies demonstrate that CD8+ cytotoxic T-lymphocytes specific for mycobacterial and protozoal antigens are induced during natural infections in humans. The identification of these T-cells endorses current strategies to develop cytotoxic T-lymphocyte-inducing vaccines against *P. falciparum* and *M. tuberculosis* and highlights candidate antigens for inclusion in subunit vaccines.

#### Tuberculosis. An interdisciplinary perspective

(edited by John D. H. Porter (London School of Hygiene & Tropical Medicine) and John M. Grange (Imperial College)

The fact that the World Health Organization has declared tuberculosis a 'global emergency' indicates the serious inadequacy of the ways in which the control methods at our disposal are used. Several books on tuberculosis have been published in recent years, but none have taken a deep and detailed look at the 'holistic' aspects of global tuberculosis control, even though international agencies are increasingly aware of the importance of the numerous factors other than the design and efficacy of therapeutic drug regimens. This unique book fills that gap. Although it deals specifically with tuberculosis, the principles outlined and discussed are relevant to many other areas of global medicine, including the ever-growing problem of HIV/AIDS.

The book is aimed principally at those involved in the design, establishment and management of disease control programmes at international, national and local levels, and also at a more general readership of epidemiologists, public health officers, community psychologists, and others interested in understanding the human dimension of disease control.

Contents include: the global burden of tuberculosis; the politics of tuberculosis; public health and human rights; current control strategies; the economics of diagnosis and management; sociocultural dimensions; the impact of HIV; tuberculosis in ethnic minorities; gender issues; health sector reform; educational approaches to tuberculosis control.

Published by Imperial College Press and distributed by World Scientific Publishing Co.

# Does tuberculosis accelerate the progression of HIV disease? Evidence from basic science and epidemiology

The following is extracted from an Editorial Review in *AIDS*, 1999, **13**: 1151–1158 by Julia Del Amo *et al.* 

#### From the Introduction.

The association between HIV infection and tuberculosis is complex and bi-directional. The epidemiological effects of HIV infection on primary infection, re-infection, and reactivation disease with *Mycobacterium tuberculosis* have been well documented. However, the evidence concerning the effect of tuberculosis on the progression of HIV-associated immune deficiency and disease is less clear. Although there seems to be a consensus among basic scientists that tuberculosis enhances HIV replication, the significance of this laboratory observation for clinical medicine and public health is more open to debate. In this review current laboratory, epidemiological and clinical data concerning the effects of tuberculosis on HIV disease progression are examined, and conclusions are drawn about further research requirements and public health implications.

#### From Implications and future research.

A better understanding of the temporal sequence of laboratory and clinical events could be obtained from frequent measurements of plasma HIV-RNA, CD4 lymphocyte count, and markers of immune activation in HIV-infected persons with and without incident tuberculosis followed over time, ideally in seroconverter cohorts. A nested case-control study within such a cohort followed for some other purpose would offer the most efficient way of evaluating risk factors and outcomes related to incident tuberculosis. A further study design would have been the same regular measurement of these laboratory parameters, viral load, activation markers, and CD4 lymphocyte counts, in HIVinfected persons participating in a trial of preventative therapy for tuberculosis. Groups for comparison would be those with incident tuberculosis and those without, stratified according to treatment status. Because preventative therapy is known to be effective, such studies are unlikely to be repeated. A third approach would involve laboratory and clinical follow-up of HIV-infected persons successfully treated for tuberculosis, but at high risk of recurrence, with comparisons between persons suffering recurrences and those who do not. This would allow the distinction between relapse and re-infection, if strains of *M. tuberculosis* are stored and characterized by restriction fragment length polymorphism. In conclusion, despite the biological evidence of an adverse interaction, epidemiological evidence is less clear concerning the effect of tuberculosis on the progression of HIV disease. Although HIV-infected patients with tuberculosis have a high mortality rate, it is not certain that this results from the effect of tuberculosis itself on immune progression, and there is no evidence that progression of immune deficiency is influenced by tuberculosis prevention, nor that the immunological or virological effects associated with tuberculosis are specific to this infection. Nevertheless, the rates of co-infection with HIV and M. tuberculosis are highest in countries where antiretroviral drugs are largely unavailable, and few interventions would benefit the health of HIV-infected people internationally more than the effective control of tuberculosis, the commonest AIDS indicator disease world-wide.

# Leishmania and HIV co-infection

A publication entitled *Leishmania and HIV in gridlock* from UNAIDS and the (previous) Division of Control of Tropical Diseases in the World Health Organisation (WHO/CTD/LEISH/98. Add 1 UNAIDS/98.23) describes the emerging co-infection between these two diseases. The following paragraphs emphasize some of the main current concerns:

The co-infection with *Leishmania* and HIV is emerging as a new and frightful disease and is becoming increasingly frequent. Cases have been reported in 25 countries and are currently considered an ominous threat in Spain, Italy, France, and Portugal. In these countries, up to 70% of adult cases of visceral leishmaniasis are associated with HIV infection and, up to 9% of people with AIDS suffer from newly acquired or reactivated visceral leishmaniasis. Cases have also been

reported in Algeria, Brazil, Cameroon, Costa Rica, Djibouti, Ethiopia, Greece, Guadaloupe, Guinea-Bissau, India, Kenya, Malawi, Mali, Malta, Morocco, Panama, Peru, Sudan, Sultanate of Oman, Tunisia, Ukraine and Venezuela.

The number of cases of co-infection with *Leishmania* and HIV is expected to rise in South Asia, sub-Saharan Africa, South America and Southern Europe, owing to the simultaneous spread of both diseases and their increasingly overlapping geographical distribution—an urbanization of visceral leishmaniasis and a ruralization of HIV/AIDS. The incidence of AIDS in Brazil, for example, has risen from 4.3 cases per 100,000 inhabitants in 1986, to 18.4 in 1997. India is particularly vulnerable, with one-half of the world's visceral leishmaniasis cases, and HIV/AIDS on a sharp increase. East Africa is also of great concern, with the continued spread of AIDS and sporadic epidemics of visceral leishmaniasis.

#### And again:

AIDS and visceral leishmaniasis are locked in a vicious circle of mutual reinforcement. Visceral leishmaniasis accelerates the onset of full blown AIDS, and shortens the life expectancy of HIV-infected people, while HIV spurs the spread of visceral leishmaniasis. The gridlock produces cumulative deficiency of the immune response, as *Leishmania* parasites and HIV destroy the same cells, exponentially increasing disease severity and consequences. A person with HIV infection whose immune system is suppressed and is bitten by a sandfly infected with *Leishmania*, will develop severe cutaneous leishmaniasis, or the visceral form. Visceral leishmaniasis, once developed in the HIV-infected person, impairs the patient's condition by further suppressing more of the same immune response cells. As a consequence of this severe immunosuppression, the subject quickly becomes an AIDS patient with associated diseases, otherwise known as opportunistic diseases such as tuberculosis, often found in co-infected patients.

Further information: WHO, 1211 Geneva 27, Switzerland.

#### Report calls for the elimination of tuberculosis in the USA by the year 2000

From the British Medical Journal, volume 319, August 1999, page 535:

Ten years after issuing its 'Strategic plan for the elimination of tuberculosis in the United States', the Advisory Council for the Elimination of Tuberculosis has revisited the topic with a new report calling for 'new and improved diagnostic, treatment and prevention methods, including a new vaccine'.

The new report, *Tuberculosis Elimination Revisited: Obstacles, Opportunities, and a Renewed Commitment*, is upbeat in tone, coming on the heels of seven years of declining numbers of tuberculosis cases. As the report catalogues, the number of cases reported annually in the United States dropped from 84,304 in 1953 to 22,201 in 1985 but then climbed to 26,673 in 1992. In 1998, the number fell to a record low of 18,361 (6.8 per 100,000).

This recent progress, the current report suggests, came from a 15-fold increase in spending—from  $5m (\pounds 3m)$  to  $\pounds 75m$ —on tuberculosis research after the release of the 1989 report. The new report says that the United States should set a goal of 3.5 cases per 100,000 by the year 2000 and an 'elimination' rate of less than one case per million by 2010.

#### Van Gysel Foundation for biomedical research

The van Gysel Foundation for biomedical research, a public utility establishment, was founded in Belgium in 1989 on the initiative of the industrialist Baron Jean-Paul van Gysel de Meise, for the purpose of promoting the development of higher teaching and research in the biomedical field.

The Foundation triannually awards the van Gysel Prize for Biomedical Research to teams of

researchers that have made an important contribution to the biomedical sciences. When instituting the Prize, Baron van Gysel de Meise wanted to protect the intellectual heritage of the European Economic Union by restricting its award to researchers from the current European Union.

Since 1990, the Foundation has awarded a Prize of 2,000,000 BEF. The van Gysel Foundation for biomedical research has decided, from the year 2000, to increase the value of the Prize to 4,000,000 BEF (100,000 EUROS).

*Further enquiries*: The van Gysel Prize for Biomedical Research, Fonds National de la Recherche Scientifique, Rue d'Egmont 5, B-1000 Bruxelles, Belgium. Fax: +32 (0)2 504.92.92; e-mail: mjsimoen@fnrs.bn

# WHO: diagnostic discovery operations, with emphasis on TB

The following is taken from TDR News, no. 60, October 1999, page 7:

Diagnostics, a previously under-represented area at WHO, has become increasingly important for disease control, outbreak detection, and epidemiological surveys. It will now have a focus in TDR, where the portfolio of the Product Research and Development team, led by Dr Win Gutteridge, has been expanded to include a diagnostics component, complementing sister activities in drug and vaccine discovery. The diagnostics operation is managed by Dr Mark Perkins; it will focus initially on previously determined priority areas, but will grow with time to include new diseases as priorities are identified.

The current centrepiece of diagnostic activity is an initiative in tuberculosis. New diagnostics are badly needed to improve detection of both smear-positive and smear-negative cases and to rapidly and inexpensively detect antibiotic resistance. Existing technologies are usually slow, insensitive, or laborious, and delays and errors in diagnosis significantly hamper disease control efforts. The WHO TB diagnostics initiative (TBDI) was launched to accelerate the exploitation of technical advances for the development of new products appropriate for use in low-income countries, TBDI has partnered with industry, academic researchers and public health workers to identify obstacles to the development of tests, to elaborate product performance guidelines and to frame TB diagnostic priorities.

A major focus of TBDI has been the development of the WHO TB specimen bank, a collection of clinical reference materials from well-characterized patients, and the formation of a network of field sites for specimen collection and test evaluation. At present, four sites with experienced personnel in TB diagnosis, care and clinical trials, are enrolling TB patients and symptomatic controls, according to detailed standardized protocols, to collect clinical specimens for the bank. Already more than 6000 aliquots of serum, sputum and saliva (along with associated clinical information) have been collected, processed and cryopreserved. The specimen bank gives test developers access to high-quality pedigreed specimens, a service that will facilitate quality control and speed the development of tests appropriate for settings of endemic disease. A number of promising assays are under development, including simple multi-antigen serologic tests, phage-detection assays, antigen capture systems, and nucleic acid amplification or probe tests; WHO will use the specimen bank and the field site network to perform laboratory and clinical evaluation of the most promising of these in the near future.

The need for improved diagnostic tools for malaria has also been identified as critical in some geographic regions. The new diagnostics programme is co-sponsoring, with Roll Back Malaria and the US Agency for International Development, an international consultation to define the role of rapid diagnostic tests for falciparum and vivax malaria in disease control. The current commercial availability in low-income countries of sensitive qualitative blood tests for plasmodial antigens increases the urgency of defining their most appropriate use.

The TDR diagnostics operation also collaborates with the WHO Communicable Diseases cluster (CDS) on initiatives in other key areas, such as sexually transmitted infections.

*Further enquiries*: UNDP/World Bank/WHO Special Programme for Research & Training in Tropical Diseases (TDR), WHO, 1211 Geneva 27 Switzerland.

# What is a quantum?

The words quantum and 'quantum leap' are being used quite frequently these days in medical and scientific publications. John Gribbin, in his intriguing *The little book of science* (Penguin Books Ltd, London, UK), comments as follows:

'One of the scientific terms that has entered popular language is the 'quantum leap'. Curiously, it has almost the opposite meaning in popular language to its scientific meaning. In science, the quantum's most important feature is that it is the smallest possible change that can be made to a system. The other crucial feature of a quantum leap is that if a system, such as an atom, has a choice of states to leap into, it makes its choice about which way to go entirely at random. So a quantum leap is the smallest change it is possible to make, and has been made entirely at random ...'

# **CD-ROMs:** Topics in International Health

The following is taken from the latest issue of INASP Newsletter, no. 12, May 1999, pages 8-9.

Many readers of the *INASP Newsletter* will already be aware of the *Topics in International Health* (*TIH*) series of CD-ROMs, which were published last year by the Wellcome Trust. The first four disks were launched at the Trust in April 1998 (malaria, STDs, trachoma and sickle cell disease) and were followed by four more titles in December. The series has proved to be a major success, reaching some 1500 users in 69 countries around the world in just nine months. The most recently published disks cover leprosy, tuberculosis, diarrhoeal diseases and schistosomiasis.

The disks are aimed at healthcare professionals and students in both the developed and developing



world, but it is distribution into the poorer regions that is of most importance to the Wellcome Trust. In this way, we are able to provide accurate and accessible health information to support coordinated health improvement programmes.

The Wellcome Trust chose CAB International (CABI) to be their publishing partner and distributor for the *TIH* series. CABI is a not-for-profit intergovernmental organization which is owned and governed by its 40 member countries, the majority of which are in the developing world. It is both a scientific research organization and a scientific publisher and, like the Wellcome Trust, has a mission to spread scientific knowledge in developing countries. CABI has a special Information for Development (IFD) programme whose aim is to make health and agricultural information more readily accessible to users in the South, for example by obtaining sponsorship from a variety of donors to supply information resources, computer hardware, and training.

Since the launch of the *TIH* series, staff from CABI's IFD programme have been actively making contact with a broad range of donor and partner organizations worldwide, in order to expand the use of the disks in developing countries. Potential partners include NGOs, professional associations, universities and teaching hospitals, research institutes and government agencies. Potential sponsors are bilateral and multilateral donors, government departments, foundations and the private sector.

Recent success stories include the adoption of the trachoma disk as a programme resource by the International Trachoma Initiative, which is jointly funded by the Edna McConnell Clark Foundation and Pfizer Inc. In addition, a total of 125 copies of the leprosy and tuberculosis disks have been bought by Netherlands Leprosy Relief for distribution to their project managers in the field. An initial 50 CDs (malaria, sexually transmitted diseases, tuberculosis and diarrhoeal diseases) have been procured by the JHPIEGO Corporation, a non-profit training organization affiliated with Johns Hopkins University and funded by USAID. These are for use by their Learning Centres in Nepal, Bolivia, Indonesia and Haiti, along with JHPIEGO's own reproductive health training materials. The *Topics in International Health* series continues to be developed, with three more titles in preparation for publication in November 1999. These new disks will cover HIV/AIDS, nutrition and leishmaniasis.

The Wellcome Trust and CABI are keen to expand the sponsored distribution of the *TIH* series in developing countries and any readers with views or ideas on this subject are asked to contact the authors:

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#### WHO: vaccine research

The following appeared in TDR news, no. 60, October 1999, page 7:

All WHO-supported efforts in vaccine research will in future be coordinated under one umbrella, together with UNAIDS activities in this field. Currently there are a number of strands of vaccine research throughout both organizations, for instance:

- TDR (from within the WHO cluster on Communicable Diseases) supports research on vaccines for malaria, schistosomiasis and leishmaniasis.
- The WHO cluster on Health Technology and Pharmaceuticals promotes the development and field evaluation of vaccines for major bacterial diseases (such as pneumococcal diseases, diarrhoea caused by e.g. *Shigella* spp. and cholera, TB, meningococcal meningitis) and major viral diseases (such as rotavirus, dengue, measles, Japanese hepatitis). Generic issues such as mucosal and early life immunization, use of DNA/live vectors, and needle-less vaccination procedures, are also addressed, as is vaccination-related epidemiological research (in preparation for the introduction of new vaccines in immunization programmes).

UNAIDS promotes the discovery, development and field evaluation of vaccines for HIV infection.

A unified inter-cluster vaccine research (IVR) initiative will allow more streamlined management of activities, avoiding duplication of effort, reducing the number of steering and advisory committees, and providing opportunities for joint projects which justify high priority and additional resources. The work will be managed functionally by the IVR Coordinator, a post jointly resourced by TDR and V&B (the WHO department of Vaccines and Other Biologicals). Vaccine research will be managed in three categories:

- Exploratory research, concerned with discovery of candidate vaccines for agreed priority diseases (including malaria and TB) and new vaccination approaches (e.g. mucosal immunization).
- Pre-regulatory research, concerned with preclinical and clinical studies of candidate vaccines to assess safety, immunogenicity and efficacy prior to regulatory approval.
- Post-regulatory research, concerned with field studies of new vaccines and development and assessment of new vaccination strategies.

A Global Vaccine Research Forum will meet annually in Montreux, Switzerland, to allow key private and public sector players to share information on the development and application of new technologies and approaches, discuss what needs to be done and make recommendations on global priorities.

#### 'Eliminating debt will not save the poor'

The following is from the Guardian newspaper, UK, of 11 October 1999:

God is in his heaven. The Pope has pronounced, and Third World debt has been redeemed. I have to say that I think the whole affair has been a giant red herring. More precisely I think it is a major distraction from the task of reducing world poverty. Why?

First, the distribution of the benefit is highly distorted. The campaigners have a list of 52 countries that qualify for their support. But these countries contain only one fifth of the total of people whom the UN classifies as being in absolute poverty. Nearly half of all the debt to be cancelled is due from some 30 small African countries located south of the Sahara and north of the Zambesi. We all know that this is a very unhappy part of the world. It is certainly very poor: income per head ranges between 60% and 70% below the Third World average. But fortunately, in terms of population, the region is also quite small. It contains less than 200 m absolutely poor people. That may seem a large number but it is dwarfed by the poverty population of south and east Asia, which at over a billion, is five times as large. Yet south and east Asia will get only about a quarter of the total debt relief. Furthermore, within that region, the relief is peculiarly distributed. Bangladesh, large and very poor, gets little. Nearly half the regional total goes to the Philippines and most of the rest goes to Vietnam.

What is it that the left-out poor have in common? Basically it is that they reside in countries, such as India and China, which did not get into major debt. These left-out countries tend to be large, with total populations measured in hundreds, rather than tens of millions. It is a persistent fact of the aid business that the smaller the country the more aid it tends to get per head. This is not because small countries necessarily have greater economic needs than large countries, but because aid goes to governments, not people, and each little government is a political lobby. Thus Amartya Sen and Jean Dreze wrote, 'Uttar Pradesh, in north-east India, has a population of nearly 150 millions, larger than any other country, it would have been one of the most deprived in the world.' But because Uttar Pradesh is in India and India has a low level of debt per head, the 100 m extremely poor people who live in Uttar Pradesh get no benefit from the debt-relief campaign at all. In contrast, the no-poorer

people of sub-Saharan Africa, divided by the accidents of colonial history into a large number of tiny countries, fare much better.

My second grievance is that the anti-debt campaign seems to cast a general slur on the role of international capital in the task of global poverty reduction. The repayment problem is exaggerated. The total debt of a typical Third World country today is equivalent to about 6 months' national income. A developing country with this amount of debt which has taken off into brisk economic growth—say population growing at less than 2% a year and total GDP at 5% or 6%—can pay off the whole amount in 20 years and still halve its total poverty population over the same period. Those figures are typical of what has been happening in east Asia for the past 2 decades and what on recent trends seems currently possible anywhere in south Asia. (Of course they are not typical for sub-Saharan Africa.)

Finally, I suggest that the whole rhetoric of the anti-debt movement distracts attention from the fundamental challenge in the next century. It is possible to eliminate all absolute poverty, as currently defined by the UN, in the Third, Second and First Worlds by 2050. It is also possible to equalize the average standard of living in all three worlds by the century's end. Despite the obvious environmental dangers, these targets are feasible, but they require positive action. The debt lobby, the green lobby and many other like-minded groups speak as if they believed that the poor must always be with us; therefore we will always need charity. In my opinion, charity is not involved. Poverty need never exist. The problem is essentially practical rather than moral. One practical need is a massive increase in what is called 'net' aid, that is the flow of new money less the reverse flow of repayments and interest. To that end, because the cancelled loans could not in any case be serviced, the current redemption programme will contribute nothing. Indeed, because some governments may pretend otherwise and thereby justify continuing to reduce gross aid, the total effect on world poverty could actually be adverse. What would the Pope say to that?

The author, Robin Marris, is emeritus professor of economics at Birkbeck College, London, UK.

#### 'Professional Fundraising': a journal for charities and the non-profit sector, London, UK

The following is extracted from the covering letter with the latest issue:

*Professional Fundraising* is published on the first Thursday of every month and has a circulation of 4500. With almost three readers per copy, our readership is just under 13,500. *Professional Fundraising* is read by fundraising professionals working within the charity and not-for-profit sector including theatres, arts organizations, local councils, universities, sports organizations, etc., and is also circulated to directors, chief executives, personnel managers and trustees throughout the industry.

Published on the third Thursday of the month, our newsletter *PF Plus* also reaches the leading professionals working within all aspects of revenue generation, including legacy officers, donor support workers, corporate fundraisers, sponsorship/development executives and events organizers both regionally and nationally.

Current issues (about 40 pages) contain a wealth of information on all aspects of fund raising, ranging from the use of the internet and other forms of information technology (IT) to down-to-earth advice for small and medium-sized charities. The activities and strategies of many well known agencies and their contributions to recent conferences are described in detail. A typical entry, which may be of interest to readers in the UK and other parts of Europe is the following:

The Charity Commission for England and Wales is a government department with responsibility for registering, monitoring, supervising and advising charities. It also investigates allegations of wrong doing, and can use a range of powers to protect charity assets if causes for concern are found.

The Commission also has responsibility for maintaining the Public Register of Charities (more than 187,000), which members of the public can consult for detailed information about a charity.

Alternatively, details of all registered charities can be viewed on the Commission's website at http:// www.charity-commission.gov.uk. Publications cover all aspects of running a charity. Contact 01823 345427 for publication details or Harmsworth House, 13–15 Bouverie Street, London EC4Y 8DP, UK. Fax: +44 171 674 2310.

For *Professional Fundraising*, the address is United House, North Road, London N7 9DP. Fax: +44 207 700 2049; e-mail tmd-press@btinternet.com.

# Improving malaria information support for health professionals in Southern Africa: 'Red Malaria Reference Initiative'

The following information on this important new initiative comes from the *WHO-Southern Africa Malaria Control Programme and the University of Zimbabwe Medical Library* and is dated August 1999. The main content is reproduced here since it is possible that the approach used for malaria may be applicable to other major diseases, including leprosy.

Health information support in most Southern African countries is extremely limited with the majority of libraries, hospitals and clinics lacking essential reference books, manuals and journals. This shortage of information inhibits effective malaria control and prevention activities within countries at all levels and, in particular, at the district level.

The WHO-Southern Africa Malaria Control Programme (SAMC) in collaboration with the University of Zimbabwe Medical School Library has launched the Malaria Red Reference Initiative to provide information support on malaria to health professionals working at the national level down to the subdistrict level. Four types of support are planned:

#### 1. The Southern African Malaria Red Information Resource Centre

A centralized resource centre housing a comprehensive collection of journals, manuals and books on malaria control and prevention is being established at the University of Zimbabwe Medical Library in Harare. The library is Zimbabwe's national medical library and has an Outreach Service available to health professionals throughout the country. Soon, with assistance from WHO and the US National Library of Medicine, the library will be able to deliver a wide range of information on malaria control and prevention by e-mail and mail from an expanded range of printed and electronic services and sources. These information sources will include journal articles, book contents pages and chapters, and CD-ROM and internet website searches. This service will be available to all health professionals working in malaria control and prevention within Southern Africa.

#### 2. The Malaria Red Trunk

The Red Trunk is modelled on WHO's Blue Trunk mini-library. The Blue Trunk is designed to be delivered to district hospitals with a core collection of health literature in a lockable blue-painted trunk.

The Malaria Red Trunk is initially targeted at malaria control managers and houses an essential collection of books and manuals on malaria diagnosis and case-management, vector control, epidemic response and surveillance, malaria health education, operational research, and general texts on malaria and epidemiology. In the medium term the intention is to extend the Red Trunk coverage to the provincial level and targeted districts (see Annex 1: Red Trunk booklist).

#### 3. The Malaria Red File

The Red File is a compilation of basic information on malaria for health professionals working at the district level and below. It is intended to be a personal resource for district medical officers, environmental health officers and senior nurses.

Collated into a red ringbinder file are therapeutic and diagnostic guidelines; epidemiological and historical background material on malaria; details of the information sources and services available at the Malaria Information Resource Centre; and addresses for e-mail conferences, listserves and internet websites (see Annex 2: Red File Contents).

Red File holders will receive regular Malaria Updates. The updates will include new and relevant

malaria control research findings compiled by the Malaria Red Information Resource Centre using Medline searches as well as other news on malaria control and prevention likely to be of interest to frontline health professionals. In the future a smaller version of the Red File may be distributed to health centre personnel.

# 4. E-mail and electronic sources of information

This initiative aims to improve access to electronic sources of information on malaria control. These may include increasing access to malaria listserves, internet access to Medline and other electronic databases and regular compilations of malaria control research abstracts distributed on floppy disks and/or through e-mail.

The four levels of information will allow health professionals to have basic and essential material accessible 24 hours a day via their personal Red File; more detailed information from the Red Trunk; and less urgent and more specialized information from the Malaria Information Resource Centre by e-mail, fax, phone or mail. Lastly, increasing the use of e-mail and the internet will facilitate information exchange between different malaria control programmes and the research community.

Phase One of the Malaria Red Reference Initiative is currently underway. Between September and December 1999;

- The first 50 Red Trunks will be distributed to National Malaria Control Programmes (NMCPs), WHO country offices, university libraries and research institutions.
- Red Files will be sent out to NMCPs and district health personnel for pretesting.
- The Malaria Information Resource Centre will be officially opened.
- The SAMC website will be launched.

Please send us your comments and suggestions so we can provide health professionals engaged in malaria control with the information they need to roll back malaria.

Dr Graham Root Research, Monitoring and Evaluation Officer Southern Africa Malaria Control Programme WHO 95 Park Lane Harare Tel: 263-04-728991-7 Fax: 263-04-728998 E-mail: groot@samara.co.zw Ms Helga Patrikios Deputy University Librarian Medical Library University of Zimbabwe PO Box A178 Avondale Harare Tel: 263-4-708140 Fax: 263-4-795019 E-mail: patrikios@healthnet.zw or uzmedlib.hre@healthnet.zw

#### **Global Alliance for Leprosy Elimination**

On the occasion of the final meeting on 12 November 1999 of the Board members for the Leprosy Fund of the Novartis Foundation for Sustainable Development (previously Ciba-Geigy Leprosy Fund), the following information was presented:

a) A Media Release entitled 'Novartis is the pharmaceutical partner in alliance to eliminate leprosy worldwide':

Basel, 15 November 1999—Novartis has pledged to donate approximately USD 30 million in medication to cure all the leprosy patients in the world detected over the next 6 years. This is the company's key contribution to the Global Alliance, announced today by the World Health Organization (WHO), that aims to eliminate leprosy as a public health problem from every country by the year 2005. Novartis will make additional resources available to help implement this final push towards eliminating the disease.

'For centuries leprosy has plagued mankind, mutilating people who are then often discriminated or

even excluded by society. So much suffering results from this disease, but early treatment can prevent its disfiguring and crippling effects and achieve cure. As the pharmaceutical partner in the Global Alliance, we are most pleased to donate the drugs needed to eliminate leprosy', said Daniel Vasella, Chairman and CEO of Novartis.

Novartis has a long tradition in the fight against leprosy, extending from the research laboratory to the clinic in the field. The company played a key role in developing two of the three drugs used in multidrug therapy. Since 1986, its Foundation for Sustainable Development has been involved in implementing practical and innovative strategies for leprosy elimination.

The Global Alliance and its partners aim to detect and cure the estimated 2.5–2.8 million leprosy sufferers by the end of 2005, thus achieving elimination of the disease. 'Elimination' is defined as a prevalence of less than one case per 10,000 population in every country. The current prevalence in the most endemic countries, which account for 90% of cases, is more than 4.5 times this target. Efforts will focus on detecting all cases by generating and meeting demand for free treatment through improving awareness and access. Over the past 15 years, an estimated 10 million people have been cured of leprosy and the disease has been eliminated from 98 endemic countries. This concerted final push will consign this dreaded disease to history.

Other members of the Alliance are governments of leprosy endemic countries, the Nippon Foundation, and the International Federation of Anti-Leprosy Associations (ILEP). The Alliance will cooperate closely with non-governmental organizations, the Danish International Development Agency (DANIDA) and the World Bank. The government of India has agreed to chair the Global Alliance during the year 2000.

'We are grateful for the strong support of our partners, both old and new, in the final years of the fight against leprosy. Let us join hands and make a final push to consign a dreaded disease to history', said WHO Director-General Dr Gro Harlem Brundtland. WHO will further intensify its work in guiding and monitoring field operations, while verifying the implementation of the Global Alliance's strategy.

Novartis is a world leader in Life Sciences with core businesses in Healthcare, Agribusiness and Consumer Health. In 1998, Novartis Group sales were CHF 31.7 billion. The group annually invests more than CHF 3.7 billion in R&D. Headquartered in Basel, Switzerland, Novartis employs about 82,000 people and operates in over 140 countries around the world.

Further information on:

The Novartis Foundation for Sustainable Development: www.foundation. novartis.com Novartis: www.novartis.com

b) More detailed background under the heading 'The Final Push':

#### An alliance to eliminate leprosy ...

On November 15th 1999, representatives of leprosy endemic countries, the World Health Organisation (WHO), the Nippon Foundation, Novartis and the International Federation of the Anti-Leprosy Associations (ILEP) announced a Global Alliance to eliminate leprosy as a public health problem from every country by the year 2005. The Alliance will work closely with patients, communities and all agencies interested in leprosy such as the Danish International Development Agency (DANIDA) and the World Bank.

The Alliance and its partners aim to detect and cure all the remaining leprosy cases in the world currently estimated at 2.5–2.8 million—over this 6 year period. Efforts will focus on generating 'demand' for treatment through improved awareness of leprosy in conjunction with better access to diagnosis and treatment.

The term 'elimination' means bringing down the disease burden to a very low level. This will lead to a reduction in the source of infection so that the disease will disappear naturally as it did in many parts of the world. This level has been defined by WHO as a prevalence rate of less than 1 case per 10,000 inhabitants.

#### Achievements so far...

Significant progress has been made since the 1991 World Health Assembly resolution to eliminate leprosy by the year 2000. Over the past 15 years, about 10 million people have been cured of leprosy, the

prevalence has dropped by 85% to reach 1.4 per 10,000 inhabitants and leprosy has been eliminated from 98 countries. At the end of 1998, there were 820,000 registered patients in the world and in the course of that year, about 800,000 new cases had been detected. The progress made is far more than simply statistical—the alleviation of human pain and suffering is immeasurable.

# ... but still a long way to go

With just 1 year to go before the original elimination deadline, the established prevalence of leprosy is still over four times the target level in the 10 most endemic countries. These countries represent approximately 90% of the global leprosy burden. The reasons for missing the deadline are varied and include the high prevalence itself, the intensity of disease transmission and limited geographical coverage with MDT services. In a few countries experiencing civil strife, elimination efforts are seriously undermined by a damaged health infrastructure.

Most importantly, there is a substantial hidden caseload, as suggested by the high numbers of new cases emerging with the widening coverage of elimination campaigns. The reasons for these hidden cases are complex and include inadequate access to diagnosis and treatment; poor awareness of the early signs of leprosy and delay in seeking treatment for fear of social consequences. The consequences of this delay can be devastating to individuals and their families, as leprosy can lead to progressive and irreversible deformities, often resulting in social exclusion.

# The Focused Strategy ...

The fundamentals of the original elimination strategy will remain the same, namely detecting and curing all patients with multidrug therapy (MDT). MDT has proved to be highly effective in curing leprosy, is well tolerated, while the relapse rate has been extremely low. Moreover, through early treatment, MDT prevents disabilities.

The success of this final push demands synchronized implementation of all the core elements as well as some refinement to accommodate local variables.

... core elements

- Improving access to leprosy services by enabling all health facilities in endemic districts to diagnose and treat leprosy
- Ensuring availability of free MDT drugs at health centres through improved logistics
- Motivating people to actively seek treatment by creating better community awareness of the early signs and dispelling fear of the disease
- Ensuring high cure rates through innovative and patient friendly drug delivery systems
- Active monitoring and taking timely corrective action.

... standardization

- devising general 'elimination kits' comprising templates, texts and visual aids, which should be adapted to the local context on:
- *Capacity building* to enable general health care staff to diagnose and treat leprosy as well as its complications.
- *MDT and logistics* to ensure that adequate stocks of MDT are available at the peripheral level.
- *Information and advocacy* to create a positive image for leprosy elimination in communities and generate support for its elimination at all levels.
- Monitoring systems to keep track of new caseload, cure rates and progress towards elimination.

# ... prioritization

Based on current prevalence rates, countries have been classified into three groups: intensification, acceleration and consolidation. Priority clearly has to be given to countries in the 'intensification group'.

# Immediate steps to be taken

'Intensification' countries:

- Set up national task forces comprising representatives from the respective Ministry of Health, WHO
  and other partners in order to
- conduct a situation analysis; adapt the strategy to field reality; develop a detailed plan of action with clear timeframes.
- to play a catalytic role and develop a network of focal points at national and sub-national levels; assist with data collection and analysis; put into place improved MDT distribution systems.
- provide managerial, technical and logistical support to local health services.

'Acceleration' and 'Consolidation' countries:

Identify geographical areas where leprosy has not been eliminated and implement the core activities of the focused strategy.

Put into place a simple and integrated surveillance system as well as referral mechanisms.

#### **Clear benchmarks**

- *Year 2000*: Ground work including situation analysis, development and adaptation of the generic kits and creation of national task forces.
- Years 2001–2003: Intensive implementation at the district level, including integration of leprosy services into the general health services. Close monitoring of progress.
- Years 2004–2005: Phasing out and validation of elimination at national level and ideally at subnational levels.
- Years 2006 and beyond: Local health services will deal with the new cases of leprosy that will continue to occur even after 'elimination'. In addition, a significant number of individuals disabled because of past leprosy will need attention. National programmes, in partnership with all relevant agencies working in leprosy, will continue to provide best possible care through integrated health systems at the most peripheral level.

#### Roles of the partners in the alliance

*National health ministries* will continue to play the key role in eliminating leprosy. They will be responsible for developing plans, mobilizing resources, coordinating the activities of various partners, implementing the strategy and monitoring progress. Their commitment and leadership will remain crucial.

*WHO* will continue to provide technical and strategic leadership to the elimination programme as well as deal with MDT logistics. It will further intensify its efforts to guide and monitor field level operations in order to ensure effective implementation. WHO will keep the war against leprosy high on its agenda and will continue to generate political commitment for elimination, particularly in the endemic countries.

The Nippon Foundation and the Sasakawa Memorial Health Foundation will contribute USD 24 million to WHO towards country level activities. Their past contributions have played a decisive role in leprosy elimination: they have enabled WHO to provide free treatment to all leprosy patients in 80 countries from 1995 to 1999 as well as to carry out special programmes and field activities.

*IELP* members will make a significant contribution to the Global Alliance particularly through their extensive and long-standing experience of leprosy project work in the field. The Federation's 19 members pledge USD 19.5 million for the year 2000 towards the Global Alliance strategy. ILEP members believe that the Global Alliance is an essential part in the fight against leprosy and all its consequences.

*Novartis* will donate MDT, worth approximately USD 30 million, to WHO for the treatment of all the leprosy patients over the 6 year period. Novartis Pharma has developed two of the three key drugs in MDT: Rimactane<sup>®</sup> (rifampicin) and Lamprene<sup>®</sup> (clofazimine). The Novartis Foundation for Sustainable Development, actively involved in field programmes, will provide additional resources to help implement the focused strategy.

#### How the Alliance will function

A Collaborative Coordinating Committee, comprising members of the Alliance and representatives of the major leprosy endemic countries, will review progress towards elimination and guide future

activities. The Government of India, the most endemic country in the world, will chair the Committee in the first year. WHO will form the Secretariat for the Committee.

#### A historic opportunity

The elimination of leprosy is no longer a complex medical problem. Leprosy can easily be diagnosed on clinical signs alone with minimal training; the treatment is highly effective and easy to use under field conditions. Our strategy is in place, as are most of the resources and the commitment to eliminate leprosy. It is now simply a case of making it happen.

It is hoped that this final push will consign a dreaded disease to history.

# 'District laboratory practice in tropical countries': Tropical Health Technology, UK

This is a 454-page manual, reinforced paperback, written by Monica Cheesbrough of Tropical Health Technology (14 Bevills Close, Doddington, March, Cambridgeshire PE15 OTT, UK. Fax: +44 1354 740 0130) and published by Cambridge University Press.

The author's Preface reads as follows:

Changes in the organization of health services in developing countries have led to the district level assuming more responsibility for the planning, delivery, and quality of community health care. Reliable and well managed district laboratories have a major role in improving and sustaining the quality of community health care, reducing morbidity and mortality, and providing information that can lead to a more efficient and cost-effective use of district health resources. With laboratory support, diseases can be diagnosed more accurately, drugs used more selectively, and disease surveillance improved. It has also been found that the confidence of the community in its health services increases when laboratory facilities are available.

District Laboratory Practice in Tropical Countries has been produced to help those working in district laboratories in developing countries and those responsible for the organization and management of community laboratory services and the training of district laboratory personnel. As with the previous publication *Medical Laboratory Manual for Tropical Countries* which this new book replaces, the author has been guided in the choice of contents by the suggestions and requests of those working in the developing countries. Accordingly, Part 1 includes comprehensive chapters on the organization, management, safety, and equipping of district laboratories. How to provide both a reliable and quality laboratory service are described in detail as part of the modern approach to the total quality management of medical laboratory services.

Part 1 also includes an up to date laboratory diagnosis of parasitic infections with colour illustrations and the clinical chemistry investigations that can be performed in district laboratories. At the request of those involved in training, a special *Supplement* is included on how to design and implement a job-orientated training curriculum for district laboratory officers.

The author hopes that this new publication will help to motivate those working in district laboratories in developing countries and lead to the growth of reliable and relevant community laboratory services. Recognition and support of district laboratory services are key to improving community health care in developing countries. The views of those using the book will be warmly welcomed by the author.

And the back cover comments as follows:

Changes in the organization of health services in developing countries have led to the district level assuming more responsibility for the planning, delivery and quality of community health care. District Laboratory Practice in Developing Countries has been produced to help those working in the district laboratory, and those responsible for the organization and management of community laboratory services and the training of district laboratory personnel.

Replacing the previous publication Medical Laboratory Manual for Tropical Countries, this book provides an up-to-date practical bench manual, taking a modern approach to the provision of a quality medical laboratory service.

It includes practical accounts of: organization and staffing of district laboratory services; total quality management; health and safety; equipping district laboratories; parasitological tests, illustrated in colour; clinical chemistry tests; how to plan a training curriculum for district laboratory personnel.

Part 2, published in late 1999, covers microbiological tests, haematological tests and blood transfusion tests.

This manual is almost certainly the most up to date, comprehensive and informative publication of its kind currently available and Part 2 (released in December 1999) will be of similar quality. The author is to be congratulated on a massive project of potentially great importance for district hospitals worldwide. Details of price, postage, etc. may be obtained from the author at the above address, or from Cambridge University Press, the Edinburgh Building, Cambridge CB2 2RU, UK. http//www.cup.cam. ac.uk

# What is 'meta-analysis'?

The term 'meta-analysis' is being used increasingly in current medical and scientific literature, sometimes without definition. The following, from WHO Reproductive Health Library, 1999, Issue 2, Page 2, may be helpful:

Meta-analysis is the statistical method used to integrate results from more than one study to produce a summary estimate of the treatment effect across studies (typical relative risk). It is an application of a statistical technique used in observational studies (case-control studies and cohort studies) during stratified analysis. The difference is that in a meta-analysis in a systematic review of RCTs each stratum is an individual randomized controlled trial. In a stratified analysis of observational studies, on the other hand, a stratum is a category of the variable under consideration (for example age <20 years versus >20 years). This technique is commonly known by the names of those who developed it for case-control studies (Mantel–Haenszel) although several variations of it also exist. Metaanalysis is only an analytical tool in a systematic review and not all systematic reviews necessarily include a meta-analysis. In the presence of disparities among trials meta-analysis can help by stratifying different characteristics, to identify the sources of such disparities. Meta-analysis is conducted in a systematic review when the review includes more than one trail, although it does not necessarily follow that a summary estimate of the treatment effect is obtained. When there are clinical or biological disparities (heterogeneity) between trials, then using meta-analysis to produce a single summary estimate may be misleading and should be avoided.

# Disability in cross-cultural perspective: rethinking disability

This article, by N. E. Groce, appeared recently in the Lancet, August 28, 1999.

Our understanding of disability has changed substantially over the past two decades. Revolutionary changes in medicine and technology now enable clinicians to understand and treat people with disabilities in ways undreamed of even a few years ago. However, arguably the most substantial change in the understanding of disability is not in the realm of clinical services, but in the growing body of research that finds that while disability is universal, there is marked variation in how cultures interpret disability. This research shows that the lives of individuals with disability around the world are usually far more limited by prevailing social, cultural, and economic constraints than by specific physical, sensory, psychological, or intellectual impairments.

Disability has always been part of the human condition. Indeed, it precedes human beings—the earliest known example of a severely disabled individual is that of an aged multiply-disabled Neanderthal. There has yet to be found a human society that does not have a complex system of beliefs and practices concerning disability. All societies have explanations for why some individuals and not others are disabled, how individuals with disabilities are to be treated, what roles are appropriate and inappropriate for such individuals, and what rights and responsibilities individuals with disability are either entitled to or denied.

These social beliefs seem to be based upon three categories that appear regularly cross-culturally: 1) causality, 2) valued and devalued attributes, and 3) anticipated adult status.

Causality is the cultural explanation for why a disability occurs. Individuals with disability are treated well or poorly, based in part on cultural beliefs about how and why they became disabled. Explanations related to divine displeasure, witchcraft or evil spirits, reincarnation, tainted blood, and genetics all appear in the ethnographic record.

Valued and devaluated attributes are those qualities a society finds important. For example, in societies in which physical strength and stamina are valued, individuals with physical impairments are at a disadvantage. In places where intellectual endeavours such as literacy and the ability to use technology are important, the fact that one is a wheelchair user may be less limiting. Similarly, as in some Pacific island societies, in which a man's status (but not a woman's) is determined in part by his ability to speak well in public, deafness or a speech impediment will be judged particularly disabling. However, traditional beliefs about disability are not always negative. For example, studies from northern Mexico and Botswana report that the birth of a disabled child is viewed as evidence of God's trust in specific parents' ability to care well for a delicate child.

The willingness of any society to allocate resources for individuals with disabilities, including resources for clinical care and rehabilitation efforts, will also depend in large measure on the anticipated role that the individual with disability will have in the community as an adult. Will most adults with disabilities be participating members of society, with families of their own, jobs, and a right to participate in social, religious, and political debate, or will they be denied such inclusion?

Cross-cultural differences in the interpretation of disability show that the lives of individuals with disability are limited not so much by their specific type of disability as by the social interpretation of that disability. If this is the case, then the issue of interpretation of disability moves from one of health to one of human rights.

The United Nations estimates that some 10% of the world's population (500 million people) have substantial disability; 80% of these people live in the developing world. For millions, their lives are hard indeed. Their medical needs are great, although the United Nations estimates that only 3% of all those in need of rehabilitative care actually receive any treatment. But medical needs are far outweighed by social and economic needs. Those with disability are among the poorest and most marginalised of all the world's citizens. They are generally denied not only adequate health care, but also education, employment, and social equality. UNESCO estimates that the global literacy rate for those with disability is 3%; for women with disability worldwide is begging. Furthermore, disability is generally unrecognized as a component of other social and economic issues. For example, UNICEF estimates that half of all street children have some type of disability before coming to the streets. Recent studies show that women with disability are twice or three times more likely to be victims of physical and sexual abuse as their non-disabled sisters.

Health-care professionals can help to change this state of affairs, because in many countries they have a strong voice in making decisions and policies that directly affect people with disability. They have the potential to insist that health policies and programmes for those with disability are tied to broader social and economic policies and programmes. Whether the issue is community-based services in urban American or rural development schemes in Pakistan, health professionals who work on disability issues must extend their perspective beyond the bounds of traditional clinical-based services and programmes if they are to help make a meaningful difference in the lives of those they serve.

But health-care professionals cannot do this alone. Globally, a growing Disability Rights movement has brought ardent and articulate disability-led groups to the fore. These groups have bee instrumental in advocating social, economic, and political inclusion in national and international arenas, and their insistence that they be permitted to speak for themselves in these arenas is an important development.

What health-care professionals can contribute to this growing international debate is their expertise and their already established voice in national and regional programmes and policies. They are not there to speak for those with disabilities, but to work in conjunction with these people and their families to strengthen their voice in the arena of human rights.

# Bombay Leprosy Project observes World Disabled Week

Bombay Leprosy Project (BLP) commemorated World Disabled Week on Sunday, December 5th 1999.

The concept of leprosy control programmes observing World Disabled Day (WDD) with as much enthusiasm as they show in celebrating World Leprosy Day (January 30th) was generated by Bombay Leprosy Project in the year 1992 and propagated and practised regularly since then. What was specially significant in BLP's commemorating WDD this year was that the venue of this function held on 4 December 1999, to commemorate the event was the heart of a Bombay slum where BLP's field research in Community Based Rehabilitation (CBR) is in progress.

The Guest of Honour was none other than an elderly disabled patient who distributed calipers and other aids and appliances to his fellow handicapped in the slum of Bharat Nagar, Bandra (East). It is to be noted that some of the victims of leprosy and other disabling diseases learn computer technology in this slum centre. There were 172 beneficiaries of physical rehabilitation in this slum of 72,170 citizens, of whom 18 were leprosy disabled, all of whom were identified by volunteers of the same slum community.

Dr R. Ganapati, BLP's Director, remarked that if our experience regarding the challenging nature of the training and rehabilitation of all these handicapped in a single slum offers any indication, it is that the resources needed to do 'reasonable' justice to solve the entire problem in this megacity with its sprawling slums, would indeed be enormous.

Though the transmission of leprosy is reasonably contained, the predicament related to disability of leprosy victims and their rehabilitation in an integrated manner with the general handicapped is likely to prove a gigantic task.

Mr A. P. Tripathi, physiotherapist, helped the patients to apply the aids and demonstrated their usage. Dr V. V. Pai, Deputy Director, Bombay Leprosy Project, proposed the vote of thanks.